

**ROCKLAND COUNTY  
SOLID WASTE MANAGEMENT AUTHORITY  
“ROCKLAND GREEN”  
172 Main Street  
Nanuet, NY 10954**

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**REQUEST FOR PROPOSALS**

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**RFP 2024-01**

**FOR THE BUILD-OUT OF A NEW ANIMAL SHELTER  
LOCATED AT  
427 BEACH ROAD IN HAVERSTRAW, NY**

**July 25, 2024**

## RECEIPT CONFIRMATION

(This form must be completed by each member of the Proposer team and returned to Rockland Green within 5 days of Proposer's receipt of this RFP)

**PLEASE COMPLETE AND RETURN THIS CONFIRMATION FORM BY EMAIL WITHIN 5 WORKING DAYS OF RECEIVING THE RFP PACKAGE TO:**

Ryan Montal, Confidential Assistant to the Executive Director  
Rockland Green  
Email: [rmontal@rocklandgreen.com](mailto:rmontal@rocklandgreen.com)

Failure to return this form may result in no further communication or addenda regarding this RFP.

Contractor Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Ext. \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_

I have received a copy of the above noted RFP.

\_\_\_\_\_ We will be submitting a Proposal for RFP 2024-01

\_\_\_\_\_ We will NOT be submitting a Proposal – **(please indicate reason)**

\_\_\_\_\_ We are evaluating the RFP and will make a decision after the mandatory Site visit and meeting

I authorize Rockland Green to send further correspondence that Rockland Green deems to be of an urgent nature by the following methods:

Courier Collect: \_\_\_\_\_ Mail: \_\_\_\_\_

Email: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

## **NOTICE TO PROPOSERS**

NOTICE IS HEREBY GIVEN that Rockland Green is seeking proposals from contractors to complete all aspects of the work required to build out and equip an existing warehouse structure located at 427 Beach Road, Haverstraw, New York, to transform it into a new state of the art Animal Shelter (the "Project").

Rockland Green will enter into a single contract with the selected Proposer for all aspects of the Project that are necessary to transform the warehouse structure into a state of the art Animal Shelter, which includes, but is not limited to, site construction, landscaping, general exterior building construction and alterations, general interior building construction and alterations (including construction of an interior second floor level with associated elevator and stair access), interior and exterior finishes, equipment purchase and installation obligations (including animal housing units and veterinary equipment), fire protection, plumbing, medical gas, mechanical HVAC, and electrical, all as indicated in the Drawings and Specifications attached thereto.

The Request for Proposals ("RFP") document # RFP-2024-01 may be obtained from the offices of Rockland Green at 172 Main Street, Nanuet, New York 10954 between the hours of 9:00 a.m. and 4:00 p.m., Monday through Friday, except holidays or downloaded from Rockland Green's website at rocklandgreen.com in the Businesses - Contract Opportunities section of the website, on or after July 25, 2024. A mandatory Site visit and meeting is scheduled for August 7, 2024 for contractors interested in submitting a Proposal. Contact Ryan Montal, Confidential Assistant to Executive Director at (845) 753-2200 ext. 626 for details regarding the Site visit or with any questions concerning the distribution of the RFP.

Sealed Proposals will be received by Rockland Green until September 30, 2024, 2:00 p.m. local time, in the offices of Rockland Green, located at 172 Main Street, Nanuet, NY 10954. Any Proposals not delivered in person should be mailed to: Ryan Montal, Confidential Assistant to Executive Director, Rockland Green, 172 Main Street, Nanuet, NY 10954. One (1) original Proposal with five (5) paper copies must be submitted to Rockland Green in a sealed envelope and must be plainly marked on the outside with the statement "RFP-2024-01 Enclosed" with the Proposer's name and title of the RFP. One electronic copy on an external drive must also be submitted. No email submissions will be accepted.

The attention of the Proposers is directed to the applicable federal, State and local law requirements and to the "Affidavit of Non-Collusion" in the Proposal Forms. Rockland Green encourages the fullest possible utilization of minority and women business enterprises (M/WBEs).

By order of  
Rockland Green  
172 Main Street  
Nanuet, New York 10954  
By: Gerard M. Damiani, Jr., Executive Director

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## I. INTRODUCTION<sup>1</sup>

### a. Background

Rockland Green also known as the Rockland County Solid Waste Management Authority (hereinafter “Rockland Green”) assumed authority for Animal Management Services in Rockland County (the “County”) by way of State legislation passed in August 2022.

Rockland Green recently acquired a 15,000 square foot warehouse, situated on approximately 3.24 acres, located at 427 Beach Road, Haverstraw, NY, and intends to transform the warehouse into a state-of-the-art Animal Shelter. Rockland Green consulted with the New York State Animal Protection Federation on the design for the new Animal Shelter, and engaged BDA Architecture, P.C., Building Design For Animals, LLC to draft the Drawings and Specifications attached to this RFP, and to serve as Rockland Green’s representative (the “Architect”). The new Animal Shelter will have space for approximately 120 canines, 226 felines, and 213 exotics (including, 60 guinea pigs, 108 rabbits, and 45 avian/reptiles). A description of the Site upon which the warehouse is situated is attached hereto as Appendix C-1. The new Animal Shelter is expected to be operational in the fourth quarter 2025, and Rockland Green will contract with a third-party operator to commence operation of the Animal Shelter at that time.

### b. Animal Shelter Build-Out Overview

In this RFP, Rockland Green is soliciting proposals to complete all of the Work required to build out and equip the warehouse to transform it into a new state of the art Animal Shelter (the “Work” or “Project”).

Rockland Green will enter into a single Contract with the selected Proposer for the entirety of the Work, which is detailed in the Drawing and Specifications that are included as Appendices B and C respectively hereto. The Work includes, but is not limited to, Site construction, landscaping, general exterior building construction and alterations, general interior building construction and alterations (including construction of an interior second floor level with associated elevator and stair access), interior and exterior finishes, equipment purchase and installation obligations (including animal housing units and veterinary equipment), fire protection, plumbing, medical gas, mechanical HVAC, and electrical, all as indicated in the Drawings and Specifications.

Intrinsic in the selected Proposer’s role is the coordination of the Work on the Site, including Work performed by Subcontractors. Likewise, the selected Proposer will be responsible

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<sup>1</sup> For the purposes of this Request for Proposals (“RFP”), and for eventual use in the Contract, a list of defined terms has been developed. Unless otherwise specified in this RFP, all capitalized terms used in this RFP refer to the words and phrases listed in Appendix A (“Defined Terms”) hereto. The Defined Terms may be revised and expanded before incorporation into the Contract.

for managing the Project Schedule so that Final Completion is achieved by the date required by Rockland Green.

This RFP is issued in accordance with Rockland Green’s procurement policy. Rockland Green is not subject to Section 101 of the General Municipal Law, and therefore separate contracts for each aspect of the Work are not required, and Rockland Green will enter into a single Contract for all of the Work. Rockland Green will require the Project Labor Agreement (attached hereto as Appendix G) between the selected Proposer, Rockland Green, the labor unions representing Subcontractors, and non-unionized Subcontractors who will perform any portion of the Work. All Work must be performed in accordance with the Contract between the selected Proposer and Rockland Green, including the final Drawings and Specifications set forth therein, all as further defined and discussed in this RFP.

An award will be made to the responsible Proposer whose Proposal is determined in writing to be the most advantageous to Rockland Green, taking into consideration price and non-price evaluation factors set forth in this RFP. Rockland Green has the right to select the Proposer whose Proposal best satisfies the interests of Rockland Green, and not necessarily on the basis of price or any other single factor.

All Proposers must be familiar with Article 26-C of the New York State Agriculture and Markets Law (the “Standard of Care Act”), which takes effect in December 2025 and which includes requirements applicable to Animal Shelters. Proposers must sign Proposal Form 15 acknowledging that they have read and understand Article 26-C (which is attached hereto as Reference Document 1), and that their Work under the Contract, should they be selected, including any Proposed Alterations (as discussed below) will adhere to the standards and requirements set forth in the Standard of Care Act, as they may be applicable.

The Drawings and Specifications attached as Appendices B and C hereto, respectively, include Rockland Green’s current design and Specifications for the Animal Shelter, which were completed by the Architect to ensure adherence to the standards and requirements applicable to Animal Shelters in the Standard of Care Act.

Additionally, as discussed in more detail in Article II below, Proposers are invited to include with their Proposals an optional discussion of potential proposed alterations and/or improvements to the Drawings and/or Specifications for Rockland Green’s consideration (“Proposed Alterations”). Any such Proposed Alterations may be in addition to those product substitution requests that are referenced in the Specifications. Substitution requests will only be considered due to non-availability of a specified product through no fault of the Contractor. By way of example, Rockland Green will consider Proposed Alterations and/or value engineering that maintain adherence to the standards and requirements set forth in the Standard of Care Act, and: would (i) impact the cost to construct the Project, (ii) impact the cost to operate or maintain the Animal Shelter over time, (iii) improve the function of the Animal Shelter; (iv) add value for Rockland Green, the Animal Shelter operator, the employees who will work at the Animal Shelter and/or the animals who will reside there; and/or (v) shorten the construction time period (without jeopardizing the quality of the design), among other potential alterations and/or improvements.

Proposed Alterations must maintain adherence to the standards and requirements set forth in the Standard of Care Act, and must not alter the existing Drawings and/or Specifications in any way such that the Drawings and Specifications no longer adhere to the Standard of Care Act. Rockland Green will make that determination in its sole discretion.

Rockland Green's performance of Animal Management Services is an essential service for the residents and businesses of Rockland County, and as such, the Work being sought hereunder constitutes an essential service, as well.

Proposers should carefully review this document, including the Appendices, which constitutes the formal RFP for the Project, to ensure a clear understanding of Rockland Green's needs, objectives, and scope of services requested herein. Proposals must be prepared according to the requirements set forth in this RFP, including the format and content guidelines. The Proposals will be reviewed and evaluated using the process further described herein.

c. Business Structure  
i. Contract

The definitive statement of the mutual responsibility and liability of Rockland Green and the selected Proposer for the Project will be a single Contract, that includes all Work procured hereunder, and which will be issued via addendum to this RFP as Appendix H hereto. Proposers are required to include in their Proposals their comments to the Contract, if any, in the form of a mark-up thereto. (See Proposal Form 7.)

The final Contract will include appendices that will be modified to include the details of the selected Proposer's Proposal. If there are any Proposed Alterations from the selected Proposer's Proposal that Rockland Green decides to implement, such alterations or improvements will be included in the scope of Work that is subject to the Contract.

ii. Pricing Structure Overview

The selected Contractor will be paid a fixed amount for the Contract Price for all of the Work based on a Schedule of Values, (which will include any Proposed Alterations that are selected by Rockland Green), all in accordance with the Contract. As noted, Rockland Green will consider Proposed Alterations that are submitted with a Proposal. In turn, due to the Proposers having the opportunity to submit Proposed Alterations, Rockland Green expects no Contractor requested change orders after the Contract is awarded, and therefore the fixed Contract Price is not expected to change over the term of the Contract.

For use in Rockland Green's evaluation of Proposals in response to this RFP, Proposers must disclose the number of change orders and the primary causes or reasons therefor for the five reference projects that are required in Proposal Form 13, for both itself and for its proposed Subcontractors. Rockland Green will consider the number of change orders and the primary causes or reasons therefor as part of its evaluation of Proposals in response to this RFP.

During performance of the Work, the Contractor will be required to submit Applications for Payment with supporting documentation to Rockland Green representing that the quantity of Work has reached the level for which payment is requested, that the Work has been properly performed in strict compliance with the Contract Documents, and that the Contractor knows of no reason why payment should not be made as requested.

Rockland Green will retain ten percent (10%) of each payment until Final Completion, as further detailed in the Contract. The Contract Price shall be the Contractor's entire compensation and reimbursement for the Work. Any cost overruns will be the responsibility of the Contractor. All as further detailed in the Contract.

iii. Security Instruments for the Contract

As of the effective date of the Contract and throughout the term of the Contract, the Contractor shall furnish to Rockland Green and maintain, with Rockland Green as beneficiary: (i) a Performance Bond, and (ii) a Labor and Materials Payment Bond, effective for the full duration of the Contract, each in an amount equal to 100% of the Contract Price. The Performance Bond and Labor and Materials Payment Bond shall each be in the applicable form set forth in Appendix I, and shall each be issued by a surety company or companies rated 'A' or better per current A.M. Best Company ratings and listed in the United States Treasury Department's Circular 570. Such surety shall be properly registered and licensed to conduct business in the State. Agents of bonding companies which write the bonds shall furnish the necessary power of attorney, bearing the seal of the company, and evidencing such agent's authority to execute the particular type of bond to be furnished, as well as the right of the surety company to do business in the State.

The Contractor will also be required to provide the Required Insurance, and meet the requirements relative thereto as are set forth in Appendix E. Required Insurance must be issued by an insurance carrier authorized to do business in the State, that carry a Best's "A" or equivalent rating, and that is satisfactory to Rockland Green, to protect the parties from and against any and all claims, demands, actions, judgments, costs, expenses and liabilities of every kind and nature which may arise or result, directly or indirectly, from or by reason of the Contractor's performance (or the performance of its Subcontractors) of its responsibilities under the Contract. Such insurance shall be maintained at the Contractor's and the Subcontractor's sole cost and expense. Rockland Green shall be listed as a Certificate Holder and additional insured on all such policies as further described in Appendix E of this RFP.

Proposers must provide with their Proposals, evidence of their ability and intention to provide the Security Instruments, including:

- (1) a Performance Bond in an amount equal to One Hundred Percent (100%) of the total Contract Price (by way of submission of Proposal Form 8, Consent of Surety)
  - (2) a Labor and Materials Payment Bond in an amount equal to One Hundred Percent (100%) of the total Contract Price (by way of submission of Proposal Form 8, Consent of Surety);
- and

(3) the Required Insurance (by way of submission of Proposal Form 12, Insurance Company Letter of Intent).

The Contractor's failure to provide and maintain such Security Instruments shall constitute an immediate event of default under the Contract. The cost of providing any and all Security Instruments shall be borne by the Contractor.

iv. Warranties – Manufacturers' and Workmanship

The Contractor will be required to provide all manufacturers' warranties and a one-year warranty on workmanship commencing from the date of Final Completion and subject to the terms and conditions of the Contract. As set forth in the Contract, the one-year warranty on workmanship includes a full-scale inspection by the Contractor at the end of the Warranty Period, as well as any required Work identified in the inspection.

The Contractor must also obtain from all Subcontractors, vendors, suppliers and other persons from which the Contractor procures structures, improvements, fixtures, machinery, equipment and materials to be incorporated in the Work such warranties and guarantees as are normally provided with respect thereto and as are specifically required in the Contract, each of which shall be assigned to Rockland Green to the full extent of the terms thereof.

The Contractor acknowledges that the Contract Price contains the entire compensation due the Contractor for any and all Warranty work to be performed by the Contractor or its Subcontractors or agents.

v. Liquidated Damages

Time is of the essence for Rockland Green to have the Animal Shelter built and operational. Therefore, except as otherwise excused due to Uncontrollable Circumstances or Rockland Green Fault, the Contractor shall pay daily Liquidated Damages in the amount of two thousand dollars per day (\$2,000/day) to Rockland Green commencing on the 45th day after the Scheduled Substantial Completion Date, if Substantial Completion has not been achieved by then. In addition, if the Contractor does not achieve Final Completion by the 45<sup>th</sup> day following the scheduled date for Final Completion, the Contractor shall also be responsible for the payment of Liquidated Damages to Rockland Green in the amount of one thousand dollars per day (\$1,000/day), all in accordance with the Contract.

**II. SCOPE OF SERVICES**

a. The Work

The scope of the Work that will fall under a single contract between the selected Proposer and Rockland Green pursuant to this RFP encompasses all of the Work for the Project, which includes, but is not limited to, Site construction, landscaping, general exterior building construction and alterations, general interior building construction and alterations (including construction of an interior second floor level with associated elevator and stair access), interior

and exterior finishes, equipment purchase and installation obligations (including animal housing units and veterinary equipment), fire protection, plumbing, medical gas, mechanical HVAC, and electrical, all as indicated in the Drawings and Specifications attached hereto as Appendices B and C. Because Rockland Green is not subject to Section 101 of the General Municipal Law, Rockland Green will enter into one contract with the selected Proposer for all of the Work. Rockland Green reserves the right to modify the scope of Work at any time before execution of a Contract to add, delete, or otherwise amend any item(s), as it deems necessary, in its sole judgment, and in the best interest of Rockland Green.

The Drawings and Specifications attached as Appendices B and C hereto, respectively, were prepared by the Architect, to ensure adherence to the standards and requirements applicable to Animal Shelters in the Standard of Care Act. Proposers must also be familiar with the Standard of Care Act, and must ensure that their Work under the Contract, should they be selected, including any Proposed Alterations (as discussed below) will adhere to the standards and requirements set forth in the Standard of Care Act, as they may be applicable. The Standard of Care Act is attached hereto as Reference Document 1.

b. Proposed Alterations

Proposers are invited to include with their Proposals an additional discussion of potential proposed alterations and/or value engineering to the Drawings and/or Specifications for Rockland Green's consideration. Any such Proposed Alterations must maintain adherence to the standards and requirements set forth in the Standard of Care Act, and must not alter the existing Drawings and/or Specifications in any way to no longer adhere. Rockland Green will make that determination in its sole discretion. By way of example, Rockland Green will consider Proposed Alterations and/or value engineering that maintain adherence to the standards and requirements set forth in the Standard of Care Act, and would: (i) impact the cost to construct the Project, (ii) impact the cost to operate or maintain the Animal Shelter over time, (iii) improve the function of the Animal Shelter; (iv) add value for Rockland Green, the Animal Shelter operator, the employees who will work at the Animal Shelter and/or the animals who will reside there; and/or (v) shorten the construction time period (without jeopardizing the quality of the design), among other potential alterations and/or improvements. By offering Proposers the opportunity to propose alterations, Rockland Green in turn anticipates no Contractor requested change orders after the Contract is awarded.

Any such Proposed Alterations must be accompanied by the information set forth in Section VIII(b)(i)(c), on page 19 below. All Proposers must also complete Proposal Form 16 and indicate whether their Proposal includes Proposed Alterations. Proposers must also include the cost or savings associated with such Proposed Alterations in the appropriate section of Price Proposal Form 17.

Rockland Green will consider any such Proposed Alterations during its evaluation of the Proposals received in response to this RFP; however, a Proposer's decision not to submit Proposed Alterations will not negatively impact Rockland Green's evaluation of that Proposal. Rockland

Green is not obligated to accept or reject any such Proposed Alterations, but rather Rockland Green may discuss and negotiate them with the Proposer(s) who submit them, and may elect to implement any one or more or none of them, and if applicable, will include them in the scope of Work under the Contract. Rockland Green expects no Contractor requested change orders after Contract execution.

c. Project Schedule

Time is of the essence for Rockland Green to have the Animal Shelter built and operational. The selected Contractor will be responsible for developing, managing and maintaining the Project Schedule. The Contractor must achieve Substantial Completion no later than the fourth quarter of 2025. As set forth herein, Proposers must submit a proposed Project Schedule as part of their Proposals, indicating how many days from the Notice to Proceed will be required to achieve Substantial Completion. Rockland Green encourages aggressive, but realistic schedules to ensure that the Animal Shelter is operational as soon as is reasonably possible. Such proposed Project Schedule will be included as part of Rockland Green's evaluation. Also, as further set forth above and in the Contract, the Contractor will be responsible for Liquidated Damages if it fails to meet the dates agreed upon for Substantial Completion and Final Completion.

d. Project Submittals

The Contractor will be required to comply with the schedule and process for submission, review, and approval of all Submittals in accordance with the Contract Documents. The Contractor must not perform any Work for which the Contract Documents require a Submittal unless the respective Submittal has been approved by Rockland Green. The Work will be in accordance with approved Submittals, however, the Contractor will not be relieved of responsibility for errors or omissions set forth in Submittals regardless of Rockland Green's approval thereof.

e. Subcontractors

Proposers are required to include with their Proposals a list of Subcontractors proposed for the performance of any part of the Work. In addition, the Proposers must provide a description of responsibilities, relevant experience, qualifications, and certificates and licenses of proposed Subcontractors relevant to the Work each Subcontractor would be hired to perform. Proposers must complete Proposal Form 3, Qualifications Form, for all proposed Subcontractors.

Rockland Green shall have the right to approve any and all Subcontractors. The approval or withholding thereof by Rockland Green of any proposed Subcontractor shall not create any liability of Rockland Green to the Contractor, to third parties or otherwise. The use of any Subcontractor that is debarred, suspended or disqualified from Rockland Green, the County, or State contracting is strictly prohibited. Rockland Green will not award the Contract to a Proposer who proposes to use a Subcontractor who is debarred, suspended or disqualified from Rockland Green, the County, or State contracting.

f. Project Labor Agreement

The selected Proposer and its Subcontractors must be signatories to the Project Labor Agreement before commencing any Work on the Project. The Project Labor Agreement is attached hereto as Appendix G. Pursuant to the Project Labor Agreement, the selected Proposer and all Subcontractors must employ union labor, however a maximum of 12% of employees by craft may be from a source other than a Local Union. Subcontractors may be used to perform any part of the Work, subject to Rockland Green's right of approval and subject to their being a signatory to the Project Labor Agreement.

g. Hours of Work and Overtime

Hours of work are set forth in the Project Labor Agreement. Overtime work may be necessary to conform to the requirements of the Contract, and is addressed in the Project Labor Agreement. Except as detailed in the Project Labor Agreement, the Work shall progress on the Project every work day during the week and continuously week by week, until the Project is complete.

h. Management and Coordination of the Work on the Site

The Contractor shall be responsible for the Site, and for managing and coordinating all of the Work with and between itself and all Subcontractors. The Contractor must also cooperate in coordinating all Work with the work of Rockland Green, its operators, and other contractors and consultants, and any other forces permitted by Rockland Green to perform work at the Site, or enter the Site, without an increase in the Contract Time or the Contract Price.

i. New York State Prevailing Wage Rates

Proposers are advised that the State of New York requires minimum wage standards for municipal projects for the full duration of construction as prepared by the New York Department of Labor and set forth in the Prevailing Wage Law. A copy of the New York State Prevailing Wage Rates listing for Rockland County is presented in Appendix F, and is included in the Project Labor Agreement.

### **III. PROCUREMENT PROTOCOL**

By submitting a Proposal in response to this RFP, the Proposer is acknowledging that the requirements, scope of Work, and the evaluation process, outlined in this RFP are fair, equitable, not unduly restrictive, understood and agreed to. The submission of a Proposal in response to this RFP shall be considered a representation that the Proposer has carefully inspected all conditions which affect or may, at some future date, affect the performance covered by the Proposal, and that the Proposer is fully informed concerning Rockland Green's operations and the conditions to be encountered, and the character, quality, and quantity of Work to be performed, including Rockland Green's position that no Contractor requested change orders will be executed after Contract execution. In addition, a submission shall indicate that the Proposer is familiar with all federal, State, and local laws which in any way affect the performance of the Work. Any exceptions to the

content of the RFP must be presented to Rockland Green prior to the Proposal Submission Date by submission of Proposal Form 7. Proposals must be received by the Proposal Submission Date. Proposals received after the Proposal Submission Date will be late and ineligible for consideration.

a. Proposal Bond

Each Proposal must be accompanied by a Proposal Bond or certified check payable to the order of Rockland Green, in the amount of 5% of the proposed Contract Price. The Proposal Bond must be in the form attached hereto as Appendix I and provide that prior to the expiration or termination of the Proposal Bond, the Proposer shall (1) if so requested by Rockland Green, negotiate an agreement with Rockland Green, and (2) enter into the Contract if the Proposer's Proposal is so selected by Rockland Green; and (3) furnish a properly executed Performance Bond. If the Contractor fails to comply with the above, the surety will pay to Rockland Green, as liquidated damages, the full amount of the Proposal Bond or, as applicable, the certified check shall become the property of Rockland Green and be deposited in Rockland Green's accounts.

Any Proposal Bond must be valid for at least 180 days from the Proposal submission date. If the Contract has not been executed prior to the expiration of the Proposal Bond, Rockland Green may require the renewal of the Proposal Bond for an additional 180 days. No Proposal will be considered, unless it is accompanied by the required certified check or Proposal Bond. The form of the Proposal Bond which must be submitted is set forth in Appendix I.

The certified check or Proposal Bond submitted by Proposers will be returned within ten (10) business days after the earliest to occur of (1) the rejection of the Proposal of such Proposer by Rockland Green, and (2) the execution of the Contract by and between Rockland Green and the selected Proposer.

b. Procurement Schedule

The schedule for this procurement is as follows:

<b>Activity</b>	<b>Date</b>
Issue RFP	July 25, 2024
Mandatory Site Visit & Meeting	August 7, 2024 @ 11 AM
Deadline for receipt of questions concerning RFP	August 30, 2024
Proposal submission date	September 30, 2024
Proposal evaluation period	October-November 2024
Contract Award	December 10, 2024

c. Mandatory Site Visit and Meeting

Attendance at the Site visit and meeting is mandatory for any entity wishing to submit a Proposal. A failure to attend may preclude a company from proposing on the Work. Any and all are welcome to attend the mandatory Site visit and meeting at the warehouse located at 427 Beach Road, Haverstraw, New York. In the event a qualified representative of the Proposer is unable to attend the mandatory Site visit and meeting, it may submit to Rockland Green for its consideration documentation supporting the reason for missing the Site visit and meeting. Rockland Green may waive the Site visit and meeting requirement in its sole discretion.

For planning purposes, each potential Proposer must notify Ryan Montal, Confidential Assistant to the Executive Director at [rmontal@rocklandgreen.com](mailto:rmontal@rocklandgreen.com) in writing three (3) days prior to the mandatory Site visit and meeting to indicate the total number of individuals representing such potential Proposer that will be in attendance at the Site visit and meeting. Any individuals representing the Proposer at the Site visit and meeting must be employees or principals of the Proposer. A Proposer may not use a surrogate as its representative at the mandatory Site visit and meeting.

Proposers must familiarize themselves with all field conditions at the Site, including the warehouse structure that will be converted to the Animal Shelter pursuant to the Work procured herein. Failure of the Proposers to familiarize themselves with all conditions existing at the Site will not relieve them of their obligation to furnish all materials, labor and overtime necessary to carry out the provisions of the Contract Documents and to complete the contemplated Work if they are selected.

All Proposers that visit the Site shall comply with the Site Visit Protocol set forth in Appendix J.

d. Site Access and Investigation

Rockland Green recognizes that Proposers may need access to the Site during the Proposal preparation period, in addition to the mandatory Site visit. Proposers may schedule an individual visit to the Site, in addition to the mandatory Site visit, by contacting Rockland Green. All Proposers that visit the Site at any time shall comply with the Site Visit Protocol set forth in Appendix J. No such individual Site visit shall be scheduled prior to the date of the mandatory Site visit and meeting.

Proposers are solely responsible for conducting their own independent research and due diligence for their preparation of the Proposals and subsequent delivery of services under the Contract. Proposers should satisfy themselves by personal investigation and any other means they deem necessary, as to the conditions affecting the proposed services and the cost thereof. No information derived from any part of this RFP, or from Rockland Green or its agents, employees, advisors or consultants, shall relieve the Contractor from any risk or from fulfilling all terms and conditions of the Contract. Rockland Green is not responsible for the completeness or accuracy of

any information presented in this RFP or otherwise distributed as made available during this procurement process. Proposers are, therefore, strongly encouraged to make all inspections and review all available and relevant information, prior to the submittal of the Proposal, which are necessary in their judgment in order to undertake this responsibility.

e. Questions Concerning this RFP

Following issuance of this RFP, the Proposers may submit written questions to Rockland Green to assist the Proposers in the preparation of their Proposals. Rockland Green may, but shall not be obligated to, respond to such questions. All responses to any questions and requests for additional information which Rockland Green determines to be deserving of response will be issued to all potential Proposers of record in the form of addenda to this RFP which will be issued via email. The last day for submission of written questions will be on the date set forth in the procurement schedule above. Any questions submitted after the deadline for questions may be answered by Rockland Green at its discretion.

No oral interpretation, instruction, or information concerning this RFP given by any agent, employee, advisor, or consultant of Rockland Green shall be binding on Rockland Green. Proposers relying on such oral information risk having their response to this RFP deemed unresponsive by Rockland Green. Rockland Green will not be responsible for any explanation or interpretation of this RFP, unless such explanation or interpretation of this RFP is given in accordance with this written procedure.

Should a Proposer find discrepancies in, or omissions from, this RFP, the Proposer shall immediately notify Rockland Green, in writing, and a written addendum, if necessary, will be delivered to each Proposer.

All inquiries, correspondence, questions or clarifications shall be directed to:

Ryan Montal, Confidential Assistant to Executive Director  
Rockland Green  
172 Main Street  
Nanuet, NY 10954  
Email: [rmontal@rocklandgreen.com](mailto:rmontal@rocklandgreen.com)

With a copy to:

Paul Gladysz, AIA, NCARB, CSI  
Senior Partner  
BDA Architecture, P.C.  
Email: [Paul.Gladysz@bdaarc.com](mailto:Paul.Gladysz@bdaarc.com)

Except as set forth in this section with regard to procedures for inquiries, correspondence, questions or clarifications, in order to ensure fairness during the procurement process as of the date this RFP is released to the public and throughout the procurement process and negotiations of a Contract, Proposers or their employees, representatives or agents shall not contact any Rockland

Green Board member, any Rockland Green employee (other than Ryan Montal or a designated Rockland Green employee or such other individual as instructed by Rockland Green), or any of Rockland Green’s technical or legal consultants.

If a Proposer or its employee, representative or agent contacts a Rockland Green Board member, any Rockland Green employee (other than Ryan Montal or a designated Rockland Green employee or such other individual as instructed by Rockland Green), or any of Rockland Green’s technical or legal consultants in relation to this RFP, such Proposer risks either being disqualified from submitting a Proposal in response to this RFP or having its Proposal rejected by Rockland Green.

f. Addenda or Amendments to this RFP

During the period provided for preparation of Proposals, Rockland Green may issue addenda to this RFP. These addenda will be numbered consecutively and will be distributed by email to all who are registered with Rockland Green as having received a copy of this RFP. These addenda will be issued by, or on behalf of, Rockland Green and will constitute a part of this RFP. Each Proposer is required to acknowledge receipt of all addenda at the time of submission of its Proposal by submitting an executed Addendum Acknowledgment Form included as Proposal Form 2. All responses to this RFP shall be prepared with full consideration of the addenda issued prior to the Proposal Submission Date.

g. Clarification Requests

After receipt of Proposals, Rockland Green may, at its sole discretion, conduct discussions with Proposers to clarify any information submitted in the Proposal or assure that the Proposers fully understood and responded to the requirements of the RFP.

Once Proposals have been reviewed, Rockland Green may request that the Proposer submit additional information or clarify certain aspects of its Proposal. Such requests from Rockland Green will be made via written request for clarifications issued via email. Timely responses to such requests will be required before Rockland Green can continue to evaluate the Proposal.

h. Proposer Interviews

After the Proposal Submission Date, Rockland Green may require Proposers to make oral presentations or to attend interviews with representatives of Rockland Green.

#### **IV. SPECIFICATIONS AND CONTRACT DRAWINGS**

Proposers must acknowledge an understanding of and ability to comply with, at a minimum, the Specifications set forth in Appendix B and the Drawings set forth in Appendix C by submitting Proposal Form 14. If a Proposer proposes Proposed Alterations for Rockland Green’s consideration, it must include revised Drawings and Specifications (as applicable), and Proposers must also address how such Proposed Alterations will adhere to the standards and

requirements of the Standard of Care Act. The final Drawings and Specifications will be agreed to by the Parties and included in the Contract.

## **V. GOVERNMENTAL APPROVALS**

Because Rockland Green is a public benefit corporation, the Work is exempt from County and local building permitting requirements. Certain state building codes apply to the Project and they are listed in the Drawings. The Architect will make a determination about the Work's compliance with the applicable building codes prior to Final Completion. If any other Government Approvals are necessary or required, the Contractor will be responsible for timely preparing applications and obtaining and paying the cost therefor. The Contractor will only submit such applications as it deems in good faith to be complete, including all necessary studies and documentation. Rockland Green will cooperate with the Contractor in the submission of all applications for Governmental Approvals which the Contractor is obligated to submit, if any.

## **VI. TERMS AND CONDITIONS OF PROCUREMENT**

### **a. Rockland Green Reservation of Rights**

This RFP constitutes an invitation to companies to submit Proposals to Rockland Green. This section describes Rockland Green's responsibilities, rights, and options as they relate to various business, legal, and financial aspects of the procurement effort. By responding to this RFP, Proposers acknowledge and consent to the following conditions relative to the procurement process and the selection of a Proposer to negotiate an agreement with Rockland Green. Without limitation, Rockland Green reserves, holds, and may exercise, at its sole discretion, the following rights and conditions:

1. This RFP does not obligate Rockland Green to procure or contract for any services whatsoever, nor does it obligate Rockland Green to procure the Work.
2. All costs incurred by Proposers in connection with responding to this RFP, the evaluation and selection process undertaken in connection with this procurement, and any negotiations entered into in connection with developing the Contract will be borne by the Proposers.
3. All Proposals become the property of Rockland Green and will not be returned.
4. Rockland Green may reject and return unopened any responses not received by the deadline for receipt of Proposals or may extend the deadline date for submission of Proposals and modify schedule dates.
5. Rockland Green reserves the right, at any time, to determine that any or all Proposers will not be selected for further consideration and to notify such Proposers of Rockland Green's determination.
6. Rockland Green has the right to reject, for any reason, any and all Proposals and components thereof and to eliminate any and all Proposers responding to the RFP from further consideration for this procurement.

7. Rockland Green may conduct clarification discussions, at any time, with one (1) or more Proposers and request additional information relating thereto.
8. Rockland Green may receive questions from Proposers and provide such answers, as it deems appropriate.
9. Rockland Green reserves the right to designate, at any time, one (1) or more Proposers with whom it may select to have a full evaluation of their Proposal(s).
10. Rockland Green has the right to select the Proposal that is the most advantageous to Rockland Green, taking into consideration price and non-price evaluation factors set forth in this RFP, and not necessarily on the basis of price or any other single factor. Rockland Green is not required to accept the lowest cost Proposal.
11. Rockland Green reserves the right to cancel this RFP without issuing another RFP or to amend, supplement, or otherwise modify this RFP, including the scope of services, or otherwise request additional information without prior notice.
12. Rockland Green reserves the right to request Proposers to send a representative to attend Rockland Green interviews.
13. Rockland Green reserves the right to require additional information from one or more Proposers to supplement or clarify the Proposals submitted.
14. Rockland Green reserves the right to conduct investigations of the Proposers, and their responses to this RFP and to request additional evidence to support the information included in any such response.
15. Rockland Green reserves the right to conduct investigations of the Proposer's proposed Subcontractors, and to request additional evidence to regarding any proposed Subcontractor.
16. Rockland Green reserves the right to visit and examine any of the facilities referenced in the Proposal and others owned, operated, and/or built by the Proposer to observe and inspect such facilities.
17. Rockland Green reserves the right to waive any technicalities or immaterial irregularities in any Proposal received, in accordance with Applicable Law.
18. Rockland Green has the right to eliminate any Proposer who submits an incomplete and inadequate response or is not responsive to the requirements of this RFP.
19. Rockland Green reserves the right to issue additional or subsequent solicitations for Proposals.
20. To the extent deemed appropriate by Rockland Green, Rockland Green may select and enter into discussions and to conduct simultaneous negotiations with one or more of the Proposer(s) submitting Proposals.
21. Rockland Green, in its sole discretion, has the right to discontinue negotiations with any selected Proposer at any time prior to the execution of the Contract.
22. Rockland Green reserves the right to enter into agreements for only portions (or not to enter into agreements for any) of the services solicited in this RFP with one or more of the

Proposers based upon Rockland Green’s judgment of the best single Proposal or combination of Proposals to address Rockland Green’s objectives.

23. All activities related to this RFP and the performance under the Contract shall be subject to Applicable Law.
24. Neither Rockland Green, its staff, its representatives, nor any of its consultants will be liable for any claims or damages resulting from the solicitation, collection, review, or evaluation of responses to this RFP.
25. Rockland Green reserves the right to eliminate any Proposer that has a record of material non-compliance with any Applicable Law,
26. Rockland Green reserves the right to waive any mandatory pre-proposal conference, Site visit or meeting on a case-by-case basis.
27. Rockland Green reserves the right to award one single contract for all services described herein or multiple contracts for such services.
28. Notwithstanding any other provision set forth herein, no contract, agreement, bid or proposal awarded by Rockland Green shall be binding and valid until fully executed by the parties.
29. Rockland Green reserves the right to accept and implement any or none of the Proposed Alterations that are included in a Proposer’s Proposal.

b. Confidential/Trade Secret Information

Rockland Green is subject to New York State’s Freedom of Information law (NY CLS Pub O §§ 84-90) (“FOIL”). Should your submission to this RFP contain “trade secrets,” or other information that the disclosure of which could reasonably be expected to be harmful to business interests, you must ensure that such information is clearly identified and marked as such. Identification must be specific by item or paragraph and the following notice should be inserted in the front of the Proposal:

**NOTICE**

**The data on pages \_\_\_\_\_ of this proposal identified by an asterisk (\*) contain technical or financial information, which are trade secrets and/or whose disclosure would cause substantial injury to the Proposer’s competitive position. The Proposer requests that such data be used only for the evaluation of the proposal, but understands that the disclosure will be limited to the extent that Rockland Green considers proper under the law. If an agreement is entered into with this Proposer, Rockland Green shall have the right to use or disclose the data as provided in the Agreement, unless otherwise obligated by law.**

Rockland Green does not assume any responsibility for disclosure or use of marked data for any purpose. Marked information will be treated as confidential third party information. Should marked information be the subject of a request under FOIL, you may be requested either to consent to the request, or make representation explaining why the information should not be disclosed.

By submitting a Proposal, any Proposer not selected relinquishes any claim or right to be compensated for or to object to the use of ideas, approaches, concepts, designs or other elements of its Proposal which may be included in the Contract executed with the selected Proposer.

c. Expense of Proposal Preparation

Each Proposal and preparation of all information required pursuant to this RFP shall be prepared at the sole cost and expense (including engineering and legal costs) of the Proposer. In addition, the Proposer shall be solely responsible for all costs (including engineering and legal costs) incurred in connection with the evaluation and selection process undertaken in connection with this procurement and any negotiations entered into in connection with developing a Contract. There shall be no claims whatsoever against Rockland Green, its staff, or its consultants or agents for reimbursement of the costs or expenses (including engineering and legal costs) incurred during the preparation of the Proposal or other information required by this RFP or the procurement process or in connection with the selection process or contract negotiations. Each Proposer that enters into the procurement process shall prepare the required materials and submittals at its own expense and with the express understanding that they cannot make any claims whatsoever for reimbursement from Rockland Green for the costs and expenses associated with the process.

d. Modifications to Proposals

Before opening the Proposals, a Proposer may correct or modify the Proposal by written notice received by Rockland Green prior to the time and date specified in the procurement schedule above. After opening of the Proposals, Rockland Green may waive minor informalities or allow the Proposer to correct such informalities. If a mistake is clearly evident on the face of the Proposal, Rockland Green shall correct the mistake and so notify the Proposer in writing, and the Proposer may not withdraw the Proposal. A Proposer may withdraw a Proposal if a mistake is clearly evident on the face of the Proposal but the intended correction is not similarly evident.

e. Termination of Negotiations

Rockland Green in its sole discretion may, at any time, exclude a Proposer from further participation in the negotiation process if it determines that such Proposer is failing to progress in the negotiations or if the terms of its Proposal provide less value than those of the other Proposers. Rockland Green will give written notice of its decision to the Proposer which shall be sent in writing signed by an authorized representative of Rockland Green, and delivered to the Proposer by certified mail or overnight courier.

f. Withdrawal from Procurement Process

A Proposer may withdraw a Proposal prior to the date and time set for the opening of Proposals provided that a written request to withdraw the Proposal is hand delivered to the Executive Director of Rockland Green, by or on behalf of an authorized representative of the Proposer, or the request is delivered by certified mail or overnight courier.

g. No Rockland Green Liability

Neither Rockland Green, its staff, its representatives, nor any of its consultants will be liable for any claims or damages resulting from the solicitation, collection, review or evaluation of responses to this RFP. Rockland Green assumes no responsibility for the completeness or the accuracy of any information presented in this RFP, or other information distributed or made available during this procurement process. Without limiting the generality of the foregoing, Rockland Green will not be bound by or be responsible for any explanation or interpretation of the proposed documents other than those prepared in writing. In no event may a Proposer to this RFP rely on any oral statement made by Rockland Green or any of Rockland Green's agents, employees, advisors or consultants.

h. Continuing Obligation of Proposers

Any Proposer(s) selected to negotiate with Rockland Green have a continuing obligation to provide Rockland Green with any information requested in this RFP which requires updating due to circumstances that have changed or occurred since the submission of its Proposal. Such obligation shall remain in place until Rockland Green has awarded the Contract.

i. Minority and Women's Business Enterprises

The Authority encourages the fullest possible utilization of Minority and Women Owned Business Enterprises (M/WBE).

j. No Discrimination and Affirmative Action Plan

The Contractor shall not discriminate or permit discrimination by any of its officers, employees, agents and representatives against any person because of age, race, color, religion, national origin, sex, sexual orientation or physical or mental disability, or any other protected category. The Contractor must take all actions reasonably necessary to ensure that applicants are employed, and that employees are treated during employment, without regard to their age, race, color, religion, national origin, sex, sexual orientation or physical or mental disability or any other protected category. Such action shall include, without limitation, recruitment and recruitment advertising; layoff or termination; upgrading, demotion, transfer, rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor shall impose the non-discrimination provisions of this section by contract on all Subcontractors hired with Rockland Green's consent to perform work related to performance of its obligations under the Contract and shall take all reasonable actions necessary to enforce such provisions. The Contractor will post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause. The Contractor shall comply with Rockland Green's Affirmative Action Program and demonstrate compliance with Rockland Green's Affirmative Action Program by submitting Proposal Form 6.

Proposers must have in place sexual harassment policies that are compliant with the New York Human Rights Law (“NYHRL”), and shall provide annual training to all of their employees in accordance with the NYHRL.

## VII. PROPOSAL FORMS

Each Proposer must fill out all of the Proposal Forms completely. Proposers must use “N/A” to specify any items set forth in the Proposal Forms that are not applicable to a Proposer. To provide additional information, the Proposer should use separate sheets of paper following the Proposal Form format.

## VIII. PROPOSAL CONTENT

This section describes the information that must be included in each Proposal, and the order in which it must be presented. All Proposals must include the following information, in order set forth below:

Section I: Cover Letter and Executive Summary

Section II: Proposal

- A. Project Approach (including optional Proposed Alterations)
- B. Qualifications and Experience
- C. Proposal Security

Section III: Proposal Forms

- a. Section I: Cover Letter and Executive Summary

The cover letter is the Proposer’s official letter transmitting the complete Proposal to Rockland Green. The cover letter will designate the individuals who will be the key technical and business negotiators. This letter is to be typed on the Proposer’s letterhead and is to be signed by an officer of the Proposer who is empowered to sign such material and to commit the Proposer to the obligations contained in the Proposal. If the Proposer is a joint venture, the Proposer shall provide binding letters from each party in the joint venture stating its role and its willingness to meet the requirements of this RFP and any Contract that will be executed. The partners shall be jointly and severally liable to meet the Proposer’s obligations.

The executive summary must be presented as a separate document summarizing in clear and concise language, the information contained in all other parts of the Proposal (except for pricing information) and shall include an introduction and overview section and a conclusion. The executive summary shall also summarize the information contained in the Proposal Forms, including whether the Proposer included any Proposed Alterations. This shall include, for the Contractor and for each Subcontractor, the form of business organization, ownership description, and the proposed role in the Project.

The executive summary should be drafted so that it may be easily understood by persons not having a technical background. In addition, the executive summary shall be limited to five (5) pages, including tables and graphs. Rockland Green may distribute the executive summary to public officials, representatives of public interest groups, and other major project participants; therefore, the Proposer should not include any data in the executive summary that the Proposer judges to be confidential. The executive summary should not contain any price, cost, or economic data. Rockland Green assumes no liability for disclosure or use of any data presented in the executive summary.

Proposers shall include in the executive summary details on how the Work will be performed and how the goals of Rockland Green as set forth in this RFP will be achieved, as well as a representation of Proposer's ability to provide the security required in this RFP.

b. Section II: Proposal

i. Project Approach

a. Proposals must include a complete narrative of the Proposer's assessment of the Work to be performed, demonstrating the Proposer's understanding of the desired overall Project expectations and requirements, which must include:

1. the Proposer's approach to the Project, including identification of those portions of the Work that will be undertaken directly by the Proposer, and what portions of the Work will be subcontracted and to which Subcontractors;
2. a description of resources necessary to fulfill the requirements;
3. a detailed Project Schedule, indicating how many days from the Notice to Proceed will be required to achieve Substantial Completion;
4. any assumptions; and
5. any key issues, constraints, and/or challenges.

b. Rockland Green is aware of the shortage of certain materials and the delivery schedule issues presented by the current market. As such, if there are materials that will require long lead times, Proposers must provide that information to Rockland Green as part of their Proposal, along with a methodology for how it intends to address the situation.

c. All Proposer's must complete Proposal Form 16 and indicate whether their Proposal includes Proposed Alterations for Rockland Green's consideration. Proposals that include Proposed Alterations must be accompanied by revised Drawings and Specifications, as well as a detailed explanation as to how any such Proposed Alterations would: (i) maintain adherence to the standards and requirements set forth in the Standard of Care Act, (ii) impact the cost to construct the Project, (iii) impact the cost to operate or maintain the Animal Shelter over time, (iv) improve the function of the Animal Shelter; (v) add value for Rockland Green, the Animal Shelter operator, the employees who will work at the Animal Shelter and/or the animals who will reside there; and/or (vi) shorten the construction time period (without jeopardizing the quality of the design), among other potential alterations and/or improvements. Proposers must also

include the cost or savings associated with such Proposed Alterations in the appropriate section of Proposal Form 17.

ii. Qualifications and Experience

***General Qualifications and Experience*** - To enable Rockland Green to evaluate a Proposer's ability and resources to carry out the Work, the Proposer must complete the Qualifications Form included at Proposal Form 3 for the Proposer and each Subcontractor, and must submit with its Proposal the following information for itself and for each Subcontractor:

1. A description of the Proposer's and Subcontractor's organization, its history, its ownership and its organizational structure, a description of divisions by functional area, and the location of offices in the Northeast region, as well as a description of the history of the relationship the Proposer has with each proposed Subcontractor.
2. Project descriptions for at least three (3) projects, completed within the past five (5) years, which are substantially similar in scope and size, completed by each Subcontractor and by the Proposer. Provide examples of projects of similar use and function or other animal shelter build-outs, if possible. The goal of this section is for the Proposers to provide information relating to their experience, the basis of which said Proposer purports to be qualified to carry out all Work required for this Project. The project description must contain the project name, project owner, project location, project narrative, and project dates.
3. Proposers and Subcontractors shall provide no less than five (5) references for projects performed in the last five (5) years. Both Proposers and Subcontractors must complete Proposal Form 13.
4. Audited financial statements, prepared on an accrual basis in accordance with Generally Accepted Accounting Principles, and all relevant notes, for a) the Proposer, and b) each Subcontractor, in a form which clearly indicates assets, liabilities and net worth over the most recent three (3) year period or as many years as the firm has been in business if less than three (3) years. Proposers and Subcontractors who do not demonstrate financial solvency or who are in bankruptcy proceedings will not be considered. This information also allows Rockland Green to assess the Proposer's ability to secure adequate financing, if any is necessary for the Work.
5. Evidence of the Proposer's and Subcontractors' authorization to do business in the State, or commitment to obtain such authorization prior to commencement of the Work.
6. Relevant, related experience for each key team member, including general trade industry credentials, licensing, educational programs completed, institutional credentials and certifications, and training for each of the key personnel. Include resumes for all key team members.

***Regulatory Experience, Compliance and Litigation*** - To enable Rockland Green to evaluate a Proposer's regulatory experience and compliance, the Proposal shall describe the Proposer's, each Subcontractor's, and each key team member's, experience and effectiveness in dealing with governmental agencies regulating construction and their experience and record of compliance with permits, licenses, approvals, and other regulatory actions. The Proposal shall identify any major incidents of non-compliance, a description of corrective action taken for such incidents, the present status of compliance, and whether regulatory agency sanctions were imposed. The Proposer and each Subcontractor shall disclose any litigation, pending or complete, that relates to or could impact its provision of the Work.

***Record of Contract Performance*** - To enable Rockland Green to evaluate a Proposer's record of contract performance, the Proposer shall identify any cases where the Proposer or any Subcontractor failed to complete any work which it was contracted to perform or had a contract terminated by a government agency due to the quality of its work. If this has occurred, indicate when, where, and the reasons for such termination. If the Proposer or any other Subcontractor has paid any liquidated damages, fines or penalties in connection with the design or construction of any project, the Proposer shall indicate when, where, and under what circumstances such payment was made. On Proposal Form 13, Proposers must also identify the number of change orders and the primary causes or reasons therefor for the five reference projects provided.

***Labor Relations*** – As noted in this RFP, a Project Labor Agreement will be utilized. As such, the Proposer shall describe its experience with and approach to the Project Labor Agreement, citing specific examples of projects completed under a Project Labor Agreement.

The Proposer shall also describe its and each Subcontractor's compliance history with the New York Department of Labor (as well as other jurisdictions) regarding the payment of prevailing wages. To the extent the Proposer, or any member of the proposer team, has been investigated or cited within the past five (5) years for failure to pay prevailing wages or otherwise comply with Applicable Law pertaining to the payment of wages and benefits, including the Prevailing Wage Law or any similar laws in other jurisdictions, the Proposer must so indicate in its Proposal.

***Safety Record*** – The Proposer and each Subcontractor shall provide OSHA logs and discuss its overall safety program including any violations cited by governmental safety agencies or Occupational Safety and Health Administration (OSHA), recognized safety awards, and the Proposer's lost-time accident record compared with industry standards, all within the past three (3) years.

***Proposal Security*** – Each Proposal must be accompanied by a Proposal Bond in the form attached hereto in Appendix I or certified check payable to the order of Rockland Green, in the amount of 5% of the proposed Contract Price, as required herein. Proposers must also submit with their Proposals a Consent of Surety (Proposal Form 8) and an Insurance Company Letter of Intent (Proposal Form 12) to indicate their ability to obtain the Performance Bond and Labor and Materials Payment Bond and Required Insurance.

c. Section III: Proposal Forms

Proposers must fully complete, execute, and include all Proposal Forms with their Proposals. The Price Proposal Form must include all costs to fully execute, deliver and complete all aspects of the Work. Such costs shall include, but are not limited to the following: materials, labor, tools, equipment, utilities, transportation, supervision and other items to complete the Work, submittals, coordination, shipping, receiving, unloading, storing, protecting, assembly, erecting, rigging, aligning, wiring, painting, sealing, inspecting, and quality control, in full compliance and adherence to the Contract Documents and Contract Standards. Proposals shall remain firm for a minimum of one hundred and eighty (180) days.

**IX. SUBMISSION REQUIREMENTS**

a. This section contains instructions regarding the submission of the Proposals. Late Proposals will be considered non-responsive and shall be returned to the Proposer unopened. No Proposal will be accepted unless filed on or before the Proposal Submission Date and at the place designated herein. Proposals received prior to the time of opening will be securely kept unopened.

b. Proposals shall be submitted with the Proposal Forms set forth in this RFP. All blank spaces for Proposal prices shall be properly filled in, in ink, or typed, in both words and figures. In case of any price shown in words and its equivalent shown in figures do not agree, the written words shall be binding on the Proposer. All Proposal Forms included in this RFP must be completed and submitted with the Proposal in order to be considered a responsive Proposal.

c. The Proposal documents shall be typed or printed (1-1/2 spacing) on 8-1/2 inch by 11 inch paper, except for figures or drawings which may be prepared at a larger size in order to be legible.

d. Proposals shall be enclosed in a sealed opaque envelope plainly marked on the outside with the statement "RFP-2024-01 - Proposal Enclosed," with the Proposer's name and title of the RFP.

e. One (1) original with original signatures and five (5) paper copies of the Proposal shall be submitted. One electronic copy on an external drive must also be submitted. No email submissions will be accepted. One copy must be clearly marked "original" and must contain all original executed documents.

f. Proposals shall be delivered to:

Rockland Green  
172 Main Street  
Nanuet, NY 10954  
ATTN: Ryan Montal, Confidential Assistant to the Executive Director

## **X. PROPOSAL EVALUATION**

### **a. General**

All Proposals will be evaluated by the procedures and criteria described in this section for the ultimate purpose of determining to whom Rockland Green will award the Contract. An award will be made to the responsible Proposer whose Proposal is determined in writing to be the most advantageous to Rockland Green, taking into consideration price and non-price evaluation factors set forth in this RFP. Rockland Green has the right to select the Proposer whose Proposal best satisfies the interests of Rockland Green, and not necessarily on the basis of price or any other single factor.

The evaluation team will evaluate each Proposal to determine if the Minimum Qualification Criteria set forth in section (c) below are met. Only those Proposers whose Proposals meet the Minimum Qualification Criteria will be considered responsible Proposers and be further evaluated. If the Proposal meets the Minimum Qualification Criteria, then the evaluation team will evaluate the Proposals using the Comparative Evaluation Criteria set forth in section (d) below in order to make a determination of which Proposal is the most advantageous to Rockland Green.

### **b. Evaluation Team**

The Proposal evaluation and selection process described in this section of the RFP will be conducted by an evaluation team led by Rockland Green. The evaluation team will be composed of personnel from Rockland Green and assisted by its consultants. The evaluation team will review and evaluate Proposals and select one (1) or more Proposers with whom Rockland Green will conduct contract negotiations.

### **c. Minimum Qualification Criteria**

The Minimum Qualification Criteria that each Proposer is required to meet are set forth below. Proposals that do not meet the Minimum Qualification Criteria will not be further evaluated by the evaluation team. Each Proposer or Proposal, as applicable, must satisfy the following Minimum Qualification Criteria:

1. All Proposal Forms must be fully and properly completed and all requested information must be provided.

2. The Proposer and all Subcontractors must commit to be registered or authorized to do business in the State of New York, prior to commencement of any Work should they be selected.
3. The Proposer must have successfully constructed no less than three (3) projects similar in scope and size.
4. The Proposer must have at least five (5) years of successful experience in the completion of projects similar in scope and size.
5. The Proposer and all Subcontractors must be financially solvent and must not be in bankruptcy.
6. The Proposer and all Subcontractors must have a demonstrated track record of compliance with Applicable Law. The Proposer, or members of the Proposer team, may be disqualified if credible evidence indicates a lack of commitment to compliance with law, including environmental laws and permit requirements or business integrity. The types of occurrences that will result in disqualification include, but are not limited to:
  - Filing of misleading or false declarations or failing to disclose material information in connection with any governmental filing, including a response to this RFP;
  - Bribery, corrupt business practices, paying consideration for the purpose of improperly influencing a public procurement process;
  - Conduct that would constitute discrimination under the laws of the State of New York and the United States; and
  - The debarment of the Proposer (including any member of the Proposer team) and their officers, principals, stockholders, Affiliates and subsidiaries by the State of New York, thereby prohibiting them from entering into contracts with Rockland Green, or the debarment of the Proposer (including any member of the Proposer team) and their officers, principals, stockholders, Affiliates and subsidiaries by any state in the United States or its political subdivisions from entry into contracts with such government entity. Further, the Proposer must state that it will not use any contractors or Subcontractors who are so debarred, without the expressed written approval of Rockland Green.

Any person who willfully fails to disclose required information or who knowingly discloses false information will not be considered and can be punished by civil or criminal penalties, or both, and will not be awarded the Contract.

d. Comparative Evaluation Criteria

Proposals meeting the Minimum Evaluation Criteria will then be further evaluated by the evaluation team in order to make a determination of which Proposal is the most advantageous to Rockland Green. Rockland Green has the right to select the Proposer whose Proposal best satisfies

the interests of Rockland Green, and not necessarily on the basis of price or any other single factor. The overall net cost of the Proposal is a major criterion in the selection, but not the only determining factor. The criteria set forth below are not necessarily listed in the order of importance and are not necessarily of equal weight. Proposers must provide all information, documents or data necessary to address each of the Comparative Evaluation Criteria.

Rockland Green will evaluate Proposals by applying the following criteria:

1. *Project Approach* – Rockland Green will consider:
  - a. The Proposer’s assessment of the Work to be performed and their approach, including the proposed Project Schedule and proposed Subcontractors; and
  - b. Proposer’s identified key issues, constraints and challenges, as well as methods for overcoming potential delays; and
  - c. (if submitted) Proposed Alterations. Rockland Green will consider how any such Proposed Alterations would impact the cost to construct the Project and/or the cost to maintain the Animal Shelter over time, as well as how the Proposal would improve the function of the Animal Shelter or add value for Rockland Green, the Animal Shelter operator, the employees who will work at the Animal Shelter and/or the animals who will reside there. Rockland Green will also consider how the Proposed Alterations would impact the Project Schedule and how they would maintain adherence with the Standard of Care Act. By way of example, Rockland Green will consider Proposed Alterations and/or value engineering that for example, maintain adherence with the Standard of Care Act, and: would (i) impact the cost to construct the Project, (ii) impact the cost to operate or maintain the Animal Shelter over time, (iii) improve the function of the Animal Shelter; (iv) add value for Rockland Green, the Animal Shelter operator, the employees who will work at the Animal Shelter and/or the animals who will reside there; and/or (v) shorten the construction time period (without jeopardizing the quality of the design), among other potential alterations and/or improvements. A Proposer’s decision not to submit Proposed Alterations will not negatively impact Rockland Green’s evaluation of that Proposal.
2. *Qualifications and Relevant Experience* – Rockland Green will consider:
  - a. Whether the Proposer, Subcontractors and key team members have the requisite capabilities, licensing/certification, and experience to perform the Work.
  - b. The extent of Proposers’ and Subcontractors’ previous experience on similar projects;
  - c. References – Rockland Green will evaluate the strength and character from each of the Proposer’s project references provided. Such evaluation will consider the Proposer’s history of compliance with project schedules, as well as the quality of

its completed work. It should be noted, Rockland Green has the right to conduct independent reference checks, and as such, may contact other entities for which the Proposer has completed a project but who have not been listed as references.

3. *Regulatory Experience, Compliance and Litigation* - Rockland Green will consider a Proposer's and each Subcontractor's record for regulatory compliance with permits, licenses, approvals, and other regulatory actions in prior projects; and Proposers' and Subcontractors' records of litigation.
4. *Record of Contract Performance* – Rockland Green will consider Proposer's record of contractual compliance on prior projects, based upon, but not limited to, number of change orders and the reasons therefor for reference projects, recorded contract disputes, and record of payment of actual or liquidated damages.
5. *Financial Capacity* – Rockland Green will evaluate the financial strengths of the Proposer and Subcontractors. The financial capacity assessment will consider the adequacy of the Proposer and Subcontractors to assure full and timely performance of the Contractor's obligations under the Contract and the overall financial stability of the Contractor and Subcontractors.
6. *Labor Relations* - Rockland Green will consider the Proposer's and each Subcontractors' compliance history with the New York Department of Labor, and the payment of prevailing wages in particular. Rockland Green will also consider a Proposer's and each Subcontractor's experience with projects completed under a Project Labor Agreement.
7. *Safety Record* – Rockland Green will consider the Proposer's and each Subcontractor's safety record.
8. *Contract* - Rockland Green will consider any exceptions the Proposer may take to the Contract or to provisions related to any of the Security Instruments. The evaluation will also be based on the degree to which the Proposer accepts the risk posture and general business deal set forth in the Contract. This criterion will also be used to assess the degree of risk which the Proposer is judged to be assuming under the terms of the Proposal.
9. *Price* - Rockland Green will evaluate the Proposer's pricing set forth on Proposal Form 15. Rockland Green is not bound to accept the lowest price or any Proposal of those submitted. Rockland Green will consider the Price proposed for the base services, as well as the costs or savings of any Proposed Alterations.

e. Award of Contract

An award will be made to the responsible Proposer whose Proposal is considered the most advantageous to Rockland Green. Rockland Green has the right to select the Proposer whose Proposal best satisfies the interests of Rockland Green, and not necessarily on the basis of price or any other single factor. The successful Proposer will be notified by a written notice, signed by a

**Rockland Green - RFP 2024-01**

**Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in Haverstraw, NY**

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duly authorized representative of Rockland Green. No other act of Rockland Green shall constitute the award of the Proposal.

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**APPENDIX A**

**DEFINED TERMS**

**APPENDIX A  
DEFINED TERMS**

- Affiliate:** Any person, corporation or other entity directly or indirectly controlling or controlled by another person, corporation or other entity or under direct or indirect common control with such person, corporation or other entity.
- Animal Management Services:** Any and all services provided to promote animal care and to protect public health and safety, including, but not limited to the following services: providing housing and care for stray, abandoned, abused, seized, impounded, owner-surrendered or otherwise unwanted animals in an animal shelter; the processing and disposal of animal waste; the disposal of dead wildlife removed from roadways following wildlife-vehicle collisions; providing animal control; and any other similar service related thereto.
- Animal Shelter:** Any facility, building, or structure, where temporary or permanent housing and care is provided to stray, abandoned, abused, seized, impounded, owner-surrendered or otherwise unwanted animals.
- Applicable Law:** Means those local building codes referenced in the Drawings, other reference codes and standards and regulatory requirements specifically noted in the Specifications, as well as any law, rule, codes, standards, regulation, requirement, policy, consent decree, consent order, consent agreement, permit, guideline, action, determination or order of, or Governmental Approval issued by, any Governmental Body having jurisdiction, applicable

from time to time to any activities associated with the subject matter of the Contract, or any other transaction or matter contemplated hereby (including, but not limited to, any of the foregoing which concern health, safety, fire, environmental protection, labor relations, mitigation monitoring plans, State building codes, non-discrimination and the payment of prevailing wages), including but not limited to the provisions of the State Agriculture and Markets Law applicable to Animal Shelters.

**Application for Payment:**

Monthly applications from the Contractor to Rockland Green for payment, on the form required by the Specifications, and subject to the Contract.

**Architect:**

Means BDA Architecture, P.C., Building Design For Animals, LLC, who will serve as Rockland Green's representative during the Project.

**Contract:**

Means the contract for the Build-Out of the Animal Shelter, together with all appendices and any Contract Modifications thereto.

**Contract Documents:**

The Contract and all of its exhibits and attachments, and any Contract Modifications thereto.

**Contract Drawings or Drawings:**

The graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally, including plans, elevations, sections, details, schedules, and diagrams, as set forth in Appendix C.

**Contract Price or Contract Sum:**

The price to be paid by Rockland Green to the selected Contractor for the performance of the Work.

- Contract Standards:** The standards, terms, conditions, methods, techniques and practices imposed or required by: (i) Applicable Law, (ii) the Specifications, (iii) the Contract Drawings, (iv) Good Engineering and Construction Practice, (v) Good Industry Practice, (vi) applicable equipment manufacturers' specifications, (vii) applicable Insurance Requirements, and (viii) any other standard, term, condition or requirement specifically provided in the Contract to be observed by the Contractor.
- Contract Time:** The period of time, including authorized adjustments as addressed in the Contract, allotted in the Contract Documents for completion of the Work.
- Contractor:** The person, partnership, or corporation who enters into the Contract with Rockland Green.
- Contractor Fault:** Means the falsity of any material representation made by the Contractor under the Contract or any breach, failure, non-performance or non-compliance by the Contractor with its obligations thereunder caused by any willful or negligent act, error or omission by the Contractor, its officials, agents, employees, representatives or independent contractors or Subcontractors which materially and adversely affects Rockland Green's performance or rights or obligations under the Contract.
- County:** The County of Rockland, New York.
- Final Completion:** Means the date upon which the Work is complete in accordance with the Contract Documents, including but not

limited to any punch list items, and the submission of all documentation required by the Contract Documents.

**Good Engineering and Construction Practice:**

Those methods, techniques, standards and practices which, at the time they are to be employed and in light of the circumstances known or reasonably believed to exist at such time, are generally recognized and accepted as good engineering and construction practices for the engineering and construction industries as followed in the Northeast region of the United States.

**Good Industry Practice:**

Those methods, techniques, standards and practices which, at the time they are to be employed and in light of the circumstances known or reasonably believed to exist at such time, are general accepted as good in the industry.

**Governmental Approval:**

All orders of approval, permits, licenses, authorizations, consents, certifications, registrations, exemptions, rulings, entitlements and approvals issued by a Governmental Body of whatever kind and however described which are required under Applicable Law to be obtained or maintained by any person with respect to the Work.

**Governmental Body:**

Any federal, state, regional or local legislative, executive, judicial or other governmental board, agency, authority, commission, administration, court or other body, or any official thereof having jurisdiction over the Site, the Contractor, the Work, or the Project.

**Insurance Requirement:**

Any rule, regulation, code, or requirement issued by any fire insurance rating bureau or any body having similar functions

or by any insurance company that has issued an insurance policy as required under this RFP, as in effect during the Term of the Contract, compliance with which is a condition to the effectiveness of such policy.

**Labor and Materials Payment Bond:**

Means the bond that guarantees the timely payment by the Contractor for all labor, materials, supplies, implements, machinery and equipment to be furnished with respect to the Work throughout the term of the Contract.

**Liquidated Damages:**

Those damages payable by the Contractor for a failure to achieve Substantial Completion and/or Final Completion as set forth in the Contract.

**Owner:**

The Rockland County Solid Waste Management Authority, a/k/a Rockland Green.

**Performance Bond:**

Means the bond that guarantees the Contractor's timely performance of its obligations under the Contract for the benefit of Rockland Green throughout the term of the Contract.

**Prevailing Wage Law:**

Articles 8 and 9 of the New York Labor Law, as amended.

**Project:**

Means the Work procured under this RFP.

**Project Labor Agreement:**

The agreement between Rockland Green, the Contractor, the labor unions representing Subcontractors, and non-unionized Subcontractors, governing the terms and conditions of employment for all workers on the Project.

- Project Schedule:** The schedule that the Proposer intends to follow to achieve Substantial Completion and Final Completion by the required date. The Project Schedule will be agreed upon and included as an exhibit to the Contract.
- Proposal:** A Proposer's submission in response to this RFP.
- Proposal Bond:** Has the meaning set forth in the RFP.
- Proposal Forms:** The forms attached to this RFP, which are to be completed and submitted by the Proposer as part of its Proposal.
- Proposed Alterations:** An optional discussion, provided by Proposers in response to the RFP, of potential proposed alterations and/or improvements to the Drawings and/or Specifications for Rockland Green's consideration. Proposed Alterations must maintain adherence to the standards and requirements set forth in the Standard of Care Act, and may (i) impact the cost to construct the Project, (ii) impact the cost to operate or maintain the Animal Shelter over time, (iii) improve the function of the Animal Shelter; (iv) add value for Rockland Green, the Animal Shelter operator, the employees who will work at the Animal Shelter and/or the animals who will reside there; and/or (v) shorten the construction time period (without jeopardizing the quality of the design), among other proposed alterations.
- Proposer:** The entity(ies) submitting a Proposal for the performance of the Work.
- Rating Service:** Moody's Investors Service, Inc., Fitch, Inc. or Standard & Poor's Rating Services, a division of the McGraw-Hill Companies, Inc., or any of their respective successors and

assigns and, if such corporation shall be dissolved or liquidated or shall no longer perform the functions of a securities rating agency, "Rating Service" shall be deemed to refer to any other nationally recognized securities rating agency designated by Rockland Green.

**Request for Proposals or RFP:** This request for proposals document(s) issued by Rockland Green for build-out of the Animal Shelter located at 427 Beach Road, Haverstraw, NY, as amended and supplemented.

**Required Insurance:** The insurance to be provided and maintained by the Contractor in accordance with Appendix E of this RFP.

**Rockland Green or RG CARES:** The Rockland County Solid Waste Management Authority a/k/a Rockland Green a/k/a RG CARES.

**Rockland Green Fault:** Means any breach (including the falsity of any material representation made by Rockland Green under the Contract), failure, non-performance or non-compliance by Rockland Green with its obligations under the Contract to the extent not directly attributable to any Uncontrollable Circumstance or Contractor Fault that materially and adversely affects the Contractor's performance or rights or obligations under this Contract.

**Schedule of Values:** The document apportioning the entire Contract Price among the different elements of the Work for the purposes of periodic and final payment.

**Scheduled Substantial Completion Date:** Means the date upon which the Contractor is required to achieve Substantial Completion in accordance with the Contract.

- Security Instruments:** The Proposal Bond, Performance Bond, Labor and Materials Payment Bond and Required Insurance.
- Site:** The real property owned by Rockland Green, located at 427 Beach Road, Haverstraw, and all ancillary property up to and including the fence line, upon which the warehouse that will be transformed into the new Animal Shelter pursuant to this RFP is located. The Site is more specifically described in Appendix C-1.
- Specifications:** Those Specifications for the Work as set forth in Appendix B.
- State:** The State of New York.
- Standard of Care Act:** Means New York Senate Bill 6870 of 2022 approved on December 15, 2022 and codified as Article 26-C of the New York Consolidated Laws Service Agriculture and Markets Law. This law takes effect in December 2025.
- Subcontract:** An agreement between the Contractor and a Subcontractor, or between a Subcontractor and a sub-subcontractor, as applicable.
- Subcontractor:** Every person (other than employees of the Contractor) employed or engaged by the Contractor or any person directly or indirectly in privity with the Contractor (including every subcontractor of whatever tier) for any portion of the Work, whether for the furnishing of labor, materials, equipment, supplies, services, or otherwise in connection with the Work.

**Submittals:** Sketches, working drawings, shop drawings, studies and analysis, specifications, and calculations as required to adequately perform the Work.

**Substantial Completion:** The date upon which the Work meets all of the conditions set forth in the Contract for Substantial Completion.

**Uncontrollable Circumstance:** Means any act, event or condition that is beyond the reasonable control of the party relying thereon as justification for not performing an obligation or complying with any condition required of such party under the Contract, and that materially interferes with or materially increases the cost or time required for performing its obligations thereunder (other than payment obligations), to the extent that such act, event or condition is not the result of the willful or negligent act, error or omission, failure to exercise reasonable diligence, or breach of the Contract on the part of such party.

(A) Inclusions: Subject to the foregoing, Uncontrollable Circumstances shall include the following:

(1) a Change in Law;

(2) naturally occurring events (except weather conditions normal for the northeast region of the United States) such as landslides, underground movement, earthquakes, fires, tornadoes, floods, epidemics, lightning, and other acts of God;

(3) explosion, sabotage or similar occurrence, acts of a declared public enemy, extortion, war, terrorism, blockade or insurrection, riot or civil disturbance;

(4) the failure of any appropriate federal, State, authority or local public agency or private utility having operational jurisdiction in the area in which the Work is being performed; and

(5) acts of terror of a public enemy.

(B) Exclusions: It is specifically understood that none of the following acts, events or circumstances shall constitute Uncontrollable Circumstances:

- (1) any act, event, or circumstance that would not have occurred if the affected party had complied with its obligations under the Contract;
- (2) general economic conditions, interest or inflation rates, or currency fluctuation;
- (3) with respect to Rockland Green, any changes in the financial condition of Rockland Green and with respect to the Contractor, any changes in the financial condition of the Contractor, or their Affiliates or Subcontractors affecting their ability to perform their respective obligations;
- (4) the consequences of error, neglect or omissions by the Contractor or any of its employees, agents, suppliers, Subcontractors or Affiliates in the performance of the Work;
- (5) the failure of the Contractor to secure patents or licenses or similar authorizations in connection with any technology or machinery necessary to perform its obligations hereunder;
- (6) strikes;
- (7) labor disputes involving employees of the Contractor, its Affiliates or Subcontractors;
- (8) any increase for any reason in premiums charged by the Contractor's insurers or the insurance markets generally for the Required Insurance; and
- (9) any impact of prevailing wages, laws or rates on the Contractor's costs with respect to wages and benefits.

**Warranty:** Means any original equipment manufacturer's warranty, any express or implied warranty provided by Applicable Law or common application and usage in the construction industry, and the one-year warranty provided by the Contractor on workmanship for the Work, which includes a full-scale inspection at the end of the Warranty Period.

**Warranty Period:** Means the period commencing on the date of Final Completion and continuing through one-year unless otherwise extended as provided herein.

**Work:** Means all of the work required to be performed by the Contractor under the Contract, all in accordance with the Contract Documents.

**Rockland Green - Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road  
in Haverstraw, NY  
RFP 2024-01**

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**APPENDIX B**  
**SPECIFICATIONS**

# PROJECT MANUAL

*“Rockland Green Center for Animal  
Rescue and Educational Services”*

## **R.G. C.A.R.E.S. Animal Shelter**

427 Beach Rd, located in the town of  
Haverstraw, NY 10993



**Project No. 2246**

**July 8th, 2024**

### ***Construction Documents***

BDA Architecture, P.C.  
901 Lamberton Place, NE  
Albuquerque, NM 87107  
505.858.0180



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CERTIFICATION PAGE

The technical material and data contained in this Project Manual were prepared under the supervision and direction of the undersigned, whose seal as a Professional Architect, licensed to practice in the State of New York, is affixed below.



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**Paul M. Gladysz**  
Registered Architect in the State of New York  
License No. **17591-1**  
901 Lambertson Pl, NE  
Albuquerque, New Mexico 87107  
505-858-0180

SECTION 000103

PROJECT DIRECTORY

**Rockland Green Center for Animal Rescue and Educational Services**

**R.G. C.A.R.E.S.**

427 Beach Rd.  
Haverstraw, NY 10993  
Project No. 2246

**OWNER**

Rockland County Solid Waste Management Authority ("Rockland Green")  
Gerard M. Damiani, Jr  
Executive Director  
172 Main Street  
Nanuet, New York 10954

**ARCHITECT**

**BDA Architecture, PC**  
Paul Gladysz, Principal in Charge  
901 Lamberton Place, N  
Albuquerque, NM 87107  
(505) 858-0180  
Paul.Gladysz@bdaarc.com

**CIVIL ENGINEER**

Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C.  
Jeff Heath  
217 Montgomery Street, Suite 1100  
Syracuse, New York 13202  
P. 315.471.0688  
jheath@edrdpc.com

**STRUCTURAL ENGINEER**

JJK-Engineering Group  
3240 Suite C Juan Tabo ne  
Albuquerque, nm 87111  
Phone: (505) 296-5706  
Fax: (505) 296-1672  
E-mail: [John@jjkgroup.com](mailto:John@jjkgroup.com)

**MECHANICAL/ ELECTRICAL/ PLUMBING ENGINEER**

Teeter Engineering Group, pa  
5500 77 Center DR Suite 140  
Charlotte, NC 28217

Phone: (704) 376-2999 xx  
E-mail: [buck@tegpa.com](mailto:buck@tegpa.com)

END OF SECTION

SECTION -0 0004

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*Unless noted otherwise Structural drawings and specifications shall override any specifications listed herein.*

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*Unless noted otherwise Structural drawings and specifications shall override any specifications listed herein.*

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*Unless noted otherwise Structural drawings and specifications shall override any specifications listed herein.*

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- C201 EROSION AND SEDIMENT CONTROL PLAN
- C601 SITE DETAILS
- C602 SITE DETAILS (RESERVED IF NEEDED)
- CS001 GENERAL NOTES AND DETAILS
- CS101 GENERAL NOTES, DETAILS, PLAN AND SECTION-CAST-IN-PLACE CONCRETE RETAINING WALLS
  
- AS101 ARCHITECTURAL SITE PLAN
- AS501 ARCHITECTURAL SITE DETAILS
  
- S-01.A GENERAL PROJECT NOTES, DRAWING CONVENTIONS, DESIGN CRITERIA, AND SHEET INDEX
- S-01.B SPECIAL INSPECTION NOTES AND TABLES (2)
- S-03.A CONCRETE GENERAL NOTES AND DETAILS
- S-03.B CONCRETE SLAB-ON-GRADE REQUIREMENT
- S-04.A MASONRY GENERAL NOTES, REINFORCEMENT REQUIREMENTS AND LINTEL DIAGRAMS
- S-04.B MASONRY DETAILS AND MASONRY VENEER REQUIREMENTS
- S-06.A CARPENTRY GENERAL NOTES
- S-06.B CARPENTRY GENERAL DETAILS
- S-06.C ROUGH CARPENTER DETAILS
- S-06.E SHEARWALL SCHEDULES AND ELEVATIONS
- S-1.0 (WEST) FOUNDATION AND CONTROL JOINT PLAN
- S-1.1 (EAST) FOUNDATION AND CONTROL JOINT PLAN
- S-2.0 (WEST) FLOOR/ ROOF FRAMING PLAN
- S-2.1 (EAST) FLOOR/ ROOF FRAMING PLAN
- S-3.0 SHEARWALL PLAN
- S-4.0 FOUNDATION SECTIONS
- S-5.0 FLOOR/ROOF FRAMING SECTIONS
  
- AD101 DEMOLITION PLAN - OVERALL
  
- A101 ARCHITECTURAL FLOOR PLAN - MAIN LEVEL & UPPER LEVEL
- A102 DIMENSION FLOOR PLAN - MAIN LEVEL - WEST
- A103 DIMENSION FLOOR PLAN - MAIN LEVEL - EAST
- A104 DIMENSION FLOOR PLAN - UPPER LEVEL - WEST
- A105 DIMENSION FLOOR PLAN - UPPER LEVEL - EAST
- A106 REFLECTIVE CEILING PLAN - MAIN LEVEL & UPPER LEVEL
- A107 ROOF PLAN
- A201 EXTERIOR ELEVATIONS

A202 INTERIOR ELEVATIONS  
 A203 INTERIOR ELEVATIONS  
 A204 INTERIOR ELEVATIONS  
 A205 INTERIOR ELEVATIONS  
 A206 INTERIOR ELEVATIONS  
 A207 INTERIOR ELEVATIONS  
 A208 INTERIOR ELEVATIONS  
 A209 INTERIOR ELEVATIONS  
 A301 BUILDING SECTIONS  
 A303 WALL SECTIONS  
 A304 WALL SECTIONS  
 A305 WALL SECTIONS  
 A401 ENLARGED PLANS - RESTROOMS  
 A402 ENLARGED PLANS - ENLARGED INDOOR PLAY AREAS & SECTION DETAILS  
 A501 MISC. DETAILS - (ADA, SOUND TREATMENT & CEILING DETAILS)  
 A502 MISC. DETAILS  
 A503 MISC. DETAILS  
 A504 WALL PARTITIONS AND DETAILS  
 A505 DOOR DETAILS  
 A506 WINDOW DETAILS  
 A601 DOOR SCHEDULE & WINDOW TYPES  
 A602 ROOM FINISH SCHEDULE

I001 INTERIOR SPECIFICATIONS  
 I101 FLOOR PLAN - MAIN - WEST  
 I102 FLOOR PLAN - MAIN - EAST  
 I103 FLOOR PLAN - UPPER - WEST  
 I104 FLOOR PLAN - UPPER - EAST  
 I201 INTERIOR ELEVATIONS  
 I202 INTERIOR ELEVATIONS  
 I203 INTERIOR ELEVATIONS

P001 PLUMBING SPECIFICATIONS, LEGEND, GENERAL NOTES  
 P002 PLUMBING SCHEDULES AND DETAILS  
 P101 MAIN LEVEL FLOOR PLAN - WASTE - WEST  
 P102 MAIN LEVEL FLOOR PLAN - WASTE - EAST  
 P103 UPPER LEVEL FLOOR PLAN - WASTE - WEST  
 P104 UPPER LEVEL FLOOR PLAN - WASTE - EAST  
 P201 MAIN LEVEL FLOOR PLAN - WATER - WEST  
 P202 MAIN LEVEL FLOOR PLAN - WATER - EAST  
 P203 UPPER LEVEL FLOOR PLAN - WATER - WEST  
 P204 UPPER LEVEL FLOOR PLAN - WATER - EAST  
 P301 MAIN LEVEL FLOOR PLAN - MED GAS - WEST

M001 MECHANICAL LEGENDS & GENERAL NOTES  
 M002 MECHANICAL SPECIFICATIONS  
 M003 MECHANICAL SCHEDULES  
 M004 MECHANICAL SCHEDULES & NOTES  
 M005 MECHANICAL CALCULATIONS

M006 MECHANICAL CALCULATIONS  
M007 MECHANICAL DETAILS  
M101 MAIN LEVEL FLOOR PLAN - MECHANICAL - WEST  
M102 MAIN LEVEL FLOOR PLAN - MECHANICAL - EAST  
M103 UPPER LEVEL FLOOR PLAN - MECHANICAL - WEST  
M104 UPPER LEVEL FLOOR PLAN - MECHANICAL - EAST  
M105 ROOF PLAN - MECHANICAL - WEST  
M106 ROOF PLAN - MECHANICAL - EAST  
M201 VRF PIPING SCHEMATICS

E001 ELECTRICAL SPECIFICATIONS  
E002 ELECTRICAL SYMBOLS AND LIGHTING FIXTURE SCHEDULE  
E003 ELECTRICAL SCHEDULES - HVAC AND PLUMBING EQUIPMENT  
E100 SITE PLAN - ELECTRICAL  
E101 MAIN LEVEL FLOOR PLAN - LIGHTING - WEST  
E102 MAIN LEVEL FLOOR PLAN - LIGHTING - EAST  
E103 UPPER LEVEL FLOOR PLAN - LIGHTING - WEST  
E104 UPPER LEVEL FLOOR PLAN - LIGHTING - EAST  
E201 MAIN LEVEL FLOOR PLAN - POWER - WEST  
E202 MAIN LEVEL FLOOR PLAN - POWER - EAST  
E203 UPPER LEVEL FLOOR PLAN - POWER - WEST  
E204 UPPER LEVEL FLOOR PLAN - POWER - EAST  
E205 ROOF PLAN - POWER - WEST  
E206 ROOF PLAN - POWER - EAST  
E301 POWER RISER DIAGRAM AND PANEL SCHEDULES  
E302 PANEL SCHEDULES  
E401 ELECTRICAL DETAILS  
E402 ELECTRICAL DETAILS  
E403 ELECTRICAL DETAILS

END OF SECTION

**SECTION 011100**  
**SUMMARY OF WORK**

**PART 1 GENERAL**

1.1 SUMMARY

- A. Section Includes:
1. Project description.
  2. Work by Others
  3. Contractor's use of site and premises.
  4. Owner furnished Products.

1.2 PROJECT DESCRIPTION

- A. Work of this Project is described as the construction of a new facility entitled:

**R.G. CARES Animal Shelter**  
427 Beach Road  
Haverstraw, NY 10993

- B. Work includes: Site construction, Landscaping, General Exterior Building Construction & Alterations, General Interior Building Construction & Alterations, Interior & Exterior Finishes, Equipment Purchase Obligations, Equipment Installation Obligations, Fire protection, Plumbing, Medical Gas, Mechanical HVAC, and Electrical.
- C. The Project will be constructed under a single prime contract.
- D. Applicable codes that are to be followed are as shown on Sheet G001, Project data. Project to be in compliance with New York State Standard of Care Act S6870-B.

1.3 WORK BY OTHERS

- A. Separate Contracts:
1. The Owner may execute contracts for additional work at the site, that is excluded from the work of this Contract, and that includes:
    - a. [Pressure Wash System.]
    - b. [Central Vacuum System.]
    - c. 004313 [Bid] which may include any individual item listed below and will not be exclude any items not listed below:
      - 1) 013553 [Security Procedures]
      - 2) 015733 [Security Temporary Controls]
      - 3) 111500 [Security Control Equipment]
      - 4) 108600 [Security Mirrors and Domes]
      - 5) 280539 [Security Voice Communications]
      - 6) 281800 [Security Access Detection]
      - 7) 282000 [Security Surveillance]
      - 8) 282100 [Security Cameras]
      - 9) 283317 [Security and Control Services]
    - d. 274116 [Central Music Systems]
    - e. 274219 [Public Information Systems, Audio and Video]
  2. Work under separate contract may be executed concurrent with Work of this Contract.
  3. Cooperate with the Owner and separate contractors to accommodate this requirement.
  4. Any required Architectural, Structural, Mechanical, Electrical Plumbing or Civil Engineering coordination and/or incorporation of additional contracted items can be provided by service provider or requested by recorded project Architect & engineers with Supplementary Instructions, Request for Information, Addendums if required.

5. All additional separate contracted items shall provide copies of final approved documentation of applied and installed elements, equipment, built in furniture and technical specifications from all manufactures to the architect on record for complete file coordination and packaging.
6. Any item not specifically mentioned above may be added under submittal of requested add on items. Submittals of add-on items shall be reviewed by architect on record and /or owner prior to purchasing and shall receive an approved stamp for inclusion in construction package.,

#### 1.4 GENERAL CONTRACTOR'S USE OF SITE AND PREMISES

- A. Limit use of site and premises to allow for:
  1. Work by General contractor.
  2. Work by Sub-contractors.
  3. Work by Owner.
  4. Work by Owner Hired Vendors and Contractors.
- B. Move any stored products under Contractor's control that interfere with the operations of those listed above.
- C. Assume full responsibility for protection and safekeeping of products under this Contract stored on site and within the project site.
- D. Conform to all relevant Building Rules and Regulations.
- E. Confine operations to project construction site/limits/area unless otherwise approved by Owner.
- F. If access to adjacent common or occupied spaces is required:
  1. All applicable approvals for specified work shall be provided from Adjacent Owners &/or Governing Authorities Having Jurisdiction (AHJ's).
  2. Schedule operations with Owner in advance.
  3. Perform work after normal business hours or on weekends when directed by Owner.
- G. Do not use or store hazardous or flammable materials on premises; follow requirements of governing AHJ's over the work.
- H. Prohibit smoking within site/limits/area & interior spaces.

#### 1.5 OWNER FURNISHED PRODUCTS

- A. Owner Furnished and Contractor Installed (O.F.C.I.):
  1. Products that will be furnished by Owner and installed by Design/Builder are as follows:
    - a. Veterinary Equipment as scheduled on the Drawings and Specifications.
    - b. Appliances as scheduled on the Drawings and Specifications.
  2. Owner's Responsibilities:
    - a. Arrange for and deliver necessary Shop Drawings, Product Data and Samples to Contractor
    - b. Arrange and pay for product delivery to site, in accordance with Progress Schedule.
    - c. Deliver supplier's bill of materials to Contractor.
    - d. Inspect deliveries jointly with Contractor.
    - e. Submit claims for transportation damage.
    - f. Arrange for replacement of damaged, defective, and missing items.
    - g. Arrange for manufacturers' warranties, service, and inspections, as required.
  3. Contractor's Responsibilities:
    - a. Designate delivery date for each product in Progress Schedule.
    - b. Review Shop Drawings, Product Data and Samples. Submit to Architect with notification of any discrepancies or problems anticipated in use of product.
    - c. Receive and unload products at site.
    - d. Promptly inspect products jointly with Owner; record shortages, damage, and defective items.

- e. Handle products at site, including uncrating and storage.
  - f. Protect products from exposure to elements and from damage.
  - g. Assemble, install, connect, adjust, and finish products, as stipulated in respective specification section.
  - h. Repair or replace any items damaged by Contractor.
- B. Owner Furnished and Owner Installed (O.F.O.I.):
- 1. Products that will be furnished and installed by Owner are as follows:
    - a. Veterinary Equipment as scheduled on the Drawings and Specifications.
    - b. Appliances as scheduled on the Drawings and Specifications.
    - c. Signage (except as required by building code).
    - d. Furnishings.
    - e. Video Surveillance and Security Detection and Alarm Systems.
    - f. Other miscellaneous items as noted on the Drawings.

**PART 2 PRODUCTS**

Not used

**PART 3 EXECUTION**

Not used

END OF SECTION

## SECTION 012300

### ALTERNATES

#### GENERAL

##### 1.1 SUMMARY

- A. Section Includes
  - 1. Documentation of changes to Contract Sum and Contract Time.
- B. Contract Documents contain pertinent requirements for materials and methods to accomplish work described herein.
- C. Provide alternate costs for inclusion in Contract Sum if accepted by Owner.

##### 1.2 RELATED REQUIREMENTS

- A. Owner/Contractor Agreement: Alternates accepted by Owner for incorporation into the Work.
- B. Individual specification sections identified.

##### 1.3 PROCEDURES

- A. Alternates will be exercised at the option of Owner.
- B. Coordinate related work and modify surrounding work as required to complete the work, including changes under each Alternate, when acceptance is designated in Owner/Contractor Agreement.

##### 1.4 DESCRIPTION OF ALTERNATES

- A. Alternate No. 1 – Flooring F1:
  - 1. Base Proposal: Provide Daltile Porcelain Tile – Emerson Wood, Balsam Fir as indicated on the Interior drawings (I Sheets).
  - 2. Alternate Proposal: In lieu of Porcelain Tile, provide Mondo Rubber Flooring at locations indicated on the Interior drawings ( I Sheets).

#### PART 2 PRODUCTS

Not used

#### PART 3 EXECUTION

Not used

END OF SECTION

## SECTION 012500

### SUBSTITUTION PROCEDURES

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Product Substitution Procedures.

##### 1.2 GENERAL

- A. Definition: Proposal by Contractor to use manufacturer, product, material, or system different from one required in Contract Documents.
- B. Do not substitute Products unless a substitution request has been approved by Architect.
- C. Substitutions during the procurement: Refer to the Request for Proposals.
- D. Substitutions requests will be considered only due to non-availability of a specified Product through no fault of Contractor.
- E. In case of non-availability of a specified Product notify Architect in writing as soon as non-availability becomes apparent.

##### 1.3 SUBSTITUTION REQUESTS

- A. Submit substitution requests on form provided by Architect.
- B. Document specified product and proposed substitution with complete data, including:
  - 1. Product identification, including name and address of manufacturer.
  - 2. Product description, performance and test data, and reference standards.
  - 3. Sample, if requested and if available.
  - 4. Description of any anticipated effect that acceptance of proposed substitution will have on Progress Schedule, construction methods, or other items of Work.
  - 5. Description of any differences between specified product and proposed substitution.
  - 6. Difference in cost between specified product and proposed substitution.
- C. Burden of proof for substantiating compliance of proposed substitution with Contract Document requirements remains with Contractor.
- D. A request constitutes a representation that the Contractor:
  - 1. Has investigated the proposed Product and determined that it meets or exceeds the quality level of the specified Product.
  - 2. Will provide the same warranty for the substitution as for the specified Product.
  - 3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
  - 4. Waives claims for additional costs or time extension that may subsequently become apparent.
  - 5. Will reimburse Owner for design services associated with re-approval by authorities or revisions to Contract Documents to accommodate the substitution.
- E. Substitutions will not be considered if:
  - 1. They are indicated or implied on Shop Drawings or other submittals without submittal of a substitution request.
  - 2. Approval will require substantial revision of Contract Documents without additional compensation to Architect.
  - 3. The substitution form and corresponding documentation is incomplete or does not clearly highlight relevant information.

- F. Submit in searchable Adobe PDF format.
- G. During the procurement process, the Architect will notify all Proposers of approval or rejection of each substitution request.
- H. Cost savings due to any approved substitutions after Contract award, will be credited back to the Owner.
- I. Approved substitutions will be incorporated into Contract by Change Order or Construction Change Directive.

**PART 2 PRODUCTS**

Not used

**PART 3 EXECUTION**

Not used

END OF SECTION

SECTION 012519

SUBSTITUTION REQUEST FORM

DATE: \_\_\_\_\_

TO: \_\_\_\_\_

ATTENTION: \_\_\_\_\_

PROJECT: \_\_\_\_\_

We submit for your consideration the following product as a substitution for the specified product:

Section No.	Paragraph	Specified Product
_____	_____	_____

Proposed Substitution: \_\_\_\_\_  
\_\_\_\_\_

Reason for Substitution: \_\_\_\_\_  
\_\_\_\_\_

Product Data:

Attach complete technical data for both the specified product and the proposed substitution. Include information on changes to Contract Documents that the proposed substitution will require for its proper installation.

Samples:

Attached     Will be furnished upon request

Does the substitution affect dimensions shown on Drawings?

No     Yes (explain) \_\_\_\_\_  
\_\_\_\_\_

Effects of proposed substitution on other Work:

\_\_\_\_\_  
\_\_\_\_\_

Differences between proposed substitution and specified Product:

\_\_\_\_\_  
\_\_\_\_\_

Manufacturer's warranties of the proposed substitution are:

Same       Different (explain) \_\_\_\_\_  
\_\_\_\_\_

Maintenance service and spare parts are available for proposed substitution from:

\_\_\_\_\_  
\_\_\_\_\_

Previous installations where proposed substitution may be seen:

Project: \_\_\_\_\_ Project: \_\_\_\_\_  
Owner: \_\_\_\_\_ Owner: \_\_\_\_\_  
Architect: \_\_\_\_\_ Architect: \_\_\_\_\_  
Date Installed: \_\_\_\_\_ Date Installed: \_\_\_\_\_

Cost savings to be realized by Owner, if proposed substitution is approved:

\_\_\_\_\_

Change to Contract Time, if proposed substitution is approved:

No Change       Add \_\_\_\_\_ days       Deduct \_\_\_\_\_ days

Submittal constitutes a representation that Contractor has read and agrees to the provisions of Section 01 2500.

Submitted by Contractor:

\_\_\_\_\_

Signature

\_\_\_\_\_

Firm

For Use by Architect:

Based on the information supplied by the Contractor, the Architect has reviewed the proposed substitution on the basis of design concept of the Work and conformance with information given in Contract Documents.

Approved       Approved as Noted       Rejected

Submit Additional Information: \_\_\_\_\_  
\_\_\_\_\_

By: \_\_\_\_\_ Date: \_\_\_\_\_

## SECTION 012600

### CONTRACT MODIFICATION PROCEDURES

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Supplemental Instructions.
  - 2. Proposal Requests.
  - 3. Contractor proposed changes.
  - 4. Construction Change Directives.
  - 5. Change Orders.
  
- B. Related Sections:
  - 1. Section 016000 - Product Requirements.

##### 1.2 CHANGE PROCEDURES

- A. Architect's Supplemental Instructions:
  - 1. Format: AIA Document G710 - Architect's Supplemental Instructions.
  - 2. Architect will advise of minor changes in Work not involving an adjustment to Contract Sum or Contract Time as authorized by the Contract.
  
- B. Proposal Requests:
  - 1. Format: AIA Document G709 - Proposal Request.
  - 2. Architect may issue a Proposal Request that includes a detailed description of a proposed change with supplemental or revised Drawings and specifications.
  - 3. Prepare and submit an estimate of any change to Contract Sum or Contract Time within 7 days after receipt. Include:
    - a. Quantities and unit costs, with total cost or credit to Owner. If requested, furnish documentation of quantities.
    - b. Taxes, delivery charges, equipment rentals, and trade discounts as applicable.
    - c. If change in Contract Time is involved, provide updated Progress Schedule.
  - 4. Do not stop work or initiate changes in response to a Proposal Request. If approved, Architect will prepare and issue a Change Order.
  - 5. Submit electronically in Adobe PDF format.
  
- C. Contractor Proposed Changes:
  - 1. The Owner does not expect Contractor proposed changes during the term of the Contract.
  - 2. Proposers have had the opportunity to submit Proposed Alterations (as defined in the RFP) with their Proposals in response to the RFP.
  - 3. However there may be proposed substitutions due only to non-availability of a specified Product through no fault of the Contractor.
  - 4. If Contractor believes a change is necessary it may submit a request for change to Architect, in accordance with the Contract.
  - 5. Any such request must comply with the Contract, and describe the proposed change, reason for change, its full effect on Work, and any change to Contract Sum or Contract Time. Include:
    - a. Quantities and unit costs, with total cost or credit to Owner. If requested, furnish documentation of quantities.
    - b. Taxes, delivery charges, equipment rentals, and trade discounts as applicable.
    - c. If change in Contract Time is involved, provide updated Progress Schedule.
  - 6. Document any required substitutions in accordance with Section 016000.
  - 7. Submit electronically in Adobe PDF format.
  
- D. Construction Change Directive:

1. Architect may issue a directive, signed by Owner, instructing Contractor to proceed with a change for subsequent inclusion in a Change Order.
2. Documentation will describe changes in Work and designate method of determining any change to Contract Sum or Contract Time. Promptly execute change.

E. Change Orders:

1. Format: AIA Document G701 - Change Order.
2. Execution: Prepare Change Orders for signature of parties as provided in Conditions of the Contract. Submit electronically in Adobe PDF format.

**PART 2 PRODUCTS**

Not used

**PART 3 EXECUTION**

Not used

END OF SECTION

## SECTION 012613

### REQUESTS FOR INFORMATION

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Requests for Information (RFI's).
- B. Related Sections:
  - 1. Section 012500 - Substitution Procedures.
  - 2. Section 012600 - Contract Modification Procedures.
  - 3. Section 013300 - Submittal Procedures.
  - 4. Section 017700 - Closeout Procedures.

##### 1.2 GENERAL

- A. Request for Information (RFI): Request from Contractor seeking interpretation or clarification of Contract Documents not involving Substitutions or changes to Contract Sum or Contract Time.
- B. RFI's constitute a request for information only.
- C. Do not submit RFI's:
  - 1. To request approval of Substitutions; refer to Section 012500.
  - 2. To request changes known to include changes to Contract Sum or Contract Time; refer to Section 012600.
  - 3. To request approval of submittals; refer to Section 013300.
  - 4. To submit Project Record Documents; refer to Section 017700.

##### 1.3 SUBMITTAL

- A. Submit RFI's on Contractor's standard form.
- B. Include on each RFI:
  - 1. Name of Contractor.
  - 2. Project name.
  - 3. Date submitted.
  - 4. Sequential RFI number.
  - 5. Applicable Drawing sheet and detail numbers or Specification Section numbers.
  - 6. Date when response information is required to avoid impact on Construction Schedule and Construction Cost.
- C. Review and sign RFI's submitted by Subcontractors, Sub-Subcontractors, or Suppliers prior to submittal to Architect.
- D. Maintain log of RFI's showing RFI number and current status of each RFI.
- E. When RFI's require submittal of drawings, follow submittal procedures specified for Shop Drawings in Section 01 3300.
- F. Submit electronically in Adobe PDF format.
- G. Allow minimum 7 days for Architect's review and response to each RFI.

**PART 2 PRODUCTS**

Not used

**PART 3 EXECUTION**

Not used

END OF SECTION

## SECTION 012900

### PAYMENT PROCEDURES

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Schedule of Values.
  - 2. Applications for Payment.
- B. Related Sections:
  - 1. Section 017700 - Closeout Procedures.

##### 1.2 SCHEDULE OF VALUES

- A. General:
  - 1. Submit a Schedule of Values to Architect at least 20 days prior to submitting first Application for Payment.
  - 2. Upon request of Architect, furnish additional data to support values given that will substantiate their correctness.
  - 3. Approved Schedule of Values will be used as basis for reviewing Contractor's Applications for Payment.
- B. Form and Content:
  - 1. Format: AIA Document G703 - Continuation Sheet of Application and Certification for Payment.
  - 2. Use Table of Contents of Project Manual as basis of format for listing costs of Work.
  - 3. List installed value of component parts of Work in sufficient detail to serve as basis for computing values for progress payments.
  - 4. Include separate line items for:
    - a. Site mobilization.
    - b. Insurance.
    - c. Contractor's overhead and profit.
  - 5. For items on which payment will be requested for stored materials, break down value into:
    - a. Cost of materials, delivered and unloaded, with taxes paid.
    - b. Total installed value.
  - 6. For each line item that has a value of more than \$25,000.00 break down costs to list major products or operations under each item.
  - 7. Total of costs listed in Schedule shall equal Contract Sum.
- C. Submit electronically in Adobe PDF format.
- D. Review and Resubmittal:
  - 1. After initial review by Architect, revise and resubmit if required.
  - 2. Revise and resubmit along with next Application for Payment when a Change Order is issued. List each Change Order as a new line item.

##### 1.3 APPLICATIONS FOR PAYMENT

- A. Preparation:
  - 1. Format: AIA Document G702 - Application and Certification for Payment, supported by AIA Document G703 - Continuation Sheet.
  - 2. Prepare required information in typewritten format or on electronic media format.
  - 3. Use data from reviewed Schedule of Values. Provide dollar value in each column for each line item representing portion of work performed.
  - 4. List each authorized Change Order as a separate line item, listing Change Order number and dollar value.

5. Prepare Application for Final Payment as specified in Section 017700.

B. Waivers of Lien:

1. Along with each Application for Payment, submit waivers of lien from Contractor and each Subcontractor or Sub-subcontractor included on the current month's Application for Payment.
2. Submit partial waivers on each item for amount requested, prior to deduction of retainage.
3. For completed items, submit full or final waiver.

C. Substantiating Data:

1. When Architect requires substantiating information, submit data justifying dollar amounts in question.
2. Provide one copy of data with cover letter showing Application number and date, and line item number and description.

D. Submittal:

1. Submit one electronic copy in Adobe PDF format of each Application for Payment.
2. Payment period: Submit at intervals stipulated in Owner/Contractor Agreement.

**PART 2 PRODUCTS**

Not used

**PART 3 EXECUTION**

Not used

END OF SECTION

## SECTION 013100

### PROJECT MANAGEMENT AND COORDINATION

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Project coordination.
  - 2. Coordination drawings.
  - 3. Project meetings.
- B. Related Sections:
  - 1. Section 017700 - Contract Closeout.

##### 1.2 PROJECT COORDINATION

- A. Submit required project submittals electronically in Adobe PDF format. Submit samples when required.
- B. The Work of this contract includes coordination of entire work of project including preparation of general coordination drawings/diagrams/schedules and control of site utilization from the beginning of activity through the project close-out and warranty periods
- C. Permits, Taxes, and Codes: A local Building Permit is not required. All work shall be executed in accordance with applicable codes included those set forth on the Drawings, and with the Applicable Law. The Contractor shall be responsible for the final execution of the work to suit these requirements. On completion of the various parts of the work, the installation shall be tested, as required by the constituted authorities and approved.
- D. Coordinate scheduling, submittals, and work of various Sections of specifications to assure efficient and orderly sequence of installation of interdependent construction elements.
- E. Verify that utility requirement characteristics of operating equipment are compatible with building utilities. Coordinate work of various Sections having interdependent responsibilities for installing, connecting to, and placing in service such equipment.
- F. Coordinate space requirements and installation of mechanical and electrical items that are indicated diagrammatically on Drawings.
  - 1. Follow routing shown as closely as practical; place runs parallel with building lines.
  - 2. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- G. In finished areas, conceal pipes, ducts, and wiring within construction. Coordinate locations of fixtures and outlets with finish elements.
- H. Coordinate completion and clean up of work of separate Sections in preparation for Substantial Completion.
- I. After Owner occupancy, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents to minimize disruption of Owner's activities.

##### 1.3 COORDINATION DRAWINGS

- A. Hold coordination meetings with trades providing mechanical, plumbing, fire protection, and electrical work.
- B. Resolve conflicts between trades, prepare composite coordination drawings and obtain signatures on original composite coordination Drawings.
- C. When conflicts cannot be resolved:
  - 1. Cease work only in areas of conflict( but continue all other Work) and request clarification prior to proceeding.
  - 2. Prepare drawings to define and to indicate proposed solution.
  - 3. Submit drawings for approval when actual measurements and analysis of Drawings and Project Manual indicate that various systems cannot be installed without significant deviation from intent of Contract Documents.
- D. Submit original composite coordination drawings as part of Project Record Documents specified in Section 017700.

#### 1.4 PROJECT MEETINGS

- A. Schedule and administer preconstruction conference, progress meetings and pre-installation conferences.
- B. Make physical arrangements for meetings; notify involved parties at least 5 days in advance.
- C. Record significant proceedings and decisions at each meeting; reproduce and distribute copies to parties in attendance and others affected by proceedings and decisions made.

#### 1.5 PRECONSTRUCTION CONFERENCE

- A. Schedule within 15 days after date of Notice to Proceed at central site convenient to all parties.
- B. Attendance:
  - 1. Contractor.
  - 2. Owner.
  - 3. Architect and principal consultants as required.
  - 4. Major subcontractors and suppliers as Contractor deems appropriate.
- C. Review and Discuss:
  - 1. Relation and coordination of various parties, and responsible personnel for each party.
  - 2. Use of premises, including office and storage areas, temporary controls, and security procedures.
  - 3. Construction schedule and critical work sequencing.
  - 4. Processing of:
    - a. Contract modifications.
    - b. Shop Drawings, Product Data, and Samples.
    - c. Applications for Payment.
    - d. Substitutions.
    - e. Requests for Information.
    - f. Other required submittals.
  - 5. Adequacy of distribution of Contract Documents.
  - 6. Procedures for maintaining contract closeout submittals.
  - 7. Installation and removal of temporary facilities.
  - 8. Notification procedures and extent of testing and inspection services.

#### 1.6 PROGRESS MEETINGS

- A. Schedule progress meetings as determined at preconstruction meeting and by contract.
- B. Location: Contractor's Project field office.

- C. Attendance:
  - 1. Contractor.
  - 2. Owner.
  - 3. Architect and consultants as appropriate to agenda.
  - 4. Subcontractors and suppliers as appropriate to agenda.
  - 5. Others as appropriate to agenda.
  
- D. Review and Discuss:
  - 1. Work progress since previous meeting, including:
    - a. Field observations, deficiencies, conflicts, and problems.
    - b. Progress and completion date.
    - c. Corrective measures needed to maintain quality standards, progress, and completion date.
  - 2. Status of:
    - a. Requests for information.
    - b. Submittals.
    - c. Contract modifications.
  - 3. Coordination between various elements of Work.
  - 4. Maintenance of Project Record Documents.

#### 1.7 PRE-INSTALLATION CONFERENCES

- A. Where required in individual specification Section, convene a pre-installation conference at project site or other designated location.
- B. Require attendance of parties directly affecting or affected by work of the specific Section.
- C. Review conditions of installation, preparation and installation procedures, and coordination with related work.

#### **PART 2 PRODUCTS**

Not used

#### **PART 3 EXECUTION**

Not used

END OF SECTION

## SECTION 013216

### CONSTRUCTION PROGRESS SCHEDULES

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Construction progress schedule.
- B. Related Sections:
  - 1. Section 011100 - Summary of Work.
  - 2. Section 012900 - Payment Procedures.

##### 1.2 FORMAT

- A. Prepare Progress Schedule as a horizontal bar chart with separate bar for each major portion of Work or operation, identifying first work day of each week.
- B. Sequence of Listings: The chronological order of the start of each item of Work.

##### 1.3 CONTENT

- A. Show complete sequence of construction by activity, with dates for beginning and completion of each element of construction.
- B. Show accumulated percentage of completion of each item, and total percentage of Work completed, as of the first day of each month.
- C. Coordinate content with Schedule of Values specified in Section 012900.

##### 1.4 SUBMITTAL

- A. Submit initial Project Schedule with the Proposer's Proposal.
- B. Submit a final, agreed upon Project Schedule as a condition to the Notice to Proceed, in accordance with the Contract.
- C. Submit revised Progress Schedule with each Application for Payment.
- D. Submit electronically in Adobe PDF format.

#### PART 2 PRODUCTS

Not used

#### PART 3 EXECUTION

Not used

END OF SECTION

## SECTION 013300

### SUBMITTAL PROCEDURES

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Submittal procedures form filled out and complete.
  - 2. Proposed Products.
    - a. Manufacture name
    - b. Make & Model # /or/ item #
    - c. Quantity of each and total
  - 3. Submittal schedule
    - a. Effected time frame highlighted and incorporated to original schedule.
    - b. All deducted and/or additional days identified
  - 4. Shop Drawings.
    - a. All required measurements with specific connection sizes and location on item
    - b. All required clear spaces required for proper function and/or maintenance access
    - c. Required utility requirements and demand
  - 5. Product Data.
    - a. Product testing type, association, results
  - 6. Samples.
  - 7. Quality control submittals.
- B. Related Sections:
  - 1. Section 014000 - Quality Requirements.

##### 1.2 SUBMITTAL PROCEDURES

- A. Number each submittal consistently with the Project Manual section number and a sequential number within each section. Number resubmittals with original number and a numeric suffix.
- B. Identify Project, Contractor, Subcontractor or supplier, pertinent Drawing sheet and detail numbers, and specification Section number, as appropriate.
- C. Submit all submittals listed under "Submittals for Review" simultaneously for each Product or Specification Section.
- D. Where multiple Products function as an assembly, group submittals for all related Products into single submittal.
- E. Architect will not review incomplete or non-conforming submittals.
- F. Apply Contractor's stamp, signed or initialed certifying that:
  - 1. Submittal was reviewed.
  - 2. Products, field dimensions, and adjacent construction have been verified.
  - 3. Information has been coordinated with requirements of Work and Contract Documents.
- G. Schedule submittals to expedite the Project, and deliver to Architect. Coordinate submittal of related items.
- H. For each submittal, allow 14 days for Architect's review, excluding delivery time to and from Contractor.
- I. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of completed Work.

- J. Revise and resubmit submittals when required; identify all changes made since previous submittal.
- K. Distribute copies of reviewed submittals to concerned parties and to Project Record Documents file. Instruct parties to promptly report any inability to comply with provisions.
- L. Submit electronically in Adobe PDF format. Be consistent in email subject header.

### 1.3 SUBMITTAL SCHEDULE

- A. Within 15 days after date of Notice to Proceed, submit a submittal schedule showing all submittals proposed for project, including submittals listed as:
  - 1. Submittals for Review.
  - 2. Quality Control Submittals.
  - 3. Closeout Submittals.
- B. Include for each submittal:
  - 1. Specification section number.
  - 2. Description of submittal.
  - 3. Type of submittal.
  - 4. Anticipated submittal date.
  - 5. For submittals requiring Architect's review, date reviewed submittal will be required from Architect.
- C. Submit electronically in Adobe PDF format.

### 1.4 SHOP DRAWINGS

- A. If changes to the project are made in shop drawings due to field conditions, material availability, or product availability, the change must be clearly stated in the transmittal and clearly noted on the shop drawings. Do not change the design aesthetic of any material or product without written approval of architect.
- B. Identify details by reference to sheet and detail numbers or room number shown on Drawings.
- C. Reproductions of details contained in Contract Documents are not acceptable.
- D. Submit electronically in Adobe PDF format. Architect will return one copy to Contractor in Adobe PDF format.

### 1.5 PRODUCT DATA

- A. Mark each copy to identify applicable products, models, options, and other data.
- B. Supplement manufacturers' standard data to provide information unique to this Project.
- C. Submit electronically in Adobe PDF format. Architect will return one copy to Contractor in Adobe PDF format.

### 1.6 SAMPLES

- A. Submit samples to illustrate functional and aesthetic characteristics of Products, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
- B. Where so indicated, submit samples of finishes from the full range of manufacturers' standard colors, textures, and patterns for Architect's selection.

- C. Include identification on each sample, with full Project information.
- D. Unless otherwise specified in individual specifications, submit two of each sample.
- E. Architect will notify Contractor of approval or rejection of samples, or of selection of color, texture, or pattern if full range is submitted.

1.7 QUALITY CONTROL SUBMITTALS

- A. Quality control submittals specified in Section 014000 are for information and do not require Architect's responsive action except to require resubmission of incomplete or incorrect information.

**PART 2 PRODUCTS**

Not used

**PART 3 EXECUTION**

Not used

END OF SECTION

## SECTION 014000

### QUALITY REQUIREMENTS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. References.
  - 2. Quality assurance and control of installation.
  - 3. Mockups.
  - 4. Manufacturer's field services and reports.
  - 5. Design data and calculations.
  - 6. Test reports and certifications.
  - 7. Manufacturer's installation instructions.

##### 1.2 REFERENCES

- A. For products or workmanship specified by reference to association, trade, or industry standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Should specified reference standards conflict with Contract Documents, request clarification from Architect before proceeding.
- C. Conform to edition of reference standard in effect as of date of Project Manual or as adopted by authorities having jurisdiction.
- D. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

##### 1.3 QUALITY ASSURANCE AND CONTROL OF INSTALLATION

- A. Familiarity with Plans: All trades shall be responsible for work in their respective trade regardless of where references appear. For example, should electrical work appear on an architectural drawing, the electrical contractor will be held responsible for its completion; etc. All contractors should be thoroughly familiar with all plans and specifications sections and the work of all other trades to assure complete coverage and system interface.
- B. The Contractor shall warrant and guarantee all workmanship, labor and materials performed and supplied by him or his subcontractors, for a period of one (1) year from the date of Final Completion as defined in the Contract. This also includes all labor required for replacing materials or equipment found to be defective within the one (1) year period.
- C. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.
- D. Comply fully with manufacturers' instructions, including each step in sequence.
- E. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
- F. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- G. Perform work by persons qualified to produce workmanship of specified quality.

- H. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

#### 1.4 MOCKUPS

- A. Definition:
  - 1. Mockups are field samples constructed, applied, or assembled at the project site for review by the Owner and Architect that illustrate materials, equipment, or workmanship.
  - 2. Approved mockups establish the standard of quality by which the Work will be judged.
- B. Construct, apply, or assemble specified items, with related attachment and anchorage devices, flashings, seals, and finishes.
- C. Perform work in accordance with applicable specifications sections.
- D. Erect at project site at location acceptable to Architect. Protect from damage.
- E. Removal:
  - 1. Mockups may remain as part of the Work only when so designated in individual specification sections.
  - 2. Do not remove mockups until removal is approved by Architect or upon Final Completion.
  - 3. Where mockup is not permitted to remain as part of the Work, clear area after removal of mockup has been approved by Architect.

#### 1.5 MANUFACTURERS' FIELD SERVICES AND REPORTS

- A. When specified in individual specification Sections, require material or Product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, or startup of equipment, as applicable, and to initiate instructions when necessary.
- B. Individuals to report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- C. Submit report to Architect within 10 days of observation.

#### 1.6 DESIGN DATA AND CALCULATIONS

- A. When specified in individual specification Sections, require material or Product suppliers or manufacturers to provide design data and calculations.
- B. Accuracy of design data and calculations is the responsibility of the Contractor.
- C. When so specified, prepare design data and calculations under the direction of a professional engineer licensed in the state in which the Project is located. Affix engineer's seal to submittals.
- D. Submit electronically in Adobe PDF format.

#### 1.7 TEST REPORTS AND CERTIFICATIONS

- A. When specified in individual specification Sections, require material or Product suppliers or manufacturers to provide test reports and manufacturers' certifications.
- B. Indicate that material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Submittals may be recent or previous test results on material or Product, but must be acceptable to Architect.
- D. Submit electronically in Adobe PDF format.

## 1.8 MANUFACTURER'S INSTALLATION INSTRUCTIONS

- A. When Contract Documents require that Products be installed in accordance with manufacturer's instructions:
1. Submit manufacturer's most recent printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, as applicable.
    - a. Submit in quantities specified for Product Data.
    - b. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.
    - c. Identify conflicts between manufacturers' instructions and requirements of Contract Documents.
  2. Perform installation of Products to comply with requirements of manufacturer's instructions.
  3. If installation cannot be performed in accordance with manufacturer's instructions, notify Architect and await instructions.
  4. Submit electronically in Adobe PDF format.

### **PART 2 PRODUCTS**

Not used

### **PART 3 EXECUTION**

Not used

END OF SECTION

## SECTION 014523

### TESTING AND INSPECTION SERVICES

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Laboratory selection and payment.
  - 2. Laboratory duties.
  - 3. Contractor's responsibilities.
- B. Related Sections: Individual specifications sections contain specific tests and inspections to be performed.

##### 1.2 REFERENCES

- A. ASTM International (ASTM):
  - 1. C1077 - Standard Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation.
  - 2. D3666 - Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials.
  - 3. D3740 - Standard Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
  - 4. E329 - Standard Specification for Agencies Engaged in Construction Inspection and/or Testing.
  - 5. E543 - Standard Specification for Agencies Performing Nondestructive Testing.

##### 1.3 QUALITY ASSURANCE

- A. Contractor shall employ and pay for services of an independent testing laboratory to perform specified testing and inspection.
- B. Employment of Testing Laboratory shall in no way relieve Contractor of his obligations to perform work in accordance with Contract Documents.
- C. Refer to the Conditions of the Contract for provisions related to special inspections and testing.
- D. Qualifications of Laboratory:
  - 1. Meet requirements of ASTM C1077, D3666, D3740, E329 and E543.
  - 2. Authorized to operate in State in which project is located.

##### 1.4 LABORATORY DUTIES

- A. Cooperate with Architect and Contractor; provide qualified personnel after due notice.
- B. Perform specified inspections, sampling, and testing of materials and methods of construction:
  - 1. Comply with specified standards.
  - 2. Ascertain compliance or noncompliance of materials with requirements of Contract Documents.
- C. Promptly notify Architect and Contractor of observed irregularities or deficiencies of Work or products.
- D. Promptly submit written report of each test and inspection; submit electronically in Adobe PDF format to Architect and Contractor.
- E. Each report to include:
  - 1. Date issued.
  - 2. Project title and number.

3. Testing Laboratory name, address, and telephone number.
4. Name of Inspector and signature of individual in charge.
5. Date and time of sampling or inspection.
6. Record of temperature and weather conditions.
7. Date of test.
8. Identification of product and specification section.
9. Location of sample or test in project.
10. Type of inspection or test.
11. Results of tests and compliance or noncompliance with Contract Documents.
12. Interpretation of test results when requested by Architect or Contractor.

F. Perform additional tests when required by Architect or Contractor.

G. Laboratory is not authorized to:

1. Release, revoke, alter, or enlarge on requirements of Contract Documents.
2. Approve or accept any portion of work.
3. Perform any duties of Contractor.

## 1.5 CONTRACTOR'S RESPONSIBILITIES

A. Cooperate with Laboratory personnel, provide access to Work, and to manufacturer's operations.

B. When materials require testing prior to being incorporated into Work, secure and deliver to Laboratory adequate quantities of representative samples of materials proposed to be used.

C. Furnish copies of product test reports as required.

D. Furnish incidental labor and facilities:

1. To provide access to work to be tested.
2. To obtain and handle samples at site or at source of product to be tested.
3. To facilitate inspections and tests.
4. For safe storage and curing of test samples.

E. Notify Laboratory sufficiently in advance of operations to allow for Laboratory assignment of personnel and scheduling of tests.

F. When tests or inspections cannot be performed after such notice, reimburse Owner for Laboratory personnel and travel expenses incurred due to Contractor's or Construction Manager's negligence.

G. Make arrangements with Laboratory and pay for additional samples and tests required for Contractor's convenience.

## PART 2 PRODUCTS

Not used

## PART 3 EXECUTION

Not used

END OF SECTION

## SECTION 015000

### TEMPORARY FACILITIES AND CONTROLS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Temporary utilities.
  - 2. Support facilities.
  - 3. Security and protection.
  - 4. Progress cleaning.
  - 5. Dust, and mold and mildew control.
  - 6. Access roads and parking areas.
  - 7. Removal.

#### PART 2 PRODUCTS

Not used

#### PART 3 EXECUTION

##### 3.1 TEMPORARY ELECTRICITY

- A. Connect to existing electrical system for electricity required during construction.
  - 1. Cost of electricity used will be paid for by Owner. Exercise measures to conserve electricity.
  - 2. Regulate system to prevent interference with Owner's normal usage.
  - 3. Maintain continuous power operation of Owner's facilities during changeover of electrical services.
  - 4. Notify Owner when unusually heavy loads will be connected, including welding and other equipment with special power requirements.
  - 5. Provide and pay for required service of capacity or characteristics other than that currently available.
- B. Provide power outlets for construction operations, with branch wiring and distribution boxes located as required. Provide flexible power cords as required.
- C. Maintain distribution system and provide routine repairs.

##### 3.2 TEMPORARY LIGHTING

- A. Provide temporary lighting for construction and security purposes.
- B. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps as required.
- C. Maintain lamps and provide routine repairs.
- D. Provide portable lights when required to provide minimum lighting levels necessary for specific work.

##### 3.3 TEMPORARY HEAT

- A. Utilize existing facilities for heat required during construction.
  - 1. Extend and supplement with temporary heat devices required to maintain specified ambient temperatures for construction.
  - 2. Costs of fuel used from existing facilities will be paid for by Owner. Exercise measures to conserve fuel.

- B. Maintain minimum ambient temperature of 50 degrees F in areas where construction is in progress, unless otherwise indicated in individual specification sections.

#### 3.4 TEMPORARY VENTILATION

- A. Ventilate enclosed areas to facilitate curing of materials, disperse humidity, and prevent accumulations of dust, fumes, vapors, or gases.
- B. Utilize existing ventilation equipment. Extend and supplement with temporary fan units as required to maintain clean air for construction.

#### 3.5 TEMPORARY TELEPHONE, FACSIMILE, AND COMPUTER SERVICES

- A. Contractor shall be accessible during normal business hours via mobile telephone with voice mail or an answering service.

#### 3.6 TEMPORARY WATER

- A. Connect to existing water source for water required for construction.
  - 1. Costs of water used will be paid for by Owner. Exercise measures to conserve water.
- B. Protect from freezing.
- C. Maintain distribution system and provide routine repairs.

#### 3.7 TEMPORARY SANITARY FACILITIES

- A. Provide chemical toilets for use during construction.
- B. Existing toilets may not be used during construction.
- C. Maintain facilities in clean and sanitary condition.

#### 3.8 FIELD OFFICES AND SHEDS

- A. Provide temporary field offices and storage sheds required for construction.
- B. Areas within existing building designated by Owner may be used for field office and storage of materials subject to damage by weather. Store large materials and those not subject to damage by weather outside building.
- C. Do not unreasonably encumber site or premises with excess materials or equipment.
- D. Temporary Structures:
  - 1. Portable or mobile buildings, structurally sound, weathertight, with floors raised above ground.
  - 2. Thermal transmission resistance: Compatible with occupancy and storage requirements.
  - 3. Provide connections for utility services when required.
  - 4. Provide steps and landings at entrances.
- E. Field Office:
  - 1. Size required for Contractor's use and to provide space for project meetings.
  - 2. Adequate electrical power, lighting, heating, and cooling to maintain human comfort.
  - 3. Provide facilities for storage of Project Record Documents.

#### 3.9 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, to allow Owner's use of site and premises, and to protect existing facilities and adjacent properties from construction operations.

- B. Provide barricades required by governing authorities for public right-of-ways.
- C. Fencing:
  1. Provide temporary fencing for construction operations.
  2. Construction: Contractor's option
  3. Height: 6 feet.
  4. Locate to protect construction operations, materials, and equipment.
  5. Provide vehicular and pedestrian gates.
- D. Tree and Plant Protection:
  1. Protect existing trees and plants at site that are designated to remain.
  2. Provide temporary barriers to height of 6 feet around individual or groups of trees and plants.
  3. Do not permit vehicular traffic, parking, storage of materials, dumping of harmful chemicals or liquids, or standing or continuously running water within root zones.
  4. Supervise earthwork operations to prevent damage to root zones.
  5. Replace trees and plants that are damaged or destroyed due to construction operations.

### 3.10 EXTERIOR CLOSURES

- A. Provide temporary weathertight closures for exterior openings to provide acceptable interior working conditions, to allow for temporary heating and maintenance of ambient temperatures required in individual specification sections, to protect the Work, and to prevent entry of unauthorized persons.
- B. Provide access doors with locking hardware.

### 3.11 TEMPORARY PARTITIONS

- A. Provide temporary partitions to separate work areas from occupied areas of building, prevent penetration of dust and moisture into occupied areas, and protect Owner's employees, equipment, and operations from construction activities.
  1. Construction: Wood or Metal framing with reinforced polyethylene covering on Owner occupied side.
  2. Close joints between sheet materials and seal edges and intersections to prevent penetration of dust and moisture.
  3. In locations where fire protection is required, use fire retardant materials or paint with fire retardant paint to provide fire hazard ratings required by applicable codes and regulations.
  4. Paint surfaces exposed to view in Owner occupied areas.

### 3.12 PROTECTION OF INSTALLED WORK

- A. Protect installed work from construction operations; provide special protection when required in individual specification sections.
- B. Minimize traffic, storage, and construction activities on roof surfaces. If traffic, storage, or activity is necessary, obtain recommendations for protection from roofing manufacturer.
- C. Prohibit traffic from landscaped areas.

### 3.13 PROGRESS CLEANING

- A. Maintain areas free from waste materials, debris, and rubbish. Maintain site in clean and orderly condition.
- B. Provide containers for collection of waste materials, debris, and rubbish; remove and dispose of off site as required by construction activities.
- C. Periodically clean interior areas to provide suitable conditions for finish work.

### 3.14 TEMPORARY CONTROLS

- A. Water Control:
  - 1. Grade site to drain. Prevent puddling water.
  - 2. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
  - 3. Provide water barriers to protect site from soil erosion.
  
- B. Erosion and Sediment Control:
  - 1. Plan and execute methods to control surface drainage from cuts, fills, borrow areas, and waste disposal areas. Prevent erosion and sedimentation.
  - 2. Minimize amount of bare soil exposed at any one time.
  - 3. Provide temporary measures such as silt fences, dikes, berms, settlement basins, and drainage systems to prevent water flow and sedimentation.
  - 4. Periodically inspect earthwork to detect erosion and sedimentation; promptly employ corrective measures.
  
- C. Dust Control:
  - 1. Provide dust control materials and methods to minimize dust from construction operations.
  - 2. Prevent dust from dispersing into atmosphere.
  
- D. Mold and Mildew Control:
  - 1. Provide continuous measures to prevent formation of mold and mildew in construction.
  - 2. Do not install materials sensitive to mold and mildew growth until protection can be provided.
  - 3. Promptly remove and replace materials exhibiting mold and mildew growth.

### 3.15 ACCESS ROADS AND PARKING AREAS

- A. Existing roads designated by Owner may be used for construction purposes. Do not allow heavy vehicles or construction equipment in parking areas.
  
- B. Provide for access by emergency vehicles.
  
- C. Keep fire hydrants and water control valves free from obstruction and accessible for use.
  
- D. Provide parking facilities for construction personnel. When parking needs exceed on site capacity, provide additional off site facilities.
  
- E. Maintain existing construction, and restore to original or specified condition at completion of Work.

### 3.16 REMOVAL

- A. Remove temporary utilities, equipment, facilities, and services when construction needs can be met by use of permanent construction or upon completion of Project.
  
- B. Remove foundations and underground installations; grade site as indicated.
  
- C. Clean and repair damage caused by installation or use of temporary work.
  
- D. Restore permanent facilities used during construction to original or to specified condition.

END OF SECTION

**SECTION 016000**  
**PRODUCT REQUIREMENTS**

**PART 1 GENERAL**

1.1 SUMMARY

- A. Section Includes:
  - 1. Products.
  - 2. Transportation and handling.
  - 3. Storage and protection.
  - 4. Reuse of existing materials.
  - 5. Product options.
- B. Related Sections:
  - 1. Section 012500 - Substitution Procedures.

1.2 PRODUCTS

- A. Provide interchangeable components by the same manufacturer for identical items.
- B. Do not use products containing asbestos or other known hazardous materials.
- C. Do not reuse materials and equipment removed from existing construction in completed Work, except as specifically permitted by the Contract Documents.

1.3 TRANSPORTATION AND HANDLING

- A. Coordinate delivery of Products to prevent conflict with Work and adverse conditions at site.
- B. Transport and handle Products in accordance with manufacturer's instructions.
- C. Promptly inspect shipments to ensure that Products comply with requirements of Contract Documents, are undamaged, and quantities are correct.
- D. Provide equipment and personnel to handle products by methods to prevent damage.

1.4 STORAGE AND PROTECTION

- A. Store and protect Products in accordance with manufacturer's instructions with manufacturer's seals and labels intact and legible.
- B. Store Products on site unless prior written approval to store off site has been obtained from Owner.
- C. Store Products subject to damage by elements in weathertight enclosures. Maintain temperature and humidity within ranges required by manufacturer's instructions.
- D. Exterior Storage:
  - 1. Store fabricated Products above ground; prevent soiling and staining.
  - 2. Cover products subject to deterioration with impervious sheet coverings; provide ventilation to prevent condensation.
  - 3. Store loose granular materials in well drained area on solid surfaces; prevent mixing with foreign matter.
- E. Arrange storage areas to permit access for inspection. Periodically inspect stored products to verify that products are undamaged and in acceptable condition.

## 1.5 PRODUCT OPTIONS

- A. Products specified by reference standard only:
  - 1. Select any Product meeting the specified standard.
  - 2. Submit Product Data to substantiate compliance of proposed Product with specified requirements.
- B. Products specified by naming two or more acceptable Products: Select any named Product.
- C. Products specified by stating that the Contract Documents are based on a Product by a single manufacturer followed by the statement "Equivalent products by the following manufacturers are acceptable":
  - 1. Select the specified Product or a Product by a named manufacturer having equivalent or superior characteristics to the specified Product and meeting the requirements of the Contract Documents.
  - 2. If the specified Product is not selected, submit Product Data to substantiate compliance of proposed Product with specified requirements.
  - 3. The specified Product establishes the required standard of quality.
- D. Products specified by naming one or more Products followed by "or approved substitute" or similar statement:
  - 1. Submit a substitution request under provisions of Section 012500 for Products not listed.
  - 2. The specified Product establishes the required standard of quality.
- E. Products specified by naming one or more Products or manufacturers followed by the statement "Substitutions: Under provisions of Division 01":
  - 1. Submit a substitution request under provisions of Section 012500 for Products not listed.
  - 2. The specified Product establishes the required standard of quality.
- F. Products specified by naming one Product followed by the statement "Substitutions: Not permitted": Substitutions will not be allowed.
- G. Products specified by required performance or attributes, without naming a manufacturer or Product:
  - 1. Select any Product meeting specified requirements.
  - 2. Submit Product Data to substantiate compliance of proposed Product with specified requirements.

## PART 2 PRODUCTS

Not used

## PART 3 EXECUTION

Not used

END OF SECTION

## SECTION 017700

### CLOSEOUT PROCEDURES

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Closeout procedures.
  - 2. Final cleaning.
  - 3. Adjusting.
  - 4. Project record documents.
  - 5. Operation and maintenance data.
  - 6. Warranties.
  - 7. Spare parts and maintenance materials.
  - 8. Starting of systems.
  - 9. Demonstration and instructions.

##### 1.2 CLOSEOUT PROCEDURES

- A. Final Inspection:
  - 1. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with the Contract Documents and ready for Architect's inspection.
  - 2. If Architect performs reinspection due to failure of Work to comply with claims of status of completion made by Contractor, Owner will compensate Architect for such additional services and will deduct the amount of such compensation from final payment to Contractor.
- B. Submit final Application for Payment showing original Contract Sum, adjustments, previous payments, retainage withheld from previous payments, and sum remaining due.
- C. Closeout Submittals:
  - 1. Evidence of compliance with requirements of governing authorities, if any.
  - 2. Certificate of Occupancy, or equivalent as determined by the Owner.
  - 3. Project Record Documents.
  - 4. Operation and Maintenance Data.
  - 5. Warranties.
  - 6. Keys and keying schedule.
  - 7. Spare parts and maintenance materials.
  - 8. Evidence of payment of Subcontractors and suppliers.
  - 9. Final lien waiver.
  - 10. Certificate of insurance for products and completed operations.
  - 11. Consent of Surety to final payment.
- D. Owner will occupy portion of the building as specified in Section 01 1100.

##### 1.3 FINAL CLEANING

- A. Execute final cleaning prior to final inspection.
- B. Clean surfaces exposed to view:
  - 1. Clean glass.
  - 2. Remove temporary labels, stains and foreign substances.
  - 3. Polish transparent and glossy surfaces.
  - 4. Vacuum carpeted surfaces; damp mop hard surface flooring.
- C. Clean equipment and fixtures to a sanitary condition.

- D. Clean or replace filters of operating equipment.
- E. Clean debris from roofs and drainage systems.
- F. Clean site; sweep paved areas, rake clean landscaped surfaces.
- G. Remove waste and surplus materials, rubbish, and construction facilities from the site.

#### 1.4 ADJUSTING

- A. Adjust operating Products and equipment to ensure smooth and unhindered operation.

#### 1.5 PROJECT RECORD DOCUMENTS

- A. Maintain following record documents on site; record actual revisions to the Work:
  - 1. Drawings.
  - 2. Specifications.
  - 3. Addenda.
  - 4. Change Orders and other Modifications to the Contract.
  - 5. Reviewed Shop Drawings, Product Data, and Samples.
  - 6. Material Safety Data Sheets.
- B. Store Record Documents separate from documents used for construction.
- C. Record information concurrent with construction progress.
- D. Make entries neatly and accurately.
- E. Label each set or volume with "PROJECT RECORD DOCUMENTS", project title, and description of contents.
  - 1. Organize contents according to Project Manual table of Contents.
  - 2. Provide table of contents for each volume.
- F. Drawings: Mark each item to record actual construction including:
  - 1. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
  - 2. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
  - 3. Field changes of dimension and detail.
  - 4. Details not on original Drawings.
- G. Specifications: Mark each Product section description of actual Products installed, including the following:
  - 1. Manufacturer's name and product model and number.
  - 2. Product substitutions or alternates utilized.
  - 3. Changes made by Addenda and Modifications.
- H. Shop Drawings: Mark each item to record actual construction including:
  - 1. Field changes of dimension and detail.
  - 2. Details not on original Shop Drawings.
- I. Submit electronically in Adobe PDF format.

#### 1.6 OPERATION AND MAINTENANCE DATA

- A. Identify as "OPERATION AND MAINTENANCE INSTRUCTIONS" and title of project.
- B. Contents:
  - 1. Directory: List names, addresses, and telephone numbers of Architect, Contractor, Subcontractors, and major equipment suppliers.

2. Operation and maintenance instructions: Arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
    - a. Significant design criteria.
    - b. List of equipment.
    - c. Parts list for each component.
    - d. Operating instructions.
    - e. Maintenance instructions for equipment and systems.
    - f. Maintenance instructions for special finishes, including recommended cleaning methods and materials and special precautions identifying detrimental agents.
  3. Project documents and certificates including:
    - a. Shop drawings and product data.
    - b. HVAC balance reports.
    - c. Certificates.
    - d. Copies of warranties and bonds.
- C. Submittal:
1. Submit electronically in Adobe PDF format at least 15 days prior to final inspection.
  2. Architect will notify Contractor of any required revisions after final inspection.
  3. Revise content of documents as required prior to final submittal.
  4. Submit revised documents electronically in Adobe PDF format within 10 days after final inspection.

## 1.7 WARRANTIES

- A. Execute and assemble documents from Subcontractors, suppliers, and manufacturers.
- B. Include Table of Contents.
- C. Submit electronically in Adobe PDF format
- D. For items of Work delayed beyond date of Substantial Completion, provide updated submittal within 10 days after acceptance, listing date of Final Completion as start of warranty period.

## 1.8 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Provide products, spare parts, maintenance and extra materials in quantities specified in individual specification Sections.
- B. Deliver to Project site in location as directed; obtain receipt from Owner prior to final payment.
- C. Packaging:
  1. Leave products in original packaging when possible.
  2. Supplement and reinforce original packaging when required to ensure safe transport and storage.
  3. Clearly mark containers to identify contents.

## 1.9 STARTING OF SYSTEMS

- A. Notify Owner and Architect at least seven days prior to startup of each system or piece of equipment.
- B. Prior to beginning startup verify that:
  1. Lubrication has been performed.
  2. Drive rotation, belt tension, control sequences, tests, meter readings, and electrical characteristics are within manufacturer's requirements.
  3. Utility connections and support components are complete and tested.
- C. Execute start-up under supervision of applicable manufacturer's representative or Contractor's personnel in accordance with manufacturers' instructions.

- D. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to startup, and to supervise placing equipment or system in operation.
- E. Submit written report that equipment or system has been properly installed and is functioning correctly.

#### 1.10 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of Products to Owner's personnel two weeks prior to date of Substantial Completion.
- B. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- C. Utilize Operation and Maintenance Manuals as basis for instruction. Review contents of manual with Owners' personnel in detail to explain all aspects of operation and maintenance.
- D. Demonstrate startup, operation, control, adjustment, troubleshooting, servicing, maintenance, and shutdown of each item of equipment at agreed upon times, at equipment location.
- E. Prepare and insert additional data in Operation and Maintenance Manuals when need for additional data becomes apparent during instruction.

#### **PART 2 PRODUCTS**

Not used

#### **PART 3 EXECUTION**

Not used

END OF SECTION

**SECTION 024119**  
**SELECTIVE DEMOLITION**

**PART 1 GENERAL**

1.1 SUMMARY

- A. Section Includes:
  - 1. Removal of designated building construction, equipment, and fixtures.
  - 2. Identification of utilities.
- B. Related Sections:
  - 1. Division 01 - Administrative, procedural, and temporary work requirements.

1.2 SUBMITTALS

- A. Submittals for Review:
  - 1. Shop Drawings: Indicate areas for demolition, removal sequence and location of salvageable items, and location and construction of temporary work.

1.3 REGULATORY REQUIREMENTS

- A. Conform to applicable code for demolition work, safety of structure, and dust control.
- B. Obtain required permits from authorities.
- C. Notify affected utility companies before starting work and comply with their requirements.
- D. Conform to applicable codes when hazardous or contaminated materials are discovered.
- E. Do not close or obstruct exits.

1.4 PROJECT CONDITIONS

- A. Minimize interference with streets, walks, public right-of-ways, and adjacent facilities.
- B. If hazardous materials are discovered, notify Architect and Owner and await instructions.
- C. If any of the following conditions are encountered, cease work immediately, notify Architect, and Owner and await instructions:
  - 1. Structure is in danger of movement or collapse.
  - 2. Materials or conditions encountered differ from those designated in the Contract Documents.

**PART 2 PRODUCTS**

Not used

**PART 3 EXECUTION**

3.1 PREPARATION

- A. Erect temporary partitions, barricades, warning devices, and controls.
- B. Provide protective coverings, shoring, bracing, and supports for construction designated to remain.

C. Temporarily or permanently disconnect utilities as required.

### 3.2 DEMOLITION

A. Remove existing construction to extent indicated and as necessary to join new work to existing. Do not remove more than is necessary to allow for new construction.

B. Do not damage work designated to remain.

C. Minimize noise and spread of dirt and dust.

D. Assign work to trades skilled in procedures involved.

E. Plug ends of disconnected utilities with threaded or welded caps.

F. Protect and support active utilities designated to remain. Post warning signs showing location and type of utility and type of hazard.

G. Store items designated to remain property of Owner where directed by Owner.

H. Remove and dispose of waste materials off site.

END OF SECTION

## SECTION 03 1000

### CONCRETE FORMING

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Forms for cast-in-place concrete, with shoring, bracing, and anchorage.
  - 2. Form accessories.
  - 3. Stripping of forms.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
- C. Coordinate all work with Structural Engineering Drawings and Notes. Should conflicts exist with Structural Drawings, the more stringent requirement shall be adhered to. Notify the Architect of any discrepancies prior to the purchase of any materials.

##### 1.2 REFERENCES

- A. American Concrete Institute (ACI):
  - 1. 301 - Specifications for Structural Concrete for Buildings.
  - 2. 347 - Recommended Practice for Concrete Formwork.
- B. American Society of Mechanical Engineers (ASME) A17.1 - Safety Code for Elevators and Escalators.
- C. Engineered Wood Association (APA) PRP-108 - Performance Standards and Qualification Policy for Structural-Use Panels.

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Shop Drawings: Diagram of proposed construction joints not indicated on Drawings.

##### 1.4 QUALITY ASSURANCE

- A. Design formwork in accordance with ACI 301 and 347 under supervision of Professional Structural Engineer licensed in State in which project is located if required.

#### PART 2 PRODUCTS

##### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers - Form Accessories:
  - 1. Dayton Superior.
  - 2. Meadow Burke.
- B. Substitutions: Under provisions of Division 01.

##### 2.2 MATERIALS

- A. Forms:
  - 1. Wood, metal, glass fiber, or other approved material that will not adversely affect surface of concrete and will provide or facilitate obtaining specified surface finish.
  - 2. Wood:
    - a. Concealed surfaces:

- 1) Lumber, No. 2 Common or better, dressed to smooth contact surfaces.
  - 2) APA Rated Plyform Class I or Plyform Structural I with HDO faces.
  - b. Exposed surfaces: Non absorptive medium density overlay plywood.
  3. Metal: Minimum 16 gage steel, tight fitting, stiffened to support concrete.
- B. Tubular Forms:
1. Round, spirally wound laminated fiberboard, surface treated with release agent, non reusable.

### 2.3 ACCESSORIES

- A. Form Ties: Snap off or Removable type, adjustable length, 1 inch back break dimension, free of defects that could leave holes larger than 1 inch in concrete.
- B. Form Release Agent: Nonstaining, colorless mineral oil that will not absorb moisture, stain concrete, or impair adhesion of coatings to be applied to concrete.
- C. Waterstops: PVC or approved substitute.
- D. Construction Joints Forms: Formed galvanized steel, minimum 18 gage, with keyway.
- E. Anchors and Fasteners: Size as required, sufficient strength to maintain forms in place while concrete is placed.

## PART 3 EXECUTION

### 3.1 CONSTRUCTION

- A. Construct formwork, shoring, and bracing to produce concrete of required shape, line, and dimension.
- B. Arrange and assemble formwork with minimum joints, located to allow dismantling without damage to concrete.
- C. Make joints watertight.
- D. Provide chamfer strips in corners of forms to produce beveled external corners.
- E. Camber formwork to compensate for deflection during concrete placement.
- F. Adjust supports to take up settlement caused by concrete placement.
- G. Provide temporary openings in formwork to allow cleaning and observation; locate at bottom of forms. Close with tight fitting panels flush with face of forms.
- H. Construct forms for beams and girders so that sides may be removed without disturbing bottom of form or its support.
- I. Clean contact and screed surfaces prior to concrete placement.
- J. Construction Joints:
  1. Unless otherwise indicated on drawings, each unit of construction is a single unit; place concrete continuously to provide monolithic construction.
  2. Obtain Architect's approval of construction joint locations not indicated on Drawings.
  3. Provide keys and dowels in joints.
  4. Use construction joint form for joints in floor slabs. Set screed edge at required elevation. Secure to prevent movement.
- K. Form Release Agent:
  1. Apply form release agent to formwork prior to placing reinforcing, anchoring devices, and embedded items; follow manufacturer's instructions.

2. Do not allow agent to puddle in forms or to contact hardened concrete against which fresh concrete is to be placed.
- L. Waterstops:
1. Install waterstops at below-grade joints in concrete.
  2. Install continuously without displacing reinforcement.
- M. Inserts and Embedded Parts:
1. Before concrete is placed, install inserts, anchor slots, anchor bolts, and embedded parts required for attachment of work.
  2. Provide formed openings where required for pipes, conduits, sleeves, and other work passing through concrete members.
  3. Maintain in position during concrete placement.
- N. Form Removal:
1. Do not remove formwork until concrete has attained sufficient strength to resist dead loads plus applied live loads (two-thirds of the 28 day design strength).
  2. Remove formwork in manner that will not damage surfaces of concrete; patch work damaged during form removal operations.
  3. Provide shoring, reshoring, and bracing as required.
- O. Installation Tolerances:
1. Construct formwork to maintain tolerances required by ACI 301.

END OF SECTION

## SECTION 03 2000

### CONCRETE REINFORCING

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Reinforcing bars, wire fabric, and accessories for cast-in-place concrete.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
- C. Coordinate all work with Structural Engineering Drawings and Notes. Should conflicts exist with Structural Drawings, the more stringent requirement shall be adhered to. Notify the Architect of any discrepancies prior to the purchase of any materials.

##### 1.2 REFERENCES

- A. American Concrete Institute (ACI) 301 - Specifications for Structural Concrete for Buildings.
- B. ASTM International (ASTM):
  - 1. A185/A185M - Standard Specification for Welded Steel Wire Reinforcement, Plain, for Concrete.
  - 2. A615/A 615M - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
  - 3. A767 - Standard Specification for Zinc-Coated (Galvanized) Bars for Concrete Reinforcement.
  - 4. D3963 - Standard Specification for Fabrication and Jobsite Handling of Epoxy-Coated Reinforcing Steel.
- C. American Welding Society (AWS) D1.4/D1.4M - Structural Welding Code - Reinforcing Steel.
- D. Concrete Reinforcing Steel Institute (CRSI):
  - 1. Manual of Practice.
  - 2. Publication 63 - Recommended Practice for Placing Reinforcing Bars.
  - 3. Publication 65 - Recommended Practice for Placing Bar Supports, Specifications and Nomenclature.

##### 1.3 SUBMITTALS

- A. Submittals for Review: Coordinate with Structural Engineering Drawings.
  - 1. Shop Drawings:
    - a. Include bar sizes, spacings, laps, locations, and quantities of reinforcing bars, wire fabric, and accessories.
    - b. Provide bending and cutting schedules.
    - c. Show complete layout plan for each layer of reinforcing.

##### 1.4 DELIVERY, STORAGE AND HANDLING

- A. Deliver reinforcing to project site in bundles marked with tags indicating bar size, length, and mark.
- B. Store reinforcing above ground in dry, well drained area; protect from corrosion.

#### PART 2 PRODUCTS

##### 2.1 MATERIALS

- A. Reinforcing Bars:

1. ASTM A615/A615M, deformed billet steel, Grade as indicated on Drawings.
  2. Finish: Plain.
- B. Welded Wire Fabric:
1. ASTM A185/A185M.
  2. Finish: Plain.

## 2.2 ACCESSORIES

- A. Spacers, Chairs, Bolsters, and Bar Supports:
1. Sized and shaped for strength and support of reinforcement during concrete placement.
  2. Galvanized or plastic coated steel for surfaces exposed to weather.
- B. Tie Wire: Annealed steel, minimum 16 gage.

## 2.3 FABRICATION

- A. Fabricate in accordance with ACI 301 and CRSI Manual.
- B. Bend bars cold; do not heat or bend by makeshift methods. Discard damaged bars.
- C. Welding: AWS D1.4/D1.4M.
- D. Fabrication Tolerances: See Structural Drawings.

## PART 3 EXECUTION

### 3.1 PREPARATION

- A. Before placing in work, thoroughly clean reinforcing of loose rust, mill scale, dirt, oil, and other materials that could reduce bonding.
- B. Inspect reinforcing left protruding for future bonding or following delay in work, and clean if necessary.

### 3.2 INSTALLATION

- A. Install reinforcing in accordance with ACI 301, and CRSI Manual and Publications 63 and 65.
- B. Accurately position reinforcing; securely tie at intersections.
- C. Welding: AWS D1.4/D1.4M.
- D. Install wire fabric reinforcing in longest practical lengths. Offset end laps in adjacent widths to prevent continuous lap.
- E. Do not displace or damage vapor retarder.
- F. Locate splices not indicated on Drawings at points of minimum stress.

END OF SECTION

## SECTION 033000

### CAST-IN-PLACE CONCRETE

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Cast-in-place concrete for foundations, paving, slabs on grade and supported slabs.
  - 2. Equipment pads.
  - 3. Bases for flagpoles and lighting fixtures.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

##### 1.2 REFERENCES

- A. American Concrete Institute (ACI):
  - 1. 301 - Structural Concrete for Buildings.
  - 2. 305R - Hot Weather Concreting.
  - 3. 306R - Cold Weather Concreting.
  - 4. 308 - Standard Practice for Curing Concrete.
  - 5. 318 - Building Code Requirements for Structural Concrete.
- B. ASTM International (ASTM):
  - 1. C31 - Standard Test Method for Method of Making and Curing Concrete Test Specimens in the Field.
  - 2. C33 - Standard Specification for Concrete Aggregates.
  - 3. C39 - Standard Test Method for Test Method for Compressive Strength of Cylindrical Concrete Specimens.
  - 4. C94 - Standard Specification for Ready-Mixed Concrete.
  - 5. C143 - Standard Test Method for Slump of Portland Cement Concrete.
  - 6. C150 - Standard Specification for Portland Cement.
  - 7. C171 - Standard Specification for Sheet Materials for Curing Concrete.
  - 8. C172 - Standard Test Method for Method of Sampling Freshly Mixed Concrete.
  - 9. C231 - Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
  - 10. C260 - Standard Specification for Air-Entraining Admixtures for Concrete.
  - 11. C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
  - 12. C330 - Standard Specification for Lightweight Aggregates for Structural Concrete.
  - 13. C494 - Standard Specification for Chemical Admixtures for Concrete.
  - 14. C618 - Standard Specification for Fly Ash and Raw or Calcined Natural Pozzolans for Use as a Mineral Admixture in Portland Cement Concrete.
  - 15. C1116/1116M - Standard Specification for Fiber-Reinforced Concrete and Shotcrete.
  - 16. D1752 - Standard Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction.

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Concrete Mix Designs: Include:
    - a. Proportions of cement, fine and coarse aggregates and water.
    - b. Combined aggregate gradation.
    - c. Aggregate specific gravities and gradations.

- d. Water/cement ratio, design strength, slump, and air content.
- e. Type of cement and aggregates.
- f. Air dry density and split cylinder ratio for lightweight concrete.
- g. Type and proportion of admixtures.
- h. Special requirements for pumping.
- i. Range of ambient temperature and humidity for which design is valid.
- j. Special characteristics of mix requiring precautions in mixing, placing, or finishing techniques to achieve finished product.

#### 1.4 QUALITY ASSURANCE

- A. Concrete Mix Design: In accordance with ACI 301, Method 1 or 2.

#### 1.5 DELIVERY, STORAGE AND HANDLING

- A. Mix and deliver concrete to project ready mixed in accordance with ASTM C94.
- B. Schedule delivery so that pours will not be interrupted for over 15 minutes.
- C. Place concrete on site within 90 minutes after proportioning materials at batch plant.

#### 1.6 PROJECT CONDITIONS

- A. Cold Weather Placement - Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures. Comply with ACI 306R and following requirements:
  - 1. Air temperature at or expected to fall below 40 degrees F, uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 degrees F and not more than 80 degrees F at point of placement.
  - 2. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
  - 3. Do not use calcium chloride, salt, and other materials containing antifreeze agents or chemical accelerators unless otherwise accepted in mix designs.
- B. Hot Weather Placement - Place concrete in accordance with ACI 305R and following requirements:
  - 1. Cool ingredients before mixing to maintain concrete temperature at time of placement below 90 degrees F. Use chilled mixing water or chopped ice if water equivalent of ice is calculated in total amount of mixing water.
  - 2. If required, cover reinforcing steel with water soaked burlap so that steel temperature will not exceed ambient air temperature.
  - 3. Fog spray forms, reinforcing steel, and subgrade just before concrete is placed.
  - 4. Use water-reducing retarding admixture when required by high temperatures, low humidity, or other adverse placing conditions.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers - Concrete Chemicals:
  - 1. BASF Corporation. ([www.buildingsystems.basf.com](http://www.buildingsystems.basf.com))
  - 2. Dayton Superior. ([www.daytonsuperior.com](http://www.daytonsuperior.com))
  - 3. W. R. Meadows, Inc. ([www.wrmeadows.com](http://www.wrmeadows.com))
- B. Substitutions: Under provisions of Division 01.

### 2.2 MATERIALS

- A. Portland Cement: ASTM C150, Type – see Structural Drawings and Specifications.
- B. Aggregates: See Structural Drawings and Specifications for Aggregate Schedule.
  - 1. Fine: ASTM C33, clean, hard, durable, uncoated natural sand, free from silt, loam, and clay.
  - 2. Coarse: ASTM C33, clean, hard, durable, uncoated crushed stone, maximum size No. 467, Table No. 2.

## 2.3 ACCESSORIES

- A. Water: Clean and potable.
- B. Admixtures:
  - 1. Water reducing or water reducing/set retarding: ASTM C494, Type A or D.
  - 2. Air entraining: ASTM C260.
- C. Expansion Joint Filler: ASTM D1752, non asphaltic type.
- D. Non Shrink Grout: Premixed, consisting of non-metallic aggregate, cement, water reducing and plasticizing agents; minimum 4,000 psi compressive strength at 28 days.
- E. Bonding Agent: Two component modified epoxy resin.
- F. Curing Compound: ASTM C309, solvent based type.
- G. Curing Paper: ASTM C171, waterproof paper or polyethylene film.

## 2.4 MIXES

- A. Proportions: In accordance with ACI 301.
- B. Design concrete to yield characteristics as scheduled on Structural Drawings and Specifications.
- C. Air Entrained Concrete: Provide air entraining admixture as noted in Structural Drawings and Specifications.
- D. Use accelerating admixture in cold weather only when approved by Structural Engineer. Use of admixtures will not reduce cold weather placement requirements.

## **PART 3 EXECUTION**

### 3.1 PREPARATION

- A. Notify Architect and Testing Laboratory minimum 24 hours prior to placing concrete.
- B. Accurately position anchor bolts, sleeves, conduit, inserts, and accessories. Do not cut reinforcing steel to facilitate installation of inserts or accessories.
- C. Remove water and debris from forms and excavations.
- D. Close openings left in forms for cleaning and inspection.
- E. Prepare previously placed [and existing] concrete surfaces by cleaning with steel wire brush and applying bonding agent in accordance with manufacturer's instructions.

- F. Where new concrete is doweled to existing, drill holes in existing concrete, insert steel dowels, and pack holes solid with non shrink grout.

### 3.2 PLACEMENT OF CONCRETE

- A. Place concrete in accordance with ACI 301 and ACI 318.
- B. Ensure reinforcement, inserts, and embedded parts are not disturbed during concrete placement.
- C. Deposit concrete as nearly as possible in its final position to minimize handling and flowing.
- D. Place concrete continuously between predetermined expansion, control, and construction joints.
- E. Do not place partially hardened, contaminated, or retempered concrete.
- F. Do not allow concrete to free fall over 5 feet; provide tremies, chutes, or other means of conveyance.
- G. Consolidate concrete with mechanical vibrating equipment. Hand compact in corners and angles of forms.
- H. Screed slabs level, to flatness tolerance of 1/8 inch in 10 feet.

### 3.3 PLACEMENT OF SEPARATE FLOOR TOPPING

- A. Prior to placing toppings, remove deleterious material from concrete substrates; broom surfaces clean.
- B. Apply bonding agent to concrete substrate; follow manufacturer's instructions.

### 3.4 PLACEMENT OF GROUT

- A. Remove loose and foreign matter from concrete; lightly roughen bonding surface.
- B. Just prior to grouting, thoroughly wet concrete surfaces; remove excess water.
- C. Mix grout in accordance with manufacturer's instructions. Do not re-temper.
- D. Place grout continuously, by most practical means; avoid entrapped air. Do not vibrate grout.

### 3.5 PROTECTION

- A. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
- C. Provide artificial heat to maintain temperature of concrete above minimum specified temperature for duration of curing period.
- D. Keep forms sufficiently wet to prevent cracking of concrete or loosening of form joints.

### 3.6 CURING

- A. Cure concrete in accordance with ACI 308:

1. Horizontal surfaces:
    - a. See Room Finish Schedule and Structural Drawings for locations of Concrete Curing / Vapor Emission and Alkalinity Control System.
    - b. Other surfaces: Use either curing paper or curing compound method.
  2. Vertical surfaces: Use either wet curing or curing compound method.
- B. Curing Compound Method:
1. Per Manufacturer's instructions.
- C. Curing Paper Method:
1. Spread curing paper over surfaces, lapping ends and sides minimum 4 inches; maintain in place by use of weights.
  2. Remove paper after curing.
- D. Wet Curing Method: Spray water over surfaces and maintain wet for 7 days.

### 3.7 CLEANING

- A. Remove efflorescence, stains, oil, grease, and foreign materials from exposed surfaces.

### 3.8 FIELD QUALITY CONTROL

- A. Testing and Inspection Services:
  1. Certify each delivery ticket.
  2. Record time at which concrete was discharged from truck.
  3. Monitor and record amount of water and water reducing admixture added to concrete at project site.
  4. Determine ambient temperature and temperature of concrete sample for each set of test cylinders.
  5. Test cylinders:
    - a. Make test cylinders in accordance with ASTM C172; one set of 3 cylinders for each 100 cubic yards placed in any one day, for each different class of concrete.
    - b. Mold and cure cylinders in accordance with ASTM C31; test cylinders in accordance with ASTM C39; one at 7 days and two at 28 days.
  6. Slump tests: Make slump tests at beginning of each day's placement and for each set of test cylinders in accordance with ASTM C143.
  7. Air content: Determine total air content of air entrained concrete for each strength test in accordance with ASTM C231.

### 3.9 CONCRETE SCHEDULE

- A. See Structural Drawings and Specifications.

END OF SECTION

SECTION 033000  
CAST-IN-PLACE CONCRETE

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Concrete formwork.
- C. Concrete reinforcement.
- D. Joint devices associated with concrete work.
- E. Miscellaneous concrete elements, including equipment pads and equipment pits.
- F. Concrete curing.

1.02 REFERENCE STANDARDS

- A. ACI 117 - Specifications for Tolerances for Concrete Construction and Materials; 2010 (Reapproved 2015).
- B. ACI 211.1 - Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete; 1991 (Reapproved 2009).
- C. ACI 301 - Specifications for Structural Concrete; 2016.
- D. ACI 302.1R - Guide to Concrete Floor and Slab Construction; 2015.
- E. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete; 2000 (Reapproved 2009).
- F. ACI 305R - Guide to Hot Weather Concreting; 2010.
- G. ACI 306R - Guide to Cold Weather Concreting; 2016.
- H. ACI 308R - Guide to External Curing of Concrete; 2016.
- I. ACI 318 - Building Code Requirements for Structural Concrete and Commentary; 2014 (Errata 2018).
- J. ACI 347R - Guide to Formwork for Concrete; 2014, with Errata (2017).
- K. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement; 2020.
- L. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete; 2018a.
- M. ASTM C1602/C1602M - Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete; 2012.

- N. ASTM C33/C33M - Standard Specification for Concrete Aggregates; 2018.
- O. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens; 2020.
- P. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete; 2020.
- Q. ASTM C150/C150M - Standard Specification for Portland Cement; 2020.
- R. ASTM C171 - Standard Specification for Sheet Materials for Curing Concrete; 2016.
- S. ASTM C173/C173M - Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method; 2016.
- T. ASTM C260/C260M - Standard Specification for Air-Entraining Admixtures for Concrete; 2010a (Reapproved 2016).
- U. ASTM C330/C330M - Standard Specification for Lightweight Aggregates for Structural Concrete; 2017a.
- V. ASTM C494/C494M - Standard Specification for Chemical Admixtures for Concrete; 2019.
- W. ASTM C618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete; 2019.
- X. ASTM D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types); 2018.
- Y. ASTM E1643 - Standard Practice for Selection, Design, Installation and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs; 2018a.
- Z. ASTM E1745 - Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs; 2017.

#### 1.03 SUBMITTALS

- A. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements and installation instructions.
- B. Mix Design: Submit proposed concrete mix design.
- C. Test Reports: Submit a report for each test or series of tests specified.

#### 1.04 QUALITY ASSURANCE

- A. Perform work of this section in accordance with ACI 301 and ACI 318.
  - 1. Maintain one copy of each document on site.
- B. Follow recommendations of ACI 305R when concreting during hot weather.
- C. Follow recommendations of ACI 306R when concreting during cold weather.

## PART 2 PRODUCTS

### 2.01 FORMWORK

- A. Formwork Design and Construction: Comply with guidelines of ACI 347R to provide formwork that will produce concrete complying with tolerances of ACI 117.
- B. Form Materials: Proposer's choice of standard products with sufficient strength to withstand hydrostatic head without distortion in excess of permitted tolerances.
  - 1. Form Coating: Release agent that will not adversely affect concrete or interfere with application of coatings.
  - 2. Form Ties: Cone snap type that will leave no metal within 1-1/2 inches of concrete surface.

### 2.02 REINFORCEMENT MATERIALS

- A. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi).
  - 1. Type: Deformed billet-steel bars.
  - 2. Finish: Unfinished, unless otherwise indicated.
- B. Steel Welded Wire Reinforcement (WWR): Plain type, ASTM A1064/A1064M.
  - 1. Form: Flat Sheets.
  - 2. WWR Style: As indicated on drawings.
- C. Reinforcement Accessories:
  - 1. Tie Wire: Annealed, minimum 16 gage, 0.0508 inch.
  - 2. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for adequate support of reinforcement during concrete placement.
  - 3. Provide galvanized, plastic, or plastic coated steel components for placement within 1-1/2 inches of weathering surfaces.

### 2.03 CONCRETE MATERIALS

- A. Cement: ASTM C150/C150M, Type III – High Early Strength Cement.
  - 1. Acquire cement for entire project from same source.
- B. Fine and Coarse Aggregates: ASTM C33/C33M.
  - 1. Acquire aggregates for entire project from same source.
  - 2. Coarse aggregates shall be strong, clean crushed limestone complying with ASTM C33/C33M, size no. 67 provided from one source.
  - 3. Sand: Clean sharp, natural sand, graded in accordance with ASTM C33.

- C. Fly Ash: ASTM C618, Class C or F.
- D. Water: ASTM C1602/C1602M; clean, potable, and not detrimental to concrete.

#### 2.04 ADMIXTURES

- A. Do not use chemicals that will result in soluble chloride ions in excess of 0.1 percent by weight of cement.
- B. Air Entrainment Admixture: ASTM C260/C260M.
- C. High Range Water Reducing and Retarding Admixture: ASTM C494/C494M Type G.
- D. High Range Water Reducing Admixture: ASTM C494/C494M Type F.
  - 1. Manufacturers:
    - a. Euclid Chemical Company; PLASTOL 6420: [www.euclidchemical.com/#sle](http://www.euclidchemical.com/#sle).
- E. Water Reducing and Accelerating Admixture: ASTM C494/C494M Type E.
  - 1. Manufacturers:
    - a. Euclid Chemical Company; ACCELGUARD 80: [www.euclidchemical.com/#sle](http://www.euclidchemical.com/#sle).
- F. Accelerating Admixture: ASTM C494/C494M Type C.
  - 1. Manufacturers:
    - a. W. R. Meadows, Inc; Hydraset: [www.wrmeadows.com/#sle](http://www.wrmeadows.com/#sle).
- G. Retarding Admixture: ASTM C494/C494M Type B.
- H. Water Reducing Admixture: ASTM C494/C494M Type A.

#### 2.06 BONDING AND JOINTING PRODUCTS

- A. Isolation Joint Filler: 1/2 inch thick, height equal to slab thickness, with removable top section that will form 1/2 inch deep sealant pocket after removal.
  - 1. Material: ASTM D1751, cellulose fiber.
  - 2. Manufacturers:
    - a. W. R. Meadows, Inc; Fiber Expansion Joint Filler with Snap-Cap: [www.wrmeadows.com/#sle](http://www.wrmeadows.com/#sle).
    - b. or approved equal.
- B. Epoxy Bonding Adhesive with integrated Anti-Corrosion Primer: ASTM C 881, three-component epoxy resin, capable of humid curing and bonding to damp surfaces, of class suitable for application temperature and of grade to suit requirements, and as follows:
  - 1. Types IV and V, load bearing, for bonding hardened or freshly mixed concrete to hardened concrete.
  - 2. Manufacturers:

- a. Sika, Corp; Sika Armatec-110 EpoCem
- b. or approved equal.

## 2.07 CURING MATERIALS

- A. Curing Compound, Naturally Dissipating: Clear, water-based, liquid membrane-forming compound; complying with ASTM C309.
- B. Moisture-Retaining Sheet: ASTM C171.
  - 1. Polyethylene film, white opaque, minimum nominal thickness of 4 mil, 0.004 inch.
  - 2. White-burlap-polyethylene sheet, weighing not less than 3.8 ounces per square yard.
- C. Water: Potable, not detrimental to concrete.

## 2.08 CONCRETE MIX DESIGN

- A. Proportioning Normal Weight Concrete: Comply with ACI 211.1 recommendations.
- B. Admixtures: Add acceptable admixtures as recommended in ACI 211.1 and at rates recommended or required by manufacturer.
- C. Normal Weight Concrete:
  - 1. Compressive Strength, when tested in accordance with ASTM C39/C39M at 28 days as follows:
    - a. All general uses not otherwise specified: 5,000 psi at 28 days
  - 2. Water-Cement Ratio:
    - a. General Use: 0.42 max
  - 3. Total Air Content: as determined in accordance with ASTM C173/C173M.
    - a. General Use: 6.0% (+/- 1.5%)
  - 4. Maximum Slump: 5 inches (+/-1") inches.
  - 5. Maximum Aggregate Size: 3/4 inch.

## 2.09 MIXING

- A. Transit Mixers: Comply with ASTM C94/C94M.
- B. Adding Water: If concrete arrives on-site with slump less than suitable for placement, do not add water that exceeds the maximum water-cement ratio or exceeds the maximum permissible slump.
- C. All concrete shall be mixed until there is uniform distribution of materials and shall be discharged completely before mixer is recharged.
- D. If concrete is not placed within 90 minutes after batched or if the concrete has become partially set, the concrete will be rejected and shall be disposed of off-site.

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Verify lines, levels, and dimensions before proceeding with work of this section.

### 3.02 PREPARATION

- A. Formwork: Comply with requirements of ACI 301. Design and fabricate forms to support all applied loads until concrete is cured, and for easy removal without damage to concrete.
- B. Verify that forms are clean and free of rust before applying release agent.
- C. Coordinate placement of embedded items with erection of concrete formwork and placement of form accessories.
- D. Where new concrete is to be bonded to previously placed concrete, prepare existing surface by cleaning and applying bonding agent according to bonding agent manufacturer's instructions.
- E. In locations where new concrete is doweled into hardened concrete, drill holes in existing concrete, and utilize chemical adhesive system.

### 3.03 INSTALLING REINFORCEMENT AND OTHER EMBEDDED ITEMS

- A. Comply with requirements of ACI 301. Clean reinforcement of loose rust and mill scale, and accurately position, support, and secure in place to achieve not less than minimum concrete coverage required for protection.
- B. Install welded wire reinforcement in maximum possible lengths, and offset end laps in both directions. Splice laps with tie wire.
- C. Verify that anchors, seats, plates, reinforcement and other items to be cast into concrete are accurately placed, positioned securely, and will not interfere with concrete placement.

### 3.04 PLACING CONCRETE

- A. Place concrete in accordance with ACI 304R.
- B. Place concrete for floor slabs in accordance with ACI 302.1R.
- C. Maintain records of concrete placement. Record date, location, quantity, air temperature, and test samples taken.
- D. Ensure reinforcement, inserts, embedded parts, and formed construction joint devices will not be disturbed during concrete placement.
- E. Place concrete continuously without construction (cold) joints wherever possible; where construction joints are necessary, before next placement prepare joint surface by removing laitance and exposing the sand and sound surface mortar, by sandblasting or high-pressure water jetting.
- F. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete is placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as indicated. Deposit concrete to avoid segregation.

1. Deposit concrete in horizontal layers of depth not to exceed formwork design pressures and in a manner to avoid inclined construction joints.
  2. Consolidate placed concrete with mechanical vibrating equipment according to ACI 301.
  3. Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations to rapidly penetrate placed layer and at least 6 inches into preceding layer. Do not insert vibrators into lower layers of concrete that have begun to lose plasticity. At each insertion, limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing mixture constituents to segregate.
- G. Finish floors level and flat, unless otherwise indicated, within the tolerances specified below.
- H. Deposit and consolidate concrete for slabs in a continuous operation until placement of a panel or section is complete.
1. Consolidate concrete during placement operations, so concrete is thoroughly worked around reinforcement and other embedded items and into corners.
  2. Maintain reinforcement in position on chairs during concrete placement.
  3. Screed slab surfaces with a straightedge and strike off to correct elevations.
  4. Slope surfaces uniformly to drains where required.
  5. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane, before excess bleedwater appears on the surface. Do not further disturb slab surfaces before starting finishing operations.
- I. Cold Weather Placement: Comply with ACI 306.1 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
1. When average high and low temperature is expected to fall below 40 deg F for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301.
  2. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
  3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.
- K. Hot-Weather Placement: Comply with ACI 301 and ACI 305.1, and as follows:
1. Maintain concrete temperature below 90 deg F at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Proposer's option.
  2. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade uniformly moist without standing water, soft spots, or dry areas.

### 3.05 SLAB JOINTING

- A. Locate joints as indicated on drawings.
- B. Anchor joint fillers and devices to prevent movement during concrete placement.
- C. Isolation Joints: Use preformed joint filler with removable top section for joint sealant, total height equal to thickness of slab, set flush with top of slab.
  - 1. Install wherever necessary to separate slab from other building members, including columns, walls, equipment foundations, footings, stairs, manholes, sumps, and drains.

### 3.07 CONCRETE FINISHING

- A. Repair surface defects, including tie holes, immediately after removing formwork.
- B. Unexposed Form Finish: Rub down or chip off fins or other raised areas 1/4 inch or more in height.
- C. Exposed Form Finish: Rub down or chip off and smooth fins or other raised areas 1/4 inch (6 mm) or more in height. Provide finish as follows:
  - 1. Smooth Rubbed Finish: Wet concrete and rub with carborundum brick or other abrasive, not more than 24 hours after form removal.
- D. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated.

### 3.08 CURING AND PROTECTION

- A. Comply with requirements of ACI 308R. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
  - 1. Normal concrete: Not less than seven days, or approved by Engineer.
- C. Formed Surfaces: Cure by moist curing with forms in place for full curing period.
- D. Surfaces Not in Contact with Forms:
  - 1. Initial Curing: Start as soon as free water has disappeared and before surface is dry. Keep continuously moist for not less than three days, or approved by Engineer, by water ponding, water-saturated sand, water-fog spray, or saturated burlap.
    - a. Ponding: Maintain 100 percent coverage of water over floor slab areas, continuously for 4 days.
    - b. Spraying: Spray water over floor slab areas and maintain wet.
    - c. Saturated Burlap: Saturate burlap-polyethylene and place burlap-side down over floor slab areas, lapping ends and sides; maintain in place.

2. Final Curing: Begin after initial curing but before surface is dry.
  - a. Moisture-Retaining Sheet: Lap strips not less than 3 inches and seal with waterproof tape or adhesive; secure at edges.
  - b. Curing Compound: Apply in two coats at right angles, using application rate recommended by manufacturer.

### 3.09 FIELD QUALITY CONTROL

- A. Submit proposed mix design of each class of concrete to inspection and testing firm for review prior to commencement of concrete operations.
- B. Tests of concrete and concrete materials may be performed at any time to ensure compliance with specified requirements.
- C. Compressive Strength Tests: ASTM C39/C39M, for each test, mold and cure (6) 6" diameter cylinders or (9) 4" diameter cylinders. Break, 1 set (2 cylinders if 6" or 3 cylinders if 4") of cylinders at 7 days, 1 set at 28 days and remaining set for reserve. Obtain test samples for every 50 cubic yards or less of each class of concrete placed.
- D. Take one additional test cylinder during cold weather concreting, cured on job site under same conditions as concrete it represents.
- E. Perform one slump test for each set of test cylinders taken, following procedures of ASTM C143/C143M.
- F. Perform one air content test for each set of test cylinders taken following procedures of ASTM C231 or ASTM C173.

### 3.10 DEFECTIVE CONCRETE

- A. Test Results: The testing agency shall report test results in writing to Engineer and Rockland Green within 24 hours of test.
- B. Defective Concrete: Concrete not complying with required lines, details, dimensions, tolerances or specified requirements.
- C. Repair or replacement of defective concrete will be determined by the Engineer. The cost of additional testing shall be borne by Proposer when defective concrete is identified.
- D. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction of Engineer for each individual area.
- E. Patching: Repair defective areas and fill form-tie holes and similar defects in accordance with Chapter 9 of ACI 301. Where, in the opinion of the Engineer, surface defects such as honeycomb occur, repair the defective areas as directed by the Engineer.

### 3.11 PROTECTION

- A. Do not permit traffic or backfill over or against concrete surfaces until fully cured and cylinders indicate design strength has been achieved.

END OF SECTION

## SECTION 033500

### CONCRETE FINISHING AND CURING

#### GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Concrete hardener and densifier.
  - 2. Moisture emission and alkalinity control.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Cast-In-Place Concrete: See structural drawings

##### 1.2 REFERENCES

- A. American Concrete Institute (ACI):
  - 1. 301 - Structural Concrete for Buildings.
  - 2. 302.1 - Guide for Concrete Floor and Slab Construction.
- B. ASTM International (ASTM):
  - 1. C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
  - 2. C501 - Standard Test Method for Abrasion Resistance of Horizontal Concrete Surfaces.
  - 3. E1155 - Standard Test Method for Determining Floor Flatness and Levelness Using the F-Number System (Inch-Pound Units).

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Product Data: Descriptive data for sealer and moisture emission and alkalinity control system.

##### 1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum 5 years documented experience in work of this Section.

#### PART 2 PRODUCTS

##### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers - Concrete Hardener and Densifier:
  - 1. Curecrete Distribution, Inc ([www.curecrete.com](http://www.curecrete.com))
    - a. Contact: 1203 Spring Creek Place, Springville, UT 84663-0551; Telephone: (800) 998-5664, (801) 489-5663; Fax: (801) 489-3307; Email: [info@ashfordformula.com](mailto:info@ashfordformula.com); Website: [www.ashfordformula.com](http://www.ashfordformula.com)
- B. Acceptable Manufacturers - Moisture Emission and Alkalinity Control System:
  - 1. Sinak Corporation ([www.sinakcorp.com](http://www.sinakcorp.com))
- C. Substitutions: Under provisions of Division 01.

##### 2.2 MATERIALS

- A. Concrete Hardener and Densifier:

1. Type: ASTM C309, water based, colloidal silica, odorless, penetrating hardener.
  2. Source: Lythic Densifier by Solomon Colors, Inc. or approved substitute.
- B. Moisture Emission and Alkalinity Control System:
1. Type: Lithium-formulation, moisture vapor emission and alkalinity mitigation concrete curing system.
  2. Source: VC5 Lithium Cure by Sinak Corporation or approved substitute.

### **PART 3 EXECUTION**

#### **3.1 FINISHING INTERIOR FLOOR SURFACES**

- A. Finish concrete floor surfaces in accordance with ACI 301 and ACI 302.1.
- B. Steel trowel surfaces to receive carpeting, resilient flooring, and resinous flooring.
- C. Steel trowel and fine broom finish surfaces to receive tiling.
- D. Steel trowel and seal surfaces to be exposed. Apply sealer in accordance with manufacturer's instructions.

#### **3.2 INSTALLATION - CONCRETE HARDENER AND DENSIFIER**

- A. Application shall comply with manufacturer's instructions and recommendations.
- B. Provide concrete hardener and densifier on following floor finishes as noted on the drawings:
  1. Concrete Sealer

#### **3.3 INSTALLATION - MOISTURE EMISSION AND ALKALINITY CONTROL**

- A. Application shall comply with manufacturer's instructions and recommendations.
- B. Provide moisture emission and alkalinity control under the following floor finishes as noted on the drawings:
  1. Resilient Sheet Flooring
  2. Resilient Plank Flooring
  3. Resilient Athletic Flooring
  4. Resinous Flooring

END OF SECTION

## SECTION 03 5113

### CEMENTITIOUS ROOF DECKS

#### GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Cementitious wood fiber plank roof deck and form system.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Division 5 Sections: Steel Framing
  - 3. Division 7 Sections: Roofing.

##### 1.2 REFERENCES

- A. ASTM International (ASTM):
  - 1. ASTM C177 Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.
  - 2. ASTM C518 Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
  - 3. ASTM C578 Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
  - 4. ASTM D1621 Standard Test Method for Compressive Properties Of Rigid Cellular Plastics.
  - 5. ASTM D2842 Standard Test Method for Water Absorption of Rigid Cellular Plastics.
  - 6. ASTM E96 Standard Test Methods for Water Vapor Transmission of Materials.
- B. Underwriters Laboratories, Inc. (UL):
  - 7. UL 580 Standard for Safety for Tests for Uplift Resistance of Roof Assemblies.

##### 1.3 SYSTEM DESCRIPTION

- A. Performance Requirements:
  - 1. Provide a roof deck system that has been manufactured, fabricated and installed to provide deflection of Less than L/240 at design load.
  - 2. Comply with requirements of Factory Mutual Class I Roof Deck.

##### 1.4 SUBMITTALS

- A. Submittals for Review:
  - 1. Product Data: Submit manufacturer's product data and installation instructions.
  - 2. Shop Drawings: Provide drawings indicating locations and spacing of planks and purlins.
  - 3. Test Reports: Upon request, submit certified test reports from recognized test laboratories.
  - 4. Certificates: Submit manufacturer's certificate that products meet or exceed specified requirements.

##### 1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum 5 years documented experience in work of this Section.

##### 1.6 DELIVERY, STORAGE & HANDLING

- A. General: Comply with Division 1 Product Requirement Section.
- B. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- C. Provide labels indicating brand name, deck style, plank size and plank thickness.

- D. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.
- E. Prevent soiling, physical damage or wetting.
- F. Store cartons open at each end to stabilize moisture content and temperature.

## 1.7 WARRANTY

- A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
- B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under contract documents.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers
  - 1. Tectum, Inc.
- B. Substitutions: Prior Approved Equal.

### 2.2 MATERIALS

- A. Tectum I Roof Deck Panels
  - 1. Material: Aspen wood fibers bonded with inorganic hydraulic cement,
  - 2. Nominal Panel Thickness: 2 inches (51 mm)

### 2.3 ACCESSORIES

- 1. Tectum Screws:
- 2. Material: Steel.
- 3. Type: As recommended by manufacturer.

## PART 3 EXECUTION

### 3.1 GENERAL

- A. Comply with the instructions and recommendations of the roof deck panel manufacturer.

### 3.2 EXAMINATION

- A. Site Verification of Conditions:
  - 1. Verify that site conditions are acceptable for installation of roof deck panel system.
  - 2. Do not proceed with installation of roof deck panel system until unacceptable conditions are corrected.

### 3.3 INSTALLATION

- A. Roof Deck Plank Installation:
  - 1. Place planks on joists with square cut ends butted tightly together.
  - 2. Stagger end joints.
  - 3. Tectum panels must be supported by bent plates (steel or other support) at all transitions of the roof. This includes but is not limited to the ridge, valleys, perimeter and panel direction change. Panels must have a minimum of 1 inch bearing and should be glued and screwed at these transitions.
  - 4. Panel ends must fall over structural supports and have a minimum of 1 inch bearing.

5. Secure planks to joists with screws and spacing recommended by plank manufacturer.
6. Do not allow foot traffic on planks until after screws are installed.
7. Apply adhesive recommended by manufacturer to ensure diaphragm performance as designed

#### 3.4 FINISH

- A. Painted. Color to be determined.

#### 3.5 CLEANING AND PROTECTION

- A. Clean exposed surfaces of all deck surfaces.
- B. Remove and replace work that cannot be successfully repaired to permanently eliminate evidence of structural damage.
- C. Protect installed work from damage due to weather related moisture.
- D. Protect installed work from damage due to subsequent construction activity on the site so that the work will be without damage and deterioration at the time of acceptance by the Owner

END OF SECTION

## SECTION 04 2000

### UNIT MASONRY

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Concrete unit masonry.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Section 07 9200 - Joint Sealers.
- C. Coordinate with Structural Engineering Drawings and Specifications. Notify Architect of discrepancies.

##### 1.2 REFERENCES

- A. ASTM International (ASTM)
  - 1. A153/A153M - Standard Specification for Zinc-Coating (Hot Dip) on Iron and Steel Hardware.
  - 2. A615/A615M - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
  - 3. A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
  - 4. A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
  - 5. A951 - Standard Specification for Masonry Joint Reinforcement.
  - 6. B370 - Standard Specification for Copper Sheet and Strip for Building Construction.
  - 7. C90 - Standard Specification for Hollow Loadbearing Concrete Masonry Units.
  - 8. C129 - Standard Specification for Hollow Nonloadbearing Concrete Masonry Units.
  - 9. C744 - Standard Specification for Prefaced Concrete and Calcium Silicate Masonry Units.
  - 10. C780 - Standard Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Concrete.
  - 11. C1019 - Standard Test Method for Sampling and Testing Grout.
  - 12. C1314 - Standard Test Method for Compressive Strength of Masonry Prisms.
- B. The Masonry Society (TMS)
  - 1. 402 - Building Code for Masonry Structures.
  - 2. 602 - Specification for Masonry Structures.

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Product Data: Provide information on reinforcing and anchors including sizes, profiles, materials, and finishes.
  - 2. Samples: Concrete masonry samples in quantities showing full color and texture range.

##### 1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum 5 years documented experience in work of this Section.
- B. Mockup:
  - 1. Size: 4 feet high x 8 feet wide.
  - 2. Show:
    - a. Masonry color and texture range.
    - b. Mortar joint size, color, and profile.
    - c. Each bond pattern.
    - d. Anchors.

- e. Flashings and weeps.
- 3. Locate where directed.
- 4. Approved mockup may remain as part of the Work.

C. Perform Work in accordance with TMS 402 and 602.

D. Products and systems which comprise the building envelope and structural frame of the building shall comply with the Florida State Product Approval Program - Wind Borne Debris Region, Non High Velocity Hurricane Zone.

## 1.5 DELIVERY, STORAGE AND HANDLING

A. Store masonry off ground; prevent contact with materials that could cause staining or damage.

B. Protect reinforcement and anchors from corrosion.

## 1.6 PROJECT CONDITIONS

A. Wall Protection:

- 1. During erection, cover tops of partially completed walls with strong waterproof membrane at end of each day or work stoppage.
- 2. Extend cover minimum of 24 inches down both sides; hold securely in place.

B. Load Application:

- 1. Do not apply uniform loads for at least 12 hours after building masonry columns or walls.
- 2. Do not apply concentrated loads for at least 3 days after building masonry columns or walls.

C. Environmental Requirements:

- 1. Hot weather requirements: If ambient temperature is over 95 degrees F or relative humidity is less than 50 percent, protect from direct sun and wind exposure for minimum 48 hours after installation.
- 2. Cold weather requirements: Do not use frozen materials or build on frozen work.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

A. Acceptable Manufacturers - Concrete Masonry Units:

- 1. Featherlite Building Products. ([www.featherlitetexas.com](http://www.featherlitetexas.com))
- 2. Spectra Development Corp. ([www.spectraglaze.com](http://www.spectraglaze.com))
- 3. Trenwyth Industries. ([www.trenwyth.com](http://www.trenwyth.com))

B. Acceptable Manufacturers - Masonry Accessories:

- 1. Blok-Lok Ltd. ([www.blok-lok.com](http://www.blok-lok.com))
- 2. Heckmann Building Products. ([www.heckmannbuildingprods.com](http://www.heckmannbuildingprods.com))
- 3. Hohmann and Barnard, Inc. ([www.h-b.com](http://www.h-b.com))

C. Acceptable Manufacturers - Cement:

- 1. Essroc Cement Corp. ([www.essroc.com](http://www.essroc.com))
- 2. LaFarge North America, Inc. ([www.lafarge-na.com](http://www.lafarge-na.com))
- 3. Lehigh Cement Co. ([www.lehighcement.com](http://www.lehighcement.com))
- 4. Texas Industries, Inc. ([www.txi.com](http://www.txi.com))

D. Acceptable Manufacturers - Lime:

- 1. Graymont Dolime (OH) Inc. ([www.graymont-oh.com](http://www.graymont-oh.com))
- 2. Lhoist North America. ([www.lhoist.us](http://www.lhoist.us))

E. Acceptable Manufacturers - Preblended Mortars and Grouts:

- 1. Quikrete Companies. ([www.quikrete.com](http://www.quikrete.com))

- F. Acceptable Manufacturers - Colorants:
1. Cathay Pigments. ([www.cathaypigments.com](http://www.cathaypigments.com))
  2. Davis Colors. ([www.daviscolors.com](http://www.daviscolors.com))
  3. Solomon Colors. ([www.solomoncolors.com](http://www.solomoncolors.com))

G. Substitutions: Under provisions of Division 01.

## 2.2 MATERIALS

- A. Concrete Masonry Units: Coordinate with Structural Engineering Drawings and Specifications.
1. ASTM C90, hollow, load bearing type, medium weight.
  2. ASTM C129, hollow, non-load bearing type, weight as indicated on Structural Engineering Drawings and Specifications.
  3. Size: As indicated on Structural Engineering Drawings and Specifications.
  4. Special shapes: Lintels, Bond beams, and Solid units as indicated on Structural Engineering Drawings and Specifications.
  5. Surface finish: Non-painted.
  6. Color: To be selected from manufacturer's full color range.
  7. Provide block with integral water repellent. Verify integral water repellent is compatible with painted finish CMU.

## 2.3 ACCESSORIES

- A. Accessories are described on the Structural Engineering Drawings and Specifications. The following are minimums required. Notify Architect of discrepancies.
- B. Mortar:
1. Portland Cement:
    - a. ASTM C150, Type I.
    - b. For exposed surfaces, provide cement from one source throughout project.
  2. Aggregate:
    - a. ASTM C144, standard masonry type.
    - b. For exposed surfaces, provide aggregate from one source throughout project.
  3. Lime: ASTM C207, Type S.
  4. Colorant: Pure mineral oxide type, color to be selected from manufacturer's full color range.
  5. Water: Clean and free from oils, acids, alkalies, organic matter, and other substances in amounts deleterious to mortar or metals in masonry.
- C. Grout:
1. Portland Cement: ASTM C150, Type I.
  2. Aggregate: ASTM C404.
  3. Lime: ASTM C207, Type S.
  4. Water: Clean and free from oils, acids, alkalies, organic matter, and other substances in amounts deleterious to mortar or metals in masonry.
- D. Single Wythe Joint Reinforcement:
1. Ladder type; ASTM A951, hot-dip galvanized steel wire, 9 gage side rods with 9 gage cross ties.
  2. Width: Nominal wall thickness less 1-1/2 inches.
  3. Corner and tee fittings: Type to match reinforcement.
- E. Double Wythe Joint Reinforcement:
1. Ladder type; ASTM A951, hot-dip galvanized steel wire, 9 gage side rods with 9 gage cross ties.
  2. Width: Nominal wall thickness less 1-1/2 inches.
  3. Corner and tee fittings: Type to match reinforcement.
- F. Fasteners: Hot-dip galvanized nails, screws, minimum 3/4 inch penetration into substrate.
- G. Reinforcing Bars:

1. ASTM A615/A615M, deformed billet steel, Grade 40.

H. Joint Sealer: Specified in Section 07 9200.

I. Cleaner: Type recommended by masonry manufacturer.

## 2.4 MIXES

A. Mortar Mix: To ASTM C270

1. Concrete unit masonry: Type M or S.

B. Grout Mix:

1. ASTM C476.
2. Compressive strength: Minimum 2500 psi at 28 days.
3. Slump: 7 to 8 inches.

## 2.5 MIXING

A. Mortar:

1. Mix mortar in accordance with ASTM C270.
2. Jobsite Proportioning of Mortar:
  - a. Mix using mechanical mixer. Hand mixing not permitted.
  - b. Mix approximately three-quarters of required water, all of cement and lime, and one-half of aggregate for minimum of 2 minutes.
  - c. Add remainder of water and aggregate; mix for minimum of 3 minutes.
3. Dry Preblended Mortar:
  - a. Mix using continuous, self-cleaning mixer mounted at apex of silo cone.
  - b. Set water flow valve to provide workable consistency.
4. Provide uniformity of color in exposed mortar.
5. Colorant may not exceed 9 pounds per 94 pound bag of cement for mineral oxides.
6. Thoroughly mix ingredients in quantities needed for immediate use.
7. Discard lumpy, caked, frozen, and hardened mixes.
8. Mortar may be retempered by adding water as required. Use mortar within 2-1/2 hours after initial mixing at ambient temperatures below 80 degrees F and within 1-1/2 hours after initial mixing at ambient temperatures over 80 degrees F.
9. Do not add accelerators, retarders, water repellents, antifreeze compounds, or other additives without Architect's approval.

B. Grout:

1. Mix grout in accordance with ASTM C476.
2. Thoroughly mix ingredients in quantities needed for immediate use.
3. Mix dry ingredients mechanically until uniformly distributed; add water to achieve workable consistency.
4. Discard lumpy, caked, frozen, and hardened mixes.
5. Use grout within 2-1/2 hours after initial mixing at ambient temperatures below 80 degrees F and within 1-1/2 hours after initial mixing at ambient temperatures over 80 degrees F.
6. Do not add accelerators, retarders, water repellents, antifreeze compounds, or other additives without Architect's approval.

## PART 3 EXECUTION

### 3.1 PREPARATION

- A. Wet brick having an absorption rate in excess of 20g per 30 square inches per minute as determined by ASTM C67 so that absorption rate when laid does not exceed this amount.
- B. Remove dirt, loose rust, and other foreign matter from reinforcement and anchors.

### 3.2 INSTALLATION

- A. Establish lines, levels and courses indicated. Protect from displacement.
- B. Maintain masonry courses to uniform dimensions. Form horizontal and vertical joints of uniform thickness.
- C. Lay concrete masonry in running bond. Course one masonry unit and one mortar joint to equal 8 inches.
- D. Lay masonry plumb and level. Do not adjust masonry units after mortar has set.
- E. Lay solid masonry units in full mortar bed, with full head joints. Lay hollow masonry units with face shell bedding on head and bed joints.
- F. Do not butter corners or excessively furrow joints.
- G. Machine cut masonry with straight cuts and clean edges; prevent oversized or undersized joints. Discard damaged units. Do not expose cut cells.
- H. Isolate masonry from structural members with compressible filler.
- I. When joining fresh masonry to partially set masonry, remove loose masonry and mortar; clean and lightly wet exposed surface of set masonry.
- J. Stop horizontal runs by racking back normal bond unit in each course. Tothing not permitted.
- K. Horizontal Reinforcement:
  1. Place reinforcement at maximum 16 inches on center vertically, at topmost course, and at first two courses above and below openings.
  2. Extend minimum 24 inches each side of openings.
  3. Center reinforcing in wall.
  4. Lap ends 6 inches minimum; use fabricated tee and corner fittings at corners and intersections.
- L. Control and Expansion Joints:
  1. Do not continue horizontal joint reinforcement through joints.
  2. Keep joints free from mortar and grout.
  3. Install joint backing and joint sealer at control joints in accordance with Section 079200.
  4. Form expansion joint as indicated on Drawings.
- M. Finishing Mortar Joints:
  1. Exposed locations: Tool joints to concave profile.
  2. Concealed locations: Cut joints flush.
- N. Reinforcing Bars:
  1. Position reinforcing accurately and hold securely in place to prevent displacement. Maintain minimum 1 inch space between masonry and reinforcing.
  2. Grout at intervals of not more than 60 inches in 6 to 8 inch lifts.
  3. Vibrate grout during and after placement to ensure complete filling.
  4. Stop grout 1-1/2 inch below top of masonry if grouting is stopped for 1 hour or more, except where completing grouting of finished wall.
- O. Installation Tolerances; Maximum variation from:
  1. Alignment of columns and pilasters: Plus or minus 1/4 inch.
  2. Alignment face to face of adjacent units: Plus or minus 1/8 inch.
  3. Vertical alignment of head joints: Plus or minus 1/2 inch in 10 feet.
  4. True plane of wall: Plus or minus 1/4 inch in 10 feet and 1/2 inch in 20 feet or more.
  5. Plumb: Plus or minus 1/4 inch in 10 feet noncumulative; 1/2 inch in 20 feet or more.
  6. Level coursing: Plus or minus 1/8 inch in 3 feet; 1/4 inch in 10 feet; 1/2 inch in 30 feet.
  7. Joint thickness: Plus or minus 1/8 inch.
  8. Cross sectional thickness of walls: Plus or minus 1/4 inch.

### 3.3 FIELD QUALITY CONTROL

- A. Testing and Inspection Services:
  - 1. Masonry units: Inspect masonry units prior to and during installation for compliance with specified requirements.
  - 2. Masonry assemblies:
    - a. Determine compressive strength of masonry by the prism method, ASTM C1314.
    - b. Verify dimensions and condition of grout spaces and type, quantity, and placement of reinforcement during installation and just prior to closing of cleanouts.
    - c. Verify type, quantity, and installation of reinforcement, anchors, and ties.
    - d. Inspect placement of grout.
  - 3. Grout: Mold and test one set of compressive strength cubes in accordance with ASTM C1019.

### 3.4 CLEANING

- A. Protect adjacent and underlying surfaces.
- B. Apply masonry cleaner in accordance with manufacturer's instructions.
- C. Thoroughly rinse surfaces with clean water after completion of cleaning; remove all traces of cleaning solution.

END OF SECTION

## SECTION 047300

### MANUFACTURED STONE MASONRY

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Manufactured stone masonry over metal lath and setting mortar.
  - 2. Pointing mortar joints.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Section 040513 - Masonry Mortaring.

##### 1.2 REFERENCES

- A. ASTM International (ASTM):
  - 1. C847 - Standard Specification for Metal Lath.
  - 2. C1063 - Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster.
  - 3. C1780 - Standard Practice for Installation Methods for Adhered Manufactured Stone Masonry Veneer.
- B. Masonry Veneer Manufacturers Association (MVMA) - Installation Guide for Adhered Manufactured Stone Veneer.

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Product Data: Descriptive data and installation instructions.
  - 2. Samples: Full size stone samples showing profile and finish.

##### 1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum 5 years documented experience in work of this Section.
- B. Mockup:
  - 1. Size: 4 feet high x 8 feet wide.
  - 2. Show:
    - a. Stone color and texture range.
    - b. Mortar joint size, color, and profile.
    - c. Each Bond pattern.
    - d. Trim units.
  - 3. Locate where directed.
  - 4. Approved mockup may remain as part of the Work.

##### 1.5 PROJECT CONDITIONS

- A. Environmental Requirements:
  - 1. Hot weather requirements: If ambient temperature is over 95 degrees F or relative humidity is less than 50 percent, protect from direct sun and wind exposure for minimum 48 hours after installation.

2. Cold weather requirements:
  - a. Do not install stone when ambient temperature is below 40 degrees F or is expected to fall below that level within 12 hours after installation.
  - b. Do not use frozen materials or build upon frozen work.

## **PART 2 PRODUCTS**

### **2.1 MANUFACTURERS**

- A. Acceptable Manufacturers - Manufactured Stone Masonry:
  1. Coronado Products, Inc. ([www.coronado.com](http://www.coronado.com))
- B. Acceptable Manufacturers - Metal Lath:
  1. Alabama Metal Industries Corp. ([www.amico-grating.com](http://www.amico-grating.com))
  2. CEMCO / California Expanded Products Co. ([www.cemcosteel.com](http://www.cemcosteel.com))
  3. Marino Ware Industries. ([www.marinoware.com](http://www.marinoware.com))
- C. Substitutions: Under provisions of Division 01.

### **2.2 MATERIALS**

- A. Manufactured Stone Masonry:
  1. Source: Virginia LedgeStone Coronado Products Inc.
  2. Composition: Portland cement, colored mineral oxides, and lightweight aggregates.
  3. Color: Cape Cod Grey.
  4. Grout: Dry stacked
  5. Trim units:
    - a. Chiseled stone sill, color, and surface texture to match stone.
    - b. Corners, color, and surface texture to match stone.

### **2.3 ACCESSORIES**

- A. Mortar: Specified in Section 040513.
- B. Metal Lath:
  1. ASTM C847, [expanded self-furring diamond mesh weighing 2.5 or 3.4 pounds per square foot.
- C. Fasteners: Type and size suited to application, hot dip galvanized steel.
- D. Thin set Mortar:
  1. Type: Factory blended, consisting of Portland cement, aggregate, and latex additives.
- E. Bonding Agent: Type recommended by simulated stone manufacturer for direct bonding of stone to masonry or concrete substrates.
- F. Cleaner: Type recommended by stone manufacturer.

## **PART 3 EXECUTION**

### **3.1 INSTALLATION OF METAL LATH**

- A. Perform Work in accordance with ASTM C1063.

- B. Apply with long dimension perpendicular to supports, with end joints staggered and occurring over supports. Secure end laps with tie wire where they occur between supports.
- C. Lap ends minimum 1 inch and sides minimum 1-1/2 inches.
- D. Fasten to framing at maximum 6 inches on center.
- E. Stop lath at each side of expansion and control joints and secure.

### 3.2 INSTALLATION OF STONE

- A. Install stone in accordance with ASTM C1780, MVMA Installation Guide, and manufacturer's instructions.
- B. Blend stone from multiple boxes before installing.
- C. Apply mortar to minimum 1/2-inch thickness to completely cover lath. Allow mortar to cure minimum 48 hours.
- D. Apply 3/8- to 1/2-inch-thick mortar completely covering back of each stone.
- E. Place stone in pattern as specified in the manufacturer installation instructions.
- F. Set stone plumb and level.
- G. Press stone to full contact with mortar.
- H. Place stone with joints as specified in the manufacturer installation instructions.

### 3.3 CLEANING

- A. Clean stone with detergent and water applied with fiber brush.
- B. If initial cleaning does not produce acceptable results, apply cleaner in accordance with manufacturer's instructions.
  - 1. Protect adjacent surfaces.
  - 2. Thoroughly rinse surfaces with clean water after completion of cleaning; remove all traces of cleaning solution.

END OF SECTION

## SECTION 055000

### METAL FABRICATIONS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Shop fabricated metal components.
  - 2. Guard rails and handrails.
  - 3. Ladders.
  - 4. Bollards.
  
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

##### 1.2 REFERENCES

- A. American National Standards Institute (ANSI) A14.3 - American National Standards for Ladders - Fixed - Safety Requirements.
  
- A. American Welding Society (AWS):
  - 1. D1.1/D1.1M - Structural Welding Code - Steel.
  - 2. D1.2/D1.2M - Structural Welding Code - Aluminum.
  - 3. D1.6/D1.6M - Structural Welding Code - Stainless Steel.
  
- B. ASTM International (ASTM):
  - 1. A36/A36M - Standard Specification for Carbon Structural Steel.
  - 2. A108 - Standard Specification for Steel Bars, Carbon, Cold-Finished, Standard Quality.
  - 3. A123/A123M - Standard Specification for Zinc (Hot-Galvanized) Coatings on Iron and Steel Products.
  - 4. A283 - Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates, Shapes and Bars.
  - 5. A307 - Standard Specification for Carbon Steel Externally Threaded Standard Fasteners.
  - 6. A354 - Standard Specification for Quenched and Tempered Alloy Steel Bolts, Studs, and Other Externally Threaded Fasteners.
  - 7. A500 - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
  - 8. A501 - Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing.
  - 9. A510 - Standard Specification for General Requirements for Wire Rods and Coarse Round Wire, Galvanized Steel.
  - 10. A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
  - 11. A780 - Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.
  - 12. A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
  - 13. A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength, Low-Alloy and High-Strength Low-Alloy with Improved Formability.
  - 14. E985 - Standard Specification for Permanent Metal Railing Systems and Rails for Buildings.
  
- C. National Association of Architectural Metal Manufacturers (NAAMM):
  - 1. AMP 503 - Finishes for Stainless Steel.
  - 2. MBG 531 - Metal Bar Grating Manual.

D. Society for Protective Coatings (SSPC) - Painting Manual.

## 1.2 SYSTEM DESCRIPTION

A. Minimum Design Loads:

1. Guard rails and handrails:
  - a. 50 pounds per linear foot applied in any direction at top, transferred via attachments and supports to building structure.
  - b. Concentrated 200 pound load applied in any direction at any point along top, transferred via attachments and supports to building structure.
  - c. Maximum deflection under loading:  $L/120$ .
2. Concentrated and uniform loads do not need to be applied simultaneously.
3. Perform design under direct supervision of Professional Structural Engineer licensed in State in which Project is located, with minimum 2 years documented experience in work of this Section.

B. Fabricate guard rails and handrails in accordance with ASTM E985.

## 1.3 SUBMITTALS

A. Submittals for Review:

1. Shop Drawings: Show dimensions, metal thicknesses, finishes, joints, attachments, and relationship of work to adjacent construction.

B. Quality Control Submittals:

1. Certificate of Compliance from Professional Structural Engineer performing system design.

## 1.4 QUALITY ASSURANCE

A. Fabricator Qualifications: Minimum 5 years documented experience in work of this Section.

## 1.5 DELIVERY, STORAGE AND HANDLING

- A. Store steel above ground on platforms, skids, or other supports; separate with wooden separators.
- B. Protect steel from corrosion.
- C. Prevent damage to prime coat and galvanized coatings.

## PART 2 PRODUCTS

### 2.1 MATERIALS - STEEL

- A. Shapes: ASTM A36/A36M.
- B. Pipe: ASTM A501.
- C. Tube: ASTM A500.
- D. Bars: ASTM A108.

### 2.2 ACCESSORIES

- A. Exposed Screws: Same material as metal being fastened; Phillips flat head, countersunk, unless noted otherwise.

- B. Bolts: ASTM A307, hexagonal head type.
- C. Primer Paint: SSPC Paint 15, Type 1, red oxide.
- D. Anchoring Cement: Non-shrink cementitious type.

### 2.3 FABRICATION

- A. Fit and shop assemble items in largest practical sections, for delivery to site.
- B. Fabricate items with joints tightly fitted and secured.
- C. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.
- D. Exposed Mechanical Fastenings: Flush countersunk screws or bolts, unobtrusively located, consistent with design of component except where specifically noted otherwise.
- E. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.
- F. Conceal fastenings where possible.
- G. Welding to conform to AWS.
  - 1. Use welds for permanent connections where possible. Grind exposed welds smooth.
  - 2. Tack welds prohibited on exposed surfaces.

### 2.4 FINISHES

- A. Exterior Ferrous Metal: Galvanized; ASTM A123/A123M, to 1.3 ounces per square foot.

## **PART 3 EXECUTION**

### 3.1 INSTALLATION

- A. Install items in accordance with approved Shop Drawings.
- B. Install components plumb, level, and rigid.
- C. Welding: AWS. Grind and fill exposed welds; finish smooth and flush.
- D. Install sleeved components with anchoring cement.
- E. Prevent contact of [exterior] aluminum and dissimilar metals by use of zinc rich paint, bituminous coating, or non-absorptive gaskets.

### 3.2 ADJUSTING

- A. Clean and touch up damaged primer paint with same product as applied in shop.
- B. Clean and touch up galvanized coatings at welded and abraded surfaces in accordance with ASTM A780.

### 3.3 SCHEDULE

- A. This Schedule includes principal items only; refer to Drawings for additional items not listed.
- B. Guard Rails and Handrails:
1. Fabricate steel pipe or tube stock of sizes and types indicated.
  2. Make bends uniform and free from buckles and other defects.
  3. Cut intersections square to within 2 degrees and to length within 1/8 inch. Remove burrs from cut ends.
  4. Miter and cope intersections within 2 degrees, fit to within 1/8 inch.
  5. Continuously weld connections.
  6. Where length exceeds that suitable for shipping and handling, fabricate in sections with concealed internal sleeves forming slip joints. Extend sleeves minimum 2 inches on both sides of joint; field weld and grind smooth.
- C. Ladders:
1. Side rails: Continuous steel flat bars, 1/2 x 2-1/2 inches, eased edges, spaced 18 inches apart.
  2. Rungs: Round steel bars, 3/4 inch diameter, knurled or abrasive coated to ANSI A14.3, spaced 12 inches on center. Fit rungs in centerline of side rails and plug weld on outer rail face.
  3. Support ladders at top, bottom, and at intermediate points spaced maximum 5'-0" on center with steel brackets, welded or bolted to supports.
  4. Walk-Through and Parapet Railings: Aluminum extrusions; extend not less than 42 inches above landing, 24 inches between side rails at step through.
- D. Bollards:
1. Fabricate from steel pipe of sizes indicated.
  2. Set into concrete footing.
  3. Fill pipe with concrete; rod to consolidate. Dome top to shed water.

END OF SECTION

## SECTION 055100

### METAL STAIRS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Shop fabricated steel stairs with concrete pan treads and landings.
  - 2. Guard rails and handrails.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

##### 1.2 REFERENCES

- A. American Welding Society (AWS)
  - 1. D1.1/D1.1M - Structural Welding Code.
  - 2. D1.3/D1.3M - Structural Welding Code - Sheet Steel.
- B. ASTM International (ASTM):
  - 1. A36/A36M - Standard Specification for Carbon Structural Steel.
  - 2. A123/A123M - Standard Specification for Zinc (Hot-Galvanized) Coatings on Iron and Steel Products.
  - 3. A283 - Standard Specification for Low and Intermediate Strength Carbon Steel Plates.
  - 4. A307 - Standard Specification for Carbon Steel Externally Threaded Standard Fasteners.
  - 5. A500 - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
  - 6. A501 - Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing.
  - 7. A780 - Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.
  - 8. A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
  - 9. A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength, Low-Alloy and High-Strength Low-Alloy with Improved Formability.
  - 10. C94 - Standard Specification for Ready-Mixed Concrete.
  - 11. E985 - Standard Specification for Permanent Metal Railing Systems and Rails for Buildings.
- C. National Association of Architectural Metal Manufacturers (NAAMM):
  - 1. AMP 510 - Metal Stairs Manual.
  - 2. MBG 531 - Metal Bar Grating Manual.
- D. Society for Protective Coatings (SSPC) - Painting Manual.
- E. American Institute of Steel Construction – Architecturally Exposed Structural Steel

##### 1.3 SYSTEM DESCRIPTION

- A. Design Requirements:
  - 1. Design stair assembly to support a uniform live load of 100 PSF and a concentrated load of 300 pounds, with maximum deflection of L/240.
  - 2. Design guard rails and handrails to resist following without damage or permanent set:
    - a. 50 pounds per linear foot applied in any direction at top, transferred via attachments and supports to building structure.

- b. Concentrated 200 pound load applied in any direction at any point along top, transferred via attachments and supports to building structure.
    - c. Maximum deflection under loading:  $L/120$ .
  - 3. Concentrated and uniform loads do not need to be applied simultaneously.
  - 4. Perform design under direct supervision of Professional Structural Engineer licensed in State in which Project is located, with minimum 2 years documented experience in work of this Section.
- B. Fabricate stair assembly in shop and to NAAMM AMP 510, Commercial Class with minimum AESS 3 finish.
- C. Fabricate guard rails and handrails in shop and in accordance with ASTM E985 and minimum AESS 4 finish.

#### 1.4 SUBMITTALS

- A. Submittals for Review:
  - 1. Shop Drawings:
    - a. Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories.
    - b. Indicate welded connections using standard AWS welding symbols. Indicate net weld lengths.
- B. Quality Control Submittals:
  - 1. Certificate of Compliance from Professional Structural Engineer performing system design.

#### 1.5 QUALITY ASSURANCE

- A. Fabricator Qualifications: Minimum 5 years documented experience in work of this Section.
- B. Perform Work in accordance with ASTM E985.

#### 1.6 DELIVERY, STORAGE AND HANDLING

- A. Store steel above ground on platforms, skids, or other supports; separate with wooden separators.
- B. Protect steel from corrosion.
- C. Prevent damage to prime coat galvanized coatings.

### **PART 2 PRODUCTS**

#### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  - 1. American Stair Corp. ([www.americanstair.com](http://www.americanstair.com))
- B. Substitutions: Under provisions of Division 01.

#### 2.2 MATERIALS - STEEL

- A. Sections: ASTM A36/A36M.
- B. Plate: ASTM A283.
- C. Pipe: ASTM A501.

- D. Tube: ASTM A500.
- E. Sheet: ASTM A1008/A1008M.

## 2.3 MATERIALS - CONCRETE

- A. Concrete: Specified on structural drawings.
- B. Concrete Reinforcement: Mesh type, unfinished.

## 2.4 ACCESSORIES

- A. Bolts, Nuts, and Washers: ASTM A307.
- B. Primer Paint: SSPC 15, Type 1, red oxide.

## 2.5 FABRICATION

- A. Fit and shop assemble components in largest practical sections, for delivery to site.
- B. Fabricate components with joints tightly fitted and secured.
- C. Continuously weld connections. Welding to conform to AWS D1.1/D1.1M and D1.3/D1.3M.
- D. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.
- E. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.
- F. Accurately form components required for anchorage of stairs, landings, and railings to each other and to building structure.
- G. Treads and Landings:
  - 1. Fabricate from minimum 14 gage steel sheet, shaped to receive concrete.
  - 2. Fabricate stairs with closed steel sheet risers.
  - 3. Reinforce underside with steel angles when required to resist design loads.
  - 4. Secure pans to stringers with clip angles, welded in place.
- H. Guard Rails and Handrails:
  - 1. Fabricate from steel pipe or tube stock.
  - 2. Make bends uniform and free from buckles and other defects.
  - 3. Where length exceeds that suitable for shipping and handling, fabricate in sections with concealed internal sleeves forming slip joints. Extend sleeves minimum 2 inches on both sides of joint; field weld and grind smooth.

## 2.6 FINISHES

- A. Steel:
  - 1. Surface preparation: SSPC SP2 - Hand Tool Cleaning or SP3 - Power Tool Cleaning.
  - 2. Application: One coat; follow coating manufacturer's instructions.
  - 3. Minimum dry film thickness: 2.0mils.
  - 4. Do not prime surfaces in direct contact with concrete or where field welding is required.

## PART 3 EXECUTION

### 3.1 INSTALLATION

- A. Install components plumb and level, accurately fitted, free from distortion and defects.
- B. Provide anchors, angles, hangers, and struts required for connecting stairs to structure.
- C. Allow for erection loads, and for sufficient temporary bracing to maintain true alignment until completion of erection and installation of permanent attachments.
- D. Field weld components indicated on Shop Drawings. Perform field welding in accordance with AWS D1.1/D1.1M and D1.3/D1.3M.
- E. Field bolt and weld to match shop bolting and welding. Conceal bolts and screws whenever possible.
- F. Mechanically fasten joints butted tight, flush, and hairline. Grind welds smooth and flush.
- G. Fill treads and landings with concrete. Consolidate concrete, strike off flush with perimeter frame, and apply light broom finish with striations parallel to long dimension of tread.
- H. Installation Tolerances:
  - 1. Maximum variation from plumb: 1/4 inch per story, noncumulative.
  - 2. Maximum offset from true alignment: 1/4 inch.

### 3.2 ADJUSTING

- A. Clean and touch up primer paint at welded and abraded surfaces with same product as applied in shop.
- B. Clean and touch up galvanized coatings at welded and abraded surfaces in accordance with ASTM A780.

END OF SECTION

## SECTION 055200

### METAL RAILING SYSTEM

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Pre-assembled aluminum railings.

##### 1.2 RELATED SECTIONS

- A. Section 03 30 00 - Cast-in-Place Concrete.
- B. Section 06 10 00 - Rough Carpentry.

##### 1.3 REFERENCES

- A. American Architectural Manufacturers Association (AAMA):
  - 1. AAMA 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix).
  - 2. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix).
- B. American National Standards Institute (ANSI):
  - 1. ANSI Z 97.1 - Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test.
- C. ASTM International (ASTM):
  - 1. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes.
  - 2. ASTM E 894 - Anchorage of Permanent Metal Railing Systems and Rails for buildings.
  - 3. ASTM E 935 - Standard Test Methods for Performance of Permanent Metal Railing Systems and Rails for buildings.
  - 4. ASTM E 985 - Specification for Permanent Metal Railing and Rails for Buildings.
- D. British Columbia Building Code, 2012.
- E. Canadian National Building Code, 2010 (CBC).
- F. Council of American Building Officials (CABO): CABO A117.1 - Accessible and Usable buildings and Facilities.
- G. Florida Building Code, 2010 Including High Velocity (FBC).
  - 1. High Velocity Hurricane Zone (HVHZ).
- H. International Building Code, 2006, 2009, 2012 (IBC): Section 1607.7.7.1, Handrails and Guards.
- I. International Code Council (ICC): ICC-ES AC273 - Acceptance criteria for handrails and guards.
- J. International Organization for Standardization (ISO): ISO 17025 - General requirements for the competence of testing and calibration laboratories.
- K. International Residential Code, 2009, 2012 (IRC).
- L. Ontario Building Code, 2012 (OBC).

##### 1.4 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 - Administrative Requirements.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Manufacturer's printed installation instructions, showing required preparation and installation procedures.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation methods.
  - 4. Cleaning and maintenance instructions.
- C. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work. Provide templates for anchors and bolts specified for installation under other Sections.
- D. Closeout Submittals: Documentation of manufacturer's warranty.

#### 1.5 QUALITY ASSURANCE

- A. Installer: Minimum 2 years experience with similar railing products.
- B. Pre-Installation Meetings: Conduct pre-installation meetings to verify project requirements, substrate conditions, construction documents, details and manufacturer's warranty requirements.

#### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials in manufacturer's original, unopened, undamaged rolls/pallets with identification labels intact.
- B. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

#### 1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

#### 1.8 WARRANTY

- A. Manufacturer's Warranty: Manufacturer's standard 15 year limited warranty.
  - 1. PRODUCTS

#### 1.9 MANUFACTURERS

- A. Acceptable Manufacturer: Ultralox, which is located at: 2955 Lone Oak Dr. Suite 180; Eagan, MN 55121; Toll Free Tel: 888-685-4005; Tel: 612-999-1115; Fax: 855-742-7245; Email:[request info \(info@ultralox.com\)](mailto:request_info@ultralox.com); Web:[ultralox.com](http://ultralox.com)
- B. Acceptable Dealers:
  - 1. New York: Old Dutchman Wrought Iron, Inc., 2800 Miller Sport Highway, Getzville, NY 14068, [olddutchman.com](http://olddutchman.com)
- C. Substitutions: Not permitted.
- D. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

#### 1.10 PRE-ASSEMBLED ALUMINUM RAILINGS

- A. Materials:
  - 1. Configuration and Profiles: Refer to the Drawings.
  - 2. Aluminum: ASTM B 221, alloy and temper as recommended by manufacturer.
  - 3. Finish: Textured powder coating complying with AAMA 2604.

4. Finish: Textured powder coating complying with AAMA 2605.
5. Color: As selected by Architect.

#### 1.11 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Design, fabricate and install handrail and railing systems in accordance with ASTM E 985 for structural performance based on testing performed in accordance with ASTM E 894 and E 935.
- B. Provide handrails and railings capable of withstanding the following structural loads without exceeding allowable design working stress of material for the handrails, railings, anchors and connections.
  1. Top Rail:
    - a. Concentrated applied load of 200 lbs (90.7 kg). at any point in any direction in accordance with 1607.7.1.1 of IBC. Concentrated load need not be assumed to act concurrently with uniform loads.
    - b. The top rail and the structural supported post subjected to a concentrated load of 500 lbs (226.8 kg) applied at the following locations:
      - 1) Horizontal at the center of the guardrail.
      - 2) Horizontal at the top of support post; 42 in (1067 mm) above surface of deck.
    - c. Uniform Load Test: The top rail of the system subjected to a single test where a maximum uniform load of 125 lbs per ft (186 g per m) applied vertical and in an outward direction at a 45 degree angle from the horizontal plane.
  2. Handrails not serving as top rails:
    - a. Concentrated applied load of 200 lbs (90.7 kg) at any point in any direction in accordance with 1607.7.1.1 of IBC. Concentrated load need not be assumed to act concurrently with uniform loads.
    - b. Uniform load of 50 lbs per linear foot (74.4 kg per linear m) applied in any direction in accordance with 1607.7.1.1 of IBC.
  3. Infill area of rail systems:
    - a. Capable of withstanding a horizontal load of 50 lbs. applied to one square foot (22.68 kg per 0.093 sq m) at any point in the system in accordance with 1607.7.1.2 of IBC. Load is not to be assumed to act concurrently with loads on top rails of railing systems in determining stress on guards.
    - b. The required safety factor for glass used in handrails and guards is 4 in accordance with 2407.11 of IBC.
    - c. The required safety factor for assemblies is 2.5 in accordance with 1714.3.1 of IBC.
    - d. In-fill Load Test: A load consisting of 200 lbs over a 1 sq. ft. (90.7 kg per 0.093 sq m) normal to the infill in a worst-case scenario.
- C. Aluminum railing systems are to have been successfully tested by third-party ISO 17025 testing laboratories in accordance with the following:
  1. British Columbia Building Code, 2012.
  2. Canadian National Building Code, 2010.
  3. Florida Building Code, 2010 Including High Velocity (FBC).
  4. Hurricane Zone for Colonial and Victorian Series(HVHZ).
  5. ICC-ES AC273 - Acceptance criteria for handrails and guards.
  6. International Building Code, 2012 (IBC):
    - a. Section 1607.7.7.1, Handrails and Guards.
  7. International Residential Code, 2012 (IRC).
  8. International Building Code, 2009 (IBC).
  9. International Residential Code, 2009 (IRC).
  10. Ontario Building Code, 2012.
  11. EXECUTION

#### 1.12 EXAMINATION AND PREPARATION

- A. If preparation is the responsibility of another installer, notify Architect in writing of deviations from manufacturer's recommended installation tolerances and conditions.
- B. Do not proceed with installation until substrates have been properly prepared and deviations from

manufacturer's recommended tolerances are corrected. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

#### 1.13 INSTALLATION

- A. Install railings in accordance with manufacturer's written instructions and recommendations as applicable to specified application.
- B. Install products in strict accordance with manufacturer's instructions, approved submittals.

#### 1.14 CLEANING AND PROTECTION

- A. Protect installed railings from damage during application and remainder of construction period, per manufacturer's written instructions.

END OF SECTION

## SECTION 057300

### DECORATIVE METAL RAILING AND SCREEN

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Shop fabricated Decorative Metal Railing.
  - 2. Decorative Metal Screen.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

##### 1.2 REFERENCES

- A. American National Standards Institute (ANSI) A14.3 - American National Standards for Ladders - Fixed - Safety Requirements.
- A. American Welding Society (AWS):
  - 1. D1.1/D1.1M - Structural Welding Code - Steel.
  - 2. D1.2/D1.2M - Structural Welding Code - Aluminum.
  - 3. D1.6/D1.6M - Structural Welding Code - Stainless Steel.
- B. ASTM International (ASTM):
  - 1. A36/A36M - Standard Specification for Carbon Structural Steel.
  - 2. A108 - Standard Specification for Steel Bars, Carbon, Cold-Finished, Standard Quality.
  - 3. A123/A123M - Standard Specification for Zinc (Hot-Galvanized) Coatings on Iron and Steel Products.
  - 4. A283 - Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates, Shapes and Bars.
  - 5. A307 - Standard Specification for Carbon Steel Externally Threaded Standard Fasteners.
  - 6. A354 - Standard Specification for Quenched and Tempered Alloy Steel Bolts, Studs, and Other Externally Threaded Fasteners.
  - 7. A500 - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
  - 8. A501 - Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing.
  - 9. A510 - Standard Specification for General Requirements for Wire Rods and Coarse Round Wire, Galvanized Steel.
  - 10. A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
  - 11. A780 - Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.
  - 12. A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
  - 13. A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength, Low-Alloy and High-Strength Low-Alloy with Improved Formability.
  - 14. E985 - Standard Specification for Permanent Metal Railing Systems and Rails for Buildings.
- C. National Association of Architectural Metal Manufacturers (NAAMM):
  - 1. AMP 503 - Finishes for Stainless Steel.
  - 2. MBG 531 - Metal Bar Grating Manual.
- D. Society for Protective Coatings (SSPC) - Painting Manual.

##### 1.2 SYSTEM DESCRIPTION

- A. Minimum Design Loads:

1. Decorative Railing:
  - a. 50 pounds per linear foot applied in any direction at top, transferred via attachments and supports to building structure.
  - b. Concentrated 200 pound load applied in any direction at any point along top, transferred via attachments and supports to building structure.
  - c. Maximum deflection under loading:  $L/120$ .
2. Concentrated and uniform loads do not need to be applied simultaneously.
3. Perform design under direct supervision of Professional Structural Engineer licensed in State in which Project is located, with minimum 2 years documented experience in work of this Section.

B. Fabricate Decorative Railing in accordance with ASTM E985.

### 1.3 SUBMITTALS

A. Submittals for Review:

1. Shop Drawings: Show dimensions, metal thicknesses, finishes, joints, attachments, and relationship of work to adjacent construction.

B. Quality Control Submittals:

1. Certificate of Compliance from Professional Structural Engineer performing system design.

### 1.4 QUALITY ASSURANCE

A. Fabricator Qualifications: Minimum 5 years documented experience in work of this Section.

### 1.5 DELIVERY, STORAGE AND HANDLING

- A. Store steel above ground on platforms, skids, or other supports; separate with wooden separators.
- B. Protect steel from corrosion.
- C. Prevent damage to prime coat and galvanized coatings.

## **PART 2 PRODUCTS**

### 2.1 MATERIALS - STEEL

- A. Shapes: ASTM A36/A36M.
- B. Pipe: ASTM A501.
- C. Tube: ASTM A500.
- D. Bars: ASTM A108.

### 2.2 ACCESSORIES

- A. Exposed Screws: Same material as metal being fastened; Phillips flat head, countersunk, unless noted otherwise.
- B. Bolts: ASTM A307, hexagonal head type.
- C. Primer Paint: SSPC Paint 15, Type 1, red oxide.
- D. Anchoring Cement: Non-shrink cementitious type.

### 2.3 FABRICATION

- A. Fit and shop assemble items in largest practical sections, for delivery to site.

- B. Fabricate items with joints tightly fitted and secured.
- C. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.
- D. Exposed Mechanical Fastenings: Flush countersunk screws or bolts, unobtrusively located, consistent with design of component except where specifically noted otherwise.
- E. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.
- F. Conceal fastenings where possible.
- G. Welding to conform to AWS.
  - 1. Use welds for permanent connections where possible. Grind exposed welds smooth.
  - 2. Tack welds prohibited on exposed surfaces.

## 2.4 FINISHES

- A. Exterior Ferrous Metal: Galvanized; ASTM A123/A123M, to 1.3 ounces per square foot.

## **PART 3 EXECUTION**

### 3.1 INSTALLATION

- A. Install items in accordance with approved Shop Drawings.
- B. Install components plumb, level, and rigid.
- C. Welding: AWS. Grind and fill exposed welds; finish smooth and flush.
- D. Install sleeved components with anchoring cement.
- E. Prevent contact of [exterior] aluminum and dissimilar metals by use of zinc rich paint, bituminous coating, or non-absorptive gaskets.

### 3.2 ADJUSTING

- A. Clean and touch up damaged primer paint with same product as applied in shop.
- B. Clean and touch up galvanized coatings at welded and abraded surfaces in accordance with ASTM A780.

### 3.3 SCHEDULE

- A. This Schedule includes principal items only; refer to Drawings for additional items not listed.
- B. Decorative Metal Railing:
  - 1. Fabricate steel tube stock of sizes and types indicated.
    - a. Size: 2.5x2.5
    - b. Type: A500 Hot Rolled
  - 2. Cut intersections square to within 2 degrees and to length within 1/8 inch. Remove burrs from cut ends.
  - 3. Miter and cope intersections within 2 degrees, fit to within 1/8 inch.
  - 4. Continuously weld connections.
  - 5. Where length exceeds that suitable for shipping and handling, fabricate in sections with concealed internal sleeves forming slip joints. Extend sleeves minimum 2 inches on both sides of joint; field weld and grind smooth.

- C. Decorative Metal Screen:
1. Manufacturer: McNicols ([www.mcnicols.com](http://www.mcnicols.com))
  2. Product: Infill Panels
    - a. Mesh: Techna 3100 (2"x2")
    - b. Frame: 90° angle (provide holes for mounting to railing)
    - c. Joint: Miter (tig weld and grind smooth)
    - d. Finish: Mill finish (paint to match railing)

END OF SECTION

**SECTION 061000**  
**ROUGH CARPENTRY**

**PART 1 GENERAL**

1.1 SUMMARY

- A. Section Includes:
  - 1. Floor and wall framing.
  - 2. Floor decking.
  - 3. Wood blocking and furring.
  - 4. Telephone and electrical panel backboards.
  - 5. Preservative and fire-retardant treatment of wood.
  
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Section 01 2200 - Unit Prices

1.2 REFERENCES

- A. American Wood Protection Association (AWPA):
  - 1. M4 - Standard for the Care of Preservative Treated Wood Products.
  - 2. U1 - Use Category System - User Specification for Treated Wood.
  
- B. ASTM International (ASTM):
  - 1. A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
  - 2. A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
  - 3. E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
  - 4. F593 - Standard Specification for Stainless Steel Bolts, Hex Cap Screws and Studs.
  - 5. F1554 - Standard Specification for Anchor Bolts, Steel, 36, 55 and 105 KSI Yield Strength.
  
- C. Engineered Wood Association (APA) PRP-108 - Performance Standards and Qualification Policy for Structural-Use Panels.
  
- D. Forest Stewardship Council (FSC) STD-40-004 - Chain of Custody Standard.
  
- E. National Institute of Standards and Technology (NIST) - Product Standard PS 20 - American Softwood Lumber Standard.
  
- F. Northeastern Lumber Manufacturers Association (NELMA) - Standard Grading Rules for Northeastern Lumber.
  
- G. National Lumber Grades Authority (NLGA) - Standard Grading Rules for Canadian Lumber.
  
- H. Redwood Inspection Service (RIS) - Standard Specifications for Grades of California Redwood Lumber.
  
- I. Southern Pine Inspection Bureau (SPIB) - Standard Grading Rules for Southern Pine Lumber.
  
- J. West Coast Lumber Inspection Bureau (WCLIB) - Standard Grading Rules for West Coast Lumber.
  
- K. Western Red Cedar Lumber Association (WRCLA) - Grading Rules.

- L. Western Wood Products Association (WWPA) G-5 - Western Lumber Grading Rules.

### 1.3 QUALITY ASSURANCE

- A. Lumber Grading Agency: Certified to NIST PS 20.
- B. Identify lumber and sheet products by official grade mark.
- C. Fire Retardant Treated Products: Bear label of recognized independent testing laboratory indicating flame spread rating of 25 or less, tested to ASTM E84.

### 1.4 DELIVERY, STORAGE AND HANDLING

- A. Store materials minimum 6 inches above ground on framework or blocking and cover with protective waterproof covering providing for adequate air circulation.
- B. Do not store seasoned or treated materials in damp location.
- C. Protect edges and corners of sheet materials from damage.

### 1.5 WARRANTIES

- A. Provide manufacturer's 10 year warranty against rot and termite damage for composite wood.

## **PART 2 PRODUCTS**

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers - Laminated Veneer Lumber:
  - 1. Boise Cascade Corporation. ([www.bc.com](http://www.bc.com))
  - 2. Georgia-Pacific Corporation. ([www.gp.com](http://www.gp.com))
  - 3. LP Corp. ([www.lpcorp.com](http://www.lpcorp.com))
- B. Acceptable Manufacturers - Prefabricated Wood I Joists:
  - 1. Boise Cascade Corporation. ([www.bc.com](http://www.bc.com))
  - 2. Georgia-Pacific Corporation. ([www.gp.com](http://www.gp.com))
  - 3. LP Corp. ([www.lpcorp.com](http://www.lpcorp.com))
  - 4. Western Wood Structures, Inc. ([www.westernwoodstructures.com](http://www.westernwoodstructures.com))
  - 5. Weyerhaeuser. ([www.weyerhaeuser.com](http://www.weyerhaeuser.com))
- C. Acceptable Manufacturers - Composite Wood:
  - 1. CertainTeed Corp. ([www.certainteed.com](http://www.certainteed.com))
  - 2. Trex Co. ([www.trex.com](http://www.trex.com))
- D. Acceptable Manufacturers – Metal Connectors
  - 1. Simpson Strong Tie
- E. Substitutions: Under provisions of Division 01.

### 2.2 MATERIALS

- A. Rough Lumber

1. Materials for framing lumber subjects to bending stresses such as beams, joists, rafters, headers, and other horizontal members shall be Southern Pine No. 2 KD (MC 15) construction minimum, unless a higher grade is shown on the drawings.
2. Materials for stud walls and columns shall be Southern Pine No. 3 construction, or stud grade timer or equivalent Douglas Fir-Larch unless otherwise shown on the drawings
3. Materials must be grade marked.
4. Structural wood laminated "Parallam" timbers shall be parallel strand lumber. Glulam beams are not equal, supplier shall submit equivalent sizes for engineer's approval. Parallam timbers shall have the following minimum design properties:

Fb	=	2,900 PSI
E	=	2,000,000 PSI
Fc	=	2,900 PSI
Fv	=	290 PSI

B. Laminated Veneer Lumber:

1. Fabricated by laminating wood veneers under pressure using exterior type adhesive with grain of veneers parallel with length.
2. Veneer: Douglas Fir or Southern Pine.
3. Laminated Veneer Lumber shall have the following minimum design properties:

Fb	=	2,900 PSI
E	=	2,000,000 PSI
Fc	=	2,900 PSI
Fv	=	290 PSI

C. Prefabricated Wood I Joists:

1. Fabricated by bonding stress graded lumber flanges to webs with exterior type adhesive.
2. Flange material: As standard with joist manufacturer
3. Web material: As standard with joist manufacturer.

D. Composite Joists and Headers:

1. Fabricated by laminating wood veneers to narrow oriented strand board to produce rectangular members with veneers making up not less than 32 percent of total cross section.

E. Composite Wood:

1. Extruded product consisting of polyethylene and wood fibers with integral coloring.
2. Color: to be selected from manufacturer's full color range.

F. Sheet Products:

1. Type: APA Plywood.
2. Panel grade:
  - a. Floor sheathing: APA Rated Sheathing rated CD interior with exterior glue. Minimum  $\frac{3}{4}$  inches thick Install plywood with face grain across supports. Plywood span rating shall be 48/24. Nail plywood 6" o.c. along panel edges and 10" o.c. at intermediate supports and blocking with 10d minimum nail
  - b. Combination subfloor/underlayment: APA Sturd-I-Floor. Minimum  $\frac{3}{4}$  inches thick Install plywood with face grain across supports. Plywood span rating shall be 48/24. Nail plywood 6" o.c. along panel edges and 10" o.c. at intermediate supports and blocking with 10d minimum nail
  - c. Underlayment: APA Underlayment.

- d. Roof - Wall Sheathing: APA Rated Sheathing rated CD interior with exterior glue, 5/8" thickness. Install plywood with face grain across supports. Provide plywood-sheathing clips at all free edges. Plywood span rating shall be 48/24. Nail plywood to framing with 8d nails as follows:

Roof Zone:    First 5' of gabled end – First 4' from edge & ridge –                    Others

Panel Edges	4" o.c.	6" o.c.	6" o.c.
Panel Field	6" o.c.	6" o.c.	12" o.c.

Nail to all supports at 4" o.c. for a 10'-0" square area at corners.

(Use 8d ring shank nails when mean roof height exceeds 25 feet)

- 3. Exposure:
  - a. Interior applications: Interior.

## 2.3 ACCESSORIES

- A. Anchor Bolts: ASTM F1554.
- B. Fasteners:
  - 1. Type and size: As required by conditions of use.
  - 2. Exterior locations and treated products: Hot-dip galvanized steel, ASTM A153/A153M, G90 coating class
  - 3. Other interior locations: Plain steel.
- C. Metal Connectors: Joist Hangers:
  - 1. Galvanized steel, ASTM A653/A653M, G90 coating class.
  - 2. Size and shape: To suit framing conditions.
- D. Subflooring Adhesive:
  - 1. Waterproof, water based, air cure type, in cartridge dispensers.
- E. Sill Gasket: 1/4 inch thick, plate width, closed cell polyethylene or urethane foam from continuous rolls.
- F. Termite Shield: Galvanized sheet steel, minimum 26 gage.

## 2.4 FABRICATION

- A. Preservative Treatment:
  - 1. Treat sheet product in accordance with AWPA U1:
    - a. Interior locations protected from moisture sources: Category UC1 - Interior/Dry.
    - b. Interior locations subject to sources of moisture: Category UC2 - Interior/Damp.
  - 2. Treatment process: Type MCA - Micronized Copper Azole.
- B. Fire Retardant Treatment; treat lumber and sheet products in accordance with AWPA U1:
  - 1. Interior locations: Category UCFA - Fire Retardant/Interior.
  - 2. Exterior locations: Category UCFB - Fire Retardant/Exterior.

## PART 3 EXECUTION

### 3.1 INSTALLATION

- A. Set members level, plumb, and rigid.
- B. Make provisions for erection loads, and for temporary bracing to maintain structure safe, plumb, and in true alignment until completion of erection and installation of permanent bracing.
- C. Place beams, joists, and rafters with crown edge up.
- D. Construct load bearing framing members full length without splices.
- E. Sills:
  - 1. Place full width continuous sill flashings under framed walls on cementitious foundations. Lap flashing joint 4 inches.
  - 2. Place sill gasket directly on sill flashing. Fit tight to protruding foundation anchor bolts.
  - 3. Anchor sills to foundation with anchor bolts – refer to Structural Drawings.
- F. Joist Framing:
  - 1. Provide minimum 1-1/2 Inches of bearing.
  - 2. Lap members framing from opposite sides minimum 4 inches.
  - 3. Construct double joist headers at floor and ceiling openings and under wall stud partitions that are parallel to floor joists. Frame rigidly into joists.
  - 4. Bridge joists at mid span for spans in excess of 8 feet.
  - 5. See Structural Drawings/Notes for additional minimum framing requirements
- G. Stud Framing:
  - 1. Provide single bottom plate and double top plates for load bearing partitions.
  - 2. Provide single bottom and top plates for non load bearing partitions.
  - 3. Anchor bottom plates to concrete structure with anchor bolts
  - 4. Triple studs at corners and partition intersections.
  - 5. Anchor studs abutting masonry or concrete with toggle or expansion bolts.
  - 6. Frame openings with double studs and headers. Space short studs over and under opening to stud spacing.
- H. Acoustic Partitions:
  - 1. Extend acoustical partitions past intersecting non-acoustical partitions.
  - 2. Install acoustical insulation:
    - a. Butt to framing members and adjacent construction.
    - b. Carry around pipes, wiring, outlets, and other construction without voids.
    - c. Press against one gypsum board surface to form slight air space on opposite side.
  - 3. Seal acoustical partitions at perimeter and around penetrations:
    - a. Apply continuous bead of sealer between gypsum panel edges and adjacent construction.
    - b. Seal space between gypsum panels at control joints, prior to installing metal control joint.
    - c. Apply sealer to penetrations through partitions.
- I. Beams:
  - 1. Provide minimum end bearing of 4 inches.
  - 2. Nail built-up members with two rows of nails spaced 6 inches on center maximum.
- J. Composite Wood Decking:
  - 1. Place decking to span two or more supports, with ends occurring over supports.
  - 2. Stagger end joints in adjacent rows.
  - 3. Secure to each support with 2 fasteners.
- K. Wall Sheathing:
  - 1. Place panels, with ends over firm bearing and staggered.
  - 2. At corners, place sheathing for a horizontal distance of 48 inches.

3. Leave 1/8 inch expansion space at panel ends and edges.
4. Secure to supports with nails spaced maximum 6 inches on center along edges and maximum 12 inches on center in field of panels.

L. Floor Decking:

1. Place panels perpendicular to framing members, with ends over firm bearing and staggered.
2. Leave 1/8 inch expansion space at panel ends and edges.
3. Secure to supports with nails spaced maximum 12 inches on center along edges and in field of panels.

M. Subflooring:

1. Install flooring underlayment after dust and dirt generating activities have ceased and prior to application of finished flooring.
2. Install building felt between floor decking and subflooring.
3. Apply perpendicular to decking; stagger joints of underlayment in adjacent rows.
4. Leave 1/8 inch expansion space at panel ends and edges.
5. Secure to supports with adhesive and nails spaced maximum 6 inches on center along edges and maximum 12 inches on center in field of panels.

N. Provide blocking, nailers, grounds, furring, and other similar items required to receive and support work.

O. Curb roof openings except where prefabricated curbs are provided. Form corners by alternating lapping side members.

P. Install telephone and electrical panel backboards where indicated: Oversize panel by 12 inches on all sides.

Q. Treat field cuts and holes in preservative treated members providing structural support in accordance with AWWA M4.

### 3.2 TOLERANCES

A. Framing Members: 1/4 inch from true position, maximum.

B. Surface Flatness of Floor: 1/4 inch in 10 feet maximum.

END OF SECTION

## SECTION 064100

### ARCHITECTURAL WOOD CASEWORK

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Special fabricated cabinet units.
  - 2. Plastic laminate countertops.
  - 3. Shop finishing.
  - 4. Cabinet hardware.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Section 066116 - Solid Surfacing Fabrications.
  - 3. Section 079200 - Joint Sealers.

##### 1.2 REFERENCES

- A. Architectural Woodwork Institute/Architectural Woodwork Manufacturers of Canada/Woodwork Institute (AWI/AWMAC/WI) - Architectural Woodwork Standards.
- B. Association of Electrical and Medical Imaging Equipment Manufacturers (NEMA) LD-3 - High Pressure Decorative Laminates.

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Shop Drawings:
    - a. Include dimensioned plan, sections, elevations, and details, including interface with adjacent work.
    - b. Designate wood species and finishes.
  - 2. Samples: For approval from Owner.
    - a. 3 x 3 inch plastic laminate samples in each color and finish.
    - b. Each hardware component.
    - c. Door and trim styles.

##### 1.4 QUALITY ASSURANCE

- A. Fabricator Qualifications:
  - 1. Minimum 5 years documented experience in work of this Section.
  - 2. Certified under AWI/AWMAC/WI Quality Certification Program.

##### 1.5 DELIVERY, STORAGE AND HANDLING

- A. Do not deliver materials until proper protection can be provided, and until needed for installation.

##### 1.6 PROJECT CONDITIONS

- A. Environmental Requirements: Maintain following conditions in building for minimum 7 days prior to, during, and after installation of casework:
  - 1. Temperature: 60 to 80 degrees F.
  - 2. Humidity: 17 to 50 percent.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers - Plastic Laminate:
  - 1. Formica Corp. ([www.formica.com](http://www.formica.com))
- B. Substitutions: Under provisions of Division 01.

### 2.2 MATERIALS

- A. Sheet Products:
  - 1. Graded in accordance with AWI/AWMAC/WI Architectural Woodwork Standards, Section 4 requirements for quality grade specified.
  - 2. Sheet core:
    - a. Countertops at wet areas: Moisture Resistant Particleboard.
    - b. Other surfaces: Particleboard.
- B. Lumber:
  - 1. Graded in accordance with AWI/AWMAC/WI Architectural Woodwork Standards, Section 3 requirements for quality grade specified, average moisture content of 6 percent.
  - 2. Exposed and semi-exposed locations: Close grain hardwood, of quality suitable for opaque finish
- C. Hardboard: Pressed wood fiber with resin binder; standard grade, 1/8 inch thick, smooth one side.
- D. Plastic Laminate: NEMA LD-3.
  - 1. High pressure decorative laminate:
    - a. Horizontal surfaces:
      - 1) Backing sheet: Grade BGF.
      - 2) Other surfaces: Grade HGS.
    - b. Vertical surfaces:
      - 1) Backing sheet: Grade BLF.
      - 2) Cabinet liner: Grade CLS.
      - 3) Other surfaces: Grade VGP.
  - 2. Low pressure decorative laminate: Grade VGL.
  - 3. Colors: See Sheet I001 Interior Specifications.
  - 4. Finish: See Sheet I001 Interior Specifications.

### 2.3 ACCESSORIES

- A. Solid Surfacing Countertops: Specified in Section 066116.
- B. Fasteners: Type and size as required by conditions of use.
- C. Adhesives:
  - 1. Waterproof, water based or solvent release type, compatible with backing and laminate materials.
- D. Finish Hardware: As scheduled at end of Section or approved substitute.
  - 1. Standard: ANSI/BHMA A156.9.
  - 2. Finish and Base Metal: Satin chrome plated steel.

- E. Glazing: Specified in Section 088000.
- F. Joint Sealers: Specified in Section 079200.
- G. Tack Boards:
  - 1. Facing: Fabric.
  - 2. Cork: 1/4 inch thick.
  - 3. Backing: 1/4 inch thick particleboard.

## 2.4 FABRICATION

- A. Cabinets - Plastic Laminate Finish:
  - 1. Quality: AWI/AWMAC/WI Architectural Woodwork Standards, Section 10, Custom Grade.
  - 2. Construction type: Frameless.
  - 3. Interface style: Full Overlay.
  - 4. Semi-exposed surfaces: Low pressure decorative laminate.
  - 5. Fit exposed and semi-exposed sheet edges with matching edging.
    - a. Source: Doellkin, Frama-Tech, or approved substitute.
    - b. Material: PVC
    - c. Thickness:
      - 1) Doors of upper cabinets: 05mm (.018") PVC edge.
      - 2) Doors and drawers on base cabinets: 3mm PVC edge.
  - 6. Fabricate drawer bodies to full depth of drawer fronts less 1/2 inch.
- B. Plastic Laminate Countertops:
  - 1. Quality: AWI/AWMAC/WI Architectural Woodwork Standards, Section 11, Custom Grade.
  - 2. Surfaces: High pressure decorative laminate.
  - 3. Edging:
    - a. Source: Doellkin, Frama-Tech, or approved substitute.
    - b. Material: PVC
    - c. Thickness: 3mm
  - 4. Locate end joints centered or symmetrical. Join sections with concealed clamp fasteners. Locate plastic laminate butt joints minimum 2 feet away from sinks.
  - 5. Provide holes and cutouts for mounting of sinks, trim, and accessories.
- C. Plastic Laminate Shelves at Cage Banks:
  - 1. Quality: AWI/AWMAC/WI Architectural Woodwork Standards, Section 10, Economy Grade.
  - 2. Surfaces: Low pressure decorative laminate.
  - 3. Edging:
    - a. Source: Doellkin, Frama-Tech, or approved substitute.
    - b. Material: PVC
    - c. Thickness: 3mm
  - 4. Locate end joints centered or symmetrical. Join sections with concealed clamp fasteners.
- D. Shop assemble for delivery to project site in units easily handled.
- E. Prior to fabrication, field verify dimensions to ensure correct fit.
- F. Apply plastic laminate in full uninterrupted sheets; fit corners and joints to hairline. Slightly bevel arises. Apply laminate backing sheet to reverse side of laminate faced surfaces.
- G. Where field fitting is required, provide ample allowance for cutting. Provide trim for scribing and site conditions.
- H. Provide cutouts and reinforcement for plumbing, electrical, appliances, and accessories. Prime paint surfaces of cut edges.

### PART 3 EXECUTION

#### 3.1 PREPARATION

- A. Prior to installation, condition cabinets to average humidity that will prevail after installation.

#### 3.2 INSTALLATION

- A. Install in accordance with AWI/AWMAC/WI Architectural Woodwork Standards.
- B. Set plumb, rigid and level.
- C. Scribe to adjacent construction with maximum 1/8 inch gaps.
- D. Adhere countertops, splashes, and skirts with beads of adhesive.
- E. Fill joints between cabinets, tops, splashes, and adjacent construction with joint sealer as specified in Section 079200; finish flush.

#### 3.3 FINISH HARDWARE SCHEDULE

DESCRIPTION	MANUFACTURER	MODEL
Door and drawer pull	-	Wire pull
Drawer slide	Blum	Metabox
Door hinge	Blum	Concealed 120 degree
File drawer system	Blum	Metabox
Pencil Drawer		
Corner cabinet Lazy Susan	Knape & Vogt	PKN Series
Glass door track	Knape & Vogt	P992 Series
Countertop support brackets	Knape & Vogt	208 Series
Cage bank shelf support brackets	Rangine Corp.	Rakks EH-1824
Adjustable shelf standards and brackets	Knape & Vogt	82/182 Series
Mortise mount pilaster shelving system	Knape & Vogt	255 Series
Leash hook	White Water Marine Hardware	7772S

END OF SECTION

## SECTION 064600

### WOOD TRIM

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Interior wood trim and cap..
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

##### 1.2 REFERENCES

- A. American Wood Protection Association (AWPA) U1 - Use Category System - User Specification for Treated Wood.
- B. Architectural Woodwork Institute/Architectural Woodwork Manufacturers of Canada/Woodwork Institute (AWI/AWMAC/WI) - Architectural Woodwork Standards.
- C. ASTM International (ASTM) E84 - Standard Test Method for Surface Burning Characteristics of Materials.

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Shop Drawings:
    - a. Include dimensioned plans, sections, elevations, and details, including interface with adjacent work.
    - b. Designate wood species and finishes.
  - 2. Samples: 6 inch long samples of each profile.

##### 1.4 QUALITY ASSURANCE

- A. Fabricator Qualifications:
  - 1. Minimum 5 years documented experience in work of this Section.
  - 2. Certified under AWI/AWMAC/WI Quality Certification Program.

##### 1.5 DELIVERY, STORAGE AND HANDLING

- A. Do not deliver materials until proper protection can be provided, and until needed for installation.

##### 1.6 PROJECT CONDITIONS

- A. Environmental Requirements: Maintain following conditions in building for minimum 7 days prior to, during, and after installation of interior trim:
  - 1. Temperature: 60 to 80 degrees F.
  - 2. Humidity: 17 to 50 percent.

#### PART 2 PRODUCTS

##### 2.1 MATERIALS

- A. Interior Trim:
  - 1. Graded in accordance with AWI/AWMAC/WI Architectural Woodwork Standards, Section 3 requirements for quality grade specified, average moisture content of 6 percent.
  - 2. Natural Birch species, plain sawn/sliced cut, of quality suitable for transparent finish
  - 3. Close grain hardwood, of quality suitable for opaque finish

## 2.2 ACCESSORIES

- A. Fasteners: Type and size as required by conditions of use; plain steel for interior use; hot dip galvanized steel for exterior use.
- B. Adhesives:
  - 1. Waterproof, water based type, compatible with trim and substrate materials.

## 2.3 FABRICATION

- A. Quality: AWI/AWMAC/WI Architectural Woodwork Standards, Section 6, Premium Grade.
- B. Where field fitting is required, provide ample allowance for cutting.
- C. Groove back of trim applied to flat substrate, except do not groove exposed ends.

## 2.4 FINISHES

- A. Finishing: See Sheet I001 Interior Specifications.

# **PART 3 EXECUTION**

## 3.1 PREPARATION

- A. Prior to installation, condition wood to average humidity that will prevail after installation.
- B. Back prime prior to installation.

## 3.2 INSTALLATION

- A. Install in accordance with AWI/AWMAC/WI Architectural Woodwork Standards.
- B. Install in longest practical lengths.
- C. Set plumb and level.
- D. Miter ends, corners, and intersections.
- E. Scribe to adjacent construction with maximum 1/8 inch gaps.
- F. Fasten to supporting construction.

END OF SECTION

**SECTION 066116**  
**SOLID SURFACING FABRICATIONS**

**PART 1 GENERAL**

1.1 SUMMARY

- A. Section Includes:
  - 1. Solid surfacing countertops, paneling and trim.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Section 079200 - Joint Sealers.

1.2 REFERENCES

- A. ASTM International (ASTM) E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Shop Drawings: Indicate dimensions, component sizes, fabrication details, attachment provisions and coordination requirements with adjacent work.
  - 2. Product Data: Indicate product description, fabrication information and compliance with specified performance requirements.
  - 3. Samples: 2 x 2 inch samples of color selected.
- B. Closeout Submittals:
  - 1. Maintenance Data: Include recommended cleaning materials and procedures and damage repair.

1.4 QUALITY ASSURANCE

- A. Fabricator / Installer Qualifications: Minimum 5 years experience in fabrication and installation of solid surface materials.
- B. Fire Hazard Classification: Class A flame spread/smoke developed rating, test procedure NFPA 255.

**PART 2 PRODUCTS**

2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  - 1. Staron. ([www.staron.com](http://www.staron.com))
- B. Substitutions: Under provisions of Division 01.

2.2 MATERIALS

- A. Solid Surfacing:
  - 1. Material: Homogenous sheet material composed of acrylic resin and coloring agents.
  - 2. Thickness:

- a. Horizontal surfaces:1/2 inch
- b. Vertical surfaces:1/4 inch
3. Color: See sheet I001 Interior Specifications.
4. Surface finish: See sheet I001 Interior Specifications.

### 2.3 ACCESSORIES

- A. Type recommended by solid surfacing manufacturer.
- B. Joint Sealer: Specified in Section 079200.

### 2.4 FABRICATION

- A. Fabricate components in shop to sizes and shapes indicated, in accordance with manufacturer's instructions and approved Shop Drawings.
- B. Fabricate splashes and skirts from solid surfacing color specified on sheet I101 Interior Specifications.
- C. Form joints to be inconspicuous in appearance and without voids. Join pieces with adhesive.
- D. Finish exposed edges to smooth, uniform bullnose profile.
- E. Allowable Tolerances:
  1. Maximum variation in size: 1/8 inch.
  2. Maximum variation in location of openings: 1/8 inch from indicated location.

## **PART 3 EXECUTION**

### 3.1 INSTALLATION

- A. Install in accordance with manufacturer's instructions and approved Shop Drawings.
- B. Set plumb, level, and rigid.
- C. Adhere countertops and skirts with beads of adhesive.
- D. Seal perimeter with joint sealer as specified in Section 079200. Finish smooth and flush.
- E. Allowable Tolerances:
  1. Maximum variation from level and plumb: 1/8 inch in 10 feet, noncumulative.
  2. Maximum variation in plane between adjacent pieces at joint: Plus or minus 1/32 inch.

### 3.2 ADJUSTING

- A. Sand out minor scratches and abrasions.

### 3.3 PROTECTION

- A. Protect surfaces from damage with nonstaining coverings.

END OF SECTION

## SECTION 068000

### COMPOSITE FABRICATIONS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Fiberglass reinforced polymer column wrap.
  - 2. Vinyl shutters
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Section 07 9200 - Joint Sealers.

##### 1.2 REFERENCES

- A. ASTM International (ASTM):
  - 1. D635 - Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Self-Supporting Plastics in a Horizontal Position.
  - 2. E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Product Data: Indicate materials, profiles, sizes, fastening methods, surface texture, finishes, and accessories.

##### 1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum 5 years documented experience in work of this Section.

##### 1.5 PROJECT CONDITIONS

- A. Do not install materials on wet or frozen substrate.
- B. Do not install materials at temperatures below 40 degrees F.

#### PART 2 PRODUCTS

##### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  - 1. Pacific Columns. ([www.pacificcolumns.com](http://www.pacificcolumns.com))
  - 2. Turncraft. ([www.turncraft.com](http://www.turncraft.com))
- B. Substitutions: Under provisions of Division 01.

##### 2.2 MATERIALS

- A. FRP Column Wraps:
  - 1. Source: .Poly-Classic FRP Columns by Turncraft or approved substitute.
  - 2. Type: Tuscan, Non-Tapered, Round, Smooth.
  - 3. Diameter: 12 inch, nominal.

4. Plan Type: AS
5. Finish: Paintable matte white finish.
6. Color: See Interiors Drawings.
7. Flame Spread: 15.
8. Smoke Developed: 335.

B. Vinyl Shutters:

1. Source: .Board-N-Batten Vinyl Shutters by Pacific Columns or approved substitute.
2. Type: Joined, 14 inch, four board.
3. Color: See Interiors Drawings.
4. Flame Spread: 15.
5. Smoke Developed: 335.

### 2.3 ACCESSORIES

- A. Fasteners: Type recommended by manufacturer.
- B. Joint Sealers: Specified in Section 07 9200.

## **PART 3 EXECUTION**

### 3.1 INSTALLATION

- A. Install products, and accessories in accordance with manufacturer's instructions.
- B. Install aligned, level, and plumb.

END OF SECTION

**SECTION 074646**  
**FIBER CEMENT SIDING**

**PART 1 GENERAL**

1.1 SUMMARY

- A. Section Includes:
  - 1. Mineral-fiber cement siding.
  - 2. Mineral-fiber cement soffits.
  - 3. Trim, anchorage, and accessories.
  
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Section 07 6200 - Sheet Metal Flashing and Trim.
  - 3. Section 07 9200 - Joint Sealers.

1.2 REFERENCES

- A. ASTM International (ASTM):
  - 1. C1186 - Standard Specification for Flat, Non-Asbestos, Fiber-Cement Sheets.
  - 2. E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Product Data: Indicate profiles, sizes, fastening methods, surface texture, and finish. Submit manufacturer's data, samples and installation instructions for each product used.
  - 2. Provide sample for verification of specified finish.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum 5 years documented experience in work of this Section.

1.5 WARRANTIES

- A. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty.

**PART 2 PRODUCTS**

2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  - 1. CertainTeed Corp. ([www.certainteed.com](http://www.certainteed.com))
  - 2. James Hardie Building Products. ([www.jameshardie.com](http://www.jameshardie.com))
  
- B. Substitutions: Under provisions of Division 01.

2.2 MATERIALS

- A. Mineral-Fiber Cement Siding:
  - 1. ASTM C1186, Grade II, Type A; formulated from portland cement, ground sand, cellulose fibers, additives, and water; formed under pressure to required profile.
  - 2. Finish: Factory prime painted.
  - 3. Fire hazard classification: Class A, tested to ASTM E84.
  - 4. Siding:
    - a. Source: HardiePanel Siding by James Hardie Building Products or approved substitute.
    - b. Thickness: 0.312 in.

- c. Length: 144 in. boards
- d. Width: 8.25 in.
- e. Surface Texture: Smooth.
- f. Color 1: Dream Collection, Timeless Khaki
- g. Color 2: Dream Collection, Simply Beige
- 5. Trim Batten Boards
  - a. Thickness: .75 in.
  - b. Width: 2.5 in.
  - c. Length: 144 in.
  - d. Spacing: 12 in on center.
  - e. Surface Texture: Smooth
  - f. Color 1: Dream Collection, Timeless Khaki
  - g. Color 2: Dream Collection, Simply Beige
- 6. Soffits:
  - a. Source: HardieSoffit Panels Vented and Non-Vented-Smooth by James Hardie Building Products or approved substitute.
  - b. Size: Soffit width x maximum practical length.
  - c. Thickness: 1/4 inch.
  - d. Surface texture: Smooth.
  - e. Venting: Vented and Non vented. See drawings for locations.
  - f. Color: Color 1: Dream Collection, Timeless Khaki
- 7. Trim:
  - a. Source: HardieTrim Board by James Hardie Building Products or approved substitute.
  - b. Size: 3 1/2, 5 1/2, 7 1/4, 9 1/4, 11 1/4 inches wide x maximum practical length.
  - c. Thickness: 3/4 inch.
  - d. Surface texture: Smooth.
  - e. Color 1: Dream Collection, Timeless Khaki
  - f. Color 2: Dream Collection, Simply Beige

## 2.3 ACCESSORIES

- A. Fasteners: Type recommended by siding manufacturer; non-corrosive.
- B. Sheet Metal Flashings and Trim: Specified in Section 07 6200.
- C. Joint Sealers: Specified in Section 07 9200.

## PART 3 EXECUTION

### 3.1 INSTALLATION - BOARD SIDING AND SOFFITS

- A. Install in accordance with manufacturer's instructions.
- B. Install sheets with edges and ends over firm bearing.
- C. Butt joints tight.
- D. Set plumb and level.
- E. Cut siding to fit at perimeter and around penetrations with maximum ¼ inch gaps. Smooth cut edges.
- F. Install corner strips, closures, [battens,] and trim.
- G. Fasten at maximum 12 inches on center in orderly fastening pattern.
- H. Install metal flashings at internal and external corners, sills, and heads of wall openings. Fasten at 12 inches on center maximum.
- I. Apply joint sealer between siding and trim and adjacent surfaces as specified in Section 07 9200.

### 3.2 INSTALLATION - TRIM

- A. Install in accordance with manufacturer's instructions.
- B. Butt joints tight.
- C. Set plumb and level.
- D. Cut to fit at perimeter and around penetrations with maximum  $\frac{1}{4}$  inch gaps. Smooth cut edges.
- E. Fasten at maximum 16 inches on center.

END OF SECTION

## SECTION 079200

### JOINT SEALERS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Joint backup materials.
  - 2. Joint sealers.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

##### 1.2 REFERENCES

- A. ASTM International (ASTM):
  - 1. C510 - Standard Test Method for Staining and Color Change of Single- or Multicomponent Joint Sealants.
  - 2. C719 - Standard Test Method for Adhesion and Cohesion of Elastomeric Joint Sealants Under Cyclic Movement (Hockman Cycle).
  - 3. C794 - Standard Test Method for Adhesion-In-Peel of Elastomeric Joint Sealants.
  - 4. C834 - Standard Specification for Latex Sealing Compounds.
  - 5. C919 - Standard Practice for Use of Sealants in Acoustical Applications.
  - 6. C920 - Standard Specification for Elastomeric Joint Sealants.
  - 7. C1193 - Standard Guide for Use of Joint Sealants.
  - 8. C1248 - Standard Test Method for Staining of Porous Substrate by Joint Sealants.
  - 9. C1330 - Standard Specification for Cylindrical Sealant Backing for Use with Cold Liquid Applied Sealants.
  - 10. C1472 - Standard Guide for Calculating Movement and Other Effects When Establishing Sealant Joint Width.
  - 11. C1521 - Standard Practice for Evaluating Adhesion of Installed Weatherproofing Sealant Joints.
  - 12. D2203 - Standard Test Method for Staining from Sealants.
  - 13. D6690 - Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Product Data: Indicate sealers, primers, backup materials, bond breakers, and accessories proposed for use.
  - 2. Warranty: Sample warranty form.

##### 1.4 QUALITY ASSURANCE

- A. Applicator Qualifications: Minimum 5 years documented experience in work of this Section.

##### 1.5 PROJECT CONDITIONS

- A. Do not apply sealers at temperatures below 40 degrees F unless approved by sealer manufacturer.

#### PART 2 PRODUCTS

##### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  - 1. BASF Building Systems. ([www.buildingsystems.basf.com](http://www.buildingsystems.basf.com))
  - 2. Dow Corning Corp. ([www.dowcorning.com](http://www.dowcorning.com))

3. GE Silicones. ([www.siliconeforbuilding.com](http://www.siliconeforbuilding.com))
4. Pecora Corp. ([www.pecora.com](http://www.pecora.com))
5. Sika Corp. ([www.sikausa.com](http://www.sikausa.com))
6. Tremco, Inc. ([www.tremcosealants.com](http://www.tremcosealants.com))

B. Substitutions: Under provisions of Division 01.

## 2.2 MATERIALS

- A. Joint Sealer Type 1:
1. ASTM D6690, Type 1, hot-poured polymer modified asphalt.
  2. Movement capability: Plus or minus 25 percent.
  3. Color: Black.
- B. Joint Sealer Type 2:
1. ASTM C920, Grade NS, multiple component polyurethane type, self-leveling and slope grades.
  2. Movement capability: Plus or minus 25 percent.
  3. Color: To be selected from manufacturer's full color range
- C. Joint Sealer Type 3:
1. ASTM C920, Grade NS, single or multiple component polyurethane type, non sag.
  2. Movement capability: Plus or minus 25 percent.
  3. Color: To be selected from manufacturer's full color range
- D. Joint Sealer Type 4:
1. ASTM C920, Grade NS, single component silicone, non sag, mildew resistant.
  2. Movement capability: Plus or minus 25 percent.
  3. Color: To be selected from manufacturer's full color range
- E. Joint Sealer Type 5:
1. ASTM C834, single component synthetic rubber or acrylic latex, non sag, non-hardening, non-corrosive, recommended by manufacturer for acoustical applications.
  2. Movement capability: Plus or minus 7-1/2 percent.
  3. Color: White.
- F. Joint Sealer Type 6:
1. ASTM C834, single component acrylic latex, non sag.
  2. Movement capability: Plus or minus 7-1/2 percent.
  3. Color: White.

## 2.3 ACCESSORIES

- A. Primers, Bondbreakers, and Solvents: As recommended by sealer manufacturer.
- B. Joint Backing:
1. ASTM C1330, closed cell polyethylene foam, preformed round joint filler, non absorbing, non staining, resilient, compatible with sealer and primer, recommended by sealer manufacturer for each sealer type.
  2. Size: Minimum 1.25 times joint width.

## 2.4 MIXES

- A. Mix multiple component sealers in accordance with manufacturer's instructions.
1. Mix with mechanical mixer; prevent air entrainment and overheating.
  2. Continue mixing until color is uniform.

## PART 3 EXECUTION

### 3.1 PREPARATION

- A. Remove loose and foreign matter that could impair adhesion. If surface has been subject to chemical contamination, contact sealer manufacturer for recommendation.
- B. Clean and prime joints in accordance with manufacturer's instructions.
- C. Protect adjacent surfaces with masking tape or protective coverings.
- D. Calculate joint dimensions in accordance with ASTM C1472.

### 3.2 APPLICATION

- A. Apply products in accordance with manufacturer's instructions.
- B. Install sealers and accessories in accordance with ASTM C1193.
- C. Install acoustical sealers and accessories in accordance with ASTM C919.
- D. Install joint backing to maintain required sealer dimensions. Compress backing approximately 25 percent without puncturing skin. Do not twist or stretch.
- E. Use bondbreaker tape where joint backing is not installed.
- F. Fill joints full without air pockets, embedded materials, ridges, and sags.
- G. Tool sealer to smooth profile.
- H. Apply sealer within manufacturer's recommended temperature range.

### 3.3 CLEANING

- A. Remove masking tape and protective coverings after sealer has cured.
- B. Clean adjacent surfaces.

### 3.4 SCHEDULE

<u>JOINT LOCATION OR TYPE</u>	<u>SEALER TYPE</u>
Exterior Joints:	
Joints in horizontal surfaces subject to vehicular traffic	1
Joints at dissimilar materials	2
Other joints	3
Interior Joints:	
Joints in toilet rooms, countertops, kitchens	4
Joints in acoustical assemblies	5
Other joints	6

END OF SECTION

## SECTION 070543

### CLADDING SUPPORT SYSTEMS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Provide air and water-resistive barrier, continuous noncombustible mineral wool insulation, sub-construction, and exterior code compliant cladding for vertical above grade exterior walls.
- B. Section Includes: Engineered, tested, adjustable, thermally efficient structural system of brackets, rails/profiles, fasteners, and accessories for attachment of exterior Fiber Cement cladding as part of a cavity or rainscreen wall assembly.
- C. Related Sections
  - 1. Section 04 73 00 - Manufactured Stone Masonry
  - 2. Section 07 26 00 - Vapor Retarders
  - 3. Section 07 27 00 - Air Barriers
  - 4. Section 07 21 13 - Board Insulation
  - 5. Section 07 21 16 - Blanket Insulation
  - 6. Section 07 42 43 - Composite Wall Panels
  - 7. Section 07 62 00 - Sheet Metal Flashing and Trim
  - 8. Section 07 92 00 - Joint Sealants

##### 1.2 WALL ASSEMBLY DESCRIPTION

- A. The wall assembly shall include the following components:
  - 1. Substrate: Concrete, masonry, and/or stud wall with sheathing
  - 2. Air and Water-Resistive Barrier
  - 3. Mineral Wool insulation
  - 4. Thermally Efficient Structural Sub-construction for Exterior Cladding
  - 5. Exterior Cladding

##### 1.3 SUBMITTALS

- A. Manufacturer's specifications, details, installation instructions and product data
- B. Manufacturer's standard warranty
- C. Samples for approval as directed by architect or owner
- D. Prepare and submit project-specific shop drawings
- E. Engineering calculations by qualified licensed PE
- F. Prepare and submit project specific shop drawings

## 1.4

### REFERENCES

- A. ANSI/ASHRAE Standards  
ANSI/ASHRAE 90.1 Energy Standard for Buildings Except Low-Rise Residential Buildings
- B. IECC  
International Energy Conservation Code-2021
- C. ASTM Standards  
ASTM A1046 Standard Specification for Steel Sheet, Zinc-Aluminum-Magnesium Alloy-Coated by the Hot-Dip Process  
ASTM A370 Standard Test Methods and Definitions for Mechanical Testing of Steel Products
- D. EN Standards  
EN 755 Aluminium and Aluminium Alloys – Extruded rod/bar, tube and profiles  
EN 10346 Continuously Hot-Dipped Coated Steel Products for Cold Forming
- E. NFPA Standards  
NFPA 220 Standard on Types of Building Construction  
NFPA 285 Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Wall Assemblies Containing Combustible Components

## 1.5

### DESIGN REQUIREMENTS

*NOTE: Coordinate this section with other material specification sections and detail drawings as applicable.*

- A. Contractor is responsible for designing system, including anchorage to structural support and necessary modifications to meet specified requirements and maintain visual design concepts.
- B. Employ registered professional engineer, licensed to practice engineering in jurisdiction where project is located, to engineer layout and fastening of cladding support system to resist wind loads in accordance with applicable building code requirements.
- C. Structural Design: Provide thermally efficient Sub-construction system capable of withstanding effects of load and stresses from dead loads, wind loads, ice loads (if applicable) as indicated on project Structural Notes within the Structural Construction Drawings, and normal thermal movement without evidence of permanent defects of Sub-construction assemblies or components.
  - 1. Wind Load: as indicated on Structural Drawings, acting inward or outward. See Structural Drawings. Design for allowable deflection in accordance with cladding manufacturer's requirements.
  - 2. Dead Loads: Design for loading to accommodate support of cladding system specified by related sections and shown on Construction Drawings or Shop Drawings as required by local building code.
  - 3. Tolerances: Accommodate deflection of structural members, maintain clearance, and prevent load transfer to non-structural elements.

4. Thermal movements: Design for movement due to cyclic day and night temperatures to not exceed safety factors for fasteners, joints, and components.
- D. Ventilated Rainscreen Design (if applicable): provide design details for ventilation air movement into the rainscreen through the wall cavity and to move water vapor out.
- E. Joints
1. Provide joints where they exist in the supporting wall construction - at expansion, control, and cold joints, at changes in support construction (e.g., masonry to frame wall), at junctures with dissimilar construction, at different substrates, at floor lines in multi-story wall construction, at changes in building height and other areas of stress concentration
- F. Insulation Thickness
1. Standard Mineral Wool thickness up to 7 inch (178mm).
  2. Custom Mineral Wool thickness available where required by code.
- G. Sub-Construction
1. StoVentro brackets, long-length profiles, and fasteners available in Aluminum and Zn-Al-Mg-galvanized steel brackets and aluminum profiles as defined herein.
  2. Bracket sizes, heights, spacing, and layout determined by design pressures on the project. See StoVentro Load Tables or contact Sto Corp. for engineering of the system.

## 1.6 PERFORMANCE REQUIREMENTS

- A. Air and Water-Resistive Barrier
1. Vapor permeable air and water-resistive barrier in compliance with ASTM E2178 allowable air leakage of 0.004 cfm/ft<sup>2</sup> (0.02 L/s/m<sup>2</sup>) and ASTM E2357 allowable air leakage of 0.04 cfm/ft<sup>2</sup> (0.2 L/s/m<sup>2</sup>)
  2. Water-resistive barrier in conformance with physical requirements of ASTM E2570
- B. Sub-construction attachment system performance: Comply with requirements to resist dead loads and design wind pressures.
- C. Thermal Performance:
1. Non-combustible mineral wool insulation as defined by NFPA 220 in compliance with ASTM C612 Type IVA requirements with 0 flame spread and 0 smoke development when measured in accordance with ASTM E84
  2. Wall Assembly effective R-Value (U-Factor): R-19.35
  3. Full construction wall assembly (sheathing, sub-construction, interior and exterior insulation, air films, etc.) shall be thermally analyzed to ensure compliance with U-value requirement for applicable climate zone(s).
  4. Perform effective R-Value calculations or modeling in accordance with ASHRAE / IECC guidelines.
- D. Sub-construction Material Properties:
1. 3.2mm and 4.2mm, Large (FP) and Small (GP) wall brackets, quality EN AW-6063 T66 aluminum, tolerance in accordance with EN 755-9, or 6005A-T5 aluminum, tolerance in accordance with ASTM A370-19.

2. 2.0mm, Large (FP) and Small (GP) wall brackets, Grade 80 HSLAS-F + ZM115 galvanized steel in accordance with ASTM A1046 Type 1 specification, or Grade S550GD (1.0531) + ZMM430 galvanized steel conforming to EN 10346.
3. Minimum 2.0mm aluminum alloy T-profiles, L-profiles, or other StoVentre profiles, EN AW-6063 T66 per EN 755-2, or 6005A-T5 with minimum tensile strength of 38 ksi (262 N/mm<sup>2</sup>) and 6005A-T5 aluminum tolerance in accordance with ASTM A370-19

E. Fire Break

1. Metal Fire Break - Minimum 0.38mm corrosion resistant metal of sufficient dimension to overlap inner face of carrier board by minimum 10mm (~3/8in)
2. Composite Fire Break - Mineral Wool – Nominal 6 lb/ft<sup>3</sup> (96kg/m<sup>3</sup>) density, minimum 4 in (~100mm) tall non-combustible mineral wool insulation lamella strip (fibers oriented perpendicular to wall), faced with intumescent tape, nominal 75 lb/ft<sup>3</sup> (1200 kg/m<sup>3</sup>) flexible intumescent material of exfoliated graphite that foams up under influence of pressure and temperature
3. Dual Barrier Fire Break - Nominal 6 lb/ft<sup>3</sup> (96kg/m<sup>3</sup>) density, minimum 4 in (~100mm) tall non-combustible mineral wool insulation lamella strip (fibers oriented perpendicular to wall), cut for compression fit between vertical T-Profiles, and combined with metal fire break, minimum 0.38mm corrosion resistant metal of sufficient dimension to overlap inner face of carrier board by minimum 10mm (~3/8in), faced with minimum 50mm (2in) tall intumescent tape

1.7 QUALITY ASSURANCE

A. Manufacturer Requirements

1. Air and water-resistive barrier manufacturer for a minimum of thirty-five (35) years
2. Minimum 5 years' experience specializing in the manufacturing of façade attachment/support framing similar to those specified.
3. Ability to demonstrate conformance to design requirements through testing or analysis.

B. Installer Requirements

1. Engaged in application of similar systems for a minimum of three (3) years
2. Employ skilled mechanics who are experienced and knowledgeable in curtain wall and rainscreen wall application, and familiar with the requirements of the specified work
3. Provide the proper equipment, manpower and supervision on the job site to install the system in compliance with specifications and details for the project

C. Engineering Qualifications: Registered professional engineer experienced in the design of curtain wall systems, anchors, fasteners and licensed to practice engineering in the jurisdiction where project is located.

D. Pre-Construction/Mock-up Meeting:

1. Construct full-scale mock-up of typical air/water-resistive barrier and exterior cladding /window wall assembly in accordance with provisions of Division 01, manufacturer's instruction, and requirements of project specifications. Where mock-up is tested at job site maintain approved mock-up at site as reference standard. If tested off-site accurately record construction detailing and sequencing of approved mock-up for replication during construction. Establish sequence and scheduling of work and

interface with other trades.

- E. Inspections
  - 1. Provide independent third-party inspection where required by code or contract documents
  - 2. Conduct inspections in accordance with code requirements and contract documents

## 1.8 DELIVERY, STORAGE AND HANDLING

- A. Deliver all materials in their original sealed containers bearing manufacturer's name and identification of product. Store cartons and bundles of material inside in a dry area until ready for use on pallets. Store off the ground on pallets in a dry location out of direct sunlight during installation.
- B. Store cartons and bundles of material inside in a dry area until ready for use on pallets. At the job site store off the ground on pallets in a dry location out of direct sunlight.
- C. Store wet products (pail products) in a dry area and protect from extreme heat, 90°F (32°C), freezing, and direct sunlight

## 1.9 PROJECT/SITE CONDITIONS

- A. Deliver all materials in their original sealed containers bearing manufacturer's name and identification of product
- B. Store sub-construction, fasteners and accessory products in a dry location off the ground out of direct sunlight
- C. Provide supplementary heat for installation of sub-construction in temperatures less than 25°F (-3.8°C)
- D. Provide a secure staging area for storage of sub-construction components to protect from damage from construction activities
- E. Provide protection of surrounding areas and adjacent surfaces from application of products

## 1.10 COORDINATION/SCHEDULING

- A. Provide site grading such that the wall cladding assembly terminates above cladding manufacturer's requirements.
- B. Coordinate installation of foundation waterproofing, roofing membrane, windows, doors and other wall penetrations to provide a continuously connected air and moisture barrier
- C. Provide protection of rough openings before installing windows, doors, and other penetrations through the wall
- D. Schedule work such that the air and water-resistive barrier is exposed to weather no longer than 180 days
- E. Install window and door head flashing immediately after windows and doors are installed
- F. Install diverter flashings wherever water can enter the wall assembly to direct water to the exterior

- G. Install sheet metal flashing and trim closures at terminations with windows, doors, and similar through wall penetrations
- H. Attach penetrations at pre-determined locations and through prefabricated holes in the wall cladding to structural support and provide watertight seal to air and moisture barrier and the cladding.
- I. Install sub-construction after air and water-resistive barrier is completely dry
- J. Install fire breaks at floor lines, openings, and other required locations
- K. Install continuous insulation between or over sub-construction
- L. Install sill flashings, copings, jamb closures, and sealant immediately after installation of the finished wall assembly

1.11 WARRANTY

Provide manufacturer's standard warranty

**PART 2 PRODUCTS**

2.1 MANUFACTURERS

- A. Provide air and water-resistive barrier, sub-construction, and insulation from single source manufacturer or approved supplier.
- B. The following are acceptable manufacturers:
  - 1. Sto Corp. – StoVentro™ sub-construction components

2.2 AIR AND WATER-RESISTIVE BARRIER

- A. StoGuard®
  - 1. Joint Treatment, Rough Opening Protection, and Static Transition Detail Components:
    - a. Sto Gold Fill® – ready mixed coating applied by trowel or knife for rough opening protection of frame walls and joint treatment of sheathing when used with StoGuard Mesh. Also used as a detail component with StoGuard Mesh to splice over back flange of starter track, flashing, and similar ship lap details
    - b. Sto AirSeal™ with StoGuard Fabric and RediCorners - ready mixed coating applied by brush, roller, or spray for joint treatment of sheathing when used with StoGuard Fabric, and rough opening protection of frame walls when used with StoGuard Fabric and RediCorners. Also used as a detail component with StoGuard Fabric to splice over back flange of starter track, flashing, and similar ship lap details
    - c. Sto RapidGuard® - one component STPE rapid drying gun-applied treatment for sheathing joints, rough openings, seams, cracks, penetrations, and other static transitions in above grade wall construction
  - 2. Air and Water-Resistive Barrier Coating
    - a. Sto AirSeal® – ready mixed vapor permeable air and water-resistive barrier coating for concrete, concrete masonry, brick masonry, wood-based sheathing, cementitious sheathing, and glass mat gypsum sheathing

b. Alternatives:

- A. Sto Gold Coat® – ready mixed vapor permeable air and water-resistive barrier coating for concrete, concrete masonry, brick masonry, wood-based sheathing, cementitious sheathing, and glass mat gypsum sheathing
- B. Sto VaporSeal® – fluid-applied Class 1 vapor retarder and air and water-resistive barrier for concrete, concrete masonry, brick masonry, wood-based sheathing, cementitious sheathing, and glass mat gypsum sheathing

3. Static or Dynamic Transition Detail Component

- a. StoGuard Transition Membrane – flexible air barrier material for continuity at static transitions such as sheathing to foundation, dissimilar materials (CMU to frame wall), wall to balcony floor slab or ceiling, and shingle lap transitions to flashing. Also used for dynamic joints: floor line deflection joints, masonry control joints, and through wall joints in masonry or frame construction

## 2.3 FLOOR LINE FIRE STOP

A. Metal fire break

- 1. Minimum 0.38mm corrosion resistant metal of sufficient dimension to overlap inner face of carrier board by minimum 10mm (~3/8in)

B. Composite Fire Break - mineral wool insulation with surface mount intumescent tape:

- 1. Owens Corning Thermafiber® RainBarrier HD mineral wool insulation board in conformance with ASTM C612, Type IVA requirements, nominal 6.0 lb/ft<sup>3</sup> density (96.1 kg/m<sup>3</sup>), and R-4.3 per inch (RSI - 0.74 per 25mm) with glass fibers oriented perpendicular to the plane of the wall.
- 2. Rolf Kuhn 2mm (~1/16in) ROKU® intumescent strip with adhesive backing (field applied over insulation – refer to Sto Details)

C. Dual Barrier Fire Break – mineral wool insulation with metal fire break and intumescent tape

- 1. Owens Corning Thermafiber® RainBarrier HD mineral wool insulation board in conformance with ASTM C612, Type IVA requirements, nominal 6.0 lb/ft<sup>3</sup> density (96.1 kg/m<sup>3</sup>), and R-4.3 per inch (RSI - 0.74) with glass fibers oriented perpendicular to the plane of the wall.
- 2. Minimum 0.38mm corrosion resistant metal of sufficient dimension to overlap inner face of carrier board by minimum 10mm (~3/8in) (field applied over insulation – refer to Sto Details)
- 3. Rolf Kuhn 2mm (~1/16in) ROKU® intumescent strip with adhesive backing (field applied over metal fire break – refer to Sto Details)

## 2.4 SUB-CONSTRUCTION

- A. StoVentro aluminum or galvanized steel (Zn-Al-Mg) brackets and aluminum T-profiles, L-profiles, and other cross-sectional profiles capable of complying with ANSI/ASHRAE 90.1 and IECC-2021.

B. Steel Classification: Galvanized Steel (Zn-Al-Mg)

- 1. StoVentro Bracket – Zn-Al-Mg, material properties grade – HSLAS-F Gr 80 + ZM 115 or S550GD + ZMM430

- C. Aluminum Classification: Aluminum (ALUM)
  - 1. StoVentro Bracket – ALUM, material properties are 6063-T66 aluminum
  - 2. StoVentro T-Profile, material properties are 6063-T66 or 6005A-T5 aluminum
  - 3. StoVentro L-Profile, material properties are 6063-T66 or 6005A-T5 aluminum
  - 4. StoVentro profiles of other cross-sectional shapes, material properties are 6063-T66, 6063-T6, or 6005A-T5 aluminum
    - a. ½" hat channel
    - b. 1" hat channel
    - c. Agraffe rail
    - d. Carrier rail
- D. Bracket and Rail Spacing: Comply with Professional Engineer's project specific calculations for wall brackets and profiles or pre-engineered and certified designs.
- E. Wall Brackets
  - 1. StoVentro Bracket – ALUM is an aluminum wall bracket. A thermal break accessory is available with the brackets to minimize thermal bridging effects. Brackets range in depth from 40mm to 320mm, in 20mm increments (~1 9/16" - ~12 5/8" in ~13/16" increments). Brackets provide 30mm (~1 3/16") adjustability. Large Brackets (FP) transfer dead loads and wind loads to the primary structure. Small Brackets (GP) transfer only wind loads to the primary structure.
  - 2. StoVentro Bracket – Zn-Al-Mg is a galvanized steel wall bracket. Zn-Al-Mg brackets range in depth from 60mm to 360mm, in 20mm increments (~2 3/8" - ~14 3/16" in ~13/16" increments). Zn-Al-Mg brackets are available with spring fingers, for insertion of StoVentro T or L Profiles, beginning at 80mm depth. Brackets provide 30mm (~1 3/16") adjustability. Large Brackets (FP) transfer dead loads and wind loads to the primary structure. Small Brackets (GP) transfer only wind loads to the primary structure.
- F. Support Profiles are aluminum rails/profiles. The profiles are the supporting sub-construction of the specified wall cladding. StoVentro L-Profiles are acceptable for use where the cladding panel fastener to edge distance design allows, and are also used to stiffen outside corners at cantilevered sections. For camouflaging the aluminum profiles at open cladding panel joints, add black direct-to-metal paint (prior to cladding installation).
  - 1. StoVentro T-Profiles come in lengths of 3m and 6m (~9'-10" and ~19'-7") and have a bearing surface of 90mm (~3 9/16") or 120mm (~4 3/4")
  - 2. StoVentro L-Profiles come in lengths of 3m and 6m (~9'-10" and ~19'-7") and have a bearing leg surface of 40mm (~1-9/16") and 50mm (2")
  - 3. StoVentro profiles of other cross-sectional shapes required for use in hidden fastener cladding panel attachment or additional face-fastener cladding attachment applications, come in lengths as follows:
    - a. Carrier Rail - 3m (~9'-10").
    - b. Agraffe Rail - 3m (~9'-10").
    - c. Hat Channel: ½" or 1" depth x 8, 10, or 12 foot lengths possible

G. Thermal isolation

1. The optional components may be used with StoVentro Brackets – ALUM, Zn-Al-Mg
  - a. Thermal Blocking Element for ALUM, Zn-Al-Mg StoVentro brackets– 6mm (~1/4“) thick thermal break accessory that isolates the wall bracket from thermal bridging effects of the primary structure, in two sizes to match the footprint of the large or small bracket.
  - b. Thermal Sliding Element – 1mm (1/32“) thick thermal break accessory that isolates the StoVentro ‘T’-Profiles, ‘L’-Profiles, or other StoVentro profiles from thermal bridging effects of the wall bracket.

H. Fasteners – profile and bracket connectors

1. StoVentro Sub-construction screw is a self-drilling, hexagonal head stainless steel screw with a hardened drill point and overtightening protection for attachment of StoVentro T-Profiles and StoVentro L-Profiles, or other StoVentro profiles to StoVentro Brackets.
  - a. Size: 5.5mm x 22mm (~3/16” x 7/8”), 500 per box (typical package size)

2.5 FASTENERS

A. Sub-construction attachment to exterior building wall

- a. Attachment to steel studs. StoVentro bracket to steel stud attachment screw is a ¼-14, high drilling capacity, self-drilling, hexagonal head, bi-metal (stainless steel + carbon steel) screw for attachment of StoVentro Brackets to (18g-12ga) steel studs. *Only length of 2” is available from Sto.* The StoVentro bracket to steel stud attachment screw includes an integral stainless steel + EPDM bonded washer of 19/32” diameter. Performance data shall meet:
  - A. Material thickness drill capacity
    - .105” (2.7 mm) carbon steel
    - .125” (3.2 mm) aluminum
  - B. Material Strength
    - Tensile: 3400 lbf / 15124 N
    - Shear 2400 lbf / 10676 N
    - Torsional 140 lbf in / 15.4 N m
  - C. Pull Out Strength
    - 12ga: 1941 lbf / 8634 N
    - 14ga: 1285 lbf / 5716 N
    - 16ga: 794 lbf / 3532 N
    - 18ga: 681 lbf / 3029 N
- b. Attachment to concrete, grout-filled CMU, and wood exterior building walls
  - A. Contact Sto Corp.

2.6 CLADDING

- A. Refer to Division 07 Section 07 4646

2.7 ACCESSORIES

- A. StoSeal STPE Sealant - high-movement, low modulus, non-sag one-component silyl-terminated polyether joint sealant in compliance with ASTM C920 (Type S, Grade NS, Use NT, A, M, Class 100/50) and tested in accordance with ASTM C1382

## PART 3 EXECUTION

### 3.1 ENGINEERING AND SHOP DRAWINGS

- A. Cladding sub-contractor shall provide engineering and shop drawings identifying attachments to back-up wall construction structural supports, location and type of fire breaks, layout of sub-construction components (including fixed or sliding point brackets) and connections (fixed or sliding point), cladding locations and joint spacing, sill flashing, copings, jamb closures, and joint sealant type(s) and location.

### 3.2 ACCEPTABLE INSTALLERS

- A. Prequalify under Quality Assurance requirements of this specification (section 1.7 B)

### 3.3 EXAMINATION

- A. Inspect surface plane for compliance with tolerance of not greater than 1/4 inch in 10 feet [6mm in 3.0m] deviation in plane.
- B. Report deviations from the requirements of project specifications or other conditions that might adversely affect the insulation board, sub-construction, or cladding installation to the General Contractor. Do not start work until deviations are corrected.

### 3.4 SURFACE PREPARATION

- A. Remove surface contaminants, repair cracks, spalls or damage in concrete and concrete masonry surfaces and level concrete and masonry surfaces to comply with required tolerances. Repair holes, gaps, over-driven fasteners in sheathing surfaces, and replace damaged sheathing

### 3.5 AIR/WATER-RESISTIVE BARRIER INSTALLATION

- A. Air/Water-Resistive Barrier Installation over Exterior or Exposure I Wood-Based Sheathing (Plywood and OSB), Glass Mat Faced Gypsum Sheathing in Compliance with ASTM C1177, and Concrete, or Concrete Masonry (CMU) Wall Construction
  - 1. Transition Detailing
    - a. Detail transition areas with Sto RapidGuard or StoGuard Transition Membrane to achieve air barrier continuity. For illustrations of installation, refer to Sto Guide Details and Sto RapidGuard Installation Guide or StoGuard Transition Membrane Installation Guide ([www.stocorp.com](http://www.stocorp.com)).
  - 2. Rough Opening Protection (select 1, 2 or 3 for frame construction; for concrete or concrete masonry rough openings with wood bucks and similar openings with complex 3-dimensional geometry, select no. 3, Sto RapidGuard):
    - a. Sto Gold Fill with StoGuard Mesh: apply 9 inch (229 mm) wide StoGuard Mesh at rough openings. Immediately apply Sto Gold Fill by spray or trowel over the mesh and spread with a trowel to create a smooth surface that completely covers the mesh (refer to Sto Detail 22s.20M).
    - b. Sto Gold Coat with StoGuard Fabric: apply coating liberally by spray or roller to corners of openings, immediately place StoGuard RediCorners in the wet coating, and apply additional coating over the RediCorners to completely embed them.

After all corners have been completed apply coating liberally to the entire rough opening, immediately place StoGuard Fabric in the wet coating, smooth any wrinkles with a brush or roller, and apply additional coating over the fabric to completely embed it. Overlap all seams minimum 2 inches (51 mm). Once completed top coat with additional coating as needed to completely seal the surface. Allow to dry and inspect for pinholes or voids. If pinholes or voids are present, seal with additional coating or Sto RapidGuard (refer to Sto Detail 22s.20F).

- c. Sto RapidGuard: apply a fillet bead of material with a caulking gun at interior corners inside the opening to seal jamb/sill and jamb/head seams. Apply material in a zig-zag pattern along sill, jambs, and head to form a generous bead of material along the surface to be covered. Use a 6 inch (152 mm) wide plastic drywall knife to spread the material to a uniform thickness of 12-20 mils (0.3-0.5 mm) before the material skins. Treat the entire rough opening surface in this manner and overlap onto the face of the sheathing 2 inches (51 mm) minimum all the way around (refer to Sto Detail 22s.20RG)
3. Sheathing Joint Treatment (select one)
    - a. Sto Gold Fill with StoGuard Mesh: place 4 inch (102 mm) wide mesh centered along sheathing joints and minimum 9 inch (229 mm) wide mesh centered and folded at inside and outside corners. Immediately apply Sto Gold Fill by spray or trowel and spread with a trowel to create a smooth surface that completely covers the mesh.
    - b. Sto Gold Coat with StoGuard Fabric: apply coating liberally by spray or roller along sheathing joints and immediately place 4 inch (102 mm) wide fabric centered over the joints into the wet coating, and 6 inch (152 mm) wide fabric centered and folded at inside and outside corners into the wet coating. Smooth any wrinkles with a brush or roller and apply additional coating to completely embed the fabric. Overlap seams minimum 2 inches (51 mm).
    - c. Sto RapidGuard: apply to properly installed sheathing - joints butted for gypsum sheathing, and joints gapped for plywood and OSB sheathings (wood-based sheathing typically requires 1/8 inch [3 mm] spacing at edge and end joints). Apply a thick bead of Sto RapidGuard with a caulking gun along sheathing joints or apply in a zig-zag pattern across and down the joints. Spread to a uniform thickness of 20-30 mils (0.5-0.6 mm) before the material skins. Spread 1 inch (25 mm) beyond the sheathing joint on each side. Follow the same procedure for inside and outside corners.
  4. Air/Water-Resistive Barrier Coating Installation – Sto Gold Coat® - Substrate-Driven spec (medium and high build specifications are also options)
    - a. Plywood and Gypsum Sheathing: apply the air and moisture barrier coating by spray or roller over sheathing surface, including the dry joint treatment, rough opening protection, and transition areas, to a uniform wet mil thickness of 10-12 mils in one coat (Sto Gold Coat). Use ½ inch (13 mm) nap roller for plywood. Use ¾ inch (19 mm) nap roller for glass mat faced gypsum sheathing. Protect from weather until dry.
    - b. OSB Sheathing: apply the air and moisture barrier coating by spray or with a ¾ inch (19 mm) nap roller to sheathing surface to a uniform wet mil thickness of 20 mils. Touch up any areas with raised OSB strands or voids to provide a void and pinhole free surface. Protect from weather until dry.
    - c. CMU Surfaces:

Repair static cracks up to 1/2 inch (13 mm) wide with Sto RapidGuard. Rake the

crack with a sharp tool to remove loose or friable material and blow clean with oil-free compressed air. Apply the crack filler with a trowel or putty knife over the crack and tool the surface smooth. (Note: For moving cracks or cracks larger than ½ inch [13mm]), consult with a structural engineer for repair method). Protect repair from weather until dry.

Liberally apply AWRB coating to the surface with a ¾ inch nap roller or spray equipment to a wet thickness of 20-60 mils, depending on surface condition. Apply to a uniform thickness. Apply one or more additional coats to provide a void and pinhole free surface. Protect from weather until dry.

5. Air/Water-Resistive Barrier Connections and Shingle Laps
  - a. Coordinate installation of connecting air barrier components with other trades to provide a continuous airtight membrane.
  - b. Coordinate installation of flashing and other moisture protection components with other trades to achieve complete moisture protection such that water is directed to the exterior, not into the wall assembly, and drained to the exterior at sources of leaks (windows, doors and similar penetrations through the wall assembly).
  - c. Splice-in head flashings above windows, doors, floor lines, roof/sidewall step flashing, and similar locations with StoGuard detail component to achieve shingle lap of the air/moisture barrier such that water is directed to the exterior.

### 3.6 SUB-CONSTRUCTION INSTALLATION

- A. Install Sub-construction in strict accordance with manufacturer's installation instructions, prescriptive designs, and/or engineering shop drawings.
- B. Install Sub-construction to be level, plumb, and in alignment with building features including corners, off-sets, and penetrations.
- C. StoVentre Wall Brackets and StoVentre T-profile, L-Profile or other StoVentre profiles
  1. Mount wall brackets at 24 inches on center horizontally to supporting wall construction as indicated by engineering shop drawings.
    - a. Brackets must be laid out at 1/2-inch increments vertically.
    - b. Tighten screws to structural wall to a snug tight condition and not stripped. Do not over-torque beyond manufacturer's recommendation. If installed using hand tools, verify for each installer at beginning of project using snug-tight criteria. Do not use stripped holes.
  2. Attach StoVentre profile to wall brackets in accordance with engineering shop drawings, align plumb and level, and account for irregularities in supporting wall construction.
  3. Establish and re-establish and restart bracket locations using laser or chalk-line at penetrations and other obstructions to establish alignment.
- D. Thermally isolate wall brackets, as needed, by inserting thermal isolation materials between wall brackets and substrate.
- E. Attach T-Profiles and L-Profiles, or other StoVentre profiles by use of StoVentre Sub-construction screw through pre-punched holes in the brackets
- F. To cut the aluminum profiles, use a miter saw, electric shears or Dremel rotary tool.
- G. The systems components should not be cut while installed on the building, unless using a

shearing instrument.

- H. Provide a 10mm gap between profiles/rails for expansion when multiple lengths of profiles are installed.

### 3.7 PROTECTION

- A. Provide protection of wall assembly from water damage during and after construction

### 3.8 ADJUSTING

- A. Inspect and adjust after installation. Replace or repair defective work.
- B. Adjust, and reconfigure as necessary to accommodate cladding system installation. Do not reuse pre-drilled holes unless fastener size is increased.

### 3.9 SIDING/CLADDING PANEL INSTALLATION

- A. The cavity must be clear for air flow and free from drainage obstructions.
- B. Attach cladding per manufacturer requirements into StoVentro T-Profiles and L-Profiles, or other StoVentro profiles to meet the wind loads on the project.

END OF SECTION

## SECTION 071416

### COLD FLUID-APPLIED WATERPROOFING

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Cold fluid-applied polyurethane membrane waterproofing.
  - 2. Protection board.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

##### 1.2 REFERENCES

- A. ASTM International (ASTM):
  - 1. C836 - Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course.
  - 2. D412 - Standard Specification for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers - Tension.
  - 3. D4258 - Standard Practice for Surface Cleaning Concrete for Coating.
  - 4. E96/E96M - Standard Test Method for Water Vapor Transmission of Materials.

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Product Data: Manufacturer's data for waterproofing and [drainage] [protection] board including product description and performance characteristics.
  - 2. Samples: 3 x 3 inch waterproofing samples on representative backing.
  - 3. Warranty: Sample warranty form.

##### 1.4 QUALITY ASSURANCE

- A. Applicator Qualifications:
  - 1. Minimum 5 years documented experience in work of this Section.
  - 2. Licensed or certified by waterproofing manufacturer.

##### 1.5 DELIVERY, STORAGE AND HANDLING

- A. Store materials at minimum 75 degrees F; prevent damage to containers. Do not store in direct sunlight.

##### 1.6 PROJECT CONDITIONS

- A. Environmental Conditions:
  - 1. Do not apply waterproofing when ambient or surface temperature is less than 40 degrees F or if precipitation is imminent.
  - 2. Do not apply material to wet surfaces.
- B. Substrate: Cured minimum 28 days prior to applying waterproofing.

##### 1.7 WARRANTIES

- A. Furnish manufacturer's 5 year warranty providing coverage against water leakage through waterproofing system.

## **PART 2 PRODUCTS**

### **2.1 MANUFACTURERS**

- A. Acceptable Manufacturers:
  - 1. Kemper System America, Inc. ([www.kemper-system.com](http://www.kemper-system.com))
  - 2. Neogard Corporation. ([www.neogard.com](http://www.neogard.com))
  - 3. Tremco, Inc. ([www.tremcosealants.com](http://www.tremcosealants.com))
- B. Substitutions: Under provisions of Division 01.

### **2.2 MATERIALS**

- A. Fluid Applied Waterproofing:
  - 1. Source: Tuff-N-Dry H8 by Tremco, Inc. or approved substitute.
  - 2. Type: Single-component, bitumen modified, cold liquid applied moisture curing urethane complying with ASTM C836.
  - 3. Physical properties:
    - a. Elongation: Minimum 600 percent, tested to ASTM D412.
    - b. Tensile strength: Minimum 150 psi, tested to ASTM D412.
    - c. 100 percent modulus: Minimum 80 psi, tested to ASTM D412.
    - d. Crack bridging: Pass 1/16 inch with no loss of bond or cracking exhibited, cycled 10 times per 24 hours at 15 degrees F, tested to ASTM C836.
    - e. Moisture vapor permeability: Maximum 0.1 perm, tested to ASTM E96.
- B. Reinforcing Fabric: Waterproofing manufacturer's standard.

### **2.3 ACCESSORIES**

- A. Surface Conditioner, Joint Sealers, and Patching Compounds: Type recommended by waterproofing manufacturer.
- B. Protection Board:
  - 1. Waterproofing manufacturer's standard product.
  - 2. Thickness: Nominally 2 inch.
  - 3. Adhesive: Type recommended by drainage board manufacturer.

## **PART 3 EXECUTION**

### **3.1 PREPARATION**

- A. Clean surfaces; remove loose and foreign matter that could impede adhesion or performance of waterproofing.
- B. Clean exposed metals; apply surface conditioner and coat of waterproofing material to minimum 60 mils thickness. Extend preparatory coat minimum 3 inches onto adjacent surfaces and up vertical surfaces minimum 6 inches to level of topping slab
- C. Clean cracks and joints in substrate less than 1/16 inch in width and apply preparatory coat of waterproofing material, minimum 60 mils wet film thickness; extend minimum 3 inches onto adjacent surfaces.

- D. Rout out cracks and joints over 1/16 inch in width to minimum 1/4 inch depth, and fill with waterproofing. Apply preparatory coat of waterproofing material, minimum 60 mils wet film thickness; extend 3 inches onto adjacent surfaces.
- E. At changes in plane of substrate, form cant of waterproofing material, minimum 1 inch high.
- F. Allow preparatory work to cure minimum 12 hours, then clean and apply surface conditioner.

### 3.2 APPLICATION OF WATERPROOFING

- A. Apply waterproofing system in accordance with manufacturer's instructions.
- B. Apply in as many coats as needed to achieve minimum 60 mils wet film thickness, excluding preparatory work.
- C. Extend membrane up vertical surfaces minimum 6 inches to level of topping slab.
- D. Seal items projecting through membrane.
- E. Apply waterproofing with reinforcing fabric at locations of potential high movement, including intersections not structurally connected.
- F. Pull filter fabric loose from core at bottom of wall; wrap fabric around subsurface drainage pipe.

### 3.3 INSTALLATION OF PROTECTION BOARD

- A. Apply protection board the same day membrane is applied.
- B. Install in accordance with manufacturer's instructions.
- C. Apply adhesive at rates as recommended by manufacturer; set boards in adhesive with edges butted.
- D. Complete backfilling as soon as possible after application of protection board; within 7 days maximum.

### 3.4 FIELD QUALITY CONTROL

- A. Vertical Surfaces:
  - 1. Prior to applying protection] course, inspect surfaces for voids, ruptures, and other damage.
  - 2. Repair damaged and defective areas.
- B. Horizontal Surfaces:
  - 1. Close drains and flood with minimum 1 inch of water prior to applying protection course.
  - 2. After 24 hours, check for leaks. If leaks are encountered, repair and repeat test.
  - 3. Drain water when proven watertight.

END OF SECTION

**SECTION 072113**  
**BOARD INSULATION**

**GENERAL**

1.1 SUMMARY

- A. Section Includes:
  - 1. Rain Screen / Cavity Wall continuous insulation.
  - 2. Board insulation at perimeter of foundation walls.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Section 072200 - Roof Insulation

1.2 REFERENCES

- A. ASTM International (ASTM):
  - 1. C578 - Standard Specification for Rigid Cellular Polystyrene Thermal Insulation.
  - 2. C612 - Standard Specification for Mineral Fiber Block and Board Thermal Insulation.
  - 3. C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.
  - 4. E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
  - 5. E96/E96M - Standard Test Method for Water Vapor Transmission of Materials.
  - 6. E136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 degrees C.

1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Product Data: Indicate product composition and performance characteristics.
- B. Quality Control Submittals:
  - 1. Certificates of Compliance: Certification from an independent testing laboratory that insulation meets fire hazard classification requirements.

1.4 QUALITY ASSURANCE

- A. Fire Hazard Classification:
  - 1. Noncombustible, tested to ASTM E136.
  - 2. Maximum flame spread/smoke developed rating of 25/50 tested to ASTM E84.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Store insulation in clean, dry, sheltered area, off ground or floor, until used. Protect against wetting and moisture absorption.

**PART 2 PRODUCTS**

2.1 MANUFACTURERS

- A. Acceptable Manufacturers - Polystyrene Insulation:
  - 1. ROCKWOOL (US). ([www.rockwool.com](http://www.rockwool.com))
  - 2. Dow Chemical Co. ([www.dowbuildingmaterials.com](http://www.dowbuildingmaterials.com))

3. Owens Corning. ([www.owenscorning.com](http://www.owenscorning.com))

B. Substitutions: Under provisions of Division 01.

## 2.2 MATERIALS

A. Rain Screen / Cavity Wall Continuous Insulation

1. Product: ROCKWOOL Cavityrock, semi-rigid stone wool insulation boards designed for exterior cavity wall and rainscreen applications
  - a. R-value: 4.3 /inch at 75oF.
  - b. Facing (Cavityrock): Unfaced
  - c. Melting Point – Minimum melting point temperature of 1177°C (2150°F).
  - d. Surface Burning Characteristics: Tested in accordance with ASTM E84
    - 1) Unfaced: Flame Spread 0 and Smoke Developed 0
    - 2) Faced: Flame Spread 10 and Smoke Developed 25
  - e. Monolithic Density (Thickness: 1", 1.5", 2"): > 4.3 lbs/ft<sup>3</sup> (>69 kg/m<sup>3</sup>), nominal.
  - f. Dual Density (Thickness: ≥ 2.5"): 6.2 lbs/ft<sup>3</sup> (100 kg/m<sup>3</sup>) outer layer and 3.8 lbs/ft<sup>3</sup> (61 kg/m<sup>3</sup>) inner layer, nominal..
  - g. Dual Density: Must have dual densities for all thicknesses greater than or equal to 2.5".
  - h. Moisture Resistance: Absorption of less than 0.03 percent by volume, when tested in accordance with ASTM C1104.
  - i. Corrosion Resistance: Non-corrosive/Passed, when tested in accordance with ASTM C665 for Steel & ASTM C795 for Stress Corrosion Cracking Tendency of Austenitic Stainless Steel.
  - j. Fungi resistance: Zero mold growth to ASTM C1338
  - k. Linear Shrinkage at 1200°F (650°C): Average linear shrinkage in all dimensions not to exceed 0.7% when tested to ASTM C356 at 1200°F (650°C).
  - l. Tumbling Friability: Material loss not to exceed 15% when tested to ASTM C421 – Standard Test Method for Tumbling Friability of Preformed Block-Type Thermal Insulation.
  - m. Recyclability: Material to be capable of being fully recyclable at end of life with the intention of sending zero waste to landfill.
  - n. Environmental Product Declaration (EPD): Material must be included on a UL Certified EPD in accordance with EN 15804 and ISO 14025.
  - o. DECLARE Certified

B. Board Insulation - Below Grade:

1. ASTM C578, Type IV, closed cell extruded polystyrene foam.
2. Minimum compressive strength: 25 PSI.
3. Thermal resistance: 4.0 per inch.
4. Water vapor permeance: Maximum 1.5 perms for 1 inch thickness, tested to ASTM E96/E96M.

C. Roof Insulation - See Section: 07 2200 Roof Insulation.

## 2.3 ACCESSORIES

A. Adhesive:

1. Type recommended by insulation manufacturer.

B. Tape: Minimum 2 inches wide, pressure sensitive, foil faced, waterproof.

C. Impale Fasteners:

1. Steel impaling fasteners on metal base with lock washers, length to suit insulation thickness.
2. Adhesive: Type recommended by fastener manufacturer.

D. Metal Clips: Galvanized steel, L-shaped, 2 inches long.

E. Fasteners: Type best suited to application, hot-dip galvanized or fluoropolymer coated steel.

## **PART 3 EXECUTION**

### **3.1 PREPARATION**

- A. Substrate:
  - 1. Remove protrusions flush with adjacent surface.
  - 2. Remove dirt, dust, oil, grease, and other materials that could impair adhesion.

### **3.2 INSTALLATION**

- A. Apply adhesive in continuous beads. 1/8 inch thick.
- B. Install boards on foundation wall perimeter, horizontally.
- C. Place boards in a method to maximize contact bedding.
- D. Stagger joints.
- E. Butt edges and ends tight to adjacent boards, at perimeter, and around penetrations with maximum ¼ inch gaps.

END OF SECTION

**SECTION 072116**  
**BLANKET INSULATION**

**PART 1 GENERAL**

1.1 SUMMARY

- A. Section Includes:
  - 1. Acoustic Batt Insulation for applications to reduce airborne sound transmission
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. 092900 – Gypsum Board

1.2 REFERENCES

- A. ASTM International (ASTM):
  - 1. C665 - Standard Specification for Mineral Fiber Blanket Thermal Insulation for Wood Frame and Light Construction Buildings.
  - 2. E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
  - 3. E136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 Degrees C.

1.3 SUBMITTALS

- A. Quality Control Submittals:
  - 1. Certificates of Compliance: Certification from an independent testing laboratory that insulation meets fire hazard classification requirements.

1.4 QUALITY ASSURANCE

- A. Fire Hazard Classification:
  - 1. Noncombustible, tested to ASTM E136.
  - 2. Flame spread/smoke developed rating of 25/50 or less, tested to ASTM E84.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Store insulation in clean, dry, sheltered area, off ground or floor, until used. Protect against wetting and moisture absorption.

1.6 PROJECT CONDITIONS

- A. Do not install insulation until building is substantially water and weather tight.

**PART 2 PRODUCTS**

2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  - 1. Johns Manville. ([www.jm.com](http://www.jm.com))
  - 2. Knauf Insulation. ([www.knaufinsulation.us](http://www.knaufinsulation.us))
  - 3. Owens Corning. ([www.owenscorning.com](http://www.owenscorning.com))
- B. Substitutions: Under provisions of Division 01.

## 2.2 MATERIALS

- A. Acoustic Batt Insulation: Designed for applications to reduce airborne sound transmission.
  - 1. Type: ASTM C665, glass fiber composition.
  - 2. Facing: Unfaced.
  - 3. Stapling flanges: None.

## 2.3 ACCESSORIES

- A. Tape: Minimum 2 inches wide, pressure sensitive, waterproof.
- B. Fasteners: Hot-dip galvanized steel type best suited to application, minimum 5/8 inch penetration into framing.
- C. Impale Fasteners: Steel impaling fasteners on metal base with lock washers, length to suit insulation thickness.
- D. Wire Mesh: Hexagonal steel wire, galvanized.

## **PART 3 EXECUTION**

### 3.1 INSTALLATION OF THERMAL INSULATION

- A. Friction fit between framing members.
- B. Butt insulation to adjacent construction. Butt ends and edges.
- C. Carry insulation around pipes, wiring, boxes, and other components.
- D. Ensure complete enclosure of spaces without voids.
- E. At ceilings, apply with in conjunction with separate vapor barrier facing towards interior of structure.

### 3.2 INSTALLATION OF ACOUSTIC INSULATION

- A. Friction fit between framing members.
- B. Butt to framing members and adjacent construction.
- C. Carry around pipes, wiring, outlets, and other construction without voids.
- D. Press against one gypsum board surface to form slight air space on opposite side.

END OF SECTION

**SECTION 072600**  
**VAPOR RETARDERS**

**PART 1 GENERAL**

1.1 SUMMARY

- A. Section Includes:
  - 1. Sheet materials for controlling vapor diffusion at floors.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

1.2 REFERENCES

- A. ASTM International (ASTM):
  - 1. D882 - Standard Test Method for Tensile Properties of Thin Plastic Sheeting.
  - 2. D1709 - Standard Test Method for Impact Resistance of Plastic Film by the Free-Falling Dart Method.
  - 3. E96/E96M - Standard Test Method for Water Vapor Transmission of Materials.
  - 4. E154 - Standard Test Method for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover.
  - 5. E1643 - Standard Practice for Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs.
  - 6. E1745 - Standard Test Method for Water Vapor Retarders Used in Contact with Soil or Granular Fill Under Concrete Slabs.

1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Product Data: Include product description and performance characteristics.
  - 2. Samples: 12 x 12 inch vapor retarder samples.

**PART 2 PRODUCTS**

2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  - 1. Griffolyn, Division of Reef Industries. ([www.reefindustries.com](http://www.reefindustries.com))
  - 2. Raven Industries. ([www.rufco.com](http://www.rufco.com))
  - 3. Stego Industries. ([www.stegoindustries.com](http://www.stegoindustries.com))
  - 4. W.R. Meadows, Inc. ([www.wrmeadows.com](http://www.wrmeadows.com))
- B. Substitutions: Under provisions of Division 01.

2.2 MATERIALS

- A. Under Slab Vapor Retarder:
  - 1. Source: Stego Wrap by Stego Industries or approved substitute.
  - 2. Exceed requirements of ASTM E1745, Class A.
  - 3. Description: Multi-layer plastic extrusion manufactured with virgin polyolefin resins.
  - 4. Thickness: 15 mils.
  - 5. Water vapor permeance: Maximum 0.1 grams.
  - 6. Tensile strength: Minimum 45 lbf per inch.

7. Puncture resistance: Minimum 2200 grams.
8. Chemical resistance: Unaffected, tested to ASTM E154.
9. Life expectancy: Indefinite, tested to ASTM E154.

### 2.3 ACCESSORIES

- A. Pipe Boots: Vapor retarder manufacturer's standard pipe boot system.
- B. Adhesive: Compatible with vapor retarder and substrate, permanently non hardening.
- C. Joint Tape: Minimum 2 inches wide, pressure sensitive, waterproof, compatible with vapor retarder.

## **PART 3 EXECUTION**

### 3.1 INSTALLATION - UNDER SLABS ON GRADE

- A. Install in accordance with manufacturer's instructions and ASTM E1643.
- B. Remove sharp rocks and objects that could puncture vapor retarder.
- C. Install vapor retarder without tears, voids, and holes.
- D. Lap ends and edges minimum 6 inches over adjacent sheets.
- E. Install pipe boots at pipe and conduit penetrations through vapor retarder.
- F. Tape seal lapped joints, tears, holes, perimeter, and penetrations through vapor retarder.

### 3.2 REPAIR

- A. Inspect vapor retarder for damage just prior to covering.
- B. Clean damaged areas and cover with additional vapor retarder material cut minimum 6 inches larger than damaged area on all sides. Seal to main vapor retarder with continuous tape.

END OF SECTION

## SECTION 072700

### AIR BARRIERS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Sheet materials for controlling air movement at exterior wall assemblies.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

##### 1.2 REFERENCES

- A. ASTM International (ASTM):
  - 1. E331 - Standard Test Method for Water Penetration of Exterior Windows, Doors, and Curtain Walls by Uniform Static Air Pressure Differential.
  - 2. E2178 - Standard Test Method for Air Permeance of Building Materials.
  - 3. E2357 - Standard Test Method for Determining Air Leakage of Air Barrier Assemblies.

##### 1.3 QUALITY ASSURANCE

- A. Provide continuous barrier to air infiltration and exfiltration.

##### 1.4 SUBMITTALS

- A. Submittals for Review:
  - 1. Product Data: Manufacturer's descriptive data.
  - 2. Samples: 12 x 12 inch moisture barrier samples.

#### PART 2 PRODUCTS

##### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers - Sheet Air Barriers:
  - 1. CertainTeed. ([www.certainteed.com](http://www.certainteed.com))
  - 2. DuPont. ([www.tyvek.com](http://www.tyvek.com))
- B. Substitutions: Under provisions of Division 01.

##### 2.2 MATERIALS

- A. Air Barrier:
  - 1. Source: MemBrain by CertainTeed or approved substitute.
  - 2. Description: Class A Fire Rated; minimum 2 mil thick polyamide
  - 3. Water vapor permeance: ASTM E 86, dry cup method: 1.0 perms
  - 4. Water vapor permeance ASTM E 86, wet cup method: 10.0 perms

##### 2.3 ACCESSORIES

- A. Fasteners: Hot-dip galvanized or fluoropolymer coated steel nails screws with 1 inch diameter plastic washers, minimum 5/8 inch penetration into framing.

- B. Joint Tape: Minimum 2 inches wide, pressure sensitive, waterproof, of type recommended by air barrier manufacturer.
- C. Primer: Type recommended by air barrier manufacturer.
- D. Patching Compound: Type recommended by moisture barrier manufacturer.

### **PART 3 EXECUTION**

#### **3.1 INSTALLATION**

- A. Provide complete and continuous barrier.
- B. Apply primer when required by air barrier manufacturer.
- C. Install moisture barrier without tears, voids, and holes.
- D. Begin application at low point; weatherlap succeeding courses minimum 4 inches.
- E. Lap ends 6 inches minimum. Tape seal lapped ends and edges.
- F. Fasten at maximum 12 inches on center.
- G. Seal to door and window frames, around penetrations, and at perimeter with flashing sheet. Press to full bond with substrate without voids, wrinkles, bridging, or fishmouths.

#### **3.2 FIELD QUALITY CONTROL**

- A. Inspect air barrier for damage just prior to covering.
- B. Clean damaged areas and cover with additional air barrier material minimum 6 inches larger than damaged area on all sides. Seal to main air barrier with continuous tape.

END OF SECTION

**SECTION 074113**  
**METAL ROOF PANELS**

**PART 1 GENERAL**

1.1 SUMMARY

- A. Section Includes:
  - 1. Preformed metal roof panel system.
  - 2. Underlayment.
  - 3. Flashings, trim, anchorage, and accessories.
  
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Section 076200 - Sheet Metal Flashing and Trim.
  - 3. Section 079200 - Joint Sealers.

1.2 REFERENCES

- A. American Society of Civil Engineers (ASCE) 7 - Minimum Design Loads for Buildings and Other Structures.
  
- B. American Architectural Manufacturers Association (AAMA):
  - 1. 621 - Voluntary Specifications for High Performance Organic Coatings on Coil Coated Architectural Hot Dipped Galvanized (HDG) and Zinc-Aluminum Coated Steel Substrates.
  - 2. 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Architectural Extrusions and Panels.
  - 3. 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Architectural Extrusions and Panels.
  
- C. ASTM International (ASTM):
  - 1. A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
  - 2. A755/A755M - Standard Specification for Steel Sheet, Metallic Coated by the Hot-Dip Process and Prepainted by the Coil-Coating Process for Exterior Exposed Building Products.
  - 3. A792/A792M - Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
  - 4. B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
  - 5. C1549 - Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Solar Reflectometer.
  - 6. D226 - Standard Specification for Asphalt Saturated Organic Felt Used in Roofing and Waterproofing.
  - 7. D412 - Standard Test Method for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers - Tension.
  - 8. D1970 - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection.
  - 9. D4869 - Standard Specification for Asphalt-Saturated Organic Felt Underlayment Used in Steep Slope Roofing.
  - 10. D6757 - Standard Specification for Underlayment Felt Containing Inorganic Fibers Used in Steep-Slope Roofing.
  - 11. E283 - Standard Test Method for Rate of Air Leakage through Exterior Windows, Curtain Walls and Doors.
  - 12. E331 - Standard Test Method for Water Penetration of Exterior Windows, Doors, and Curtain Walls by Uniform Static Air Pressure Differential.
  - 13. E1592 - Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference.

14. E1646 - Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference.
15. E1680 - Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems.
16. E1980 - Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces.

D. Underwriters Laboratories, Inc. (UL) 2218 - Impact Resistance of Prepared Roof Covering Materials.

### 1.3 SYSTEM DESCRIPTION

- A. Design Requirements; design roof system to withstand:
1. Live and dead loads as indicated on the Drawings.
  2. Minimum wind pressures as indicated on the Drawings.
  3. Movement caused by an ambient temperature range of 120degrees F and a surface temperature range of 180 degrees F.
- B. Performance Requirements:
1. Air leakage: Maximum 0.06 CFM per square foot of roof area, measured at reference differential pressure across assembly of 6.24 PSF, tested to ASTM E283 and E1680.]
  2. Water leakage: None, tested to ASTM E331 andE1646 with test pressure of 15 PSF.
  3. Hail resistance: Class IV, tested to UL 2218.
  4. Wind Uplift Resistance: Comply with UL 580 for UL 90 uplift rating

### 1.4 SUBMITTALS

- A. Submittals for Review:
1. Shop Drawings: Show configuration of panels, trim members, and closures.
  2. Product Data: Show system components including panels, trim, and accessories.
  3. Samples:
    - a. 3 x 3 inch finish samples in specified color, on representative backing.
    - b. 12 inch long panel samples in specified color.
  4. Warranty: Sample warranty form.

### 1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in architectural sheet metal products.
- B. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

### 1.6 DELIVERY, STORAGE AND HANDLING

- A. Protect panels from contact with materials that could cause staining or discoloration of finish.

### 1.7 PROJECT CONDITIONS

- A. Do not install underlayment at ambient or surface temperatures less than 40 degrees F or on wet or frozen substrate.
- B. Do not install panels on wet or frozen substrate.

### 1.8 WARRANTIES

- A. Furnish manufacturer's 20 year warranty providing coverage against rupture, perforation, or structural failure of aluminum-zinc alloy coated panels.
- B. Furnish manufacturer's / installer's warranty providing coverage against water leakage through roofing system.

1. Make repairs to roofing system required due to defects in materials or workmanship resulting in water leakage into or through roofing system.
2. Include cost of labor and materials necessary to make required repairs.
3. Not limited to specific dollar amount.
4. Transferable to subsequent building owners during warranty period.

## **PART 2 PRODUCTS**

### **2.1 MANUFACTURERS**

- A. Acceptable Manufacturers:
  1. MBCI. ([www.mbc.com](http://www.mbc.com))
- B. Substitutions: Under provisions of Division 01.

### **2.2 MATERIALS**

- A. Source: Super Loc by MBCI or approved substitute.
- B. Aluminum-Zinc Alloy Coated Steel Sheet:
  1. ASTM A792, Commercial Quality, AZ50 aluminum-zinc alloy coating.
    - a. Color – Submit standard colors for Owner and Architect selection.
- C. Felt Underlayment: ASTM D226, No. 30, non perforated.
- D. Low Slope Self-Adhering Roof Underlayment:
  1. Description: ASTM D1970; minimum 40 mil thick polymer modified asphalt laminated to slip-resistant polyethylene film, self adhering with release paper facing, specifically formulated for extended high in-service temperatures up to 240 degrees F.
  2. Elongation: Minimum 250 percent, tested to ASTM D412.
  3. Tensile strength: Minimum 250 PSI, tested to ASTM D412.
  4. Source:
    - a. GCP Applied Technologies; Grace Ice and Water Shield
    - b. Mid-States; Asphalt Quick Stick HT Pro
    - c. Polyglass; Polystick MTS
    - d. Soprema; Lastobond Shield HT
    - e. Tamko; TW Underlayment or TW Metal & Tile Underlayment
    - f. Substitutions: Under provisions of Division 01

### **2.3 ACCESSORIES**

- A. Fasteners:
  1. Underlayment: Hot-dip galvanized steel screws, length to penetrate through sheathing.
  2. Panels and trim: 300 Series stainless steel, type best suited to application; head color to match panels where exposed, with neoprene gasketed washers.
- B. Panel Clips: Hot-dip galvanized steel, thermally responsive, designed to fit between two adjacent panels and secure both panels.
- C. Panel End Closures: Sponge neoprene, cut to fit panel configuration, minimum 1 inch depth.
- D. Joint Sealers: Specified in Section 079200.

### **2.4 FABRICATION**

- A. Fabricate panels from minimum 24 gage aluminum-zinc alloy coated steel sheet.

- B. Panel Profile: 3 inch high standing seams spaced 24 inches on center with intermediate stiffening ribs at 8 inches on center.
- C. Joint Type: Double folded.

## 2.5 FINISHES

- A. Panels and Trim: AAMA 621, fluoropolymer coating containing minimum 70 percent PVDF resins, color to be selected from manufacturer's full color range.
  - 1. Color: Signature 300, Slate Gray

## **PART 3 EXECUTION**

### 3.1 INSTALLATION OF FELT UNDERLAYMENT

- A. Starting at low edge, apply one ply of underlayment horizontally over substrate.
- B. Weather lap each strip 6 inches minimum over previous strip.
- C. Lap ends 6 inches minimum.
- D. Fasten top of each strip under overlapping strip to hold strip in position until roofing panels are installed.
- E. Provide 18 inch weave pattern at valleys.
- F. Lap underlayment minimum 12 inches over hips and ridges from both sides. Apply 36 inch wide strip centered lengthwise over ridge. Nail at 12 inches on center on each side.
- G. Extend minimum 4 inches up abutting vertical surfaces.

### 3.2 INSTALLATION OF LOW SLOPE SELF ADHERING ROOF UNDERLAYMENT

- A. Starting at low edge, apply underlayment horizontally on roof. Weatherlap each sheet 4 inches over preceding sheet. Lap ends 6 inches minimum.
- B. Press to full bond with substrate without voids, wrinkles, bridging, or fishmouths. Seal ends and edges.
- C. Lap underlayment minimum 12 inches over hips and ridges from both sides. Apply 36 inch wide strip centered lengthwise over ridge.
- D. Extend minimum 4 inches up abutting vertical surfaces.

### 3.3 INSTALLATION OF METAL PANELS

- A. Install in accordance with manufacturer's instructions and approved Shop Drawings.
- B. Install aligned, level, and plumb.
- C. Fasten panels using concealed panel clips.
- D. Lap end joints 4 inches minimum.
- E. Crimp standing seams with manufacturer-approved, motorized seamer tool so clip, metal roof panel, and factory-applied sealant are completely engaged..
- F. Install trim to maintain visual continuity of system.

- G. Install joint sealers and gaskets to prevent water penetration.
- H. Flash penetrations through roofing with metal trim to match panels:
  - 1. Lap flashings over roof panels 12 inches minimum on all sides and seal with double bead of joint sealer.
  - 2. Install metal draw band and joint sealer at top of pipe penetrations.
  - 3. Install water diverter at uphill side of square and rectangular penetrations.
- I. Installation Tolerances:
  - 1. Variation from location: Plus or minus 1/4 inch.
  - 2. Variation from plane: 1/4 inch in 10 feet.

#### 3.4 ADJUSTING

- A. Touch up field cuts and abrasions on finished surfaces to match factory finish.

END OF SECTION

**SECTION 074213**  
**METAL WALL PANELS**

**PART 1 GENERAL**

1.1 SECTION INCLUDES

- A. Laminated steel, insulated metal wall panels
- B. Flat sheet wall panels
- C. Accessories including fasteners and perimeter trim

1.2 REFERENCES

- A. American Architectural Manufacturers Association (AAMA)
  - 1. AAMA 501.1: Standard Test Method for Metal Curtain Walls for water penetration using Dynamic Pressure
  - 2. AAMA 501.2: Quality Assurance and Diagnostic Water Leakage Field Check of Installed Storefronts, Curtain Walls and Sloped Glazing Systems
  - 3. AAMA 501.4: Recommended Static Test Method for Evaluating Window Wall, Curtain Wall, and Storefront Systems Subjected to Seismic and Wind-Induced Inter-Story Drift
  - 4. AAMA 621: Voluntary Specification for High Performance Organic Coatings on Coil Coated Architectural Hot Dipped Galvanized (HDG) and Zinc-Aluminum Coated Steel Substrates
  - 5. AAMA 809.2: Voluntary Specification for Non-Drying Sealants
- B. American Society of Civil Engineers (ASCE)
  - 1. ASCE 7: Minimum Design Loads for Buildings and Other Structures
- C. ASTM International
  - 1. ASTM A653: Standard Specification for Steel Sheet, Zinc- Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process
  - 2. ASTM A755: Standard Specification for Steel Sheet, Metallic Coated by the Hot-Dip Process and Prepainted by the Coil- Coating Process for Exterior Exposed Building Products
  - 3. ASTM A792: Standard Specification for Steel Sheet, 55 percent Aluminum-Zinc Alloy-Coated by the Hot-Dip Process
  - 4. ASTM A924: Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process
  - 5. ASTM B117: Standard Practice for Operating Salt Spray (Fog) Apparatus
  - 6. ASTM C272: Standard Test Method for Water Absorption of Core Materials for Sandwich Constructions
  - 7. ASTM C273: Standard Test Method for Shear Properties of Sandwich Core Materials
  - 8. ASTM C591: Standard Specification for Unfaced Preformed Rigid Cellular Polyisocyanurate Thermal Insulation
  - 9. ASTM C920: Standard Specification for Elastomeric Joint Sealants
  - 10. ASTM D522: Standard Test Methods for Mandrel Bend Test of Attached Organic Coatings

11. ASTM D523: Standard Test Method for Specular Gloss
12. ASTM D714: Standard Test Method for Evaluating Degree of Blistering of Paints
13. ASTM D968: Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive
14. ASTM D1308: Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes
15. ASTM D1621: Standard Test Method for Compressive Properties of Rigid Cellular Plastics
16. ASTM D1622: Standard test Method for Apparent Density of Rigid Cellular Plastics
17. ASTM D1623: Standard Test Method for Tensile and Tensile Adhesion of Rigid Cellular Plastics
18. ASTM D1929: Standard Test Method for Determining Ignition Temperature of Plastics
19. ASTM D2244: Standard practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates
20. ASTM D2247: Standard Practice for Testing Water Resistance of Coatings in 100 percent Relative Humidity
21. ASTM D2794: Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)
22. ASTM D3273: Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.
23. ASTM D3359: Standard Test Methods for Measuring Adhesion by Tape Test
24. ASTM D3363: Standard Test Method for Film Hardness by Pencil Test
25. ASTM D4145: Standard Test Method for Coating Flexibility of Prepainted Sheet
26. ASTM D4214: Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films
27. ASTM D5894: Standard Practice for Cyclic Salt Fog/UV Exposure of Painted Metal, (Alternating Exposures in a Fog/Dry Cabinet and a UV Condensation Cabinet)
28. ASTM D6226: Standard Test Method for Open Cell Content of Rigid Cellular Plastics
29. ASTM E72: Standard Test Methods of Conducting Strength Tests of Panels for Building Construction
30. ASTM E84: Standard Test Method for Surface Burning Characteristics of Building Materials
31. ASTM E283: Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen
32. ASTM E330: Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, Curtain Walls by Uniform Static Air pressure Difference
33. ASTM E331: Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference
34. ASTM E1105: Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform or Cyclic Static Air Pressure Difference
35. ASTM F1642: Standard Test Method for Glazing Systems Subject to Airblast Loadings
36. ASTM G153: Standard Practice for Operating Enclosed Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials
37. ASTM G154: Standard Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials

D. FM Global

1. FM 4880: Class 1 Fire Rating of Insulated Wall or Wall and Roof/Ceiling Panels, Interior Finish Materials or Coatings, and Exterior Wall Systems
2. FM 4881: Approval Standard for Class 1 Exterior Wall Systems

E. International Building Code (IBC): current edition

- F. National Fire Protection Association (NFPA)
  - 1. NFPA 259: Standard Test Method for Potential Heat of Building Materials
  - 2. NFPA 268: Standard Test Method for Determining Ignitability of Exterior Wall Assemblies Using a Radiant Heat Energy Source
  - 3. NFPA 285: Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-bearing Wall Assemblies Containing Combustible Components
- G. Underwriters Laboratories (UL)
- H. International Organization for Standardization (ISO)
  - 1. ISO 14025: Environmental Labels and Declarations

### 1.3 ADMINISTRATIVE REQUIREMENTS

- A. Pre-installation meeting: Conduct a pre-installation meeting at the job site attended by Owner, Architect, Manufacturer's Technical Representative, Panel Installer, and Contractors of related trades. Coordinate structural support requirements in relation to insulated wall panel system, installation of any separate air/water barriers, treatment of fenestration, and other requirements specific to the project.

### 1.4 SUBMITTALS

- A. Refer to Section 01 33 00 Submittal Procedures.
- B. Product Data: Submit manufacturer current technical literature for each type of product.
- C. Shop Drawings: Submit detailed drawings showing:
  - 1. Profile
  - 2. Gauge of both exterior and interior sheet
  - 3. Location, layout and dimensions of panels
  - 4. Location and type of fasteners
  - 5. Shape and method of attachment of all trim
  - 6. Locations and type of sealants
  - 7. Installation sequence
  - 8. Coordination Drawings: Provide elevation drawings and building sections which show panels in relationship to required locations for structural support. Include panel details and details showing attachment to structural support.
  - 9. Other details as may be required for a weathertight installation
- D. Panel Analysis: Provide panel calculations to verify panels will withstand the design wind loads indicated without detrimental effects or deflection exceeding the specified limit. Include effects of thermal differential between the exterior and interior panel facings and resistance to fastener pullout.
- E. Samples: Provide nominal 3 x 5 inch of each color indicated. Provide panel width by 10 inches long minimum.
- F. Miscellaneous Certifications:

1. Submit documentation certifying that products comply with provisions of the “Buy American Act” Title 41 of the US Code Sub-sections 10a through 10d.
2. Submit documentation that products have been certified in accordance with ISO 14025.

G. Quality Assurance Submittals

1. Design Data, Test Reports: Provide manufacturer test reports indicating product compliance with requirements.
  - a. Provide test report from nationally recognized testing agency to demonstrate compliance with IBC Section 1403.2.
2. Manufacturer Erection Instructions: Provide manufacturer’s written installation instructions including proper material storage, material handling, and maintenance instructions.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications:

1. Manufacturer shall have a minimum of five (5) years experience in the production of insulated metal wall panels. Manufacturer shall demonstrate past experience with examples of projects of similar type and exposure.
2. Manufacturer to be registered with a Program Operator with a Certified Environmental Product Declaration, in conformance with ISO 14025, for Insulated Metal Panels.

B. Installer Qualifications:

1. Installer shall be authorized by the manufacturer and the work shall be supervised by a person having successfully completed a manufacturer training seminar regarding proper installation of the specified product.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Refer to Section 01 60 00 Product Requirements.
- B. Deliver panel materials and components in manufacturer’s original, unopened, undamaged packaging with identification labels intact.
- C. Store wall panel materials on dry, level, firm, and clean surface. Stack no more than two bundles high. Elevate one end of bundle to allow moisture run-off, cover and ventilate to allow air to circulate and moisture to escape.

1.7 WARRANTY

- A. Limited Warranty: Standard form in which manufacturer agrees to repair or replace items that fail in materials or workmanship within specified warranty period. The items covered by the warranty include structural performance including bond integrity, deflection and buckling.
  1. Warranty Period: Two (2) years from date of Substantial Completion, or 2 years and 3 months from the date of shipment from manufacturer’s plant, whichever occurs first.
- B. Panel Finish Warranty: Submit Manufacturer’s limited warranty on the exterior paint finish for

adhesion to the metal substrate and limited warranty on the exterior paint finish for chalk and fade.

## **PART 2 PRODUCTS**

### **2.1 MANUFACTURER**

- A. Insulated Wall Panels - Kingspan BENCHMARK; a division of Kingspan Insulated Panels, Inc. ([www.kingspanpanels.us](http://www.kingspanpanels.us))
  - 1. East: 720 Marion Road, Columbus, Ohio 43207; 1-877-638-3266 (Toll Free) or 614-444-110
  - 2. West: 2000 Morgan Road, Modesto, California 95358; 1-800-377-5110 (Toll Free) or 209-531-9091
- B. Basis of Design: Designwall 2000 Flat Panel
- C. Flat Sheet Wall Panels - Berridge Manufacturing Co. ([www.berridge.com](http://www.berridge.com))
  - 1. 2610 Harry Wurzbach Road, San Antonio, Texas 78209; 1-800-669-0009
- D. Substitution Limitations:
  - 1. Submit written request for approval of substitutions to the Architect a minimum of [14] days prior to the date for receipt of bids. Include the following information:
    - a. Name of the materials and description of the proposed substitute.
    - b. Drawings, cut sheets, performance and test data.
    - c. List of projects of similar scope and photographs of existing installations.
    - d. Test reports indicating compliance with the performance criteria.
    - e. Other information necessary for evaluation.
  - 2. After evaluation by Architect, approval will be issued via addendum. No verbal approval will be given.
  - 3. Substitutions following award of contract are not allowed except as stipulated in Division 01 – General Requirements.

### **2.2 EXTERIOR WALL PANELS - INSULATED**

- A. Design Criteria:
  - 1. Wind Loads: As indicated on Drawings
  - 2. Deflection criteria shall be L/180.
- B. Performance Criteria:
  - 1. Structural Test:
    - a. Static: Structural performance shall be verifiable by witnessed structural testing for simulated wind loads in accordance with ASTM E72 or ASTM E330.
    - b. Cyclic: Tested constructions meet the approval criteria of FM 4881 when installed as specified in the listing.
  - 2. Large Missile Impact with Cyclic Pressure: Panels shall successfully pass test standards

TAS 201/203 Large Missile Impact with Cyclic inward and outward pressures to demonstrate suitability for High Velocity Hurricane Zone applications with windborne debris.

- a. Blast Loads: Panels installed on metal stud system shall be tested to withstand a minimum shock load of 6.8 psi peak pressure and 46 psi-msec impulse pressure when tested in accordance with ASTM F1642 or GSA-TS01. After testing there shall be no debris, fragments, or components found in the witness chamber.
3. Bond Strength: No delamination shall occur after 2-1/2 hours in a 2 psi 218 degree F autoclave.
4. Water Penetration:
  - a. Dynamic: There shall be no uncontrolled water leakage when tested in accordance with AAMA 501.1 at a pressure differential of 15 psf.
  - b. Static: No uncontrolled water leakage, when tested in accordance with ASTM E331 at a 6.24 psf pressure differential.
  - c. Static – 2 hour duration: Panel system shall demonstrate no water penetration when tested in accordance with ASTM E331 at 6.24 psf pressure differential for a two (2) hour duration to satisfy International Building Code, Section 1403.2.
5. Air Infiltration: Air infiltration through the panel shall not exceed 0.01 cfm/sf at 6.24 psf air pressure differential when tested in accordance with ASTM E283.
6. Water Absorption: There shall be no more than 0.47 percent water absorption by volume when a 12 x 12 inch laminated insulated metal wall panel sample is subjected to a 24-hour full water submersion in accordance with ASTM C272.
7. Thermal Performance: Polyisocyanurate (ISO) core panels shall provide the following R-Values as tested in accordance with ASTM C518 at 75 degree F mean temperature or as determined from thermal modeling using Therm 5.2 software developed by Lawrence Berkley Laboratories:

a.	2 inch thick Flat:	R-11.6
b.	2.5 inch thick Flat:	R-14.5
c.	3 inch thick Flat:	R-17.4
d.	4 inch thick Flat:	R-23.2
8. Seismic Performance: Comply with ASCE 7, Section 13, "Seismic Design Requirements for Non-Structural Components". Panels shall be successfully tested per AAMA 501.4. After a minimum 1% story height seismic racking, there shall be no water penetration at 15 psf pressure differential and no structural failure at 60 psf simulated wind pressure. Panels shall be hard-fastened to structure along one edge only such that lateral slippage between panels can occur in the event of seismic activity.
9. Fire Test Response Characteristics: Steel-faced panels with polyisocyanurate (ISO) core shall fully comply with Chapter 26 of International Building Code regarding the use of Foam Plastic. The following tests shall be available upon request for submission to the Authority Having Jurisdiction:
  - a. FM 4880: Class I rated per FM Global, panels are approved for use without a thermal barrier and do not create a requirement for automatic sprinkler protection.
  - b. Surface burning characteristics of unfaced foam core when tested in accordance with ASTM E84:
    - 1) Flame Spread: less than 25 or less
    - 2) Smoke Developed: less than 250 or less
  - c. NFPA 285 Intermediate Scale Multi-story Fire Evaluation; successfully passed acceptance criteria when installed per listed details.
  - d. NFPA 268 Exposure to a Radiant Heat Energy Source; successfully passed acceptance criteria.

- e. ASTM D1929 Minimum Flash and Self Ignition; established for foam core.
  - f. NFPA 259 Potential Heat Content; established for foam core.
10. Regional and International Approvals: Steel-faced panels with polyisocyanurate (ISO) foam core shall have the following specific approvals in-place:
- a. Miami-Dade County, Florida N.O.A. No. 22-0822.08 High Velocity Hurricane Zone Rated (expires May 18, 2027).
  - b. Florida Product Approval: Report No. FL-31365.1, Florida Building Code for Non-Hurricane Zones.
  - c. Code Compliance Evaluation Report: Intertek CCRR #1037.
  - d. City of Los Angeles: LARR #26046.
11. Insulating Core: Polyisocyanurate (ISO) core, ASTM C591 Type IV, CFC and HCFC free, compliant with Montreal Protocol and Clean Air Act, with the following minimum physical properties:
- a. Density Nominal per ASTM D1622: 2.0 pcf
  - b. Shear Strength per ASTM C273: 21 psi
  - c. Compressive Strength per ASTM D1621: 25 psi
  - d. Tensile Strength: 36 psi
  - e. Closed Cell Content per ASTM D6226: 95 percent minimum
  - f. FM Global approvals: Class 1 per FM 4880
- C. Exterior Paint Finish Characteristics for Panels meeting the requirements of AAMA 621 for G90 galvanized steel or AZ50 Galvalume:
- 1. Gloss: 15 ± 5 measured at 60 degree angle tested in accordance with ASTM D523.
  - 2. Pencil Hardness: HB-H minimum tested in accordance with ASTM D3363.
  - 3. Flexibility, T-Bend: 1-2T bend with no adhesion loss when tested in accordance with ASTM D4145.
  - 4. Flexibility, Mandrel: No cracking when bent 180 degrees around a 1/8 mandrel as tested in accordance with ASTM D522.
  - 5. Adhesion: No adhesion loss tested in accordance with ASTM D3359.
  - 6. Reverse Impact: No cracking or adhesion loss when impacted 3000 x inches of metal thickness (lb-in), tested in accordance with ASTM D2794.
  - 7. Abrasion Resistance: Nominal 65 liters of falling sand to expose 5/32 inch diameter of metal substrate when tested in accordance with ASTM D968.
  - 8. Graffiti Resistance: Minimal effect.
  - 9. Acid Pollutant Resistance: No effect when subjected to 30 percent sulfuric acid for 18 hours, or 10 percent muriatic acid for 15 minutes when tested in accordance with ASTM D1308.
  - 10. Salt Fog Resistance: Passes 1000 hours, when tested in accordance with ASTM B117 (5 percent salt fog at 95 degrees F).
  - 11. Cyclic Salt Fog and UV Exposure: Passes 2016 hours when tested in accordance with ASTM D5894.
  - 12. Humidity Resistance: Passes 1500 hours at 100 percent relative humidity and 95 degrees F, with a test rating of 10 when tested in accordance with ASTM D2247 and D714.
  - 13. Color Retention: Passes 5000 hours when tested in accordance with ASTM G153 and G154.
  - 14. Chalk Resistance: Maximum chalk is a rating of 8 when tested in accordance with ASTM D4214, Method A.
  - 15. Color Tolerances: Maximum of 5ΔE Hunter units on panels when tested in accordance with ASTM D2244.
- D. Exterior Aggregate Finish Characteristics:

1. Moisture Resistance: 14 days exposure with no deleterious effects when tested in accordance with ASTM D2247.
2. Salt Spray: 1000 hours, no deleterious effects when tested in accordance with ASTM B117.
3. Abrasion Resistance: 500 liters of sand, no deleterious effects when tested in accordance with ASTM D968.
4. Freeze/Thaw (60 cycles): No checking, cracking or splitting.
5. Mold Resistance: No growth of mold when tested per ASTM D3273.
6. Flame Spread: Less than 25, Class 1 rating when tested in accordance with ASTM E84.

E. Panel Assembly:

1. Panel thickness: 3 inches thick.
2. As indicated on drawings
3. Panel joint shall consist of fasteners and attachment clip completely concealed within the joint. Panel joint shall have two distinct lines of defense against water infiltration using continuous finned rubber gasket seal on both face and liner sheet. Horizontal panels shall have a nominal gutter height of 3 1/4 inches.
4. Exterior Face of Panel:
  - a. Material:
    - 1) Coil material shall be in accordance with ASTM A755 Grade 33, G90 galvanized steel in accordance with ASTM A653 and A924.
    - 2) Gauge: 22 (steel)
  - b. Profile: Flat
    - 1) Flat profile to have no flutes, planking, or mild profiling of any type. Reveal width shall be as indicated on the Drawings.
    - 2) Striated profile to have linear striations nominal 0.035 inches deep, (2 at 5/8 inch equal to 1 1/4 inch o.c.) across the entire face width.
  - c. Exterior Texture: Non-directional stucco embossed
  - d. Exterior Paint Finish Color:
    - 1) Selected from current Kingspan Insulated Panels color chart.
    - 2) Finish System:
      - a) [1.0 mil. Fluoropolymer (PVDF) Two Coat system: 0.2 mil primer with 0.8 mil Kynar 500 (70 percent) SOLID color coat.]
  - e. Exterior Aggregate Finish:
    - 1) Baked epoxy primer with factory applied 12 mil dry film thickness finish coat of acrylic bonder and silica aggregate.
      - a) Silica Aggregate Color: Selected from current Kingspan Insulated Panels GRANITSTONE color chart.
      - b) Quartz Aggregate Color: Selected from current Kingspan Insulated

Panels GRANITSTONE QUARTZ color chart.

5. Interior Face of Panel:
  - a. Material:
    - 1) Coil material shall be Grade 33, G90 galvanized steel in accordance with ASTM A653 and A924.
    - 2) Gauge: 24 (steel)
  - b. Profile: Standard flat, non-profiled
  - c. Texture: Smooth
  - d. Interior Finish: Modified polyester finish with a total minimum dry film thickness of 0.9 to 1.1 mil including primer.
    - 1) Color: Standard USDA Imperial White.
6. Insulating Core: Precured, profiled, sanded flat, and fully inspected prior to lamination. Core material shall be polyisocyanurate (ISO).
7. Structural Adhesive: Type II Class 2 Structural Urethane Adhesive, 100 percent solids and 100 percent solvent free, evaluated and listed for sandwich panel construction by ICC Evaluation Service or other recognized agency.

## 2.3 ACCESSORIES

- A. Fasteners: Fasteners as recommended by manufacturer.
- B. Clips: Shall be minimum 14 gauge half-hard type 301 stainless steel with PVC or neoprene foam sealing pad adhered to underside of clip, designed to prevent water infiltration around fastener penetrations.
- C. Perimeter Trim:
  1. Fabricated perimeter trim and metal flashing: Shall be same gauge, material and coating color as exterior face of insulated metal wall panel.
  2. Extruded perimeter trim: Shall be extruded aluminum 6063-T5 alloy with spray applied PVF coating in same color as exterior face of insulated metal wall panel.
- D. Butyl Weather Barrier Sealant: Non-skinning butyl tube sealant per panel manufacturer's recommendations compliant with AAMA 809.2.
- E. Vertical joint (for horizontal panel applications):
  1. Material: Extruded Fire-Retardant TPE rubber gasket shall have a finned profile. Vertical joint gasket shall give the appearance of a recessed and tooled caulk joint and be capable of accommodating joint width variations from 3/8 to 3/4 inch due to normal construction tolerances Color: Standard Black gasket
- F. Sealants at exposed joints: Elastomeric polyurethane sealant compliant with ASTM C920.

## 2.4 FLAT METAL WALL PANELS

- A. Materials
  1. 22- gauge galvalume
  2. Finish – Kynar 500

3. Color – Submit standard colors for selection by Owner and Architect
4. Width – As shown on drawings

### **PART 3 EXECUTION**

#### **3.1 EXAMINATION**

- A. Provide field measurements to manufacturer as required to achieve proper fit of the preformed wall panel envelope. Measurements shall be provided in a timely manner so that there is no impact to construction or manufacturing schedule.
- B. Supporting Steel: All structural supports required for installation of panels shall be by others. Support members shall be installed within the following tolerances:
  1. Plus or minus 1/8 inch in 5 feet in any direction along plane of framing.
  2. Plus or minus 1/4 inch cumulative in 20 feet in any direction along plane of framing.
  3. Plus or minus 1/2 inch from framing plane on any elevation.
  4. Plumb or level within 1/8 inch at all changes of transverse for performed corner panel applications.
  5. Verify that bearing support has been provided behind vertical joints of horizontal panel systems and horizontal joints of vertical panel systems. Width of support shall be as recommended by manufacturer.
- C. Examine individual panels upon removing from the bundle; notify manufacturer of panel defects. Do not install defective panels.

#### **3.2 PANEL INSTALLATION**

- A. Installation shall be in accordance with manufacturer's installation guidelines and recommendations.
- B. Install panels plumb, level, and true-to-line to dimensions and layout indicated on approved shop drawings.
- C. Cut panels prior to installing, where indicated on shop drawings, using a power circular saw with fine tooth carbide tip blade per manufacturer's instructions. Ventilate area where polyurethane dust is generated. Personnel should wear respiratory and eye protection devices.
- D. Butyl Weather Barrier Sealant:
  1. Apply non-skinning butyl sealant as shown on shop drawings and manufacturer's installation instructions as necessary to establish the vapor barrier for the panels.
  2. Use non-skinning butyl tube sealant only for tight metal-to-metal contact.
  3. Do not use non-skinning butyl tube sealant to bridge gaps.
- E. Place panel fasteners through pre-punched holes in attachment clips, concealed within the joint of the panel. Secure units to the structural supports. Space clips as recommended by manufacturer or otherwise indicated on the approved shop drawings.

#### **3.3 TRIM INSTALLATION**

- A. Place trim and trim fasteners only as indicated per details on the approved shop drawings.
- B. Field drill weep holes where appropriate in horizontal trim; minimum 1/4 inch diameter at 24 inches on center.
- C. Place a continuous strip of butyl tape or butyl tube sealant on closure trims for the length of the panel to be covered by trim.

#### 3.4 SEALANT INSTALLATION FOR EXPOSED JOINTS

- A. Clean and prime surfaces to receive exterior exposed sealants in accordance with sealant manufacturer's recommendations.
- B. Follow sealant manufacturer's recommendations for joint width- to-depth ratio, application temperature range, size and type of backer rod, and compatibility of materials for adhesion.
- C. Direct contact between butyl and silicone sealants shall not be permitted.

#### 3.5 FIELD QUALITY CONTROL

- A. Testing Agency: General Contractor shall engage an independent testing and inspection agency acceptable to the architect to perform field tests and inspections and to prepare reports of findings.
- B. Field Water Test: After completing portion of metal wall panel assembly including accessories and trim, test a 2-bay area selected by the architect for water penetration in accordance with AAMA 501.2 or ASTM E1105.

#### 3.6 CLEANING AND PROTECTION

- A. Remove protective film immediately after installation.
- B. Touch-up, repair or replace metal panels and trim that have been damaged.
- C. After metal wall panel installation, clear weep holes and drainage channels of obstructions, dirt, and sealant.

END OF SECTION

## SECTION 076200

### SHEET METAL FLASHING AND TRIM

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Metal flashings and trim.
  - 2. Copings.
  - 3. Edge flashings.
  - 4. Gutters and downspouts.
  - 5. Counterflashings over membrane roof base flashings.
  - 6. Counterflashings at roof mounted equipment and utility penetrations.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Section 07 9200 - Joint Sealers.

##### 1.2 REFERENCES

- A. American Architectural Manufacturers Association (AAMA):
  - 1. 611 - Voluntary Specification for Anodized Architectural Aluminum.
  - 2. 621 - Voluntary Specifications for High Performance Organic Coatings on Coil Coated Architectural Hot Dipped Galvanized (HDG) and Zinc-Aluminum Coated Steel Substrates.
  - 3. 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Architectural Extrusions and Panels.
  - 4. 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Architectural Extrusions and Panels.
- B. American National Standards Institute/Single Ply Roofing Institute (ANSI/SPRI) ES-1 - Wind Design Standard for Edge Systems Used with Low Slope Roofing Systems.
- C. ASTM International (ASTM):
  - 1. A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
  - 2. A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
  - 3. A755/A755M - Standard Specification for Steel Sheet, Metallic Coated by the Hot-Dip Process and Prepainted by the Coil-Coating Process for Exterior Exposed Building Products.
  - 4. A792/A792M - Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
  - 5. B32 - Standard Specification for Solder Metal.
  - 6. B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
  - 7. B370 - Standard Specification for Copper Sheet and Strip for Building Construction.
  - 8. B506 - Specification for Copper-Clad Stainless Steel Sheet and Strip for Building Construction.
  - 9. B749 - Standard Specification for Lead and Lead Alloy Strip, Sheet, and Plate Products.
- D. Sheet Metal and Air Conditioning Manufacturer's Association International (SMACNA) - Architectural Sheet Metal Manual.

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Shop Drawings: Show locations, types and thicknesses of metal, profiles, dimensions, fastening methods, provisions for expansion and contraction, and joint details.

#### 1.4 QUALITY ASSURANCE

- A. Design, fabricate, and install edge flashings in accordance with ANSI/SPRI ES-1.
- B. Conform to SMACNA Manual for nominal sizing of gutters and downspouts for rainfall intensity determined by a storm occurrence of 1 in 25 years.

### **PART 2 PRODUCTS**

#### 2.1 MATERIALS

- A. Galvanized Steel Sheet:
  - 1. ASTM A653/A653M, Structural Quality, G90 galvanized coating class, 24 gage core steel unless noted otherwise.
  - 2. Where sheet metal is to be painted, apply phosphate film at factory.
- B. Precoated Aluminum-Zinc Alloy Coated Steel Sheet:
  - 1. ASTM A792/A792M, Commercial Quality, AZ50 aluminum-zinc alloy coating, 24 gage core steel unless noted otherwise.
  - 2. Finish: AAMA 621, fluoropolymer coating, containing minimum 70 percent PVDF resins, color to be selected from manufacturer's full color range.

#### 2.2 ACCESSORIES

- A. Solder: ASTM B32.
- B. Fasteners: Same material and finish as sheet metal, with neoprene gasketed washers where exposed.
- C. Joint Sealers: Specified in Section 07 9200.

#### 2.3 FABRICATION

- A. Fabricate components in accordance with SMACNA Manual.
- B. Profiles:
  - 1. Gutters: SMACNA Style A.
  - 2. Downspouts: SMACNA rectangular
  - 3. Fabricate end caps, downspout outlets and headers, straps, brackets, and downspout strainers in profile to suit gutters and downspouts.
- C. Pre tin edges of sheet.
- D. Solder shop formed joints except pop rivet and seal joints at prefinished metal. After soldering, remove flux and wash clean.
- E. Fabricate corners in single units with minimum 18inch long legs.
- F. Fabricate vertical faces with bottom edge formed outward 1/4 inch and hemmed to form drip.
- G. Form sections accurate to size and shape, square and free from distortion and defects.

- H. Provide for thermal expansion and contraction in sheet metal:
  - 1. Gutters:
    - a. Place expansion joints at maximum 50 feet on center.
    - b. Locate expansion joints between downspouts; prevent water flow over joint.
  - 2. Other sheet metal:
    - a. Provide expansion joints in sheet metal exceeding 15 feet in running length.
    - b. Place expansion joints at 10 feet on center maximum and maximum 2 feet from corners and intersections.
  - 3. Joint width: Consistent with types and sizes of materials, minimum width ¼ inch.
- I. Fabricate expansion joints in metal copings and edge flashings with backing and cover plates formed to flashing profile, minimum 8 inches long.
- J. Unless otherwise indicated, provide minimum 3/4 inch wide flat lock seams; lap in direction of water flow.
- K. Fabricate cleats and starter strips of same material as sheet metal.

### **PART 3 EXECUTION**

#### **3.1 INSTALLATION**

- A. Install flashing and sheet metal as indicated and in accordance with SMACNA Manual.
- B. Install cleats and starter strips before starting installation of sheet metal. Fasten at 6 inches on center maximum.
- C. Expansion Joints in Metal Copings and Edge Flashings:
  - 1. Center backing plate between flashing pieces at end joints.
  - 2. Apply two continuous beads of joint sealer between backing plate and flashing sections at each end.
  - 3. Install flashing pieces with 1/2 inch expansion space at abutting ends; apply sealer to expansion space.
  - 4. Apply two continuous beads of joint sealer between cover plate and flashing sections at each end.
- D. Secure flashings with concealed fasteners where possible.
- E. Apply plastic cement between metal and bituminous flashings.
- F. Fit flashings tight, with square corners and surfaces true and straight.
- G. Seam and seal field joints.
- H. Separate dissimilar metals with bituminous coating or non-absorptive gaskets.
- I. Reglets:
  - 1. Install reglets true to line and level. Seal top of surface mounted reglet with joint sealer.
  - 2. Install flashings into reglets to form tight fit. Secure with lead or plastic wedges at 9 inches on center maximum. Seal remaining space with joint sealer.
- J. Gutters: Secure with straps spaced maximum 36 inches on center and within 12 inches of ends.
- K. Downspouts:

1. Secure with straps spaced maximum 8 feet on center and within 2 feet of ends and elbows.
2. Flash downspouts into gutters and fasten.
3. Flash upper sections into lower sections minimum 2 inches at joints; fasten sections together.

L. Apply joint sealers as specified in Section 07 9200.

### 3.2 CLEANING

A. Clean sheet metal; remove slag, flux, stains, spots, and minor abrasions without etching surfaces.

END OF SECTION

**SECTION 07 6500**  
**FLEXIBLE FLASHINGS**

**PART 1 GENERAL**

1.1 SUMMARY

- A. Section Includes:
  - 1. Rubberized asphalt sheet for concealed wall flashings.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

1.2 REFERENCES

- A. ASTM International (ASTM) D1970 - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection.

1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Product Data: Manufacturer's descriptive data and installation instructions.

1.4 PROJECT CONDITIONS

- A. Do not apply flashings at ambient or surface temperatures less than 40 degrees F.

**PART 2 PRODUCTS**

2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  - 1. GCP Applied Technologies ([www.gcpat.com](http://www.gcpat.com))
  - 2. W.R. Meadows, Inc. ([www.wrmeadows.com](http://www.wrmeadows.com))
  - 3. Polyguard Products, Inc. ([www.polyguardproducts.com](http://www.polyguardproducts.com))
- B. Substitutions: Under provisions of Division 01.

2.2 MATERIALS

- A. Rubberized Asphalt Flashings:
  - 1. Description: ASTM D1970; minimum 32 mil thick butyl rubber modified asphalt laminated to 8 mil thick cross-laminated HDPE film, release paper facing, self adhering.
  - 2. Source: Grace Vycor V40 by Grace Construction Products or approved substitute.

2.3 ACCESSORIES

- A. Termination Mastic: Type recommended by flashing manufacturer.

**PART 3 EXECUTION**

3.1 INSTALLATION

- A. Provide flexible flashings in exterior wall assemblies at:
  - 1. Base of walls.
  - 2. Heads of openings in walls.
  - 3. Transitions between materials.

- 4. Around openings and penetrations through walls.
- B. Lap ends 4 inches minimum.
- C. Press to full bond with substrate without voids, wrinkles, bridging, or fishmouths.
- D. Roll ends and edges with hand held roller; ensure tight seal.
- E. Apply trowel coat of mastic along flashing at top edge, seams, cuts, and penetrations.

END OF SECTION

## SECTION 078400

### FIRESTOPPING

#### GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Firestopping perimeter of and penetrations through fire and smoke rated assemblies.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

##### 1.2 REFERENCES

- A. ASTM International (ASTM):
  - 1. E814 - Standard Test Method for Fire Tests of Through-Penetration Firestops.
  - 2. E1966 - Standard Test Method for Fire-Resistive Joint Systems.
  - 3. E2307 - Standard Test Method for Determining Fire Resistance of Perimeter Fire Barrier Systems Using Intermediate-Scale, Multi-Story Test Apparatus.
- B. Underwriters Laboratories, Inc. (UL):
  - 1. 1479 - Fire Tests of Through-Penetration Firestops.
  - 2. 2079 - Fire Resistance of Building Joint Systems.

##### 1.3 SYSTEM DESCRIPTION

- A. Provide continuous protection against passage of heat, fire, smoke, and gases at perimeter of and penetrations through rated assemblies.

##### 1.4 SUBMITTALS

- A. Submittals for Review:
  - 1. Product Data:
    - a. Firestopping schedule; prepare in tabular format and identify:
      - 1) Type of assembly receiving firestop and required fire rating.
      - 2) Type of penetrating item.
      - 3) Proposed firestop system.
    - b. Include UL or equivalent details for each firestop system.
  - 2. Test Reports: Indicate conformance with ASTM E814, ASTM E1966, ASTM E2307, UL 1479, or UL 2079.
- B. Quality Control Submittals:
  - 1. Certificates of Compliance: Indicate conformance of installed systems with specified requirements.

##### 1.5 QUALITY ASSURANCE

- A. Applicator Qualifications: Minimum 5 years documented experience in work of this Section.
- B. Firestopping: Fire resistance rating as noted on drawings tested to ASTM E814, ASTM E1966, ASTM E2307, UL 1479, or UL 2079.

##### 1.6 PROJECT CONDITIONS

- A. Do not apply sealants, mortars, or putties when temperature of substrate material and surrounding air is below 40 degrees F or is anticipated to drop below that temperature within 24 hours after installation.

## **PART 2 PRODUCTS**

### **2.1 MANUFACTURERS**

- A. Acceptable Manufacturers:
  - 1. Hilti, Inc. ([www.us.hilti.com](http://www.us.hilti.com))
  - 2. 3M Fire Protective Products. ([www.3m.com](http://www.3m.com))
  - 3. Tremco, Inc. ([www.tremcosealants.com](http://www.tremcosealants.com))
- B. Substitutions: Under provisions of Division 01.

### **2.2 MATERIALS**

- A. Firestopping: One or more of the following:
  - 1. Silicone elastomer compound: Single or multiple component, low modulus, moisture curing silicone sealant.
  - 2. Ceramic sealant: Single component, moisture curing ceramic sealant.
  - 3. Intumescent sealant: Single component, water based intumescent sealant.
  - 4. Acrylic sealant: Single component acrylic sealant, suitable for painting.
  - 5. Putty: Single component ceramic fiber base putty or intumescent elastomer putty that expands on exposure to surface heat gain.
  - 6. Mortar: Hydraulic cementitious mortar.
  - 7. Pillows or blocks: Formed intumescent or mineral fiber pillows or blocks.
  - 8. Intumescent strips: Solvent free intumescent wrap strips.
  - 9. Mechanical devices: Incombustible fillers or silicone elastomer covered with sheet stainless steel jacket, joined with collars, penetration sealed with flanged stops.
  - 10. Cast-in-place devices: Containing intumescent material and smoke/water seals.

### **2.3 ACCESSORIES**

- A. Forming and Damming Materials: As recommended by firestopping manufacturer for intended use.
  - 1. Permanent: Mineral fiber board, mineral fiber matting, or mineral fiber putty.
  - 2. Temporary: Plywood, particle board, or other.

## **PART 3 EXECUTION**

### **3.1 PREPARATION**

- A. Prepare openings to receive firestopping as directed by manufacturer:
  - 1. Remove incidental and loose materials from penetration opening.
  - 2. Remove free liquids and oil from involved surfaces and penetration components.
  - 3. Install damming materials to accommodate and ensure proper thickness and fire rating requirements and provide containment during installation.
  - 4. Remove combustible materials and materials not intended for final penetration seal system.

### **3.2 INSTALLATION**

- A. Install firestopping at perimeter of and penetrations through fire and smoke rated assemblies.
- B. Apply materials in accordance with manufacturer's instructions.
- C. Apply firestopping material in sufficient thickness to achieve required ratings.
- D. Compress fibered material to achieve a density of 40 percent of its uncompressed density.

- E. Place foamed material in layers to ensure homogenous density, filling cavities and spaces.
- F. Place sealant to completely seal junctions with adjacent dissimilar materials.
- G. Place intumescent coating in sufficient coats to achieve rating required.
- H. Remove dam material after firestopping material has cured.
- I. Finish exposed surfaces to smooth, flush appearance.

END OF SECTION

## SECTION 083006

### INTERIOR SLIDING DOORS

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Factory fabricated interior sliding door frame and track systems with operating hardware

##### 1.2 RELATED REQUIREMENTS

- A. Section 087100 - Door Hardware.
- B. Section 088000 - Glazing: Product and execution requirements for glass type and installation.

##### 1.3 REFERENCE STANDARDS

- A. AAMA 609 & 610 - Cleaning and Maintenance Guide for Architecturally Finished Aluminum (Combined Document) 2015.
- B. AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum 2014 (2015 Errata).
- C. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements 2009 (Reapproved 2016).
- D. ASTM E413 - Classification for Rating Sound Insulation 2016.

##### 1.4 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide component dimensions, information on glass and glazing, and descriptions of hardware and accessories.
- C. Shop Drawings: Indicate opening dimensions, elevations of different types, framed opening tolerances, and installation requirements.
- D. Samples: Submit two samples, 12 inches (305 mm) long indicating typical sliding door frame construction, accessories, and finishes.
- E. Certificate: Certify that sliding glass doors meet or exceed specified requirements.
- F. Manufacturer's Installation Instructions: Include complete preparation, installation, and cleaning requirements.
- G. Manufacturer's qualification statement.
- H. Installer's qualification statement.
- I. Warranty, executed in Owner's name.

##### 1.5 QUALITY ASSURANCE

- A. A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than five years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of type specified in this section, with at least three years of documented experience.

## 1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver products to project site and store in manufacturer's protective cartons until openings are ready for door installation.

## 1.7 WARRANTY

- A. See Section 017800 - Closeout Submittals for additional warranty requirements.
- B. Correct defective work within a two year period after Date of Substantial Completion.
- C. Provide tyear manufacturer warranty against excessive degradation of metal finishes, and include provision for replacement of units with excessive fading, chalking, or flaking.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Interior Sliding Doors:
  - 1. Serenity Sliding Door Systems; SD101 - Surface Mounted Single Sliding: [www.serenityslidingdoor.com/#sle](http://www.serenityslidingdoor.com/#sle).
  - 2. Substitutions: Under provisions of Division 01.

### 2.2 SLIDING DOOR TRACK SYSTEMS

- A. Type SD101 - Interior Sliding Door Track Systems:
  - 1. Description: Aluminum-cased frame that wraps wall at jambs and head of opening with trim; includes face trim at track, receiving channel, adjustable top track assembly, carriage assemblies having weight rating of at least 220 lb (99.8 kg), frames with integral double seal full gasketing, soft close units, receiving channel, brush type seals, and factory-prepped locks.
  - 2. Configuration: On wall surface-mount system as indicated on drawings.
  - 3. Frame Finish: Class I natural anodized (Standard).
  - 4. Door Type: Flush wood door with particleboard core (Standard).
  - 5. Wood Door Veneer: As selected by Architect.
    - a. Provide stained finish as selected by Architect.
  - 6. Door Thickness: 1-3/4 inches (44.5 mm).
  - 7. Wall Thickness: Per wall types
  - 8. Door Lites: Per door schedule and door types.

### 2.3 COMPONENTS

### 2.4 PERFORMANCE REQUIREMENTS

- A. Acoustical Performance: Provide door assembly and components with Sound Transmission Class (STC) rating of 35, minimum, when tested in accordance with ASTM E90, and ratings derived from ASTM E413.

### 2.5 ASSEMBLY

- A. Provide wall blocking within metal stud walls as required by manufacturer of sliding door assembly.
- B. Joints and Connections: Flush, hairline width, and waterproof; accurately and rigidly joined corners.

### 2.6 FINISHES

- A. Class I Natural Anodized Finish: AAMA 611 AA-M12C22A41 clear anodic coating not less than 0.7 mils (0.018 mm) thick.

### 2.7 ACCESSORIES

- A. Blocking: Provide support wall blocking as required for sliding door locations in accordance with sliding door manufacturer's requirements.

### **PART 3 EXECUTION**

#### **3.1 EXAMINATION**

- A. Verify that openings are ready to receive work and opening dimensions and clearances are as indicated on approved shop drawings.

#### **3.2 PREPARATION**

- A. Prepare opening to permit correct installation of door unit as indicated.

#### **3.3 INSTALLATION**

- A. Install sliding door units in accordance with manufacturer's instructions.
- B. Use anchorage devices to securely fasten sliding door assembly to wall construction without distortion or imposed stresses.
- C. Install perimeter trim and interior closures.

#### **3.4 TOLERANCES**

- A. Maintain dimensional tolerances and alignment with adjacent work.
- B. Maximum Variation from Plumb: 1/16 inch (1.6 mm).
- C. Maximum Variation from Level: 1/16 inch (1.6 mm).
- D. Longitudinal or Diagonal Warp: Plus or minus 1/8 inch (3.2 mm) from 10 foot (3 m) straight edge.

#### **3.5 ADJUSTING**

- A. Adjust hardware for smooth operation.

#### **3.6 CLEANING**

- A. Remove protective material from factory finished surfaces.
- B.
- C. Remove labels and visible markings.
- D.
- E. Wash surfaces by method recommended and acceptable to sealant and sliding door manufacturer; rinse and wipe surfaces clean.\
- F.
- G. See Section 017419 - Construction Waste Management and Disposal, for additional requirements.

#### **3.7 PROTECTION**

- A. A. Protect installed products from damage until Date of Substantial Completion.

END OF SECTION

## SECTION 081113

### HOLLOW METAL DOORS AND FRAMES

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Hollow steel doors and frames.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Section 087100 - Door Hardware.
  - 3. Section 088000 - Glazing.

##### 1.2 REFERENCES

- A. American National Standards Institute (ANSI)/Steel Door Institute (SDI):
  - 1. A250.3 - Test Procedure and Acceptance Criteria for Factory Applied Finished Painted Steel for Steel Doors and Frames.
  - 2. A250.4 - Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames, Frame Anchors and Hardware Reinforcing's.
  - 3. A250.8 - Recommended Specifications for Standard Steel Doors and Frames.
  - 4. A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames.
  - 5. A250.11 - Recommended Erection Instructions for Steel Frames.
- B. ASTM International (ASTM):
  - 1. A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
  - 2. A924 - Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
  - 3. A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
  - 4. C518 - Standard Test Method for Steady State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
  - 5. E413 - Classification for Rating Sound Insulation.
- C. National Fire Protection Association (NFPA) 80 - Standard for Fire Doors and Fire Windows.
- D. Steel Door Institute (SDI) 117 - Manufacturing Tolerances for Standard Steel Doors and Frames.
- E. Underwriters Laboratories (UL):
  - 1. 10C - Standard for Positive Pressure Fire Tests of Door Assemblies.

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Shop Drawings: Show locations, elevations, dimensions, model designations, fire, thermal, acoustical ratings, preparation for hardware, and anchoring details.
  - 2. Product Data: Show elevations, dimensions, gages of metal, hardware reinforcing gages and locations, and anchor types.
- B. Quality Control Submittals:
  - 1. Certificates of Compliance: Certification that products furnished comply with ANSI/SDI A250.3, ANSI/SDI 250.4, and ANSI/SDI A250.10.

## 1.4 QUALITY ASSURANCE

- A. Frames: ANSI/SDI A250.8
- B. Paint: Doors and frames shall be provided with one coat of oven-cured neutral color primer paint. Primer coat shall conform to ANSI A250.10. The primer coat is preparatory base for necessary finish painting. Finish color to be selected by Owner/Architect from manufacturer's chart. Color finish to be electrostatically applied, oven-cured urethane enamel and shall conform to ANSI A250.3.
- C. Fire Door and Frame Construction: Conform to UL 10C.
- D. Installed Fire Rated Door and Frame Assemblies: Conform to NFPA 80.
- E. Acoustic Door and Frame Assemblies: Minimum STC rating of 49, measured in accordance with ASTM E413.

## 1.5 DELIVERY, STORAGE AND HANDLING

- A. Ship door frames with removable angle spreader; do not remove until frame is installed.
- B. Store doors upright in protected, dry area, off ground or floor, with at least 1/4-inch space between individual units.
- C. Do not cover with non-vented coverings that create excessive humidity.
- D. Remove wet coverings immediately.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  - 1. Ceco Door. ([www.cecodoor.com](http://www.cecodoor.com))
  - 2. Curries. ([www.curries.com](http://www.curries.com))
  - 3. Mesker Door. ([www.meskerdoor.com](http://www.meskerdoor.com))
  - 4. Republic Doors and Frames. ([www.republicdoor.com](http://www.republicdoor.com))
- B. Substitutions: Under provisions of Division 01.

### 2.2 MATERIALS - GENERAL

- A. Steel Sheet:
  - 1. ASTM A1008/1008M, cold rolled.
- B. Door Core:
  - 1. Exterior doors: Foamed-in-place polyurethane insulation or Rigid polystyrene insulation.
  - 2. Interior fire-rated and non-fire rated doors: Resin impregnated fibrous honeycomb or Vertical steel stiffeners with batt insulation.

### 2.3 MATERIALS - DOORS

- A. Interior Steel Doors:
  - 1. Level: 2 - Heavy Duty
  - 2. Model: Full Flush
  - 3. Material: 18-gauge steel sheet.
  - 4. Thickness: 1-3/4 inches.
  - 5. Finish: Factory primed and painted.
  - 6. Accessories:
    - a. See Door Schedule.

- b. Glazing stops.
  - c. Silencers.
- B. Exterior Steel Doors
  - 1. Level: 3 - Extra Heavy Duty
  - 2. Model: Seamless
  - 3. Material: 16-gauge galvanized steel sheet.
  - 4. Door Thickness: 1-3/4 inches, thermally insulated.
  - 5. Finish: Factory primed on all surfaces with rust inhibiting primer and factory painted.
  - 6. Accessories:
    - a. See Door Schedule
    - b. Glazing stops.
    - c. Silencers.

## 2.4 MATERIALS - FRAMES

- A. Interior Steel Frames:
  - 1. Material: 18-gauge steel sheet.
  - 2. Type: Knockdown.
  - 3. Type: Drywall slip-on.
  - 4. Finish: Factory primed and painted.
- B. Exterior Steel Frames:
  - 1. Material: 16-gauge galvanized steel sheet.
  - 2. Corners: Mitered or coped.
  - 3. Type: Welded.
  - 4. Type: For frame wall or masonry.
  - 5. Finish: Factory primed on all surfaces with rust inhibiting primer and factory painted.

## 2.5 ACCESSORIES

- A. Glass, Glazing Sealers, and Accessories: Specified in Section 088000.
- B. Primer: Zinc rich type. Rust inhibiting primer on exterior doors and frames.

## 2.6 FABRICATION

- A. Fabricate doors and frames in accordance with ANSI/SDI A250.8.
- B. Doors:
  - 1. Close top and bottom edges of doors with steel channel, match gage, extending full width of door, and spot welded to both faces, with top channel flush and bottom channel recessed.
  - 2. Fill voids between vertical steel stiffeners with batt insulation.
  - 3. Fabricate vertical door edges as vertical seam edge filled, dressed smooth, intermittently welded seams, edge filled, dressed smooth, or continuously welded seam, dressed smooth.
- C. Frames:
  - 1. Fabricate from minimum gage sheets as indicated above.
  - 2. Include the following for knock-down frames.
  - 3. Provide self aligning tabs and slots to hold corners in alignment.
- D. Accurately form to required sizes and profiles.
- E. Grind and dress exposed welds to form smooth, flush surfaces.
- F. Do not use metallic filler to conceal manufacturing defects.
- G. Fabricate with internal reinforcement for hardware specified in Section 087100; weld in place.

- H. Glazing Stops:
  - 1. Manufacturer's standard, screw on type with mitered corners.
  - 2. Form stops from minimum 20 gage steel; prefit for field glazing.
  - 3. Locate screws within 1 inch of ends of stops and maximum 8 inches on center.
  - 4. Install glazing stops on secure side of frames.
  
- I. Design Clearances:
  - 1. Between door and frame: Maximum 1/8 inch.
  - 2. Between meeting edges of pairs of doors:
    - a. Non-fire rated doors: 3/16 inch plus or minus 1/16 inch.
    - b. Fire-rated doors: 1/8 inch plus or minus 1/16 inch.
  - 3. Undercut:
    - a. Non-fire rated doors: Maximum 3/4 inch.
    - b. Fire-rated doors: Comply with NFPA 80.
  - 4. Between face of door and stop: 1/16 to 3/32 inch.
  
- J. Manufacturing Tolerances: In accordance with SDI-117.

## 2.7 FINISHES

- A. Dress tool marks and surface imperfections to smooth surfaces.
- B. Clean and chemically treat steel surfaces.
- C. Touch up damaged metallic coatings.
- D. Apply manufacturer's standard rust inhibiting primer paint, air-dried or baked on, meeting requirements of ANSI/SDI A250.10.

## **PART 3 EXECUTION**

### 3.1 INSTALLATION

- A. Install doors and frames in accordance with ANSI/SDI A250.11.
- B. Set plumb and level.
- C. Secure to adjacent construction using fastener type best suited to application.
- D. Install glass as specified in Section 088000.
- E. Install hardware in accordance with Section 087100.

### 3.2 ADJUSTING

- A. Touch up minor scratches and abrasions in primer paint to match factory finish.

END OF SECTION

**SECTION 081416**  
**FLUSH WOOD DOORS**

**PART 1 GENERAL**

1.1 SUMMARY

- A. Section Includes:
  - 1. Wood veneer faced flush doors.
  - 2. Factory finishing.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Section 087100 - Door Hardware.
  - 3. Section 088000 - Glazing.

1.2 REFERENCES

- A. Architectural Woodwork Institute/Architectural Woodwork Manufacturers of Canada/Woodwork Institute (AWI/AWMAC/WI) - Architectural Woodwork Standards.
- B. ASTM International (ASTM) E90 - Standard Test Method for Measurement of Airborne-Sound Transmission Loss of Building Partitions.
- C. National Fire Protection Association (NFPA) 80 - Standard for Fire Doors and Fire Windows.
- D. Underwriters Laboratories (UL):
  - 1. 10C - Standard for Positive Pressure Fire Tests of Door Assemblies.

1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Shop Drawings: Show locations, elevations, dimensions, fire and acoustical ratings, and preparation for hardware.
  - 2. Samples:
    - a. 12 x 12 inch veneer samples showing selected stain color and finish.
  - 3. Warranty: Sample warranty form.
- B. Quality Control Submittals:
  - 1. Certificates of Compliance: Manufacturer's certification that doors comply with specified acoustical requirements.

1.4 QUALITY ASSURANCE

- A. Fire Door Construction: Conform to UL 10C.
- B. Installed Fire Rated Door Assembly: Conform to NFPA 80.
- C. Acoustic Rated Doors: Tested by independent testing laboratory in accordance with ASTM E90 and certified for STC Class of 49.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Package doors in heavy plastic with identifying marks; slit plastic wrap on site to permit ventilation, but do not remove from plastic until ready to install.

- B. Do not deliver doors until building is substantially water and weather tight.
- C. Store doors flat and level, with spacers between doors to allow for air circulation, in protected, dry area.
- D. Environmental Requirements: Maintain following conditions in building for minimum 7 days prior to, during, and after installation of doors:
  - 1. Temperature: 60 to 80 degrees F.
  - 2. Humidity: 17 to 50 percent.

## 1.6 WARRANTIES

- A. Furnish manufacturer's and installer's year warranty providing coverage against defects in materials and workmanship and warpage beyond specified amount

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  - 1. Masonite ([architectural.masonite.com](http://architectural.masonite.com))
    - a. Series: Aspiro Rotary
- B. Substitutions: Under provisions of Division 01.

### 2.2 MATERIALS

- A. Flush Wood Doors:
  - 1. AWI/AWMAC/WI Architectural Woodwork Standards, Section 9.
  - 2. Core type:
    - a. Solid, fire rated: Fire-Resistant Composite Core.
    - b. Solid, non rated: Particleboard, Medium Density Fiberboard, Structural Composite or Staved Lumber.
  - 1. Wood veneers faces: White birch species, rotary cut, of quality suitable for transparent finish.
  - 2. Glazing beads: Solid wood of species and cut to match face veneers. Noncombustible material with wood veneer of species and cut to match face veneers.
  - 3. Adhesives: Water Resistant type.

### 2.3 ACCESSORIES

- A. Glass and Glazing Accessories: Specified in Section 088000.

### 2.4 FABRICATION

- A. Fabricate doors in accordance with AWI/AWMAC/WI Architectural Woodwork Standards, Section 9.
  - 1. Grade: Custom.
  - 2. Performance Level: Heavy Duty.
  - 3. Edge Type: Manufacturer's option.
  - 4. Number of plies: 5.
- B. Prefitting; fit doors to frames at factory with following clearances:
  - 1. Fire and Acoustic rated doors:
    - a. Width: Cut lock edge only; 3/16 inch maximum.
    - b. Height: Cut bottom edge only; 1 inch maximum.
  - 2. Non-rated doors:

- a. Width: Cut hinge and lock edges equally.
- b. Height: Cut bottom edge only; maximum 3/4 inch.
- 3. Edge clearances:
  - a. Jambs and head: 1/8 inch maximum between door and frame.
  - b. Sills without thresholds: 1/8 inch maximum between door and top of finish floor.
  - c. Sills with thresholds: 1/4 inch maximum between door and top of threshold.
  - d. Meeting stiles of pairs: 1/8 inch maximum between doors.
- 4. Lock edge: Bevel 1/8 inch in 2 inches.

C. Premachining: Machine doors at factory to receive hardware specified in Section 087100.

## 2.5 FINISHES

- A. Factory Finishing:
  - 1. Factory finish doors in accordance with AWI/AWMAC/WI Architectural Woodwork Standards, Section 5.
  - 2. Color: See sheet I001 Interior Specifications.
  - 3. Sheen: See sheet I001 Interior Specifications.

## PART 3 EXECUTION

### 3.1 PREPARATION

- A. Condition doors to average humidity that will be encountered after installation.

### 3.2 INSTALLATION

- A. Install doors in accordance with AWI/AWMAC/WI Architectural Woodwork Standards.
- B. Install doors plumb and level.
- C. If field cutting for height is necessary, cut bottom edge only, 3/4 inch maximum.
- D. Seal field cut surfaces.
- E. Install door hardware in accordance with Section 087100.
- F. Install glass as specified in Section 088000.
- G. Installation Tolerances:
  - 1. Warp: Maximum 1/4 inch in any 3'-0" x 7'-0" portion of door, measured with taut string or straight edge on concave face of door.

END OF SECTION

## SECTION 083100

### ACCESS DOORS AND PANELS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Access doors and frames for wall and ceiling surfaces.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

##### 1.2 REFERENCES

- A. ASTM International (ASTM):
  - 1. A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
  - 2. A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
- B. Underwriters Laboratories (UL) 10B - Standard for Fire Tests of Door Assemblies.

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Product Data: Provide sizes, types, finishes, scheduled locations, and details of adjoining work.

##### 1.4 QUALITY ASSURANCE

- A. Fire Door Construction: Conform to UL 10B.

#### PART 2 PRODUCTS

##### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  - 1. Acudor Products, Inc. ([www.acudor.com](http://www.acudor.com))
  - 2. Babcock-Davis, Inc. ([www.babcockdavis.com](http://www.babcockdavis.com))
  - 3. J.L. Industries. ([www.jlindustries.com](http://www.jlindustries.com))
  - 4. Karp Associates, Inc. ([www.karpinc.com](http://www.karpinc.com))
  - 5. Milcor. ([www.milcorinc.com](http://www.milcorinc.com))
  - 6. Nystrom, Inc. ([www.nystrom.com](http://www.nystrom.com))
- B. Substitutions: Under provisions of Division 01.

##### 2.2 MATERIALS

- A. Steel Sheet: ASTM A1008/A1008M, cold rolled.
- B. Galvanized Steel Sheet: ASTM A653/A653M, Structural Quality.

##### 2.3 FABRICATION

- A. Fabricate door frame of steel sheet:
  - 1. Doors 16 x 16 inches and smaller: Minimum 18 gage.
  - 2. Doors over 16 x 16 inches: Minimum 16 gage.
  - 3. Fabricate frames with flange type to suit installation conditions.
- B. Fabricate door panels of minimum 14 gage steel sheet.
- C. Fabricate fire rated door panels of two sheets of minimum 20 gage steel sheet. Fill core with noncombustible insulation.
- D. Recess door face to receive gypsum board flush with adjacent surface.
- E. Weld, fill, and grind joints to flush and square appearance.
- F. Hardware:
  - 1. Continuous steel hinges, 175 degrees opening.
  - 2. Screwdriver operated cam latch.
  - 3. Automatic closers for fire rated doors.

#### 2.4 FINISHES

- A. Exterior Doors and Interior Doors in Wet Locations: Hot dip galvanized, G90 coating class.
- B. Other Interior Doors: One coat rust-inhibiting primer paint, sprayed and baked.

### **PART 3 EXECUTION**

#### 3.1 INSTALLATION

- A. Install units in accordance with manufacturer's instructions.
- B. Install plumb and level in openings. Secure rigidly in place.
- C. Position units where indicated or where required to provide convenient access to concealed work requiring maintenance.

END OF SECTION

## SECTION 083800

### TRAFFIC DOORS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Light to medium duty traffic doors.
  - 2. Hardware and accessories.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Section 087100 - Door Hardware.
  - 3. Section 088000 - Glazing.

##### 1.2 REFERENCES

- A. American National Standards Institute (ANSI)/Steel Door Institute (SDI):
  - 1. A250.3 - Test Procedure and Acceptance Criteria for Factory Applied Finished Painted Steel for Steel Doors and Frames.
  - 2. A250.4 - Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames, Frame Anchors and Hardware Reinforcings.
  - 3. A250.8 - Recommended Specifications for Standard Steel Doors and Frames.
  - 4. A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames.
  - 5. A250.11 - Recommended Erection Instructions for Steel Frames.
- B. ASTM International (ASTM):
  - 1. A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
  - 2. A924 - Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
  - 3. A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
  - 4. C518 - Standard Test Method for Steady State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
  - 5. E413 - Classification for Rating Sound Insulation.
- C. National Fire Protection Association (NFPA) 80 - Standard for Fire Doors and Fire Windows.
- D. Steel Door Institute (SDI) 117 - Manufacturing Tolerances for Standard Steel Doors and Frames.
- E. Underwriters Laboratories (UL):
  - 1. 10C - Standard for Positive Pressure Fire Tests of Door Assemblies.

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Shop Drawings: Show locations, elevations, dimensions, model designations, fire, thermal, acoustical ratings, preparation for hardware, and anchoring details.
  - 2. Product Data: Show elevations, dimensions, gages of metal, hardware reinforcing gages and locations, and anchor types.

##### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation. Do not lay flat.

## 1.5 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

## 1.6 WARRANTY

- A. Provide manufacturer's standard two-year warranty that products are free of defects in material and workmanship and guaranteeing to replace (exclusive of freight and labor) parts proven defective within two years after date of shipment to purchaser.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  - 1. Eliason Corp. ([www.eliasoncorp.com](http://www.eliasoncorp.com))
- B. Substitutions: Under provisions of Division 01.

### 2.2 TRAFFIC DOORS

- A. Source: SCP4 by Eliason Corp or approved substitute.
- B. Light to Medium Duty Doors: 3/4 inch (19 mm) exterior grade solid wood core; 1 inch (25 mm) total thickness; light to medium duty. Easy swing hardware.
  - 1. Facing: Reinforcing metal plates.
    - a. Top Panels: 0.032 inch tempered aluminum alloy, satin anodized finish, both sides.
    - b. Base Plates: 40 inches high 20 gauge stainless steel both sides.
    - c. Back Channel: 20 gauge stainless steel.
  - 2. Window Size: 18 inches wide by 30 inches high.
  - 3. Glazing: Clear acrylic, set in black rubber molding.
  - 4. Provide options as specified in Accessories below.

### 2.3 HARDWARE AND ACCESSORIES

- A. Hinges: Double Action Easy Swing hinges.
  - 1. Finish: Zinc plated.
- B. Hinge Covers: Molded plastic in matching color.
- C. Base Plates: Base plates to install on base of door surface; in pairs for front and back.
  - 1. Material: Stainless steel, both sides.
  - 2. Height: 40 inches.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. Verify jambs are plumb and square.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

### 3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.

- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

### 3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Anchor assembly to wall construction and building framing without distortion or stress.
- C. Fit and align door assembly including hardware.
- D. Minimum jamb construction of double studded 2 by 4 wood construction or equivalent.
- E. Reinforce hollow metal jambs at hardware locations.
- F. Steel channel jambs are required for heavy duty traffic doors.
- G. Adjust door assembly to smooth operation and in full contact with weatherstripping.

### 3.4 CLEANING

- A. Clean doors, frames and glass.
- B. Remove temporary labels and visible markings.

### 3.5 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

## SECTION 08 5113

### ALUMINUM WINDOWS AND GLASS DOORS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Aluminum framed windows, with fixed sash.
  - 2. Field glazing.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Section 08 8000 - Glazing.

##### 1.2 REFERENCES

- A. American Architectural Manufacturers Association (AAMA):
  - 1. CW-10 - Care and Handling of Architectural Aluminum from Shop to Site.
  - 2. 502 - Voluntary Specification for Field Testing of Newly Installed Fenestration Products.
  - 3. 611 - Voluntary Specification for Anodized Architectural Aluminum.
  - 4. 1503.1 - Voluntary Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors and Glazed Wall Sections.
  - 5. 2603 - Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Architectural Extrusions and Panels.
  - 6. 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Architectural Extrusions and Panels.
  - 7. 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Architectural Extrusions and Panels.
- B. American Architectural Manufacturers Association/Window and Doors Manufacturers Association/Canadian Standards Association (AAMA/WDMA/CSA) 101/I.S.2/A440 - Standard/Specification for Windows, Doors and Unit Skylights.
- C. American Society of Civil Engineers (ASCE) 7 - Minimum Design Loads for Buildings and Other Structures.
- D. ASTM International (ASTM):
  - 1. B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

##### 1.3 SYSTEM DESCRIPTION

- A. Windows and Glass Doors: AAMA/WDMA/CSA 101/I.S.2/A440.
  - 1. Product type:
    - a. Fixed windows: F - Fixed.

##### 1.4 SUBMITTALS

- A. Submittals for Review:
  - 1. Shop Drawings: Include locations, elevations, sections, materials, finishes, and attachments.
  - 2. Samples: 3 x 3 inch finish samples in specified color.

##### 1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum 5 years documented experience in work of this Section.

## **PART 2 PRODUCTS**

### **2.1 MANUFACTURERS**

- A. Acceptable Manufacturers:
  1. C. R. Laurence Co., Inc ([www.crlaurence.com](http://www.crlaurence.com))
  2. Capitol Aluminum and Glass Corp. ([www.capitol-windows.com](http://www.capitol-windows.com))
  3. EFCO Corporation. ([www.efcocorp.com](http://www.efcocorp.com))
  4. Kawneer Co., Inc. ([www.kawneer.com](http://www.kawneer.com))
  5. Peerless Products, Inc. ([www.peerlessproducts.com](http://www.peerlessproducts.com))
  6. Ply Gem Windows. ([www.plygemwindows.com](http://www.plygemwindows.com))
- B. Substitutions: Under provisions of Division 01.

### **2.2 MATERIALS**

- A. Aluminum Sash Extrusions:
  1. Source: CRL # S010A.by C. R. Laurence Co., Inc or approved substitute.
  2. Finish – Class I clear satin anodized.
  3. Snap in sash with clips.
- B. Glass and Glazing Accessories: Specified in Section 088000.

### **2.3 ACCESSORIES**

- A. Fasteners: Stainless steel, hot-dip galvanized steel, or fluoropolymer coated steel; type best suited to application.

### **2.4 FABRICATION**

- A. Fabricate to manufacturer's instructions.
- B. Fabricate with minimum clearances and shim spaces around perimeter, yet enabling installation and dynamic movement.
- C. Accurately fit and secure joints and intersections. Make joints flush, hairline, and weathertight.
- D. Fabricate in largest practical units.
- E. Conceal fasteners and attachments from view.
- F. Reinforce corners and intersections of frames and mullions.

### **2.5 FINISHES**

- A. Aluminum: AAMA 611, Architectural Class II anodized to 0.0004 inch minimum thickness, clear.

## **PART 3 EXECUTION**

### **3.1 INSTALLATION**

- A. Install windows and glass doors in accordance with ASTM E2112, manufacturer's instructions, and approved Shop Drawings.
- B. Set plumb, level, and rigid, free from warpage.
- C. Anchor to supporting construction.
- D. Installation Tolerances:
  - 1. Maximum variation from plumb or level: 1/8 inch in 3 feet or 1/4 inch in any 10 feet, whichever is less.
  - 2. Maximum misalignment of members abutting end to end: 1/32 inch.

### 3.2 ADJUSTING

- A. Touch up minor scratches and abrasions to match original finish.

END OF SECTION

## SECTION 087100

### DOOR HARDWARE

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Hardware for steel, wood, and aluminum doors.
  - 2. Weatherstripping and thresholds.
  - 3. Acoustical Sound seals.
  - 4. Hardware for other sections referencing this section.
- B. Related Sections
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Section 081113 Hollow Metal Doors and Frames
  - 3. Section 081416 Flush Wood Doors
  - 4. Section 084113 Aluminum-Framed Entrances and Storefronts

##### 1.2 REFERENCES

- A. American National Standards Institute/Builders Hardware Manufacturers Association (ANSI/BHMA):
  - 1. A156.1 - Butts and Hinges.
  - 2. A156.2 - Bored and Preassembled Locks and Latches.
  - 3. A156.3 - Exit Devices.
  - 4. A156.4 - Door Controls - Closers.
  - 5. A156.5 - Auxiliary Locks and Associated Products.
  - 6. A156.13 - Mortise Locks and Latches.
  - 7. A156.18 - Materials and Finishes.
  - 8. A156.26 - Continuous Hinges.
  - 9. A156.31 - Electric Strikes.
- B. Door and Hardware Institute (DHI)
- C. Steel Door Institute

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Shop Drawings: Schedule hardware by door type and location; show door size, hand, thickness, edge bevel, hardware components and quantities, keying, and finishes.
  - 2. Product Data: Manufacturer's descriptive data for each component.
  - 3. Warranty: Sample warranty form.
- B. Closeout Submittals:
  - 1. Copy of approved hardware schedule.
  - 2. Keying list.
  - 3. Keys; tag with mark corresponding to keying schedule.

##### 1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum 3 years documented experience in work of this Section.

- B. Provide hardware labeled by recognized independent testing laboratory and meeting requirements of NFPA 80 for fire rated doors.
- C. Provide smoke gasketing at fire rated doors in accordance with NFPA 105.
- D. Conform to applicable accessibility code for locating hardware and for door opening force requirements.

## 1.2 DELIVERY, STORAGE AND HANDLING

- A. Pack hardware items separately, with fasteners, installation instructions, and templates.
- B. Mark containers with item number corresponding to hardware schedule.

## 1.3 WARRANTIES

- A. Furnish manufacturer's standard warranty for hardware.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers
  1. Bommer Industries, Inc. ([www.bommer.com](http://www.bommer.com))
  2. Corbin Russwin, Inc. ([www.corbin-russwin.com](http://www.corbin-russwin.com))
  3. Emtek Products. ([www.emtek.com](http://www.emtek.com))
  4. Hager Companies. ([www.hagerco.com](http://www.hagerco.com))
  5. Ives by Allegion. ([www.allegion.com](http://www.allegion.com))
  6. LCN by Allegion. ([www.allegion.com](http://www.allegion.com))
  7. McKinney Products Co., Inc. ([www.mckinneyhinge.com](http://www.mckinneyhinge.com))
  8. National Guard Products, Inc. ([www.ngpinc.com](http://www.ngpinc.com))
  9. Pemko Manufacturing Co., Inc. ([www.pemko.com](http://www.pemko.com))
  10. Reese Enterprises, Inc. ([www.reeseusa.com](http://www.reeseusa.com))
  11. Sargent Manufacturing Company. ([www.sargentlock.com](http://www.sargentlock.com))
  12. Schlage. ([www.schlage.com](http://www.schlage.com))
  13. Stanley Black and Decker. ([www.stanleyblackanddecker.com](http://www.stanleyblackanddecker.com))
  14. Von Duprin by Allegion. ([www.allegion.com](http://www.allegion.com))
  15. Yale Security, Inc. ([www.yalelocks.com](http://www.yalelocks.com))

### 2.2 MATERIALS

- B. Butt Hinges:
  1. Source: Stanley or approved substitute.
  2. Description: ANSI/BHMA A156.1, full mortise type, five knuckle, non-rising pin, hole in bottom tip for pin removal.
  3. Exterior out swinging doors: Provide set screw in barrel making hinge non-removable when door is closed.
  4. Bearing type: Ball bearing.
  5. Size: 4-1/2 x 4-1/2 inches.
- C. Locksets and Latch sets:
  1. Source:
    - a. Entrance: S Series by Schlage or approved substitute.
    - b. Interior: S Series by Schlage or approved substitute.
  2. Type: ANSI/BHMA A156.2, Grade 2 cylindrical design

3. Deadbolts:
    - a. Type: ANSI/BHMA A156.5, cylindrical type with 1-inch bolt throw.
    - b. Functions: As scheduled.
  4. Strike plates: curved lip, minimum lip projection necessary to protect door frame and trim and to conceal edges of strike cutout.
  5. Strike boxes: Steel.
  6. Cylinders: Pin, solid brass, removable core type.
  7. Keys: Nickel silver.
  8. Keying: Owner's requirements for keying and key control system.
  9. Restroom Doors: Provide occupied indicator.
- A. Door Closers:
1. Source:
    - a. Low frequency: 4030/4130 series by LCN or approved substitute.
    - b. Entry doors: LCN 4010/4110 series by LCN or approved substitute.
  2. Description: ANSI/BHMA A156.4, overhead exposed, metal cover, sized to door conditions.
- B. Exit Devices:
1. Source: Van Duprin or approved substitute.
  2. Description: ANSI/BHMA A156.3, Grade 2, push pad type.
- C. Door Stops:
1. Source: Ives or approved substitute.
  2. Description: Wall mounted, aluminum housing with resilient bumper.
- D. Push Pull Plates:
1. Description: Stainless steel, secured with through bolts.
- E. Kick Plates and related trim:
1. Source: Brookline or approved substitute.
  2. Description: 16 gage, square edges, secured with flathead countersunk screws.
  3. Size: Height per door schedule x door width less 2 inches.
- F. Weatherstripping:
1. Source:
    - a. Head and Jambs: Pemko or approved substitute.
    - b. Automatic Door Bottoms: 412 Series by Pemko or approved substitute.
- G. Threshold:
1. Source: Reese or approved substitute.
- H. Sound Seals:
1. Source: S88D by Pemko or approved substitute.
  2. Description: Adhesive-backed gasketing at head and jamb
- I. Door Sweep:
1. Source: 315 Series by Pemko or approved substitute.
  2. Description: Neoprene

## 2.3 FINISHES

- A. Finishes: To ANSI/BHMA A156.18.
- B. Hardware: No. 626, satin chrome plated.

- C. Thresholds and Door Seal Housings: Clear anodized.

### **PART 3 EXECUTION**

#### **3.1 EXAMINATION**

- A. Verification of conditions: Examine doors, frames, related items, and conditions under which Work is to be performed and identify conditions detrimental to proper and or timely completion. Do not proceed until unsatisfactory conditions have been corrected.

#### **3.2 HARDWARE LOCATIONS**

- A. Mount hardware units at heights indicated in the following publications except as specifically indicated or required to comply with the governing regulations
  1. Recommended Locations for Builder's Hardware for Standard Steel Doors and Frames, by the Door and Hardware Institute (DHI).
  2. Recommended locations for Architectural Hardware for flush wood doors (DHI).
  3. WDMA Industry Standard I.S.-1A-04, Industry Standard for Architectural wood flush doors.

#### **3.3 INSTALLATION**

- A. Install hardware in accordance with approved hardware schedule and manufacturer's instructions.
- B. Install mortise items flush with adjacent surfaces.
- C. Install locksets, closers, and trim after finish painting.
- D. Set thresholds in mastic and secure.
- E. Mount closers so that closers and closer arms are not visible on corridor or public side of doors or on exterior of building.

#### **3.4 SCHEDULE**

- A. See Sheet A601-Door Schedule and Types.

END OF SECTION

## SECTION 088000

### GLAZING

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Transparent and translucent glass glazing for general and special purpose applications including tempered glass.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

##### 1.2 REFERENCES

- A. American Architectural Manufacturers Association (AAMA) 800 - Voluntary Specifications and Test Methods for Sealants.
- B. American National Standards Institute (ANSI) Z97.1 - Safety Performance Specifications and Methods of Test for Safety Glazing Material Used in Buildings.
- C. American Society of Civil Engineers (ASCE) 7 - Minimum Design Loads for Buildings and Other Structures.
- D. ASTM International (ASTM):
  - 1. C509 - Standard Specification for Elastomeric Cellular Preformed Gasket and Sealing Material.
  - 2. C794 - Standard Test Method for Adhesion-In-Peel of Elastomeric Joint Sealants.
  - 3. C864 - Standard Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers.
  - 4. C920 - Standard Specification for Elastomeric Joint Sealants.
  - 5. C1036 - Standard Specification for Flat Glass.
  - 6. C1048 - Standard Specification for Heat-Treated Flat Glass-Kind HS, Kind FT, Coated and Uncoated Glass.
  - 7. C1115 - Standard Specification for Dense Elastomeric Silicone Rubber Gaskets and Accessories.
  - 8. C1281 - Standard Specification for Preformed Tape Sealants for Glazing Applications.
  - 9. C1294 - Standard Test Method for Compatibility of Insulating Glass Edge Sealants with Liquid-Applied Glazing Materials.
  - 10. C1330 - Standard Specification for Cylindrical Sealant Backing for Use with Cold Liquid Applied Sealants.
  - 11. E119 - Standard Test Method for Fire Tests of Building Construction and Materials.
  - 12. E152 - Standard Test Method for Fire Test of Door Assemblies.
  - 13. E163 - Standard Test Method for Fire Tests of Window Assemblies.
  - 14. E330 - Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors By Uniform Static Air Pressure Difference.
  - 15. E1300 - Standard Practice for Determining Load Resistance of Glass in Buildings.
  - 16. E2190 - Standard Specification for Insulating Glass Unit Performance and Evaluation.
- E. Consumer Product Safety Commission (CPSC) 16 CFR 1201 - Safety Standard for Architectural Glazing Materials.
- F. Glass Association of North America (GANA):
  - 1. Engineering Standards Manual.
  - 2. Glazing Manual.
- G. Insulating Glass Manufacturers Alliance (IGMA):

1. SIGMA TM-3000 - Glazing Guidelines for Sealed Insulating Glass Units.
- H. National Fenestration Rating Council (NFRC):
1. 100 - Procedure for Determining Fenestration Product Thermal Properties.
  2. 200 - Procedure for Determining Fenestration Product Solar Heat Gain Coefficients at Normal Incidence.
  3. 300 - Procedures for Determining Solar Optical Properties of Simple Fenestration Products.

### 1.3 SYSTEM DESCRIPTION

- A. Glass Thicknesses:
1. Indicated thicknesses are minimums; select actual glass thicknesses by analyzing loads and conditions.
  2. Size glass to withstand positive and negative wind pressure acting normal to plane in accordance with Building Code as measured in accordance with ASTM E330.
  3. Provide glass in thicknesses and strengths to meet or exceed following criteria:
    - a. Comply with ASTM E1300.
- B. Thermal and Optical Performance Properties: Provide glass meeting specified performance properties, based on manufacturer's published test data for units of thickness indicated:
1. U-factor: Per NFRC 100 expressed as Btu/square foot x hour x degree F.
  2. Solar heat gain coefficient: Per NFRC 200.
  3. Solar optical properties: Per NFRC 300.

### 1.4 SUBMITTALS

- A. Submittals for Review:
1. Product Data: Descriptive data and performance attributes for glass.
  2. Warranty: Sample warranty form.
- B. Quality Control Submittals:
1. Test Report: Preconstruction adhesion and compatibility test report from glazing sealant manufacturer, based on submitted samples or acceptable data from previous testing of current formulations with similar products.

### 1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum 5 years documented experience in work of this Section.
- B. Regulatory Requirements:
1. Provide safety glass for locations subject to human impact as required by Building Code.
  2. Safety glass: Tested and labeled to CPSC 16 CFR 1201.

### 1.6 PROJECT CONDITIONS

- A. Perform glazing when ambient temperature is above 40 degrees F.
- B. Perform glazing on dry surfaces.

### 1.7 WARRANTIES

- A. Insulating Glass Units: Provide manufacturer's 10-year warranty against material obstruction of vision through unit due to:
1. Intrusion of dust or moisture.
  2. Internal condensation.
  3. Film formation on internal glass surfaces caused by failure of hermetic seal except failure caused in whole or in part by breakage or fracturing of any portion of glass surface.

- B. Provide a written 5-year warranty from date of manufacture for fully tempered glass that has been Heat Soaked. Warrants that heat-soaked tempered glass will not break spontaneously as a result of Nickel Sulfide (NiS) inclusions at a rate exceeding 0.5% (5/1000) for a period of five years from the date of manufacture.
- C. Glass Coatings: Provide manufacturer's 10-year warranty against peeling, cracking, or deterioration of coating under normal conditions.

## **PART 2 PRODUCTS**

### **2.1 MANUFACTURERS**

- A. Acceptable Manufacturers - Glass:
  - 1. Guardian Industries Corp. ([www.guardian.com](http://www.guardian.com))
  - 2. Oldcastle Building Envelope. ([www.oldcastlebe.com](http://www.oldcastlebe.com))
  - 3. PPG Industries, Inc. ([www.ppg.com](http://www.ppg.com))
  - 4. SaftiFirst ([www.safti.com](http://www.safti.com))
- B. Substitutions: Under provisions of Division 01.

### **2.2 MATERIALS**

- A. Clear Glass: ASTM C1036, Type 1 transparent flat, Class 1 clear, Quality q3 glazing select.
- B. Clear Tempered Glass: ASTM C1048, Type 1 transparent flat, Class 1 clear, Quality q3 glazing select, Kind FT fully tempered.
- C. Fire Rated Safety Glass:
  - 1. Type: Specially tempered glass, clear, of fire resistance ratings indicated.
  - 2. Source:
    - a. 20 Minute Fire Protective Glazing: SuperLite I by SaftiFirst or approved substitute.
    - b. 45 Minute Fire Protective Glazing: SuperLite 45-HS by SaftiFirst or approved substitute.

### **2.3 ACCESSORIES**

- A. Glazing Materials: Select glazing sealants, tapes, gaskets and additional glazing materials of proven compatibility with other materials they will contact, including glass products, seals of insulating glass units and glazing channel substrates, under conditions of installation and service, as demonstrated by testing and field experience.
  - 1. Setting blocks to be 100% silicone with a durometer hardness of 85±5.
- B. Spacers: ASTM C864, neoprene or EPDM, or ASTM C1115, silicone; Elastomeric blocks or continuous extrusions with a shore A durometer hardness required by glass manufacturer to maintain glass lites in place.
- C. Glazing Gaskets:
  - 1. Dense compression gaskets: ASTM C864, neoprene or EPDM, or ASTM C1115, silicone or thermoplastic polyolefin rubber, molded or extruded shape to fit glazing channel retaining slot; of profile hardness required to maintain watertight seal.
  - 2. Soft compression gaskets: ASTM C509, Type II, black, molded or extruded, neoprene, EPDM, silicone or thermoplastic polyolefin rubber, of profile and hardness required to maintain watertight seal
- D. Glazing Sealant:
  - 1. Type: ASTM C1184, multi component, high modulus, neutral chemical curing silicone glazing and curtain wall sealant.
  - 2. Movement capability: 12 percent in extension and compression.
  - 3. Compatible with glass unit edge seals.
  - 4. Color: Black.

- E. Sealant Backing: ASTM C1330, Type O, size and density to control glazing sealant depth and produce optimum glazing sealant performance.
- F. Primer: As recommended by glazing sealant manufacturer. Apply primers to joint surfaces where required for adhesion of sealants, as determined by preconstruction sealant-substrate testing.
- G. Weatherseal Sealant:
  - 1. Type: Single component, low modulus, neutral moisture curing silicone sealant; ASTM C920, Type S, Grade NS, Class 25, Use NT, M, G and A.
  - 2. Movement capability: 25 percent in extension and compression.
  - 3. Compatible with glass unit edge seals; tested to ASTM C1294.
  - 4. Color: Black.
- H. Butt Joint Glazing Sealant: ASTM C920, Type S, Grade NS, Class 25; single component silicone, low modulus type, non-sag, color to be selected from manufacturer's full color range.
- I. Glazing Tape: AAMA 800; closed cell polyvinyl chloride foam, maximum 2 percent water absorption by volume, designed for 25 percent compression percent for air barrier and vapor retarder seal, black color, coiled on release paper over adhesive on two sides; widths required for installation.
- J. Glazing Compound: Modified oil type, non-hardening, knife grade consistency, color to be selected from manufacturer's full color range.

## 2.4 FABRICATION

- A. Annealed Glass: Comply with ASTM C1036.
- B. Tempered Glass:
  - 1. Comply with ASTM C1048.
  - 2. Process in horizontal position so that inherent roller distortion will run parallel to building floor lines after installation.
- C. Sealed Insulating Glass:
  - 1. Comply with ASTM E2190.
  - 2. Fabricate spacer bar frame of tubular aluminum filled with desiccant.
  - 3. Bond spacer bar frame to glass panes with twin primary seals.
  - 4. Fill space outside frame to glass edge with elastomeric sealant.
- D. Low-E Coated Glass: Apply low-emissivity coating to scheduled glass surface.

## PART 3 EXECUTION

### 3.1 PREPARATION

- A. Clean glazing rabbets; remove loose and foreign matter.
- B. Remove protective coatings on metal surfaces.
- C. Clean glass just prior to installation.

### 3.2 INSTALLATION - GENERAL

- A. Install glass in accordance with glass manufacturer's instructions.
- B. Maintain manufacturer's recommended edge and face clearances between glass and frame members.

### 3.3 INSTALLATION - SILICONE GLAZING METHOD

- A. Mask both sides of joint for full length.
- B. Install temporary glass retainers to align faces of glass.
- C. Provide temporary joint backing for one side of joint.
- D. Apply sealant to completely fill spaces; tool to smooth, slightly concave surface.
- E. Allow sealant to cure minimum time required by manufacturer. Remove temporary backing and fill voids with additional sealant.

#### 3.4 INSTALLATION - GASKET GLAZING METHOD

- A. Fabricate gaskets to fit openings; allow for stretching of gaskets during installation.
- B. Set soft compression gasket against fixed stop or frame with bonded miter cut joints at corners.
- C. Set glass centered in openings on setting blocks.
- D. Install removable stops and insert dense compression gaskets at corners, working toward centers of glass, compressing glass against soft compression gaskets to produce weathertight seal.
- E. Seal joints in gaskets.
- F. Allow gaskets to protrude past face of glazing stops.

#### 3.5 INSTALLATION - PRESSURE GLAZING METHOD

- A. Set glass unit in opening as recommended by system manufacturer.
- B. Tighten fasteners simultaneously at rate recommended by manufacturer to avoid unequal point pressures on glass.
- C. Torque fasteners to achieve required pressure against glass. Do not over tighten.

#### 3.6 INSTALLATION - SEALANT GLAZING METHOD

- A. Apply sealant to full depth of permanent stops.
- B. Press glass into sealant with slight lateral movement to ensure adhesion.
- C. Apply sealant to full depth of removable stops. Secure stops in position, forcing contact with sealant bead and completely filling joint.

#### 3.7 INSTALLATION - SEALANT AND TAPE GLAZING METHOD

- A. Apply tape to permanent stops, projecting slightly above sight line.
- B. Press glass into contact with tape.
- C. Install removable stops with spacer shims between stop and glass.
- D. Fill gap between removable stop and glass with glazing sealant.
- E. Trim protruding tape edges.

#### 3.8 INSTALLATION - TAPE GLAZING METHOD

- A. Apply tape to permanent stops, projecting slightly above sight line.
- B. Press glass into contact with tape.
- C. Place glazing tape on removable stop side of glass.
- D. Install removable stop and apply pressure to ensure contact.
- E. Trim protruding tape edges.

### 3.9 PROTECTION

- A. After installation, mark glass with an 'X' using removable plastic tape.

### 3.12 SCHEDULE

- A. Type A:
  - 1. Description: Clear Insulating Glass.
  - 2. Locations: At exterior non-hazardous locations.
  - 3. Outboard Lite: Annealed float glass, tinted, 1/8 inch thick, minimum.
  - 4. Inboard Lite: Annealed float glass, 1/8 inch thick, minimum.
  - 5. Total Thickness: 3/4 inch.
  - 6. Visible Light Transmittance (VLT): 70 percent
  - 7. U-Value (Winter Night): 0.47
  - 8. Solar Heat Gain Coefficient (SHGC): 0.67
- B. Type B:
  - 1. Description: 1/4 inch thick clear tempered glass.
  - 2. Locations: Interior doors and sidelights and at hazardous locations.
- C. Type C:
  - 1. Description: 1/4 inch thick clear glass.
  - 2. Locations: Interior non-hazardous locations.
- D. Type D:
  - 1. Description: 1/4 inch thick clear glass in compliance with ANSI Z97.1 (latest edition)
  - 2. Locations: Casework doors
- E. Type E:
  - 1. Description: 1/4 inch thick clear fire-rated safety glass, 20 min.
  - 2. Locations: Interior fire-rated glazed openings at rated corridors.
- F. Type E:
  - 1. Description: 3/4 inch thick clear fire-rated safety glass, 45 min.
  - 2. Locations: Interior fire-rated glazed openings at shaft wall doors.

G.

END OF SECTION

## SECTION 096566

### RESILIENT ATHLETIC FLOORING

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Resilient athletic flooring.
  - 2. Substrate preparation.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Division 03: Cast in Place Concrete

##### 1.2 REFERENCES

- A. ASTM International (ASTM):
  - 1. C423 - Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
  - 2. C518 - Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
  - 3. D412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers – Tension
  - 4. D2047 - Standard Test Method for Static Coefficient of Friction of Polish-Coated Flooring Surfaces as Measured by the James Machine.
  - 5. D5116 - Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions From Indoor Materials/Products.
  - 6. E413 - Classification of Rating Sound Insulation.
  - 7. E492 - Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine.
  - 8. E2129 - Standard Practice for Data Collection for Sustainability Assessment of Building Products.
  - 9. F137 - Standard Test Method for Flexibility of Resilient Flooring Materials with Cylindrical Mandrel Apparatus.
  - 10. F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.
  - 11. F925 - Standard Test Method for Resistance to Chemicals of Resilient Flooring.
  - 12. F970 - Standard Test Method for Static Load Limit.
  - 13. F1869 - Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.
  - 14. F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes.
  - 15. F2569 - Standard Test Method for Evaluating the Force Reduction Properties of Surfaces for Athletic Use.

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Product Data: Submit product data, including manufacturer's guide specifications product sheet, for specified products
  - 2. Samples: Submit 6 x 6 inch samples showing selection and verification samples for finishes, colors and textures.
  - 3. Shop Drawings: Submit shop drawings showing layout, profiles and product components, including anchorage, accessories, finish colors, patterns, and textures.
  - 4. Maintenance Instruction: Submit two copies of manufacturer recommended maintenance practices for each type of resilient flooring and accessory required.
- B. Quality Control Submittals:
  - 1. Certificates of Compliance: Certification of performance characteristics.
  - 2. Manufacturer's Instructions: Manufacturer's installation instructions:

3. Manufacturer's Field Reports.

C. Closeout Submittals:

1. Operations and Maintenance Data: Operation and maintenance data for installed products in accordance to Division 1 Closeout Submittals.
2. Warranty: Warranty documents specified herein.

#### 1.4 QUALITY ASSURANCE

A. Manufacturer Qualifications:

1. Provide resilient flooring manufactured by a firm with a minimum of 10 years' experience with resilient flooring of type equivalent to those specified.
2. Manufacturer shall be capable of providing technical training and technical field service representation.

B. Installer Qualifications: Minimum 10 years documented experience in work of this Section.

C. Source Quality: Obtain resilient flooring materials from a single manufacturer.

#### 1.5 DELIVERY, STORAGE & HANDLING

A. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.

B. Storage and Protection: Store materials at temperature and humidity conditions recommended by manufacturer and protect from exposure to harmful weather conditions.

#### 1.6 PROJECT CONDITIONS

A. Temperature Requirements: Maintain air temperature in spaces where products will be installed for time period before, during, and after installation, as recommended by manufacturer.

B. Field Measurements: Verify actual measurements / openings by field measurements before fabrication; show recorded measurements on shop drawings. Coordinate field measurements and fabrication schedule with construction progress to avoid construction delays.

#### 1.7 WARRANTY

A. Furnish manufacturer's standard warranty.

#### 1.8 MAINTENANCE

A. Furnish maintenance materials from same manufactured lot as materials installed and enclosed in protective packaging with appropriate identifying labels.

1. Sheet flooring: Furnish not less than 5 linear yards for each type, color and pattern installed.

### **PART 2 PRODUCTS**

#### 2.1 MANUFACTURERS

A. Rubber Sheet Flooring:

1. Mondo Luxembourg SA ([www.mondo.com](http://www.mondo.com))

B. Substitutions: Under provisions of Division 01.

#### 2.2 MATERIALS

A. Resilient Athletic Flooring

1. Source: Ramflex by Mondo or approved substitute.
2. Construction: Calendered and vulcanized, with a base of synthetic rubber, stabilizing agents

- and pigmentation.
- 3. Overall Thickness: 6 mm.
- 4. Color: See Interior Specifications Schedule on the drawings – Sheet I001.
- 5. Surface Texture: Hammered
- 6. Elongation at Break: 100% minimum per ASTM D412.
- 7. Tensile Strength: 350 lb/in<sup>2</sup> minimum per ASTM D412.
- 8. Coefficient of Friction: >0.50 (dry) per ASTM 2047
- 9. Hardness of Top Layer: 70 +/- 5 per ASTM D2240
- 10. Hardness of Bottom Layer: 70 +/- per ASTM D2240

### 2.3 ACCESSORIES

- A. Provide adhesive certified by manufacturer.
- B. Portland cement based patching or leveling compound as recommended by manufacturer.
- C. Flooring Transition Strips: As specified on Interiors sheets.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Site Verification of Conditions:
  - 1. Verify substrate conditions are acceptable for product installation in accordance with manufacturer's instructions.
    - a. A satisfactory subfloor surface is defined as one that is smooth and free from cracks, holes, ridges, or coatings preventing adhesive bond and other defects impairing performance or appearance. Installer must accept substrate prior to start of floor preparation. After acceptance installer will be responsible for all testing and preparation work. No claims for inadequate slab conditions will be considered after acceptance by installer.
  - 2. Verify that concrete floors have cured a minimum 28 days and do not exhibit negative alkalinity, carbonization, or dusting.

### 3.2 PREPARATION

- A. Surface Preparation:
  - 1. Contractor to coordinate and prepare subfloor per the flooring manufacturer's instructions.
  - 2. Coordinate with Section 03 3000: Cast in Place Concrete and Section 03 5000: Concrete Curing and Finishing to prepare slab for installation flooring manufacturer's instructions. Complete all necessary requirements for proper preparation of the subfloor.
  - 3. Concrete Subfloors:
    - a. Prepare concrete slabs as required to comply with ASTM F710 and verify that slab substrates are dry and free of curing compounds, sealers, hardeners and other materials that may interfere with adhesive bond.
    - b. Use leveling and patching compounds as recommended by resilient flooring manufacturer for filling small cracks, holes and depressions and leveling subfloors.
    - c. Grind off high spots and projections in substrate; leave smooth and level to 1/4 inch in 10 feet.
- B. Test substrate for moisture content to ASTM F1869; do not install flooring until moisture emission level is acceptable to flooring manufacturer. Remediate per manufacturer's instructions.
- C. Perform bond test prior to installation.
- D. Protect installation area from extreme temperature changes, such as heat and freezing, as well as direct sunlight for at least 48 hours before, during and after installation.
- E. Ensure installation area and material storage temperatures are between 65 degrees F (19 degrees C) and 85 degrees F (30 degrees C) for at least 48 hours before, during and after installation.

F. Do not proceed with installation until all conditions have been met.

### 3.3 INSTALLATION

A. Flooring Installation: Comply with manufacturer's Technical Manual for installation procedures and techniques for flooring installation.

B. Manufacturer's Field Services: Provide manufacturer's field services, consisting of product use recommendations and periodic site visits for inspection of product installation in accordance to manufacturer's instructions.

### 3.4 CLEANING

A. Cleaning: Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products. Clean installed products in accordance with manufacturer's instructions. Remove construction debris from project site and legally dispose of debris.

### 3.5 PROTECTION

A. Protection: Protect installed product and finish surfaces from damage during construction.

END OF SECTION

## SECTION 09 2200

### METAL SUPPORT ASSEMBLIES

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Metal stud interior partition framing.
  - 2. Metal interior wall furring.
  - 3. Suspended metal channel soffit and ceiling framing.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

##### 1.2 REFERENCES

- A. ASTM International (ASTM)
  - 1. A591/A591M - Standard Specification for Steel Sheet, Electrolytic Zinc-Coated, for Light Coating Weight (Mass) Applications.
  - 2. A641 - Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire.
  - 3. A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
  - 4. A1003/A1003M - Standard Specification for Steel Sheet, Carbon, Metallic- and Nonmetallic-Coated for Cold-Formed Framing Members.
  - 5. C635 - Standard Specification for Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings.
  - 6. C636 - Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels.
  - 7. C645 - Standard Specification for Non-Load (Axial) Bearing Steel Studs, Runners (Track), and Rigid Furring Channels for Screw Application of Gypsum Board.
  - 8. C754 - Standard Practice for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Wall board, Backing Board, or Water-Resistant Backing Board.
  - 9. E90 - Standard Test Method for Airborne Sound Transmission Loss of Building Partitions.
  - 10. E413 - Standard Test Method for Classification for Rating Sound Insulation.
- B. Gypsum Association (GA)GA-600 - Fire Resistance Design Manual.
- C. Steel Stud Manufacturer's Association (SSMA)([www.ssma.com](http://www.ssma.com) - Member Directory).
- D. Underwriters Laboratories, Inc. (UL)- Fire Resistance Directory.

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Product Data: Illustrate framing types, gages, and locations.

##### 1.4 QUALITY ASSURANCE

- A. Manufacturer: Current member of SSMA.
- B. Installer Qualifications: Minimum 5 years documented experience in work of this Section.
- C. Fire Resistance Ratings:

1. Construct assemblies to achieve fire resistance ratings indicated on Drawings, in accordance with applicable UL design number.
  2. If requirements of assembly numbers referenced conflict with Contract Document requirements, conform to assembly requirements.
- D. Acoustic Ratings: Construct assemblies to achieve acoustic ratings indicated on Drawings, tested to ASTM E90 and classified in accordance with ASTM E413.
- E. Deflection Limits:
1. Limit deflection of partitions to following limits, based on 5 PSF uniform design load.
    - a. Partitions to receive tile L/360.
    - b. Other partitions: L/240
    - c. If partition height exceeds stud manufacturer's limiting height for applicable loading and deflection, install bracing above ceiling, decrease stud spacing, or increase stud gage.
  2. Limit deflection of ceilings to L/360.

## **PART 2 PRODUCTS**

### **2.1 MANUFACTURERS**

- A. Acceptable Manufacturers: Metal Studs and accessories
1. ClarkDietrich, 9050 Centre Pointe Drive, Suite 400, West Chester, OH 45069, (513) 870-1100, [www.clarkdietrich.com](http://www.clarkdietrich.com)
- B. Acceptable Manufacturers: Proprietary Ceiling Framing System
1. USG, (800) 874-4968, [www.usg.com](http://www.usg.com)
  2. Armstrong World Industries, 2500 Columbia Ave, Lancaster, PA 17603, 717.397.0611, [www.armstrongworldindustries.com](http://www.armstrongworldindustries.com)
- C. Substitutions: Under provisions of Division 01.

### **2.2 MATERIALS**

- A. Steel: ASTM A653/A653M or ASTM A1003/1003M, Class G40 hot dip galvanized.

### **2.3 COMPONENTS**

- A. Provide components in accordance with ASTM C645.
- B. Resilient Channels: 1/2 inch deep x 2-1/2 inches wide, 25 gage base steel thickness or as indicated on drawings.
- C. Wall Furring Channels: Hat shaped, 7/8 inch deep, Z-shaped, depth as indicated, minimum 25 gage base steel thickness or as indicated on drawings.

### **2.4 ACCESSORIES**

- A. Fasteners: 3/8 inch long pan head screws.
- B. Wire: ASTM A 641, galvanized steel.
1. Hanger wire: 8 gage base steel thickness.
  2. Tie wire: 18 gage base steel thickness, soft annealed.
- C. Wall Furring Brackets: Galvanized steel, two piece adjustable type.
- D. Furring Channel Clips: Galvanized steel.

## **PART 3 EXECUTION**

### **3.1 INSTALLATION OF RESILIENT FURRING**

- A. Install channels perpendicular to framing spaced maximum 16 inches on center. Locate channels within 2 inches of floor and within 6 inches of ceiling.
- B. Screw attach channels to each support.
- C. Overlap channels minimum 2 inches at splices, centered over framing member. Screw attach to framing member through both flanges.

### **3.2 INSTALLATION OF WALL FURRING**

- A. Install in accordance with ASTM C754 and manufacturer's instructions.
- B. Space channels 24 inches on center maximum and within 3 inches of corners; secure at maximum 24 inches on center with fasteners staggered on alternating flanges.
- C. Nest channels minimum 8 inches at splices; secure with two fasteners in each flange.

END OF SECTION

## SECTION 092900

### GYPSUM BOARD

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Gypsum board.
  - 2. Fire resistant gypsum board.
  - 3. Sound damping gypsum board.
  - 4. Cementitious panels.
  - 5. Taping and bedding of gypsum board.
  - 6. Installation of acoustical partitions.
  
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Section 072116 - Blanket Insulation
  - 3. Section 079200 - Joint Sealers.

##### 1.2 REFERENCES

- A. American National Standards Institute (ANSI):
  - 1. A108.11 - Interior Installation of Cementitious Backer Units.
  - 2. A118.9 - Test Methods and Specifications for Cementitious Backer Units.
  
- B. ASTM International (ASTM):
  - 1. B749 - Standard Specification for Lead and Lead Alloy Strip, Sheet, and Plate Products; 2014.
  - 2. C475 - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board.
  - 3. C514 - Standard Specification for Nails for the Application of Gypsum Wallboard.
  - 4. C665 - Standard Specification for Mineral Fiber Blanket Thermal Insulation for Wood Frame and Light Construction Buildings.
  - 5. C1002 - Standard Specification for Steel Drill Screws for the Application of Gypsum Board.
  - 6. C1047 - Standard Specifications for Accessories for Gypsum Wallboard and Gypsum Veneer Base.
  - 7. C1178 - Standard Specification for Glass Mat Water-Resistant Gypsum Backing Panel.
  - 8. C1396 - Standard Specification for Gypsum Board.
  - 9. C1629 - Standard Classification for Abuse-Resistant Nondecorated Interior Gypsum Panel Products and Fiber-Reinforced Cement Panels.
  - 10. D3273 - Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.
  - 11. E90 - Standard Test Method for Airborne Sound Transmission Loss of Building Partitions.
  - 12. E413 - Standard Test Method for Classification for Rating Sound Insulation.
  
- C. Gypsum Association (GA):
  - 1. GA-214 - Levels of Gypsum Board Finish.
  - 2. GA-216 - Recommended Specifications for the Application and Finishing of Gypsum Board.
  - 3. GA-600 - Fire Resistance Design Manual.
  
- D. NCRP Report 147 - Structural Shielding Design and Evaluation for Medical Uses of X Rays and Gamma Rays of Energies up to 10 MeV; 2004
  
- E. Underwriters Laboratories, Inc. (UL) - Fire Resistance Directory.

##### 1.3 SUBMITTALS

- A. Submittals for Review:

1. Product Data: Illustrate panel product types, thicknesses, and locations; acoustical insulation; and accessories.

#### 1.4 QUALITY ASSURANCE

- A. Fire Resistance Ratings:
  1. Construct assemblies to achieve fire resistance ratings indicated on Drawings, in accordance with referenced UL design number.
  2. If requirements of assembly numbers referenced conflict with Contract Document requirements, conform to assembly requirements.
- B. Acoustic Ratings: Construct assemblies to achieve acoustic ratings indicated on Drawings, tested to ASTM E90 and classified in accordance with ASTM E413.

#### 1.5 REGULATORY REQUIREMENTS

- A. Conform to applicable health and occupation code for integrity of radiation protection and continuity of protected construction.

#### 1.6 PROJECT CONDITIONS

- A. Do not install gypsum board until building is substantially weathertight.
- B. Maintain temperature in spaces in which work is being performed above 50 degrees F during and after installation.

### **PART 2 PRODUCTS**

#### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers - Gypsum Panels:
  1. CertainTeed. ([www.certainteed.com](http://www.certainteed.com))
  2. Georgia Pacific Gypsum LLC. ([www.gp.com](http://www.gp.com))
  3. National Gypsum Co. ([www.nationalgypsum.com](http://www.nationalgypsum.com))
  4. USG Corporation. ([www.usg.com](http://www.usg.com))
- B. Acceptable Manufacturers – Sound Damping Gypsum Panel:
  1. National Gypsum Co. ([www.nationalgypsum.com](http://www.nationalgypsum.com))
  2. QuietRock. ([www.quietrock.com](http://www.quietrock.com))
- C. Acceptable Manufacturers – Lead-Laminated Gypsum Board:
  1. MarShield-Lead Drywall ([www.marshield.com](http://www.marshield.com))
  2. RPP-Lead Lined Drywall ([www.radiationproducts.com](http://www.radiationproducts.com))
- D. Acceptable Manufacturers – Cementitious Panels:
  1. James Hardie Building Products, Inc. ([www.jameshardie.com](http://www.jameshardie.com))
  2. USG Corporation. ([www.usg.com](http://www.usg.com))
- E. Substitutions: Under provisions of Division 01.

#### 2.2 MATERIALS – GYPSUM BOARD

- A. Regular Gypsum Board:
  1. Description: ASTM C1396; 48 inches wide x 5/8 inch thick, maximum practical length, tapered edge.
- B. Fire Resistant Gypsum Board:
  1. Description: ASTM C1396, Type X; 48 inches wide x 5/8 inch thick, maximum practical length, tapered edge.

2. Location: Apply to fire rated assemblies.
- C. Moisture and Mold Resistant Gypsum Board:
1. Source: Dens Armor Plus Interior Panels by GP Gypsum Corporation.
  2. Description: ASTM C1396; 48 inches wide x 5/8 inch thick, maximum practical length, water resistant.
  3. Location: Apply to walls in janitor closets, restrooms, and countertop backsplashes. Approved for installation under tile at these locations.
- D. Fire Resistant, Moisture and Mold Resistant Gypsum Board:
1. Source: Dens Armor Plus Interior Panels by GP Gypsum Corporation.
  2. Description: ASTM C1396, Type X; 48 inches wide x 5/8 inch thick, maximum practical length, water resistant; apply to fire rated walls where light moisture is expected.
  3. Location: Apply to fire rated walls in janitor closets, restrooms, and countertop backsplashes. Approved for installation under tile at these locations.
- E. Gypsum Backing Board:
1. Source: DensShield Tile Backer or approved substitute.
  2. Description: ASTM C1178, fiberglass mat faced; 48 inches wide x 5/8 inch thick, maximum practical length, water resistant.
  3. Location: Apply to walls to receive tile in animal holding areas and in showers.
  4. Mold resistance: 10, tested to ASTM D3273.
- F. Fire Resistant Gypsum Backing Board:
1. Source: DensShield Tile Backer or approved substitute.
  2. Description: ASTM C1396, Type X, fiberglass mat faced; 48 inches wide x 5/8 inch thick, maximum practical length, water resistant.
  3. Location: Apply to fire rated walls in animal holding areas and in showers.
  4. Mold resistance: 10, tested to ASTM D3273.
- G. Sound Damping Gypsum Board:
1. Source:
    - a. QuietRock ES by QuietRock
    - b. SoundBreak XP by National Gypsum Co.
  2. Description: ASTM C1396; 48 inches wide x 5/8 inch thick, maximum practical length; apply to acoustical partitions.
  3. Location: Apply to acoustical partitions as indicated on the drawings.
- H. Sound Damping, Fire Resistant Gypsum Board:
1. Source:
    - a. QuietRock ES by QuietRock
    - b. SoundBreak XP by National Gypsum Co.
  2. Description: ASTM C1396, Type X; 48 inches wide x 5/8 inch thick, maximum practical length.
  3. Location: Apply to fire-rated acoustical partitions as indicated on the drawings.
- I. Sound Damping, Fire Resistant, Moisture and Mold Resistant Gypsum Board:
1. Source:
    - a. QuietRock ES-MR by QuietRock
    - b. SoundBreak XP by National Gypsum Co.
  2. Description: ASTM C1396, Type X; 48 inches wide x 5/8 inch thick, maximum practical length;
  3. Location: Apply to fire-rated, acoustical partitions in janitor closets, restrooms, and countertop backsplashes as indicated on the drawings.
  4. Mold resistance: 10, tested to ASTM D3273.

## 2.3 MATERIALS - CEMENTITIOUS PANELS

- A. Cementitious Panels: ANSI A 118.9, high density, cementitious with glass fiber reinforcing, 5/8 inch thick x 48 inches wide, maximum practical length, ends and edges square cut.

## 2.4 ACCESSORIES

- A. Fasteners: ASTM C1002, Type compatible with framing system, minimum 5/8 inch penetration into framing.
- B. See Section 072116 Blanket Insulation for Acoustical Insulation Accessories:
- C. Adhesive:
  - 1. Type recommended by gypsum panel manufacturer.
- D. Trim Accessories: ASTM C1047.
  - 1. Material: Formed steel, minimum 26 gage core steel, hot dip galvanized finish, expanded flanges.
  - 2. Corner reinforcement: GA-216, Type CB-100 x 100.
  - 3. Casing: GA-216, Type LC.
  - 4. Control joint.
- E. Acoustical Sealer: Specified in Section 079200.
- F. Joint Treatment Materials:
  - 1. Reinforcing tape and joint compound; ASTM C475.

## 2.5 FABRICATION

- A. Lead Laminated Gypsum Board: Fabricate with monolithic sheet lead bonded to one surface of board, extend lead sheet 1 inch beyond one side and one end of board.

## PART 3 EXECUTION

### 3.1 INSTALLATION OF GYPSUM PANELS

- A. Install panels and accessories in accordance with ASTM C754, GA-216, and manufacturer's instructions.
- B. Accurately cut panels to fit around openings and projections. Do not tear face paper or break gypsum core.
- C. Apply panels at non fire-rated assemblies in most economical manner, with ends and edges occurring over supports.
- D. Apply panels at fire-rated assemblies as required by design assembly.
- E. Stagger joints on opposite sides of partitions.
- F. Do not locate joints to align with edges of openings unless a control joint is installed.
- G. Mechanically fasten single layer panels to framing. Place fasteners minimum 3/8 inch from edges of panels; drive heads slightly below surface. Stagger fasteners at abutting edges.
- H. Apply face layer of double layer applications with joints offset from those in base layer; secure with mechanical fasteners to framing or with adhesive to base layer.
- I. At deflection compensating head tracks, cut panels 1/2 inch short of structure at head; do not secure panels to top runner channel.
- J. Treat cut edges and holes in moisture resistant gypsum board with joint sealer.
- K. Where recessed items occur in fire rated partitions, box item on all sides with gypsum board as required to maintain continuity of fire rating.

### 3.2 INSTALLATION OF ACOUSTICAL PARTITIONS

- A. Extend acoustical partitions past intersecting non-acoustical partitions.
- B. Install acoustical insulation:
  - 1. Butt to framing members and adjacent construction.
  - 2. Carry around pipes, wiring, outlets, and other construction without voids.
  - 3. Press against one gypsum board surface to form slight air space on opposite side.
- C. Seal acoustical partitions at perimeter and around penetrations:
  - 1. Apply continuous bead of sealer between gypsum panel edges and adjacent construction.
  - 2. Seal space between gypsum panels at control joints, prior to installing metal control joint.
  - 3. Apply sealer to penetrations through partitions.

### 3.3 INSTALLATION OF CEMENTITIOUS PANELS

- A. Install in accordance with ANSI A108.11 and manufacturer's instructions.
- B. Apply panels horizontally, with ends occurring over supports. Stagger end joints in adjacent rows.
- C. Cut panels to fit around openings and projections.
- D. Mechanically fasten panels to framing at maximum 12 inches on center.

### 3.4 INSTALLATION OF ACCESSORIES

- A. Install in accordance with manufacturer's instructions.
- B. Install corner reinforcement at outside corners. Use single lengths where length of corner does not exceed standard length.
- C. Install casings where indicated and where gypsum board abuts dissimilar materials or stops with edge exposed.
- D. Install control joints at ceilings:
  - 1. At maximum 50 feet on center.
  - 2. Where ceiling framing changes direction.
- E. Install control joints at walls and partitions:
  - 1. At changes in backup material.
  - 2. At maximum 30 feet on center.

### 3.5 JOINT TREATMENT

- A. Treat joints and fasteners in gypsum board in accordance with GA-214.
- B. Levels of Finish:
  - 1. Surfaces to receive tile: Level 2 finish.
  - 2. Surfaces to receive heavy or medium texture, heavy duty commercial grade wall coverings, flat or eggshell paints: Level 3 finish.
  - 3. Surfaces to receive light texture, wall coverings, flat or eggshell paints: Level 4 finish.

END OF SECTION

## SECTION 09 3000

### TILING

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Porcelain tile wall and floor finishes.
  - 2. Ceramic tile wall finishes.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Section 07 9200 - Joint Sealers.
- C. Coordinate with Interior Drawings and Specifications

##### 1.2 REFERENCES

- A. American National Standards Institute (ANSI):
  - 1. A108/A118/A136.1 - American National Standard for Installation of Ceramic Tile.
  - 2. A137.1 - Specifications for Ceramic Tile.
- B. ASTM International (ASTM):
  - 1. A82/A82M - Standard Specification for Steel Wire, Plain, for Concrete Reinforcement.
  - 2. A185/A185M - Standard Specification for Welded Steel Wire Reinforcement, Plain, for Concrete.
  - 3. C144 - Standard Specification for Aggregate for Masonry Mortar.
  - 4. C150 - Standard Specification for Portland Cement.
  - 5. C207 - Standard Specification for Hydrated Lime for Masonry Purposes.
  - 6. C847 - Standard Specification for Metal Lath.
  - 7. C1028 - Standard Test Method for Static Coefficient of Friction of Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull-Meter Method.
  - 8. D226 - Standard Specification for Asphalt Saturated Organic Felt Used in Roofing and Waterproofing.
  - 9. D227 - Standard Specification for Coal-Tar Saturated Organic Felt Used in Roofing and Waterproofing.
  - 10. D4263 - Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method.
  - 11. D4397 - Standard Specification for Polyethylene Sheeting for Construction, Industrial and Agricultural Applications.
- C. Tile Council of North America (TCNA) - Handbook for Ceramic, Glass and Stone Tile Installation.

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Product Data: Manufacturer's installation, cleaning, and maintenance instructions.
  - 2. Samples:
    - a. Tile: Full size samples in each color.
    - b. Grout: 1/2 x 1/2 x 3 inch long samples in each color.
    - c. Tile Edge Protection: sample showing profile and color.

##### 1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum 5 years documented experience in work of this Section.
- B. Tile and Trim Units: Meet ANSI A137.1, Standard Grade.

#### 1.5 DELIVERY, STORAGE AND HANDLING

- A. Deliver mortar, adhesive, and grout containers bearing hallmark certifying compliance with reference standards.
- B. Protect adhesive containers from freezing and overheating according to manufacturer's instructions.

#### 1.6 PROJECT CONDITIONS

- A. Environmental Requirements: Maintain minimum ambient temperature of 50 degrees F during and after installation.

#### 1.7 MAINTENANCE

- A. Extra Materials: One unopened carton of each tile.

### **PART 2 PRODUCTS**

#### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers - Porcelain Tile:
  - 1. Dal-Tile Corp. ([www.daltileproducts.com](http://www.daltileproducts.com))
- B. Acceptable Manufacturers - Ceramic Tile:
  - 1. Dal-Tile Corp. ([www.daltileproducts.com](http://www.daltileproducts.com))
  - 2. Genrose Stone & Tile ([www.genrose.com](http://www.genrose.com))
- C. Acceptable Manufacturers - Setting and Grouting Materials:
  - 1. Mapei Corporation. ([www.mapei.us](http://www.mapei.us))
- D. Acceptable Manufacturers - Tile Edge Protection:
  - 1. Schluter Systems. ([www.schluter.com](http://www.schluter.com))
- E. Acceptable Manufacturers - Transition Strips:
  - 1. Schluter Systems. ([www.schluter.com](http://www.schluter.com))
- F. Substitutions: Under provisions of Division 01.

#### 2.2 MATERIALS

- A. Tile:
  - 1. Porcelain Tile:
    - a. Size: See Interior Drawings.
    - b. Color: See sheet I001 Interior Specifications
    - c. Coordinate trim accessories to protect edges where necessary.
  - 2. Ceramic Wall Tile:
    - a. Size: See Interior Drawings.
    - b. Color: See sheet I001 Interior Specifications
    - c. Surface finish: Semi-gloss
    - d. Coordinate trim accessories to protect edges where necessary.

## 2.3 ACCESSORIES

- A. Latex-Portland Cement Mortar:
  - 1. ANSI A118.4
  - 2. Source: Ultraflex LFT, Ultralite or Ultralite Pro Mortar by Mapei or approved substitute as required by tile size and substrate conditions.
  
- B. Grout:
  - 1. ANSI A118.3, A118.6, specialty type.
  - 2. Source: Flexcolor CQ Ready to Use Grout with Color-Coated Quartz by Mapei or approved substitute.
  - 3. Color: See sheet I101 Interior Specifications
  
- C. Waterproof Membrane:
  - 1. Source: Mapelastic HPG Waterproof Membrane by Mapei or approved substitute.
  - 2. Type: Load bearing, single component, cold liquid applied type, with reinforcing fabric.
  
- D. Crack Suppression Membrane:
  - 1. Source: Mapelastic AquaDefense Waterproofing and Crack-Isolation Membrane by Mapei or approved substitute.
  - 2. Type: ANSI A118.12, load bearing, single component, cold liquid applied type with reinforcing fabric.
  
- E. Tile Finishing and Edge Protection:
  - 1. Source: Jolly by Schluter Systems or approved substitute.
  - 2. Type: Anodized Aluminum
  - 3. Finish: Satin
  - 4. Locations: Top edges and exterior corners of tile installation. See also Interior sheets.
  
- F. Transition Strip:
  - 1. Source: Reno-U transition strip by Schluter Systems or approved substitute.
  - 2. Type: Anodized Aluminum
  - 3. Finish: Satin
  - 4. Locations: See interior sheets
  
- G. Water: Clean, potable.
  
- H. Joint Sealers: Specified in Section 07 9200.

## PART 3 EXECUTION

### 3.1 PREPARATION

- A. Clean surfaces to remove loose and foreign matter that could impair adhesion.
  
- B. Remove ridges and projections. Fill voids and depressions with patching compound compatible with setting materials.
  
- C. Allowable Substrate Tolerances:
  - 1. Thin set method:
    - a. Maximum variation in substrate surface: 1/8 inch in 8 feet.
    - b. Maximum height of abrupt irregularities: 1/32 inch.
  - 2. Thick set method: Maximum 1/4 inch in 10 feet variation in substrate surface.
  
- D. Test concrete substrate to ASTM D4263; do not install tile until surfaces are sufficiently dry.

- E. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

### 3.2 INSTALLATION

- A. Install crack suppression membrane and waterproof membrane in accordance with manufacturer's instructions.
- B. Methods:
  - 1. Walls: ANSI A108.5, thin set with latex Portland cement mortar.
  - 2. Floors: .ANSI A108.5, thin set with latex Portland cement mortar.
- C. Minimize pieces less than one half size. Locate cuts to be inconspicuous.
- D. Lay tile to pattern shown on Shop Drawings. Do not interrupt tile pattern through openings.
- E. Joint Width: 1/8 inch, plus or minus 1/16 inch.
- F. Make joints watertight, without voids, cracks, excess mortar, or excess grout. Align joints in wall and floor of same-sized tile.
- G. Fit tile around projections and at perimeter. Smooth and clean cut edges. Ensure that trim will completely cover cut edges.
- H. Install tile clean trimmed and flush with floor drains.
- I. Install Trim:
  - 1. Inside corners: Butt tile pieces to one another.
  - 2. Outside corners: Tile edge protection.
  - 3. Base: Porcelain tile cut down from full size pieces, 4" height.
  - 4. Exposed tile ends: Tile edge protection.
- J. Install transition strips where tile abuts dissimilar floor finish. Center under door so that when door is closed the transition strips are hidden.
- K. Allow tile to set for a minimum of 48 hours before grouting.
- L. Grout tile joints in accordance with ANSI A108.10 without excess grout.
- M. Control Joints:
  - 1. Provide control joints at:
    - a. Changes in backup material.
    - b. Changes in plane.
    - c. Over joints in substrate.
    - d. Maximum 24 feet on center at interior locations except maximum 12 feet at surfaces exposed to direct sunlight.
    - e. Maximum 16 feet on center at exterior locations.
  - 2. Form joints per TCNA Method EJ-171.
  - 3. Install joint backing and joint sealer as specified in Section 07 9200.

### 3.3 ADJUSTING

- A. Touch up, repair or replace damaged products before Substantial Completion.

### 3.4 PROTECTION

- A. Provide protection for completed work using nonstaining sheet coverings.
- B. Prohibit traffic on tile floors for minimum 3 days after installation.

END OF SECTION

**SECTION 095100**  
**ACOUSTICAL CEILINGS**

**PART 1 GENERAL**

1.1 SUMMARY

- A. Section Includes:
  - 1. Suspended metal ceiling grid system.
  - 2. Acoustical panels.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

1.2 REFERENCES

- A. ASTM International (ASTM):
  - 1. A641 - Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire.
  - 2. C635 - Standard Specification for Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings.
  - 3. C636 - Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels.
  - 4. E1264 - Standard Classification of Acoustical Ceiling Products.
- B. Ceiling and Interior Systems Construction Association (CISCA) - Ceiling Systems Handbook.
- C. Underwriters Laboratories, Inc. (UL) - Fire Resistance Directory.

1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Samples:
    - a. 12 x 12 inch acoustical panel samples.
    - b. 6 inch long suspension system samples showing each profile.
- B. Quality Control Submittals:
  - 1. Certificates of Compliance: Certification from an independent testing laboratory that acoustical panels meet fire hazard classification requirements.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum 5 years documented experience in work of this Section.
- B. Installed System: Conform to UL Design No. 723.
- C. Fire Hazard Classification: Class A rated, tested to ASTM E1264.

1.5 PROJECT CONDITIONS

- A. Environmental Requirements: Install in approximately same conditions of temperature and humidity as will prevail after installation.

1.6 MAINTENANCE

- A. Extra Materials: One unopened carton of each acoustical panel.

## **PART 2 PRODUCTS**

### **2.1 MANUFACTURERS**

- A. Acceptable Manufacturers - Acoustical Units:
  - 1. Armstrong World Industries, Inc. ([www.armstrong.com](http://www.armstrong.com))
- B. Acceptable Manufacturers - Suspension System:
  - 1. Armstrong World Industries, Inc. ([www.armstrong.com](http://www.armstrong.com))
- C. Substitutions: Under provisions of Division 01.

### **2.2 MATERIALS**

- A. Suspension Grid System:
  - 1. Source: Prelude XL by Armstrong World Industries, Inc. or approved substitute.
  - 2. ASTM C635, intermediate duty, die cut, interlocking ends.
  - 3. Grid type: Exposed T.
  - 4. Material: Galvanized steel.
  - 5. Runners: 1-1/2 inches high, 15/16 inch exposed width.
  - 6. Perimeter molding: 7/8" and 2" Angle wall mouldings.
  - 7. Finish: Factory applied enamel paint, sprayed and baked, white color.
  - 8. Accessories: Stabilizer bars, clips, splices, as required.
- B. Acoustical Panels:
  - 1. Type AT-1.
    - a. Source: Armstrong Cirrus Tile #584 White by Armstrong World Industries, Inc. or approved substitute.
    - b. Size: 24 by 24 inches by 3/4 inch.
    - c. Edge Detail: Angled Tegular.
  - 2. Type AT-2:
    - a. Source: Armstrong Ultima Tile #1913 White by Armstrong World Industries, Inc. or approved substitute.
    - b. Size: 24 by 48 inches by 3/4 inch.
    - c. Edge Detail: Square Lay-In
  - 3. Type AT-3
    - a. Source: Armstrong Clean Room VL non - perforated Tile #870 by Armstrong World Industries, Inc. or approved substitute.
    - b. Size: 24 by 48 inches by 3/4 inch.
    - c. Edge Detail: Square Lay-in

### **2.3 ACCESSORIES**

- A. Support Channels:
  - 1. Galvanized steel; size and type to suit application.
- B. Hanger Wire:
  - 1. ASTM A641, minimum 12 gage galvanized steel.
- C. Impact Clips: Minimum 24 gage spring steel, manufacturer's standard profile.
- D. Touch-Up Paint: Color to match acoustical panels and suspension grid.

## **PART 3 EXECUTION**

### **3.1 INSTALLATION**

- A. Install ceilings in accordance with ASTM C636 and CISCA Handbook. Coordinate installation with

location of mechanical and electrical work to ensure proper locations.

- B. Refer to Reflected Ceiling Plan, Mechanical, Electrical and Plumbing plans, Fire Sprinkler drawings, if any, and Special Systems Plan (Med Gas), as well as architectural ceiling installation detail drawings prior to starting work. Note any discrepancies and advise contractor if installation cannot be as depicted.
- C. Inspect jobsite prior to installation. Check wall alignment and straightness for conditions that would prevent a professional level of workmanship. Bring any such conditions to the attention of the general contractor and/or the architect. If an acceptable installation is not possible do not begin grid install in those areas until the condition is rectified.
- D. Install angle wall molding level to within 1/8" in 12'. Use specified 7/8" angle molding unless project is located in a seismic zone. Follow manufacturer's written instructions for seismic-rated installations. If minor inconsistencies in wall flatness create gaps of 1/16" or greater between wall surface and molding apply a small bead of paintable latex caulk, strike flush with molding, do not cove. Install molding around perimeters and abutting surfaces. Miter molding at exterior corners; cut flanges and bend web to form interior corners.
- E. In non-seismic installations use 2" angle wall molding to conceal wall deformations only if approved by the site superintendent. Coordinate locations prior to installation.
- F. Arrange acoustical units and orient directionally-patterned units (if any) with pattern running in one direction.
- G. Plan layout to allow only one device per tile. Coordinate with mechanical trades.
- H. Provide and install cut-out dimensions in ceiling tile for all trades surface mounted and though tile mounted equipment and devices. Acoustical tile installation contractor is responsible for the coordination with electrical and mechanical contractors and final installation of all grid and tile.
- I. Electrical contractor to finish tie-off of slack wire to fixtures.
- J. Space hanger wires maximum 48 inches on center. Install additional hangers where required to support light fixtures and ceiling supported equipment.
- K. Do not suspend hangers directly from metal deck. Attach steel channel horizontally to adjacent framing members; place hanger at regular spacing.
- L. Hang suspension system independent of walls, columns, ducts, pipes, and conduit.
- M. Where ducts or other equipment prevent regular spacing of hangers:
  - 1. Reinforce nearest related hangers to span extra distance, or:
  - 2. Suspend steel channel horizontally beneath duct or equipment; place hanger at regular spacing.
- N. Install main tees at maximum 48 inches on center. Install cross tees to form 24 x 24 or 24 x 48 inch modules. Lock cross tees to main tees. Support ends of tees on flange of perimeter molding. Support ends of tees on flange of perimeter molding.
- O. Cutting Acoustic Units:
  - 1. Cut to fit irregular grid and perimeter edge trim and around penetrations.
  - 2. Locate cuts to be concealed.
  - 3. Cut and field paint exposed edges of reveal edge units to match factory edge.
- P. Installation Tolerances: Ceilings level to 1/8 inch in 12 feet measured in any direction.
- Q. Minimize panels less than one half size.

### 3.2 ADJUSTING

- A. Touch up minor scratches and abrasions to match factory finish.

END OF SECTION

## SECTION 096513

### RESILIENT BASE AND ACCESSORIES

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Resilient wall base.
  - 2. Resilient transition strips.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

##### 1.2 REFERENCES

- A. ASTM International (ASTM) F1861 - Standard Specification for Resilient Wall Base.

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Samples: 4 inch long samples in each color.

##### 1.4 MAINTENANCE

- A. Extra Materials: One unopened carton of each profile and color.

#### PART 2 PRODUCTS

##### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  - 1. Mannington Commercial. ([www.manningtoncommercial.com](http://www.manningtoncommercial.com))
  - 2. Roppe Corp. ([www.roppe.com](http://www.roppe.com))
- B. Substitutions: Under provisions of Division 01.

##### 2.2 MATERIALS

- A. Resilient Base:
  - 1. Series: Burke.
  - 2. Type: ASTM F1861, thermoplastic rubber.
  - 3. Thickness: 0.125 inch.
  - 4. Profile: Coved.
  - 5. Height: 4 inches.
  - 6. Length: 120 foot rolls.
  - 7. Color: See Interior Specifications Schedule on the drawings – Sheet I001.
  - 8. Finish: See Interior Specifications Schedule on the drawings – Sheet I001.
- B. Resilient Transition Strips:
  - 1. Source: Roppe or approved substitute.
  - 2. Type: ASTM F1861, thermoplastic rubber.
  - 3. Profile: See drawings
  - 4. Color: See Interior Specifications Schedule on the drawings – Sheet I101 & I102.
  - 5. Finish: See Interior Specifications Schedule on the drawings – Sheet I101 & I102.

## 2.3 ACCESSORIES

- A. Reducer Strips: Solid vinyl or rubber composition, 1 inch wide by flooring thickness, tapered.
  - 1. Color: See Interior Specifications Schedule on the drawings.
- B. Leveling Compound: White, premixed, latex based.
- C. Adhesive:
  - 1. Water based, waterproof, recommended by base manufacturer.

## PART 3 EXECUTION

### 3.1 PREPARATION

- A. Prepare surfaces to receive base and accessories:
  - 1. Remove materials that could interfere with adhesion.
  - 2. Fill low spots with patching compound; finish flush with adjacent surface.
  - 3. Remove high spots, ridges and nibs.

### 3.2 INSTALLATION OF BASE

- A. Apply adhesive continuously to back of base.
- B. Maintain top edge true to line and bottom edge in continuous contact with floor. Butt joints tight; butt base tight to adjacent construction.
- C. Do not install pieces less than 6 inches long.
- D. Miter and butt inside corners.
- E. At outside corners, "V" cut back of base to 2/3 of its thickness and bend around corner.

### 3.3 INSTALLATION OF REDUCER STRIPS

- A. Install where tile stops with edge exposed; set in adhesive.
- B. Center strips under doors where flooring terminates at door openings.
- C. Install in longest practical lengths; butt ends tight.
- D. Scribe to abutting surfaces.

### 3.4 INSTALLATION OF STAIR TREADS, RISERS AND STRINGERS

- A. Apply adhesive uniformly over substrate; remove adhesive that has dried or filmed over.
- B. Accurately cut to required sizes and profiles without gaps.
- C. Fit tight to treads, risers, and stringers.

END OF SECTION

**SECTION 096723**  
**RESINOUS FLOORING**

**PART 1 GENERAL**

1.1 SUMMARY

- A. Section Includes:
  - 1. Liquid applied resin and aggregate floor finish.
  - 2. Divider strips.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

1.2 REFERENCES

- A. ASTM International (ASTM):
  - 1. C307 - Standard Test Method for Tensile Strength of Chemical-Resistant Mortars, Grouts, and Monolithic Surfaces.
  - 2. C413 - Standard Test Method for Absorption of Chemical-Resistant Mortars, Grouts, and Monolithic Surfaces.
  - 3. C579 - Standard Test Method for Compressive Strength of Chemical-Resistant Mortars, Grouts, and Monolithic Surfaces.
  - 4. C580 - Standard Test Method for Flexural Strength and Modulus of Elasticity of Chemical-Resistant Mortars, Grouts, and Monolithic Surfaces.
  - 5. C1028 - Standard Test Method for Static Coefficient of Friction of Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull-Meter Method.
  - 6. D635 - Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Self-Supporting Plastics in a Horizontal Position.
  - 7. D1044 - Standard Test Method for Resistance of Transparent Plastic Materials to Abrasion.
  - 8. D2047 - Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine.
  - 9. D2240 - Standard Test Method for Rubber Property - Durometer Hardness (Apparatus: Shore Type D Durometer).
  - 10. D4258 - Standard Practice for Surface Cleaning Concrete for Coating.
  - 11. D4259 - Standard Practice for Abrading Concrete.
  - 12. D4541 - Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers.
  - 13. F1869 - Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.

1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Shop Drawings: Indicate room or space dimensions and location of dividers.
  - 2. Product Data: Provide data on specified products, describing physical and performance characteristics.
  - 3. Samples:
    - a. 6 x 6 inch flooring samples showing available colors.
    - b. 6 inch long divider strip samples.
- B. Quality Control Submittals:
  - 1. Certificates of Compliance: Certification from an independent testing laboratory that flooring meets fire hazard classification requirements.

- C. Closeout Submittals:
  - 1. Maintenance Data: Include maintenance procedures, recommended maintenance materials, procedures for stain removal, repairing surface, and suggested schedule for cleaning.

#### 1.4 QUALITY ASSURANCE

- A. Installer Qualifications:
  - 1. Minimum 5 years documented experience in work of this Section.
  - 2. Approved by flooring manufacturer.
- B. Fire Hazard Classification: Self extinguishing, tested to ASTM D635 with maximum 0.25 inch extent of burning.
- C. Static Coefficient of Friction: Minimum 0.60, tested to ASTM C1028 in dry condition.

#### 1.5 DELIVERY, STORAGE AND HANDLING

- A. Maintain minimum temperature of 55 degrees F in storage area unless otherwise instructed by manufacturer.
- B. Store materials in installation area for 3 days prior to installation to achieve temperature stability.

#### 1.6 PROJECT CONDITIONS

- A. Maintain ambient temperature required by manufacturer 3 days prior to, during, and for 24 hours after installation of materials.

#### 1.7 WARRANTIES

- A. Furnish manufacturer's standard warranty providing coverage against flooring delamination from substrate and degradation of surface finish.

### **PART 2 PRODUCTS**

#### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  - 1. Dur-A-Flex, Inc. ([www.dur-a-flex.com](http://www.dur-a-flex.com))
- B. Substitutions: Under provisions of Division 01.

#### 2.2 MATERIALS

- A. Resinous Flooring:
  - 1. Source: Dur-A-Chip by Dur-A-Flex or approved substitute.
  - 2. Resin: Epoxy
  - 3. Aggregate: Vinyl chips
  - 4. Color: See Interior Specifications Schedule on the drawings – I001.
  - 5. Top coat: Urethane
  - 6. Grit – Provide samples for texture selection.
  - 7. Flooring system: Conform to the following:

PROPERTY	TEST METHOD	RESULT
Tensile Strength	ASTM C307	Minimum 2000 PSI
Compressive Strength	ASTM C579	Minimum 10,000 PSI
Flexural Strength	ASTM C580	Minimum 4300 PSI
Bond Strength	ASTM D4541	Minimum 400 PSI
Water Absorption	ASTM C413	Maximum 0.1 percent
Hardness	ASTM D2240	85 to 90 durometer
Abrasion Resistance	ASTM D1044	Maximum Weight loss of 0.1 grams per 1000 cycles
Impact Resistance	Gardner Impact Tester	Minimum 160 inch pounds without cracking, chipping, or delamination
Coefficient of Friction	ASTM D2047	0.75

### 2.3 ACCESSORIES

- A. Divider Strips: Height to match flooring thickness, minimum 18 gage white alloy of zinc or brass, with anchoring features.
- B. Cove Strips: Type recommended by flooring manufacturer.
- C. Subfloor Filler: White, premixed, latex based, type recommended by flooring material manufacturer.
- D. Primers, Adhesives, and Sealers: Types recommended by flooring manufacturer.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Verify that concrete floors have cured a minimum 28 days and do not exhibit negative alkalinity, carbonization, or dusting.

### 3.2 PREPARATION

- A. Remove subfloor ridges and bumps. Fill low spots, cracks, joints, holes, and other defects with filler.
- B. Prepare concrete substrates to receive flooring system by broom cleaning method to requirements of ASTM D4258.
- C. Test substrate for moisture content to ASTM F1869; do not install flooring until moisture emission level is acceptable to flooring manufacturer.
- D. Apply primer to substrate surfaces.

### 3.3 INSTALLATION

- A. Install divider strips at locations indicated. Locate additional joints to align with joints in substrate.
- B. Set strips straight and level; attach securely to substrate.
- C. Install cove strip at floor to wall junction.

- D. Apply flooring in accordance with manufacturer's instructions to minimum thickness of 1/8 inch.
- E. Apply first coat of binder resin and allow to dry.
- F. While binder is still wet, uniformly broadcast aggregate over wet binder.
- G. After first coat has cured, apply second coat using same techniques as first coat.
- H. Finish to smooth level surface.
- I. After second coat has cured, apply top coat.
- J. Cove flooring at vertical surfaces to a height of 4 inches.

#### 3.4 PROTECTION

- A. Prohibit traffic on floor finish for 48 hours after installation.
- B. Barricade area to protect flooring until cured.

END OF SECTION

**SECTION 097200**  
**WALL COVERINGS**

**PART 1 GENERAL**

1.1 SUMMARY

- A. Section Includes:
  - 1. Vinyl wall coverings.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

1.2 REFERENCES

- A. ASTM International (ASTM) E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Product Data: Manufacturer's descriptive data for each wall covering.
  - 2. Samples: 6 x 6 inch wall covering samples showing available colors
- B. Quality Control Submittals:
  - 1. Certificates of Compliance: Certification from an independent testing laboratory that wall covering meets fire hazard classification requirements.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum 5 years documented experience in work of this Section.
- B. Fire Hazard Classification: Tested to ASTM E84 with following results:
  - 1. Flame spread: Maximum 25.
  - 2. Smoke density: Maximum 450.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Store materials in clean, dry storage area at minimum 40 degrees F and normal humidity.
- B. Do not store rolls in upright position.

1.6 PROJECT CONDITIONS

- A. Maintain minimum temperature of 50 degrees F in areas to receive wall covering for three days prior to, during, and after installation.

1.7 MAINTENANCE

- A. Extra Materials: 5 percent of each color and pattern.

**PART 2 PRODUCTS**

2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  - 1. Koroseal Wallcoverings. ([www.koroseal.com](http://www.koroseal.com))
- B. Substitutions: Under provisions of Division 01.

## 2.2 MATERIALS

- A. Vinyl Wall Covering:
  - 1. Manufacturer: See sheet I001 Interior Specifications.
  - 2. Pattern: See Interior Drawings.
  - 3. Color: See sheet I001 Interior Specifications.
  - 4. Backing: Non Woven
  - 5. Width: 54 inches.
  - 6. Total weight: 18 ounces per square yard.

## 2.3 ACCESSORIES

- A. Sealer: Type recommended by wall covering manufacturer.
- B. Adhesive:
  - 1. Type recommended by wall covering manufacturer; water based, mildew resistant.
- C. Patching Compound: White latex type.

## PART 3 EXECUTION

### 3.1 PREPARATION

- A. Prepare substrate to receive wall covering:
  - 1. Remove high spots.
  - 2. Fill holes, cracks, and depressions with patching compound; sand smooth and flush.
  - 3. Remove loose and foreign matter that could impair adhesion.
  - 4. Apply sealer as recommended by wall covering manufacturer.
- B. Remove wall covering from packaging, place in installation area, and allow to acclimatize for minimum 24 hours prior to installation.

### 3.2 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install panels vertically.
- C. Do not locate joints within 6 inches of corners. Horizontal joints not permitted.
- D. Smooth wall covering to eliminate bubbles and ensure adhesion. Remove excess adhesive from seams immediately.
- E. Use panels in exact order they are cut from roll. Reverse every other panel of non matching patterns.
- F. Fill in above and below openings with panels cut in consecutive order from roll.
- G. Install wall covering free from bubbles, wrinkles, open or loose seams, and other visible defects.

END OF SECTION

## SECTION 098400

### ACOUSTIC FLOORING MAT

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. This is the recommended specification for concrete, mortar bed or double layer plywood over Acousti-Mat sound deadening pad.

##### 1.2 SECTION INCLUDES

- A. Acousti-Mat<sup>®</sup> Sound Control Mats:Acousti-Mat 3/8
  - a. Acousti-Mat Perimeter Isolation Strip
  - b. Acousti-Mat Tape
- B. Maxxon Reinforcement or Reinforcement Wire (concrete or mortar bed applications)
- C. Concrete Option

##### 1.3 QUALITY ASSURANCE

- A. Acousti-Mat shall be installed according to Manufacturer's install instructions.
- B. Concrete, mortar bed or double layer plywood shall be installed by an experienced applicator.

##### 1.4 DELIVERY, STORAGE AND HANDLING

- C. General Requirements: Materials shall be delivered in their original, unopened packages, and protected from exposure to the elements. Damaged or deteriorated materials shall be removed from the premises.

##### 1.5 SITE CONDITIONS

- D. Environmental Requirements: Before, during and after installation of concrete, mortar bed or double layer plywood and Acousti-Mat Sound Control Mat, building interior shall be enclosed and maintained at a temperature above 50 degrees F (10 degrees C).

#### PART 2 PRODUCTS

##### 2.1 MATERIALS

- A. Acousti-Mat Perimeter Isolation Strip: Acousti-Mat Perimeter Isolation Strip as supplied by Acoustical Solutions.
- B. Sound Deadening Mat: Acousti-Mat 3/8 Premium as supplied by: Acoustical Solutions, 2420 Grenoble Road Richmond, VA 23294, (800) 782-5742 [AcousticalSolutions.com](http://AcousticalSolutions.com).
- C. Acousti-Mat Tape as supplied by: Acoustical Solutions, 2420 Grenoble Road Richmond, VA 23294, (800) 782-5742 [AcousticalSolutions.com](http://AcousticalSolutions.com) or equal.
- D. Maxxon Reinforcement (MR) as manufactured by Maxxon Corporation, Hamel, MN.
- E. Reinforcement Wire: Welded wire mesh 6 inch x 6 inch or equal.
- F. Concrete: Portland cement concrete as manufactured by local batch plant.
- G. Mortar Bed: Portland cement mortar bed as manufactured by Bostik, Mapei, TEC or equal.
- H. Plywood: Plywood shall be a minimum 3/8" thick over Acousti-Mat 3/8 or Acousti-Mat 3/8 Premium or

a minimum of 3/4" thick over Acousti-Mat 3/4 or Acousti-Mat 3/4 Premium (minimum 4 ply thick, grade A, B, J or X) that meets all the hardwood manufacturer's specifications.

### **PART 3 EXECUTION**

#### **3.1 PREPARATION**

- A. Condition and Cleaning of Subfloor: Subfloor shall be structurally sound. General Contractor shall clean subfloor to remove mud, oil, grease, and other contaminating factors before the installation of the Acousti-Mat and topping.
- B. Expansion Joints: Allow joints to continue through the concrete, mortar bed or plywood at the same width.

#### **3.2 APPLICATION OF ACOUSTI-MAT AND (OPTIONAL) REINFORCEMENT MESH**

- A. Acousti-Mat and Acousti-Mat Perimeter Isolation Strip Installation: Install Acousti-Mat and Acousti-Mat Perimeter Isolation Strips following manufacturers recommendations and specifications.
- B. Reinforcement Application (for Concrete or Mortar Bed topping): Maxxon Reinforcement or Reinforcement Wire: The MR or wire is loose laid and over-lapped approximately 2 inches on all sides. The thickness of the Concrete will be minimum 2 ½- 3 inch over the MR or wire. Do not mechanically attach the MR or wire through the Acousti-Mat to the subfloor.

#### **3.3 APPLICATION OF CONCRETE, MORTAR BED OR DOUBLE LAYER PLYWOOD OVER ACOUSTI-MAT**

- A. Scheduling: Application of concrete, mortar bed or double layer plywood shall not begin until the building is enclosed, including roof, windows, doors and other fenestration.
- B. Schedule the Acousti-Mat sound control system as late as possible in the construction cycle.
- C. Concrete Application: Place the recommended concrete a minimum 2 ½-3-inch-thick over Acousti-Mat. Spread and screed Concrete over the reinforcement wire to a smooth surface.
- D. Mortar Bed Application: Place the recommended Mortar Bed a minimum 1 ¼ inch (33 mm) thick over Acousti-Mat. Spread and screed Mortar Bed over the reinforcement wire to a smooth surface.
- E. Plywood Application: Follow the Hardwood manufacturers recommendations for gluing, nailing, or screwing two layers of plywood together. DO NOT nail, screw, or staple the plywood through the Acousti-Mat. The double plywood underlayment must be floating over the Acousti-Mat.
- F. Install finished floor goods to the concrete, mortar bed or double plywood underlayment per manufacturer's recommendations. Care must be taken to ensure no nails, screws, or staples penetrate the Acousti-Mat.

#### **3.4 PROTECTION**

- G. Protection From Heavy Loads: During construction, place temporary wood planking over Acousti-Mat, concrete or mortar bed wherever it will be subject to heavy wheeled or concentrated loads.

END OF SECTION

## SECTION 099100

### PAINTING

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Texturing of gypsum board.
  - 2. Surface preparation and field application of paints.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

##### 1.2 REFERENCES

- A. ASTM International (ASTM):
  - 1. D4442 - Standard Test Method for Direct Moisture Content Measurement of Wood and Wood-Base Materials.
  - 2. D6886 - Standard Test Method for Speciation of the Volatile Organic Compounds (VOCs) in Low VOC Content Waterborne Air-Dry Coatings by Gas Chromatography.
- B. Master Painters Institute (MPI)- Architectural Painting Specification Manual.
- C. Society for Protective Coatings (SSPC) - Painting Manual.
- D. South Coast Air Quality Management District (SCAQMD) Rule 1113 - Architectural Coatings.

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Product Data: Manufacturer's data on materials proposed for use including:
    - a. Product designation and grade.
    - b. Product analysis and performance characteristics.
    - c. Standards compliance.
    - d. Material content.
    - e. Mixing and application procedures.
  - 2. Samples:
    - a. 12 x 12 inch texture samples on gypsum board backing.

##### 1.4 QUALITY ASSURANCE

- A. Applicator Qualifications: Minimum 5 years documented experience in work of this Section.
- B. Materials, Preparation, and Workmanship: Conform to MPI Painting Manual.
- C. Single Source Responsibility: Provide primers and other undercoat paint produced by same manufacturer as finish coats. Use only thinners approved by paint manufacturer and use only within recommended limits.

##### 1.5 DELIVERY, STORAGE AND HANDLING

- A. Container Labels: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage rates, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- B. Paint Materials: Store at ambient temperature from 45 to 90 degrees F in ventilated area, or as required by manufacturer's instructions.

1.6 PROJECT CONDITIONS

- A. Do not apply materials when surface and ambient temperatures or relative humidity are outside ranges required by paint manufacturer.
- B. Maintain ambient and substrate temperatures above manufacturer’s minimum requirements for 24 hours before, during, and after paint application.
- C. Do not apply materials when relative humidity is above 85 percent or when dew point is less than 5 degrees F different than ambient or surface temperature.
- D. Provide lighting level of 30 footcandles at substrate surface.

1.7 MAINTENANCE

- A. Extra Materials: 1 gallon of each color and sheen.

**PART 2 PRODUCTS**

2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  - 1. The Sherwin-Williams Company. ([www.sherwin-williams.com](http://www.sherwin-williams.com))
  - 2. Minwax Company. ([www.minwax.com](http://www.minwax.com))
- B. Substitutions: Under provisions of Division 01.

2.2 MATERIALS

- A. Paints:
  - 1. As scheduled at end of this Section or approved substitute.
  - 2. Free from all forms of lead and mercury.
- B. Gloss Ratings:

<u>Gloss Designation</u>	<u>Units at 60 Degrees</u>	<u>Units at 85 Degrees</u>
Flat	0 to 5	Maximum 10
Eggshell	10 to 25	10 to 35
Satin	20 to 35	Minimum 35
Semigloss	35 to 70	
Gloss	70 to 85	
High Gloss	Minimum 85	

2.3 ACCESSORIES

- A. Accessory Materials: Paint thinners and other materials required to achieve specified finishes; commercial quality.
- B. Patching Materials: Latex filler.
- C. Fastener Head Cover Materials: Latex filler.
- D. Gypsum Board Texture: Orange Peel.

2.4 MIXES

- A. Deliver paints pre-mixed and pre-tinted.

- B. Uniformly mix to thoroughly disperse pigments.
- C. Do not thin in excess of manufacturer's recommendations.
- D. Re-mix paint during application; ensure complete dispersion of settled pigment and uniformity of color and gloss.

### **PART 3 EXECUTION**

#### **3.1 EXAMINATION**

- A. Test shop applied primer for compatibility with subsequent coatings.
- B. Measure moisture content of surfaces using electronic moisture meter. Do not apply coatings unless moisture content of surfaces are below following maximums:
  - C. Gypsum board: 12 percent.
  - D. Wood: 15 percent, measured to ASTM D4442.

#### **3.2 PREPARATION**

- A. General:
  - 1. Protect adjacent and underlying surfaces.
  - 2. Remove or mask electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing.
  - 3. Correct defects and clean surfaces capable of affecting work of this section.
  - 4. Seal marks that may bleed through surface finishes with waterborne stain blocker.
- B. Impervious Surfaces: Remove mildew by scrubbing with solution of trisodium phosphate and bleach. Rinse with clean water and allow to dry.
- C. Gypsum Board:
  - 1. Fill minor defects with filler compound. Spot prime defects after repair.
  - 2. Apply light orange peel texture in accordance manufacturer's instructions.
- D. Galvanized Steel: SSPC Method SP1 - Solvent Cleaning.
- E. Aluminum: SSPC Method SP1 - Solvent Cleaning.
- F. Uncoated Ferrous Metals: SSPC Method SP2 - Hand Tool Cleaning or Method SP3 - Power Tool Cleaning.
- G. Shop Primed Ferrous Metals:
  - 1. SSPC Method SP2 - Hand Tool Cleaning or Method SP3 - Power Tool Cleaning.
  - 2. Feather edges to make patches inconspicuous.
  - 3. Prime bare steel surfaces.
- H. Interior Wood:
  - 1. Wipe off dust and grit.
  - 2. Seal knots, pitch streaks, and sappy sections with sealer.
  - 3. Fill nail holes and cracks after primer has dried; sand between coats.
- I. Exterior Wood:
  - 1. Remove dust, grit, and foreign matter.
  - 2. Seal knots, pitch streaks, and sappy sections.

#### **3.3 APPLICATION**

- A. Apply paints in accordance with manufacturer's instructions and MPI Painting Manual, Custom Grade finish requirements.
- B. Apply primer or first coat closely following surface preparation to prevent recontamination.
- C. Do not apply finishes to surfaces that are not dry.
- D. Apply coatings to minimum dry film thickness recommended by manufacturer.
- E. Apply each coat of paint slightly darker than preceding coat unless specified otherwise.
- F. Apply coatings to uniform appearance without laps, sags, curtains, holidays, and brush marks.
- G. Allow applied coats to dry before next coat is applied.
- H. When required on deep and bright colors apply an additional finish coat to ensure color consistency.
- I. Continue paint finishes behind wall-mounted accessories.
- J. Sand between coats on interior wood and metal surfaces.
- K. Match final coat to approved color samples.
- L. Where clear finishes are specified, tint fillers to match wood. Work fillers into grain before set. Wipe excess from surface.
- M. Prime concealed surfaces of interior wood in contact with masonry or cementitious materials with one coat primer paint.
- N. Mechanical and Electrical Components:
  - 1. Paint factory primed equipment.
  - 2. Remove unfinished and primed louvers, grilles, covers, and access panels; paint separately.
  - 3. Paint exposed and insulated pipes, conduit, boxes, ducts, hangers, brackets, collars, and supports unless factory finished.
  - 4. Do not paint name tags or identifying markings.
  - 5. Paint exposed conduit and electrical equipment in finished areas.
  - 6. Paint duct work behind louvers, grilles, and diffusers flat black to minimum of 18 inches or beyond sight line.
- O. Do not Paint:
  - 1. Surfaces indicated on Drawings or specified to be unpainted or unfinished.
  - 2. Surfaces with factory applied finish coat or integral finish.
  - 3. Architectural metals, including brass, bronze, stainless steel, and chrome plating.

#### 3.4 ADJUSTING

- A. Touch up or refinish disfigured surfaces.

#### 3.5 CLEANING

- A. Remove paint from adjacent surfaces.

#### 3.6 PAINT SCHEDULE - GENERAL

- A. Include the following for a schedule listing the products in this section. Coordinate with Part 2 - Products.
- B. Types of paint listed herein are set forth as standard of quality and type of coating required for each type of surface.
  - 1. Paint exposed surfaces of types listed in Paint Schedule.

2. Paint other exposed surfaces not specifically listed with not less than two coats of appropriate type of coating.

C. Prime coat consists of touch up on shop primed [and existing] surfaces with intact coatings.

### 3.7 PAINT SCHEDULE - INTERIOR

#### A. Concrete Masonry Units

1. Source: Sherwin Williams or approved substitute
2. Primer:
  - a. Description: Acrylic Block Surfacer
  - b. Product: Loxon
  - c. Coats: One
3. Top Coats
  - a. Description: Pre-Catalyzed Water-based Epoxy
  - b. Product: Pro Industrial
  - c. Sheen: Semi-Gloss
  - d. Coats: Two

#### B. Gypsum Board Walls - General

1. Source: Sherwin Williams or approved substitute
2. Primer:
  - a. Description: Interior Latex Primer
  - b. Product: ProMar 200 Zero VOC
  - c. Coats: One
3. Top Coats
  - a. Description: Scuff Resistant Interior Waterbased Enamel
  - b. Product: Scuff Tuff
  - c. Sheen: Eggshell
  - d. Coats: Two

#### C. Gypsum Board Ceilings - General

1. Source: Sherwin Williams or approved substitute
2. Primer:
  - a. Description: Interior Latex Primer
  - b. Product: ProMar 200 Zero VOC
  - c. Coats: One
3. Top Coats
  - a. Description: Interior Latex
  - b. Product: ProMar 400 Zero VOC
  - c. Sheen: Flat
  - d. Coats: Two

#### D. Gypsum Board Walls and Ceilings - Wet Areas including Janitors Closets, Restrooms

1. Source: Sherwin Williams or approved substitute
2. Primer:
  - a. Description: Interior Latex Primer
  - b. Product: ProMar 200 Zero VOC
  - c. Coats: One
3. Top Coats
  - a. Description: Pre-Catalyzed Water-based Epoxy
  - b. Product: Pro Industrial
  - c. Sheen: Semi Gloss
  - d. Coats: Two

#### E. Gypsum Board Walls: To receive Wall Covering

1. Source: Sherwin Williams or approved substitute
2. Primer:
  - a. Description: Interior/Exterior Latex Primer/Sealer
  - b. Product: PrepRite ProBlock

- c. Coats: One
- F. Steel / Ferrous Metal
- 1. Source: Sherwin Williams or approved substitute
  - 2. Primer:
    - a. Description: Universal Primer
    - b. Product: Pro Industrial Pro-Cryl
    - c. Coats: One
  - 3. Top Coat:
    - a. Description: Acrylic Coating
    - b. Product: Pro Industrial
    - c. Sheen: Semi Gloss
    - d. Coats: Two
- G. Wood Surfaces - Painted Finish
- 1. Source: Sherwin Williams or approved substitute
  - 2. Primer:
    - a. Description: Interior/Exterior Latex Primer/Sealer
    - b. Product: PrepRite ProBlock
    - c. Coats: One
  - 3. Top Coats
    - a. Description: Acrylic Coating
    - b. Product: Pro Industrial
    - c. Sheen: Semi Gloss
    - d. Coats: Two
- H. Wood Surfaces - Stain Finish
- 1. Source: Minwax or approved substitute
  - 2. Base:
    - a. Description: Wood Conditioner
    - b. Product: Pre-Stain Wood Conditioner
  - 3. Stain:
    - a. Description: - Penetrating Stain
    - b. Product: Performance Series Wood Finish 250 VOC Compliant
  - 4. Top Coat:
    - a. Description: Water Based Oil-Modified Polyurethane
    - b. Product: Oil-Modified Polyurethane
- I. Wood Surfaces - Transparent Finish
- 1. Source: Minwax or approved substitute
  - 2. Stain:
    - a. Description: Water-based Semi-Transparent Color Stain
    - b. Product: Wood Finish
  - 3. Top Coat:
    - a. Description: Water Based Oil-Modified Polyurethane
    - b. Product: Oil-Modified Polyurethane

### 3.8 PAINT SCHEDULE - EXTERIOR

- A. Concrete Masonry Units
- 1. Source: Sherwin Williams or approved substitute
  - 2. Primer:
    - a. Description: Heavy Duty Block Filler
    - b. Product: Pro Industrial
    - c. Coats: One
  - 3. Top Coats
    - a. Description: Exterior Acrylic Latex Paint
    - b. Product: A-100
    - c. Sheen: Flat
    - d. Coats: Two

- B. Galvanized Metal
  - 1. Source: Sherwin Williams or approved substitute
  - 2. Primer:
    - a. Description: Universal Primer
    - b. Product: Pro Industrial Pro-Cryl
    - c. Coats: One
  - 3. Top Coat:
    - a. Description: Acrylic Coating
    - b. Product: Pro Industrial
    - c. Sheen: Semi Gloss
    - d. Coats: Two
  
- C. Steel / Ferrous Metal
  - 1. Source: Sherwin Williams or approved substitute
  - 2. Primer:
    - a. Description: Universal Primer
    - b. Product: Pro Industrial Pro-Cryl
    - c. Coats: One
  - 3. Top Coat:
    - a. Description: Acrylic Coating
    - b. Product: Pro Industrial
    - c. Sheen: Semi Gloss
    - d. Coats: Two
  
- D. Wood Surfaces - Painted Finish
  - 1. Source: Sherwin Williams or approved substitute
  - 2. Primer:
    - a. Description: Interior/Exterior Latex Primer/Sealer
    - b. Product: PrepRite ProBlock
    - c. Coats: One
  - 3. Top Coat:
    - a. Description: Acrylic Coating
    - b. Product: Pro Industrial
    - c. Sheen: Semi Gloss
    - d. Coats: Two
  
- E. Wood Surfaces - Solid Stain Finish
  - 1. Source: Sherwin Williams or approved substitute
  - 2. Stain:
    - a. Description: Exterior Acrylic Solid Color Stain
    - b. Product: WoodScapes
    - c. Sheen: Flat
    - d. Coats: Two
  
- F. Wood Surfaces - Semi-Transparent Stain Finish
  - 1. Source: Sherwin Williams or approved substitute
  - 2. Stain:
    - a. Description: Exterior Polyurethane Semi-Transparent Stain
    - b. Product: WoodScapes
    - c. Sheen: Flat
    - d. Coats: Two

END OF SECTION

## SECTION 101423

### INTERIOR PANEL SIGNS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Plastic interior panel signs.
  - 2. Vinyl lettering at doors
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

##### 1.2 REFERENCES

- A. United States Department of Justice (USDOJ) - ADA Standards for Accessible Design (SAD).

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Shop Drawings: Include sign locations, sizes, mounting heights, and content.
  - 2. Samples:
    - a. 3 x 3 inch sign samples showing available colors.
    - b. After color selection, submit typical sign illustrating pictograms, characters, and Braille indications.

##### 1.4 QUALITY ASSURANCE

- A. Conform to ADAAG for sign design, construction, location, and mounting height.
- B. Mockup:
  - 1. Size: One full-size sign.
  - 2. Locate where directed.
  - 3. Approved mockup may remain as part of the Work.

#### PART 2 PRODUCTS

##### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers
  - 1. Vista System (Basis of Design)
  - 2. Best Sign Systems, Inc.
  - 3. Inpro SignScape Architectural Signage
- B. Substitutions: Under provisions of Division 01.

##### 2.2 MATERIALS

- A. General Room Signage:
  - 1. Type: Melamine plastic laminate with contrasting color core, non-static, fire retardant, self-extinguishing, matte finish.
  - 2. Door signs are to be engraved laminated plastic with Vista Frame. Text will be as noted in Helvetica Regular lettering and 1/4" Braille; Length shall be as required by copy. Where length

would exceed 6", two or more lines shall be used, increasing the height of the plate for each line added. Signs should be attached with foam type double stick tape, 1/2" less overall length as sign, unless indicated otherwise in the Signage Schedule. A1=Room IDs w/ paper inserts, 9.15" x 6.15". A2=Room ID, 9.15"x4". B=Restroom IDs, 9.15"x8"

3. Provide one plastic sign per location as indicated on the Signage Schedule. Verify messages with owner.
4. Face and core colors: To be selected from manufacturer's full color range.

B. Vinyl Lettering:

1. Type: heavy duty vinyl letters, matte finish. Helvetica Regular lettering, 3" height for Room Name and 1" height for hours of operation. Color to be selected from mfgs. full color range.

1.1 ACCESSORIES

A. Adhesive:

1. Type recommended by sign manufacturer.

1.2 FABRICATION

A. Characters:

1. Height, Style, Stroke width, strike thickness, character spacing, and line spacing: In accordance with ADAAG.

B. Pictograms:

1. Utilize standard international pictograms.
2. Locate pictograms within 6 inch vertical void with text descriptors below pictogram.

C. Provide round Grade II Braille indications with contractions placed below each corresponding character.

D. Changeable Slide Inserts: Polycarbonate cover with slot behind for insertion of changeable slide strip, removed from side.

E. Frames:

1. Miter corners; fit to hairline joint.
2. Secure frame to sign with adhesive.

**PART 2 EXECUTION**

2.1 PREPARATION

- A. Clean surfaces of loose and foreign matter.

2.2 INSTALLATION

- A. Install in accordance with manufacturer's instructions and approved Shop Drawings.

- B. Locate signs within 18" of door edge and 48" a.f.f. or as indicated on A501.

**SIGNAGE SCHEDULE**

To be determined by Owner

END OF SECTION

## SECTION 101429

### DIMENSIONAL LETTERS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Aluminum individual letters.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

##### 1.2 REFERENCES

- A. American Architectural Manufacturers Association (AAMA):
  - 1. 611 - Voluntary Specification for Anodized Architectural Aluminum.
  - 2. 2603 - Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Architectural Extrusions and Panels.
  - 3. 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Architectural Extrusions and Panels.
  - 4. 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Architectural Extrusions and Panels.
- B. ASTM International (ASTM):
  - 1. A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
  - 2. B85 - Standard Specification for Aluminum-Alloy Die Castings.
  - 3. B209 - Standard Specification for Aluminum-Alloy Sheet and Plate.
  - 4. E527 - Standard Practice for Numbering Metals and Alloys.

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Shop Drawings: Indicate character style, layout, dimensions, materials, finishes, and attachment.
  - 2. Samples: Typical letter in specified size, style, and finish.

#### PART 2 PRODUCTS

##### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  - 1. A.R.K. Ramos Mfg. Co., Inc. ([www.arkramos.com](http://www.arkramos.com))
  - 2. Gemini, Inc. ([www.signletters.com](http://www.signletters.com))
  - 3. National Sign, Inc. ([www.natsign.com](http://www.natsign.com))
- B. Substitutions: Under provisions of Division 01.

##### 2.2 MATERIALS

- A. Aluminum Castings:
  - 1. ASTM B85, alloy and temper best suited to application.

### 2.3 ACCESSORIES

- A. Anchors: Type best suited to application.

### 2.4 FABRICATION

- A. Fabricate letters in accordance with approved Shop Drawings.
- B. Cast letters from aluminum, free from pits, gas holes, and warped surfaces.
- C. Hand tool to sharp, clean edges.
- D. Character Style: Helvetica regular.
- E. Height: 14 inches.
- F. Mounting Method: Surface of aluminum screen.

### 2.5 FINISHES

- A. Aluminum: AAMA 611, Architectural Class I anodized to 0.0007 inch minimum thickness, clear.

## **PART 3 EXECUTION**

### 3.1 INSTALLATION

- A. Install letters in accordance with manufacturer's instructions and approved Shop Drawings.
- B. Set plumb, level, rigid, and aligned.

END OF SECTION

## SECTION 10 2123

### CUBICLE TRACK AND HARDWARE

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Suspended overhead metal track and guides.
- B. Track Components
  - 1. I.V.Track
  - 2. I.V. Support Carriage

##### 1.2 RELATED REQUIREMENTS

- A. Section 06 1000 - Rough Carpentry: Blocking and supports for track.
- B. Section 09 5100 - Acoustical Ceilings: Suspended ceiling system to support track.

##### 1.3 REFERENCE STANDARDS

- A. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2010.

##### 1.4 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate a reflected ceiling plan view of track, hangers and suspension points, and attachment details.
- C. Samples:
  - 1. Product Data: Manufacturer's printed product data for:
    - a. Each type of cubicle tracking system specified.
  - 2. Detail Drawings: Mounting details with the appropriate fasteners for specific project substrates.
  - 3. Samples: Verification samples of cubicle track, 4" long, in full size, with carriers and end cap.
  - 4. Manufacturer's Installation Instruction: Printed installation instructions for:
    - a. Each type of cubicle tracking system specified.

##### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in unopened factory packaging to the jobsite.
- B. Inspect materials at delivery to assure that specified products have been received.
- C. Store in original packaging in a climate-controlled location away from direct sunlight.

##### 1.6 WARRANTY

- A. Manufacturer's standard Limited Lifetime Warranty against material and manufacturing defects.

#### PART 2 PRODUCTS

##### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers
  - 1. Inpro Corporation ([www.inpro.com](http://www.inpro.com))
- A. Substitutions: Under provisions of Division 01.

## 2.2 TRACKS AND COMPONENTS

- A. Track:
  - 1. Source: Ultra Cube Cubicle Tracking System by Inpro Corporation or approve substitute.
  - 2. Description: Suspended-mounted tracks of heavy duty extruded aluminum cubicle track with white baked acrylic enamel finish. Aluminum shall be 6063-T5.
  - 3. Structural Performance: Capable of supporting vertical test load of 50 lbs. without visible deflection of track or damage to supports, safely supporting moving loads, and sufficiently rigid to resist visible deflection and without permanent set.
  - 4. Track Attachment: Provide appropriate attachment accessories as required for ceiling grid members.
  - 5. Track Splice: Extruded aluminum splice to join track sections.
  - 6. Track End Caps: Molded thermoplastic end caps for end of track section.
  - 7. Track Bends: Minimum 12 inch radius; fabricated without deformation of track section or impeding movement of carriers.
  - 8. Angle Bracket: Provide angle bracket for level support on suspended ceiling.
- B. I.V. Support Carriage:
  - 1. Source: Ultra Cube CE9502 by Inpro Corporation or approve substitute.
  - 2. Description: Carriage with ball bearing wheels, twist lock device. Provide two carriages per I.V. track location, sized appropriately per ceiling height. Verify length with Owner prior to ordering.
- C. I.V. Bag Holders: Not In Contract.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Examine areas and conditions in which the cubicle tracking systems will be installed.
  - 1. Complete all finishing operations, including painting, before beginning installation of cubicle tracking system materials
  - 2. Verify that surfaces and above ceiling supports are ready to receive work.

### 3.2 PREPARATION

- A. General: Prior to installation, clean substrate to remove dust, debris and loose particles.

### 3.3 INSTALLATION

- A. General: Locate the cubicle track as indicated on the approved detail drawing for the appropriate substrate and in compliance with the manufacturer's installation instructions.
- B. Installation of Cubicle Tracking Systems:
  - 1. Install cubicle track, secure, rigid, and true to ceiling line.
  - 2. Slide carriers onto the track.
  - 3. Install end cap or stop device.
  - 4. Secure or suspend track to ceiling system. Install with mechanical fasteners or grid clips.
  - 5. Install curtains on carriers ensuring smooth operation.

### 3.4 CLEANING

- A. At completion of the installation, remove any debris and clean surfaces in accordance with

manufacturer's cleaning and maintenance instructions.

END OF SECTION

**SECTION 102600**  
**WALL PROTECTION**

**PART 1 GENERAL**

1.1 SUMMARY

- A. Section Includes:
  - 1. Corner guards.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

1.2 REFERENCES

- A. ASTM International (ASTM):
  - 1. A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
  - 2. B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
  - 3. E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- B. NFPA 252

1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Product Data: Indicate profiles, accessories, and attachments. Include installation methods for each type of substrate in the project.

1.4 QUALITY ASSURANCE

- A. Corner Guards: Tested and approved by recognized independent testing laboratory with fire resistance rating equivalent to partition construction.

1.5 PROJECT CONDITIONS

- A. Do not install guards until after painting and finishing work is completed.

**PART 2 PRODUCTS**

2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  - 1. Inpro Corporation ([www.inpro.com](http://www.inpro.com))
- B. Substitutions: Under provisions of Division 01.

2.2 MATERIALS

- A. Stainless Steel:
  - 1. ASTM A666, Type 304 or 316.

2.3 COMPONENTS

- A. Corner Guards:
  - 1. Type: Surface mounted, stainless steel, minimum 16 gage.
  - 2. Attachment: Construction adhesive.
  - 3. Size: 1 1/4 inches x 1 1/4 inches x 36 inches high.
  - 4. Finish: No. 4 satin.
  
- B. Adhesive:
  - 1. Type best suited to application per manufacturer
  
- C. Tape:
  - 1. Double sided foam tape, pressure sensitive.

**PART 3 EXECUTION**

3.1 EXAMINATION

- A. Do not begin installation until unacceptable conditions have been corrected

3.2 INSTALLATION

- A. Install corner guards in accordance with manufacturer's instructions.
- B. Secure corner guards with adhesive beads on each wing, full height.
- C. Set plumb, level, and rigid.

END OF SECTION

**SECTION 10 2813**  
**TOILET ACCESSORIES**

**PART 1 GENERAL**

1.1 SUMMARY

- A. Section Includes:
  - 1. Toilet and shower accessories.
  - 2. Framed mirrors.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

1.2 REFERENCES

- A. ASTM International (ASTM):
  - 1. A123/A123M - Standard Specification for Zinc (Hot-Galvanized) Coatings on Iron and Steel Products.
  - 2. A269 - Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service.
  - 3. A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
  - 4. A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
  - 5. B456 - Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium.
  - 6. C1036 - Standard Specification for Flat Glass.
- B. Underwriters Laboratories, Inc. - Listed Products.

1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Product Data:
    - a. Schedule accessories by room; show plans and elevations, and identify room name and number, type and quantity of accessories, and mounting heights.
    - b. Include manufacturer's brochures showing sizes, details of function, finishes, and attachment methods.
  - 2. Warranty: Sample warranty form.

1.4 QUALITY ASSURANCE

- A. Conform to applicable accessibility code for locating accessories.

1.5 WARRANTIES

- A. Furnish manufacturer's 5 year warranty providing coverage against mirror silver spoilage.

**PART 2 PRODUCTS**

2.1 MANUFACTURERS

- A. Acceptable Manufacturers:

1. Bobrick Washroom Equipment, Inc.

B. Substitutions: Under provisions of Division 01.

## 2.2 MATERIALS

A. Stainless Steel:

1. Sheet: ASTM A666, Type 304, rollable temper.
2. Tubing: ASTM A269.

B. Galvanized Steel:

1. ASTM A1008/A1008M.

C. Mirror Glass: ASTM C1036, Type I, Class 1, Quality q1, ¼ inch thick.

## 2.3 ACCESSORIES

A. Fasteners: Stainless steel where exposed, hot dip galvanized where concealed; type best suited to substrate conditions.

## 2.4 FABRICATION

A. Use stainless steel for exposed surfaces; galvanized steel may be used in concealed locations.

B. Form exposed surfaces from single sheet of stock, free from joints, and flat, without distortion.

C. Weld joints of fabricated components and grind smooth.

D. Fabricate grab bars of tubing, free of visible joints, return to wall with end attachment flanges.

E. Fabricate soap dispensers to operate with less than 5 pound force.

F. Provide hangers, adapters, anchor plates, and accessories required for installation.

G. Key locks alike; furnish six keys.

H. Mirrors:

1. Frame: One piece, roll formed stainless steel channel, 1/2 x ½ inch, with corners mitered.
2. Mirror: Apply one coat of silver, one coat of electroplated copper, and one coat of organic mirror backing compound to back surface of glass.
3. Backing: Galvanized steel sheet.
4. Isolate glass from frame and backing with resilient, waterproof padding.

I. Shop assemble units and package complete with anchors and fittings.

## 2.5 FINISHES

A. Stainless Steel: No. 4 satin.

## PART 3 EXECUTION

### 3.1 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Set plumb, level, square, and rigid.

### 3.2 SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL NO.
A	Paper Towel Dispenser – 1 per Restroom	Bobrick	B-262
B	Toilet Tissue Dispenser – 1 per toilet fixture	Bobrick	B-685
C	Soap Dispenser – 1 per Restroom	Bobrick	B-4112
D	Grab Bars – Per Floor Plan	Bobrick, 1-1/4" diameter	B-5806-36 B-5806-42
E	Utility Hook – 1 per toilet room	Bobrick	B-233
F	Shelf with Mop and Broom Holder – 1 per Janitors Closet.	Bobrick	B-224 x 30
G	Under Lavatory Pipe Insulation – At each accessible lavatory	Truebro "Handi Lav Guard, appropriate model, white.	
H	Standard Plate Glass Mirror, 24x36 – 1 per lavatory	Bobrick	B-165

END OF SECTION

**SECTION 104416**  
**FIRE EXTINGUISHERS**

**PART 1 GENERAL**

1.1 SUMMARY

- A. Section Includes:
  - 1. Portable fire extinguishers.
  - 2. Cabinets and wall brackets
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

1.2 REFERENCES

- A. ASTM International (ASTM) E814 - Standard Test Method for Fire Tests of Through-Penetration Firestops.
- B. National Fire Protection Association (NFPA) 10 - Portable Fire Extinguishers.
- C. Underwriters Laboratories (UL):
  - 1. 154 - Carbon Dioxide Fire Extinguishers.
  - 2. 299 - Dry Chemical Fire Extinguishers.
  - 3. 626 - 2-1/2 Gallon Stored Pressure, Water Type Fire Extinguishers.
  - 4. 711 - Rating and Fire Testing of Fire Extinguishers.
  - 5. 2129 - Halocarbon Clean Agent Fire Extinguishers.

1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Shop Drawings: Indicate bracket locations and mounting heights.
  - 2. Product Data: Include data on extinguishers and brackets, operational features, materials, finishes, and anchorage.
- B. Closeout Submittals:
  - 1. Maintenance Data: Include test, refill, or recharge schedules and re-certification requirements.

1.4 QUALITY ASSURANCE

- A. Provide fire extinguishers complying with UL 711 and applicable code.
- B. Cabinets in Fire Rated Partitions: Tested in accordance with ASTM E814 with fire resistance rating equivalent to adjacent construction
- C. Conform to applicable accessibility code for locating extinguishers.

1.5 PROJECT CONDITIONS

- A. Do not install extinguishers when ambient temperature may cause freezing of extinguisher ingredients.

**PART 2 PRODUCTS**

## 2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  - 1. Larsen's Mfg. Co. ([www.larsensmfg.com](http://www.larsensmfg.com))
- B. Substitutions: Under provisions of Division 01.

## 2.2 COMPONENTS

- A. Extinguishers:
  - 1. Multi-purpose dry chemical type, UL 299, cast steel tank, Class 2A:10B:C, 5 pound nominal capacity.
- B. Cabinets:
  - 1. Formed aluminum sheet.
  - 2. Configuration: Recessed, or Semi-recessed, sized to accommodate extinguishers.
  - 3. Trim: Flat trim.
  - 4. Door:
    - a. Vertical glass style, equipped with pull handle and latch.
    - b. Hinge doors for 180 degree opening with continuous piano hinge.
    - c. Glazing: Clear acrylic.
    - d. Graphics: Letter FIRE EXTINGUISHER vertically on door in red die-cut vinyl pressure sensitive letters.
- C. Brackets: Formed steel, sized to accommodate extinguisher.

## 2.3 ACCESSORIES

- A. Mounting Hardware: Type best suited to application.

## 2.4 FINISHES

- A. Cabinet:
  - 1. Interior: Baked enamel, color to be selected from manufacturer's full color range.
- B. Extinguishers: Baked enamel, red color.

## **PART 3 EXECUTION**

### 3.1 INSTALLATION

- A. Install brackets in accordance with manufacturer's instructions.
- B. Set plumb, level, and rigid.
- C. Place an extinguisher on each bracket.

END OF SECTION

## SECTION 107313

### EXTERIOR SUN CONTROL DEVICES

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Aluminum sun control devices.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

##### 1.2 REFERENCES

- A. American Society of Civil Engineers (ASCE) 7 - Minimum Design Loads for Buildings and Other Structures.
  - 1. D1.2/D1.2M - Structural Welding Code - Aluminum.
- B. ASTM International (ASTM):
  - 1. A500 - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
  - 2. B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

##### 1.3 SYSTEM DESCRIPTION

- A. Design Requirements: Design sun control devices to withstand:
  - 1. Live and dead loads in accordance with ASCE7.
  - 2. Movement caused by an ambient temperature range of 120 degrees F and a surface temperature range of 160 degrees F.

##### 1.4 SUBMITTALS

- A. Submittals for Review:
  - 1. Shop Drawings: Include locations, profiles, sizes, supports, attachments, and finishes.
  - 2. Samples:
    - a. 3 x 3 inch paint samples showing available colors.

##### 1.5 QUALITY ASSURANCE

- A. Fabricator and Installer Qualifications: Minimum 3 years documented experience in work of this Section.

##### 1.6 WARRANTIES

- A. Provide manufacturer's standard warranty.

#### PART 2 PRODUCTS

##### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  - 1. Construction Specialties. ([www.c-sgroup.com](http://www.c-sgroup.com))
- B. Substitutions: Under provisions of Division 01.

##### 2.2 MATERIALS

- A. Aluminum Extrusions: ASTM B211, Alloy 6063-T5
- B. Fasteners: Fasteners shall be aluminum or stainless steel. Provide types, gauges and lengths to suit unit installation conditions.
- C. Anchors and Inserts: Use non-ferrous metal or hot dip galvanized anchors and inserts for installation and elsewhere as required for corrosion resistance. Use stainless steel or lead expansion bolt devices for drill-in place anchors. Furnish inserts, as required, to be set into concrete or masonry work.
- D. Solid aluminum spacers per drawings, as produced by the sun shade manufacturer, pre-finished to match sun shade.

### 2.3 FABRICATION

- A. Provide fixed sunshades and accessories of design, material, sizes, depth, arrangement, and thickness as indicated or as required for optimal performance with respect to strength; durability; and uniform appearance
- B. Include supports, anchorage, and accessories required for complete assembly.

### 2.4 CONSTRUCTION

- A. Source: Model 100-3c-7 cantilever airfoil sunshade system as manufactured by Construction Specialties.
- B. Outriggers: 1/4" custom profile flat aluminum plate members, cut to match blade profile exactly
- C. Blades: 8" high, long span, extruded aluminum airfoil design. Blades shall be factory assembled to outriggers using stainless steel, type F, thread cutting screws through internal screw slots in blades. Welding is not acceptable. Blades to be mechanically secured to allow for replacement in case of damage. Fasteners to be hex head.
- D. Fascia: Blade to act as front fascia.
- E. Mounting Bracket: Outriggers to be secured to steel tabs that are welded to the support steel tube. Tabs are designed, supplied and installed by others.

### 2.5 FINISHES

- A. Aluminum: Chemically clean and apply manufacturer's standard polyester powder coat finish, sprayed and baked, color [to be selected from manufacturer's full color range.

## **PART 3 EXECUTION**

### 3.1 INSPECTION

- A. Examine openings to receive the work, do not proceed until any unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. Comply with manufacturer's instructions and recommendations for installation of the work.
- B. Verify dimensions of supporting structure at the site by accurate field measurements so that the work will be accurately designed, fabricated and fitted to the structure.
- C. Anchor Sunscreen to building substructure as indicated on architectural drawings.
- D. Erection Tolerances:

1. Variation from level: +/- 1/8" maximum in any column to column space or 20'-0" runs, non-cumulative.
  2. Offsets in end-to-end or edge-to-edge alignment of consecutive members 1/32".
- E. Cut and trim component parts during erection only with the approval of the manufacturer or fabricator, and in accordance with his recommendations. Restore finish completely. Remove and replace members where cutting and trimming has impaired the strength or appearance of the assembly as directed.
- F. Do not erect warped, bowed, deformed or otherwise damaged or defaced members. Remove and replace any members damaged in the erection process as directed.
- G. Set units level, plumb and true to line, with uniform joints.

END OF SECTION

## SECTION 119400

### EQUIPMENT

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Equipment – Built in or Contractor supplied
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

##### 1.2 SUBMITTALS

- A. Submittals for Review:
  - 1. Shop Drawings: Show locations of equipment, dimensions, required clearances, rough-in requirements, power requirements, and wiring diagrams.
  - 2. Product Data: Provide product data on equipment showing materials, finishes, characteristics, limitations, and electrical characteristics.
  - 3. Warranty: Sample warranty form.
- B. Closeout Submittals:
  - 1. Operation and Maintenance Data.

##### 1.3 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Minimum 5 years documented experience in work of this Section.

##### 1.4 DELIVERY, STORAGE AND HANDLING

- A. Deliver appliances with manufacturer's protective coverings in place; do not remove until just prior to installation.

##### 1.5 WARRANTIES

- A. Furnish manufacturer's standard warranty.

#### PART 2 PRODUCTS

##### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  - 1. Manufacturers as listed under Manufactured Units
- B. Substitutions: Under provisions of Division 01.

##### 2.2 MANUFACTURED UNITS

- A. Decorative Bench Seating: Contractor Furnished, Contractor Installed.
  - 1. Mark: **E1**
  - 2. Location: Adoption Lobby - 102
    - a. Quantity:6
    - b. Source: Knoll Textiles ([www.knoll.com](http://www.knoll.com))
    - c. Model: Backless Bench, Curved (60°)
    - d. Material: Fabric
    - e. Color: Delie Green and Delite Catalina

- B. Employee Lockers. Contractor Furnished, Contractor Installed.
1. Mark: **E4**
  2. Location: Staff Lounge - 149
    - a. Quantity: 1
    - b. Size: Contractor to coordinate configuration with Owner.
    - c. Source: Ideal Products Inc. ([www.ideallockers.com](http://www.ideallockers.com))
- C. Shallow Shelving: Contractor Furnished, Contractor Installed.
1. Mark: **E5**
  2. Location: Closet -104
    - a. Quantity:1
    - b. Size: 12"d x 36"w x 72"h
    - c. Source: Shelving Inc. ([www.shelving.com](http://www.shelving.com))
    - d. Material: Wire
    - e. Model: SC123672-5
    - f. Quantity: 1
    - g. Size: 12"d x 72"w x 72"h
    - h. Source: Shelving Inc. ([www.shelving.com](http://www.shelving.com))
    - i. Material: Wire
    - j. Model: SC127272-5
  3. Location: Walk in Freezer – 176
    - a. Quantity: 2
    - b. Size: 18"d x 36"w x 72"h
    - c. Source: Shelving Inc. ([www.shelving.com](http://www.shelving.com))
    - d. Material: Wire
    - e. Model: SC183672-5
- D. Heavy Duty Shelving: Contractor Furnished, Contractor Installed.
1. Mark: **E6**
  2. Location: Walk in Freezer - 176
    - a. Quantity: 2
    - b. Size: 24"d x 72"w x 84"h
    - c. Source: Shelving Inc. ([www.shelving.com](http://www.shelving.com))
    - d. Material: Steel
    - e. Model: 4BDRS2472PB
  3. Location: Storage - 163
    - a. Quantity: 1
    - b. Size: 24"d x 72"w x 84"h
    - c. Source: Shelving Inc. ([www.shelving.com](http://www.shelving.com))
    - d. Material: Steel
    - e. Model: 4BDRS2472PB
  4. Location: Food Storage - 178
    - a. Quantity: 2
    - b. Size: 24"d x 48"w x 84"h
    - c. Source: Shelving Inc. ([www.shelving.com](http://www.shelving.com))
    - d. Material: Steel
    - e. Model: 4DRS2448-PB
- E. Deep Heavy Duty Shelving: Contractor Furnished, Contractor Installed.
1. Mark: **E7**
  2. Location: Central Storage - 179
    - a. Quantity: 1
    - b. Size: 36"d x 72"w x 84"h
    - c. Material: Metal
    - d. Source: Shelving Inc. ([www.shelving.com](http://www.shelving.com))
    - e. Model: 4BDRS3672PB
    - f. Quantity:1
    - g. Size: 36"d x 96"w x 60"h
    - h. Source: Shelving Inc. ([www.shelving.com](http://www.shelving.com))

- i. Model: 4BDRS3696PB
  
- F. Large Office Copier: Owner Furnished, Owner Installed.
  - 1. Mark: **E8**
  - 2. Location: Central Storage - 179
    - a. Quantity: 1
    - b. Source: By Owner
  
- G. Pet Waste Station: Contractor Furnished, Contractor Installed.
  - 1. Mark: **E9**
  - 2. Location: Indoor Exercise Room - 230
    - a. Quantity: 2
    - b. Source: Pet Waste Eliminator (petwasteeliminator.com)
      - 1) Model – Superior Pet Waste Station
  
- H. Wall Mounted Hose Reel: Contractor Furnished, Contractor Installed.
  - 1. Mark: **E10**
  - 2. Location: Feline Fenced Exterior Enclosure – E-04
    - a. Quantity: 1
    - b. Source: Reelcraft ([www.reelgraft.com](http://www.reelgraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel
  - 3. Location: Canine Fenced Exterior Yard – E-06
    - a. Quantity: 1
    - b. Source: Reelcraft ([www.reelgraft.com](http://www.reelgraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel
  - 4. Location: Canine Fenced Exterior Yard – E-07
    - a. Quantity: 1
    - b. Source: Reelcraft ([www.reelgraft.com](http://www.reelgraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel
  - 5. Location: Canine Fenced Exterior Yard – E-08
    - a. Quantity: 1
    - b. Source: Reelcraft ([www.reelgraft.com](http://www.reelgraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel
  - 6. Location: Canine Fenced Exterior Yard – E-09
    - a. Quantity: 1
    - b. Source: Reelcraft ([www.reelgraft.com](http://www.reelgraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel
  - 7. Location: Canine Fenced Exterior Yard – E-10
    - a. Quantity: 1
    - b. Source: Reelcraft ([www.reelgraft.com](http://www.reelgraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel
  - 8. Location: Exterior Canine Exercise Yard – E-12A
    - a. Source: Reelcraft ([www.reelgraft.com](http://www.reelgraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel
  - 9. Location: Intake Fenced Sally Port – E-10
    - a. Quantity: 1
    - b. Source: Reelcraft ([www.reelgraft.com](http://www.reelgraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel
  - 10. Location: Canine Adopt #1 Public – 124
    - a. Quantity: 1
    - b. Source: Reelcraft ([www.reelgraft.com](http://www.reelgraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel
  - 11. Location: Canine Adopt #2 Public – 125
    - a. Quantity: 1
    - b. Source: Reelcraft ([www.reelgraft.com](http://www.reelgraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel
  - 12. Location: Canine Adopt #3 Public – 127
    - a. Quantity: 1
    - b. Source: Reelcraft ([www.reelgraft.com](http://www.reelgraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel

13. Location: Canine Adopt #4 Public – 138
    - a. Quantity: 1
    - b. Source: Reelcraft ([www.reelcraft.com](http://www.reelcraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel
  14. Location: Canine Adopt #5 Public – 130
    - a. Quantity: 1
    - b. Source: Reelcraft ([www.reelcraft.com](http://www.reelcraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel
  15. Location: Canine Adopt #5 Staff – 131
    - a. Quantity: 1
    - b. Source: Reelcraft ([www.reelcraft.com](http://www.reelcraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel
  16. Location: Canine Adopt #4 Staff – 132
    - a. Quantity: 1
    - b. Source: Reelcraft ([www.reelcraft.com](http://www.reelcraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel
  17. Location: Canine Adopt #3 Staff – 133
    - a. Quantity: 1
    - b. Source: Reelcraft ([www.reelcraft.com](http://www.reelcraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel
  18. Location: Canine Adopt #2 Staff – 135
    - a. Quantity: 1
    - b. Source: Reelcraft ([www.reelcraft.com](http://www.reelcraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel
  19. Location: Canine Adopt #1 Staff – 136
    - a. Quantity: 1
    - b. Source: Reelcraft ([www.reelcraft.com](http://www.reelcraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel
  20. Location: Canine Hold – 172
    - a. Quantity: 1
    - b. Source: Reelcraft ([www.reelcraft.com](http://www.reelcraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel
  21. Location: Intake Hold – 175
    - a. Quantity: 1
    - b. Source: Reelcraft ([www.reelcraft.com](http://www.reelcraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel
  22. Location: Level 2 Canine Adopt (East) – 215
    - a. Quantity: 2
    - b. Source: Reelcraft ([www.reelcraft.com](http://www.reelcraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel
  23. Location: Level 2 Canine Adopt (West) – 217
    - a. Quantity: 2
    - b. Source: Reelcraft ([www.reelcraft.com](http://www.reelcraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel
  24. Location: Indoor Exercise Room – 230
    - a. Quantity: 1
    - b. Source: Reelcraft ([www.reelcraft.com](http://www.reelcraft.com))
      - 1) Model: GC83050 OLP – 3/4in. x 50 ft. Ultimate Duty Garden Hose Reel
- I. Wall Mounted Large TV: Owner Furnished, Contractor Installed.
1. Mark: **E11**
  2. Location: Conference Room - 147
    - a. Quantity: 1
    - b. Source: TV and Mounting bracket by Owner
- J. Stacked Washer and Dryer: Owner Furnished, Contractor Installed.
1. Mark: **E12**
  2. Location: Feline Food/ Prep - 113
    - a. Quantity: 1
    - b. Source: By Owner

- 3. Location: Food Prep / Laundry & Bathe - 170
    - a. Quantity: 4
    - b. Source: By Owner
  - 4. Location: Upper Feline Food Prep - 211
    - a. Quantity: 1
    - b. Source: By Owner
  - 5. Location: Janitor - 225
    - a. Quantity: 1
    - b. Source: By Owner
- K. Residential Refrigerator: Owner Furnished, Owner Installed.
- 1. Mark: **E13**
  - 2. Location: Feline Food Prep - 113
    - a. Quantity: 1
    - b. Source: By Owner
  - 3. Location: Food Prep / Laundry & Bathe - 170
    - a. Quantity: 1
    - b. Source: By Owner
  - 4. Location: Staff Lounge - 149
    - a. Quantity: 1
    - b. Source: By Owner
  - 5. Location: Feline Hold #2 - 231
    - a. Quantity: 1
    - b. Source: By Owner
  - 6. Location: Upper Feline Food Prep - 211
    - a. Quantity: 1
    - b. Source: By Owner
- L. Under Counter Refrigerator: Owner Furnished, Owner Installed.
- 1. Mark: **E14**
  - 2. Location: Feline Food/ Prep - 113
    - a. Quantity: 2
    - b. Source: By Owner
  - 3. Location: Food Prep / Laundry & Bathe - 170
    - a. Quantity: 2
    - b. Source: By Owner
  - 4. Location: Upper Feline Food Prep - 211
    - a. Quantity: 2
    - b. Source: By Owner
  - 5. Location: Feline Hold #2 - 231
    - a. Quantity: 1
    - b. Source: By Owner
- M. Under Counter Dishwasher: Owner Furnished, Contractor Installed.
- 1. Mark: **E15**
  - 2. Location: Feline Food/ Prep - 113
    - a. Quantity: 1
    - b. Source: By Owner
  - 3. Location: Staff Lounge - 149
    - a. Quantity: 1
    - b. Source: By Owner
  - 4. Location: Food Prep / Laundry & Bathe - 170
    - a. Quantity: 1
    - b. Source: By Owner
  - 5. Location: Upper Feline Food Prep - 211
    - a. Quantity: 1
    - b. Source: By Owner
  - 6. Location: Feline Hold #2 - 231
    - a. Quantity: 1
    - b. Source: By Owner

- N. Microwave: Contractor Furnished, Contractor Installed.
1. Mark: **E16**
  2. Location: Feline Food/ Prep - 113
    - a. Quantity: 1
    - b. Source: By Owner
  3. Location: Food Prep / Laundry & Bathe - 170
    - a. Quantity: 1
    - b. Source: By Owner
  4. Location: Upper Feline Food Prep - 211
    - a. Quantity: 1
    - b. Source: By Owner
  5. Location: Feline Hold #2 - 231
    - a. Quantity: 1
    - b. Source: By Owner
- O. Walk-In Freezer Assembly: Contractor Furnished, Contractor Installed.
1. Mark: **E17**
  2. Location: Walk-In Freezer - 176
    - a. Quantity: 1
    - b. Source: Bush Refrigeration ([www.bushrefrigeration.com](http://www.bushrefrigeration.com))
      - 1) Model – Custom
- P. Oxygen Manifold and Tanks: Contractor Furnished (Manifold), Contractor Installed (Manifold). Owner Furnished (Tanks), Owner Installed (Tanks)
1. Mark: **E18**
  2. Location: O2 Closet - 155
    - a. Oxygen Manifold
      - 1) Quantity: 1
      - 2) Source: See Plumbing Drawings
        - i) Model: See Plumbing Drawings
    - b. Oxygen Tanks
      - 1) Quantity: 2
    - c. Source: By Owner
- Q. Medical Gas Alarm Box: Contractor Furnished, Contractor Installed.
1. Mark: **E19**
  2. Location: Treatment Recovery - 153
    - a. Quantity: 1
    - b. Source: See Plumbing Drawings
      - 1) Model: See Plumbing Drawings
- R. Emergency Eyewash Station: Contractor Furnished, Contractor Installed.
1. Mark: **E20**
  2. Location: Treatment Recovery - 153
    - a. Quantity: 1
    - b. Source: See Plumbing Drawings
      - 1) Model: See Plumbing Drawings
- S. Single Stainless Steel Surgery Scrub Sink: Contractor Furnished, Contractor Installed.
1. Mark: **E21**
  2. Location: Treatment Recovery - 153
    - a. Quantity: 1
    - b. Source: See Plumbing Drawings
      - 1) Model: See Plumbing Drawings
- T. Stainless Steel Sink: Contractor Furnished, Contractor Installed.
1. Mark: **E22**
  2. Location: Feline Food/ Prep - 113
    - a. Quantity: 1

- b. Source: See Plumbing Drawings.
        - 1) Model: See Plumbing Drawings
  - 3. Location: Feline Condos #1 - 116
    - a. Quantity: 1
    - b. Source: See Plumbing Drawings.
      - 1) Model: See Plumbing Drawings
  - 4. Location: Canine Iso - 157
    - a. Quantity: 1
    - b. Source: See Plumbing Drawings.
      - 1) Model: See Plumbing Drawings
  - 5. Location: Upper Feline Food Prep - 211
    - a. Quantity: 1
    - b. Source: See Plumbing Drawings.
      - 1) Model: See Plumbing Drawings
  - 6. Location: Feline Hold #2 - 231
    - a. Quantity: 1
    - b. Source: See Plumbing Drawings.
      - 1) Model: See Plumbing Drawings
- U. 60" Deep Wet Tables: Contractor Furnished, Contractor Installed.
- 1. Mark: **E23**
  - 2. Location: Treatment Recovery - 153
    - a. Quantity: 1
    - b. Source: Tristar Vet ([www.tristarvet.com](http://www.tristarvet.com))
      - 1) Model: 100-91
- V. 60" Grooming Bathe: Contractor Furnished, Contractor Installed.
- 1. Mark: **E24**
  - 2. Location: Food Prep / Laundry & Bathe - 170
    - a. Quantity: 1
    - b. Source: Tristar Vet ([www.tristarvet.com](http://www.tristarvet.com))
      - 1) Model: 800-10
- W. Actuated Lift & Scale Gurney: Owner Furnished, Contractor Installed.
- 1. Mark: **E25**
  - 2. Location: Treatment Recovery - 153
    - a. Quantity: 1
    - b. Source: Midmark (ShorLine) ([www.midmark.com](http://www.midmark.com))
      - 1) Model: 903-3120-05
- X. 48" Folding Exam Table: Contractor Furnished, Contractor Installed.
- 1. Mark: **E26**
  - 2. Location: Treatment Recovery - 153
    - a. Quantity: 1
    - b. Source: Tristar Vet ([www.tristarvet.com](http://www.tristarvet.com))
      - 1) Model: 400-23
  - 3. Location: Intake Exam - 166
    - c. Quantity: 1
    - a. Source: Tristar Vet ([www.tristarvet.com](http://www.tristarvet.com))
      - 1) Model: 400-23
- Y. 30" Folding Exam Table: Contractor Furnished, Contractor Installed.
- 1. Mark: **E27**
  - 2. Location: Feline Condos - 112
    - a. Quantity: 1
    - b. Source: Tristar Vet ([www.tristarvet.com](http://www.tristarvet.com))
      - 1) Model: 400-25
  - 3. Location: Feline Food/Prep - 113
    - a. Quantity: 1
    - b. Source: Tristar Vet ([www.tristarvet.com](http://www.tristarvet.com))

- 1) Model: 400-25
  - 4. Location: Treatment Recovery - 153
    - a. Quantity: 1
    - b. Source: Tristar Vet ([www.tristarvet.com](http://www.tristarvet.com))
      - 1) Model: 400-25
  - 5. Location: Feline Hold - 171
    - a. Quantity: 1
    - b. Source: Tristar Vet ([www.tristarvet.com](http://www.tristarvet.com))
      - 1) Model: 400-25
- Z. Surgery (E-lift Heated Table): Contractor Furnished, Contractor Installed.
- 1. Mark: **E28**
  - 2. Location: DBL. Surgery - 154
    - a. Quantity: 2
    - b. Source: Midmark (ShorLine) ([www.midmark.com](http://www.midmark.com))
      - 1) Model: 100-3071-21
- AA. Mini Cubex: Owner Furnished, Owner Installed.
- 1. Mark: **E29**
  - 2. Location: Treatment Recovery - 153
    - a. Quantity: 1
    - b. Source: By Owner
- BB. Autoclave: Owner Furnished, Owner Installed.
- 1. Mark: **E31**
  - 2. Location: Treatment Recovery - 153
    - a. Quantity: 1
    - b. Source: By Owner
- CC. Ultrasonic Cleaner: Owner Furnished, Owner Installed.
- 1. Mark: **E32**
  - 2. Location: Treatment Recovery - 153
    - a. Quantity: 1
    - b. Source: By Owner
- DD. Iso Cage Bank (Feline): Contractor Furnished, Contractor Installed.
- 1. Mark: **E33**
  - 2. Location: Feline Iso. - 159
    - a. Quantity: 3
    - b. Source: Midmark ([www.midmark.com](http://www.midmark.com))
    - c. Tiers: 3
    - d. Width: 30.25"
- EE. Iso Cage Bank (Canine): Contractor Furnished, Contractor Installed.
- 1. Mark: **E34**
  - 2. Location: Canine Iso. - 158
    - a. Source: Midmark ([www.midmark.com](http://www.midmark.com))
    - b. Tiers: 3
    - c. Width: 30.25"
- FF. Iso Cage Bank (Canine): Contractor Furnished, Contractor Installed.
- 1. Mark: **E35**
  - 2. Location: Canine Iso. - 158
    - a. Source: Midmark ([www.midmark.com](http://www.midmark.com))
    - b. Tiers: 2
    - c. Width: 42"
- GG. 48" Recovery Run Gate Attach to Wall: Contractor Furnished, Contractor Installed.
- 1. Mark: **E36**
  - 2. Location: Treatment Recovery - 153

- a. Quantity: 1
  - b. Source: Midmark (ShorLine) ([www.midmark.com](http://www.midmark.com))
  - c. Size: Custom 56" w x 48" H (double gate)
- HH. ICU/Rec. Cage Bank (12' Length/ 14 Units: Contractor Furnished, Contractor Installed.
- 1. Mark: **E37**
  - 2. Location: Treatment Recovery - 153
    - a. Quantity: 1
    - b. Source: Midmark (ShorLine) ([www.midmark.com](http://www.midmark.com))
    - c. Size: 3 tier – See elevations for layout
      - 1) Bottom Tier: (3) 48"x30" (with Divider Panel)
      - 2) Middle Tier: (4) 30"x24", (1) 24"x24"
      - 3) Top Tier: (6) 24"x 24"
- II. "ADOPT-LV 1" 72" Deep Run Gate & Partition: Contractor Furnished, Contractor Installed.
- 1. Mark: **E38**
  - 2. Location: Canine Adopt #5 – Public - 130
    - a. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
      - 1) Run Gates: (4) 36" w x 72" H, (2) 48" w x 72" h, (2) 60" w x 72" h.
        - i) Material: Stainless Steel Tubing and Glass.
      - 2) Run Partitions: (8) 72" d x 72" h.
        - i) Material: Stainless Steel Tubing, PVC panel, Wire Top Panel.
  - 3. Location: Canine Adopt #4 – Public - 128
    - a. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
      - 1) Run Gates: (8) 36" w x 72" H, (2) 48" w x 72" h.
        - i) Material: Stainless Steel Tubing and Glass.
      - 2) Run Partitions: (9) 72" d x 72" h.
        - i) Material: Stainless Steel Tubing, PVC panel, Wire Top Panel.
  - 4. Location: Canine Adopt #3 – Public - 127
    - a. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
      - 1) Run Gates: (8) 48" w x 72" h.
        - i) Material: Stainless Steel Tubing and Glass.
      - 2) Run Partitions: (7) 72" d x 72" h.
        - i) Material: Stainless Steel Tubing, PVC panel, Wire Top Panel.
  - 5. Location: Canine Adopt #2 – Public - 125
    - a. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
      - 1) Run Gates: (6) 48" w x 72" h.
        - i) Material: Stainless Steel Tubing and Glass.
      - 2) Run Partitions: (6) 72" d x 72" h.
        - i) Material: Stainless Steel Tubing, PVC panel, Wire Top Panel.
  - 6. Location: Canine Adopt #1 – Public - 124
    - a. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
      - 1) Run Gates: (3) 60" w x 72" h, (5) 48" w x 72" h.
        - i) Material: Stainless Steel Tubing and Glass.
      - 2) Run Partitions: (8) 72" d x 72" h.
        - i) Material: Stainless Steel Tubing, PVC panel, Wire Top Panel.
- JJ. "EMPLOYEE-LV 1" 72" Deep Run Gate & Partition: Contractor Furnished, Contractor Installed.
- 1. Mark: **E39**
  - 2. Location: Canine Adopt #5 – Staff - 131
    - a. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
      - 1) Run Gates: (4) 36" w x 72" H, (2) 48" w x 72" h, (2) 60" w x 72" h.
        - i) Material: Stainless Steel Tubing and Glass.
      - 2) Run Partitions: (4) 72" d x 72" h.
        - i) Material: Stainless Steel Tubing, PVC panel, Wire Top Panel.

3. Location: Canine Adopt #4 – Staff - 132
  - a. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
    - 1) Run Gates: (8) 36" w x 72" H, (2) 48" w x 72" h.
      - i) Material: Stainless Steel Tubing and Glass.
    - 2) Run Partitions: (4) 72" d x 72" h.
      - i) Material: Stainless Steel Tubing, PVC panel, Wire Top Panel.
  
4. Location: Canine Adopt #3 – Staff - 133
  - a. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
    - 1) Run Gates: (8) 48" w x 72" h.
      - i) Material: Stainless Steel Tubing and Glass.
    - 2) Run Partitions: (3) 72" d x 72" h.
      - i) Material: Stainless Steel Tubing, PVC panel, Wire Top Panel.
  
5. Location: Canine Adopt #2 – Staff - 155
  - a. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
    - 1) Run Gates: (6) 48" w x 72" h.
      - i) Material: Stainless Steel Tubing and Glass.
    - 2) Run Partitions: (3) 72" d x 72" h.
      - i) Material: Stainless Steel Tubing, PVC panel, Wire Top Panel.
  
6. Location: Canine Adopt #1 – Staff - 136
  - a. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
    - 1) Run Gates: (3) 60" w x 72" h, (5) 48" w x 72" h.
      - i) Material: Stainless Steel Tubing and Glass.
    - 2) Run Partitions: (3) 72" d x 72" h.
      - i) Material: Stainless Steel Tubing, PVC panel, Wire Top Panel.
  
- KK. "HOLD-LV 1" 60" Deep Run Gate & Partition: Contractor Furnished, Contractor Installed.
  1. Mark: **E40**
  2. Location: Canine Hold – 172
    - a. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
      - 1) Run Gates: (5) 48" w x 72" h, (1) 60" w x 72" h.
        - i) Material: Stainless Steel Tubing and Glass.
      - 2) Run Partitions: (2) 60" d x 72" h.
        - i) Material: Stainless Steel Tubing, PVC panel, Wire Top Panel.
  
- LL. "HOLD-LV 1" 72" Deep Run Gate & Partition: Contractor Furnished, Contractor Installed.
  1. Mark: **E41**
  2. Location: Canine Hold – 172
    - a. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
      - 1) Run Gates: (5) 48" w x 72" h, (1) 60" w x 72" h.
        - i) Material: Stainless Steel Tubing and Glass.
      - 2) Run Partitions: (3) 60" d x 72" h.
        - i) Material: Stainless Steel Tubing, PVC panel, Wire Top Panel.
  
- MM. "ADOPT-LV 2" 72" B to B Elevated 72" Deep Runs: Contractor Furnished, Contractor Installed.
  1. Mark: **E42**
  2. Location: Level 2 Canine Adopt (East) - 215
    - a. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
      - 1) Raised Floor System
      - 2) Run Gates (Double Stacked): (16) 48" w x 36" h
        - i) Material: Stainless Steel Tubing and Glass.
      - 3) Run Partitions (Double Stacked): (20) 72" d x 36" h.
        - i) Material: Stainless Steel Tubing, PVC panel.
      - 4) Run Gates: (12) 48" w x 72" h.
        - i) Material: Stainless Steel Tubing and Glass.
      - 5) Run Partitions: (9) 72" d x 72" h.
        - i) Material: Stainless Steel Tubing, PVC panel, Wire Top Panel.

3. Location: Level 2 Canine Adopt (West) - 217
    - a. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
      - 1) Raised Floor System
      - 2) Run Gates (Double Stacked): (16) 48"w x 36"h
        - i) Material: Stainless Steel Tubing and Glass.
      - 3) Run Partitions (Double Stacked): (16) 72"d x 36"h.
        - i) Material: Stainless Steel Tubing, PVC panel.
      - 4) Run Gates: (8) 48"w x 72"h.
        - i) Material: Stainless Steel Tubing and Glass.
      - 5) Run Partitions: (6) 72"d x 72"h.
        - i) Material: Stainless Steel Tubing, PVC panel, Wire Top Panel.
  4. Location: Whelping / Parturition - 219
    - a. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
      - 1) Raised Floor System
      - 2) Run Gates: (4) 48"w x 72"h.
        - i) Material: Stainless Steel Tubing and Glass.
      - 3) Run Partitions: (4) 72"d x 72"h.
        - i) Material: Stainless Steel Tubing, PVC panel, Wire Top Panel.
- NN. Canine Run Guillotine Door (IN-WALL): Contractor Furnished, Contractor Installed.
1. Mark: **E43**
  2. Location: Canine Adopt. #1 – Public – 124
    - a. Quantity: 8
    - b. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
      - 1) Wall Mounted Transfer Door.
      - 2) Size: 18"w x 28"h
      - 3) Material
        - i) Door: Aluminum
        - ii) H Channel: Aluminum
        - iii) Cable: Aluminum
        - iv) Hook on Pully System
  3. Location: Canine Adopt. #5 – Staff – 131
    - a. Quantity: 8
    - b. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
      - 1) Wall Mounted Transfer Door.
      - 2) Size: 18"w x 28"h
      - 3) Material
        - i) Door: Aluminum
        - ii) H Channel: Aluminum
        - iii) Cable: Aluminum
        - iv) Hook on Pully System
  4. Location: Canine Adopt. #4 – Staff – 131
    - a. Quantity: 10
    - b. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
      - 1) Wall Mounted Transfer Door.
      - 2) Size: 18"w x 28"h
      - 3) Material
        - i) Door: Aluminum
        - ii) H Channel: Aluminum
        - iii) Cable: Aluminum
        - iv) Hook on Pully System
  5. Location: Canine Adopt. #3 – Staff – 133
    - a. Quantity: 8
    - b. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
      - 1) Wall Mounted Transfer Door.
      - 2) Size: 18"w x 28"h

- 3) Material
  - i) Door: Aluminum
  - ii) H Channel: Aluminum
  - iii) Cable: Aluminum
  - iv) Hook on Pully System
  
- 6. Location: Canine Adopt. #2 – Staff – 135
  - a. Quantity: 6
  - b. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
    - 1) Wall Mounted Transfer Door.
    - 2) Size: 18"w x 28"h
    - 3) Material
      - i) Door: Aluminum
      - ii) H Channel: Aluminum
      - iii) Cable: Aluminum
      - iv) Hook on Pully System
  
- 7. Location: Canine Adopt. #1 – Staff – 136
  - a. Quantity: 8
  - b. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
    - 1) Wall Mounted Transfer Door.
    - 2) Size: 18"w x 28"h
    - 3) Material
      - i) Door: Aluminum
      - ii) H Channel: Aluminum
      - iii) Cable: Aluminum
      - iv) Hook on Pully System
  
- 8. Location: Level 2 Canine Adopt (East) - 215
  - a. Quantity: (8) Double stacked runs. (6) standard runs
  - b. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
    - 1) Rear Run Panel with transfer door (Double Decker).
      - i) Size: 48w x 36h
      - ii) Material: Stainless Steel Tubing, PVC panel
    - 2) Rear Run Panel with transfer door.
      - i) Size: 48w x 72h
      - ii) Material: Stainless Steel Tubing, PVC panel
  
- 9. Location: Level 2 Canine Adopt (West) - 215
  - a. Quantity: (8) Double stacked runs. (4) standard runs
  - b. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
    - 1) Rear Run Panel with transfer door (Double Decker).
      - i) Size: 48w x 36h
      - ii) Material: Stainless Steel Tubing, PVC panel
    - 2) Rear Run Panel with transfer door.
      - i) Size: 48w x 72h
      - ii) Material: Stainless Steel Tubing, PVC panel
  
- 10. Location: Whelping / Parturition - 219
  - a. Quantity: 2
  - b. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
    - 1) Rear Run Panel with transfer door.
      - i) Size: 48w x 72h
      - ii) Material: Stainless Steel Tubing, PVC panel
  
- OO. Run Partition W/ Guillotine Door: Contractor Furnished, Contractor Installed.
  - 1. Mark: **E44**
  - 2. Location: Canine Adopt. #5 – Staff – 131
    - a. Quantity: 4
    - b. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))

- c. Size: 72d x 72h
  - d. Material: Stainless Steel Tubing, PVC panel
- 3. Location: Canine Adopt. #4 – Staff – 132
  - a. Quantity:5
  - b. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
  - c. Size: 72d x 72h
  - d. Material: Stainless Steel Tubing, PVC panel
- 4. Location: Canine Adopt. #3 – Staff – 133
  - a. Quantity:4
  - b. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
  - c. Size: 72d x 72h
  - d. Material: Stainless Steel Tubing, PVC panel
- 5. Location: Canine Adopt. #2 – Staff – 135
  - a. Quantity:3
  - b. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
  - c. Size: 72d x 72h
  - d. Material: Stainless Steel Tubing, PVC panel
- 6. Location: Canine Adopt. #1 – Staff – 136
  - a. Quantity:4
  - b. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
  - c. Size: 72d x 72h
  - d. Material: Stainless Steel Tubing, PVC panel
- 7. Location: Canine Hold - 172
  - a. Quantity:3
  - b. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
  - c. Size: 60d x 72h
  - d. Material: Stainless Steel Tubing, PVC panel
  - e. Quantity:3
  - f. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
  - g. Size: 72d x 72h
  - h. Material: Stainless Steel Tubing, PVC panel
- 8. Location: Level 2 Canine Adopt. (East) - 215
  - a. Quantity:3
  - b. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
  - c. Size: 72d x 72h
  - d. Material: Stainless Steel Tubing, PVC panel
  - e. Quantity:8 (at double stacked)
  - f. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
  - g. Size: 72d x 36h
  - h. Material: Stainless Steel Tubing, PVC panel
- 9. Location: Level 2 Canine Adopt. (West) - 217
  - a. Quantity:2
  - b. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
  - c. Size: 72d x 72h
  - d. Material: Stainless Steel Tubing, PVC panel
  - e. Quantity:4 (at double stacked)
  - f. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
  - g. Size: 72d x 36h
  - h. Material: Stainless Steel Tubing, PVC panel
- 10. Location: Level 2 Canine Adopt. (West) - 217
  - a. Quantity:2
  - b. Source: Midmark (T-Kennel) ([www.midmark.com](http://www.midmark.com))
  - c. Size: 72d x 72h

- d. Material: Stainless Steel Tubing, PVC panel
- PP. Rabbit Breeding Racks: Contractor Furnished, Contractor Installed.
- 1. Mark: **E45**
  - 2. Location: Exotics / Avian - 213
    - a. Quantity:14
    - b. Source: LGL Animal Care Products, Inc ([www.lglacp.com](http://www.lglacp.com))
    - c. Model: 90234
- QQ. Guinea Pig Cage & Racks: Contractor Furnished, Contractor Installed.
- 1. Mark: **E46**
  - 2. Location: Exotics / Avian - 213
    - a. Quantity:5
    - b. Source: LGL Animal Care Products, Inc ([www.lglacp.com](http://www.lglacp.com))
    - c. Model: 90057
- RR. Exotics "SQ" Cage (Bird Typ. 2-Stack): Contractor Furnished, Contractor Installed.
- 1. Mark: **E47**
  - 2. Location: Exotics / Avian - 213
    - a. Quantity:1
    - b. Source: Snyder MFG. Co ([www.snydermfg.com](http://www.snydermfg.com))
    - c. Model: BB3/BB3
    - d. Accessories: Casters. Back Benches, Card Holders, Wildlife Gate
- SS. Exotics "SQ" Cage (Bird Typ. 3-Stack): Contractor Furnished, Contractor Installed.
- 1. Mark: **E48**
  - 2. Location: Exotics / Avian - 213
    - a. Quantity:4
    - b. Quantity:1
    - c. Source: Snyder MFG. Co ([www.snydermfg.com](http://www.snydermfg.com))
    - d. Model: BB3/BB3
    - e. Accessories: Casters. Back Benches, Card Holders, Wildlife Gate
- TT. HOLD – 80”h Stacked Feline 3-Tiers Condos: Contractor Furnished, Contractor Installed.
- 1. Mark: **E51**
  - 2. Location: Feline Hold - 171
    - a. Quantity:3
    - b. Source: Snyder MFG. Co ([www.snydermfg.com](http://www.snydermfg.com))
    - c. Model: 2BBD/2BBD/2BBD w/ LPH
    - d. Accessories: Casters. Back Benches, Card Holders
  - 3. Location: Feline Hold #2 - 231
    - a. Quantity:10
    - b. Source: Snyder MFG. Co ([www.snydermfg.com](http://www.snydermfg.com))
    - c. Model: 2BBD/2BBD/2BBD w/ LPH
    - d. Accessories: Casters. Back Benches, Card Holders
- UU. HOLD – 64”h Stacked Feline Condos W/ Cab.: Contractor Furnished, Contractor Installed.
- 1. Mark: **E52**
  - 2. Location: Feline Hold - 171
    - a. Quantity:1
    - b. Source: Snyder MFG. Co ([www.snydermfg.com](http://www.snydermfg.com))
    - c. Model: 2BBD/2BBD w/ LPH and bottom drawers.
    - d. Accessories: Casters. Back Benches, Card Holders
- VV. ADOPT – 80”h Stacked Feline Condos W/ Cab.: Contractor Furnished, Contractor Installed.
- 1. Mark: **E53**
  - 2. Location: Feline Condos #1 - 116

- a. Quantity:4
- b. Source: Snyder MFG. Co ([www.snydermfg.com](http://www.snydermfg.com))
- c. Model: 2BBD/2BBD/2BBD w/ LPH
- d. Accessories: Casters. Back Benches, Card Holders

WW. ADOPT – 64”h Stacked Feline Condos W/ Cab.: Contractor Furnished, Contractor Installed.

- 1. Mark: **E54**
- 2. Location: Feline Condos #1 - 116
  - a. Quantity: 2
  - b. Source: Snyder MFG. Co ([www.snydermfg.com](http://www.snydermfg.com))
  - c. Model: 2BBD/2BBD w/ LPH and bottom drawers.
  - d. Accessories: Casters. Back Benches, Card Holders

XX. ADOPT – 69”h Stacked Feline Condos W/ Base.: Contractor Furnished, Contractor Installed.

- 1. Mark: **E55**
- 2. Location: Feline Condos #1 - 116
  - a. Quantity: 4
  - b. Source: Snyder MFG. Co ([www.snydermfg.com](http://www.snydermfg.com))
  - c. Model: 1D/1D.
  - d. Accessories: Casters. Back Benches, Card Holders
- 3. Location: Feline Hold - 171
  - a. Quantity: 2
  - b. Source: Snyder MFG. Co ([www.snydermfg.com](http://www.snydermfg.com))
  - c. Model: 1BB3/1BB3/1BB3.
  - d. Accessories: Casters. Back Benches, Card Holders
- 4. Location: Feline Hold #2 - 231
  - a. Quantity: 7
  - b. Source: Snyder MFG. Co ([www.snydermfg.com](http://www.snydermfg.com))
  - c. Model: 1BB3/1BB3/1BB3.
  - d. Accessories: Casters. Back Benches, Card Holders

YY. Feline Climbing Tree (CUSTOM).: Owner Furnished, Owner Installed.

- 1. Mark: **E56**
- 2. Location: Congregate Feline RM #1 - 106
  - a. Quantity: 2
  - b. Source: By Owner
- 3. Location: Congregate Feline RM #2 - 107
  - a. Quantity: 2
  - b. Source: By Owner
- 4. Location: Congregate Feline RM #3 - 108
  - a. Quantity: 2
  - b. Source: By Owner
- 5. Location: Congregate Feline RM #4 - 114
  - a. Quantity: 2
  - b. Source: By Owner
- 6. Location: Congregate Feline RM #5 - 115
  - a. Quantity: 2
  - b. Source: By Owner
- 7. Location: Indoor Feline Play - 203
  - a. Quantity: 4
  - b. Source: By Owner
- 8. Location: Congregate Feline RM #7 - 204
  - a. Quantity: 2
  - b. Source: By Owner
- 9. Location: Congregate Feline RM #8 - 205
  - a. Quantity: 2
  - b. Source: By Owner
- 10. Location: Congregate Feline RM #9 - 206
  - a. Quantity: 2
  - b. Source: By Owner

11. Location: Congregate Feline RM #10 - 207
    - a. Quantity: 2
    - b. Source: By Owner
  12. Location: Congregate Feline RM #11 - 208
    - a. Quantity: 2
    - b. Source: By Owner
  13. Location: Congregate Feline RM #12- 209
    - a. Quantity: 3
    - b. Source: By Owner
  14. Location: Congregate Feline RM #13 - 210
    - a. Quantity: 2
    - b. Source: By Owner
- ZZ. Built-In Feline Climbing/Bedding Cubbies: Contractor Furnished, Contractor Installed.
1. Mark: **E57**
  2. Location: Congregate Feline RM #1 - 106
    - a. Quantity: (12) East Wall, (10) West Wall
    - b. Source: Direct Animal Products (A Division of TriStar Metals) ([www.directanimal.com](http://www.directanimal.com))
    - c. Model: D1200-60TM Box, Track Mount
    - d. Mounting – Slatwall by Contractor
  3. Location: Congregate Feline RM #2 - 107
    - a. Quantity: (14) East Wall, (10) West Wall
    - b. Source: Direct Animal Products (A Division of TriStar Metals) ([www.directanimal.com](http://www.directanimal.com))
    - c. Model: D1200-60TM Box, Track Mount
    - d. Mounting – Slatwall by Contractor
  4. Location: Congregate Feline RM #3 - 108
    - a. Quantity: (12) East Wall, (10) West Wall, (8) North Wall
    - b. Source: Direct Animal Products (A Division of TriStar Metals) ([www.directanimal.com](http://www.directanimal.com))
    - c. Model: D1200-60TM Box, Track Mount
    - d. Mounting – Slatwall by Contractor
  5. Location: Congregate Feline RM #4 - 114
    - a. Quantity: (8) East Wall, (3) West Wall, (4) South Wall (Left), (4) South Wall (Right)
    - b. Source: Direct Animal Products (A Division of TriStar Metals) ([www.directanimal.com](http://www.directanimal.com))
    - c. Model: D1200-60TM Box, Track Mount
    - d. Mounting – Slatwall by Contractor
  6. Location: Congregate Feline RM #5 - 115
    - a. Quantity: (8) East Wall, (8) West Wall, (4) South Wall (Left), (4) South Wall (Right)
    - b. Source: Direct Animal Products (A Division of TriStar Metals) ([www.directanimal.com](http://www.directanimal.com))
    - c. Model: D1200-60TM Box, Track Mount
    - d. Mounting – Slatwall by Contractor
  7. Location: Indoor Feline Play - 203
    - a. Quantity: (8) East Wall, (3) West Wall, (6) South Wall, (7) North Wall (Left) (3) North Wall (Right)
    - b. Source: Direct Animal Products (A Division of TriStar Metals) ([www.directanimal.com](http://www.directanimal.com))
    - c. Model: D1200-60TM Box, Track Mount
    - d. Mounting – Slatwall by Contractor
  8. Location: Congregate Feline RM #7 - 204
    - a. Quantity: (10) East Wall, (10) West Wall
    - b. Source: Direct Animal Products (A Division of TriStar Metals) ([www.directanimal.com](http://www.directanimal.com))
    - c. Model: D1200-60TM Box, Track Mount
    - d. Mounting – Slatwall by Contractor
  9. Location: Congregate Feline RM #8 - 205
    - a. Quantity: (10) East Wall, (10) West Wall, (4) South Wall
    - b. Source: Direct Animal Products (A Division of TriStar Metals) ([www.directanimal.com](http://www.directanimal.com))
    - c. Model: D1200-60TM Box, Track Mount
    - d. Mounting – Slatwall by Contractor
  10. Location: Congregate Feline RM #9 - 206
    - a. Quantity: (10) East Wall, (10) West Wall, (4) South Wall
    - b. Source: Direct Animal Products (A Division of TriStar Metals) ([www.directanimal.com](http://www.directanimal.com))
    - c. Model: D1200-60TM Box, Track Mount

- d. Mounting – Slatwall by Contractor
- 11. Location: Congregate Feline RM #10 - 207
  - a. Quantity: (10) East Wall (Left), (4) East Wall (Right), (10) West Wall, (8) South Wall
  - b. Source: Direct Animal Products (A Division of TriStar Metals) ([www.directanimal.com](http://www.directanimal.com))
  - c. Model: D1200-60TM Box, Track Mount
  - d. Mounting – Slatwall by Contractor
- 12. Location: Congregate Feline RM #11 - 208
  - a. Quantity: (10) North Wall, (10) South Wall, (4) East Wall
  - b. Source: Direct Animal Products (A Division of TriStar Metals) ([www.directanimal.com](http://www.directanimal.com))
  - c. Model: D1200-60TM Box, Track Mount
  - d. Mounting – Slatwall by Contractor
- 13. Location: Congregate Feline RM #12- 209
  - a. Quantity: (12) North Wall, (10) South Wall, (8) West Wall
  - b. Source: Direct Animal Products (A Division of TriStar Metals) ([www.directanimal.com](http://www.directanimal.com))
  - c. Model: D1200-60TM Box, Track Mount
  - d. Mounting – Slatwall by Contractor
- 14. Location: Congregate Feline RM #13 - 210
  - a. Quantity: (10) East Wall, (10) West Wall, (8) North Wall
  - b. Source: Direct Animal Products (A Division of TriStar Metals) ([www.directanimal.com](http://www.directanimal.com))
  - c. Model: D1200-60TM Box, Track Mount
  - d. Mounting – Slatwall by Contractor

AAA. Built-In Feline Climbing Steps W/ Cubbies: Contractor Furnished, Contractor Installed.

- 1. Mark: **E58**
- 2. Location: Congregate Feline RM #1 - 106
  - a. Quantity: (6) West Wall (Cubbies), (6) West Wall (Shelves)
    - b. Source: Direct Animal Products (A Division of TriStar Metals) ([www.directanimal.com](http://www.directanimal.com))
    - c. Model: (Cubbies) D1200-60TM Box, Track Mount
    - d. Model: (Shelves) D1200-80TM Shelf, Track Mount
    - e. Mounting – Slatwall by Contractor

BBB. Insul. DBL. – Dog Door (Plexi-PD-MD-WALL): Contractor Furnished, Contractor Installed.

- 1. Mark: **E59**
- 2. Location: Feline Fenced Exterior Enclosure – E-01
  - a. Quantity: 2
  - b. Source: PlexiDor Dog Doors ([www.plexidors.com](http://www.plexidors.com))
  - c. Model: MD
  - d. Color: Silver
- 3. Location: Feline Fenced Exterior Enclosure – E-02
  - a. Quantity: 2
  - b. Source: PlexiDor Dog Doors ([www.plexidors.com](http://www.plexidors.com))
  - c. Model: MD
  - d. Color: Silver
- 4. Location: Feline Fenced Exterior Enclosure – E-03
  - a. Quantity: 2
  - b. Source: PlexiDor Dog Doors ([www.plexidors.com](http://www.plexidors.com))
  - c. Model: MD
  - d. Color: Silver
- 5. Location: Feline Fenced Exterior Enclosure – E-04
  - a. Quantity: 2
  - b. Source: PlexiDor Dog Doors ([www.plexidors.com](http://www.plexidors.com))
  - c. Model: MD
  - d. Color: Silver
- 6. Location: Feline Fenced Exterior Enclosure – E-05
  - a. Quantity: 2
  - b. Source: PlexiDor Dog Doors ([www.plexidors.com](http://www.plexidors.com))
  - c. Model: MD
  - d. Color: Silver

CCC. Single Arm Exam Lighting.: Contractor Furnished, Contractor Installed.

1. Mark: **E64**
2. Location: Treatment Recovery - 153
  - a. Quantity: 2
  - b. Source: Medical Illumination ([www.medilum.com](http://www.medilum.com))
  - c. Model: MI-550.

DDD. Dual Arm Surgery Lighting.: Contractor Furnished, Contractor Installed.

1. Mark: **E65**
2. Location: Surgery – 154
  - a. Quantity: 2
  - b. Source: Medical Illumination ([www.medilum.com](http://www.medilum.com))
  - c. Model: MI-1000.

EEE. ADOPT – 80”h Stacked Feline 3 Tiers Condos.: Contractor Furnished, Contractor Installed.

1. Mark: **E66**
2. Location: Feline Condos #1 - 116
  - a. Quantity: 4
  - b. Source: Snyder MFG. Co ([www.snydermfg.com](http://www.snydermfg.com))
  - c. Model: 1BB3/1BB3/1BB3 w/ LPH.
  - d. Accessories: Casters. Back Benches, Card Holders

FFF. ADOPT – 80”h Stacked Feline 3 Tiers Condos.: Contractor Furnished, Contractor Installed.

1. Mark: **E67**
2. Location: Feline Condos #1 - 116
  - a. Quantity: 4
  - b. Source: Snyder MFG. Co ([www.snydermfg.com](http://www.snydermfg.com))
  - c. Model: 1BBE/1BBE/1BBE w/ LPH.
  - d. Accessories: Casters. Back Benches, Card Holders

GGG. Mobile Storage – Maintenance Tools.: Contractor Furnished, Contractor Installed.

1. Mark: **E68**
2. Location: Food Storage - 178
  - a. Quantity: 1
  - b. Source: Omega Products Corporation ([www.precisiontools.com](http://www.precisiontools.com))
  - c. Model: Chrome Mobile Security Cages – SCM-C
  - d. Size: 24” d x 48”w
  - e. No. Shelves: 4

HHH. Mobile Storage – Maintenance Tools.: Contractor Furnished, Contractor Installed.

3. Mark: **E68**
4. Location: Food Storage - 178
  - a. Quantity: 1
  - b. Source: Omega Products Corporation ([www.precisiontools.com](http://www.precisiontools.com))
  - c. Model: Chrome Mobile Security Cages – SCS-C
  - d. Size: 24” d x 48”w
  - e. No. Shelves: 4

END OF SECTION

## SECTION 14 20 00

### MACHINE ROOM-LESS HYDRAULIC ELEVATORS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section includes: Machine room-less hydraulic passenger elevators as shown and specified.  
Elevator work includes:
1. Standard pre-engineered hydraulic passenger elevators.
  2. Elevator car enclosures, hoistway entrances and signal equipment.
  3. Operation and control systems.
  4. Jack(s).
  5. Accessibility provisions for physically disabled persons.
  6. Equipment, machines, controls, systems and devices as required for safely operating the specified elevators at their rated speed and capacity.
  7. Materials and accessories as required to complete the elevator installation.
- B. Related Sections:
1. Division 1 General Requirements: Meet or exceed all referenced sustainability requirements.
  2. Division 3 Concrete: Installing inserts, sleeves and anchors in concrete.
  3. Division 4 Masonry: Installing inserts, sleeves and anchors in masonry.
  4. Division 5 Metals:
    - a. Providing hoist beams, pit ladders, steel framing, auxiliary support steel and divider beams for supporting guide-rail brackets.
    - b. Providing steel angle sill supports and grouting hoistway entrance sills and frames.
  5. Division 9 Finishes: Providing elevator car finish flooring and field painting unfinished and shop primed ferrous materials.
  6. Division 16 Sections:
    - a. Providing electrical service to elevators, including fused disconnect switches where permitted. (note: fused disconnect switch to be provided as part of elevator manufacture product, see section 2.11 Miscellaneous elevator components for further details.)
    - b. Emergency power supply, transfer switch and auxiliary contacts.
    - c. Heat and smoke sensing devices.
    - d. Convenience outlets and illumination in control room (if applicable), hoistway and pit.
  7. Division 22 Plumbing
    - a. Sump pit and oil interceptor.
  8. Division 23 Heating, Ventilation and Air Conditioning
    - a. Heating and ventilating hoistways and/or control room.
- C. Work Not Included: General contractor shall provide the following in accordance with the requirements of the Model Building Code and ANSI A17.1 Code. For specific rules, refer to ANSI A17.1, Part 3 for hydraulic elevators. State or local requirements must be used if more stringent. The cost of this work is not included in the TK Elevator's proposal, since it is a part of the building construction.

1. Elevator hoist beam to be provided at top of elevator shaft. Beam must be able to accommodate proper loads and clearances for elevator installation and operation.
2. Supply in ample time for installation by other trades, inserts, anchors, bearing plates, brackets, supports and bracing including all setting templates and diagrams for placement.
3. Hatch walls require a minimum two hours of fire rating. Hoistway should be clear and plumb with variations not to exceed 1/2" at any point.
4. Elevator hoistways shall have barricades, as required.
5. Install bevel guards at 75° on all recesses, projections or setbacks over 2" (4" for A17.1 2000 areas) except for loading or unloading.
6. Provide rail bracket supports at pit, each floor and roof. For guide rail bracket supports, provide divider beams between hoistway at each floor and roof.
7. Pit floor shall be level and free of debris. Reinforce dry pit to sustain normal vertical forces from rails and buffers.
8. Where pit access is by means of the lowest hoistway entrance, a vertical ladder of non-combustible material extending 42" minimum, (48" minimum for A17.1-2000 areas) shall be provided at the same height, above sill of access door or handgrips.
9. All wire and conduit should run remote from the hoistways.
10. When heat, smoke or combustion sensing devices are required, connect to elevator control cabinet terminals. Contacts on the sensors should be sided for 12 volt D.C.
11. Install and furnish finished flooring in elevator cab.
12. Finished floors and entrance walls are not to be constructed until after sills and door frames are in place. Consult elevator contractor for rough opening size. The general contractor shall supply the drywall framing so that the wall fire resistance rating is maintained, when drywall construction is used.
13. Where sheet rock or drywall construction is used for front walls, it shall be of sufficient strength to maintain the doors in true lateral alignment. Drywall contractor to coordinate with elevator contractor.
14. Before erection of rough walls and doors; erect hoistway sills, headers, and frames. After rough walls are finished; erect fascias and toe guards. Set sill level and slightly above finished floor at landings.
15. To maintain legal fire rating (masonry construction), door frames are to be anchored to walls and properly grouted in place.
16. The elevator wall shall interface with the hoistway entrance assembly and be in strict compliance with the elevator contractor's requirements.
17. General Contractor shall fill and grout around entrances, as required.
18. All walls and sill supports must be plumb where openings occur.
19. Locate a light fixture (200 lx / 19 fc) and convenience outlet in pit with switch located adjacent to the access door.
20. Provide telephone line, light fixture (200 lx / 19 fc), and convenience outlet in the hoistway at the landing where the elevator controller is located. Typically this will be at the landing above the 1st floor. Final location must be coordinated with elevator contractor.
21. As indicated by elevator contractor, provide a light outlet for each elevator, in center of hoistway.
22. For signal systems and power operated door: provide ground and branch wiring circuits.
23. For car light and fan: provide a feeder and branch wiring circuits to elevator control cabinet.

24. Controller landing wall thickness must be a minimum of 8 1/2 inches thick. This is due to the controller being mounted on the second floor landing in the door frame on the return side of the door. For center opening doors, the controller is located on the right hand frame (from inside the elevator cab looking out). These requirements must be coordinated between the general contractor and the elevator contractor.
25. Cutting, patching and recesses to accommodate hall button boxes, signal fixtures, etc..

## 1.2 SUBMITTALS

- A. Product data: When requested, the elevator contractor shall provide standard cab, entrance and signal fixture data to describe product for approval.
- B. Shop drawings:
  1. Show equipment arrangement in the corridor, pit, and hoistway and/or optional control room. Provide plans, elevations, sections and details of assembly, erection, anchorage, and equipment location.
  2. Indicate elevator system capacities, sizes, performances, safety features, finishes and other pertinent information.
  3. Show floors served, travel distances, maximum loads imposed on the building structure at points of support and all similar considerations of the elevator work.
  4. Indicate electrical power requirements and branch circuit protection device recommendations.
- C. Powder Coat paint selection: Submit manufacturer's standard selection charts for exposed finishes and materials.
- D. Plastic laminate selection: Submit manufacturer's standard selection charts for exposed finishes and materials.
- E. Metal Finishes: Upon request, standard metal samples provided.
- F. Operation and maintenance data. Include the following:
  1. Owner's manuals and wiring diagrams.
  2. Parts list, with recommended parts inventory.

## 1.3 QUALITY ASSURANCE

- A. Manufacturer Qualifications: An approved manufacturer with minimum 15 years of experience in manufacturing, installing, and servicing elevators of the type required for the project.
  1. The manufacturer of machines, controllers, signal fixtures, door operators cabs, entrances, and all other major parts of elevator operating equipment.
    - a. The major parts of the elevator equipment shall be manufactured by the installing company, and not be an assembled system.
  2. The manufacturer shall have a documented, on-going quality assurance program.
  3. ISO-9001:2000 Manufacturer Certified
  4. ISO-14001:2004 Environmental Management System Certified
  5. LEED Gold certified elevator manufacturing facility.

- B. Installer Qualifications: The manufacturer or an authorized agent of the manufacturer with not less than 15 years of satisfactory experience installing elevators equal in character and performance to the project elevators.
- C. Regulatory Requirements:
1. ASME A17.1 Safety Code for Elevators and Escalators, latest edition or as required by the local building code.
  2. Building Code: National.
  3. NFPA 70 National Electrical Code.
  4. NFPA 80 Fire Doors and Windows.
  5. Americans with Disabilities Act - Accessibility Guidelines (ADAAG)
  6. Section 407 in ICC A117.1, when required by local authorities
  7. CAN/CSA C22.1 Canadian Electrical Code
  8. CAN/CSA B44 Safety Code for Elevators and Escalators.
  9. California Department of Public Health Standard Method V1.1–2010, CA Section 01350
- D. Fire-rated entrance assemblies: Opening protective assemblies including frames, hardware, and operation shall comply with ASTM E2074, CAN4-S104 (ULC-S104), UL10(b), and NFPA Standard 80. Provide entrance assembly units bearing Class B or 1 1/2 hour label by a Nationally Recognized Testing Laboratory (2 hour label in Canada).
- E. Inspection and testing:
1. Elevator Installer shall obtain and pay for all required inspections, tests, permits and fees for elevator installation.
  2. Arrange for inspections and make required tests.
  3. Deliver to the Owner upon completion and acceptance of elevator work.
- F. Sustainable Product Qualifications:
1. Environmental Product Declaration:
    - a. GOOD: If Product Category Rules (PCR) are not available, produce a publicly available, critically reviewed life-cycle assessment conforming to ISO 14044 that has at least a cradle to gate scope.
    - b. BEST: If Product Category Rules (PCR) are available, produce and publish an Environmental Product Declaration (EPD) based on a critically reviewed life-cycle assessment conforming to ISO 14044, with external verification recognized by the EPD program operator.
  2. Material Transparency:
    - a. GOOD: Provide Health Product Declaration at any level
    - b. BETTER: Provide Health Product Declaration (HPD v2 or later). Complete, published declaration with full disclosure of known hazards, prepared using the Health Product Declaration Collaborative's "HPD builder" on-line tool.
    - c. BEST: Cradle to Cradle Material Health Certificate v3, Bronze level or higher.
  3. LEED v4 – Provide documentation for all Building Product Disclosure AND Optimization credits in LEED v4 for product specified.
  4. Living Building Challenge Projects: Provide Declare label for products specified.

#### 1.4 DELIVERY, STORAGE AND HANDLING

- A. Manufacturing shall deliver elevator materials, components and equipment and the contractor is responsible to provide secure and safe storage on job site.

## 1.5 PROJECT CONDITIONS

- A. Temporary Use: Elevators shall not be used for temporary service or for any other purpose during the construction period before Substantial Completion and acceptance by the purchaser unless agreed upon by Elevator Contractor and General Contractor with signed temporary agreement.

## 1.6 WARRANTY

- A. Warranty: Submit elevator manufacturer's standard written warranty agreeing to repair, restore or replace defects in elevator work materials and workmanship not due to ordinary wear and tear or improper use or care for 12 months after final acceptance.

## 1.7 MAINTENANCE

- A. Furnish maintenance and call back service for a period of 12 months for each elevator after completion of installation or acceptance thereof by beneficial use, whichever is earlier, during normal working hours excluding callbacks.
  1. Service shall consist of periodic examination of the equipment, adjustment, lubrication, cleaning, supplies and parts to keep the elevators in proper operation. Maintenance work, including emergency call back repair service, shall be performed by trained employees of the elevator contractor during regular working hours.
  2. Submit parts catalog and show evidence of local parts inventory with complete list of recommended spare parts. Parts shall be produced by manufacturer of original equipment.
  3. Manufacturer shall have a service office and full time service personnel within a 100 mile radius of the project site.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Manufacturer: Design based around TK Elevator's endura Machine Room-Less hydraulic elevator.

### 2.2 MATERIALS, GENERAL

- A. All Elevator Cab materials including frame, buttons, lighting, wall and ceiling assembly, laminates and carpet shall have an EPD and an HPD, and shall meet the California Department of Public Health Standard Method V1.1-2010, CA Section 01350 as mentioned in 1.03.9 of this specification.
- B. Colors, patterns, and finishes: As selected by the Architect from manufacturer's full range of standard colors, patterns, and finishes.
  1. Laminate Color: Dover White 7197.
  2. Flooring – F2 – Mondo Ramflex Grey 6mm

- C. Steel:
  - 1. Shapes and bars: Carbon.
  - 2. Sheet: Cold-rolled steel sheet, commercial quality, Class 1, matte finish.
  - 3. Finish: Factory-applied baked enamel for structural parts, powder coat for architectural parts. Color selection must be based on elevator manufacture's standard selections.
- D. Plastic laminate: Decorative high-pressure type, complying with NEMA LD3, Type GP-50 General Purpose Grade, nominal 0.050" thickness. Laminate selection must be based on elevator manufacture's standard selections.
- E. Flooring by others.

### 2.3 HOISTWAY EQUIPMENT

- A. Platform: Fabricated frame of formed or structural steel shapes, gusseted and rigidly welded with a wood sub-floor. Underside of the platform shall be fireproofed. The car platform shall be designed and fabricated to support one-piece loads weighing up to 25% of the rated capacity.
- B. Sling: Steel stiles bolted or welded to a steel crosshead and bolstered with bracing members to remove strain from the car enclosure.
- C. Guide Rails: Steel, omega shaped, fastened to the building structure with steel brackets.
- D. Guides: Slide guides shall be mounted on top and bottom of the car.
- E. Buffers: Provide substantial buffers in the elevator pit. Mount buffers on continuous channels fastened to the elevator guide rail or securely anchored to the pit floor. Provide extensions if required by project conditions.
- F. Jack: A jack unit shall be of sufficient size to lift the gross load the height specified. Factory test jack to ensure adequate strength and freedom from leakage. Brittle material, such as gray cast iron, is prohibited in the jack construction. Provide the following jack type: Twin post holeless. Two jacks piped together, mounted one on each side of the car with a polished steel hydraulic plunger housed in a sealed steel casing having sufficient clearance space to allow for alignment during installation. Each plunger shall have a high pressure sealing system which will not allow for seal movement or displacement during the course of operation. Each Jack Assembly shall have a check valve built into the assembly to allow for automatically re-syncing the two plunger sections by moving the jack to its fully contracted position. The jack shall be designed to be mounted on the pit floor or in a recess in the pit floor. Each jack section shall have a bleeder valve to discharge any air trapped in the section..
- G. Automatic Self-Leveling: Provide each elevator car with a self-leveling feature to automatically bring the car to the floor landings and correct for over travel or under travel. Self-leveling shall, within its zone, be automatic and independent of the operating device. The car shall be maintained approximately level with the landing irrespective of its load.

- H. Wiring, Piping, and Oil: Provide all necessary hoistway wiring in accordance with the National Electrical Code. All necessary code compliant pipe and fittings shall be provided to connect the power unit to the jack unit. Provide proper viscosity grade inherently biodegradable oil as specified by the manufacturer of the power unit (see Power Unit section 2.04.G for further details)
- I. Pit moisture/water sensor located approximately 1 foot above the pit floor to be provided. Once activated, elevator will perform "flooded pit operation", which will run the car up to the designated floor, cycle the doors and shut down and trip the circuit breaker shunt to remove 3 phase power from all equipment, including pit equipment.
- J. Motorized oil line shut-off valve shall be provided that can be remotely operated from the controller landing service panel. Also a means for manual operation at the valve in the pit is required.

## 2.4 POWER UNIT

- A. Power Unit (Oil Pumping and Control Mechanism): A self-contained unit located in the elevator pit consisting of the following items:
  - 1. NEMA 4/Sealed Oil reservoir with tank cover including vapor removing tank breather
  - 2. An oil hydraulic pump.
  - 3. An electric motor.
  - 4. Electronic oil control valve with the following components built into single housing; high pressure relief valve, check valve, automatic unloading up start valve, lowering and leveling valve, and electro-magnetic controlling solenoids.
- B. Pump: Positive displacement type pump specifically manufactured for oil-hydraulic elevator service. Pump shall be designed for steady discharge with minimum pulsation to give smooth and quiet operation. Output of pump shall not vary more than 10 percent between no load and full load on the elevator car.
- C. Motor: Standard manufacture motor specifically designed for oil-hydraulic elevator service. Duty rating – motors shall be capable of 80 starts per hour with a 30% motor run time during each start.
- D. Oil Control Unit: The following components shall be built into a single housing. Welded manifolds with separate valves to accomplish each function are not acceptable. Adjustments shall be accessible and be made without removing the assembly from the oil line.
  - 1. Relief valve shall be adjustable and be capable of bypassing the total oil flow without increasing back pressure more than 10 percent above that required to barely open the valve.
  - 2. Up start and stop valve shall be adjustable and designed to bypass oil flow during start and stop of motor pump assembly. Valve shall close slowly, gradually diverting oil to or from the jack unit, ensuring smooth up starts and up stops.
  - 3. Check valve shall be designed to close quietly without permitting any perceptible reverse flow.
  - 4. Lowering valve and leveling valve shall be adjustable for down start speed, lowering speed, leveling speed and stopping speed to ensure smooth "down" starts and stops.

The leveling valve shall be designed to level the car to the floor in the direction the car is traveling after slowdown is initiated.

5. Provided with constant speed regulation in both up and down direction. Feature to compensate for load changes, oil temperature, and viscosity changes.
6. Solid State Starting: Provide an electronic starter featuring adjustable starting currents.
7. A secondary hydraulic power source (powered by 110VAC single phase) must be provided. This is required to be able to raise (reposition) the elevator in the event of a system component failure (i.e. pump motor, starter, etc.)
8. Oil Type: Provide a zinc free, inherently biodegradable lubricant formulated with premium base stocks to provide outstanding protection for demanding hydraulic systems, especially those operating in environmentally sensitive areas.

## 2.5 HOISTWAY ENTRANCES

- A. Doors and Frames: Provide complete hollow metal type hoistway entrances at each hoistway opening bolted\knock down construction.
  1. Manufacturer's standard entrance design consisting of hangers, doors, hanger supports, hanger covers, fascia plates (where required), sight guards, and necessary hardware.
  2. Main landing door & frame finish: Stainless steel panels, no. 4 brushed finish with no. 4 brushed finish entrance frame.
  3. Typical door & frame finish: Stainless steel panels, no. 4 brushed finish with no. 4 brushed finish entrance frame.
- B. Integrated Control System: the elevator controller to be mounted to hoistway entrance above 1st landing. The entrance at this level, shall be designed to accommodate the control system and provide a means of access to critical electrical components and troubleshooting features. See section 2.09 Control System for additional requirements.
- C. At the controller landing, the hoistway entrance frame shall have space to accommodate and provide a lockable means of access (group 2 security) to a 3 phase circuit breaker. See section 2.11 Miscellaneous Elevator Components for further details
- D. Interlocks: Equip each hoistway entrance with an approved type interlock tested as required by code. Provide door restriction devices as required by code.
- E. Door Hanger and Tracks: Provide sheave type two point suspension hangers and tracks for each hoistway horizontal sliding door.
  1. Sheaves: Polyurethane tires with ball bearings properly sealed to retain grease.
  2. Hangers: Provide an adjustable device beneath the track to limit the up-thrust of the doors during operation.
  3. Tracks: Drawn steel shapes, smooth surface and shaped to conform to the hanger sheaves.
- F. Hoistway Sills: Extruded metal, with groove(s) in top surface. Provide mill finish on aluminum.

## 2.6 PASSENGER ELEVATOR CAR ENCLOSURE

A. Car Enclosure:

1. Walls: Cab type TKLP, durable wood core finished on both sides with high pressure plastic laminate.
2. Reveals and frieze: Not Applicable
3. Canopy: Cold-rolled steel with hinged exit.
4. Ceiling: Suspended type, LED lighting with translucent diffuser mounted in a metal frame. Framework shall be finished with a factory applied powder coat finish.
5. Cab Fronts, Return, Transom, Soffit and Strike: Provide panels faced with brushed stainless steel
6. Doors: Horizontal sliding car doors reinforced with steel for panel rigidity. Hang doors on sheave type hangers with polyurethane tires that roll on a polished steel track and are guided at the bottom by non-metallic sliding guides.
  - a. Door Finish: Stainless steel panels: No. 4 brushed finish.
  - b. Cab Sills: Extruded aluminum, mill finish.
7. Handrail: Provide 2' flat metal bar on side and rear walls on front opening cars and side walls only on front and rear opening cars. Handrails shall have a stainless steel, no. 4 brushed finish.
8. Ventilation: Manufacturer's standard exhaust fan, mounted on the car top.
9. Protection pads and buttons: Not required

- B. Car Top Inspection: Provide a car top inspection station with an "Auto-Inspection" switch, an "emergency stop" switch, and constant pressure "up and down" direction and safety buttons to make the normal operating devices inoperative. The station shall give the inspector complete control of the elevator. The car top inspection station shall be mounted in the door operator assembly.

## 2.7 DOOR OPERATION

- A. Door Operation: Provide a direct or alternating current motor driven heavy duty operator designed to operate the car and hoistway doors simultaneously. The door control system shall be digital closed loop and the closed loop circuit shall give constant feedback on the position and velocity of the elevator door. The motor torque shall be constantly adjusted to maintain the correct door speed based on its position and load. All adjustments and setup shall be through the computer based service tool. Door movements shall follow a field programmable speed pattern with smooth acceleration and deceleration at the ends of travel. The mechanical door operating mechanism shall be arranged for manual operation in event of power failure. Doors shall automatically open when the car arrives at the landing and automatically close after an adjustable time interval or when the car is dispatched to another landing. AC controlled units with oil checks, or other deviations are not acceptable.

1. No Un-Necessary Door Operation: The car door shall open only if the car is stopping for a car or hall call, answering a car or hall call at the present position or selected as a dispatch car.
2. Door Open Time Saver: If a car is stopping in response to a car call assignment only (no coincident hall call), the current door hold open time is changed to a shorter field programmable time when the electronic door protection device is activated.
3. Double Door Operation: When a car stops at a landing with concurrent up and down hall calls, no car calls, and no other hall call assignments, the car door opens to answer the hall call in the direction of the car's current travel. If an onward car call is not registered

before the door closes to within 6 inches of fully closed, the travel shall reverse and the door shall reopen to answer the other call.

4. Nudging Operation: The doors shall remain open as long as the electronic detector senses the presence of a passenger or object in the door opening. If door closing is prevented for a field programmable time, a buzzer shall sound. When the obstruction is removed, the door shall begin to close at reduced speed. If the infra-red door protection system detects a person or object while closing on nudging, the doors shall stop and resume closing only after the obstruction has been removed.
  5. Door Reversal: If the doors are closing and the infra-red beam(s) is interrupted, the doors shall reverse and reopen. After the obstruction is cleared, the doors shall begin to close.
  6. Door Open Watchdog: If the doors are opening, but do not fully open after a field adjustable time, the doors shall recycle closed then attempt to open six times to try and correct the fault.
  7. Door Close Watchdog: If the doors are closing, but do not fully close after a field adjustable time, the doors shall recycle open then attempt to close six times to try and correct the fault.
  8. Door Close Assist: When the doors have failed to fully close and are in the recycle mode, the door drive motor shall have increased torque applied to possibly overcome mechanical resistance or differential air pressure and allow the door to close.
- B. Door Protection Device: Provide a door protection system using microprocessor controlled infra-red light beams. The beams shall project across the car opening detecting the presence of a passenger or object. If door movement is obstructed, the doors shall immediately reopen.

## 2.8 CAR OPERATING STATION

- A. Car Operating Station, General: The main car control in each car shall contain the devices required for specific operation mounted in an integral swing return panel requiring no applied faceplate. Wrap return shall have a brushed stainless steel finish. The main car operating panel shall be mounted in the return and comply with handicap requirements. Pushbuttons that illuminate using long lasting LED's shall be included for each floor served, and emergency buttons and switches shall be provided per code. Switches for car light and accessories shall be provided.
- B. Emergency Communications System: Integral phone system provided.
- C. Auxiliary Operating Panel:
- D. Column Mounted Car Riding Lantern: A car riding lantern shall be installed in the elevator cab and located in the entrance. The lantern, when illuminated, will indicate the intended direction of travel. The lantern will illuminate and a signal will sound when the car arrives at a floor where it will stop. The lantern shall remain illuminated until the door(s) begin to close.
- E. Special Equipment: Not Applicable
- F. Digital Services: Cloud-based IoT monitoring system comes standard with these options:

Remote Monitoring with Application Programming Interface (API) Integration

ADA Phone - Code Compliant Cellular Connectivity

A17.1 2019 Code - Enhanced Communications

Smart Device Elevator Calling with occupant app API integration

## 2.9 CONTROL SYSTEMS

- A. Controller: Shall be integrated in a hoistway entrance jamb. Should be microprocessor based, software oriented and protected from environmental extremes and excessive vibrations in a NEMA 1 enclosure. Control of the elevator shall be automatic in operation by means of push buttons in the car numbered to correspond to floors served, for registering car stops, and by "up-down" push buttons at each intermediate landing and "call" push buttons at terminal landings.
- B. Service Panel – to be located outside the hoistway in the controller entrance jamb and shall provide the following functionality/features:
  - 1. Access to main control board and CPU
  - 2. Main controller diagnostics
  - 3. Main controller fuses
  - 4. Universal Interface Tool (UIT)
  - 5. Remote valve adjustment
  - 6. Electronic motor starter adjustment and diagnostics
  - 7. Operation of pit motorized shut-off valve with LED feedback to the state of the valve in the pit
  - 8. Operation of auxiliary pump/motor (secondary hydraulic power source)
  - 9. Operation of electrical assisted manual lowering
  - 10. Provide male plug to supply 110VAC into the controller
  - 11. Run/Stop button
- C. Automatic Light and Fan shut down: The control system shall evaluate the system activity and automatically turn off the cab lighting and ventilation fan during periods of inactivity. The settings shall be field programmable.
- D. Emergency Power Operation: (10-DOA) Upon loss of the normal power supply, building-supplied standby power is available on the same wires as the normal power supply. Once the loss of normal power is detected and standby power is available, the elevator is lowered to a pre-designated landing and the doors are opened. After passengers have exited the elevator, the doors are closed and the car is shut down. When normal power is restored, the elevator automatically resumes operation.
- E. Special Operation: Not Applicable
- F. Digital Services:

Cloud-based IoT Monitoring System (standard): Contractor shall provide a cloud-based IoT (internet of things) monitoring system capable of tracking door movements and timing, trips, power cycles, car calls, out-of-service events and modes. This observation will continue 24/7 and it shall be capable of providing service technicians a minimum of three recommended solutions for defined failure events and automatically dispatch service technicians in the event of failure(s) while sending notifications to end users of changes in their equipment's state via both email and mobile device. Access to IoT and related equipment data and status will be made available in both a web portal and mobile application secured by password and username with at least two-factor authentication. Finally, this system must be self-contained and not require internet provision by others.

Along with the monitoring system, options are available.

Remote Monitoring with Application Programming Interface (API) Integration: Contractor shall provide a portal and mobile device application (app) that communicates relevant service and operational information such as elevator operational status, open service call tickets, call ticket history and performance and service history. This system shall provide a REST application programming interface (API) capable of transmitting relevant information from the cloud-based IoT monitoring system. This data includes equipment operational status, door movements, service and maintenance history, traffic statistics and failure alerts.

ADA Phone – Code Compliant Cellular Connectivity: Contractor shall provide a phone service through a self-contained cellular based VoIP system. This system shall meet code, include a backup battery capable of powering the emergency communication equipment for 4+ hours in the event of a power outage. The solution shall have remote monitoring capability to ensure continuous connectivity with a means of remote troubleshooting. Remote monitoring capability shall include, at a minimum, the ability to monitor connectivity and power supply. Remote monitoring shall be capable of providing local alerts to response personnel when on-site intervention is required.

A17.1 2019 Code – Enhanced Communications: For jobs installed under enforcement of 2018 International Building Code or ASME A17.1-2019/CSA B44:19 Safety Code, contractor will provide a video camera necessary for viewing the elevator cab interior floor as well as a position indicator display in the cab operating panel capable of providing means of two-way, text-based communication when the emergency call button is engaged in the elevator car. These components, and associated cloud-based monitoring platform, will be non-proprietary in nature, allowing customization on where to direct emergency calls, while offering capability for any party to provide the emergency monitoring services.

Smart Device Elevator Calling with Occupant app API Integration: Contractor will provide an elevator calling application for smart devices (app) that can be accessed through Android and IOS smart device operating systems. This calling service shall be accomplished on both, Destination Dispatch and Traditional ETA elevator control system applications. Furthermore, a single, common and consistent app shall have the same user experience and user interface on both Destination Dispatch and Traditional ETA dispatching control systems. To enable mobile calling functionality without creating unnecessary wear on elevator components resulting from false calls, proximity detection beacons shall be installed in the elevator lobby at each floor. These beacons shall detect user smart devices and restrict calling of elevators when the user is not within a pre-configured range of elevator entrance. Beacon-based proximity detection distance must be configurable to

accommodate various building and floor layouts. Once Bluetooth signal is detected, the user can place a floor call directly from their handheld or wearable device. The elevator calling app shall remove the need for interaction with hall fixtures, buttons or kiosks. This system shall be capable of placing an automatic call to a user-configured destination floor automatically based on both location in building (floor) and time of day. App users shall be able to configure their own source or starting floor, destination floor and schedule of automatic calling service, and be able to configure multiple automatic calling services and routines. System shall have reasonable ability to auto-provision users from access control system and not require duplicate entry of users for access control purposes. Finally, all services above shall be made available via an application programming interface (API) so that a 3rd party or tenant occupant app could be integrated with elevator smart device calling service so that users could receive multiple occupant experience-based services in a single, common, 3rd party mobile device application (app).

## 2.10 HALL STATIONS

- A. Hall Stations, General: Buttons shall illuminate to indicate call has been registered at that floor for the indicated direction.
  - 1. Provide one pushbutton riser with faceplates having a brushed stainless steel finish.
    - a. Phase 1 firefighter's service key switch, with instructions, shall be incorporated into the hall station at the designated level.
- B. Floor Identification Pads: Provide door jamb pads at each floor. Jamb pads shall comply with Americans with Disabilities Act (ADA) requirements.
- C. Hall Position Indicator: Not Applicable
- D. Hall lanterns: Not Applicable
- E. Special Equipment:  
Limited access operation: Not Applicable

## 2.11 MISCELLANEOUS ELEVATOR COMPONENTS

- A. Oil Hydraulic Silencer: Install multiple oil hydraulic silencers (muffler device) at the power unit location. The silencers shall contain pulsation absorbing material inserted in a blowout proof housing.
- B. Lockable three phase circuit breaker with auxiliary contact with shunt trip capability to be provided. Circuit breaker to be located behind locked panel (Group 2 security access) at controller landing entrance jamb and should be sized according to the National Electrical Code.
- C. Lockable single phase 110V circuit breaker for cab light and fan to be provided. Circuit breaker to be located behind locked panel (Group 2 security access) at controller landing entrance jamb should be sized according to the National Electrical Code

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Before starting elevator installation, inspect hoistway, hoistway openings, pits and/or control room, as constructed, verify all critical dimensions, and examine supporting structures and all other conditions under which elevator work is to be installed. Do not proceed with elevator installation until unsatisfactory conditions have been corrected in a manner acceptable to the installer.
- B. Installation constitutes acceptance of existing conditions and responsibility for satisfactory performance.

### **3.2 INSTALLATION**

- A. Install elevator systems components and coordinate installation of hoistway wall construction.
  - 1. Work shall be performed by competent elevator installation personnel in accordance with ASME A17.1, manufacturer's installation instructions and approved shop drawings.
  - 2. Comply with the National Electrical Code for electrical work required during installation.
- B. Perform work with competent, skilled workmen under the direct control and supervision of the elevator manufacturer's experienced foreman.
- C. Supply in ample time for installation by other trades, inserts, anchors, bearing plates, brackets, supports, and bracing including all setting templates and diagrams for placement.
- D. Welded construction: Provide welded connections for installation of elevator work where bolted connections are not required for subsequent removal or for normal operation, adjustment, inspection, maintenance, and replacement of worn parts. Comply with AWS standards for workmanship and for qualification of welding operators.
- E. Coordination: Coordinate elevator work with the work of other trades, for proper time and sequence to avoid construction delays. Use benchmarks, lines, and levels designated by the Contractor, to ensure dimensional coordination of the work.
- F. Install machinery, guides, controls, car and all equipment and accessories to provide a quiet, smoothly operating installation, free from side sway, oscillation or vibration.
- G. Alignment: Coordinate installation of hoistway entrances with installation of elevator guide rails for accurate alignment of entrances with cars. Where possible, delay final adjustment of sills and doors until car is operable in shaft. Reduce clearances to minimum safe, workable dimensions at each landing.
- H. Erect hoistway sills, headers, and frames before erection of rough walls and doors; erect fascia and toe guards after rough walls finished. Set sill units accurately aligned and slightly above finish floor at landings.
- I. Lubricate operating parts of system, where recommended by manufacturer.

### 3.3 FIELD QUALITY CONTROL

- A. Acceptance testing: Upon completion of the elevator installation and before permitting use of elevator, perform acceptance tests as required and recommended by Code and governing regulations or agencies. Perform other tests, if any, as required by governing regulations or agencies.
- B. Advise Owner, Contractor, Architect, and governing authorities in advance of dates and times tests are to be performed on the elevator.

### 3.4 ADJUSTING

- A. Make necessary adjustments of operating devices and equipment to ensure elevator operates smoothly and accurately.

### 3.5 CLEANING

- A. Before final acceptance, remove protection from finished surfaces and clean and polish surfaces in accordance with manufacturer's recommendations for type of material and finish provided. Stainless steel shall be cleaned with soap and water and dried with a non-abrasive surface; it shall not be cleaned with bleach-based cleansers.
- B. At completion of elevator work, remove tools, equipment, and surplus materials from site. Clean equipment rooms and hoistway. Remove trash and debris.
  - 1. Use environmentally preferable and low VOC emitting cleaners for each application type. Cleaners that contain solvents, pine and/or citrus oils are not permitted.

### 3.6 PROTECTION

- A. At time of Substantial Completion of elevator work, or portion thereof, provide suitable protective coverings, barriers, devices, signs, or other such methods or procedures to protect elevator work from damage or deterioration. Maintain protective measures throughout remainder of construction period.

### 3.7 DEMONSTRATION

- A. Instruct Owner's personnel in proper use, operations, and daily maintenance of elevators. Review emergency provisions, including emergency access and procedures to be followed at time of failure in operation and other building emergencies. Train Owner's personnel in normal procedures to be followed in checking for sources of operational failures or malfunctions.
- B. Make a final check of each elevator operation, with Owner's personnel present, immediately before date of substantial completion. Determine that control systems and operating devices are functioning properly.

### 3.8 ELEVATOR SCHEDULE

#### A. Elevator Qty. 1

1. Elevator Model: endura MRL Twinpost above-ground 1-stage
2. Elevator Type: Hydraulic Machine Room-Less, Passenger
3. Rated Capacity: 4500 lbs.
4. Rated Speed: 110 ft./min.
5. Operation System: TAC32H
6. Travel: 13'-6"
7. Landings: 2 total
8. Openings:
  - a. Front: 2
  - b. Rear: 0
9. Clear Car Inside: 5'-8" wide x 7'-9 1/2" deep
10. Inside clear height: 7'-4" standard
11. Door clear height: 7'-0" standard
12. Hoistway Entrance Size: 4'-0" wide x 7'-0" high
13. Door Type: Two-speed | RH Side opening
14. Power Characteristics: 208 volts, 3 Phase, 60 Hz.
15. Seismic Requirements: Zone
16. Hoistway Dimensions: 7'-4" wide x 9'-6 1/2" deep
17. Pit Depth: 4'-0"
18. Button & Fixture Style: Traditional Signal Fixtures
19. Special Operations: None
20. Digital Services:
  - Remote Monitoring with Application Programming Interface (API) Integration
  
  - ADA Phone - Code Compliant Cellular Connectivity
  
  - A17.1 2019 Code - Enhanced Communications
  
  - Smart Device Elevator Calling with occupant app API integration

**END OF SECTION**

## SECTION 23 3400

### HVAC FANS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes
  - 1. The ceiling-mounted circulation fan is the model scheduled with the capacities indicated. The fan shall be furnished with standard mounting hardware and variable speed control to provide cooling and destratification.
- B. Summary of Work
  - 1. Installation of the fan, miscellaneous or structural metal work (if required), field electrical wiring, cable, conduit, fuses and disconnect switches, other than those addressed in the installation scope of work, shall be provided by others. Factory installation services are available through Big Ass Fans. Consult the appropriate installation scope of work for information on the available factory installation options, overview of customer and installer responsibilities, and details on installation site requirements.

##### 1.2 RELATED SECTIONS

- A. 21 00 00 Fire Suppression
- B. 23 00 00 Heating, Ventilating, and Air Conditioning (HVAC)
- C. 26 00 00 Electrical

##### 1.3 REFERENCES

- A. National Fire Protection Association (NFPA)
- B. Underwriters Laboratories (UL)
- C. Canadian Standards Association (CSA)
- D. National Electrical Code (NEC)
- E. International Organization for Standardization (ISO)
- F. Air Movement and Control Association Inc. (AMCA)
  - 1. AMCA Publication 211-13 - Certified Ratings Program - Product Rating Manual for Fan Air Performance
  - 2. AMCA 230-15 - Standard Laboratory Methods of Testing Air Circulating Fans for Rating and Certification
- G. American National Standards Institute (ANSI)
- H. Nationally Recognized Testing Laboratory (NRTL)

##### 1.4 SUBMITTALS

- A. Shop Drawings: Drawings detailing product dimensions, weight, and attachment methods
- B. Product Data: Specification sheets on the ceiling-mounted fan, specifying electrical and installation requirements, features and benefits, and controller information
- C. Revit Files: Files provided for architectural design

- D. IES Files (fans with optional light kit)
- E. Installation Guide: The manufacturer shall furnish a copy of all operating and maintenance instructions for the fan. All information is subject to change without notice.
- F. Schedule
- G. Provide manufacturer's certification that high volume, low speed fans are licensed to bear the Air Movement and Control Association (AMCA) Certified Rating Seal for Circulating Fan Performance.

1.5 QUALITY ASSURANCE

- A. Certifications
  1. The fan assembly, as a system (without light kit), shall be Nationally Recognized Testing Laboratory (NRTL)-certified and built pursuant to the guidelines set forth by UL standard 507 and CSA standards 22.2 No. 60335-1 and 22.2 No. 113.
  2. The fan assembly, as a system (without light kit), shall be CE- and UKCA-compliant.
  3. The fan (without light kit) shall be compliant with NFPA 13—Standard for the Installation of Sprinkler Systems, NFPA 72—National Fire Alarm and Signaling Code, and NFPA 70—NEC.
  4. Controllers shall comply with NEC and UL standards and shall be labeled where required by code.
  5. The optional LED light kit shall be compliant with UL standard 1598 and CSA standard 22.2 No. 250.
  6. Performance ratings (airflow and power) shall conform to AMCA standard 211. Fans must be tested in accordance with ANSI/AMCA Standard 230-15 in an AMCA accredited laboratory. Fans shall be certified to bear the AMCA Seal for Circulating Fan Performance.
- B. Manufacturer Qualifications
  1. The fan and any accessories shall be supplied by Big Ass Fans that has a minimum of twenty (20) years of product experience.
  2. ISO 9001 compliant

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver product in original, undamaged packaging with identification labels intact. The fan shall be new, free from defects, and factory tested.
- B. The fan and its components shall be stored in a safe, dry location until installation.

1.7 WARRANTY

- A. The manufacturer shall replace any products or components defective in material or workmanship for the customer free of charge (including transportation charges within the USA, FOB Lexington, KY), pursuant to the complete terms and conditions of the Big Ass Fans Warranty in accordance to the following schedule:
 

Mechanical†	10 years
Electrical††	5 years (no factory install†††); 10 years (factory install††††)
Labor	1 year

  - † "Mechanical" is defined as mechanical components of the fan, including, the gearbox, fan hub, motor frame, mounting, airfoils, and winglets.
  - †† "Electrical" is defined as electrical and electronic components of the fan, including the motor, motor drive, variable frequency drive, and any standard controller or accessories.
  - ††† The No Factory Install Warranty Period defined above for "Electrical" applies to proper installations by any other state-qualified or licensed electrical contractor.
  - †††† The Factory Install Warranty Period defined above for "Electrical" requires installation to be purchased from Big Ass Fans and performed by a factory-approved, Big Ass Fans Certified Installer.
  - ††††† All reasonable costs of repair or replacement will be paid or reimbursed provided customer obtains pre-approval.
  - †††††† The Warranty Period for light kits is limited to 1 year (parts).
  - ††††††† The Warranty period for any manufacturer defects or flaws to surface finishes is limited to 1 year.

+++++++ All products are considered for indoor use only unless specifically specified on the product label.

+++++++ See the complete warranty for more details.

## **PART 2 PRODUCT**

### **2.1 MANUFACTURER**

- A. Delta T LLC, dba Big Ass Fans, PO Box 11307, Lexington, Kentucky 40575. Phone (877) 244-3267. Fax (859) 233-0139. Website: [www.bigassfans.com](http://www.bigassfans.com).

### **2.2 HIGH VOLUME, LOW SPEED FANS – BIG ASS FANS ESSENCE**

#### **A. Complete Unit**

1. Regulatory Requirements: The entire fan assembly with light kit shall be NRTL-certified and built pursuant to the construction guidelines set forth by UL standard 507 and CSA standards 22.2 No. 60335-1 and 22.2 No. 113.
2. Sustainability Characteristics: The fan shall be designed to move an effective amount of air for cooling and destratification of conditioned commercial applications over an extended life. The fan components shall be designed specifically for high volume, low speed fans to ensure lower operational noise. Sound levels from the fan operating at maximum speed measured in a laboratory setting shall not exceed 40 dBA. Actual results of sound measurements in the field may vary due to sound reflective surfaces and environmental conditions.
3. Good workmanship shall be evident in all aspects of construction. Field balancing of the airfoils shall not be necessary.
4. High volume, low speed (HVLS) fans shall be licensed to bear the AMCA Certified Rating Seal for Circulating Fan Performance to ensure performance as cataloged in the field. Unlicensed HVLS fans shall not be accepted.
5. Diameter: 12ft.

#### **B. Controls**

1. The fan controller shall be incorporated into the fan assembly and housed in an enclosure independent of the motor to prevent overheating or electrical interference. The fan controller shall be factory programmed to minimize starting and braking torques and shall be equipped with a simple diagnostic program and an LED light to identify and relay faults in the system.

#### **C. Airfoil System**

1. The fan shall be equipped with eight (8) high volume, low speed airfoils of precision extruded, anodized aluminum alloy. Each airfoil shall be of the high-performance Mini-Elipto design. The airfoils shall be connected to the hub and interlocked with eight (8) stainless steel retainers and two (2) sets of stainless steel bolts and lock washers per airfoil.
2. The fan shall be equipped with eight (8) upswept winglets designed to redirect outward airflow downward, thereby enhancing efficiency. The winglets shall be molded of high strength polymer and shall be attached at the tip of each airfoil with a stainless steel screw. The standard color of the winglets shall be silver or black.
3. As an option, the fan shall be equipped with eight (8) plug-style airfoil tips, molded of high strength polymer, in place of the eight (8) upswept winglets. The airfoil tips shall be attached at the tip of each airfoil with a stainless steel screw. The standard color of the airfoil tips shall be black.

#### **D. Motor**

1. The motor shall be a permanent magnet brushless motor rated for continuous operation at maximum speed with the capability of modulating the fan speed from 0–100% without the use of a gearbox or other mechanical means of control.
2. The motor shall operate from any voltage ranging from 100–120 VAC or 200–240 VAC, single phase, and 50/60Hz, without requiring adapters or customer selection. The motor shall be a non-ventilated, heat sink design with the capability of continuous operation in -4°F to 131°F (-20°C to 55°C) ambient condition.
3. The motor shall be rated IP43.
4. The standard color of the motor unit shall be white with silver trim or silver with black trim.

- E. LED Light Kit
  - 1. The fan shall be equipped with a hollow shaft in which electrical wiring can be routed to below the fan.
  - 2. The LED light kit shall operate independently from the fan at an operating voltage of 120–277 VAC, 50–60 Hz.
  - 3. The standard color of the LED light kit components shall be white or silver.
  - 4. As an option, Big Ass Fans can provide a controller to operate the LED light.
  - 5. The LED light kit shall have a standard LED color temperature and lumen option of one of the following:
    - a. 4,000 CCT (5,000 lumens)
- F. Mounting System
  - 1. The fan mounting system shall be designed for quick and secure installation from a variety of structural supports. All components in the mounting system shall be of formed metal design using low-carbon steel no less than 3/16" (0.5 cm) thick and containing no critical welds. The mounting system shall be powder coated for appearance and resistance to corrosion. All mounting bolts shall be metric stainless steel or equivalent. No mounting hardware substitutions, including cast aluminum, are acceptable.
  - 2. The fan extension tube shall be a round, extruded aluminum tube. The extension tube shall include a chrome plate with forward and reverse controls and a fan status indicator light that is visible from the floor.
- G. Hub
  - 1. The fan hub shall be constructed of zinc plated steel for high strength and durability. The hub shall be precision machined to achieve a well-balanced and solid rotating assembly.
- H. Safety Cable
  - 1. The fan shall be equipped with a safety cable that provides an additional means of securing the fan assembly to the building structure. The safety cable shall be Ø3/16" (0.5 cm) diameter and fabricated out of 7 x 19 stranded galvanized steel, pre-loaded and tested to 3,200 lbf (13,345 N).
  - 2. Field construction of safety cables is not permitted.
- I. Wall Control
  - 1. Wired (standard). The fan shall be equipped with a low-voltage wired remote wall control providing control of all fan functions. The wall control shall be capable of mounting to a standard electrical box. The wall control shall include a rotary-style dial for controlling the fan's power and speed and an LED light to identify and relay faults in the system. Communication with the fan drive and controller shall be by a standard, commercially available CAT5 (or higher) Ethernet cable that is field installed and provided by the installer.
  - 2. Wireless (optional). As an option, the fan shall be equipped with a battery-operated radio frequency (RF) remote wall control in place of the wired wall control. The wall control shall include buttons for wirelessly controlling the fan's power and speed and for programming a preferred preset speed. The wall control shall be capable of functioning as a handheld remote control or can be mounted to a wall or other surface. Communication with the fan drive and controller shall be wireless.
- J. Fire Control Panel Integration
  - 1. Includes a 10–30 VDC pilot relay for seamless fire control panel integration. The pilot relay can be wired Normally Open or Normally Closed in the field.
- K. Guy Wires
  - 1. Guy wires shall be included for installations with extension tubes 4 ft (1.2 m) or longer to limit the potential for lateral movement.

## **PART 3 EXECUTION**

### **3.1 PREPARATION**

- A. Fan location shall have a typical bar joist or existing I-beam structure from which to mount the fan. Additional mounting options may be available.

- B. Mounting structure shall be able to support weight and operational torque of fan. Consult structural engineer if necessary.
- C. Fan location shall be free from obstacles such as lights, cables, or other building components.
- D. Check fan location for proper electrical requirements. Consult Installation Guide for appropriate circuit requirements.
- E. Each fan requires dedicated branch circuit protection.

### 3.2 INSTALLATION

- A. The fan shall be installed by a factory-certified installer according to the manufacturer's Installation Guide, which includes acceptable structural dimensions and proper sizing and placement of angle irons for bar joist applications. Big Ass Fans recommends consulting a structural engineer for installation methods outside the manufacturer's recommendation and a certification, in the form of a stamped print or letter, submitted prior to installation.
- B. Minimum Distances
  1. Airfoils shall be at least 10 ft (3.05 m) above the floor.
  2. Installation area shall be free of obstructions such as lights, cables, sprinklers, or other building structures with the airfoils at least 2 ft (0.61 m) clear of all obstructions.
  3. The structure the fan is attached to shall be capable of supporting a torque load of up to 40 ft·lb (54 N·m) of torque.
- C. The fan shall not be located where it shall be continuously subjected to wind gusts or in close proximity to the outputs of HVAC systems or radiant heaters. Additional details are in the Big Ass Fans Installation Manual.
- D. The fan is suitable for use in wet locations when installed on a GFCI protected branch circuit.
- E. The optional LED light kit shall be installed on a separate circuit from the fan and shall be connected to the lighting grid control, not the fan control.
- F. In buildings equipped with sprinklers, including ESFR sprinklers, fan installation shall comply with all of the following:
  1. The maximum fan diameter shall be 24 ft (7.3 m).
  2. The HVLS fan shall be centered approximately between four adjacent sprinklers.
  3. The vertical clearance from the HVLS fan to the sprinkler deflector shall be a minimum of 3 ft (0.9 m).
  4. All HVLS fans shall be interlocked to shut down immediately upon receiving a waterflow signal from the alarm system in accordance with the requirements of NFPA 72—National Fire Alarm and Signaling Code.

END OF SECTION

## SECTION 23 34 00 HVAC Fans

### PART 1 GENERAL

#### 1.1 SUMMARY

- A. Section Includes
  - 1. The ceiling-mounted circulation fan is the model scheduled with the capacities indicated. The fan shall be furnished with standard mounting hardware and variable speed control to provide cooling and destratification.
- B. Summary of Work
  - 1. Installation of the fan, miscellaneous or structural metal work (if required), field electrical wiring, cable, conduit, fuses and disconnect switches, other than those addressed in the installation scope of work, shall be provided by others. Factory installation services are available through Big Ass Fans. Consult the appropriate installation scope of work for information on the available factory installation options, overview of customer and installer responsibilities, and details on installation site requirements.

#### 1.2 RELATED SECTIONS

- A. 21 00 00 Fire Suppression
- B. 23 00 00 Heating, Ventilating, and Air Conditioning (HVAC)
- C. 26 00 00 Electrical

#### 1.3 REFERENCES

- A. Technischer Überwachungsverein (TUV)
- B. National Fire Protection Agency (NFPA)
- C. Underwriters Laboratory (UL)
- D. Canadian Standards Association (CSA)
- E. National Electric Code (NEC)
- F. International Organization for Standardization (ISO)

#### 1.4 SUBMITTALS

- A. Shop Drawings: Drawings detailing product dimensions, weight, and attachment methods
- B. Part 2 Product Data: Specification sheets on the ceiling-mounted fan, specifying electrical and installation requirements, features and benefits, and controller information
- C. Revit Files: Files provided for architectural design
- D. Installation Guide: The manufacturer shall furnish a copy of all operating and maintenance instructions for the fan. All information is subject to change without notice.
- E. Schedule

#### 1.5 QUALITY ASSURANCE

- A. Certifications
  - 1. The fan assembly, as a system, shall be TUV-certified and built pursuant to the guidelines set forth by UL standard 507 and CSA standard 22.2 No. 113.
  - 2. The fan shall be compliant with NFPA 13—Standard for the Installation of Sprinkler Systems, NFPA 72—National Fire Alarm and Signaling Code, and NFPA 70-2011—NEC.
  - 3. Controllers shall comply with NEC and UL standards and shall be labeled where required by code.
- B. Manufacturer Qualifications
  - 1. The fan and any accessories shall be supplied by Big Ass Fans that has a minimum of ten (10) years of product experience.
  - 2. ISO 9001-certified

3. The manufacturer shall not be listed on the Air Movement and Control Association International Inc. (AMCA) Certified Ratings Program (CRP) Non-Licensed Products report in the previous 18 months.

#### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver product in original, undamaged packaging with identification labels intact. The fan shall be new, free from defects, and factory tested.
- B. The fan and its components shall be stored in a safe, dry location until installation.

#### 1.7 WARRANTY

- A. The Warranty Period for surfaces with enhanced finishes (painted, anodized, etc.) on Essence shall be limited to one year. The manufacturer shall replace any products or components defective in material or workmanship for the customer free of charge (including transportation charges within the USA, FOB Lexington, KY), pursuant to the complete terms and conditions of the Big Ass Fans Non-Prorated Warranty in accordance to the following schedule:

Item	Period of Coverage
Hub and airfoils	Lifetime (Parts) <sup>†</sup>
Motor, drive, and controller	10 years <sup>**</sup>
Labor	1 year <sup>**</sup>
Enhanced finishes <sup>***</sup>	1 year <sup>***</sup>

<sup>†</sup> "Lifetime" means a period ending seven (7) years after Big Ass Fans discontinues manufacturing the product, as such period is defined by Big Ass Fans, but in no event shall this period be less than 10 years from the date that the Warranty Period commences, as defined above.

<sup>\*\*</sup> The 10-Year Warranty Period and 1-Year Labor apply to non-residential installations only, and requires purchased installation by a factory-approved, Big Ass Fans certified installer and the submission of installation documentation by such installer. A 5-Year Warranty Period will apply for proper installations by any other state qualified or licensed electrical contractor. The Warranty is void in its entirety if the product is installed by personnel other than a state qualified or licensed contractor.

<sup>\*\*\*</sup> The 1-year enhanced finishes warranty applies to outdoor installations only.

## PART 2 PRODUCT

### 2.1 MANUFACTURER

- A. Delta T Corporation, dba Big Ass Fans, PO Box 11307, Lexington, Kentucky 40575.  
Phone (877) 244-3267. Fax (859) 233-0139. Website: [www.bigassfans.com](http://www.bigassfans.com).

### 2.2 HIGH VOLUME, LOW SPEED FANS – BIG ASS FANS ESSENCE

- A. Complete Unit
  1. Regulatory Requirements: The entire fan assembly shall be TUV-certified and built pursuant to the construction guidelines set forth by UL standard 507 and CSA standard 22.2. No. 113.
  2. Sustainability Characteristics: The fan shall be designed to move an effective amount of air for cooling and destratification of conditioned commercial applications over an extended life. The fan components shall be designed specifically for high volume, low speed fans to ensure lower operational noise. Sound levels from the fan operating at maximum speed measured in a laboratory setting shall not exceed 40 dBA. Actual results of sound measurements in the field may vary due to sound reflective surfaces and environmental conditions.
  3. Good workmanship shall be evident in all aspects of construction. Field balancing of the airfoils shall not be necessary.
- B. Controls
  1. The fan controller shall be incorporated into the fan assembly and housed in an enclosure independent of the motor to prevent overheating or electrical interference. The fan controller shall be factory programmed to minimize starting and braking torques and shall be equipped with a simple diagnostic program and an LED light to identify and relay faults in the system.
- C. Airfoil System

1. The fan shall be equipped with eight (8) high volume, low speed airfoils of precision extruded, anodized aluminum alloy. Each airfoil shall be of the high-performance Mini-Elipto design. The airfoils shall be connected to the hub and interlocked with eight (8) stainless steel retainers and two (2) sets of stainless steel bolts and lock washers per airfoil.
  2. The fan shall be equipped with eight (8) upswept winglets designed to redirect outward airflow downward, thereby enhancing efficiency. The winglets shall be molded of high strength polymer and shall be attached at the tip of each airfoil with a stainless steel screw. The standard color of the winglets shall be silver or black.
  3. As an option, the fan shall be equipped with eight (8) plug-style airfoil tips, molded of high strength polymer, in place of the eight (8) upswept winglets. The airfoil tips shall be attached at the tip of each airfoil with a stainless steel screw. The standard color of the airfoil tips shall be black.
- D. Motor
1. The fan motor shall be a permanent magnet brushless motor rated for continuous operation at maximum speed with the capability of modulating the fan speed from 0–100% without the use of a gearbox or other mechanical means of control. The motor shall operate from any voltage ranging from 100–120 VAC or 200–240 VAC, single phase, and 50/60Hz, without requiring adapters or customer selection. The motor shall be a non-ventilated, heat sink design with the capability of continuous operation in -40°F to 131°F (-40°C to 55°C) ambient condition. The standard color of the motor unit shall be white with silver trim or silver with black trim.
  2. The motor shall be rated at one of the following:
    - a. 8-ft fan average power @ max speed = 475 Watts
    - b. 10-ft fan average power @ max speed = 425 Watts
    - c. 12-ft fan average power @ max speed = 350 Watts
    - d. 14-ft fan average power @ max speed = 300 Watts
- E. Mounting System
1. The fan mounting system shall be designed for quick and secure installation from a variety of structural supports. All components in the mounting system shall be of formed metal design using low-carbon steel no less than 3/16" (0.5 cm) thick and containing no critical welds. The mounting system shall be powder coated for appearance and resistance to corrosion. All mounting bolts shall be metric stainless steel or equivalent. No mounting hardware substitutions, including cast aluminum, are acceptable.
  2. The fan extension tube shall be a round, extruded aluminum tube. The extension tube shall include a chrome plate with forward and reverse controls and a fan status indicator light that is visible from the floor.
- F. Hub
1. The fan hub shall be constructed of zinc plated steel for high strength and durability. The hub shall be precision machined to achieve a well-balanced and solid rotating assembly.
- G. Safety Cable
1. The fan shall be equipped with a safety cable that provides an additional means of securing the fan assembly to the building structure. The safety cable shall be Ø3/16" (0.5 cm) diameter and fabricated out of 7 x 19 stranded galvanized steel, pre-loaded and tested to 3,200 lbf (13,345 N).
  2. Field construction of safety cables is not permitted.
- H. Wall Control
1. Wired (standard). The fan shall be equipped with a low-voltage wired remote wall control providing control of all fan functions. The wall control shall be capable of mounting to a standard electrical box or directly to a wall surface. The wall control shall include a rotary-style dial for controlling the fan's power and speed and an LED light to identify and relay faults in the system. Communication with the fan drive and controller shall be by a standard, commercially available CAT5 (or higher) Ethernet cable that is field installed and provided by the installer.
  2. Wireless (optional). As an option, the fan shall be equipped with an optional radio frequency (RF) remote wall control in place of the wired wall control. The wall control shall provide control of all fan functions. The wall control shall be capable of mounting to a standard electrical box with an owner-supplied wall plate and shall include a capacitive touch display for controlling the fan's power and speed. Communication with the fan drive and controller shall be wireless.
- I. Fire Control Panel Integration

1. Includes a 10–30 VDC pilot relay for seamless fire control panel integration. The pilot relay can be wired Normally Open or Normally Closed in the field.
- J. Guy Wires
1. Guy wires shall be included for installations with extension tubes 4 ft (1.2 m) or longer to limit the potential for lateral movement.

## **PART 3 EXECUTION**

### **3.1 PREPARATION**

- A. Fan location shall have a typical bar joist or existing I-beam structure from which to mount the fan. Additional mounting options may be available.
- B. Mounting structure shall be able to support weight and operational torque of fan. Consult structural engineer if necessary.
- C. Fan location shall be free from obstacles such as lights, cables, or other building components.
- D. Check fan location for proper electrical requirements. Consult Installation Guide for appropriate circuit requirements.
- E. Each fan requires dedicated branch circuit protection.

### **3.2 INSTALLATION**

- A. The fan shall be installed by a factory-certified installer according to the manufacturer's Installation Guide, which includes acceptable structural dimensions and proper sizing and placement of angle irons for bar joist applications. Big Ass Fans recommends consulting a structural engineer for installation methods outside the manufacturer's recommendation and a certification, in the form of a stamped print or letter, submitted prior to installation.
- B. Minimum Distances
  1. Airfoils shall be at least 10 ft (3 m) above the floor.
  2. Installation area shall be free of obstructions such as lights, cables, sprinklers, or other building structures with the airfoils at least 2 ft (0.61 m) clear of all obstructions.
  3. The structure the fan is attached to shall be capable of supporting a torque load of up to 40 ft·lb (54 N·m) of torque.
- C. The fan shall not be located where it shall be continuously subjected to wind gusts or in close proximity to the outputs of HVAC systems or radiant heaters. Additional details are in the Big Ass Fans 3.2 Installation Manual.
- D. The fan is suitable for use in wet locations when installed on a GFCI protected branch circuit.
- E. In buildings equipped with sprinklers, including ESFR sprinklers, fan installation shall comply with all of the following:
  1. The maximum fan diameter shall be 24 ft (7.3 m).
  2. The HVLS fan shall be centered approximately between four adjacent sprinklers.
  3. The vertical clearance from the HVLS fan to the sprinkler deflector shall be a minimum of 3 ft (0.9 m).
  4. All HVLS fans shall be interlocked to shut down immediately upon receiving a waterflow signal from the alarm system in accordance with the requirements of NFPA 72—National Fire Alarm and Signaling Code.

END OF SECTION

**SECTION 31 3116**  
**TERMITE CONTROL**

**PART 1 GENERAL**

1.1 SUMMARY

- A. Section Includes: Soil treatment for termite control.
- B. Related documents: Drawings and General Provisions of Contract, including General and Supplementary Conditions and Division 1 Specification sections, apply to Work of this Section.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Use installers with experience on similar projects.

1.4 DELIVERY AND STORAGE

- A. Deliver, handle, and store materials in accordance with manufacturer's instructions. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.

1.5 WARRANTY

- A. Manufacturer's Warranty:
  - 1. Provide written warranty agreeing to re-treat soil and repair damage caused by termite infestation, carpenter ants and other pests during 5-year period from date of substantial completion.

**PART 2 PRODUCTS**

2.1 MATERIALS

- A. Soil treatment materials which bear Federal registration number of U.S. Environmental Protection Agency and acceptable to authorities having jurisdiction.

**PART 3 EXECUTION**

2.1 INSTALLATION

- A. Treat soil in strict compliance with National Pest Control Association standards and with manufacturer's printed instructions and recommendations. Do not apply treatment to frozen or excessively wet soils.
- B. Treat areas under floor slabs prior to placement of concrete if possible, to avoid drilling. Treat areas outside foundation walls after excavation, filling and grading are complete.
- C. Post signs and other warnings indicating that soil poisoning has been applied. Protect persons and property from injury or damage from soil treatment work.

END OF SECTION

## SECTION 321813

### SYNTHETIC GRASS SURFACING

#### GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Subgrade, base, and drainage construction.
  - 2. Synthetic grass.
  - 3. Plastic perimeter boards.
  - 4. Stainless steel staples.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.

##### 1.2 SUBMITTALS

- A. Submittals for Review:
  - 1. Product Data: Provide data on specified products, describing physical and performance characteristics, edge details, and maintenance instructions.
  - 2. Samples:
    - a. 12 x 12-inch loose sample of proposed synthetic grass product.

##### 1.3 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum 5 years documented experience in work of this Section.
- B. The synthetic grass vendor must verify that a qualified representative has inspected the installation and that the finished surface conforms to the manufacturer's requirements.

##### 1.4 WARRANTIES

- A. Furnish manufacturer's standard warranty providing coverage of synthetic grass for a minimum of eight (8) years from the date of substantial completion.

#### PART 2 PRODUCTS

##### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  - 1. ForeverLawn, Inc. - K9 Grass ([www.foreverlawn.com](http://www.foreverlawn.com))
  - 2. SYNlawn – Pet Platinum ([www.synlawn.com](http://www.synlawn.com))
- B. Substitutions: Under provisions of Division 01.

##### 2.2 MATERIALS

- A. Synthetic Grass:
  - 1. Source: K9 Grass by ForeverLawn, Inc. or approved substitute.
  - 2. Pile Weight: 72 oz/Sy
  - 3. Face Yarn Type: Primary: Polyethylene; Secondary: Heat set textured nylon monofilament containing antimicrobial agent.
  - 4. Yarn Count: Primary 5,000/4; Secondary 4,200/8

5. Pile Height (knitted): 3/4 inch
6. Color: Primary: Summer Green; Secondary: Turf Green
7. Construction: Knitted
8. Antimicrobial Protection: Alpha San (manufactured into yarn)
9. Backing: Flow-through knitted backing with light acrylic coating
10. Seaming: Turf Adhesive
11. Total Product Weight: 87 oz /Sy (+/- 2 oz)
12. Finished Roll Width: 15 feet
13. Finished Roll Length: Up to 150

## 2.3 ACCESSORIES

- A. Base and Attaching Components:
  1. 2 x 4-inch plastic board
  2. 1 inch length, 1/4-inch crown stainless steel staples.

## PART 3 EXECUTION

### 3.1 INSTALLATION - GENERAL

- A. Install per manufacturer's written instructions.
- B. The seams of all system components shall provide a permanent, tight, secure, and hazard free surface.
- C. The installed synthetic grass and drainage system shall allow for drainage and water flow through the system at a rate of not less than 300 inches per hour.

### 3.2 INSTALLATION - BASE AND DRAINAGE

- A. Excavation:
  1. Existing ground cover shall be excavated to the depth as needed for proper product installation.
  2. The subgrade shall also be compacted to a minimum of a 90% compaction rate.
- B. Plastic Board Nailer:
  1. The synthetic turf perimeter fastening structure shall be installed before the drainage aggregate.
  2. Install a synthetic Nailer board around perimeter and all penetrating objects.
  3. Nailer board shall be flush to grade (or as specified in site detail drawings) when adjacent to soft surface (i.e. natural grass, mulch).
  4. Nailer board shall be 1/2 inch below grade when adjacent to hard surface (i.e. concrete or tile).
- C. Base Drainage Aggregate:
  1. Install free draining base aggregate of 3/8 to 5/8-inch clean compactable angular stone.
  2. Install base material to a minimum depth of 3 inches.
  3. The stone shall be left firm and compacted while allowing the porosity and drainage capabilities of the aggregate profile.
  4. The free draining base course to meet local soil and weather conditions. Install to a minimum depth of 3 inches with an overall compaction rate of at least 90%.

### 3.3 INSTALLATION - SYNTHETIC GRASS SYSTEM

- A. Inspect stone base.
- B. Synthetic grass rolls shall be joined via adhesive bond seaming and reinforced with adhesive where necessary.

1. Seams shall be flat, tight, and permanent with no separation or fraying.
2. Grass rolls must be installed with pile leaning the same direction.

C. Synthetic Turf Perimeter Attachment:

1. Secure synthetic turf material to the top of plastic Nailer board firmly anchored to sidewalk, curb, wall or by rebar making up the perimeter of the synthetic turf area.
3. The turf shall be attached to plastic Nailer board by stainless steel staples, screws, and/or nails.
4. Soil or surfacing material outside of the defined synthetic turf area shall be backfilled against turf wrapped perimeter edge and have zero transition edge to synthetic turf unless otherwise specified.
5. Concrete and solid surfaces should be 1/2 inch higher than the top of the board.

D. Infill Application: No infill is to be utilized with synthetic turf.

3.4 CLEAN UP

- A. Provide final cleaning of surfaces and installed items.
- B. Clear the site of all extraneous materials, rubbish, or debris and leave the site in a clean, safe, well-draining, neat condition.

END OF SECTION

## SECTION 323100

### WELDED WIRE FENCED AND GATES

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Steel welded wire fences
  - 2. Steel welded wire gates.
  - 3. Concrete post foundations.
  
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Section 03 3000- Cast-In-Place Concrete.

##### 1.2 REFERENCES

- A. ASTM International (ASTM)
  - 1. A185/A1SSM -Standard Specification for Steel Welded Wire Reinforcement Plain,for Concrete.
  - 2. A641/A641M - Standard Specifications for Zinc-Coated (Galvanized) Carbon SteelWire.
  - 3. C94- Standard Specification for Ready-Mixed Concrete.
  - 4. 03359 - Standard Practice for Measuring Adhesion by Tape Test.
  
- A. Fence and Gate Height: As indicated on Drawings.

##### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Shop Drawings: Indicate fence locations, post spacing, system components, and accessories.
  - 2. Product Data: Manufacturer's descriptive data.

##### 1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum 2 years documented experience in work of this Section.
- B. Mockup:
  - 1. Size: Minimum 16 feet long x full height.
  - 2. Show: Fence posts, panels, and accessories.
  - 3. Locate where directed.
  - 4. Approved mockup may remain as part of the Work.

##### 1.5 WARRANTY

- A. Furnish manufacturer's 10 year warranty providing coverage against corrosion of galvanized steel coatings and blistering or loosening of powder coatings.

#### PART 2 PRODUCTS

##### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers
  - 1. Design Master Fencing System 8411 Irvington Blvd. Ste B Houston, TX 77022. Email: [sales@designmasterfence.com](mailto:sales@designmasterfence.com) Web: designmasterfence.com. Or prior approved Equal.
  
- B. Substitutions: Under provisions of Division 01.

## 2.2 MATERIALS

- A. Fence Panels: Design Master – Forte with V-Brace
  - 1. Resistance welded steel wire mesh, ASTM A185/A185M, 8 gauge Class 1 galvanized steel wire per ASTM A641/A641M, 1-1/2 x 3 inch mesh, stiffened with horizontal V-shaped braces.
  - 2. Height: 8 feet.
  - 3. Wire breacing load: Minimum 80,000 PSI.
  - 4. Weld shears stren8th: Minimum 1,050 pounds.
  - 5. Location – Exterior Yard Canine Fenced – E06, E-07, E08, E09, E10. (Equipment Tag E61).
- B. Posts:
  - 1. Galvanized steeltube, ASTM A513/A787, G60 coating class, 3 x 3 inches, 11 gauge
  - 2. Length: To suit panel height and post mounting method.
  - 3. Post caps: Ultraviolet-protected plastic. sized to post dimensions, friction fit.
  - 4. Post bases: Steel plate welded to bottom of posts, with four plated steel anchor bolts per base.
- C. Post Brackets:
  - 1. Galvanized steel and powder coated, sized to post dimensions
- D. Gates:
  - 1. Framing: Steel tube, same construction and finish as posts, welded 45 degree corners and intersections, sized to gate dimensions.
  - 2. Hinges: Heavy duty industrial type, adjustable.
  - 3. Latches: Integrated type with lever handles.
  - 4. Location – Exterior Yard Canine Fenced – E06, E-07, E08, E09, E10. (Equipment Tag E62).
- E. Fence Panels: Design Master – Forte Flat Panel
  - 1. Resistance welded steel wire mesh, ASTM A185/A185M, 8 gauge Class 1 galvanized steel wire per ASTM A641/A641M, 1 x 3 inch mesh.
  - 2. Height: Varies – See drawings.
  - 3. Wire breacing load: Minimum 80,000 PSI.
  - 4. Weld shears stren8th: Minimum 1,050 pounds.
  - 5. Location – Feline Fenced Exterior Enclosure – E01, E-02, E03, E04, E05. (Equipment Tag E60).

## 2.3 ACCESORIES

- A. Concrete: Specified in Section 03 3000
- B. Fence Panels and Posts:
  - 1. Polyester powder coated to approximately 4 mils thickness, color to be determined from manufacturer's standard colors.
  - 2. Salt spray resistance: No rusting or blistering tested to ASTM B117 for 1000 hours.
  - 3. Adhesion: Tested to ASTM 03359, Method B.

## PART 3 EXECUTION

### 3.1 INSTALLATION

- A. Install fencing in accordance with manufacturer's instructions and approved Shop Drawings.
- B. Drill post holes into undisturbed or compacted soil, with diameter equal to 3 times post diameter.
- C. Set posts with bottom of 3 inches below bottom of post. Excavate deeper in soft or loose soils and for posts with heavy lateral loads.
- D. Place concrete around posts in continuous pour, tamp and dome top away from post. Check: for vertical and top alignment brace posts until concrete has set.

E. Pour top of footings 2 inches below finished grade.

### 3.2 INSTALLATION TOLERANCES

A. Maximum Variation from Plumb: 1/4 inch in 10 feet.

B. Maximum Offset from True Position: 1 inch.

END OF SECTION

**APPENDIX C**

**CONTRACT DRAWINGS**

(Provided via separate electronic file on  
Rockland Green's website )

**APPENDIX C-1  
SITE DESCRIPTION**



**427 Beach Road a/k/a 10 Ecology Lane, Town of Haverstraw, NY (Section-Block-Lot: 20.20-4-8)**

The Project is sited at 427 Beach Road a/k/a 10 Ecology Lane, an approximately 3.24 acre parcel at the intersection of Beach Road and Ecology Lane in the Town of Haverstraw. The parcel is bounded by Beach Road to the east, Ecology Lane to the south, the capped former Haverstraw Town Landfill to the north, and facilities of the Joint Regional Sewer Board of the Town of Haverstraw to the west. There is also one residence adjacent to the southeast. The residence has the benefit of a small driveway easement over Rockland Green's parcel, although the easement is not in the vicinity of the Project. The adjacent residential use is separated from Rockland Green's parcel by a vegetative strip and shrubbery.

The new, partially constructed 15,000 s.f. warehouse is roughly at the center of the parcel. Warehouse parking is located mostly at the southwest corner of the parcel along Ecology Lane, with some additional parking east of the warehouse. There are two more buildings with associated parking at the northwest corner of the parcel—a one-story, 1,800 s.f. office/shop building and a one-story, 1,440 s.f. storage building.

A search of wetland database maps does not show state- or federally regulated wetlands upon the Site. However, there is a marshy area of approximately 0.25 acre at the north/northwestern section of the parcel. The marshy area was labeled "wetlands" on a recent site plan prepared by a consultant for the previous owner. The marshy area is likely a wetland under the jurisdiction of the United States Army Corps of Engineers. **No construction or other operations (e.g., fenced dog runs) will take place upon the marshy/wetland area and the selected Contractor must implement protective institutional controls during construction.** The marshy/wetland area does not impact Site usability, but rather acts as a buffer between the Site and adjacent properties to the north and west. There is also a freshwater tributary that cuts through the very northeastern tip of the Site. Like the marshy/wetland area to the north/northeast, the tributary does not impact the Project.

Rockland Green

Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in Haverstraw, NY  
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## **APPENDIX D**

### **PROPOSAL FORMS**

Rockland Green

Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in Haverstraw, NY  
RFP 2024-01

**PROPOSAL FORM 1**  
**SIGNATURE PAGE**

To Rockland Green a/k/a Rockland County Solid Waste Management Authority:

The Proposer, in compliance with your Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in Haverstraw, NY, having examined the Proposal documents and being familiar with all conditions surrounding the project, including the Site, materials, labor and equipment required, hereby proposes to furnish all labor, equipment, materials and supplies necessary to meet the obligations of the Proposal in accordance with the solicitation, within the time and prices set forth therein.

Proposer understands that Rockland Green reserves the right to reject any or all Proposals and to accept any item or items in any one Proposal and to waive any informalities in the RFP process.

Respectfully Submitted:

\_\_\_\_\_  
Name of Proposer

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Date

Rockland Green

Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in Haverstraw, NY  
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**PROPOSAL FORM 2**  
**ADDENDA ACKNOWLEDGEMENT FORM**

The undersigned hereby acknowledges receipt of the following Addenda (if any) to the Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in Haverstraw, NY:

Addendum No.

Dated

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Person, firm or corporation making this Proposal:

\_\_\_\_\_  
Proposer

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name/Title

\_\_\_\_\_  
Date

**PROPOSAL FORM 3**  
**QUALIFICATIONS FORM**

**Contractor and all Subcontractors must complete this Qualifications Form in its entirety. Failure to complete and submit this Qualifications Form may result in the Contractor being deemed non-responsive and, consequently, not eligible to participate further.**

**A. General Information**

1. Company Name: \_\_\_\_\_

2. Address: \_\_\_\_\_

3. Telephone: \_\_\_\_\_

4. Contact Person: \_\_\_\_\_

Contact person's contact information:

Title: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

Email address: \_\_\_\_\_

5. Type of Organization (e.g., a corporation; limited liability company; joint venture; partnership; and individual): \_\_\_\_\_

6. Name of Parent Company, if any: \_\_\_\_\_

7. Name of Affiliate Companies, if any: \_\_\_\_\_

8. Identity of Joint Venture Partners, if any: \_\_\_\_\_

9. Financial References: \_\_\_\_\_

10. New York Surety: \_\_\_\_\_

**PROPOSAL FORM 3** (Continued)  
**QUALIFICATIONS FORM**

**B. Business Information**

1. Brief history of Company (attach additional sheets as necessary):

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2. Number of Years in Business: \_\_\_\_\_ Years

3. Annual Value of contracting work (Range): \$ \_\_\_\_\_

4. Value of contracts normally accepted: Minimum \_\_\_\_\_ Maximum \_\_\_\_\_

5. Current Backlog: \_\_\_\_\_

6. Number of Employees (Range). \_\_\_\_\_

7. Type of work (approximate): Industrial \_\_\_\_\_ % Commercial \_\_\_\_\_ % Residential \_\_\_\_\_ %

8. Do you hold a license for the work (as the work requires) † Yes † No † N/A

9. Labor relations: Open Union - If Union, local or national agreement? \_\_\_\_\_

10. Name and address of all partners, key shareholders, principals and/or owners:

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11. Has Company ever failed to complete any contract awarded to it? \_\_\_\_\_

If so, where and why for each contract not completed on time:

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12. Has any officer or partner of Company ever been an officer or partner of some other organization that failed to complete a contract? \_\_\_\_\_

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**PROPOSAL FORM 3** (Continued)  
**QUALIFICATIONS FORM**

13. If yes to #12, state name of individual, other organization, reason, and bonding company:  
\_\_\_\_\_  
\_\_\_\_\_
14. In what other lines of business is Company directly or indirectly involved? \_\_\_\_\_  
\_\_\_\_\_
15. With what individual or entities have you been associated as partner or otherwise during the past five (5) years? \_\_\_\_\_  
\_\_\_\_\_
16. Describe the principal and any secondary nature of your current business:  
\_\_\_\_\_  
\_\_\_\_\_
17. State the length of time you have been in that business under your present name and identify all other names under which you have done business: \_\_\_\_\_  
\_\_\_\_\_
18. Has any individual, partner, shareholder, principal, owner or Affiliate of your firm been the subject of administrative or judicial action for an alleged violation of state or federal laws or regulations? If so state the details and disposition. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
19. Are you, your partners, joint venturers, parent corporation or subsidiaries a party to any legal actions that may be relevant to your performance of the obligations described in the Proposal? If so, identify these actions:  
\_\_\_\_\_  
\_\_\_\_\_
20. Have you, any partner, key shareholder, principal, owner or Affiliate of your firm been the subject of any criminal conviction(s) indictment(s) or investigation(s)? If so, state the details: \_\_\_\_\_  
\_\_\_\_\_
21. List any and all civil penalties, judgments, consent decrees or other sanctions within the last five (5) years, as a result of a violation of any law, rule, regulation or ordinance in connection with its business activities, by the Company, any Affiliate of the Company, or any key shareholder, officer or director of the Company or any

**PROPOSAL FORM 3** (Continued)  
**QUALIFICATIONS FORM**

Affiliate thereof. \_\_\_\_\_  
\_\_\_\_\_

22. List any and all current investigations, indictments or pending litigation by any Federal, State or local jurisdiction of the Company, any Affiliate of the Company or any key shareholder, officer or director of the Company or any Affiliate thereof.

\_\_\_\_\_  
\_\_\_\_\_

23. List any and all actions occurring within the last five (5) years which have resulted in revocation or suspension of any permit or authority to do business in any Federal, State or local jurisdiction, by the Company, any Affiliate of the Company, or any key shareholder, officer or director of the Company or any Affiliate thereof.

\_\_\_\_\_  
\_\_\_\_\_

24. List any and all actions occurring in the past five (5) years that have resulted in the barring from public bidding by the Company, any Affiliate of the Company, or any key shareholder, officer or director of the Company or any Affiliate thereof.

\_\_\_\_\_  
\_\_\_\_\_

25. List any bankruptcy proceedings in the past five (5) years by the Company, any Affiliate of the Company, or any shareholder, officer or director of the Company or any Affiliate thereof.

\_\_\_\_\_  
\_\_\_\_\_

26. Are there any judgments, claims, arbitration proceedings or suits pending, current, or outstanding against your organization or its officers?            † Yes            † No

27. Has your organization filed any lawsuits or requested arbitration with regard to construction contracts within the last five years?            † Yes            † No

**C. Safety Information**

28. Workers Compensation Employer Modification Rate for current year and three previous years.

\_\_\_\_\_ 2024    \_\_\_\_\_ 2023    \_\_\_\_\_ 2022    \_\_\_\_\_ 2021

29. If you keep OSHA 300 logs please attach a copy of the three most recent years of OSHA 300 logs.



Rockland Green

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**D. Financial Information (To be signed before a Notary Public)**

Attach financial statements, prepared on an accrual basis, in a form which clearly indicates the Company's assets, liabilities and net worth over the most recent three (3) year period or as many years as your firm has been in business if less than three (3) years.

Dates of financial statements: \_\_\_\_\_

Name(s) of firms(s) preparing statements: \_\_\_\_\_

Dated this \_\_\_\_ day of \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
(Print or Type Name of Company)

By: \_\_\_\_\_

Title: \_\_\_\_\_

\_\_\_\_\_ being duly sworn, deposes and says that the financial statement(s) referenced above are a true and accurate statement of Company's financial condition as of the date hereof; and all of the foregoing qualification information is true, complete and accurate.

Sworn to before me this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

\_\_\_\_\_  
Notary Public

**PROPOSAL FORM 4**  
**AFFIDAVIT OF NON COLLUSION**

Rockland Green

Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in Haverstraw, NY  
RFP 2024-01

NAME OF PROPOSER: \_\_\_\_\_

BUSINESS ADDRESS: \_\_\_\_\_

E-MAIL ADDRESS: \_\_\_\_\_

**CERTIFICATION AND SIGNATURE FORM**

I hereby attest that I am the person responsible within my firm for the final decision as to the prices(s) and amount of this Proposal or, if not, that I have written authorization, enclosed herewith, from that person to make the statements set out below on his or her behalf and on behalf of my firm.

I further attest that:

1. The price(s) and amount of this proposal have been arrived at independently, without consultation, communication or agreement for the purpose of restricting competition with any other contractor, proposer or potential proposer.
2. Neither the price(s), nor the amount of this proposal, have been disclosed to any other firm or person who is a proposer or potential proposer on this project, and will not be so disclosed prior to proposal opening.
3. No attempt has been made or will be made to solicit, cause or induce any firm or person to refrain from proposing on this project, or to submit a proposal higher than the proposal of this firm, or any intentionally high or non-competitive proposal or other form of complementary proposal.
4. The proposal of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from any firm or person to submit a complementary proposal.
5. My firm has not offered or entered into a subcontract or agreement regarding the purchase of materials or services from any other firm or person, or offered, promised or paid cash or anything of value to any firm or person, whether in connection with this or any other project, in consideration for an agreement or promise by any firm or person to refrain from proposing or to submit a complementary proposal on this project.
6. My firm has not accepted or been promised any subcontract or agreement regarding the sale of materials or services to any firm or person, and has not been promised or paid cash or anything of value by any firm or person, whether in connection with this or any project, in consideration for my firm's submitting a complementary proposal, or agreeing to do so, on this project.
7. I have made a diligent inquiry of all members, officers, employees, and agents of my firm with responsibilities relating to the preparation, approval or submission of my firm's proposal on this project and have been advised by each of them that he or she has not participated in any communication, consultation, discussion, agreement, collusion, act or other conduct inconsistent with any of the statements and representations made in this affidavit.

The person signing this proposal, under the penalties of perjury, affirms the truth thereof.

\_\_\_\_\_  
Signature

SWORN TO BEFORE ME THIS

\_\_\_\_\_  
Name & Company Position

\_\_\_\_\_ DAY OF \_\_\_\_\_ 20\_\_

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
NOTARY PUBLIC

\_\_\_\_\_  
Date Signed

**PROPOSAL FORM 5**  
**DISCLOSURE AFFIDAVIT**

**(Proposer must sign this form before a Notary Public)**

Rockland Green

Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in Haverstraw, NY  
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STATE OF NEW YORK )

) ss

COUNTY OF \_\_\_\_\_)

I, \_\_\_\_\_ Design \_\_\_\_\_, \_\_\_\_\_  
(NAME) (TITLE - Officer, Partner or Principal)

being duly sworn depose and swear under the penalties of perjury:

1. That, in connection with the Proposal in response to the Request for Proposals for Build-Out of a New Animal Shelter located at 427 Beach Road in Haverstraw, NY no other person will have any direct or indirect interest in this Proposal except:

\_\_\_\_\_  
(In case of corporations, all officers of the corporation and stockholders owning more than 5% of the corporation stock must be listed. Use attached sheet if necessary.)

2. That \_\_\_\_\_ related to any officer  
(I am not) (none of the officers or stockholders are)

or employee of Rockland Green except \_\_\_\_\_  
\_\_\_\_\_

3. There is not any State or local officer or employee or a member of Rockland Green interested in such application.

\_\_\_\_\_  
Signature, Name and Title

Sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

\_\_\_\_\_  
Notary Public

Rockland Green

Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in Haverstraw, NY  
RFP 2024-01

**PROPOSAL FORM 6**  
**AFFIRMATIVE ACTION PLAN**

STATE OF NEW YORK    )

) ss:

COUNTY OF ROCKLAND )

\_\_\_\_\_ being duly sworn, deposes and says that he/she is the  
\_\_\_\_\_ of the \_\_\_\_\_ corporation. That \*I do [do not]  
employ fifteen (15) employees and \*I do [do not do] a minimum of \$50,000 per annum business with the Rockland  
County Solid Waste Management Authority a/k/a Rockland Green.

Based on the above information (*check one, and provide Plan if required*):

[        ] attached hereto is an Affirmative Action Plan, or

[        ] because of the above, no Affirmative Action Plan is necessary.

\_\_\_\_\_  
(SIGNATURE, NAME AND TITLE)

Sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

Notary Public, \_\_\_\_\_ County

\* strike out non-applicable information.

**PROPOSAL FORM 7**  
**EXCEPTIONS TAKEN TO THIS REQUEST FOR PROPOSALS AND CONTRACT**

**Exceptions taken to the Request for Proposals**

\_\_\_\_\_ No exceptions taken.

\_\_\_\_\_ Exceptions taken.

Please provide a mark-up of the relevant language of the RFP where exceptions have been taken.

**Exceptions and/or Mark-ups to the Contract**

\_\_\_\_\_ No exceptions taken.

\_\_\_\_\_ Exceptions taken and/or mark-ups made.

Please provide a mark-up of the relevant language of the contract where exceptions have been taken.

\_\_\_\_\_  
Proposer

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name/Title

\_\_\_\_\_  
Date

Rockland Green  
Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in  
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**PROPOSAL FORM 8**  
**CONSENT OF SURETY**  
**FOR**  
**PERFORMANCE BOND AND LABOR AND MATERIALS PAYMENT BOND**

Mr. Gerard Damiani Jr.  
Executive Director  
Rockland Green  
172 Main Street  
Nanuet, NY 10954

Dear Mr. Damiani:

\_\_\_\_\_ (the “Proposer”) has submitted herewith a Proposal in response to the Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in Haverstraw, NY (RFP 2024-01) (the “RFP”). The RFP requires the selected Proposer to enter into an agreement to transform the existing warehouse structure located at 427 Beach Road, Haverstraw, New York into a state of the art Animal Shelter (the “Contract”).

The Surety has reviewed the Proposer’s Proposal which will form the basis of the Contract. The Surety hereby certifies that it intends to issue on behalf of the Proposer, as security under the Contract, (1) a Performance Bond, and (2) a Labor and Materials Payment Bond for the benefit of Proposer, with Rockland Green as co-beneficiary, in the event the Proposer is selected for final negotiations and execution of the Contract, in the forms set forth in the RFP at Appendix I.

\_\_\_\_\_  
Name of Surety

\_\_\_\_\_  
Name and Title of Authorized Signatory

\_\_\_\_\_  
Signature

Rockland Green  
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**PROPOSAL FORM 9**  
**FOIL ACKNOWLEDGEMENT FORM**

The Proposer hereby acknowledges and recognizes that the New York State Freedom of Information Law, Public Officers Law, Article 6, Section 84-90 provides for public access to government records. However, Proposals may contain trade secrets and other technical, financial, or administrative data whose public disclosure could cause substantial injury to the Proposer's competitive position.

Please indicate whether your Proposal contains trade secrets and other technical, financial or administrative data whose public disclosure could cause substantial injury to your competitive position by marking the applicable below.

\_\_\_\_\_ The Proposal DOES contain trade secrets and other technical, financial or administrative data whose public disclosure could cause substantial injury to our competitive position, and we have clearly marked pages in our Proposal containing such information.

\_\_\_\_\_ The Proposal DOES NOT contain trade secrets and other technical, financial or administrative data whose public disclosure could cause substantial injury to your competitive position.

Person, firm or corporation making this Proposal:

\_\_\_\_\_  
Proposer

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name/Title

\_\_\_\_\_  
Date

**PROPOSAL FORM 10**  
**STATEMENT OF PREVAILING WAGE LAW VIOLATIONS**

Please indicate below whether the Proposer has ever been investigated for and/or found to be in violation of the Prevailing Wage Law in New York State or any similar law in any other jurisdiction:

**No:** \_\_\_\_\_

**Yes:** \_\_\_\_\_

If you marked “Yes”, please provide the following information for **each** notice of violation received in connection with the payment of prevailing wages (whether such event occurred within the State or any other jurisdiction):

1. Date of Notice of Violation: \_\_\_\_\_

2. Location/Jurisdiction of Violation: \_\_\_\_\_

3. Description of Violation: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

4. Disposition of Violation (include relevant dates): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

5. Additional Comments: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

To the extent additional space is required, Proposers may attach additional pages.

Rockland Green  
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**PROPOSAL FORM 11**  
**CERTIFICATION OF SITE CONDITIONS**

By submission of this Proposal in response to the Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in Haverstraw, NY, the undersigned hereby accepts and acknowledges that it has reviewed the Site description included in Appendix C-1 to the RFP, and is familiar with the Site, its limits and constraints. The undersigned hereby agrees to waive all claims based on ignorance or misunderstanding of the Site's conditions that exist or difficulties that may be encountered in the execution of the services under the Contract as a result of failure to make the necessary examinations and inspections, nor will the same be accepted as a basis for any claims whatsoever for extra compensation.

Signature of person duly authorized to submit on behalf of the Proposer.

\_\_\_\_\_  
Proposer

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name/Title

\_\_\_\_\_  
Date

Rockland Green  
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**PROPOSAL FORM 12**  
**INSURANCE LETTER OF INTENT**

Mr. Gerard Damiani Jr.  
Executive Director  
Rockland Green  
172 Main Street  
Nanuet, NY 10954

Dear Mr. Damiani:

\_\_\_\_\_ (the “Proposer”) has submitted herewith a Proposal in response to the Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in Haverstraw, NY (RFP 2024-01) (the “RFP”). The RFP requires the selected Proposer to enter into an agreement to transform the existing warehouse structure located at 427 Beach Road, Haverstraw, New York into a state of the art Animal Shelter (the “Contract”).

The Insurance Company has reviewed the Proposer’s Proposal which will form the basis of the Contract. The Insurance Company hereby certifies that it intends to provide all Required Insurance set forth in the RFP in the event the Proposer is selected for final negotiations and execution of the Contract.

\_\_\_\_\_  
Name of Insurance Company

\_\_\_\_\_  
Name and Title of Authorized Signatory

\_\_\_\_\_  
Signature

Rockland Green  
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**PROPOSAL FORM 13**  
**PAST AND PRESENT PERFORMANCE INFORMATION FORM**  
**\*Include information for a minimum of (5) five references**

**NAME OF CONTRACTOR/SUBCONTRACTOR:** \_\_\_\_\_

Provide the information requested on this form for each contract/program being described as a reference. Provide frank, concise comments regarding your performance on the contracts you identify. Provide a separate completed form for each contract/program submitted. Limit the number of past efforts submitted and the length of each submission to the limitations, if any, set forth in specifications.

Name of Contracting Entity: \_\_\_\_\_

Contract Name/Title: \_\_\_\_\_

Term of Contract: \_\_\_\_\_

Original Contract Value: \_\_\_\_\_

Current or Final Contract Value: \_\_\_\_\_

Original Completion Date: \_\_\_\_\_

Current or Final Completion Date: \_\_\_\_\_

- A. Brief Description of the project or work performed. Identify whether you were a Prime or Subcontractor.

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B. Number of Change Orders (if any): \_\_\_\_\_

Primary Causes or Reasons of Change:

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Rockland Green

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C. Primary Point of Contact:

**NOTE: CONFIRM CONTACT INFORMATION PROVIDED IS CURRENT PRIOR TO  
SUBMISSION.**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

E-mail: \_\_\_\_\_

If subcontractors were used, identify the names of the subcontractors and the percentage of the contract  
the subcontractor was responsible for.

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**PROPOSAL FORM 14**

**ACKNOWLEDGMENT REGARDING DRAWINGS AND SPECIFICATIONS**

The undersigned hereby acknowledges an understanding of and ability to comply with, at a minimum, the Specifications set forth in Appendix B and the Drawings set forth in Appendix C to the Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in Haverstraw, NY:

Person, firm or corporation making this Proposal:

\_\_\_\_\_  
Proposer

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name/Title

\_\_\_\_\_  
Date

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**PROPOSAL FORM 15**

**ACKNOWLEDGMENT REGARDING ARTICLE 26-C OF NEW YORK AGRICULTURE AND  
MARKETS LAW, THE STANDARD OF CARE ACT**

The undersigned hereby acknowledges that they have read and understand the Standard of Care Act, approved on December 15, 2022 and codified as Article 26-C of the New York Agriculture and Markets Law and which becomes effective in December of 2025. The undersigned further acknowledges that their Work under the Contract should they be selected, including any Proposed Alterations, will adhere to the standards and requirements of the Standard of Care Act, as applicable.

Person, firm or corporation making this Proposal:

\_\_\_\_\_  
Proposer

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name/Title

\_\_\_\_\_  
Date

**PROPOSAL FORM 16**  
**PROPOSED ALTERATIONS**

Please indicate below whether the Proposer's Proposal includes additional Proposed Alterations:

**No:** \_\_\_\_\_

**Yes:** \_\_\_\_\_

As set forth in Section VIII(b)(i)(c) of the RFP, any such Proposed Alterations must be accompanied by revised Drawings and Specifications, as well as a detailed explanation as to how any such Proposed Alterations would:

- (i) maintain adherence to the standards and requirements set forth in the Standard of Care Act;
- (ii) impact the cost to construct the Project;
- (iii) impact the cost to operate or maintain the Animal Shelter over time,
- (iv) improve the function of the Animal Shelter,
- (v) add value for Rockland Green, the Animal Shelter operator, the employees who work at the Animal Shelter and/or the animals who will reside there; and/or
- (vi) shorten the construction time period (without jeopardizing the quality of the design).

Proposers must also include the cost or savings associated with such Proposed Alterations in the appropriate section of Proposal Form 17.

Proposer acknowledges that Rockland Green will consider any such Proposed Alterations during its evaluation of the Proposals received in response to this RFP; however, a Proposer's decision not to submit Proposed Alterations will not negatively impact Rockland Green's evaluation of that Proposal. Rockland Green is not obligated to accept or reject any such Proposed Alterations, but rather Rockland Green may discuss and negotiate them with the Proposer(s) who submit them, and may elect to implement any one or more or none of them, and if so, will include them in the scope of Work under the Contract.

Person, firm or corporation making this Proposal:

\_\_\_\_\_  
Proposer

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name/Title

\_\_\_\_\_  
Date

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**PROPOSAL FORM 17**  
**CONTRACT PRICE PROPOSAL FORM**

Proposers must provide a proposed cost for each line under each subgroup. As well as the total proposed Contract Price on this forms.

<u>Subgroup</u>	<u>Proposed Cost</u>
<u>Division 01 - Alternates</u>	
<b><u>FACILITY CONSTRUCTION SUBGROUP</u></b>	
<u>Division 02 – Existing Conditions</u>	
<u>Division 03 – Concrete</u>	
<u>Division 04 - Masonry</u>	
<u>Division 05 – Metals</u>	
<u>Division 06 – Wood, Plastics and Composites</u>	
<u>Division 07 – Thermal and Moisture Protection</u>	
<u>Division 08 – Openings</u>	
<u>Division 09 – Finishes</u>	
<u>Division 10 – Specialties</u>	
<u>Division 11 – Equipment</u>	
<u>Division 14 – Conveying Equipment</u>	
<b><u>FACILITY SERVICES SUBGROUP</u></b>	
<u>Division 21 – Fire Suppression</u>	
<u>Division 22 – Plumbing</u>	
<u>Division 23 – HVAC</u>	
<u>Division 26 – Electrical</u>	
<u>Division 27 – Communications</u>	
<b><u>SITE AND INFRASTRUCTURE SUBGROUP</u></b>	
<u>Division 31 – Earthwork</u>	
<u>Division 32 – Exterior Improvements</u>	
<u>Division 33 – Utilities</u>	
<b><u>EQUIPMENT SUBGROUP</u></b>	
<u>Division 48 – Electrical Power Generation</u>	
<u>Site Mobilization</u>	
<u>Insurance</u>	
<u>Overhead and Profit</u>	
<u>Total proposed Contract Price</u>	
<u>In words</u>	

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**VOLUNTARY ALTERNATE PRICING FOR PROPOSED ALTERATIONS**

Proposers are encouraged (but not required) to offer Proposed Alterations for Rockland Green’s consideration, as discussed in the RFP.

The selected Contractor will be paid a fixed Contract Price for all of the Work, which will include any Proposed Alterations that are selected by Rockland Green.

Include the cost or savings associated with any such Proposed Alterations below:

Voluntary Alternate Pricing: [ +/- \$                    ] In words:
Total proposed Contract Price for all Work, including Proposed Alterations: [\$                    ] In words:

## APPENDIX E

### REQUIRED INSURANCE

Prior to the Contract commencement and throughout the term of the Contract, the Contractor shall maintain insurance issued by an insurance carrier satisfactory to Rockland Green to protect the parties hereto from and against any and all claims, demands, actions, judgments, costs, expenses and liabilities of every kind and nature which may arise or result, directly or indirectly, from or by reason of such loss, injury, including injury to the applicable Contractor's employees or employees of such Contractor's Subcontractors, or damage. Such insurance shall be maintained at the Contractor's sole expense.

The Contractor shall obtain and maintain throughout the term of the Contract the following types and minimum amounts, not including deductible, of insurance:

- Commercial general liability and property damage insurance with broad form blanket contractual liability and products and completed operations coverage, shall be not less than \$1,000,000 per occurrence and \$2,000,000 general aggregate
  - Prohibited exclusion(s), including but not limited to (1) 'gravity related' injuries; (2) injuries sustained by an employee of an/any insured; (3) liability assumed by contract (4) height limitation or (5) territory restriction; and
  - Insurance must apply on a Per-Project basis; and
  - No Labor Law or Third-Party Action Over Exclusions;
- Commercial comprehensive automobile liability endorsed for any automobile (owned and non-owned) with minimum limits for combined property damage and bodily injury of \$1,000,000 per occurrence
- Worker's compensation coverage in the statutory amounts required by New York State Law;
- Employer's liability insurance required by New York State law covering all of the employees of the Contractor at Rockland Green 's facility;
- Excess liability above the commercial general liability and automobile liability shall not be less than \$10,000,000 per occurrence and \$10,000,000 general aggregate, the Umbrella must be excess over the General Liability, Automobile Liability and Employers Liability and
- Pollution liability, if applicable, shall not be less than \$5,000,000.

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- Professional liability, if applicable, shall not be less than \$5,000,000.

1. The commercial general liability, excess liability, professional liability, and pollution liability shall be kept in force for a period of one (1) year following the end of the contract period.

2. Additional Insureds. The Contractor will name Rockland Green, the County, and their officers, agents, employees, and consultants as additional named insureds on a primary, non-contributory basis (the “Additional Insureds”) for Ongoing and Completed Operations on all insurance policies required herein, other than workers’ compensation and employer liability coverage. Such coverage must be provided using the 04/13 versions of ISO Form CG 20 10 and CG 20 37 or equivalent. The Contractor will waive the subrogation rights of its various insurance carriers in favor of Rockland Green via CG 20 04 or equivalent.

3. Insurance Certificates and Policies. Insurance and any renewals thereof will be evidenced by certificates of insurance (the “Certificates”) and copies of all insurance policies and endorsements issued or countersigned by a duly authorized representative of the issuer and delivered to Rockland Green for its approval thirty (30) days prior to the Contract commencement. The Certificates will require thirty (30) days written notice to Rockland Green, of cancellation, intent not to renew, or reduction in its coverage by the insurance company for all policies.

4. Non-Recourse Provision. All insurance policies will provide that the insurers will have no recourse against the Additional Insureds for payment of any premium or assessment and will contain a severability of interest provision in regard to mutual coverage liability policies. The coverages will be the primary source of any restitution or other recovery for any injuries to, or death of persons, or loss or damage to property incurred as a result of an action or inaction of the Contractor or its Subcontractors, of their respective suppliers, employees, agents, representatives, or invitees, that fall within these coverages and also within the coverages of any liability insurance or self-insurance program maintained by Rockland Green.

5. Deductibles. Deductibles shall not exceed \$10,000.

6. Subcontractors. The Contractor will be responsible for ensuring that all Subcontractors which are working at the Site secure and maintain all insurance coverages hereunder and other financial sureties required by Applicable Law in connection with their presence and the performance of their duties

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at or concerning the Work. The Contractor will furnish Rockland Green with Subcontractors' Certificates and policies for review and approval prior to beginning.

7. Specific Provisions for Comprehensive General Liability Insurance. Comprehensive General Liability insurance, as required hereunder, will include premises-operations, blanket contractual, products and completed operations, personal injury, host liquor liability, explosion, collapse, underground hazards, and broad form property damage, including completed operations and independent contractor's coverages.

8. Specific Provisions for Worker's Compensation Coverage. Worker's Compensation insurance must be in accordance with the requirements of New York law, as amended from time to time. The required worker's compensation insurance will include other states' coverage, voluntary compensation coverage, and federal longshoreman and harbor worker's coverage.

9. Changes in Insurance Coverage. The insurance listed herein are the minimum coverages permitted, except that Rockland Green may decrease or omit the coverages specified at any time in its sole discretion. If Rockland Green decreases such coverage, any cost savings will be credited to the benefit of Rockland Green.

10. Qualifications of Insurers. The Contractor is required to obtain the insurance set forth in this Appendix with insurance companies that carry a Best's "A" or equivalent rating. In addition, insurance must be obtained and maintained with insurers authorized to do business in the State of New York.

11. Subcontractor Indemnification. The Contractor shall include the following language in all Subcontracts.

To the fullest extent permitted by law, the Subcontractor agrees to indemnify, defend and hold harmless the Contractor as well as all parties listed below as additional insureds, their officers, directors, agents, employees and partners (hereafter collectively "Indemnitees") from any and all claims, suits, damages, liabilities, professional fees, including attorneys' fees, costs, court costs, expenses and disbursements related to death, personal injuries or property damage (including loss of use thereof brought against any of the Indemnitees by any person or entity, arising out of or in connection with or as a result or consequence of the performance of the Work of the Subcontractor, as well as any additional work, extra work or add-on work, whether or not caused in whole or in part by the Subcontractor or any person or entity employed, either directly or indirectly by the Subcontractor including any subcontractors thereof and their employees. The parties expressly agree that this indemnification agreement contemplates 1) full indemnity in the event of liability imposed against the Indemnitees without negligence;

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and 2) partial indemnity in the event of any actual negligence on the part of the Indemnitees either causing or contributing to the underlying claim which negligence is expressly excepted from the Subcontractor's obligation to indemnify. Attorneys' fees, court costs, expenses and disbursements shall be defined without limit to include those fees, costs, etc. incurred in defending the underlying claim and those fees, costs, etc. incurred in connection with the enforcement of this Subcontract Agreement. Indemnification under this Agreement shall operate whether or not Contractor has placed and maintained the insurance required under this agreement. The Subcontractor shall cause all subcontract agreements it enters into to include this indemnification clause so as to ensure that Contractor and all Indemnitees hereunder shall have the same protection from sub-subcontractors as is afforded by the Subcontractor.

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**APPENDIX F  
PREVAILING WAGE RATES**



Kathy Hochul, Governor

Roberta Reardon, Commissioner

Rockland Green  
Ryan Montal, Assistant to the Director  
172 Main Street  
Nanuet NY 10954

Schedule Year 2023 through 2024  
Date Requested 05/22/2024  
PRC# 2024006049

Location WEST HAVERSTRAW  
Project ID# RFP-2024-01  
Project Type all aspects of the work required to build out an existing warehouse structure located at 427 Beach Road, West Haverstraw, New York, and transform it into a new state of the art Animal Shelter (the ?

### PREVAILING WAGE SCHEDULE FOR ARTICLE 8 PUBLIC WORK PROJECT

Attached is the current schedule(s) of the prevailing wage rates and prevailing hourly supplements for the project referenced above. A unique Prevailing Wage Case Number (PRC#) has been assigned to the schedule(s) for your project.

The schedule is effective from July 2023 through June 2024. All updates, corrections, posted on the 1st business day of each month, and future copies of the annual determination are available on the Department's website [www.labor.ny.gov](http://www.labor.ny.gov). Updated PDF copies of your schedule can be accessed by entering your assigned PRC# at the proper location on the website.

It is the responsibility of the contracting agency or its agent to annex and make part, the attached schedule, to the specifications for this project, when it is advertised for bids and /or to forward said schedules to the successful bidder(s), immediately upon receipt, in order to insure the proper payment of wages.

Please refer to the "General Provisions of Laws Covering Workers on Public Work Contracts" provided with this schedule, for the specific details relating to other responsibilities of the Department of Jurisdiction.

Upon completion or cancellation of this project, enter the required information and mail **OR** fax this form to the office shown at the bottom of this notice, **OR** fill out the electronic version via the NYSDOL website.

#### NOTICE OF COMPLETION / CANCELLATION OF PROJECT

Date Completed: \_\_\_\_\_ Date Cancelled: \_\_\_\_\_

Name & Title of Representative: \_\_\_\_\_

Phone: (518) 457-5589 Fax: (518) 485-1870  
W. Averell Harriman State Office Campus, Bldg. 12, Room 130, Albany, NY 12226



# General Provisions of Laws Covering Workers on Article 8 Public Work Contracts

## Introduction

The Labor Law requires public work contractors and subcontractors to pay laborers, workers, or mechanics employed in the performance of a public work contract not less than the prevailing rate of wage and supplements (fringe benefits) in the locality where the work is performed.

## Responsibilities of the Department of Jurisdiction

A Department of Jurisdiction (Contracting Agency) includes a state department, agency, board or commission; a county, city, town or village; a school district, board of education or board of cooperative educational services; a sewer, water, fire, improvement and other district corporation; a public benefit corporation; and a public authority awarding a public work contract.

The Department of Jurisdiction (Contracting Agency) awarding a public work contract MUST obtain a Prevailing Rate Schedule listing the hourly rates of wages and supplements due the workers to be employed on a public work project. This schedule may be obtained by completing and forwarding a "Request for wage and Supplement Information" form (PW 39) to the Bureau of Public Work. The Prevailing Rate Schedule MUST be included in the specifications for the contract to be awarded and is deemed part of the public work contract.

Upon the awarding of the contract, the law requires that the Department of Jurisdiction (Contracting Agency) furnish the following information to the Bureau: the name and address of the contractor, the date the contract was let and the approximate dollar value of the contract. To facilitate compliance with this provision of the Labor Law, a copy of the Department's "Notice of Contract Award" form (PW 16) is provided with the original Prevailing Rate Schedule.

The Department of Jurisdiction (Contracting Agency) is required to notify the Bureau of the completion or cancellation of any public work project. The Department's PW 200 form is provided for that purpose.

Both the PW 16 and PW 200 forms are available for completion [online](#).

## Hours

No laborer, worker, or mechanic in the employ of a contractor or subcontractor engaged in the performance of any public work project shall be permitted to work more than eight hours in any day or more than five days in any week, except in cases of extraordinary emergency. The contractor and the Department of Jurisdiction (Contracting Agency) may apply to the Bureau of Public Work for a dispensation permitting workers to work additional hours or days per week on a particular public work project.

## Wages and Supplements

The wages and supplements to be paid and/or provided to laborers, workers, and mechanics employed on a public work project shall be not less than those listed in the current Prevailing Rate Schedule for the locality where the work is performed. If a prime contractor on a public work project has not been provided with a Prevailing Rate Schedule, the contractor must notify the Department of Jurisdiction (Contracting Agency) who in turn must request an original Prevailing Rate Schedule from the Bureau of Public Work. Requests may be submitted by: mail to NYSDOL, Bureau of Public Work, State Office Bldg. Campus, Bldg. 12, Rm. 130, Albany, NY 12226; Fax to Bureau of Public Work (518) 485-1870; or electronically at the NYSDOL website [www.labor.ny.gov](http://www.labor.ny.gov).

Upon receiving the original schedule, the Department of Jurisdiction (Contracting Agency) is REQUIRED to provide complete copies to all prime contractors who in turn MUST, by law, provide copies of all applicable county schedules to each subcontractor and obtain from each subcontractor, an affidavit certifying such schedules were received. If the original schedule expired, the contractor may obtain a copy of the new annual determination from the NYSDOL website [www.labor.ny.gov](http://www.labor.ny.gov).

The Commissioner of Labor makes an annual determination of the prevailing rates. This determination is in effect from July 1st through June 30th of the following year. The annual determination is available on the NYSDOL website [www.labor.ny.gov](http://www.labor.ny.gov).

## Payrolls and Payroll Records

Every contractor and subcontractor MUST keep original payrolls or transcripts subscribed and affirmed as true under penalty of perjury. As per Article 6 of the Labor law, contractors and subcontractors are required to establish, maintain, and preserve for not less than six (6) years, contemporaneous, true, and accurate payroll records. At a minimum, payrolls must show the following information for each person employed on a public work project: Name, Address, Last 4 Digits of Social Security Number, Classification(s) in which the worker was employed, Hourly wage rate(s) paid, Supplements paid or provided, and Daily and weekly number of hours worked in each classification.

The filing of payrolls to the Department of Jurisdiction is a condition of payment. Every contractor and subcontractor shall submit to the Department of Jurisdiction (Contracting Agency), within thirty (30) days after issuance of its first payroll and every thirty (30) days thereafter, a transcript of the original payrolls, subscribed and affirmed as true under penalty of perjury. The Department of Jurisdiction (Contracting Agency) shall collect, review for facial validity, and maintain such payrolls.

In addition, the Commissioner of Labor may require contractors to furnish, with ten (10) days of a request, payroll records sworn to as their validity and accuracy for public work and private work. Payroll records include, but are not limited to time cards, work description sheets, proof that supplements were provided, cancelled payroll checks and payrolls. Failure to provide the requested information within the allotted ten (10) days will result in the withholding of up to 25% of the contract, not to exceed \$100,000.00. If the contractor or subcontractor does not maintain a place of business in New York State and the amount of the contract exceeds \$25,000.00, payroll records and certifications must be kept on the project worksite.

The prime contractor is responsible for any underpayments of prevailing wages or supplements by any subcontractor.

All contractors or their subcontractors shall provide to their subcontractors a copy of the Prevailing Rate Schedule specified in the public work contract as well as any subsequently issued schedules. A failure to provide these schedules by a contractor or subcontractor is a violation of Article 8, Section 220-a of the Labor Law.

All subcontractors engaged by a public work project contractor or its subcontractor, upon receipt of the original schedule and any subsequently issued schedules, shall provide to such contractor a verified statement attesting that the subcontractor has received the Prevailing Rate Schedule and will pay or provide the applicable rates of wages and supplements specified therein. (See NYS Labor Laws, Article 8 . Section 220-a).

### **Determination of Prevailing Wage and Supplement Rate Updates Applicable to All Counties**

The wages and supplements contained in the annual determination become effective July 1st whether or not the new determination has been received by a given contractor. Care should be taken to review the rates for obvious errors. Any corrections should be brought to the Department's attention immediately. It is the responsibility of the public work contractor to use the proper rates. If there is a question on the proper classification to be used, please call the district office located nearest the project. Any errors in the annual determination will be corrected and posted to the NYS DOL website on the first business day of each month. Contractors are responsible for paying these updated rates as well, retroactive to July 1st.

When you review the schedule for a particular occupation, your attention should be directed to the dates above the column of rates. These are the dates for which a given set of rates is effective. To the extent possible, the Department posts rates in its possession that cover periods of time beyond the July 1st to June 30th time frame covered by a particular annual determination. Rates that extend beyond that instant time period are informational ONLY and may be updated in future annual determinations that actually cover the then appropriate July 1st to June 30th time period.

### **Withholding of Payments**

When a complaint is filed with the Commissioner of Labor alleging the failure of a contractor or subcontractor to pay or provide the prevailing wages or supplements, or when the Commissioner of Labor believes that unpaid wages or supplements may be due, payments on the public work contract shall be withheld from the prime contractor in a sufficient amount to satisfy the alleged unpaid wages and supplements, including interest and civil penalty, pending a final determination.

When the Bureau of Public Work finds that a contractor or subcontractor on a public work project failed to pay or provide the requisite prevailing wages or supplements, the Bureau is authorized by Sections 220-b and 235.2 of the Labor Law to so notify the financial officer of the Department of Jurisdiction (Contracting Agency) that awarded the public work contract. Such officer MUST then withhold or cause to be withheld from any payment due the prime contractor on account of such contract the amount indicated by the Bureau as sufficient to satisfy the unpaid wages and supplements, including interest and any civil penalty that may be assessed by the Commissioner of Labor. The withholding continues until there is a final determination of the underpayment by the Commissioner of Labor or by the court in the event a legal proceeding is instituted for review of the determination of the Commissioner of Labor.

The Department of Jurisdiction (Contracting Agency) shall comply with this order of the Commissioner of Labor or of the court with respect to the release of the funds so withheld.

### **Summary of Notice Posting Requirements**

The current Prevailing Rate Schedule must be posted in a prominent and accessible place on the site of the public work project. The prevailing wage schedule must be encased in, or constructed of, materials capable of withstanding adverse weather conditions and be titled "PREVAILING RATE OF WAGES" in letters no smaller than two (2) inches by two (2) inches.

The "[Public Work Project](#)" notice must be posted at the beginning of the performance of every public work contract, on each job site.

Every employer providing workers. compensation insurance and disability benefits must post notices of such coverage in the format prescribed by the Workers. Compensation Board in a conspicuous place on the jobsite.

Every employer subject to the NYS Human Rights Law must conspicuously post at its offices, places of employment, or employment training centers, notices furnished by the State Division of Human Rights.

Employers liable for contributions under the Unemployment Insurance Law must conspicuously post on the jobsite notices furnished by the NYS Department of Labor.

## **Apprentices**

Employees cannot be paid apprentice rates unless they are individually registered in a program registered with the NYS Commissioner of Labor. The allowable ratio of apprentices to journeyworkers in any craft classification can be no greater than the statewide building trade ratios promulgated by the Department of Labor and included with the Prevailing Rate Schedule. An employee listed on a payroll as an apprentice who is not registered as above or is performing work outside the classification of work for which the apprentice is indentured, must be paid the prevailing journeyworker's wage rate for the classification of work the employee is actually performing.

NYSDOL Labor Law, Article 8, Section 220-3, require that only apprentices individually registered with the NYS Department of Labor may be paid apprenticeship rates on a public work project. No other Federal or State Agency of office registers apprentices in New York State.

Persons wishing to verify the apprentice registration of any person must do so in writing by mail, to the NYSDOL Office of Employability Development / Apprenticeship Training, State Office Bldg. Campus, Bldg. 12, Albany, NY 12226 or by Fax to NYSDOL Apprenticeship Training (518) 457-7154. All requests for verification must include the name and social security number of the person for whom the information is requested.

The only conclusive proof of individual apprentice registration is written verification from the NYSDOL Apprenticeship Training Albany Central office. Neither Federal nor State Apprenticeship Training offices outside of Albany can provide conclusive registration information.

It should be noted that the existence of a registered apprenticeship program is not conclusive proof that any person is registered in that program. Furthermore, the existence or possession of wallet cards, identification cards, or copies of state forms is not conclusive proof of the registration of any person as an apprentice.

## **Interest and Penalties**

In the event that an underpayment of wages and/or supplements is found:

- Interest shall be assessed at the rate then in effect as prescribed by the Superintendent of Banks pursuant to section 14-a of the Banking Law, per annum from the date of underpayment to the date restitution is made.
- A Civil Penalty may also be assessed, not to exceed 25% of the total of wages, supplements, and interest due.

## **Debarment**

Any contractor or subcontractor and/or its successor shall be ineligible to submit a bid on or be awarded any public work contract or subcontract with any state, municipal corporation or public body for a period of five (5) years when:

- Two (2) willful determinations have been rendered against that contractor or subcontractor and/or its successor within any consecutive six (6) year period.
- There is any willful determination that involves the falsification of payroll records or the kickback of wages or supplements.

## **Criminal Sanctions**

Willful violations of the Prevailing Wage Law (Article 8 of the Labor Law) may be a felony punishable by fine or imprisonment of up to 15 years, or both.

## **Discrimination**

No employee or applicant for employment may be discriminated against on account of age, race, creed, color, national origin, sex, disability or marital status.

No contractor, subcontractor nor any person acting on its behalf, shall by reason of race, creed, color, disability, sex or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the work to which the employment relates (NYS Labor Law, Article 8, Section 220-e(a)).

No contractor, subcontractor, nor any person acting on its behalf, shall in any manner, discriminate against or intimidate any employee on account of race, creed, color, disability, sex, or national origin (NYS Labor Law, Article 8, Section 220-e(b)).

The Human Rights Law also prohibits discrimination in employment because of age, marital status, or religion.

There may be deducted from the amount payable to the contractor under the contract a penalty of \$50.00 for each calendar day during which such person was discriminated against or intimidated in violation of the provision of the contract (NYS Labor Law, Article 8, Section 220-e(c) ).

The contract may be cancelled or terminated by the State or municipality. All monies due or to become due thereunder may be forfeited for a second or any subsequent violation of the terms or conditions of the anti-discrimination sections of the contract (NYS Labor Law, Article 8, Section 220-e(d) ).

Every employer subject to the New York State Human Rights Law must conspicuously post at its offices, places of employment, or employment training centers notices furnished by the State Division of Human Rights.

### **Workers' Compensation**

In accordance with Section 142 of the State Finance Law, the contractor shall maintain coverage during the life of the contract for the benefit of such employees as required by the provisions of the New York State Workers' Compensation Law.

A contractor who is awarded a public work contract must provide proof of workers' compensation coverage prior to being allowed to begin work.

The insurance policy must be issued by a company authorized to provide workers' compensation coverage in New York State. Proof of coverage must be on form C-105.2 (Certificate of Workers' Compensation Insurance) and must name this agency as a certificate holder.

If New York State coverage is added to an existing out-of-state policy, it can only be added to a policy from a company authorized to write workers' compensation coverage in this state. The coverage must be listed under item 3A of the information page.

The contractor must maintain proof that subcontractors doing work covered under this contract secured and maintained a workers' compensation policy for all employees working in New York State.

Every employer providing worker's compensation insurance and disability benefits must post notices of such coverage in the format prescribed by the Workers' Compensation Board in a conspicuous place on the jobsite.

### **Unemployment Insurance**

Employers liable for contributions under the Unemployment Insurance Law must conspicuously post on the jobsite notices furnished by the New York State Department of Labor.



Kathy Hochul, Governor

Roberta Reardon, Commissioner

Rockland Green  
Ryan Montal, Assistant to the Director  
172 Main Street  
Nanuet NY 10954

Schedule Year 2023 through 2024  
Date Requested 05/22/2024  
PRC# 2024006049

Location WEST HAVERSTRAW  
Project ID# RFP-2024-01  
Project Type all aspects of the work required to build out an existing warehouse structure located at 427 Beach Road, West Haverstraw, New York, and transform it into a new state of the art Animal Shelter (the ?

### Notice of Contract Award

New York State Labor Law, Article 8, Section 220.3a requires that certain information regarding the awarding of public work contracts, be furnished to the Commissioner of Labor. One "Notice of Contract Award" (PW 16, which may be photocopied), **MUST** be completed for **EACH** prime contractor on the above referenced project.

Upon notifying the successful bidder(s) of this contract, enter the required information and mail **OR** fax this form to the office shown at the bottom of this notice, **OR** fill out the electronic version via the NYSDOL website.

### Contractor Information

All information must be supplied

Federal Employer Identification Number: _____		
Name: _____		
Address: _____ _____		
City: _____	State: _____	Zip: _____
Amount of Contract: \$ _____	Contract Type:	
Approximate Starting Date: ____/____/____	<input type="checkbox"/> (01) General Construction	
Approximate Completion Date: ____/____/____	<input type="checkbox"/> (02) Heating/Ventilation	
	<input type="checkbox"/> (03) Electrical	
	<input type="checkbox"/> (04) Plumbing	
	<input type="checkbox"/> (05) Other : _____	

Phone: (518) 457-5589 Fax: (518) 485-1870  
W. Averell Harriman State Office Campus, Bldg. 12, Room 130, Albany, NY 12226



## **Social Security Numbers on Certified Payrolls:**

The Department of Labor is cognizant of the concerns of the potential for misuse or inadvertent disclosure of social security numbers. Identity theft is a growing problem and we are sympathetic to contractors' concern regarding inclusion of this information on payrolls if another identifier will suffice.

For these reasons, the substitution of the use of the last four digits of the social security number on certified payrolls submitted to contracting agencies on public work projects is now acceptable to the Department of Labor. This change does not affect the Department's ability to request and receive the entire social security number from employers during its public work/ prevailing wage investigations.

## **Construction Industry Fair Play Act: Required Posting for Labor Law Article 25-B § 861-d**

Construction industry employers must post the "Construction Industry Fair Play Act" notice in a prominent and accessible place on the job site. Failure to post the notice can result in penalties of up to \$1,500 for a first offense and up to \$5,000 for a second offense. The posting is included as part of this wage schedule. Additional copies may be obtained from the NYS DOL website, <https://dol.ny.gov/public-work-and-prevailing-wage>

If you have any questions concerning the Fair Play Act, please call the State Labor Department toll-free at 1-866-435-1499 or email us at: [dol.misclassified@labor.ny.gov](mailto:dol.misclassified@labor.ny.gov) .

## **Worker Notification: (Labor Law §220, paragraph a of subdivision 3-a)**

### **Effective June 23, 2020**

This provision is an addition to the existing wage rate law, Labor Law §220, paragraph a of subdivision 3-a. It requires contractors and subcontractors to provide written notice to all laborers, workers or mechanics of the *prevailing wage and supplement rate* for their particular job classification *on each pay stub*\*. It also requires contractors and subcontractors to *post a notice* at the beginning of the performance of every public work contract *on each job site* that includes the telephone number and address for the Department of Labor and a statement informing laborers, workers or mechanics of their right to contact the Department of Labor if he/she is not receiving the proper prevailing rate of wages and/or supplements for his/her job classification. The required notification will be provided with each wage schedule, may be downloaded from our website [www.labor.ny.gov](http://www.labor.ny.gov) or be made available upon request by contacting the Bureau of Public Work at 518-457-5589. \*In the event the required information will not fit on the pay stub, an accompanying sheet or attachment of the information will suffice.

(12.20)

**To all State Departments, Agency Heads and Public Benefit Corporations  
IMPORTANT NOTICE REGARDING PUBLIC WORK ENFORCEMENT FUND**

**Budget Policy & Reporting Manual**

**B-610**

**Public Work Enforcement Fund**

*effective date December 7, 2005*

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**1. Purpose and Scope:**

This Item describes the Public Work Enforcement Fund (the Fund, PWEF) and its relevance to State agencies and public benefit corporations engaged in construction or reconstruction contracts, maintenance and repair, and announces the recently-enacted increase to the percentage of the dollar value of such contracts that must be deposited into the Fund. This item also describes the roles of the following entities with respect to the Fund:

- New York State Department of Labor (DOL),
- The Office of the State of Comptroller (OSC), and
- State agencies and public benefit corporations.

**2. Background and Statutory References:**

DOL uses the Fund to enforce the State's Labor Law as it relates to contracts for construction or reconstruction, maintenance and repair, as defined in subdivision two of Section 220 of the Labor Law. State agencies and public benefit corporations participating in such contracts are required to make payments to the Fund.

Chapter 511 of the Laws of 1995 (as amended by Chapter 513 of the Laws of 1997, Chapter 655 of the Laws of 1999, Chapter 376 of the Laws of 2003 and Chapter 407 of the Laws of 2005) established the Fund.

**3. Procedures and Agency Responsibilities:**

The Fund is supported by transfers and deposits based on the value of contracts for construction and reconstruction, maintenance and repair, as defined in subdivision two of Section 220 of the Labor Law, into which all State agencies and public benefit corporations enter.

Chapter 407 of the Laws of 2005 increased the amount required to be provided to this fund to .10 of one-percent of the total cost of each such contract, to be calculated at the time agencies or public benefit corporations enter into a new contract or if a contract is amended. The provisions of this bill became effective August 2, 2005.

**To all State Departments, Agency Heads and Public Benefit Corporations  
IMPORTANT NOTICE REGARDING PUBLIC WORK ENFORCEMENT FUND**

OSC will report to DOL on all construction-related ("D") contracts approved during the month, including contract amendments, and then DOL will bill agencies the appropriate assessment monthly. An agency may then make a determination if any of the billed contracts are exempt and so note on the bill submitted back to DOL. For any instance where an agency is unsure if a contract is or is not exempt, they can call the Bureau of Public Work at the number noted below for a determination. Payment by check or journal voucher is due to DOL within thirty days from the date of the billing. DOL will verify the amounts and forward them to OSC for processing.

For those contracts which are not approved or administered by the Comptroller, monthly reports and payments for deposit into the Public Work Enforcement Fund must be provided to the Administrative Finance Bureau at the DOL within 30 days of the end of each month or on a payment schedule mutually agreed upon with DOL.

Reports should contain the following information:

- Name and billing address of State agency or public benefit corporation;
- State agency or public benefit corporation contact and phone number;
- Name and address of contractor receiving the award;
- Contract number and effective dates;
- Contract amount and PWEF assessment charge (if contract amount has been amended, reflect increase or decrease to original contract and the adjustment in the PWEF charge); and
- Brief description of the work to be performed under each contract.

Checks and Journal Vouchers, payable to the "New York State Department of Labor" should be sent to:

Department of Labor  
Administrative Finance Bureau-PWEF Unit  
Building 12, Room 464  
State Office Campus  
Albany, NY 12226

Any questions regarding billing should be directed to NYSDOL's Administrative Finance Bureau-PWEF Unit at (518) 457-3624 and any questions regarding Public Work Contracts should be directed to the Bureau of Public Work at (518) 457-5589.



Required Notice under Article 25-B of the Labor Law

**Attention All Employees, Contractors and Subcontractors:  
You are Covered by the Construction Industry Fair Play Act**

**The law says that you are an employee unless:**

- You are free from direction and control in performing your job, **and**
- You perform work that is not part of the usual work done by the business that hired you, **and**
- You have an independently established business.

Your employer cannot consider you to be an independent contractor unless all three of these facts apply to your work.

**It is against the law for an employer to misclassify employees as independent contractors or pay employees off the books.**

**Employee Rights:** If you are an employee, you are entitled to state and federal worker protections. These include:

- Unemployment Insurance benefits, if you are unemployed through no fault of your own, able to work, and otherwise qualified,
- Workers' compensation benefits for on-the-job injuries,
- Payment for wages earned, minimum wage, and overtime (under certain conditions),
- Prevailing wages on public work projects,
- The provisions of the National Labor Relations Act, and
- A safe work environment.

It is a violation of this law for employers to retaliate against anyone who asserts their rights under the law. Retaliation subjects an employer to civil penalties, a private lawsuit or both.

**Independent Contractors:** If you are an independent contractor, **you must pay all taxes and Unemployment Insurance contributions required by New York State and Federal Law.**

**Penalties** for paying workers off the books or improperly treating employees as independent contractors:

- **Civil Penalty**                      First offense: Up to \$2,500 per employee  
    Subsequent offense(s): Up to \$5,000 per employee
- **Criminal Penalty**                First offense: Misdemeanor - up to 30 days in jail, up to a \$25,000 fine and debarment from performing public work for up to one year.  
    Subsequent offense(s): Misdemeanor - up to 60 days in jail or up to a \$50,000 fine and debarment from performing public work for up to 5 years.

**If you have questions about your employment status or believe that your employer may have violated your rights and you want to file a complaint, call the Department of Labor at (866) 435-1499 or send an email to [dol.misclassified@labor.ny.gov](mailto:dol.misclassified@labor.ny.gov). All complaints of fraud and violations are taken seriously. You can remain anonymous.**

**Employer Name:**

IA 999 (09/16)





# Attention Employees

## THIS IS A: **PUBLIC WORK PROJECT**

If you are employed on this project as a **worker, laborer, or mechanic** you are entitled to receive the **prevailing wage and supplements rate** for the classification at which you are working.

Your pay stub and wage notice received upon hire must clearly state your wage rate and supplement rate.

Chapter 629 of the Labor Laws of 2007:

**These wages are set by law and must be posted at the work site. They can also be found at:**  
**<https://dol.ny.gov/bureau-public-work>**



If you feel that you have not received proper wages or benefits, please call our nearest office.\*

Albany	(518) 457-2744	Patchogue	(631) 687-4882
Binghamton	(607) 721-8005	Rochester	(585) 258-4505
Buffalo	(716) 847-7159	Syracuse	(315) 428-4056
Garden City	(516) 228-3915	Utica	(315) 793-2314
New York City	(212) 932-2419	White Plains	(914) 997-9507
Newburgh	(845) 568-5287		

\* For New York City government agency construction projects, please contact the Office of the NYC Comptroller at (212) 669-4443, or [www.comptroller.nyc.gov](http://www.comptroller.nyc.gov) – click on Bureau of Labor Law.

Contractor Name: \_\_\_\_\_

Project Location: \_\_\_\_\_



## Requirements for OSHA 10 Compliance

Article 8 §220-h requires that when the advertised specifications, for every contract for public work, is \$250,000.00 or more the contract must contain a provision requiring that every worker employed in the performance of a public work contract shall be certified as having completed an OSHA 10 safety training course. The clear intent of this provision is to require that all employees of public work contractors, required to be paid prevailing rates, receive such training "prior to the performing any work on the project."

### The Bureau will enforce the statute as follows:

All contractors and sub contractors must attach a copy of proof of completion of the OSHA 10 course to the first certified payroll submitted to the contracting agency and on each succeeding payroll where any new or additional employee is first listed.

Proof of completion may include but is not limited to:

- Copies of bona fide course completion card (*Note: Completion cards do not have an expiration date.*)
- Training roster, attendance record or other documentation from the certified trainer pending the issuance of the card.
- Other valid proof

\*\*A certification by the employer attesting that all employees have completed such a course is not sufficient proof that the course has been completed.

Any questions regarding this statute may be directed to the New York State Department of Labor, Bureau of Public Work at 518-457-5589.

## WICKS

Public work projects are subject to the Wicks Law requiring separate specifications and bidding for the plumbing, heating and electrical work, when the total project's threshold is \$3 million in Bronx, Kings, New York, Queens and, Richmond counties; \$1.5 million in Nassau, Suffolk and Westchester counties; and \$500,000 in all other counties.

For projects below the monetary threshold, bidders must submit a sealed list naming each subcontractor for the plumbing, HVAC and electrical and the amount to be paid to each. The list may not be changed unless the public owner finds a legitimate construction need, including a change in specifications or costs or the use of a Project Labor Agreement (PLA), and must be open to public inspection.

Allows the state and local agencies and authorities to waive the Wicks Law and use a PLA if it will provide the best work at the lowest possible price. If a PLA is used, all contractors shall participate in apprentice training programs in the trades of work it employs that have been approved by the Department of Labor (DOL) for not less than three years. They shall also have at least one graduate in the last three years and use affirmative efforts to retain minority apprentices. PLA's would be exempt from Wicks, but deemed to be public work subject to prevailing wage enforcement.

The Commissioner of Labor shall have the power to enforce separate specification requirements on projects, and may issue stop-bid orders against public owners for non-compliance.

Other new monetary thresholds, and similar sealed bidding for non-Wicks projects, would apply to certain public authorities including municipal housing authorities, NYC Construction Fund, Yonkers Educational Construction Fund, NYC Municipal Water Finance Authority, Buffalo Municipal Water Finance Authority, Westchester County Health Care Association, Nassau County Health Care Corp., Clifton-Fine Health Care Corp., Erie County Medical Center Corp., NYC Solid Waste Management Facilities, and the Dormitory Authority.

Contractors must pay subcontractors within a 7 days period.

(07.19)

## Introduction to the Prevailing Rate Schedule

### Information About Prevailing Rate Schedule

This information is provided to assist you in the interpretation of particular requirements for each classification of worker contained in the attached Schedule of Prevailing Rates.

#### Classification

It is the duty of the Commissioner of Labor to make the proper classification of workers taking into account whether the work is heavy and highway, building, sewer and water, tunnel work, or residential, and to make a determination of wages and supplements to be paid or provided. It is the responsibility of the public work contractor to use the proper rate. If there is a question on the proper classification to be used, please call the district office located nearest the project. District office locations and phone numbers are listed below.

Prevailing Wage Schedules are issued separately for "General Construction Projects" and "Residential Construction Projects" on a county-by-county basis.

General Construction Rates apply to projects such as: Buildings, Heavy & Highway, and Tunnel and Water & Sewer rates.

Residential Construction Rates generally apply to construction, reconstruction, repair, alteration, or demolition of one family, two family, row housing, or rental type units intended for residential use.

Some rates listed in the Residential Construction Rate Schedule have a very limited applicability listed along with the rate. Rates for occupations or locations not shown on the residential schedule must be obtained from the General Construction Rate Schedule. Please contact the local Bureau of Public Work office before using Residential Rate Schedules, to ensure that the project meets the required criteria.

#### Payrolls and Payroll Records

Contractors and subcontractors are required to establish, maintain, and preserve for not less than six (6) years, contemporaneous, true, and accurate payroll records.

Every contractor and subcontractor shall submit to the Department of Jurisdiction (Contracting Agency), within thirty (30) days after issuance of its first payroll and every thirty (30) days thereafter, a transcript of the original payrolls, subscribed and affirmed as true under penalty of perjury.

#### Paid Holidays

Paid Holidays are days for which an eligible employee receives a regular day's pay, but is not required to perform work. If an employee works on a day listed as a paid holiday, this remuneration is in addition to payment of the required prevailing rate for the work actually performed.

#### Overtime

At a minimum, all work performed on a public work project in excess of eight hours in any one day or more than five days in any workweek is overtime. However, the specific overtime requirements for each trade or occupation on a public work project may differ. Specific overtime requirements for each trade or occupation are contained in the prevailing rate schedules.

Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays.

The applicable holidays are listed under HOLIDAYS: OVERTIME. The required rate of pay for these covered holidays can be found in the OVERTIME PAY section listings for each classification.

#### Supplemental Benefits

Particular attention should be given to the supplemental benefit requirements. Although in most cases the payment or provision of supplements is straight time for all hours worked, some classifications require the payment or provision of supplements, or a portion of the supplements, to be paid or provided at a premium rate for premium hours worked. Supplements may also be required to be paid or provided on paid holidays, regardless of whether the day is worked. The Overtime Codes and Notes listed on the particular wage classification will indicate these conditions as required.

#### Effective Dates

When you review the schedule for a particular occupation, your attention should be directed to the dates above the column of rates. These are the dates for which a given set of rates is effective. The rate listed is valid until the next effective rate change or until the new annual determination which takes effect on July 1 of each year. All contractors and subcontractors are required to pay the current prevailing rates of wages and supplements. If you have any questions please contact the Bureau of Public Work or visit the New York State Department of Labor website ([www.labor.ny.gov](http://www.labor.ny.gov)) for current wage rate information.

#### Apprentice Training Ratios

The following are the allowable ratios of registered Apprentices to Journey-workers.

For example, the ratio 1:1,1:3 indicates the allowable initial ratio is one Apprentice to one Journeyworker. The Journeyworker must be in place on the project before an Apprentice is allowed. Then three additional Journeyworkers are needed before a second Apprentice is allowed. The last ratio repeats indefinitely. Therefore, three more Journeyworkers must be present before a third Apprentice can be hired, and so on.

Please call Apprentice Training Central Office at (518) 457-6820 if you have any questions.

Title (Trade)	Ratio
Boilermaker (Construction)	1:1,1:4
Boilermaker (Shop)	1:1,1:3
Carpenter (Bldg.,H&H, Pile Driver/Dockbuilder)	1:1,1:4
Carpenter (Residential)	1:1,1:3
Electrical (Outside) Lineman	1:1,1:2
Electrician (Inside)	1:1,1:3
Elevator/Escalator Construction & Modernizer	1:1,1:2
Glazier	1:1,1:3
Insulation & Asbestos Worker	1:1,1:3
Iron Worker	1:1,1:4
Laborer	1:1,1:3
Mason	1:1,1:4
Millwright	1:1,1:4
Op Engineer	1:1,1:5
Painter	1:1,1:3
Plumber & Steamfitter	1:1,1:3
Roofer	1:1,1:2
Sheet Metal Worker	1:1,1:3
Sprinkler Fitter	1:1,1:2

If you have any questions concerning the attached schedule or would like additional information, please contact the nearest BUREAU of PUBLIC WORK District Office or write to:

New York State Department of Labor  
Bureau of Public Work  
State Office Campus, Bldg. 12  
Albany, NY 12226

District Office Locations:	Telephone #	FAX #
Bureau of Public Work - Albany	518-457-2744	518-485-0240
Bureau of Public Work - Binghamton	607-721-8005	607-721-8004
Bureau of Public Work - Buffalo	716-847-7159	716-847-7650
Bureau of Public Work - Garden City	516-228-3915	516-794-3518
Bureau of Public Work - Newburgh	845-568-5287	845-568-5332
Bureau of Public Work - New York City	212-932-2419	212-775-3579
Bureau of Public Work - Patchogue	631-687-4882	631-687-4902
Bureau of Public Work - Rochester	585-258-4505	585-258-4708
Bureau of Public Work - Syracuse	315-428-4056	315-428-4671
Bureau of Public Work - Utica	315-793-2314	315-793-2514
Bureau of Public Work - White Plains	914-997-9507	914-997-9523
Bureau of Public Work - Central Office	518-457-5589	518-485-1870

**Rockland County General Construction**

**Boilermaker** **05/01/2024**

**JOB DESCRIPTION** Boilermaker

**DISTRICT** 4

**ENTIRE COUNTIES**

Bronx, Dutchess, Kings, Nassau, New York, Orange, Putnam, Queens, Richmond, Rockland, Suffolk, Sullivan, Ulster, Westchester

**WAGES**

Per Hour:	07/01/2023	01/01/2024
Boilermaker	\$ 65.88	\$ 67.38
Repairs & Renovations	65.88	67.38

Repairs & Renovation: Includes Repairing, Renovating replacement of parts to an existing unit(s).

**SUPPLEMENTAL BENEFITS**

Per Hour:

Boilermaker	33.5% of hourly	33.5% of Hourly
Repair \$ Renovations	Wage Paid	Wage Paid
	+ \$ 26.49	+ \$26.85

NOTE: "Hourly Wage Paid" shall include any and all premium(s) pay.

Repairs & Renovation Includes replacement of parts and repairs & renovation of existing unit.

**OVERTIME PAY**

See (\*B, O, \*\*U) on OVERTIME PAGE

Note:\* Includes 9th & 10th hours, double for 11th or more.

\*\* Labor Day ONLY, if worked.

Repairs & Renovation see (B,E,Q) on OT Page

**HOLIDAY**

Paid: See (1) on HOLIDAY PAGE  
 Overtime: See (5, 6, 11, 12, 15, 25, 26, 29) on HOLIDAY PAGE

**REGISTERED APPRENTICES**

Wage per hour:

(1/2) Year Terms at the following percentage of Boilermaker's Wage

1st	2nd	3rd	4th	5th	6th	7th
65%	70%	75%	80%	85%	90%	95%

Supplemental Benefits Per Hour:

Apprentice(s)	33.5% of Hourly Wage Paid Plus Amount Below	33.5% of Hourly Wage Paid Plus Amount Below
1st Term	\$ 20.12	\$ 20.36
2nd Term	21.03	21.28
3rd Term	21.95	22.22
4th Term	22.83	23.12
5th Term	23.76	24.07
6th Term	24.67	25.00
7th Term	25.58	25.93

NOTE: "Hourly Wage Paid" shall include any and all premium(s)

4-5

**Carpenter** **05/01/2024**

**JOB DESCRIPTION** Carpenter

**DISTRICT** 8

**ENTIRE COUNTIES**

Bronx, Kings, Nassau, New York, Putnam, Queens, Richmond, Rockland, Suffolk, Westchester

**WAGES**

Per hour: 07/01/2023

Piledriver \$ 59.16  
 + 9.79\*

Dockbuilder \$ 59.16  
 + 9.79\*

\*This portion is not subject to overtime premiums

**SUPPLEMENTAL BENEFITS**

Per hour:

Journeyworker \$ 45.34

**OVERTIME PAY**

See (B, E2, O) on OVERTIME PAGE

**HOLIDAY**

Paid: See (1) on HOLIDAY PAGE.

Paid: for 1st & 2nd yr.

Apprentices See (5,6,11,13,25)

Overtime: See (5,6,11,13,25) on HOLIDAY PAGE.

**REGISTERED APPRENTICES**

Wages per hour

(1)year terms:

	1st	2nd	3rd	4th
	\$25.60	\$31.20	\$39.58	\$47.97
	+ 5.30*	+ 5.30*	+ 5.30*	+ 5.30*

\*This portion is not subject to overtime premiums

Supplemental benefits per hour:

All Terms: \$ 31.83

8-1556 Db

**Carpenter**

**05/01/2024**

**JOB DESCRIPTION** Carpenter

**DISTRICT** 8

**ENTIRE COUNTIES**

Bronx, Kings, Nassau, New York, Queens, Richmond, Rockland, Suffolk, Westchester

**WAGES**

Per hour: 07/01/2023

Carpet/Resilient

Floor Coverer \$ 55.05  
 + 8.25\*

\*This portion is not subject to overtime premiums

INCLUDES HANDLING & INSTALLATION OF ARTIFICIAL TURF AND SIMILAR TURF INDOORS/OUTDOORS.

**SUPPLEMENTAL BENEFITS**

Per hour:

\$ 39.45

**OVERTIME PAY**

See (B, E, Q) on OVERTIME PAGE

**HOLIDAY**

Paid: See (18, 19) on HOLIDAY PAGE.

Paid for 1st & 2nd yr.

Apprentices See (5,6,11,13,16,18,19,25)

Overtime: See (5,6,11,13,16,18,19,25) on HOLIDAY PAGE.

**REGISTERED APPRENTICES**

Wage per hour - (1) year terms:

	1st	2nd	3rd	4th
	\$ 25.20	\$ 28.20	\$ 32.45	\$ 40.33

+ 1.85\* + 2.35\* + 2.85\* + 3.85\*

\*This portion is not subject to overtime premiums

Supplemental benefits per hour:

	1st	2nd	3rd	4th
	\$ 15.22	\$ 16.22	\$ 19.32	\$ 20.32

8-2287

**Carpenter**

**05/01/2024**

**JOB DESCRIPTION** Carpenter

**DISTRICT 8**

**ENTIRE COUNTIES**

Bronx, Dutchess, Kings, Nassau, New York, Orange, Putnam, Queens, Richmond, Rockland, Suffolk, Westchester

**WAGES**

Per Hour: 07/01/2023

Marine Construction:

Marine Diver \$ 74.03  
 + 9.79\*

Marine Tender \$ 53.57  
 + 9.79\*

\*This portion is not subject to overtime premiums

**SUPPLEMENTAL BENEFITS**

Per Hour:

Journeyworker \$ 45.34

**OVERTIME PAY**

See (B, E, E2, Q) on OVERTIME PAGE

**HOLIDAY**

Paid: See (18, 19) on HOLIDAY PAGE

Overtime: See (5, 6, 11, 13, 16, 18, 19, 25) on HOLIDAY PAGE

**REGISTERED APPRENTICES**

Wages per hour:

One (1) year terms.

1st year \$ 25.60  
 + 5.30\*

2nd year 31.20  
 + 5.30\*

3rd year 39.58  
 + 5.30\*

4th year 47.97  
 + 5.05\*

\*This portion is not subject to overtime premiums

Supplemental Benefits

Per Hour:

All terms \$ 31.83

8-1456MC

**Carpenter**

**05/01/2024**

**JOB DESCRIPTION** Carpenter

**DISTRICT 8**

**ENTIRE COUNTIES**

Bronx, Kings, Nassau, New York, Putnam, Queens, Richmond, Rockland, Suffolk, Westchester

**WAGES**

Per hour: 07/01/2023

Building  
 Millwright \$ 58.70  
 + 12.62\*

\*This portion is not subject to overtime premiums

**SUPPLEMENTAL BENEFITS**

Per hour:

Millwright \$ 44.31

**OVERTIME PAY**

See (B, E, Q) on OVERTIME PAGE

**HOLIDAY**

Paid: See (18,19) on HOLIDAY PAGE.

Overtime See (5,6,8,11,13,18,19,25) on HOLIDAY PAGE.

**REGISTERED APPRENTICES**

Wages per hour:

One (1) year terms:

1st.	2nd.	3rd.	4th.
\$31.74	\$37.19	\$42.64	\$53.54
+ 6.75*	+ 7.92*	+ 9.09*	+ 11.43*

\*This portion is not subject to overtime premiums

Supplemental benefits per hour:

One (1) year terms:

1st.	2nd.	3rd.	4th.
\$29.81	\$32.34	\$35.52	\$39.94

8-740.1

**Carpenter**

**05/01/2024**

**JOB DESCRIPTION** Carpenter

**DISTRICT 8**

**ENTIRE COUNTIES**

Bronx, Kings, Nassau, New York, Queens, Richmond, Rockland, Westchester

**PARTIAL COUNTIES**

Orange: South of but including the following, Waterloo Mills, Slate Hill, New Hampton, Goshen, Blooming Grove, Mountainville, east to the Hudson River.

Putnam: South of but including the following, Cold Spring, TompkinsCorner, Mahopac, Croton Falls, east to Connecticut border.

Suffolk: West of Port Jefferson and Patchogue Road to Route 112 to the Atlantic Ocean.

**WAGES**

Per hour: 07/01/2023

Core Drilling:

Driller \$ 43.88  
 + 2.50\*

Driller Helper

\$ 34.47  
 + 2.50\*

Note: Hazardous Waste Pay Differential:

For Level C, an additional 15% above wage rate per hour

For Level B, an additional 15% above wage rate per hour

For Level A, an additional 15% above wage rate per hour

Note: When required to work on water: an additional \$ 3.00 per hour.

\*This portion is not subject to overtime premiums

**SUPPLEMENTAL BENEFITS**

Per hour:

Driller and Helper \$ 28.85

**OVERTIME PAY**

See (B, G, P) on OVERTIME PAGE

**HOLIDAY**

Paid: See (5, 6) on HOLIDAY PAGE  
 Overtime: See (5, 6) on HOLIDAY PAGE

8-1536-CoreDriller

**Carpenter - Building / Heavy&Highway** **05/01/2024**

**JOB DESCRIPTION** Carpenter - Building / Heavy&Highway **DISTRICT 11**

**ENTIRE COUNTIES**  
 Putnam, Rockland, Westchester

**WAGES**

WAGES:(per hour)

Applies to CAPRENTER BUILDING/HEAVY & HIGHWAY/TUNNEL:

	07/01/2023	07/01/2024	07/01/2025	07/01/2026
		Additional	Additional	Additional
Base Wage	\$ 39.80	\$ 1.25**	\$ 1.25**	\$ 1.25**
	+\$6.71*			

\*For all hours paid straight or premium.

\*\*To be allocated at a later date.

SHIFT DIFFERENTIAL: When it is mandated by a Government Agency irregular or off shift can be worked. The Carpenter shall receive an additional fifteen percent (15%) of wage plus applicable benefits.

**SUPPLEMENTAL BENEFITS**

Per hour:

Journeyworker \$ 33.22

**OVERTIME PAY**

See (B, E, Q) on OVERTIME PAGE

**HOLIDAY**

BUILDING:

Paid: See ( 1 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 16, 25 ) on HOLIDAY PAGE.

- Holidays that fall on Sunday will be observed Monday.

HEAVY&HIGHWAY/TUNNEL:

Paid: See ( 5, 6, 25 ) on HOLIDAY PAGE

Overtime: See ( 5, 6 ) on HOLIDAY PAGE

- Holidays that fall on Sunday will be observed Monday

- Must be employed during the five (5) work days immediately preceding a holiday or during the five (5) work days following the paid holiday to receive holiday pay

- If Employee is entitled to a paid holiday, the Employee is paid the Holiday wage and supplemental benefits whether they work or not. If Employee works the Holiday, the Employee will receive holiday pay (including supplemental benefits), plus the applicable premium wage for working the Holiday. If Employee works in excess of 8 hours on Holiday, then benefits will be paid for any hours in excess of 8 hours.

**REGISTERED APPRENTICES**

1 year terms at the following wage rates:

1st	2nd	3rd	4th	5th
\$ 19.90	\$ 23.88	\$ 25.87	\$ 27.86	\$ 31.84
+3.58*	+3.58*	+3.58*	+3.58*	+3.58*

\*For all hours paid straight or premium

SUPPLEMENTAL BENEFITS per hour:

All terms \$ 16.27

11-279.1B/HH

**Electrician** **05/01/2024**

**JOB DESCRIPTION** Electrician **DISTRICT 11**

**ENTIRE COUNTIES**  
 Orange, Putnam, Rockland

**PARTIAL COUNTIES**  
 Dutchess: Towns of Fishkill, East Fishkill, and Beacon.

**WAGES**

Per hour:

	07/01/2023	04/01/2024
Electrician Wireman/Technician	\$ 49.50 +9.00*	\$ 50.50 + 9.50*

SHIFT DIFFERENTIAL: On Public Work in New York State when shift work is mandated either in the job specifications or by the contracting agency, the following rates apply when shift is worked:

Between 4:30pm & 12:30am	\$ 58.08 + 9.00*	\$ 59.30 + 9.50*
Between 12:30am & 8:30am	\$ 65.06 + 9.00*	\$66.35 + 9.50*

\*For all hours paid straight or premium, not to be included in 3% calculation for supplemental benefits.

NOTE ADDITIONAL AMOUNTS PAID FOR THE FOLLOWING WORK LISTED BELOW (subject to overtime premiums):

- On jobs where employees are required to work from boatswain chairs, swinging scaffolds, etc., forty (40) feet or more above the ground, or under compressed air, using Scottair packs, or gas masks, they shall receive an additional \$2.00 per hour above the regular straight time rate.
- Journeyman Wireman working in Shafts, Tunnels or on Barges: \$5.00 above the Journeyman Wireman rate of pay
- Journeyman Wireman when performing welding or cable splicing: \$3.00 above the Journeyman Wireman rate of pay
- Journeyman Wireman required to have a NYS Asbestos Certificate: \$3.00 above the Journeyman Wireman rate of pay
- Journeyman Wireman required to have a CDL: \$3.00 above the Journeyman Wireman rate of pay.

**SUPPLEMENTAL BENEFITS**

Per hour:	07/01/2023	04/01/2024
Journeyman	\$ 28.68 plus 3% of straight or premium wage	\$ 29.68 plus 3% of straight or premium wage

**OVERTIME PAY**

See (B, E, Q) on OVERTIME PAGE

**HOLIDAY**

Paid: See (1) on HOLIDAY PAGE  
 Overtime: See (5, 6, 13, 15, 16, 25) on HOLIDAY PAGE

When the holiday falls on a Saturday it is observed the Friday before. When the holiday falls on a Sunday it is observed on the Monday after.

**REGISTERED APPRENTICES**

WAGES:

(1)year terms at the following rates

07/01/2023	1st	2nd	3rd	4th	5th	6th
1st Shift	\$ 14.25 +1.00*	\$ 19.00 +1.00*	\$ 23.75 +1.50*	\$ 28.50 +2.00*	\$ 33.25 +2.50*	\$ 35.63 +2.50*
2nd Shift	16.72 +1.00*	22.29 +1.00*	27.86 +1.50*	33.43 +2.00*	39.00 +2.50*	41.79 +2.50*
3rd Shift	18.72 +1.00*	24.97 +1.00*	31.21 +1.50*	37.45 +2.00*	43.69 +2.50*	46.82 +2.50*
09/01/2023	1st	2nd	3rd	4th	5th	6th
1st Shift	\$ 15.68 +1.00*	\$ 19.00 +1.00*	\$ 23.75 +1.50*	\$ 28.50 +2.00*	\$ 33.25 +2.50*	\$ 35.63 +2.50*
2nd Shift	18.39 +1.00*	22.29 +1.00*	27.86 +1.50*	33.43 +2.00*	39.00 +2.50*	41.79 +2.50*
3rd Shift	20.60 +1.00*	24.97 +1.00*	31.21 +1.50*	47.45 +2.00*	43.69 +2.50*	46.82 +2.50*
04/01/2024	1st	2nd	3rd	4th	5th	6th
1st Shift	\$ 16.01 +1.00*	\$ 19.40 +1.00*	\$ 24.25 +1.50*	\$ 29.10 +2.00*	\$ 33.95 +2.50*	\$ 36.38 +2.50*
2nd Shift	18.78 +1.00*	22.76 +1.00*	28.45 +1.50*	34.13 +2.00*	39.82 +2.50*	42.67 +2.50*
3rd Shift	21.04 +1.00*	25.49 +1.00*	31.86 +1.50*	38.24 +2.00*	44.61 +2.50*	47.80 +2.50*
09/01/2024	1st	2nd	3rd	4th	5th	6th
1st Shift	\$ 16.01 +1.00*	\$ 19.40 +1.00*	\$ 24.25 +1.00*	\$ 29.10 +2.00*	\$ 33.95 +2.50*	\$ 36.38 +2.50*
2nd Shift	18.78 +1.00*	22.76 +1.00*	28.45 +1.00*	34.13 +2.00*	39.82 +2.50*	42.67 +2.50*

3rd Shift	21.04 +1.00*	25.49 +1.00*	31.86 +1.00*	38.24 +2.00*	44.61 +2.50*	47.80 +2.50*
04/01/2025	1st	2nd	3rd	4th	5th	6th
1st Shift	\$ 16.34 +1.00*	\$ 19.80 +1.00*	\$ 24.75 +1.00*	\$ 29.70 +2.00*	\$ 34.65 +2.50*	\$ 37.13 +2.50*
2nd Shift	19.17 +1.00*	23.23 +1.00*	29.03 +1.00*	34.84 +2.00*	40.64 +2.50*	43.55 +2.50*
3rd Shift	21.47 +1.00*	26.02 +1.00*	32.52 +1.00*	39.03 +2.00*	45.53 +2.50*	48.79 +2.50*

\*For all hours paid straight or premium, not to be included in 3% calculation for supplemental benefits.

SUPPLEMENTAL BENEFITS per hour:

07/01/2023

1st term	\$ 16.28 plus 3% of straight or premium wage
2nd term	\$ 16.28 plus 3% of straight or premium wage
3rd term	\$ 18.28 plus 3% of straight or premium wage
4th term	\$ 18.78 plus 3% of straight or premium wage
5th term	\$ 20.28 plus 3% of straight or premium wage
6th term	\$ 20.28 plus 3% of straight or premium wage

09/01/2024

1st term	\$ 16.28 plus 3% of straight or premium wage
2nd term	\$ 17.78 plus 3% of straight or premium wage
3rd term	\$ 18.78 plus 3% of straight or premium wage
4th term	\$ 19.78 plus 3% of straight or premium wage
5th term	\$ 21.28 plus 3% of straight or premium wage
6th term	\$ 21.28 plus 3% of straight or premium wage

11-363/1

**Elevator Constructor**

**05/01/2024**

**JOB DESCRIPTION** Elevator Constructor

**DISTRICT 4**

**ENTIRE COUNTIES**

Bronx, Kings, Nassau, New York, Queens, Richmond, Suffolk

**PARTIAL COUNTIES**

Rockland: Entire County except for the Township of Stony Point

Westchester: Entire County except for the Townships of Bedford, Lewisboro, Cortland, Mt. Kisco, North Salem, Pound Ridge, Somers and Yorktown.

**WAGES**

Per hour:

07/01/2023

Elevator Constructor \$ 77.49

Modernization & Service/Repair \$ 60.89

NOTE - The 'Employer Registration' (30.1) use of a '4 Day/10 Hour Work schedules' will no longer be accepted or processed. All registered projects prior to June 30,2023 will expire within the granted time frame.

For Pre-Registered Projects Four (4), Ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day. For further clarification contact your local Bureau Office.

**SUPPLEMENTAL BENEFITS**

Per Hour:

Elevator Constructor \$ 45.574

Modernization & Service/Repairs 44.412

**OVERTIME PAY**

Constructor See ( D, M, T ) on OVERTIME PAGE.

Modern/Service See ( B, F, S ) on OVERTIME PAGE.

**HOLIDAY**

Paid: See (5, 6, 8, 11, 15, 16, 25) on HOLIDAY PAGE  
 Overtime: See (5, 6, 8, 11, 15, 16, 25) on HOLIDAY PAGE

**REGISTERED APPRENTICES**

WAGES PER HOUR:

\*Note:1st, 2nd, 3rd Terms are based on Average wage of Constructor & Modernization.  
 Terms 4 thru 9 Based on Journeyman's wage of classification Working in.

6 MONTH TERMS:

1st Term*	2nd & 3rd Term*	4th & 5th Term	6th & 7th Term	8th & 9th Term
50%	50%	55%	65%	75%

**SUPPLEMENTAL BENEFITS**

Elevator Constructor

1st Term	\$ 0.00
2nd & 3rd Term	36.024
4th & 5th Term	36.943
6th & 7th Term	38.448
8th & 9th Term	39.953

Modernization &  
 Service/Repair

1st Term	\$ 0.00
2nd & 3rd Term	35.694
4th & 5th Term	36.525
6th & 7th Term	37.948
8th & 9th Term	39.38

4-1

**Elevator Constructor**

**05/01/2024**

**JOB DESCRIPTION** Elevator Constructor

**DISTRICT 1**

**ENTIRE COUNTIES**

Columbia, Dutchess, Greene, Orange, Putnam, Sullivan, Ulster

**PARTIAL COUNTIES**

Delaware: Towns of Andes, Bovina, Colchester, Davenport, Delhi, Harpersfield, Hemdon, Kortright, Meredith, Middletown, Roxbury, Hancock & Stamford

Rockland: Only the Township of Stony Point.

Westchester: Only the Townships of Bedford, Lewisboro, Cortland, Mt. Kisco, North Salem, Pound Ridge, Somers and Yorktown.

**WAGES**

Per Hour	07/01/2023	01/01/2024
Mechanic	\$ 67.35	\$ 70.15
Helper	70% of Mechanic Wage Rate	70% of Mechanic Wage Rate

NOTE - The "Employer Registration" (30.1) use of a '4 Day/10 Hour Work schedules' will no longer be accepted or processed. All registered projects prior to June 30, 2023 will expire within the granted time frame.

For Pre-Registered Projects Four (4), Ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day. For further clarification contact your local Bureau Office.

**SUPPLEMENTAL BENEFITS**

Per hour	07/01/2023	01/01/2024
Journeyman/Helper	\$ 37.335*	\$ 37.885*

(\*)Plus 6% of regular hourly if less than 5 years of service. Plus 8% of regular hourly rate if more than 5 years of service.

**OVERTIME PAY**

See (D, O) on OVERTIME PAGE

**HOLIDAY**

Paid: See (5, 6, 15, 16) on HOLIDAY PAGE

Overtime: See (5, 6, 15, 16) on HOLIDAY PAGE

Note: When a paid holiday falls on Saturday, it shall be observed on Friday. When a paid holiday falls on Sunday, it shall be observed on Monday.

**REGISTERED APPRENTICES**

Wages per hour:

0-6 mo*	6-12 mo	2nd yr	3rd yr	4th yr
50 %	55 %	65 %	70 %	80 %

(\* )Plus 6% of the hourly rate, no additional supplemental benefits.

Supplemental Benefits per hour worked:

Same as Journey person/Helper

1-138

**Glazier**

**05/01/2024**

**JOB DESCRIPTION** Glazier

**DISTRICT 8**

**ENTIRE COUNTIES**

Bronx, Dutchess, Kings, Nassau, New York, Orange, Putnam, Queens, Richmond, Rockland, Suffolk, Sullivan, Ulster, Westchester

**WAGES**

Per hour: 7/01/2023

Glazier & Glass Tinting and Window Film	\$ 61.64
*Scaffolding	65.64
**Repair & Maintenance	30.76

\*Scaffolding includes swing scaffold, mechanical equipment, scissor jacks, man lifts, booms & buckets 30' or more, but not pipe scaffolding.

\*\*Repair & Maintenance- All repair & maintenance work on a particular building whenever performed, where the total cumulative Repair & Maintenance contract value is under \$184,000.

**SUPPLEMENTAL BENEFITS**

Per hour: 7/01/2023

Glazier & Glass Tinting and Window Film	\$ 40.20
Repair & Maintenance	23.19

**OVERTIME PAY**

See (B, E, Q, V) on OVERTIME PAGE

For 'Repair & Maintenance' see (B, B2, I, S) on overtime page.

**HOLIDAY**

Paid: See (1) on HOLIDAY PAGE

Overtime: See (4, 6, 16, 25) on HOLIDAY PAGE

For 'Repair & Maintenance'

Paid: See(5, 6, 16, 25)

Overtime: See(5, 6, 16, 25)

**REGISTERED APPRENTICES**

Wage per hour:

(1) year terms at the following wage rates:

7/01/2023

1st term	\$ 21.93
2nd term	30.05
3rd term	39.95
4th term	48.97

Supplemental Benefits:

(Per hour)

1st term	\$ 18.25
2nd term	25.97
3rd term	31.27
4th term	34.32

**Insulator - Heat & Frost**

**05/01/2024**

**JOB DESCRIPTION** Insulator - Heat & Frost

**DISTRICT** 8

**ENTIRE COUNTIES**

Dutchess, Orange, Putnam, Rockland, Westchester

**WAGES**

Per hour:	07/01/2023	06/01/2024
Insulator	\$ 59.25	+ \$ 2.50
Discomfort & Additional Training**	62.31	+ \$ 2.50
Fire Stop Work*	31.77	+ \$ 2.50

\* Applies on all exclusive Fire Stop Work (When contract is for Fire Stop work only). No apprentices on these contracts only.

\*\*Applies to work requiring: garb or equipment worn against the body not customarily worn by insulators; psychological evaluation ;special training, including but not limited to "Yellow Badge" radiation training

Note: Additional \$0.50 per hour for work 30 feet or more above floor or ground level.

**SUPPLEMENTAL BENEFITS**

Per hour:

Journeyworker	\$ 37.35
Discomfort & Additional Training	39.39
Fire Stop Work:	
Journeyworker	19.03

**OVERTIME PAY**

See (B, E, E2, Q, \*T) on OVERTIME PAGE

**HOLIDAY**

Paid: See (1) on HOLIDAY PAGE

Note: Last working day preceding Christmas and New Years day, workers shall work no later than 12:00 noon and shall receive 8 hrs pay.

Overtime: See ( 2\*, 4, 6, 16, 25 ) on HOLIDAY PAGE.

\*Note: Labor Day triple time if worked.

**REGISTERED APPRENTICES**

(1) year terms:

Insulator Apprentices:

1st	2nd	3rd	4th
\$ 31.77	\$ 37.26	\$ 42.76	\$ 48.26

Discomfort & Additional Training Apprentices:

1st	2nd	3rd	4th
\$ 33.30	\$ 39.09	\$ 44.90	\$ 50.71

Supplemental Benefits paid per hour:

Insulator Apprentices:

1st term	\$ 19.03
2nd term	22.69
3rd term	26.36
4th term	30.03

Discomfort & Additional Training Apprentices:

1st term	\$ 20.06
2nd term	23.92
3rd term	27.78
4th term	31.66

**Ironworker** **05/01/2024**

**JOB DESCRIPTION** Ironworker **DISTRICT 4**

**ENTIRE COUNTIES**  
 Bronx, Kings, Nassau, New York, Queens, Richmond, Suffolk, Westchester

**PARTIAL COUNTIES**  
 Rockland: Southern section - south of Convent Road and east of Blue Hills Road.

**WAGES**  
 Per hour: 07/01/2023

Reinforcing & Metal Lathing	\$ 56.95
"Base" Wage	\$ 55.20 plus \$ 1.75

"Base" Wage is used to calculate overtime hours only.

**SUPPLEMENTAL BENEFITS**  
 Per hour:  
 Reinforcing & Metal Lathing \$ 42.72

**OVERTIME PAY**  
 See (B, E, Q, \*X) on OVERTIME PAGE  
 \*Only \$23.50 per Hour for non worked hours

Supplemental Benefit Premiums for Overtime Hours worked:

Time & One Half	\$ 49.47
Double Time	\$ 56.22

**HOLIDAY**  
 Paid: See (1) on HOLIDAY PAGE  
 Overtime: See (5, 6, 11, 13, \*18, \*\*19, 25) on HOLIDAY PAGE  
 \*Note: Work performed after first 4 Hours.

**REGISTERED APPRENTICES**  
 (1) year terms at the following wage rates:

1st term	2nd term	3rd term	4th Term
Wage Per Hour: \$ 22.55	\$ 28.38	\$ 34.68	\$ 37.18
"Base" Wage \$ 21.00 plus \$1.55	\$ 26.80 plus \$1.58	\$ 33.10 plus \$1.58	\$ 35.60 plus \$1.58

"Base" Wage is used to calculate overtime hours ONLY.

**SUPPLEMENTAL BENEFITS**  
 Per Hour:

1st term	2nd term	3rd term	4th Term
\$ 18.17	\$ 21.34	\$ 22.00	\$ 22.50

4-46Reinf

**Ironworker** **05/01/2024**

**JOB DESCRIPTION** Ironworker **DISTRICT 11**

**ENTIRE COUNTIES**  
 Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster

**WAGES**  
 Per hour:

	07/01/2023	07/01/2024	07/01/2025	07/01/2026
Structural	\$ 52.63	Additional \$ 2.00*	Additional \$ 2.00*	Additional \$2.00*
Reinforcing*	52.63	2.00*	2.00*	2.00*

Ornamental	52.63	2.00*	2.00*	2.00*
Chain Link Fence	52.63	2.00*	2.00*	2.00*

\* To be allocated at a later date.

NOTE: For Reinforcing classification ONLY, Ironworker 4-46Reinf rates apply in Rockland County's southern section (south of Convent Road and east of Blue Hills Road).

On Government Mandated Irregular Work Days or Shift Work, the following wage will be paid:

1st Shift	\$ 52.63
2nd Shift	67.34
3rd Shift	72.24

\*\*Note- Any shift that works past 12:00 midnight shall receive the 3rd shift differential.

**SUPPLEMENTAL BENEFITS**

Per hour:

Journeyman	\$ 43.47
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**OVERTIME PAY**

See (B1, Q, V) on OVERTIME PAGE

**HOLIDAY**

Paid: See (1) on HOLIDAY PAGE  
 Overtime: See (5, 6, 16) on HOLIDAY PAGE

If a holiday falls on Saturday, it will be observed Friday. If a holiday falls on Sunday, it will be observed Monday.

**REGISTERED APPRENTICES**

Wages:

(1) year terms at the following wage:

	1st yr	2nd yr	3rd yr	4th yr
1st Shift	\$ 26.32	\$ 31.58	\$ 36.85	\$ 42.10
2nd Shift	36.16	42.40	48.64	54.86
3rd Shift	39.45	46.00	52.57	59.12

Supplemental Benefits per hour:

1st year	\$ 37.35
2nd year	38.57
3rd year	39.80
4th year	41.02

11-417

**Laborer - Building** **05/01/2024**

**JOB DESCRIPTION** Laborer - Building

**DISTRICT** 11

**ENTIRE COUNTIES**

Rockland

**WAGES**

Class 1: Custodial and janitorial work, general cleanup, and flag person.

Class 2: Concrete laborer, mason tending, hod carrier, signal person, pressure blasting and washing, chainsaw, demo saw, jackhammers, general labor.

Class 3: Jumping jack, air track drills, grading, explosive handler and blaster, grade checker. When OSHA requires negative pressure respirator.

Class 4: Environmental work including but not limited to asbestos abatement, toxic and hazardous abatement, lead abatement work, mold remediation and biohazards.

WAGES: (per hour)	07/01/2023	06/01/2024 Additional	06/01/2025 Additional	06/01/2025 Additional
Class 1	\$ 41.48	\$ 2.51*	\$ 2.60*	\$ 2.69*
Class 2	44.59	2.62*	2.71*	2.81*
Class 3	45.72	2.66*	2.75*	2.85*
Class 4	46.91	2.70*	2.80*	2.89*

\*To be allocated at a later date.

SHIFT DIFFERENTIAL: On all Governmental mandated or irregular or off shift work, an additional 25% of the wage will be paid hourly.

NOTE: All work five feet or more outside the building foundation line shall be deemed Heavy & Highway

**SUPPLEMENTAL BENEFITS**

Per Hour:

Journeyman	\$ 29.50
Shift Differential	\$ 36.37

**OVERTIME PAY**

See (B, \*E, E5, \*\*Q) on OVERTIME PAGE

\*For first 8 hours on Saturday

\*\*When an employee is required to work on a holiday which falls on a Sunday the employee shall be paid three (3) times the hourly rate and one (1) hour benefits for every hour worked. When an employee is required to work on a holiday which falls on a Saturday the employee shall be paid two and a half (2.5) times the hourly rate and one hour benefits for every hour worked.

**HOLIDAY**

Paid: See ( 1 ) on HOLIDAY PAGE.

Overtime: See ( 5, 6, 16, 25 ) on HOLIDAY PAGE.

**REGISTERED APPRENTICES**

(1000) hour terms at the following wages.

	07/01/2023	06/01/2024
1st term	\$ 27.05	\$ 28.05
2nd term	31.25	32.35
3rd term	35.40	36.70
4th term	39.55	41.00

Supplemental Benefits per hour:

All Terms Regular	\$ 28.50	\$ 29.40
All Terms Shift Rate	35.12	TBD

11-754B

**Laborer - Heavy&Highway**

**05/01/2024**

**JOB DESCRIPTION** Laborer - Heavy&Highway

**DISTRICT** 11

**ENTIRE COUNTIES**

Rockland

**WAGES**

CLASS 1: Flagperson, gateperson.

CLASS 2: General laborer, chuck tender, nipper, powder carrier, magazine tender, concrete men, vibrator men, mason tender, mortar men, traffic control, custodial work, temporary heat, pump men, pit men, dump men, asphalt men, joint setter, signalman, pipe men, riprap, dry stone layers, jack hammer, bush hammer, pavement breaker, men on mulching & seeding machines, all seeding & sod laying, landscape work, walk behind self-propelled power saws, grinder, walk behind rollers and tampers of all types, burner men, filling and wiring of baskets for gabion walls, chain saw operator, railroad track laborers, power buggy, power brush cutter, retention liners, walk behind surface planer, chipping hammer, manhole, catch basin or inlet installing, mortar mixer, laser men. \*Micropaving and crack sealing.

CLASS 3: Asbestos, toxic, bio-remediation and phyto-remediation, lead or hazardous materials abatement when certification or license is required, Drilling Equipment Only Where a Separate Air Compressor Unit Supplies Power.

CLASS 4: Asphalt screedman, blaster, all laborers involved in pipejacking and boring operations not exceeding more than 10 feet into pipe, boring or drilled area.

WAGES: (per hour)	07/01/2023	06/01/2024 Additional
Class 1	\$ 43.75	\$ 2.25**
Class 2	47.35	2.35**
Class 3	51.65	2.45**
Class 4	55.05	4.10**

\* When laborers are performing micro paving, crack sealing or slurry application when not part of asphalt prep operations laborers shall receive an additional \$2.50 per hour over rate.

\*\* To be allocated at a later date.

SHIFT DIFFERENTIAL: Night work and irregular shift require 20% increase on wages for all Government mandated night and irregular shift work.

NOTE - The 'Employer Registration' (30.1) use of a '4 Day/10 Hour Work schedules' will no longer be accepted or processed. All registered projects prior to June 30,2023 will expire within the granted time frame.

For Pre-Registered Projects Four (4), Ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day. For further clarification contact your local Bureau Office.

**SUPPLEMENTAL BENEFITS**

Per hour:  
 Journeyman \$ 29.38  
 Shift Differential 34.87

**OVERTIME PAY**

See (B, E, P, \*R, \*\*S, \*\*\*T, X) on OVERTIME PAGE  
 \*For Mon-Fri Holidays, Double Benefits to be paid for all hours worked.  
 \*\*For Saturday Holidays, Two and one Half Benefits for all hours worked.  
 \*\*\*For Sunday Holidays, Triple Benefits for all hours worked.

**HOLIDAY**

Paid: See (5, 6, 15, 25) on HOLIDAY PAGE  
 Overtime: See (5, 6, 15, 25) on HOLIDAY PAGE  
 To be eligible for a paid holiday, an employee must work at least two (2) days in the calendar week or payroll week in which the holiday falls.

**REGISTERED APPRENTICES**

(1000) hour terms at the following wages.

	07/01/2023	06/01/2024
1st term	\$ 27.05	\$ 28.05
2nd term	31.25	32.35
3rd term	35.40	36.70
4th term	39.55	41.00
Supplemental Benefits per hour:		
All Terms Regular	\$ 28.50	\$ 29.40
All Terms Shift Rate	33.79	TBD

11-754H/H

**Laborer - Tunnel** **05/01/2024**

**JOB DESCRIPTION** Laborer - Tunnel **DISTRICT 11**

**ENTIRE COUNTIES**  
 Columbia, Dutchess, Greene, Orange, Otsego, Putnam, Rockland, Sullivan, Ulster, Westchester

**PARTIAL COUNTIES**  
 Chenango: Townships of Columbus, Sherburne and New Berlin.  
 Delaware: Townships of Andes, Bovina, Middletown, Roxbury, Franklin, Hamden, Stamford, Delhi, Kortright, Harpersfield, Merideth and Davenport.

- WAGES**  
 Class 1: All support laborers/sandhogs working above the shaft or tunnel.  
 Class 2: All laborers/sandhogs working in the shaft or tunnel.  
 Class 4: Safety Miners  
 Class 5: Site work related to Shaft/Tunnel

WAGES: (per hour)

	07/01/2023	06/01/2024	06/01/2025
Class 1	\$ 55.55	\$ 57.05	\$ 58.55
Class 2	57.70	59.20	60.70
Class 4	64.10	65.60	67.10
Class 5	47.65	49.90	51.40

Toxic and hazardous waste, lead abatement and asbestos abatement work will be paid an additional \$ 3.00 an hour.

- SHIFT DIFFERENTIAL...**On all Government mandated irregular shift work:  
 - Employee shall be paid at time and one half the regular rate Monday through Friday.  
 - Saturday shall be paid at 1.65 times the regular rate.  
 - Sunday shall be paid at 2.15 times the regular rate.

**SUPPLEMENTAL BENEFITS**

Per hour:

Benefit 1	\$ 35.73	\$ 36.98	\$ 38.23
Benefit 2	51.01	TBD	TBD
Benefit 3	71.28	TBD	TBD

Benefit 1 applies to straight time hours, paid holidays not worked.

Benefit 2 applies to over 8 hours in a day (M-F), irregular shift work hours worked, and Saturday hours worked.

Benefit 3 applies to Sunday and Holiday hours worked.

**OVERTIME PAY**

See (B, E, Q, X) on OVERTIME PAGE

**HOLIDAY**

Paid: See (5, 6, 15, 25) on HOLIDAY PAGE

Overtime: See (5, 6, 15, 16, 25) on HOLIDAY PAGE

When a recognized Holidays falls on Saturday or Sunday, holidays falling on Saturday shall be recognized or observed on Friday and holidays falling on Sunday shall be recognized or observed on Monday. Employees ordered to work on the Saturday or Sunday of the holiday or on the recognized or the observed Friday or Monday for those holidays falling on Saturday or Sunday shall receive double time the established rate and benefits for the holiday.

**REGISTERED APPRENTICES**

FOR APPRENTICE RATES, refer to the appropriate Laborer Heavy & Highway wage rate contained in the wage schedule for the County and location where the work is to be performed.

11-17/60/235/754Tun

**Lineman Electrician**

**05/01/2024**

**JOB DESCRIPTION** Lineman Electrician

**DISTRICT** 6

**ENTIRE COUNTIES**

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

**WAGES**

A Lineman/Technician shall perform all overhead aerial work. A Lineman/Technician on the ground will install all electrical panels, connect all grounds, install and connect all electrical conductors, assembly of all electrical materials, conduit, pipe, or raceway; placing of fish wire; pulling of cables, wires or fiber optic cable through such raceways; splicing of conductors; dismantling of such structures, lines or equipment.

A Groundman/Truck Driver shall: Build and set concrete forms, handle steel mesh, set footer cages, transport concrete in a wheelbarrow, hand or machine concrete vibrator, finish concrete footers, mix mortar, grout pole bases, cover and maintain footers while curing in cold weather, operate jack hammer, operate hand pavement breaker, tamper, concrete and other motorized saws, as a drill helper, operate and maintain generators, water pumps, chainsaws, sand blasting, operate mulching and seeding machine, air tools, electric tools, gas tools, load and unload materials, hand shovel and/or broom, prepare and pour mastic and other fillers, assist digger operator/equipment operator in ground excavation and restoration, landscape work and painting. Only when assisting a lineman technician, a groundman/truck driver may assist in installing conduit, pipe, cables and equipment.

NOTE: Includes Teledata Work within ten (10) feet of High Voltage Transmission Lines. Also includes digging of holes for poles, anchors, footer, and foundations for electrical equipment.

Below rates applicable on all overhead and underground distribution and maintenance work, and all overhead and underground transmission line work and the installation of fiber optic cable where no other construction trades are or have been involved. (Ref #14.01.01)

Per hour:	07/01/2023	05/06/2024
<b>Group A:</b>		
Lineman, Technician	\$ 57.40	\$ 58.90
Crane, Crawler Backhoe	57.40	58.90
Welder, Cable Splicer	57.40	58.90
<b>Group B:</b>		
Digging Mach. Operator	51.66	53.01
Tractor Trailer Driver	48.79	50.07
Groundman, Truck Driver	45.92	47.12
Equipment Mechanic	45.92	47.12
Flagman	34.44	35.34

Additional \$1.00 per hour for entire crew when a helicopter is used.

Below rates applicable on all electrical sub-stations, switching structures, fiber optic cable and all other work not defined as "Utility outside electrical work". (Ref #14.02.01-A)

Group A:		
Lineman, Technician	\$ 57.40	\$ 58.90
Crane, Crawler Backhoe	57.40	58.90
Cable Splicer	63.14	64.79
Certified Welder, Pipe Type Cable	60.27	61.85

Group B:		
Digging Mach. Operator	51.66	53.01
Tractor Trailer Driver	48.79	50.07
Groundman, Truck Driver	45.92	47.12
Equipment Mechanic	45.92	47.12
Flagman	34.44	35.34

Additional \$1.00 per hour for entire crew when a helicopter is used.

Below rates apply on switching structures, maintenance projects, railroad catenary install/maintenance third rail installation, bonding of rails and pipe type cable and installation of fiber optic cable. (Ref #14.02.01-B)

Group A:		
Lineman, Tech, Welder	\$ 58.72	\$ 60.22
Crane, Crawler Backhoe	58.72	60.22
Cable Splicer	64.59	66.24
Certified Welder, Pipe Type Cable	61.66	63.23

Group B:		
Digging Mach. Operator	52.85	54.20
Tractor Trailer Driver	49.91	51.19
Groundman, Truck Driver	46.98	48.18
Equipment Mechanic	46.98	48.18
Flagman	35.23	36.13

Additional \$1.00 per hour for entire crew when a helicopter is used.

Below rates applicable on all overhead and underground transmission line work & fiber optic cable where other construction trades are or have been involved. This applies to transmission line work only, not other construction. (Ref #14.03.01)

Group A:		
Lineman, Tech, Welder	\$ 59.91	\$ 61.41
Crane, Crawler Backhoe	59.91	61.41
Cable Splicer	59.91	61.41

Group B:		
Digging Mach. Operator	53.92	55.27
Tractor Trailer Driver	50.92	52.20
Groundman, Truck Driver	47.93	49.13
Equipment Mechanic	47.93	49.13
Flagman	35.95	36.85

Additional \$1.00 per hour for entire crew when a helicopter is used.

NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED BETWEEN THE HOURS LISTED BELOW:

1ST SHIFT	8:00 AM to 4:30 PM	REGULAR RATE
2ND SHIFT	4:30 PM to 1:00 AM	REGULAR RATE PLUS 17.3 %
3RD SHIFT	12:30 AM to 9:00 AM	REGULAR RATE PLUS 31.4 %

NOTE - The "Employer Registration" (30.1) use of a '4 Day/10 Hour Work schedules' will no longer be accepted or processed. All registered projects prior to June 30, 2023 will expire within the granted time frame.

For Pre-Registered Projects Four (4), Ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day. For further clarification contact your local Bureau Office.

## SUPPLEMENTAL BENEFITS

Per hour:

	07/01/2023	05/06/2024
Group A	\$ 29.40 *plus 7% of the hourly wage paid	\$ 30.90 *plus 7% of the hourly wage paid
Group B	\$ 26.40 *plus 7% of the hourly wage paid	\$ 26.90 *plus 7% of the hourly wage paid

\*The 7% is based on the hourly wage paid, straight time or premium time.

**OVERTIME PAY**

See (B, E, Q, X) on OVERTIME PAGE. \*Note\* Double time for all emergency work designated by the Dept. of Jurisdiction.  
 NOTE: WAGE CAP - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked.  
 Contractor is still responsible to pay the hourly benefit amount for each hour worked.

**HOLIDAY**

Paid See ( 5, 6, 8, 13, 25 ) on HOLIDAY PAGE plus Governor of NYS Election Day.  
 Overtime See ( 5, 6, 8, 13, 25 ) on HOLIDAY PAGE plus Governor of NYS Election Day.

NOTE: All paid holidays falling on Saturday shall be observed on the preceding Friday. All paid holidays falling on Sunday shall be observed on the following Monday. Supplements for holidays paid at straight time.

**REGISTERED APPRENTICES**

WAGES per hour: 1000 hour terms at the following percentage of the applicable Journeyman Lineman wage.

1st	2nd	3rd	4th	5th	6th	7th
60%	65%	70%	75%	80%	85%	90%

SUPPLEMENTAL BENEFITS per hour:

07/01/2023	05/06/2024
\$ 26.40 *plus 7% of the hourly wage paid	\$ 26.90 *plus 7% of the hourly wage paid

\*The 7% is based on the hourly wage paid, straight time or premium time.

6-1249a

**Lineman Electrician - Teledata**

**05/01/2024**

**JOB DESCRIPTION** Lineman Electrician - Teledata

**DISTRICT 6**

**ENTIRE COUNTIES**

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

**WAGES**

Per hour:

For outside work, stopping at first point of attachment (demarcation).

	07/01/2023	01/01/2024	01/01/2025
Cable Splicer	\$ 37.73	\$ 39.24	\$ 40.81
Installer, Repairman	\$ 35.81	\$ 37.24	\$ 38.73
Teledata Lineman	\$ 35.81	\$ 37.24	\$ 38.73
Tech., Equip. Operator	\$ 35.81	\$ 37.24	\$ 38.73
Groundman	\$ 18.98	\$ 19.74	\$ 20.53

NOTE: EXCLUDES Teledata work within ten (10) feet of High Voltage (600 volts and over) transmission lines. For this work please see LINEMAN.

NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED:

1ST SHIFT	REGULAR RATE
2ND SHIFT	REGULAR RATE PLUS 10%
3RD SHIFT	REGULAR RATE PLUS 15%

**SUPPLEMENTAL BENEFITS**

Per hour:	07/01/2023	01/01/2024	01/01/2025
Journeyman	\$ 5.70 *plus 3% of the hourly wage paid	\$ 5.70 *plus 3% of the hourly wage paid	\$ 5.70 *plus 3% of the hourly wage paid

\*The 3% is based on the hourly wage paid, straight time rate or premium rate.

**OVERTIME PAY**

See (B, E, Q) on OVERTIME PAGE

NOTE: WAGE CAP - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked. Contractor is still responsible to pay the hourly benefit amount for each hour worked.

**HOLIDAY**

Paid: See (1) on HOLIDAY PAGE  
 Overtime: See (5, 6, 16) on HOLIDAY PAGE

6-1249LT - Teledata

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**Lineman Electrician - Traffic Signal, Lighting** **05/01/2024**

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**JOB DESCRIPTION** Lineman Electrician - Traffic Signal, Lighting **DISTRICT 6**

**ENTIRE COUNTIES**  
 Columbia, Dutchess, Orange, Putnam, Rockland, Ulster

**WAGES**

Lineman/Technician shall perform all overhead aerial work. A Lineman/Technician on the ground will install all electrical panels, connect all grounds, install and connect all electrical conductors which includes, but is not limited to road loop wires; conduit and plastic or other type pipes that carry conductors, flex cables and connectors, and to oversee the encasement or burial of such conduits or pipes.

A Groundman/Truck Driver shall: Build and set concrete forms, handle steel mesh, set footer cages, transport concrete in a wheelbarrow, hand or machine concrete vibrator, finish concrete footers, mix mortar, grout pole bases, cover and maintain footers while curing in cold weather, operate jack hammer, operate hand pavement breaker, tamper, concrete and other motorized saws, as a drill helper, operate and maintain generators, water pumps, chainsaws, sand blasting, operate mulching and seeding machine, air tools, electric tools, gas tools, load and unload materials, hand shovel and/or broom, prepare and pour mastic and other fillers, assist digger operator/equipment operator in ground excavation and restoration, landscape work and painting. Only when assisting a lineman technician, a groundman/truck driver may assist in installing conduit, pipe, cables and equipment.

A flagger's duties shall consist of traffic control only.  
 (Ref #14.01.02)

Per hour:	07/01/2023	05/06/2024
Group A:		
Lineman, Technician	\$ 50.60	\$ 51.82
Crane, Crawler Backhoe	50.60	51.82
Certified Welder	53.13	54.41
Group B:		
Digging Machine	45.54	46.64
Tractor Trailer Driver	43.01	44.05
Groundman, Truck Driver	40.48	41.46
Equipment Mechanic	40.48	41.46
Flagman	30.36	31.09

Above rates are applicable for installation, testing, operation, maintenance and repair on all Traffic Control (Signal) and Illumination (Lighting) projects, Traffic Monitoring Systems, and Road Weather Information Systems. Includes digging of holes for poles, anchors, footer foundations for electrical equipment; assembly of all electrical materials or raceway; placing of fish wire; pulling of cables, wires or fiber optic cable through such raceways; splicing of conductors; dismantling of such structures, lines or equipment.

NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED BETWEEN THE HOURS LISTED BELOW:

1ST SHIFT	8:00 AM TO 4:30 PM REGULAR RATE
2ND SHIFT	4:30 PM TO 1:00 AM REGULAR RATE PLUS 17.3%
3RD SHIFT	12:30 AM TO 9:00 AM REGULAR RATE PLUS 31.4%

NOTE - The "Employer Registration" (30.1) use of a '4 Day/10 Hour Work schedules' will no longer be accepted or processed. All registered projects prior to June 30, 2023 will expire within the granted time frame.

For Pre-Registered Projects Four (4), Ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day. For further clarification contact your local Bureau Office.

**SUPPLEMENTAL BENEFITS**

Per hour worked (but also required on non-worked holidays):

	07/01/2023	05/06/2024
Group A:	\$ 29.40 *plus 7% of the hourly wage paid	\$ 30.90 *plus 7% of the hourly wage paid
Group B	\$ 26.40 *plus 7% of the hourly wage paid	\$ 26.90 *plus 7% of the hourly wage paid

\*The 7% is based on the hourly wage paid, straight time or premium time.

**OVERTIME PAY**

See (B, E, Q) on OVERTIME PAGE. \*Note\* Double time for all emergency work designated by the Dept. of Jurisdiction.

NOTE: WAGE CAP - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked. Contractor is still responsible to pay the hourly benefit amount for each hour worked.

**HOLIDAY**

Paid: See ( 5, 6, 8, 13, 25 ) on HOLIDAY PAGE and Governor of NYS Election Day.

Overtime: See ( 5, 6, 8, 13, 25 ) on HOLIDAY PAGE and Governor of NYS Election Day.

NOTE: All paid holidays falling on Saturday shall be observed on the preceding Friday. All paid holidays falling on Sunday shall be observed on the following Monday. Supplements for holidays paid at straight time.

**REGISTERED APPRENTICES**

WAGES per hour: 1000 hour terms at the following percentage of the applicable Journeyman Lineman wage.

1st	2nd	3rd	4th	5th	6th	7th
60%	65%	70%	75%	80%	85%	90%

SUPPLEMENTAL BENEFITS per hour:

	07/01/2023	05/06/2024
	\$ 26.40 *plus 7% of the hourly wage paid	\$ 26.90 *plus 7% of the hourly wage paid

\*The 7% is based on the hourly wage paid, straight time or premium time.

6-1249aReg8LT

**Lineman Electrician - Tree Trimmer**

**05/01/2024**

**JOB DESCRIPTION** Lineman Electrician - Tree Trimmer

**DISTRICT** 6

**ENTIRE COUNTIES**

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

**WAGES**

Applies to line clearance, tree work and right-of-way preparation on all new or existing energized overhead or underground electrical, telephone and CATV lines. This also would include stump removal near underground energized electrical lines, including telephone and CATV lines.

Per hour:	07/01/2023	12/31/2023
Tree Trimmer	\$ 29.80	\$ 31.44
Equipment Operator	26.35	27.80
Equipment Mechanic	26.35	27.80
Truck Driver	21.95	23.15
Groundman	18.07	19.07
Flag person	14.20	14.20*

\*NOTE- Rate effective on 01/01/2024 - \$15.00 due to minimum wage increase

**SUPPLEMENTAL BENEFITS**

Per hour:

	07/01/2023	12/31/2023
Journeyman	\$ 10.48 *plus 4.5% of the hourly wage paid	\$ 10.48 *plus 4.5% of the hourly wage paid

\* The 4.5% is based on the hourly wage paid, straight time rate or premium rate.

**OVERTIME PAY**

See (B, E, Q, X) on OVERTIME PAGE

NOTE: WAGE CAP - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked. Contractor is still responsible to pay the hourly benefit amount for each hour worked.

**HOLIDAY**

Paid: See (5, 6, 8, 15) on HOLIDAY PAGE  
 Overtime: See (5, 6, 8, 15, 16, 25) on HOLIDAY PAGE

NOTE: All paid holidays falling on a Saturday shall be observed on the preceding Friday.  
 All paid holidays falling on a Sunday shall be observed on the following Monday.

6-1249TT

**Mason - Building**

**05/01/2024**

**JOB DESCRIPTION** Mason - Building

**DISTRICT 9**

**ENTIRE COUNTIES**  
 Nassau, Rockland, Suffolk, Westchester

**WAGES**

Per hour:	07/01/2023	12/04/2023	06/03/2024
Tile Finisher	\$ 48.36	\$ 48.80	Additional \$ 0.59

**SUPPLEMENTAL BENEFITS**

Per Hour:

	\$ 22.56*	\$ 22.71*
	+ \$9.86	+ \$9.86

\*This portion of benefits subject to same premium rate as shown for overtime wages

**OVERTIME PAY**

See (B, E, Q, \*V) on OVERTIME PAGE

\*Work beyond 10 hours on a Saturday shall be paid at double the hourly wage rate.

**HOLIDAY**

Paid: See (1) on HOLIDAY PAGE  
 Overtime: See (5, 6, 11, 15, 16, 25) on HOLIDAY PAGE

9-7/88A-tf

**Mason - Building**

**05/01/2024**

**JOB DESCRIPTION** Mason - Building

**DISTRICT 9**

**ENTIRE COUNTIES**

Nassau, Rockland, Suffolk, Westchester

**WAGES**

Per hour:	07/01/2023	12/04/2023	06/05/2024 Additional \$ 0.72
Tile Setters	\$ 62.98	\$ 63.50	

**SUPPLEMENTAL BENEFITS**

Per Hour:	\$ 25.61*	\$25.81*
	+ \$10.04	+ \$10.04

\* This portion of benefits subject to same premium rate as shown for overtime wages.

**OVERTIME PAY**

See (B, E, Q, V) on OVERTIME PAGE

Work beyond 10 hours on Saturday shall be paid at double the hourly wage rate.

**HOLIDAY**

Paid: See (1) on HOLIDAY PAGE  
 Overtime: See (5, 6, 11, 15, 16, 25) on HOLIDAY PAGE

**REGISTERED APPRENTICES**

Wage per hour:

(750 hour) term at the following wage rate:

Term:										
1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	
1-	751-	1501-	2251-	3001-	3751-	4501-	5251-	6001-	6501-	
750	1500	2250	3000	3750	4500	5250	6000	6750	7000	
07/01/2023										
\$21.70	\$26.66	\$33.75	\$38.69	\$42.25	\$45.70	\$49.29	\$54.23	\$57.09	\$61.25	
12/04/2023										
\$21.96	\$26.95	\$34.10	\$39.08	\$42.68	\$46.16	\$49.79	\$54.77	57.66	\$61.90	

Supplemental Benefits per hour:

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	
07/01/2023										
\$12.55*	\$12.55*	\$15.36*	\$15.36*	\$16.36*	\$17.86*	\$18.86*	\$18.86*	\$16.86*	\$22.11*	
+\$0.73	+\$0.78	+\$0.88	+\$0.88	+\$1.37	+\$1.42	+\$1.83	+\$1.88	+\$6.03	+\$6.61	
12/04/2023										
\$12.55*	\$12.55*	\$15.63*	\$15.36*	\$16.36*	\$17.86*	\$18.86*	\$18.86*	\$16.86*	\$22.11*	
+\$0.73	+\$0.78	+\$0.89	+\$0.94	+\$1.38	+\$1.43	+\$1.84	+\$1.89	+\$6.04	+\$6.62	

\* This portion of benefits subject to same premium rate as shown for overtime wages.

9-7/52A

**Mason - Building**

**05/01/2024**

**JOB DESCRIPTION** Mason - Building

**DISTRICT** 11

**ENTIRE COUNTIES**

Putnam, Rockland, Westchester

**PARTIAL COUNTIES**

Orange: Only the Township of Tuxedo.

**WAGES**

Per hour: 07/01/2023

Bricklayer	\$ 45.89
Cement Mason	45.89
Plasterer/Stone Mason	45.89
Pointer/Caulker	45.89

Additional \$1.00 per hour for power saw work  
 Additional \$0.50 per hour for swing scaffold or staging work

SHIFT WORK: When shift work or an irregular workday is mandated or required by state, federal, county, local or other governmental agency contracts, the following premiums apply:

- Irregular workday requires 15% premium
- Second shift an additional 15% of wage plus benefits to be paid
- Third shift an additional 25% of wage plus benefits to be paid

**SUPPLEMENTAL BENEFITS**

Per hour:

Journeyman \$ 37.95

**OVERTIME PAY**

OVERTIME:

Cement Mason See ( B, E, Q, W ) on OVERTIME PAGE.  
 All Others See ( B, E, Q ) on OVERTIME PAGE.

**HOLIDAY**

Paid: See (1) on HOLIDAY PAGE  
 Overtime: See (5, 6, 16, 25) on HOLIDAY PAGE

Whenever any of the above holidays fall on Sunday, they will be observed on Monday. Whenever any of the above holidays fall on Saturday, they will be observed on Friday.

**REGISTERED APPRENTICES**

Wages per hour:

750 hour terms at the following percentage of Journeyman's wage

1st	2nd	3rd	4th	5th	6th	7th	8th
50%	55%	60%	65%	70%	75%	80%	85%

Supplemental Benefits per hour

750 hour terms at the following percentage of journeyman supplements

1st	2nd	3rd	4th	5th	6th	7th	8th
50%	55%	60%	65%	70%	75%	80%	85%

Apprentices indentured before June 1st, 2011 receive full journeyman benefits

11-5wp-b

**Mason - Building**

**05/01/2024**

**JOB DESCRIPTION** Mason - Building

**DISTRICT** 9

**ENTIRE COUNTIES**

Bronx, Dutchess, Kings, Nassau, New York, Orange, Putnam, Queens, Richmond, Rockland, Suffolk, Sullivan, Ulster, Westchester

**WAGES**

Per Hour:

07/01/2023 7/03/2023

Marble Cutters & Setters \$ 62.82 \$ 63.12

**SUPPLEMENTAL BENEFITS**

Per Hour:

Journeyworker \$ 39.03 \$ 39.34

**OVERTIME PAY**

See (B, E, Q, V) on OVERTIME PAGE

**HOLIDAY**

Paid: See (1) on HOLIDAY PAGE  
 Overtime: See (5, 6, 8, 11, 15, 16, 25) on HOLIDAY PAGE

**REGISTERED APPRENTICES**

Wage Per Hour:

07/01/2023

750 hour terms at the following wage

1st	2nd	3rd	4th	5th	6th	7th	8th
0-3000	3001-3750	3751-4500	4501-5250	5251-6000	6001-6750	6751-7500	7500+

\$ 26.42	\$ 39.62	\$ 42.91	\$ 46.22	\$ 49.52	\$ 53.38	\$ 59.67	\$ 62.82
Supplemental Benefits per hour:							
07/01/2023							
1st	2nd	3rd	4th	5th	6th	7th	8th
\$ 25.38	\$ 28.86	\$ 29.74	\$ 30.60	\$ 31.48	\$ 36.44	\$ 38.17	\$ 39.03

07/03/2023  
 Wage Per Hour:

750 hour terms at the following wage.							
1st	2nd	3rd	4th	5th	6th	7th	8th
0-3000	3001-3750	3751-4500	4501-5250	5251-6000	6001-6750	6751-7500	7500+
\$ 26.60	\$ 39.82	\$ 43.13	\$ 46.45	\$ 49.78	\$ 53.64	\$ 59.95	\$ 63.12

Supplemental Benefits Per Hour:							
1st	2nd	3rd	4th	5th	6th	7th	8th
\$ 25.54	\$ 29.09	\$ 29.97	\$ 30.84	\$ 31.72	\$ 36.73	\$ 38.48	\$ 39.34

9-7/4

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**Mason - Heavy&Highway** **05/01/2024**

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**JOB DESCRIPTION** Mason - Heavy&Highway **DISTRICT 11**

**ENTIRE COUNTIES**  
 Putnam, Rockland, Westchester

**PARTIAL COUNTIES**  
 Orange: Only the Township of Tuxedo.

**WAGES**

Per hour:  
07/01/2023

Bricklayer	\$ 46.39
Cement Mason	46.39
Marble/Stone Mason	46.39
Plasterer	46.39
Pointer/Caulker	46.39

Additional \$1.00 per hour for power saw work  
 Additional \$0.50 per hour for swing scaffold or staging work

SHIFT WORK: When shift work or an irregular workday is mandated or required by state, federal, county, local or other governmental contracts, the following rates apply:

- Irregular workday requires 15% premium
- Second shift an additional 15% of wage plus benefits to be paid
- Third shift an additional 25% of wage plus benefits to be paid

**SUPPLEMENTAL BENEFITS**

Per hour:

Journeyman	\$ 37.95
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**OVERTIME PAY**

Cement Mason	See ( B, E, Q, W )
All Others	See ( B, E, Q, )

**HOLIDAY**

Paid: See (5, 6, 16, 25) on HOLIDAY PAGE  
 Overtime: See (5, 6, 16, 25) on HOLIDAY PAGE

- Whenever any of the above holidays fall on Sunday, they will be observed on Monday. Whenever any of the above holidays fall on Saturday, they will be observed on Friday.
- Supplemental Benefits are not paid for paid Holiday
- If Holiday is worked, Supplemental Benefits are paid for hours worked.

- Whenever an Employee works within three (3) calendar days before a holiday, the Employee shall be paid for the Holiday.

**REGISTERED APPRENTICES**

Wages per hour:

750 hour terms at the following percentage of Journeyman's wage

1st	2nd	3rd	4th	5th	6th	7th	8th
50%	55%	60%	65%	70%	75%	80%	85%

Supplemental Benefits per hour

750 hour terms at the following percentage of journeyman supplements

1st	2nd	3rd	4th	5th	6th	7th	8th
50%	55%	60%	65%	70%	75%	80%	85%

Apprentices indentured before June 1st, 2011 receive full journeyman benefits

11-5WP-H/H

**Operating Engineer - Building / Heavy&Highway**

**05/01/2024**

**JOB DESCRIPTION** Operating Engineer - Building / Heavy&Highway

**DISTRICT** 11

**ENTIRE COUNTIES**

Delaware, Orange, Rockland, Sullivan, Ulster

**WAGES**

CLASS A5: Cranes, Derricks and Pile Drivers 100 tons or more and Tower Cranes, with 140ft boom and over.

CLASS A4: Cranes, Derricks and Pile Drivers 100 tons or more and Tower Cranes, with 100ft to 139ft boom.

CLASS A3: Cranes, Derricks and Pile Drivers 100 tons or more and Tower Cranes with a boom under 100ft.

CLASS A2: Cranes, Derricks and Pile Drivers less than 100 tons with 140ft boom and over.

CLASS A1: Cranes, Derricks and Pile Drivers less than 100 tons with a 100ft to 139ft boom.

CLASS A: Cranes, Derricks and Pile Drivers less than 100 tons with a boom under 100ft.; Autograde Combination Subgrader, Base Material Spreader and Base Trimmer (CMI and Similar Types); Autograde Pavement profiler (CMI and Similar Types); Autograde Pavement Profiler and Recycle type (CMI and Similar Type); Autograde Placer-Trimmed-Spreader Comb. (CMI & Similar types); Autograde Slipform Paver (CMI & Similar Types); Central Power Plants (all types); Chief of Party; Concrete Paving Machines; Drill (Bauer, AMI and Similar Types); Drillmaster, Quarrymaster (Down the Hole Drill), Rotary Drill, Self-Propelled Hydraulic Drill, Self-Powered Drill; Draglines; Elevator Graders; Excavator; Front End Loaders (5 yds. and over); Gradalls; Grader-Rago; Helicopters (Co-Pilot); Helicopters (Communications Engineer); Juntann Pile Driver; Locomotive (Large); Mucking Machines; Pavement & Concrete Breaker, i.e., Superhammer & Hoe Ram; Roadway Surface Grinder; Prentice Truck; Scooper (Loader and Shovel); Shovels; Tree Chopper with Boom; Trench Machines (Cable Plow); Tunnel Boring Machine; Vacuum Truck

CLASS B: "A" Frame; Backhoe (Combination); Boom Attachment on Loaders (Rate based on size of Bucket) not applicable to Pipehook; Boring and Drilling Machines; Brush Chopper, Shredder and Tree Shredder, Tree Shearer; Bulldozer(Fine Grade); Cableways; Carryalls; Concrete Pump; Concrete Pumping System, Pump Concrete and Similar Types; Conveyors (125 ft. and over); Drill Doctor (duties incl. Dust Collector Maintenance); Front End Loaders (2 yds. but less than 5 yds.); Graders (Finish); Groove Cutting Machine (Ride on Type); Heater Planer; Hoists (all type Hoists, shall also include Steam, Gas, Diesel, Electric, Air Hydraulic, Single and Double Drum, Concrete, Brick Shaft Caisson, Snorkel Roof, and/or any other Similar Type Hoisting Machines, portable or stationary, except Chicago Boom Type); Long Boom Rate to be applied if Hoist is "Outside Material Tower Hoist"\*\*\*; Hydraulic Cranes-10 tons and under; Hydraulic Dredge; Hydro-Axe; Hydro Blaster; Jacks-Screw Air Hydraulic Power Operated Unit or Console Type (not hand Jack or Pile Load Test Type); Log Skidder; Pans; Pavers (all) concrete; Plate and Frame Filter Press; Pumpcrete Machines, Squeezcrete & Concrete Pumping (regardless of size); Scrapers; Side Booms; "Straddle"Carrier-Ross and similar types; Winch Trucks (Hoisting); Whip Hammer

CLASS C: Asphalt Curbing Machine; Asphalt Plant Engineer; Asphalt Spreader; Autograde Tube Finisher and Texturing Machine (CMI & Similar types); Autograde Curecrete Machine (CMI & Similar Types); Autograde Curb Trimmer & Sidewalk, Shoulder, Slipform (CMI & Similar Types); Bar Bending Machines (Power); Barrier Moving Machine-Zipper; Batches, Batching Plant and Crusher on Site; Belt Conveyor Systems; Boom Type Skimmer Machines; Bridge Deck Finisher; Bulldozer(except fine grade); Car Dumpers (Railroad); Compressor and Blower Type Units (used independently or mounted on dual purpose Trucks, on Job Site or in conjunction with jobsite, in Loading and Unloading of Concrete, Cement, Fly Ash, Instantcrete, or Similar Type Materials); Compressors (2 or 3 in Battery); Concrete Finishing Machines; Concrete cleaning decontamination machine operator; Concrete Saws and Cutters (Ride-on type); Concrete Spreaders (Hetzl, Rexomatic and Similar Types); Concrete Vibrators; Conveyors (under 125 feet); Crushing Machines; Directional Boring Machines; Ditching Machine-small (Ditch-witch, Vermeer, or Similar type); Dope Pots (Mechanical with or without pump); Dumpsters; Elevator; Fireman; Fork Lifts (Economobile, Lull and Similar Types of Equipment); Front End Loaders (1 yd. and over but under 2 yds.); Generators (2 or 3 in Battery); Giraffe Grinders; Grout Pump; Gunnite Machines (excluding nozzle); Hammer Vibrator (in conjunction with Generator); Heavy Equipment Robotics Operator Technician; Hoists-Roof, Tugger, Aerial Platform Hoist & House Cars; Hoppers; Hopper Doors (power operated); Hydro Blaster; Hydraulic Jacking Trailer; Ladders (motorized); Laddervator; Locomotive-dinky type; Maintenance -Utility Man; Master Environmental Maintenance Technician; Mechanics; Mixers (Excepting Paving Mixers); Motor Patrols; Pavement Breakers (small self - propelled ride on type-also maintains compressor hydraulic unit); Pavement Breaker-truck mounted; Pipe Bending Machine (Power); Pitch Pump; Plaster Pump (regardless of size); Post Hole Digger (Post Pounder & Auger); Pot Hole Killer Trucks or equivalent; Rod Bending Machines (Power); Roller-Black Top; Scales (Power); Seaman pulverizing mixer; Shoulder widener; Silos; Skidsteer (all attachments); Skimmer Machines (boom-type); Steel Cutting Machine (service & maintain); Tam Rock Drill; Tractors; Transfer Machine; Captain (Power Boats); Tug Master (powerboats); Ultra High Pressure Waterjet Cutting Tool System operator/maintenance technician; Vacuum Blasting Machine; Vibrating Plants (used in conjunction with unloading); Welder and Repair Mechanics

CLASS D: Brooms and Sweepers; Chippers; Compressor (single); Concrete Spreaders (small type); Conveyor Loaders (not including Elevator Graders); Engines-large diesel (1620 HP) and Staging Pump; Farm Tractors; Fertilizing Equipment (Operation & Maintenance of); Fine Grade Machine (small type); Form Line Graders (small type); Front End Loader (under 1 yard); Generator (single); Grease, Gas, Fuel and Oil supply trucks; Heaters (Nelson or other type incl. Propane, Natural Gas or Flowtype Units); Lights, Portable Generating Light Plants; Mixers (Concrete, small); Mulching Equipment (Operation and Maintenance of); Pumps (2 or less than 4 inch suction); Pumps (4 inch suction and over incl. submersible pumps); Pumps (Diesel Engine and Hydraulic-immaterial of power); Road Finishing Machines (small type); Rollers-grade, fill or stone base; Seeding Equip. (Operation and Maintenance of); Sprinkler & Water Pump Trucks (used on jobsite or in conjunction with jobsite); Steam Jennies and Boilers-irrespective of use; Stone Spreader; Tamping Machines, Vibrating Ride-on; Temporary Heating Plant (Nelson or other type, incl. Propane, Natural Gas or Flow Type Units); Water & Sprinkler Trucks (used on or in conjunction with jobsite); Welding Machines (Gas, Diesel, and/or Electric Converters of any type, single, two, or three in a battery); Wellpoint Systems (including installation by Bull Gang and Maintenance of)

CLASS E: Assistant Engineer/Oiler; Drillers Helper; Maintenance Apprentice (Deck Hand); Maintenance Apprentice (Oiler); Mechanics' Helper; Tire Repair and Maintenance; Transit/Instrument Man

WAGES:(per hour)

	07/01/2023	07/01/2024 Additional	07/01/2025 Additional
Class A5	\$ 65.72 plus 4.00*	\$ 2.75***	\$ 2.50***
Class A4	64.72 plus 4.00*	2.75***	2.50***
Class A3	63.72 plus 4.00*	2.75***	2.50***
Class A2	61.22 plus 4.00*	2.75***	2.50***
Class A1	60.22 plus 4.00*	2.75***	2.50***
Class A	59.22 plus 4.00*	2.75***	2.50***
Class B	57.63 plus 4.00*	2.75***	2.50***
Class C	55.72 plus 4.00*	2.75***	2.50***
Class D	54.09 plus 4.00*	2.75***	2.50***
Class E	50.38 plus 4.00*	2.75***	2.50***
Safety Engineer	59.96 plus 4.00*	2.75***	2.50***
Helicopter:			
Pilot/Engineer	61.04 plus 4.00*	2.75***	2.50***
Co Pilot	59.22 plus 4.00*	2.75***	2.50***
Communications Engineer	59.22 plus 4.00*	2.75***	2.50***
Surveying:			
Chief of Party	59.22 plus 4.00*	2.75***	2.50***
Transit/Instrument Man	50.38 plus 4.00*	2.75***	2.50***
Rod/Chainman	49.80 plus 4.00*	2.75***	2.50***

Additional \$0.75 for Survey work Tunnel under compressed air.

Additional \$0.50 for Hydrographic work.

\*The \$4.00 is added to the Class Base Wage for all hours worked. Additionally, the \$4.00 is subject to the V-Code listed on the OVERTIME CODE Sheet.

\*\*Outside Material Hoist (Class B) receives additional \$ 1.00 per hour on 110 feet up to 199 feet total height, \$ 2.00 per hour on 200 feet and over total height.

\*\*\*To be allocated at a later date

- SHIFT WORK: On all Government mandated irregular or off shift work, an additional 15% on straight time hours.

- On HAZARDOUS WASTE REMOVAL or ASBESTOS REMOVAL work, or any state or federally DESIGNATED HAZARDOUS WASTE SITE:

For projects bid on or before April 1, 2020...Where the Operating Engineer is in direct contact with hazardous material and when personal protective equipment is required for respiratory, skin and eye protection, the Operating Engineer shall receive the hourly wage plus an additional twenty percent (20%) of that wage for the entire shift.

For projects bid after April 1, 2020...On hazardous waste removal work of any kind, including state or federally designated site where the operating engineer is required to wear level A, B, or C personal protection the operating engineer shall receive an hourly wage rate of his regular hourly wage plus \$5.00 per hour. An operating engineer working at a hazardous waste removal project or site at a task requiring hazardous waste related certification, but who is not working in a zone requiring level A, B, or C personal protection, shall receive an hourly wage rate of his regular rate plus \$ 1.00 per hour. This shall also apply to sites where the level D personal protection is required.

**SUPPLEMENTAL BENEFITS**

Per hour:

Journeyman \$ 33.50

SHIFT WORK: On all Government mandated irregular or off shift work, an additional 15% on straight time hours.

**OVERTIME PAY**

See (B, E, Q, \*V, X) on OVERTIME PAGE

\*15% premium is also required on shift work benefits

**HOLIDAY**

Paid: See (5, 6, 10, 13, 15) on HOLIDAY PAGE

Overtime: See (5, 6, 10, 13, 15) on HOLIDAY PAGE

Holidays falling on Sunday will be celebrated on Monday.

**REGISTERED APPRENTICES**

(1) year terms at the following percentage of journeyman's wage:

1st year	60% of Class base wage plus \$4.00*
2nd year	70% of Class base wage plus \$4.00*
3rd year	80% of Class base wage plus \$4.00*
4th year	90% of Class base wage plus \$4.00*

\*The \$4.00 is added to the Class Base Wage for all hours worked. Additionally, the \$4.00 is subject to the V-Code listed on the OVERTIME CODE Sheet.

Supplemental Benefits per hour:

Apprentices \$ 33.50

11-825

**Operating Engineer - Marine Dredging**

**05/01/2024**

**JOB DESCRIPTION** Operating Engineer - Marine Dredging

**DISTRICT 4**

**ENTIRE COUNTIES**

Albany, Bronx, Cayuga, Clinton, Columbia, Dutchess, Essex, Franklin, Greene, Jefferson, Kings, Monroe, Nassau, New York, Orange, Oswego, Putnam, Queens, Rensselaer, Richmond, Rockland, St. Lawrence, Suffolk, Ulster, Washington, Wayne, Westchester

**WAGES**

These wages do not apply to Operating Engineers on land based construction projects. For those projects, please see the Operating Engineer Heavy/Highway Rates. The wage rates below for all equipment and operators are only for marine dredging work in navigable waters found in the counties listed above.

Per Hour:	07/01/2023	10/01/2023
CLASS A1	\$ 43.94	\$ 45.26
Deck Captain, Leverman		
Mechanical Dredge Operator		
Licensed Tug Operator 1000HP or more.		

CLASS A2 Crane Operator (360 swing)	39.16	40.33
CLASS B Dozer, Front Loader Operator on Land	To conform to Operating Engineer Prevailing Wage in locality where work is being performed including benefits.	
CLASS B1 Derrick Operator (180 swing) Spider/Spill Barge Operator Operator II, Fill Placer, Engineer, Chief Mate, Electrician, Chief Welder, Maintenance Engineer Licensed Boat, Crew Boat Operator	38.00	39.14
CLASS B2 Certified Welder	35.77	36.84
CLASS C1 Drag Barge Operator, Steward, Mate, Assistant Fill Placer	34.79	35.83
CLASS C2 Boat Operator	33.67	34.68
CLASS D Shoreman, Deckhand, Oiler, Rodman, Scowman, Cook, Messman, Porter/Janitor	27.97	28.81

**SUPPLEMENTAL BENEFITS**

Per Hour:  
 THE FOLLOWING SUPPLEMENTAL BENEFITS APPLY TO ALL CATEGORIES

All Classes A & B	\$ 11.85 plus 6% of straight time wage, Overtime hours add \$ 0.63	\$ 12.00 plus 6% of straight time wage, Overtime hours add \$ 0.63
All Class C	\$ 11.60 plus 6% of straight time wage, Overtime hours add \$ 0.50	\$ 11.75 plus 6% of straight time wage, Overtime hours add \$ 0.50
All Class D	\$ 11.35 plus 6% of straight time wage, Overtime hours add \$ 0.38	\$ 11.60 plus 6% of straight time wage, Overtime hours add \$ 0.50

**OVERTIME PAY**  
 See (B2, F, R) on OVERTIME PAGE

**HOLIDAY**  
 Paid: See (1) on HOLIDAY PAGE  
 Overtime: See (5, 6, 8, 15, 26) on HOLIDAY PAGE

4-25a-MarDredge

**Operating Engineer - Steel Erectors** **05/01/2024**

**JOB DESCRIPTION** Operating Engineer - Steel Erectors **DISTRICT 11**

**ENTIRE COUNTIES**  
 Delaware, Orange, Rockland, Sullivan, Ulster

**WAGES**

CLASS A3: Cranes, Derricks and Pile Drivers 100 tons or more and Tower Cranes, with a 140 ft. boom and over.

CLASS A2: Cranes, Derricks and Pile Drivers 100 tons or more and Tower Cranes, with up to a 139 ft. boom and under.

CLASS A1: Cranes, Derricks and Pile Drivers less than 100 tons with a 140 ft. boom and over.

CLASS A: Cranes, Derricks and Pile Drivers less than 100 tons with up to a 139 ft. boom and under.

CLASS B: "A" Frame; Cherry Pickers(10 tons and under); Hoists (all type Hoists, shall also include Steam, Gas, Diesel, Electric, Air Hydraulic, Single and Double Drum, Concrete, Brick Shaft Caisson, Snorkel Roof, and/or any other Similar Type Hoisting Machines, portable or stationary, except Chicago Boom Type); Jacks-Screw Air Hydraulic Power Operated Unit or Console Type (not hand Jack or Pile Load Test Type); Side Booms; Straddle Carrier

CLASS C: Aerial Platform used as Hoist; Compressors (2 or 3 in Battery); Concrete cleaning/ decontamination machine operator; Directional Boring Machines; Elevator or House Cars; Conveyers and Tugger Hoists; Fireman; Fork Lifts; Generators (2 or 3 in Battery); Heavy Equipment Robotics Operator/Technician; Master Environmental Maintenance Technician; Maintenance -Utility Man; Rod Bending Machines (Power); Captain(powerboat); Tug Master; Ultra High Pressure Waterjet Cutting Tool System; Vacuum Blasting Machine; Welding Machines(gas or electric,2 or 3 in battery, including diesels); Transfer Machine; Apprentice Engineer/Oiler with either one compressor or one welding machine when used for decontamination and remediation

CLASS D: Compressor (single); Welding Machines (Gas, Diesel, and/or Electric Converters of any type); Welding System Multiple (Rectifier Transformer type)

CLASS E: Assistant Engineer/Oiler; Maintenance Apprentice (Deck Hand);Drillers Helper; Maintenance Apprentice (Oiler); Mechanics' Helper; Transit/Instrument Man

WAGES:(per hour)

	07/01/2023	07/01/2024 Additional	07/01/2025 Additional
Class A3	\$ 67.74 plus 4.00*	\$ 2.75**	\$ 2.50**
Class A2	66.08 plus 4.00*	2.75**	2.50**
Class A1	63.24 plus 4.00*	2.75**	2.50**
Class A	61.58 plus 4.00*	2.75**	2.50**
Class B	58.79 plus 4.00*	2.75**	2.50**
Class C	56.13 plus 4.00*	2.75**	2.50**
Class D	54.60 plus 4.00*	2.75**	2.50**
Class E	50.84 plus 4.00*	2.75**	2.50**
Vacuum Truck	59.55 plus 4.00*	2.75**	2.50**
Safety Engineer	60.41 plus 4.00*	2.75**	2.50**
Helicopter:			
Pilot/Engineer	63.24 plus 4.00*	2.75**	2.50**
Co Pilot	62.85 plus 4.00*	2.75**	2.50**
Communications Engineer	62.85 plus 4.00*	2.75**	2.50**
Surveying:			
Chief of Party	59.55 plus 4.00*	2.75**	2.50**
Transit/Instrument man	50.84 plus 4.00*	2.75**	2.50**
Rod/Chainman	49.80 plus 4.00*	2.75**	2.50**
Additional \$0.75 for Survey work Tunnels under compressed air.			
Additional \$0.50 for Hydrographic work.			

\*The \$4.00 is added to the Class Base Wage for all hours worked. Additionally, the \$4.00 is subject to the V-Code listed on the OVERTIME CODE Sheet.

\*\*To be allocated at a later date

- SHIFT WORK: On all Government mandated irregular or off shift work, an additional 15% on straight time hours.
- On HAZARDOUS WASTE REMOVAL or ASBESTOS REMOVAL work, or any state or federally DESIGNATED HAZARDOUS WASTE SITE:

For projects bid on or before April 1, 2020...Where the Operating Engineer is in direct contact with hazardous material and when personal protective equipment is required for respiratory, skin and eye protection, the Operating Engineer shall receive the hourly wage plus an additional twenty percent (20%) of that wage for the entire shift.

For projects bid after April 1, 2020...On hazardous waste removal work of any kind, including state or federally designated site where the operating engineer is required to wear level A, B, or C personal protection the operating engineer shall receive an hourly wage rate of his regular hourly wage plus \$5.00 per hour. An operating engineer working at a hazardous waste removal project or site at a task requiring hazardous waste related certification, but who is not working in a zone requiring level A, B, or C personal protection, shall receive an hourly wage rate of his regular rate plus \$ 1.00 per hour. This shall also apply to sites where the level D personal protection is required.

**SUPPLEMENTAL BENEFITS**

Per hour:

Journeyman \$ 33.50

**OVERTIME PAY**

See (B, E, Q, \*V, X) on OVERTIME PAGE

\*15% premium is also required on shift work benefits

**HOLIDAY**

Paid: See (5, 6, 10, 13, 15) on HOLIDAY PAGE

Overtime: See (5, 6, 10, 13, 15) on HOLIDAY PAGE

Holidays falling on Sunday will be celebrated on Monday.

**REGISTERED APPRENTICES**

(1) year terms at the following percentage of journeyman's wage.

1st year	60% of Class base wage plus \$4.00*
2nd year	70% of Class base wage plus \$4.00*
3rd year	80% of Class base wage plus \$4.00*
4th year	90% of Class base wage plus \$4.00*

\*The \$4.00 is added to the Class Base Wage for all hours worked. Additionally, the \$4.00 is subject to the V-Code listed on the OVERTIME CODE Sheet.

Supplemental Benefits per hour:

Apprentices \$ 33.50

11-825SE

**Painter** **05/01/2024**

**JOB DESCRIPTION** Painter

**DISTRICT 1**

**ENTIRE COUNTIES**

Rockland

**WAGES**

Wages per hour

	07/01/2023	07/01/2024 Additional
Brush/Paper Hanger	\$ 41.17	+ \$1.93*
Dry Wall finisher	41.17	+ \$1.93*
Sandblaster-Painter	41.17	+ \$1.93*
Lead Abatement	41.17	+ \$1.93*
Spray Rate	42.17	+ \$1.93*

(\*) To be allocated at later date.

See Bridge Painters rates for the following work:

Structural Steel, all work performed on tanks, ALL BRIDGES, towers, smoke stacks, flag poles. Rate shall apply to all of said areas from the ground up.

**SUPPLEMENTAL BENEFITS**

Per hour

Journeyperson \$ 26.28

**OVERTIME PAY**

See (B, E, E2, Q) on OVERTIME PAGE

**HOLIDAY**

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

**REGISTERED APPRENTICES**

Wages per hour

Six (6) month terms at the following percentage of Journeyperson's wage

1st	2nd	3rd	4th	5th	6th
50%	55%	65%	75%	85%	95%

Supplemental Benefits per hour worked

1st term	\$ 11.14
All others	26.28

1-155ROC

**Painter - Bridge & Structural Steel**

**05/01/2024**

**JOB DESCRIPTION** Painter - Bridge & Structural Steel

**DISTRICT 8**

**ENTIRE COUNTIES**

Albany, Bronx, Clinton, Columbia, Dutchess, Essex, Franklin, Fulton, Greene, Hamilton, Kings, Montgomery, Nassau, New York, Orange, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Suffolk, Sullivan, Ulster, Warren, Washington, Westchester

**WAGES**

Per Hour:

STEEL:

Bridge Painting:	07/01/2023	10/01/2023
	\$ 54.50	\$ 56.00
	+ 10.10*	+ 10.35*

ADDITIONAL \$6.50 per hour for POWER TOOL/SPRAY, whether straight time or overtime.

NOTE: All premium wages are to be calculated on base rate per hour only.

\* For the period of May 1st to November 15th, this amount is payable up to 40 hours. For the period of Nov 16th to April 30th, this amount is payable up to 50 hours. EXCEPTION: First and last week of employment, and for the weeks of Memorial Day, Independence Day and Labor Day, where the amount is paid for the actual number of hours worked (no cap).

NOTE: Generally, for Bridge Painting Contracts, ALL WORKERS on and off the bridge (including Flagmen) are to be paid Painter's Rate; the contract must be ONLY for Bridge Painting.

**SHIFT WORK:**

When directly specified in public agency or authority contract documents for an employer to work a second shift and works the second shift with employees other than from the first shift, all employees who work the second shift will be paid 10% of the base wage shift differential in lieu of overtime for the first eight (8) hours worked after which the employees shall be paid at time and one half of the regular wage rate. When a single irregular work shift is mandated in the job specifications or by the contracting agency, wages shall be paid at time and one half for single shifts between the hours of 3pm-11pm or 11pm-7am.

**SUPPLEMENTAL BENEFITS**

Per Hour:

Journeyworker:	\$ 11.78	\$ 12.43
	+ 30.85*	+ 31.55*

\* For the period of May 1st to November 15th, this amount is payable up to 40 hours. For the period of Nov 16th to April 30th, this amount is payable up to 50 hours. EXCEPTION: First and last week of employment, and for the weeks of Memorial Day, Independence Day and Labor Day, where the amount is paid for the actual number of hours worked (no cap).

**OVERTIME PAY**

See (B, F, R) on OVERTIME PAGE

**HOLIDAY**

Paid: See (1) on HOLIDAY PAGE  
 Overtime: See (4, 6) on HOLIDAY PAGE

**REGISTERED APPRENTICES**

Wage - Per hour:

Apprentices: (1) year terms.

1st year	\$ 21.80	\$ 22.40
	+ 4.04	+ 4.14
2nd year	\$ 32.70	\$ 33.60

	+ 6.06	+ 6.21
3rd year	\$ 43.60	\$ 44.80
	+ 8.08	+ 8.28
Supplemental Benefits - Per hour:		
1st year	\$ .90	\$ 1.16
	+ 12.34	+ 12.62
2nd year	\$ 7.07	\$ 7.46
	+ 18.51	+ 18.93
3rd year	\$ 9.42	\$ 9.94
	+ 24.68	+ 25.24

NOTE: All premium wages are to be calculated on base rate per hour only.

8-DC-9/806/155-BrSS

**Painter - Line Striping**

**05/01/2024**

**JOB DESCRIPTION** Painter - Line Striping

**DISTRICT 8**

**ENTIRE COUNTIES**

Albany, Clinton, Columbia, Dutchess, Essex, Franklin, Fulton, Greene, Hamilton, Montgomery, Nassau, Orange, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Suffolk, Sullivan, Ulster, Warren, Washington, Westchester

**WAGES**

Per hour:

Painter (Striping-Highway):	07/01/2023	01/01/2024	07/01/2024
Striping-Machine Operator*	\$ 31.53	\$ 31.53	\$ 34.12
Linerman Thermoplastic	38.34	38.34	41.12

Note: \* Includes but is not limited to: Positioning of cones and directing of traffic using hand held devices. Excludes the Driver/Operator of equipment used in the maintenance and protection of traffic safety.

NOTE - The "Employer Registration" (30.1) use of a '4 Day/10 Hour Work schedules' will no longer be accepted or processed. All registered projects prior to June 30,2023 will expire within the granted time frame.

For Pre-Registered Projects Four (4), Ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day. For further clarification contact your local Bureau Office.

**SUPPLEMENTAL BENEFITS**

Per hour paid:

Journeyworker:			
Striping Machine Operator:	\$ 10.03	\$ 22.24	\$ 23.65
Linerman Thermoplastic:	10.03	22.24	23.65

**OVERTIME PAY**

See (B, B2, E2, F, S) on OVERTIME PAGE

**HOLIDAY**

Paid: See (5, 20) on HOLIDAY PAGE  
 Overtime: See (5, 20) on HOLIDAY PAGE

**REGISTERED APPRENTICES**

One (1) year terms at the following wage rates:

1st Term:	\$ 15.00	\$ 15.00	\$ 15.00
2nd Term:	18.92	18.92	20.47
3rd Term:	25.22	25.22	27.30

Supplemental Benefits per hour:

1st term:	\$ 9.16	\$ 22.24	\$ 23.65
2nd Term:	10.03	22.24	23.65
3rd Term:	10.03	22.24	23.65

**Painter - Metal Polisher**

**05/01/2024**

**JOB DESCRIPTION** Painter - Metal Polisher

**DISTRICT 8**

**ENTIRE COUNTIES**

Albany, Allegany, Bronx, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Kings, Lewis, Livingston, Madison, Monroe, Montgomery, Nassau, New York, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

**WAGES**

	07/01/2023
Metal Polisher	\$ 38.18
Metal Polisher*	39.28
Metal Polisher**	42.18

\*Note: Applies on New Construction & complete renovation  
\*\* Note: Applies when working on scaffolds over 34 feet.

**SUPPLEMENTAL BENEFITS**

Per Hour:	07/01/2023
Journeyworker: All classification	\$ 12.34

**OVERTIME PAY**

See (B, E, P, T) on OVERTIME PAGE

**HOLIDAY**

Paid: See (5, 6, 11, 15, 16, 25, 26) on HOLIDAY PAGE  
Overtime: See (5, 6, 11, 15, 16, 25, 26) on HOLIDAY PAGE

**REGISTERED APPRENTICES**

Wages per hour:  
One (1) year term at the following wage rates:

	07/01/2023
1st year	\$ 16.00
2nd year	17.00
3rd year	18.00
1st year*	\$ 16.39
2nd year*	17.44
3rd year*	18.54
1st year**	\$ 18.50
2nd year**	19.50
3rd year**	20.50

\*Note: Applies on New Construction & complete renovation  
\*\* Note: Applies when working on scaffolds over 34 feet.

Supplemental benefits:

Per hour:	
1st year	\$ 8.69
2nd year	8.69
3rd year	8.69

8-8A/28A-MP

**Plumber**

**05/01/2024**

**JOB DESCRIPTION** Plumber

**DISTRICT 11**

**ENTIRE COUNTIES**

Orange, Rockland, Sullivan

**PARTIAL COUNTIES**

Ulster: Only the Townships of Plattekill, Marlboro, Wawarsing, and Shawangunk (except for Walkill and Shawangunk Prisons).

**WAGES**

**REFRIGERATION:** For commercial and industrial refrigeration which means service, maintenance, and installation work where the combined compressor tonnage does not exceed 40 tons.

**AIR CONDITIONING:** Air conditioning to be installed that is water cooled shall not exceed 25 tons. This will include the piping of the component system and erection of water tower. Air conditioning that is air cooled shall not exceed 50 tons.

WAGES: (per hour)

	07/01/2023	05/01/2024	05/01/2025
Plumber	\$ 38.59	Additional \$ 2.25*	Additional \$ 2.50*

\*To be allocated at a later date

Star Certification: an additional \$ 1.00 per hour over scale will be paid to all those who have Star Certification.

Shift Differential: When mandated by the governmental agency, an additional 15% premium will be paid for irregular work day or for 2nd and 3rd shift.

**SUPPLEMENTAL BENEFITS**

Per hour:

Journeyman	\$ 36.07*
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\*For overtime or shift differential work, \$0.10 is paid at straight time, the remaining balance is paid at the same premium as the wages.

**OVERTIME PAY**

See (B, G, P, \*V) on OVERTIME PAGE

\* A portion of the benefit amount is subject to the V code for overtime and shift differential work.

**HOLIDAY**

Paid: See (5, 6, 13, 15, 25) on HOLIDAY PAGE

Overtime: See (5, 6, 13, 15, 25) on HOLIDAY PAGE

**REGISTERED APPRENTICES**

(1)year terms at the following wage.

	07/01/2023
1st term	\$ 17.37
2nd term	21.23
3rd term	25.09
4th term	28.95
5th term	32.81

Supplemental Benefits per hour:

Apprentices

1st term	\$ 16.31*
2nd term	19.90*
3rd term	23.50*
4th term	27.10*
5th term	30.69*

\*For overtime or shift differential work, \$0.10 is paid at straight time, the remaining balance is paid at the same premium as the wages.

11-373 Refrig

**Plumber**

**05/01/2024**

**JOB DESCRIPTION** Plumber

**DISTRICT** 11

**ENTIRE COUNTIES**

Orange, Rockland, Sullivan

**PARTIAL COUNTIES**

Ulster: Only the Townships of Plattekill, Marlboro, Wawarsing, and Shawangunk (except for Walkill and Shawangunk Prisons).

**WAGES**

WAGES:(per hour)	07/01/2023	05/01/2024
Plumber/Steamfitter	\$ 49.95	Additional \$ 2.25*

\*to be allocated at a later date

Note: For all work 40-60 feet above ground add \$ 0.25 per hour, over 60 feet add \$ 0.50 per hour.

Shift Differential: When mandated by the governmental agency, an additional 15% premium will be paid for irregular work day or for 2nd and 3rd shift.

**SUPPLEMENTAL BENEFITS**

Per hour:

Journeyman \$ 44.57

\*For overtime or shift differential work, \$0.10 is paid at straight time, the remaining balance is paid at the same premium as the wages.

**OVERTIME PAY**

See (B, E, Q, \*V) on OVERTIME PAGE

\* A portion of the benefit amount is subject to the V code for overtime and shift differential work.

**HOLIDAY**

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6, 15, 16) on HOLIDAY PAGE

When a holiday falls on a Saturday, the day prior shall be considered and recognized as the holiday. When a holiday falls on a Sunday, the day proceeding shall be considered and recognized as the holiday to be observed.

**REGISTERED APPRENTICES**

( 1 ) year terms at the following wages.

	07/01/2023
1st term	\$ 17.49
2nd term	22.48
3rd term	27.48
4th term	32.47
5th term	39.96

Supplemental Benefits per hour:

1st term	\$ 15.69*
2nd term	20.14*
3rd term	24.57*
4th term	29.03*
5th term	35.67*

\*For overtime or shift differential work, \$0.10 is paid at straight time, the remaining balance is paid at the same premium as the wages.

11-373 SF

**Roofer**

**05/01/2024**

**JOB DESCRIPTION** Roofer

**DISTRICT 9**

**ENTIRE COUNTIES**

Bronx, Dutchess, Kings, New York, Orange, Putnam, Queens, Richmond, Rockland, Sullivan, Ulster, Westchester

**WAGES**

Per Hour:	07/01/2023	05/01/2024
		Additional
Roofer/Waterproofer	\$ 46.50	\$2.50
	+ \$7.00*	

\* This portion is not subjected to overtime premiums.

Note: Abatement/Removal of Asbestos containing roofs and roofing material is classified as Roofer.

**SUPPLEMENTAL BENEFITS**

Per Hour: \$ 31.37

**OVERTIME PAY**

See (B, H) on OVERTIME PAGE

Note: An observed holiday that falls on a Sunday will be observed the following Monday.

**HOLIDAY**

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

**REGISTERED APPRENTICES**

( 1 ) year term apprentices indentured prior to 01/01/2023

	1st	2nd	3rd	4th
	\$ 16.28	\$ 23.25	\$ 27.90	\$ 34.88
		+ 3.50*	+ 4.20*	+ 5.26*
Supplements:				
	1st	2nd	3rd	4th
	\$ 4.03	\$ 15.85	\$ 18.95	\$ 23.61

\* This portion is not subjected to overtime premiums.

(1) year term apprentices indentured after 01/01/2023

1st	2nd	3rd	4th	5th
\$ 17.67	\$ 20.93	\$ 23.25	\$ 27.90	\$ 34.88
	+ 3.16*	+ 3.50*	+ 4.20*	+ 5.26

Supplements:

1st	2nd	3rd	4th	5th
\$ 7.61	\$ 14.29	\$ 15.85	\$ 18.95	\$ 23.61

\* This portion is not subjected to overtime premiums.

9-8R

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**Sheetmetal Worker** **05/01/2024**

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**JOB DESCRIPTION** Sheetmetal Worker **DISTRICT 8**

**ENTIRE COUNTIES**  
 Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester

**WAGES**

	07/01/2023
SheetMetal Worker	\$ 47.00
	+ 3.60*

\*This portion is not subject to overtime premiums.

**SHIFT WORK**  
 For all NYS D.O.T. and other Governmental mandated off-shift work:  
 10% increase for additional shifts for a minimum of five (5) days

**SUPPLEMENTAL BENEFITS**

Journeyworker	\$ 45.62
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**OVERTIME PAY**

OVERTIME:.. See ( B, E, Q, ) on OVERTIME PAGE.

**HOLIDAY**

Paid: See (1) on HOLIDAY PAGE  
 Overtime: See (5, 6, 8, 15, 16, 23) on HOLIDAY PAGE

**REGISTERED APPRENTICES**

1st	2nd	3rd	4th	5th	6th	7th	8th
\$ 17.50	\$ 19.67	\$ 21.87	\$ 24.05	\$ 26.24	\$ 28.44	\$ 31.10	\$ 33.75
+ 1.44*	+ 1.62*	+ 1.80*	+ 1.98*	+ 2.16*	+ 2.34*	+ 2.52*	+ 2.70*

\*This portion is not subject to overtime premiums.

Supplemental Benefits per hour:

<b>Apprentices</b>	
1st term	\$ 19.53
2nd term	21.99
3rd term	24.42
4th term	26.88
5th term	29.32
6th term	31.75
7th term	33.72
8th term	35.71

8-38

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**Sheetmetal Worker** **05/01/2024**

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**JOB DESCRIPTION** Sheetmetal Worker **DISTRICT 4**

**ENTIRE COUNTIES**  
 Bronx, Kings, Nassau, New York, Queens, Richmond, Rockland, Suffolk, Westchester

**WAGES**

Per Hour:	07/01/2023
Sign Erector	\$ 56.00

NOTE: Structurally Supported Overhead Highway Signs(See STRUCTURAL IRON WORKER CLASS)

**SUPPLEMENTAL BENEFITS**

Per Hour: 07/01/2023

Sign Erector \$ 55.66

**OVERTIME PAY**

See (A, F, S) on OVERTIME PAGE

**HOLIDAY**

Paid: See (5, 6, 10, 11, 12, 16, 25) on HOLIDAY PAGE  
 Overtime: See (5, 6, 10, 11, 12, 16, 25) on HOLIDAY PAGE

**REGISTERED APPRENTICES**

Per Hour:  
 6 month Terms at the following percentage of Sign Erectors wage rate:

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
35%	40%	45%	50%	55%	60%	65%	70%	75%	80%

**SUPPLEMENTAL BENEFITS**

Per Hour:

07/01/2023

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
\$ 14.95	\$ 16.95	\$ 18.93	\$ 20.93	\$ 28.56	\$ 31.05	\$ 33.57	\$ 36.05	\$ 38.56	\$ 41.05

4-137-SE

**Sprinkler Fitter**

**05/01/2024**

**JOB DESCRIPTION** Sprinkler Fitter

**DISTRICT 1**

**ENTIRE COUNTIES**

Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester

**WAGES**

Per hour 07/01/2023

Sprinkler \$ 50.86  
 Fitter

**SUPPLEMENTAL BENEFITS**

Per hour

Journeyman \$ 30.19

**OVERTIME PAY**

See (B, E, Q) on OVERTIME PAGE

**HOLIDAY**

Paid: See (1) on HOLIDAY PAGE  
 Overtime: See (5, 6) on HOLIDAY PAGE

Note: When a holiday falls on Sunday, the following Monday shall be considered a holiday and all work performed on either day shall be at the double time rate. When a holiday falls on Saturday, the preceding Friday shall be considered a holiday and all work performed on either day shall be at the double time rate.

**REGISTERED APPRENTICES**

Wages per hour

One Half Year terms at the following wage.

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
\$ 24.77	\$ 27.53	\$ 30.03	\$ 32.78	\$ 35.53	\$ 38.29	\$ 41.04	\$ 43.79	\$ 46.54	\$ 49.30

Supplemental Benefits per hour

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
\$ 8.74	\$ 8.74	\$ 20.32	\$ 20.32	\$ 20.57	\$ 20.57	\$ 20.57	\$ 20.57	\$ 20.57	\$ 20.57

1-669.2

**Teamster - Building / Heavy&Highway**

**05/01/2024**

**JOB DESCRIPTION** Teamster - Building / Heavy&Highway

**DISTRICT** 11

**ENTIRE COUNTIES**

Dutchess, Orange, Rockland, Sullivan, Ulster

**WAGES**

GROUP 1: LeTourneau Tractors, Double Barrel Euclids, Athney Wagons and similar equipment (except when hooked to scrapers), I-Beam and Pole Trailers, Tire Trucks, Tractor and Trailers with 5 axles and over, Articulated Back Dumps and Road Oil Distributors, Articulated Water Trucks and Fuel Trucks/Trailers, positions requiring a HAZMAT CDL endorsement.

GROUP 1A: Drivers on detachable Gooseneck Low Bed Trailers rated over 35 tons.

GROUP 2: All equipment 25 yards and up to and including 30 yard bodies and cable Dump Trailers and Powder and Dynamite Trucks.

GROUP 3: All Equipment up to and including 24-yard bodies, Mixer Trucks, Dump Crete Trucks and similar types of equipment, Fuel Trucks, Batch Trucks and all other Tractor Trailers, Hi-Rail Truck.

GROUP 4: Tri-Axles, Ten Wheelers, Grease Trucks, Tillerman, Pattern Trucks, Attenuator Trucks, Water Trucks, Bus.

GROUP 5: Straight Trucks.

GROUP 6: Pick-up Trucks for hauling materials and parts, and Escort Man over-the-road.

WAGES: (per hour) 07/01/2023

GROUP 1	\$ 34.58
GROUP 1A	35.72
GROUP 2	34.02
GROUP 3	33.80
GROUP 4	33.69
GROUP 5	33.57
GROUP 6	33.57

**NOTE ADDITIONAL PREMIUMS:**

- On projects requiring an irregular shift a premium of 10% will be paid on wages. The premium will be paid for off-shift or irregular shift work when mandated by Governmental Agency.

- Employees engaged in hazardous/toxic waste removal, on a State or Federally designated hazardous/toxic waste site, where the employee comes in contact with hazardous/toxic waste material and when personal protective equipment is required for respiratory, skin, or eye protection, the employee shall receive an additional 20% premium above the hourly wage.

NOTE - The 'Employer Registration' (30.1) use of a '4 Day/10 Hour Work schedules' will no longer be accepted or processed. All registered projects prior to June 30,2023 will expire within the granted time frame.

For Pre-Registered Projects Four (4), Ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day. For further clarification contact your local Bureau Office.

**SUPPLEMENTAL BENEFITS**

Per hour:	
First 40 hours	\$ 44.59
Over 40 hours	36.99

**OVERTIME PAY**

See (\*B, E, \*\*E2, \*\*\*P, X) on OVERTIME PAGE

\*Holidays worked Monday through Friday receive Double Time (2x) after 8 hours.

\*\*Makeup day limited to the employees who were working on the site that week.

\*\*\*Sunday Holidays are paid at a rate of double time and one half (2.5x) for all hours worked.

**HOLIDAY**

Paid: See (5, 6, 15, 25) on HOLIDAY PAGE

Overtime: See (\*1) on HOLIDAY PAGE

- Any employee working two (2) days in any calendar week during which a holiday occurs shall receive a days pay for each holiday occurring during said week. This provision shall also apply if a holiday falls on a Saturday or Sunday.

\*See OVERTIME PAY section for when additional premium is applicable on Holiday hours worked.

11-445B/HH

**Teamster - Delivery - Building / Heavy&Highway**

**05/01/2024**

**JOB DESCRIPTION** Teamster - Delivery - Building / Heavy&Highway

**DISTRICT** 11

**ENTIRE COUNTIES**

Dutchess, Orange, Rockland, Sullivan, Ulster

**WAGES**

Group 1 Tractor Trailer Drivers  
Group 2 Tri- Axle

Wages: 07/01/2023

Group 1 \$ 33.70  
Group 2 29.70

Hazardous/Toxic Waste Removal additional 20% when personal protective equipment is required.

**SUPPLEMENTAL BENEFITS**

Per hour paid:

First 40 hours \$ 32.30  
Over 40 hours 0.00

**OVERTIME PAY**

See (B, E, Q, X) on OVERTIME PAGE

**HOLIDAY**

Paid: See (5, 13, 15, 16, 20, 22, 25, 26) on HOLIDAY PAGE

Overtime: See (5, 13, 15, 16, 20, 22, 25, 26) on HOLIDAY PAGE

- Employee must work either the scheduled day of work before or the scheduled day of work after the holiday in the workweek.
- Any employee working one (1) day in the calendar week during which a holiday occurs shall receive a day's pay for each holiday occurring during said week. This provision shall also apply if a holiday falls on a Saturday.
- When any of the recognized holidays occur on Sunday and are celebrated any day before or after the holiday Sunday, such days shall be considered as the holiday and paid for as such.

11-445 B/HH Delivery

**Welder**

**05/01/2024**

**JOB DESCRIPTION** Welder

**DISTRICT 1**

**ENTIRE COUNTIES**

Albany, Allegany, Bronx, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Kings, Lewis, Livingston, Madison, Monroe, Montgomery, Nassau, New York, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Schuylar, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

**WAGES**

Per hour 07/01/2023

Welder: To be paid the same rate of the mechanic performing the work.\*

\*EXCEPTION: If a specific welder certification is required, then the 'Certified Welder' rate in that trade tag will be paid.

**OVERTIME PAY**

**HOLIDAY**

1-As Per Trade

## Overtime Codes

Following is an explanation of the code(s) listed in the OVERTIME section of each classification contained in the attached schedule. Additional requirements may also be listed in the HOLIDAY section.

NOTE: Supplemental Benefits are 'Per hour worked' (for each hour worked) unless otherwise noted

- ( AA ) Time and one half of the hourly rate after 7 and one half hours per day
- ( A ) Time and one half of the hourly rate after 7 hours per day
- ( B ) Time and one half of the hourly rate after 8 hours per day
- ( B1 ) Time and one half of the hourly rate for the 9th & 10th hours week days and the 1st 8 hours on Saturday.  
Double the hourly rate for all additional hours
- ( B2 ) Time and one half of the hourly rate after 40 hours per week
- ( C ) Double the hourly rate after 7 hours per day
- ( C1 ) Double the hourly rate after 7 and one half hours per day
- ( D ) Double the hourly rate after 8 hours per day
- ( D1 ) Double the hourly rate after 9 hours per day
- ( E ) Time and one half of the hourly rate on Saturday
- ( E1 ) Time and one half 1st 4 hours on Saturday; Double the hourly rate all additional Saturday hours
- ( E2 ) Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
- ( E3 ) Between November 1st and March 3rd Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather, provided a given employee has worked between 16 and 32 hours that week
- ( E4 ) Saturday and Sunday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
- ( E5 ) Double time after 8 hours on Saturdays
- ( F ) Time and one half of the hourly rate on Saturday and Sunday
- ( G ) Time and one half of the hourly rate on Saturday and Holidays
- ( H ) Time and one half of the hourly rate on Saturday, Sunday, and Holidays
- ( I ) Time and one half of the hourly rate on Sunday
- ( J ) Time and one half of the hourly rate on Sunday and Holidays
- ( K ) Time and one half of the hourly rate on Holidays
- ( L ) Double the hourly rate on Saturday
- ( M ) Double the hourly rate on Saturday and Sunday
- ( N ) Double the hourly rate on Saturday and Holidays
- ( O ) Double the hourly rate on Saturday, Sunday, and Holidays
- ( P ) Double the hourly rate on Sunday
- ( Q ) Double the hourly rate on Sunday and Holidays
- ( R ) Double the hourly rate on Holidays
- ( S ) Two and one half times the hourly rate for Holidays

- ( S1 ) Two and one half times the hourly rate the first 8 hours on Sunday or Holidays One and one half times the hourly rate all additional hours.
- ( T ) Triple the hourly rate for Holidays
- ( U ) Four times the hourly rate for Holidays
- ( V ) Including benefits at SAME PREMIUM as shown for overtime
- ( W ) Time and one half for benefits on all overtime hours.
- ( X ) Benefits payable on Paid Holiday at straight time. If worked, additional benefit amount will be required for worked hours. (Refer to other codes listed.)

## Holiday Codes

### PAID Holidays:

Paid Holidays are days for which an eligible employee receives a regular day's pay, but is not required to perform work. If an employee works on a day listed as a paid holiday, this remuneration is in addition to payment of the required prevailing rate for the work actually performed.

### OVERTIME Holiday Pay:

Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays. The applicable holidays are listed under HOLIDAYS: OVERTIME. The required rate of pay for these covered holidays can be found in the OVERTIME PAY section listings for each classification.

Following is an explanation of the code(s) listed in the HOLIDAY section of each classification contained in the attached schedule. The Holidays as listed below are to be paid at the wage rates at which the employee is normally classified.

- ( 1 ) None
- ( 2 ) Labor Day
- ( 3 ) Memorial Day and Labor Day
- ( 4 ) Memorial Day and July 4th
- ( 5 ) Memorial Day, July 4th, and Labor Day
- ( 6 ) New Year's, Thanksgiving, and Christmas
- ( 7 ) Lincoln's Birthday, Washington's Birthday, and Veterans Day
- ( 8 ) Good Friday
- ( 9 ) Lincoln's Birthday
- ( 10 ) Washington's Birthday
- ( 11 ) Columbus Day
- ( 12 ) Election Day
- ( 13 ) Presidential Election Day
- ( 14 ) 1/2 Day on Presidential Election Day
- ( 15 ) Veterans Day
- ( 16 ) Day after Thanksgiving
- ( 17 ) July 4th
- ( 18 ) 1/2 Day before Christmas
- ( 19 ) 1/2 Day before New Years
- ( 20 ) Thanksgiving
- ( 21 ) New Year's Day
- ( 22 ) Christmas
- ( 23 ) Day before Christmas
- ( 24 ) Day before New Year's
- ( 25 ) Presidents' Day
- ( 26 ) Martin Luther King, Jr. Day
- ( 27 ) Memorial Day
- ( 28 ) Easter Sunday

( 29 )      Juneteenth

**New York State Department of Labor - Bureau of Public Work  
State Office Building Campus  
Building 12 - Room 130  
Albany, New York 12226**

**REQUEST FOR WAGE AND SUPPLEMENT INFORMATION**

As Required by Articles 8 and 9 of the NYS Labor Law

Fax (518) 485-1870 or mail this form for new schedules or for determination for additional occupations.

**This Form Must Be Typed**

Submitted By:

(Check Only One)

Contracting Agency

Architect or Engineering Firm

Public Work District Office

Date:

**A. Public Work Contract to be let by:** (Enter Data Pertaining to Contracting/Public Agency)

1. Name and complete address  (Check if new or change)

Telephone

Fax

E-Mail:

2. NY State Units (see Item 5).

01 DOT

02 OGS

03 Dormitory Authority

04 State University  
Construction Fund

05 Mental Hygiene  
Facilities Corp.

06 OTHER N.Y. STATE UNIT

07 City

08 Local School District

09 Special Local District, i.e.,  
Fire, Sewer, Water District

10 Village

11 Town

12 County

13 Other Non-N.Y. State  
(Describe)

3. SEND REPLY TO  (check if new or change)  
Name and complete address:

Telephone

Fax

E-Mail:

4. SERVICE REQUIRED. Check appropriate box and provide project information.

New Schedule of Wages and Supplements.

APPROXIMATE BID DATE :

Additional Occupation and/or Redetermination

PRC NUMBER ISSUED PREVIOUSLY FOR  
THIS PROJECT :

OFFICE USE ONLY

**B. PROJECT PARTICULARS**

5. Project Title \_\_\_\_\_

Description of Work \_\_\_\_\_

Contract Identification Number \_\_\_\_\_

Note: For NYS units, the OSC Contract No. \_\_\_\_\_

6. Location of Project:

Location on Site \_\_\_\_\_

Route No/Street Address \_\_\_\_\_

Village or City \_\_\_\_\_

Town \_\_\_\_\_

County \_\_\_\_\_

7. Nature of Project - Check One:

1. New Building
2. Addition to Existing Structure
3. Heavy and Highway Construction (New and Repair)
4. New Sewer or Waterline
5. Other New Construction (Explain)
6. Other Reconstruction, Maintenance, Repair or Alteration
7. Demolition
8. Building Service Contract

8. OCCUPATION FOR PROJECT :

- Construction (Building, Heavy Highway/Sewer/Water)
- Tunnel
- Residential
- Landscape Maintenance
- Elevator maintenance
- Exterminators, Fumigators
- Fire Safety Director, NYC Only
- Fuel Delivery
- Guards, Watchmen
- Janitors, Porters, Cleaners, Elevator Operators
- Moving furniture and equipment
- Trash and refuse removal
- Window cleaners
- Other (Describe)

9. Does this project comply with the Wicks Law involving separate bidding? YES  NO

10. Name and Title of Requester

**Signature**



NEW YORK STATE DEPARTMENT OF LABOR  
Bureau of Public Work - Debarment List

**LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE  
AWARDED ANY PUBLIC WORK CONTRACT**

Under Article 8 and Article 9 of the NYS Labor Law, a contractor, sub-contractor and/or its successor shall be debarred and ineligible to submit a bid on or be awarded any public work or public building service contract/sub-contract with the state, any municipal corporation or public body for a period of five (5) years from the date of debarment when:

- Two (2) final determinations have been rendered within any consecutive six-year (6) period determining that such contractor, sub-contractor and/or its successor has WILLFULLY failed to pay the prevailing wage and/or supplements;
- One (1) final determination involves falsification of payroll records or the kickback of wages and/or supplements.

The agency issuing the determination and providing the information, is denoted under the heading 'Fiscal Officer'. DOL = New York State Department of Labor; NYC = New York City Comptroller's Office; AG = New York State Attorney General's Office; DA = County District Attorney's Office.

**Debarment Database:** To search for contractors, sub-contractors and/or their successors debarred from bidding or being awarded any public work contract or subcontract under NYS Labor Law Articles 8 and 9, or under NYS Workers' Compensation Law Section 141-b, access the database at this link: <https://apps.labor.ny.gov/EDList/searchPage.do>

**For inquiries where WCB is listed as the "Agency", please call 1-866-546-9322**



**NYSDOL Bureau of Public Work Debarment List 05/17/2024**

**Article 8**

AGENCY	Fiscal Officer	FEIN	EMPLOYER NAME	EMPLOYER DBA NAME	ADDRESS	DEBARMENT START DATE	DEBARMENT END DATE
DOL	DOL	****5754	0369 CONTRACTORS, LLC		515 WEST AVE UNIT PH 13NORWALK CT 06850	05/12/2021	05/12/2026
DOL	DOL	****5784	A.J.M. TRUCKING, INC.		PO BOX 2064 MONROE NY 10950	02/12/2024	02/12/2029
DOL	AG	****1812	ADVANCED BUILDERS & LAND DEVELOPMENT, INC.		400 OSER AVE #2300HAUPPAUGE NY 11788	09/11/2019	09/11/2024
DOL	DOL	****1687	ADVANCED SAFETY SPRINKLER INC		261 MILL ROAD P.O BOX 296EAST AURORA NY 14052	05/29/2019	05/29/2024
DOL	NYC		ALL COUNTY SEWER & DRAIN, INC.		7 GREENFIELD DR WARWICK NY 10990	03/25/2022	03/25/2027
DOL	NYC		AMJED PARVEZ		401 HANOVER AVENUE STATEN ISLAND NY 10304	01/11/2021	01/11/2026
DOL	DOL		ANGELO F COKER		2610 SOUTH SALINA STREET SUITE 14SYRACUSE NY 13205	09/17/2020	09/17/2025
DOL	DOL		ANGELO GARCIA		515 WEST AVE UNIT PH 13NORWALK CT 06850	05/12/2021	05/12/2026
DOL	DOL		ANGELO TONDO		449 WEST MOMBSHA ROAD MONROE NY 10950	06/06/2022	06/06/2027
DOL	DOL	****4231	ANKER'S ELECTRIC SERVICE, INC.		10 SOUTH 5TH ST LOCUST VALLEY NY 11560	09/26/2022	09/26/2027
DOL	DOL		ANTHONY MONGELLI		PO BOX 2064 MONROE NY 10950	02/12/2024	02/12/2029
DOL	NYC		ARADCO CONSTRUCTION CORP		115-46 132RD ST SOUTH OZONE PARK NY 11420	09/17/2020	09/17/2025
DOL	DOL		ARNOLD A. PAOLINI		1250 BROADWAY ST BUFFALO NY 14212	02/03/2020	02/03/2025
DOL	NYC		ARSHAD MEHMOOD		168-42 88TH AVENUE JAMAICA NY 11432	11/20/2019	11/20/2024
DOL	NYC		AVM CONSTRUCTION CORP		117-72 123RD ST SOUTH OZONE PARK NY 11420	09/17/2020	09/17/2025
DOL	NYC		AZIDABEGUM		524 MCDONALD AVENUE BROOKLYN NY 11218	09/17/2020	09/17/2025
DOL	DOL	****8421	B & B DRYWALL, INC		206 WARREN AVE APT 1WHITE PLAINS NY 10603	12/14/2021	12/14/2026
DOL	DOL		B&L RENOVATION CO.		618 OCEAN PARKWAY APT A6BROOKLYN NY 11230	09/17/2020	09/17/2025
DOL	DOL		BERNARD BEGLEY		38 LONG RIDGE ROAD BEDFORD NY 10506	12/18/2019	12/18/2024
DOL	NYC	****2113	BHW CONTRACTING, INC.		401 HANOVER AVENUE STATEN ISLAND NY 10304	01/11/2021	01/11/2026
DOL	DOL	****3627	BJB CONSTRUCTION CORP.		38 LONG RIDGE ROAD BEDFORD NY 10506	12/18/2019	12/18/2024
DOL	DOL	****5078	BLACK RIVER TREE REMOVAL, LLC		29807 ANDREWS ROAD BLACK RIVER NY 13032	10/17/2023	10/17/2028
DOL	DOL	****4512	BOB BRUNO EXCAVATING, INC		5 MORNINGSIDE DR AUBURN NY 13021	05/28/2019	05/28/2024
DOL	DOL		BRADLEY J SCHUKA		4 BROTHERS ROAD WAPPINGERS FALLS NY 12590	10/20/2020	10/20/2025
DOL	DOL	****9383	C.C. PAVING AND EXCAVATING, INC.		2610 SOUTH SALINA ST SUITE 12SYRACUSE NY 13205	09/17/2020	09/17/2025
DOL	DOL	****4083	C.P.D. ENTERPRISES, INC		P.O BOX 281 WALDEN NY 12586	03/03/2020	03/03/2025
DOL	DOL	****5161	CALADRI DEVELOPMENT CORP.		1223 PARK ST. PEEKSKILL NY 10566	05/17/2021	05/17/2026
DOL	DOL	****3391	CALI ENTERPRISES, INC.		1223 PARK STREET PEEKSKILL NY 10566	05/17/2021	05/17/2026
DOL	NYC		CALVIN WALTERS		465 EAST THIRD ST MT. VERNON NY 10550	09/09/2019	09/09/2024
DOL	DOL	****4155	CASA BUILDERS, INC.	FRIEDLANDER CONSTRUCTION	64 N PUTT CONNERS ROAD NEW PALTZ NY 12561	05/10/2023	05/10/2028
DOL	AG	****7247	CENTURY CONCRETE CORP		2375 RAYNOR ST RONKONKOMA NY 11779	08/04/2021	08/04/2026
DOL	DOL	****0026	CHANTICLEER CONSTRUCTION LLC		4 BROTHERS ROAD WAPPINGERS FALLS NY 12590	10/20/2020	10/20/2025
DOL	NYC	****2117	CHARAN ELECTRICAL ENTERPRISES		9-11 40TH AVENUE LONG ISLAND CITY NY 11101	09/26/2023	09/26/2028
DOL	NYC		CHARLES ZAHRADKA		863 WASHINGTON STREET FRANKLIN SQUARE NY 11010	03/10/2020	03/10/2025

**NYS DOL Bureau of Public Work Debarment List 05/17/2024**

**Article 8**

DOL	DOL		CHRISTOPHER GRECO		26 NORTH MYRTLE AVENUE SPRING VALLEY NY 10956	02/18/2021	02/18/2026
DOL	DOL		CHRISTOPHER PAPASTEFANOU A/K/A CHRIS PAPASTEFANOU		1445 COMMERCE AVE BRONX NY 10461	05/30/2019	05/30/2024
DOL	DOL		CRAIG JOHANSEN		10 SOUTH 5TH ST LOCUST VALLEY NY 11560	09/26/2022	09/26/2027
DOL	DOL	****3228	CROSS-COUNTY LANDSCAPING AND TREE SERVICE, INC.	ROCKLAND TREE SERVICE	26 NORTH MYRTLE AVENUE SPRING VALLEY NY 10956	02/18/2021	02/18/2026
DOL	DOL	****7619	DANCO CONSTRUCTION UNLIMITED INC.		485 RAFT AVENUE HOLBROOK NY 11741	10/19/2021	10/19/2026
DOL	DOL		DANIEL ROBERT MCNALLY		7 GREENFIELD DRIVE WARWICK NY 10990	03/25/2022	03/25/2027
DOL	DOL		DARIAN L COKER		2610 SOUTH SALINA ST SUITE 2CSYRACUSE NY 13205	09/17/2020	09/17/2025
DOL	DOL		DAVID FRIEDLANDER		64 NORTH PUTT CORNERS RD NEW PALTZ NY 12561	05/10/2023	05/10/2028
DOL	NYC		DAVID WEINER		14 NEW DROP LANE 2ND FLOORSTATEN ISLAND NY 10306	11/14/2019	11/14/2024
DOL	DOL		DELPHI PAINTING & DECORATING CO INC		1445 COMMERCE AVE BRONX NY 10461	05/30/2019	05/30/2024
DOL	DOL		DINA TAYLOR		64 N PUTT CONNERS RD NEW PALTZ NY 12561	05/10/2023	05/10/2028
DOL	DOL	****5175	EAGLE MECHANICAL AND GENERAL CONSTRUCTION LLC		11371 RIDGE RD WOLCOTT NY 14590	02/03/2020	02/03/2025
DOL	AG		EDWIN HUTZLER		23 NORTH HOWELLS RD BELLPORT NY 11713	08/04/2021	08/04/2026
DOL	DA		EDWIN HUTZLER		2375 RAYNOR STREET RONKONKOMA NY 11779	08/04/2021	08/04/2026
DOL	DOL	****0780	EMES HEATING & PLUMBING CONTR		5 EMES LANE MONSEY NY 10952	01/20/2002	01/20/3002
DOL	DOL		EUGENIUSZ "GINO" KUCHAR		195 KINGSLAND AVE BROOKLYN NY 11222	12/22/2023	12/22/2028
DOL	DA		FREDERICK HUTZLER		2375 RAYNOR STREET RONKONKOMA NY 11779	08/04/2021	08/04/2026
DOL	NYC	****6616	G & G MECHANICAL ENTERPRISES, LLC.		1936 HEMPSTEAD TURNPIKE EAST MEDOW NY 11554	11/29/2019	11/29/2024
DOL	DOL	****2998	G.E.M. AMERICAN CONSTRUCTION CORP.		195 KINGSLAND AVE BROOKLYN NY 11222	12/22/2023	12/22/2028
DOL	NYC		GAYATRI MANGRU		21 DAREWOOD LANE VALLEY STREAM NY 11581	09/17/2020	09/17/2025
DOL	DA		GEORGE LUCEY		150 KINGS STREET BROOKLYN NY 11231	01/19/1998	01/19/2998
DOL	DOL		GIGI SCHNECKENBURGER		261 MILL RD EAST AURORA NY 14052	05/29/2019	05/29/2024
DOL	DA		GIOVANNA TRAVALJA		3735 9TH ST LONG ISLAND CITY NY 11101	01/05/2023	01/05/2028
DOL	DA	****0213	GORILLA CONTRACTING GROUP, LLC		505 MANHATTAN AVE WEST BABYLON NY 11704	10/05/2023	10/05/2028
DOL	DOL		HANS RATH		24 ELDOR AVENUE NEW CITY NY 10956	02/03/2020	02/03/2025
DOL	DOL		HERBERT CLEMEN		42 FOWLER AVENUE CORTLAND MANOR NY 10567	01/24/2023	01/24/2028
DOL	DOL		HERBERT CLEMEN		42 FOWLER AVENUE CORTLAND MANOR NY 10567	10/25/2022	10/25/2027
DOL	DOL		IRENE KASELIS		32 PENNINGTON AVE WALDWICK NJ 07463	05/30/2019	05/30/2024
DOL	DOL	****9211	J. WASE CONSTRUCTION CORP.		8545 RT 9W ATHENS NY 12015	03/09/2021	03/09/2026
DOL	DOL		J.M.J CONSTRUCTION		151 OSTRANDER AVENUE SYRACUSE NY 13205	11/21/2022	11/21/2027
DOL	DOL		J.R. NELSON CONSTRUCTION		531 THIRD STREET ALBANY NY 12206	11/07/2023	11/07/2028
DOL	DOL		J.R. NELSON CONSTRUCTION		531 THIRD STREET ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL		J.R. NELSON CONSTRUCTION		531 THIRD STREET ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL		J.R. NELSON, LLC		531 THIRD STREET ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL		J.R. NELSON, LLC		531 THIRD STREET ALBANY NY 12206	11/07/2023	11/07/2028

**NYS DOL Bureau of Public Work Debarment List 05/17/2024**

**Article 8**

DOL	DOL		J.R. NELSON, LLC		531 THIRD STREET ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL		J.R.N COMPANIES, LLC		531 THIRD STREET ALBANY NY 12206	12/12/2022	12/12/2027
DOL	DOL		J.R.N COMPANIES, LLC		531 THIRD STREET ALBANY NY 12206	11/07/2023	11/07/2028
DOL	DOL		J.R.N COMPANIES, LLC		531 THIRD STREET ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL	*****1147	J.R.N. CONSTRUCTION, LLC		531 THIRD ST ALBANY NY 12206	11/07/2023	11/07/2028
DOL	DOL	*****1147	J.R.N. CONSTRUCTION, LLC		531 THIRD ST ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL	*****1147	J.R.N. CONSTRUCTION, LLC		531 THIRD ST ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL		JAMES J. BAKER		7901 GEE ROAD CANASTOTA NY 13032	08/17/2021	08/17/2026
DOL	DOL		JASON P. RACE		3469 STATE RT. 69 PERISH NY 13131	09/29/2021	09/29/2026
DOL	DOL		JASON P. RACE		3469 STATE RT. 69 PERISH NY 13131	02/09/2022	02/09/2027
DOL	DOL		JASON P. RACE		3469 STATE RT. 69 PERISH NY 13131	11/15/2022	11/15/2027
DOL	DOL		JASON P. RACE		3469 STATE RT. 69 PERISH NY 13131	03/01/2022	03/01/2027
DOL	DOL	*****7993	JBS DIRT, INC.		7901 GEE ROAD CANASTOTA NY 13032	08/17/2021	08/17/2026
DOL	DOL	*****2435	JEFFEL D. JOHNSON	JMJ7 AND SON	5553 CAIRNSTRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	DOL		JEFFEL JOHNSON ELITE CARPENTER REMODEL AND CONSTRUCTION		C2 EVERGREEN CIRCLE LIVERPOOL NY 13090	11/21/2022	11/21/2027
DOL	DOL	*****2435	JEFFREY M. JOHNSON	JMJ7 AND SON	5553 CAIRNS TRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	NYC		JENNIFER GUERRERO		1936 HEMPSTEAD TURNPIKE EAST MEADOW NY 11554	11/29/2019	11/29/2024
DOL	DOL		JIM PLAUGHER		17613 SANTE FE LINE ROAD WAYNEFIELD OH 45896	07/16/2021	07/16/2026
DOL	DOL		JMJ7 & SON CONSTRUCTION, LLC		5553 CAIRNS TRAIL LIVERPOOL NY 13041	11/21/2022	11/21/2027
DOL	DOL		JMJ7 AND SONS CONTRACTORS		5553 CAIRNS TRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	DOL		JMJ7 CONTRACTORS		7014 13TH AVENUE BROOKLYN NY 11228	11/21/2022	11/21/2027
DOL	DOL		JMJ7 CONTRACTORS AND SONS		5553 CAIRNS TRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	DOL		JMJ7 CONTRACTORS, LLC		5553 CAIRNS TRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	DOL		JOHN GOCEK		14B COMMERCIAL AVE ALBANY NY 12065	11/14/2019	11/14/2024
DOL	DOL		JOHN MARKOVIC		47 MANDON TERRACE HAWTHORN NJ 07506	03/29/2021	03/29/2026
DOL	DOL		JOHN WASE		8545 RT 9W ATHENS NY 12015	03/09/2021	03/09/2026
DOL	DOL		JON E DEYOUNG		261 MILL RD P.O BOX 296EAST AURORA NY 14052	05/29/2019	05/29/2024
DOL	DOL		JORGE RAMOS		8970 MIKE GARCIA DR MANASSAS VA 20109	07/16/2021	07/16/2026
DOL	DOL		JOSEPH K. SALERNO		1010 TILDEN AVE UTICA NY 13501	07/24/2023	07/24/2028
DOL	DOL		JOSEPH K. SALERNO II		1010 TILDEN AVE UTICA NY 13501	07/24/2023	07/24/2028
DOL	DOL	*****5116	JP RACE PAINTING, INC. T/A RACE PAINTING		3469 STATE RT. 69 PERISH NY 13131	02/09/2022	02/09/2027
DOL	DOL	*****5116	JP RACE PAINTING, INC. T/A RACE PAINTING		3469 STATE RT. 69 PERISH NY 13131	11/15/2022	11/15/2027
DOL	DOL	*****5116	JP RACE PAINTING, INC. T/A RACE PAINTING		3469 STATE RT. 69 PERISH NY 13131	09/29/2021	09/29/2026
DOL	DOL	*****5116	JP RACE PAINTING, INC. T/A RACE PAINTING		3469 STATE RT. 69 PERISH NY 13131	03/01/2022	03/01/2027
DOL	DOL	*****5116	JP RACE PAINTING, INC. T/A RACE PAINTING		3469 STATE RT. 69 PERISH NY 13131	03/01/2022	03/01/2027
DOL	DOL		JRN CONSTRUCTION CO, LLC		1024 BROADWAY ALBANY NY 12204	11/07/2023	11/07/2028

**NYS DOL Bureau of Public Work Debarment List 05/17/2024**

**Article 8**

DOL	DOL	*****1147	JRN CONSTRUCTION, LLC		531 THIRD STREET ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL	*****1147	JRN CONSTRUCTION, LLC		531 THIRD STREET ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL	*****1147	JRN CONSTRUCTION, LLC		531 THIRD STREET ALBANY NY 12206	11/07/2023	11/07/2028
DOL	DOL		JRN PAVING, LLC		531 THIRD STREET ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL		JRN PAVING, LLC		531 THIRD STREET ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL		JRN PAVING, LLC		531 THIRD STREET ALBANY NY 12206	11/07/2023	11/07/2028
DOL	DOL		JULIUS AND GITA BEHREND		5 EMES LANE MONSEY NY 10952	11/20/2002	11/20/3002
DOL	DOL		KARIN MANGIN		796 PHELPS ROAD FRANKLIN LAKES NJ 07417	12/01/2020	12/01/2025
DOL	DOL		KATE E. CONNOR		7088 INTERSTATE ISLAND RD SYRACUSE NY 13209	03/31/2021	03/31/2026
DOL	DOL		KEAN INDUSTRIES, LLC		2345 RT. 52 SUITE 2NHOPEWELL JUNCTION NY 12533	12/18/2023	12/18/2028
DOL	DOL	*****2959	KELC DEVELOPMENT, INC		7088 INTERSTATE ISLAND RD SYRACUSE NY 13209	03/31/2021	03/31/2026
DOL	DOL		KIMBERLY F. BAKER		7901 GEE ROAD CANASTOTA NY 13032	08/17/2021	08/17/2026
DOL	DOL		KMA GROUP II, INC.		29-10 38TH AVENUE LONG ISLAND CITY NY 11101	10/11/2023	10/11/2028
DOL	DOL	*****1833	KMA GROUP INC.		29-10 38TH AVENUE LONG ISLAND CITY NY 11101	10/11/2023	10/11/2028
DOL	DOL		KMA INSULATION, INC.		29-10 38TH AVENUE LONG ISLAND CITY NY 11101	10/11/2023	10/11/2028
DOL	DOL		KRIN HEINEMANN		2345 ROUTE 52, SUITE 2N HOPEWELL JUNCTION NY 12533	12/18/2023	12/18/2028
DOL	NYC		KULWANT S. DEOL		9-11 40TH AVENUE LONG ISLAND CITY NY 11101	09/26/2023	09/26/2028
DOL	DA	*****8816	LAKE CONSTRUCTION AND DEVELOPMENT CORPORATION		150 KINGS STREET BROOKLYN NY 11231	08/19/1998	08/19/2998
DOL	DOL		LEROY E. NELSON JR		531 THIRD ST ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL		LEROY E. NELSON JR		531 THIRD ST ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL		LEROY E. NELSON JR		531 THIRD ST ALBANY NY 12206	11/07/2023	11/07/2028
DOL	AG	*****3291	LINTECH ELECTRIC, INC.		3006 TILDEN AVE BROOKLYN NY 11226	02/16/2022	02/16/2027
DOL	DOL		LOUIS A. CALICCHIA		1223 PARK ST. PEEKSKILL NY 10566	05/17/2021	05/17/2026
DOL	NYC		LUBOMIR PETER SVOBODA		27 HOUSMAN AVE STATEN ISLAND NY 10303	12/26/2019	12/26/2024
DOL	NYC		M & L STEEL & ORNAMENTAL IRON CORP.		27 HOUSMAN AVE STATEN ISLAND NY 10303	12/26/2019	12/26/2024
DOL	DOL	*****2196	MAINSTREAM SPECIALTIES, INC.		11 OLD TOWN RD SELKIRK NY 12158	02/02/2021	02/02/2026
DOL	DA		MANUEL P TOBIO		150 KINGS STREET BROOKLYN NY 14444	08/19/1998	08/19/2998
DOL	DA		MANUEL TOBIO		150 KINGS STREET BROOKLYN NY 11231	08/19/1998	08/19/2998
DOL	DOL		MAQSOOD AHMAD		618 OCEAN PKWY BROOKLYN NY 11230	09/17/2020	09/17/2025
DOL	NYC		MARIA NUBILE		84-22 GRAND AVENUE ELMHURST NY 11373	03/10/2020	03/10/2025
DOL	NYC	*****9926	MILLENNIUM FIRE PROTECTION, LLC		325 W. 38TH STREET SUITE 204NEW YORK NY 10018	11/14/2019	11/14/2024
DOL	NYC	*****0627	MILLENNIUM FIRE SERVICES, LLC		14 NEW DROP LNE 2ND FLOORSTATEN ISLAND NY 10306	11/14/2019	11/14/2024
DOL	DOL	*****1320	MJC MASON CONTRACTING, INC.		42 FOWLER AVENUE CORTLAND MANOR NY 10567	10/25/2022	10/25/2027
DOL	DOL	*****1320	MJC MASON CONTRACTING, INC.		42 FOWLER AVENUE CORTLAND MANOR NY 10567	01/24/2023	01/24/2028
DOL	NYC		MUHAMMED A. HASHEM		524 MCDONALD AVENUE BROOKLYN NY 11218	09/17/2020	09/17/2025

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DOL	NYC		NAMOW, INC.		84-22 GRAND AVENUE ELMHURST NY 11373	03/10/2020	03/10/2025
DOL	DOL	****7790	NATIONAL BUILDING & RESTORATION CORP		1010 TILDEN AVE UTICA NY 13501	07/24/2023	07/24/2028
DOL	DOL	****1797	NATIONAL CONSTRUCTION SERVICES, INC		1010 TILDEN AVE UTICA NY 13501	07/24/2023	07/24/2028
DOL	NYC		NAVIT SINGH		402 JERICHO TURNPIKE NEW HYDE PARK NY 11040	08/10/2022	08/10/2027
DOL	DOL		NELCO CONTRACTING, LLC		1024 BROADWAY ALBANY NY 12204	11/07/2023	11/07/2028
DOL	DA		NICHOLAS T. ANALITIS		505 MANHATTAN AVE WEST BABYLON NY 11704	10/05/2023	10/05/2028
DOL	DOL		NICHOLE E. FRASER A/K/A NICHOLE RACE		3469 STATE RT. 69 PERISH NY 13131	03/01/2022	03/01/2027
DOL	DOL		NICHOLE E. FRASER A/K/A NICHOLE RACE		3469 STATE RT. 69 PERISH NY 13131	11/15/2022	11/15/2027
DOL	DOL		NICHOLE E. FRASER A/K/A NICHOLE RACE		3469 STATE RT. 69 PERISH NY 13131	09/29/2021	09/29/2026
DOL	DOL		NICHOLE E. FRASER A/K/A NICHOLE RACE		3469 STATE RT. 69 PERISH NY 13131	02/09/2022	02/09/2027
DOL	DOL	****7429	NICOLAE I. BARBIR	BESTUCCO CONSTRUCTI ON, INC.	444 SCHANTZ ROAD ALLEN TOWN PA 18104	09/17/2020	09/17/2025
DOL	NYC	****5643	NYC LINE CONTRACTORS, INC.		402 JERICHO TURNPIKE NEW HYDE PARK NY 11040	08/10/2022	08/10/2027
DOL	DOL		PATRICK PENNACCHIO		2345 RT. 52 SUITE 2NHOPEWELL JUNCTION NY 12533	12/18/2023	12/18/2028
DOL	DOL		PATRICK PENNACCHIO		2345 RT. 52 SUITE 2NHOPEWELL JUNCTION NY 12533	12/18/2023	12/18/2028
DOL	DOL		PAULINE CHAHALES		935 S LAKE BLVD MAHOPAC NY 10541	03/02/2021	03/02/2026
DOL	DOL		PETER STEVENS		11 OLD TOWN ROAD SELKIRK NY 12158	02/02/2021	02/02/2026
DOL	DOL		PETER STEVENS		8269 21ST ST BELLEROSE NY 11426	12/22/2022	12/22/2027
DOL	DOL	****0466	PRECISION BUILT FENCES, INC.		1617 MAIN ST PEEKSKILL NY 10566	03/03/2020	03/03/2025
DOL	NYC		RASHEL CONSTRUCTION CORP		524 MCDONALD AVENUE BROOKLYN NY 11218	09/17/2020	09/17/2025
DOL	DOL	****1068	RATH MECHANICAL CONTRACTORS, INC.		24 ELDOR AVENUE NEW CITY NY 10956	02/03/2020	02/03/2025
DOL	DOL	****2633	RAW POWER ELECTRIC CORP.		3 PARK CIRCLE MIDDLETOWN NY 10940	07/11/2022	07/11/2027
DOL	DA	****7559	REGAL CONTRACTING INC.		24 WOODBINE AVE NORTHPORT NY 11768	10/01/2020	10/01/2025
DOL	DOL		RICHARD REGGIO		1617 MAIN ST PEEKSKILL NY 10566	03/03/2020	03/03/2025
DOL	DOL		ROBBYE BISSE SAR		89-51 SPRINGFIELD BLVD QUEENS VILLAGE NY 11427	01/11/2003	01/11/3003
DOL	DOL		ROBERT A. VALERINO		3841 LANYARD COURT NEW PORT RICHEY FL 34652	07/09/2019	07/09/2024
DOL	DOL		ROBERT BRUNO		5 MORNINGSIDE DRIVE AUBURN NY 13021	05/28/2019	05/28/2024
DOL	DOL		ROMEO WARREN		161 ROBYN RD MONROE NY 10950	07/11/2022	07/11/2027
DOL	DOL		RONALD MESSEN		14B COMMERCIAL AVE ALBANY NY 12065	11/14/2019	11/14/2024
DOL	DOL	****7172	RZ & AL INC.		198 RIDGE AVENUE VALLEY STREAM NY 11581	06/06/2022	06/06/2027
DOL	DOL		SAL FRESINA MASONRY CONTRACTORS, INC.		1935 TEALL AVENUE SYRACUSE NY 13206	07/16/2021	07/16/2026
DOL	DOL		SAL MASONRY CONTRACTORS, INC.		(SEE COMMENTS) SYRACUSE NY 13202	07/16/2021	07/16/2026
DOL	DOL	****9874	SALFREE ENTERPRISES INC		P.O BOX 14 2821 GARDNER RD POMPEI NY 13138	07/16/2021	07/16/2026
DOL	DOL		SALVATORE A FRESINA A/K/A SAM FRESINA		107 FACTORY AVE P.O BOX 11070 SYRACUSE NY 13218	07/16/2021	07/16/2026
DOL	DOL		SAM FRESINA		107 FACTORY AVE P.O BOX 11070 SYRACUSE NY 13218	07/16/2021	07/16/2026
DOL	NYC	****0349	SAM WATERPROOFING INC		168-42 88TH AVENUE APT.1 AJAMAICA NY 11432	11/20/2019	11/20/2024

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DOL	DA	****0476	SAMCO ELECTRIC CORP.		3735 9TH ST LONG ISLAND CITY NY 11101	01/05/2023	01/05/2028
DOL	NYC	****1130	SCANA CONSTRUCTION CORP.		863 WASHINGTON STREET FRANKLIN SQUARE NY 11010	03/10/2020	03/10/2025
DOL	DOL	****2045	SCOTT DUFFIE	DUFFIE'S ELECTRIC, INC.	P.O BOX 111 CORNWALL NY 12518	03/03/2020	03/03/2025
DOL	DOL		SCOTT DUFFIE		P.O BOX 111 CORNWALL NY 12518	03/03/2020	03/03/2025
DOL	DA		SILVANO TRAVALJA		3735 9TH ST LONG ISLAND CITY NY 11101	01/05/2023	01/05/2028
DOL	DOL	****0440	SOLAR GUYS INC.		8970 MIKE GARCIA DR MANASSAS VA 20109	07/16/2021	07/16/2026
DOL	NYC		SOMATIE RAMSUNAHAI		115-46 132ND ST SOUTH OZONE PARK NY 11420	09/17/2020	09/17/2025
DOL	DOL	****2221	SOUTH BUFFALO ELECTRIC, INC.		1250 BROADWAY ST BUFFALO NY 14212	02/03/2020	02/03/2025
DOL	NYC	****3661	SPANIER BUILDING MAINTENANCE CORP		200 OAK DRIVE SYOSSET NY 11791	03/14/2022	03/14/2027
DOL	DOL		STANADOS KALOGELAS		485 RAFT AVENUE HOLBROOK NY 11741	10/19/2021	10/19/2026
DOL	DOL	****3496	STAR INTERNATIONAL INC		89-51 SPRINGFIELD BLVD QUEENS VILLAGE NY 11427	08/11/2003	08/11/3003
DOL	DOL	****6844	STEAM PLANT AND CHX SYSTEMS INC.		14B COMMERCIAL AVENUE ALBANY NY 12065	11/14/2019	11/14/2024
DOL	DOL	****9933	STEED GENERAL CONTRACTORS, INC.		1445 COMMERCE AVE BRONX NY 10461	05/30/2019	05/30/2024
DOL	DOL	****9528	STEEL-IT, LLC.		17613 SANTE FE LINE ROAD WAYNESFIELD OH 45896	07/16/2021	07/16/2026
DOL	DOL		STEFANOS PAPASTEFANOU, JR. A/K/A STEVE PAPASTEFANOU, JR.		256 WEST SADDLE RIVER RD UPPER SADDLE RIVER NJ 07458	05/30/2019	05/30/2024
DOL	DOL	****3800	SUBURBAN RESTORATION CO. INC.		5-10 BANTA PLACE FAIR LAWN PLACE NJ 07410	03/29/2021	03/29/2026
DOL	DOL	****9150	SURGE INC.		8269 21ST STREET BELLEROSE NY 11426	12/22/2022	12/22/2027
DOL	DOL		SYED RAZA		198 RIDGE AVENUE NY 11581	06/06/2022	06/06/2027
DOL	DOL		TERRY THOMPSON		11371 RIDGE RD WOLCOTT NY 14590	02/03/2020	02/03/2025
DOL	DOL	****9733	TERSAL CONSTRUCTION SERVICES INC		107 FACTORY AVE P.O BOX 11070SYRACUSE NY 13208	07/16/2021	07/16/2026
DOL	DOL		TERSAL CONTRACTORS, INC.		221 GARDNER RD P.O BOX 14POMPEI NY 13138	07/16/2021	07/16/2026
DOL	DOL		TERSAL DEVELOPMENT CORP.		1935 TEALL AVENUE SYRACUSE NY 13206	07/16/2021	07/16/2026
DOL	DOL	****5766	THE COKER CORPORATION	COKER CORPORATION	2610 SOUTH SALINA ST SUITE 14SYRACUSE NY 13205	09/17/2020	09/17/2025
DOL	DOL		TIMOTHY PERCY		29807 ANDREWS ROAD BLACK RIVER NY 13612	10/17/2023	10/17/2028
DOL	DA	****1050	TRI STATE CONSTRUCTION OF NY CORP.		50-39 175TH PLACE FRESH MEADOWS NY 11365	03/28/2022	03/28/2027
DOL	DA	****4106	TRIPLE H CONCRETE CORP		2375 RAYNOR STREET RONKONKOMA NY 11779	08/04/2021	08/04/2026
DOL	DOL	****8210	UPSTATE CONCRETE & MASONRY CONTRACTING CO INC		449 WEST MOMBASHA ROAD MONROE NY 10950	06/06/2022	06/06/2027
DOL	DOL	****6418	VALHALLA CONSTRUCTION, LLC.		796 PHLEPS ROAD FRANKLIN LAKES NJ 07417	12/01/2020	12/01/2025
DOL	NYC	****2426	VICKRAM MANGRU	VICK CONSTRUCTION	21 DAREWOOD LANE VALLEY STREAM NY 11581	09/17/2020	09/17/2025
DOL	NYC		VICKRAM MANGRU		21 DAREWOOD LANE VALLEY STREAM NY 11581	09/17/2020	09/17/2025
DOL	DOL		VIKTORIA RATH		24 ELDOR AVENUE NEW CITY NY 10956	02/03/2020	02/03/2025
DOL	NYC	****3673	WALTERS AND WALTERS, INC.		465 EAST AND THIRD ST MT. VERNON NY 10550	09/09/2019	09/09/2024
DOL	DOL	****3296	WESTERN NEW YORK CONTRACTORS, INC.		3841 LAYNARD COURT NEW PORT RICHEY FL 34652	07/09/2019	07/09/2024
DOL	DOL	****8266	WILLIAM CHRIS MCCLENDON	MCCLENDON ASPHALT PAVING	1646 FALLS STREET NIAGARA FALLS NY 14303	05/01/2023	05/01/2028

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DOL	DOL		WILLIAM CHRIS MCCLENDON		1646 FALLS STREET NIAGARA FALLS NY 14303	05/01/2023	05/01/2028
DOL	DOL		WILLIAM G. PROERFRIEDT		85 SPRUCEWOOD ROAD WEST BABYLON NY 11704	01/19/2021	01/19/2026
DOL	DOL	****5924	WILLIAM G. PROPHY, LLC	WGP CONTRACTIN G, INC.	54 PENTAQUIT AVE BAYSHORE NY 11706	01/19/2021	01/19/2026
DOL	DOL		XENOFON EFTHIMIADIS		29-10 38TH AVENUE LONG ISLAND CITY NY 11101	10/11/2023	10/11/2028

Rockland Green  
Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in  
Haverstraw, NY  
RFP 2024-01

## **APPENDIX G**

### **PROJECT LABOR AGREEMENT**

# PROJECT LABOR AGREEMENT

Covering Construction Performed on Behalf of  
Rockland Green and Rockland County Building &  
Construction Trades Council



Capital Project

New Animal Facility  
RFP 2024-01

10 Ecology Lane  
West Haverstraw, New York

**January 2024**

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## **INTRODUCTION**

WHEREAS, The Rockland County Solid Waste Management Authority d/b/a Rockland Green acting as its own Construction Manager, desires to provide for the cost efficient, safe, quality and timely completion of a construction project for a New Animal Facility in a manner designed to afford the lowest costs to the County and the Public it represents and the advancement of permissible public policy objectives;

WHEREAS, this Project Labor Agreement shall foster the achievement of these goals, inter alia, by:

1. avoiding the costly delays of potential strikes, slowdowns, walkouts, picketing and other disruptions arising from work disputes and promote labor harmony and peace for the duration of the Project;
2. standardizing the terms and conditions governing the employment of labor on the Project;
3. permitting wide flexibility in work scheduling and shift hours and times;
4. receiving negotiated adjustments as to work rules and staffing requirements from those which otherwise might obtain;
5. providing comprehensive and standardized mechanisms for the settlement of work disputes, including those relating to jurisdiction;
6. ensuring a reliable source of skilled and experienced labor;
7. furthering public policy objectives as to improved employment opportunities for minorities, women and the economically disadvantaged in the construction industry;
8. minimizing potential losses of revenues;
9. expediting the construction process and otherwise minimizing the inconveniences to the citizens of the County of Rockland; and

WHEREAS, the parties desire to maximize Project safety conditions for both workers and the public;  
NOW, THEREFORE, the Parties enter into this Agreement:

## **PARTIES TO THE AGREEMENT**

This is a Project Labor Agreement (AGREEMENT) entered into by and between Rockland Green and its successors and assigns Rockland Green for the New Animal Facility project and by the Rockland County Building and Construction Trades Council, AFL-CIO (COUNCIL) (on behalf of itself and its affiliated Local Unions and their members) (LOCAL UNIONS). The Council and Local Unions warrant and represent that it has been duly authorized to enter into this Agreement.

All notices shall be made in unity to Gerard M. Damiani jr., Executive Director. Rockland Green, 171 Main Street, Nanuet, 10954, (office) (845) 753-2200, (fax) (845) 753-2281 or to his email address @gdamiani@rocklandgreen.com

## **1.0 GENERAL CONDITIONS**

### **1.1 DEFINITIONS**

Throughout this Agreement, the Council and the signatory Local Unions are referred to singularly and collectively as "Union(s)". Where specific reference is made to "Local Unions" that phrase is sometimes used; the term "Contractor(s)" shall include and all signatory Contractors and their subcontractors of whatever tier, engaged in on-site Project construction work within the contractors and their subcontractors of whatever tier, engaged in on-site Project construction work within the scope of this Agreement as defined in Section 2.0; the Rockland County Building and Construction Trades Council, AFL-CIO is referred as the "Council" and the work covered by this Agreement (as defined in Section 2.0) is referred to as the "Project Work". The term "Employees" shall include the workers employed by the contractor.

### **1.2 CONDITIONS FOR AGREEMENT TO BECOME EFFECTIVE**

This Agreement shall not become effective unless each of the following conditions are met:

1. the Agreement is approved and signed by the Council, and the Local Unions having jurisdiction over the Project work;
2. the Agreement is approved and signed by Rockland Green.

### **1.3 ENTITIES BOUND AND ADMINISTRATION OF AGREEMENT**

This Agreement shall be binding on all signatory Unions and Rockland Green and all signatory Contractors performing on-site Project work, including site preparation and staging areas, as defined in Section 2.0. The Contractors shall include in any subcontract that they let for performance during the term of this Agreement a requirement that their subcontractors, of whatever tier, become a signatory to the Letter of Assent (Appendix B) and are bound by this Agreement with respect to subcontracted work performed within the scope of Section 2.0. This Agreement shall be administered by Rockland Green on behalf of all Contractors.

### **1.4 SUPREMACY CLAUSE**

This Agreement, together with the Collective Bargaining Agreements of the Local Unions incorporated by reference herein represents the complete understanding of all signatories and supersedes any national agreement, local agreement or other collective bargaining agreement of any type which would otherwise apply to this Project, in whole or in part. Where a subject covered by the provisions, explicit or implicit, of this Agreement is also covered by a Collective Bargaining Agreement of a Local Union the provisions of

this Agreement shall prevail. It is further understood that no Contractor shall be required to sign any other agreement as a condition of performing work on this Project. No practice, understanding or agreement between a Contractor and a Local Union, which is, not explicitly set forth in this Agreement shall be binding on this Project unless endorsed in writing by the County.

### **1.5 LIABILITY**

The liability of any Contractor and the liability of any Union under this Agreement shall be severed and not joint. Rockland Green and any Contractor shall not be liable for any violations of this Agreement by any other Contractor; and the Council and Local Unions shall not be liable for any violations of this Agreement by any other Union.

### **1.6 ROCKLAND GREEN – CONSTRUCTION REPRESENTATIVE**

Rockland Green shall require in its bid specifications for all work within the scope of Section 2.0 that all successful bidders and their subcontractors of whatever tier, become bound by and signatory to, this Agreement. It is understood that nothing in this Agreement shall be construed as limiting the sole discretion of Rockland Green in determining which Contractors shall be awarded contracts for Project work. It is further understood that Rockland Green shall have sole discretion at any time to terminate, delay or suspend the Project work, in whole or in part.

### **1.7 AVAILABILITY AND APPLICABILITY TO ALL SUCCESSFUL BIDDERS**

The Unions agree that this Agreement shall be made available to and shall fully apply to any successful bidder for Project Work who becomes signatory thereto, without regard to whether that successful bidder performs work at other sites on either a union or non-union basis and without regard to whether employees of such successful bidder are, or are not, members of any unions. This Agreement shall not apply to the work of any Contractor which is performed at any location other than the Project site as defined in Section 2.1.

## **2.0 SCOPE OF THIS AGREEMENT**

The Project work covered by this Agreement shall be as defined and limited by the following sections of this Section.

### **2.1 THE WORK**

This Agreement shall only apply to the following on-site construction work performed for the Animal Facility at 10 Ecology Lane, West Haverstraw, NY including any amendments or modifications thereto (Contract Documents). “On site” construction work in connection with the above shall be defined to include Project Work performed at preparation and staging areas located within 15 miles of the Project site provided such work is covered by a Collective Bargaining Agreement.

## **2.2 TIME LIMITATIONS**

This Agreement shall be further limited to Project Work performed under Capital Project 1483, New Animal Facility project in West Haverstraw, NY. It is further understood that this Agreement, together with all of its provisions, shall remain in effect for the duration of all Project Work.

## **2.3 EXCLUDED EMPLOYEES**

The following persons (excluding drivers) are not subject to the provisions of this Agreement, even though performing work on the Project:

1. Superintendents, supervisors (excluding general and forepersons specifically covered by a craft's Schedule A), engineers, inspectors and testers, quality control/assurance personnel, timekeepers, mail carriers, clerks, office workers, messengers, guards, technicians (for startup and testing and not for installation), non-manual employees, and all professional (excluding surveyors), architectural, engineering, administrative and management persons;
2. Employees of Rockland Green, or of any State agency, authority or entity or employees of any municipality or other public employer.
3. Employees and entities engaged in off-site (farther than 15 miles from the Project site as set forth in Section 2.1) manufacture, modifications, repair, maintenance, assembly, painting, handling or fabrication of project components, materials, equipment or machinery (unless specifically covered by a craft's Schedule A) or involved in deliveries to and from the Project site, excepting local deliveries of all major construction materials including fill, ready mix, asphalt and Item 4, which are covered by this Agreement;
4. Employees engaged in on-site equipment warranty work;
5. Employees engaged in laboratory or specialty testing or inspections;
6. Employees of companies engaged in ancillary Project work performed by third parties such as electric utilities, water utilities, gas utilities, telephone operating companies, railroads and cross connection termination of existing lines belonging to Rockland Green for data and telephone. However, contractors and subcontractors engaged by third parties to perform such work are subject to and shall be a signatory to this Agreement.
7. The work of the Contractor that is normally performed under the terms of a National Specialty Agreement including, but not limited to, the National Tank Manufacturing Agreement, the Stack Liner Agreement, the Rubber Liner Agreement, or any other National Specialty Agreement.

## **2.4 NON-APPLICATION TO CERTAIN ENTITIES**

This Agreement shall not apply to the parents, affiliates, subsidiaries, or other joint or sole ventures of any Contractor, which do not perform work at this Project including RG CARES. It is agreed, for the purposes of this Agreement only, that this Agreement does not have the effect of creating any joint employment, single employer or alter ego status among Rockland Green and/or any Contractor. The Agreement shall further not apply to Rockland Green or any other county or state agency, authority or other municipal or public entity and nothing contained herein shall be construed to prohibit or restrict Rockland Green or its employees or any other county or state authority, agency or entity and its employees from performing on or off-site work related to the Project. As the contracts which comprise the Project work are completed and accepted, the Agreement shall not have further force or effect on such items or areas except where inspections, additions, repairs, modifications, check-out and/or warranty work are assigned in writing (copy to Local Union involved) by Rockland Green for performance under the terms of this Agreement.

## **3.0 UNION RECOGNITION AND EMPLOYMENT**

### **3.1 PRE-HIRE RECONGNITION**

The Contractors recognize the signatory Unions as the sole and exclusive bargaining representatives of all craft employees who are performing on-site Project work within the scope of this Agreement as defined in Section 2.0. The parties stipulate that this Agreement and all Collective Bargaining Agreements governed herein are “pre-hire agreements” as defined by Section 8(f) of the National Labor Relations Act.

### **3.2 UNION REFERRAL**

- A. The Contractors agree to hire craft employees of the Local Unions covered by this Agreement through the job referral system and hiring halls (where the referrals meet the qualifications set forth in Item’s 1, 2 and 4 of subparagraph B) established in the Local Union’s area Collective Bargaining Agreements (attached as Schedule A to this Agreement). Notwithstanding this *requirement*, the Contractors shall have sole right to determine the competency of all referrals; the number of employees required; the selection of employees to be laid off (except as provided in Section 4.3); and the sole right to reject any applicant referred by a Local Union, subject to the show-up payments required in the applicable Schedule A. In the event that a Local Union is unable to fill any request for qualified employees within a 48 hour period after such requisition is made by the Contractor (Saturdays, Sundays and Holidays excepted), the Contractor may employ qualified applicants from any other available source. In the event that the Local Union does not have a job referral system, the Contractor shall give the Local Union first preference to refer applicants, subject to the other provisions of this Section. The Contractor shall notify the Local Union of employees hired within its jurisdiction from any source other than referral by the Union.

- B. No more than twelve percent (12%) per centum of the employees covered by this Agreement, per Contractor by craft, shall be hired through the special provisions above (any fraction shall be rounded to the next highest whole number). The twelve percent (12%) per centum provision only applies after the Contractor hires its first employee from the appropriate Local Union.

### **3.3 NON-DISCRIMINATION IN REFERRALS**

The Local Unions represent that their hiring halls and referral systems shall be operated in a non-discriminatory manner and in full compliance with all applicable federal, state and local laws and regulations which require equal employment opportunities. Referrals shall not be affected in any way by the rules, regulations, bylaws, constitutional provisions or any other aspects or obligations of union membership, policies or requirements and shall be subject to such other conditions as are established in this Section. No employment applicant shall be discriminated against by the referral system or hiring hall because of the applicant's union membership, or lack thereof.

### **3.4 MINORITY AND FEMALE REFERRALS**

In the event a Local Union either fails, or is unable, to refer qualified minority or female applicants in percentages equaling Project affirmative action goals as set forth in Rockland Green's bid specifications, the Contractor may employ qualified minority or female applicants from any other available source.

### **3.5 CROSS AND QUALIFIED REFERRALS**

The Local Union shall not knowingly refer to a Contractor an employee then employed by another Contractor working under this Agreement. The Local Unions shall exert their utmost efforts to recruit sufficient numbers of skilled and qualified craft employees to fulfill the requirements of the Contractor.

### **3.6 UNION DUES**

All employees covered by this Agreement shall be subject to the union security provisions contained in the applicable Schedule A Collective Bargaining Agreements, as amended from time to time, but only for the period of time during which they are performing on-site Project work and only to the extent of rendering payment of the applicable monthly union dues uniformly required for union membership in the Local Unions, signatory to this Agreement, which represents the craft in which the employee is performing Project work. No employee shall be discriminated against at the Project site because of the employee's union membership or lack thereof. In the case of unaffiliated employees, the dues payment will be received by the Unions as an agency shop fee.

### **3.7 CRAFT FOREPERSONS AND GENERAL FOREPERSONS**

The selection of craft forepersons and/or general forepersons and the number of forepersons required shall be solely the responsibility of the Contractor except where otherwise provided by specific provisions of an applicable Schedule A. All forepersons shall take orders exclusively from the designated Contractor

representatives. Craft forepersons shall be designated as working forepersons at the request of the Contactor, except when an existing local Collective Bargaining Agreement prohibits a foreperson from working when the craftsman he is leading exceed a specified number.

#### **4.0 UNION REPRESENTATION**

##### **4.1 LOCAL UNION REPRESENTATIVE**

Each Local Union representing on-site Project employees shall be entitled to designated writing (copy to Contractor involved and County) representative and/or the Business Manager, who shall be afforded access to the Project.

##### **4.2 STEWARDS OR LEAD ENGINEER**

- A. Each Local Union shall have the right to designate a working journeyperson as a Steward and an alternate and shall notify the Contractor and Rockland Green of the identity of the designated Steward (and alternate) prior to the assumption of such duties. Stewards shall not exercise supervisory functions and shall receive the regular rate of pay for their craft classifications. There shall be no non-working Stewards on the Project.
- B. In addition to their work as an employee, the Steward shall have the right to receive complaints or grievances and to discuss and assist in their adjustment with the Contractor's appropriate supervisor. Each Steward shall be concerned with the employees of the Steward's Contract and if applicable, subcontractors of the Contractor, but not with the employees of any other Contractor. The Contractor shall not discriminate against the Steward in the proper performance of Union duties.
- C. The Stewards shall not have the right to determine when overtime shall be worked, or who shall work overtime except pursuant to a Schedule A provision providing procedures for the equitable distribution of overtime.

##### **4.3 LAYOFF OF A STEWARD**

Contractors agree to notify the appropriate Union 24 hours prior to the layoff of a Steward, except in cases of discipline or discharge for just cause. If a Steward is protected against layoff by Schedule A, such provisions shall be recognized to the extent the Steward possesses the necessary qualifications to perform the work required. In any case in which a Steward is discharged or disciplined for just cause, the Local Union involved shall be notified immediately by the Contractor.

## **5.0 MANAGEMENT RIGHTS**

### **5.1 RESERVATION OF RIGHTS**

Except as expressly limited by a specific provision of this Agreement, Contractors retain full and exclusive authority for the management of their Project operations including, but not limited to: the right to direct the work force, including determination as to the number to be hired and the qualifications therefore; the promotion, transfer, layoff of its employees; or the discipline or discharge for just cause of its employees; the assignment and schedule of work; the promulgation of reasonable Project work rules; and the requirement, timing and number of employees to be utilized for overtime work. No rules, customs or practices which limit or restrict productivity or efficiency of the individual, as determined by the Contractor or Rockland Green and/or joint working efforts with other employees shall be permitted or observed.

### **5.2 MATERIALS, METHODS AND EQUIPMENT**

There shall be no limitation or restriction unless specified in Rockland Green Documents, upon the Contractor's choice of materials, techniques, methods, technology or design, or regardless of source or location, upon the use and installation of equipment, machinery, package units, precast, pre-fabricated, pre-finished, or pre-assembled materials, tools or other labor-saving devices. Contractors may, without restriction, install or use materials, supplies or equipment regardless of their source. The on-site installation or application of such items shall be performed by the craft having jurisdiction over such work; (re-bar will be fabricated and installed as per the requirements of Schedule A) provided, however, it is recognized that other personnel having special qualifications may participate, in a supervisory capacity, in the installation, check-off or testing of specialized or unusual equipment or facilities as designated by the Contractor. There shall be no restrictions as to work, which is performed off-site for the Project.

## **6.0 WORK STOPPAGES AND LOCKOUTS**

### **6.1 NO STRIKES – NO LOCKOUTS**

There shall be no strikes, sympathy strikes, picketing, work stoppages, slowdowns, hand billing, demonstrations or other disruptive activity at the Project for any reason by any Union or employee against any Contractor or employer while performing work at the Project. There shall be no other Union, or concerted or employee activity which disrupts or interferes with the operation of the County. Failure of any Union or employee to cross any picket line established by any Union, signatory or non-signatory to this Agreement, or the picket or demonstration line of any other organization, at or in proximity to the Project site is a violation of this Section. There shall be no lockout at the Project by any signatory Contractor. Contractors and Unions shall take all steps necessary to ensure compliance with this Section 6.1 and to ensure uninterrupted construction for the duration of this Agreement.

## **6.2 DISCHARGE FOR VIOLATION**

A Contractor may discharge any employee violating Section 6.1, above, and any such employee shall not be eligible thereafter for referral under this Agreement for a period of one hundred (100) calendar days.

## **6.3 NOTIFICATION**

If a Contractor contends with any Union has violated this Section, it shall notify the Council advising of such fact, with copies of the notification to the Local Union. The Council shall instruct, order and otherwise use its best efforts to cause the employees and/or the Local Unions to immediately cease and desist from any violation of this Section. The Council, complying with these obligations shall not be liable for the unauthorized acts of a Local Union or its members.

## **6.4 EXPEDITED ARBITRATION**

Any Contractor or Union alleging a violation of Section 6.1 of this Section may utilize the expedited procedure set forth below (in lieu of, or in addition to, any actions at law or equity) that may be brought.

1. A party invoking this procedure shall notify the AAA arbitrator selected who shall act as Arbitrator under this expedited arbitration procedure. Copies of such notification shall be simultaneously sent to the alleged violator and if a Local Union is alleged to be in violation, the Council and Rockland Green.
2. The Arbitration shall thereupon, after notice as to time and place to the Contractor, the Local Union involved, the Council and Rockland Green a hearing within 48 hours of receipt for the notice invoking the procedure if it is contended that the violation still exists. The hearing shall not, however, be scheduled for less than 24 hours after the notice to the Council required by Section 6.3, above.
3. All notices pursuant to this Section may be by telephone, telegraph, hand delivery, or fax, confirmed by overnight delivery, to the Arbitrator, Contractor or Union involved. The hearing may be held on any day including Saturdays or Sundays. The hearing shall be completed in one (1) session, which shall not exceed eight (8) hours duration (no more than four (4) hours being allowed to either side to present their case and conduct their cross examination) unless otherwise agreed. A failure of any Union or Contractor to attend the hearing shall not delay the hearing of evidence by those present or the issuance of an award by the Arbitrator.
4. The sole issue at the hearing shall be whether a violation of Section 6.1, above, occurred. If a violation is found to have occurred, the Arbitrator shall issue a Cease and Desist Award restraining such violation and serve copies on the Contractor and the Union involved. The Arbitrator shall have no authority to consider any matter in justification, explanation or mitigation of such violation or to award damages, which issue is reserved solely for court proceedings, if

any. The Award shall be issued in writing within three (3) hours after the close of the hearing and may be issued without an Opinion. If any involved party desires an Opinion, one shall be issued within fifteen (15) calendar days, but its issuance shall not delay compliance with or enforcement of the Award.

5. An Award issued under this procedure may be enforced by any court of competent jurisdiction upon the filing of this Agreement together with the Award. Notice of the filing of such enforcement proceedings shall be given to the Union or Contractor involved. In any court proceeding to obtain a temporary or preliminary order enforcing the Arbitrator's award as issued under this expedited procedure, the involved Union and Contractor waive their right to a hearing and agree that such proceedings may be ex parte, provided notice is given to opposing counsel. Such agreement shall not waive any party's right to participate in a hearing for a final court order of enforcement in any contempt proceeding.
6. Any rights created by statute or law governing arbitration proceedings which are inconsistent with the procedure set forth in this Section, or which interfere with compliance thereto, are hereby waived by the Contractors and Unions to whom they accrue.
7. The fees, expenses and all advance deposits required by the AAA of the Arbitrator shall be borne equally between the involved Contractor and Local Union.

## **6.5 ARBITRATION OF DISCHARGES FOR VIOLATION**

Procedures contained in Section 8.0 shall not be applicable to any alleged violation of this Section, with the single exception that an employee discharged for violation of Section 6.1, above, may have recourse to the procedures of Section 8.0 to determine only if the employee did, in fact, violate the provisions of Section 6.1; but not for the purpose of modifying the discipline imposed where a violation is found to have occurred.

## **7.0 LABOR MANAGEMENT COMMITTEE**

### **7.1 SUBJECTS**

The Project Labor Management Committee shall meet on a regular basis to:

1. promote harmonious relations among the Contractors and Unions;
  2. enhance safety awareness, cost effectiveness and productivity of construction operations;
  3. protect the public interests;
  4. discuss matters relating to staffing and scheduling with safety and productivity as considerations;
- and

5. review Affirmative Action and equal employment opportunity matters pertaining to the Project.

## **7.2 COMPOSITION**

The Committee shall be jointly chaired by designees of the President of the Council and Rockland Green, Construction Representative and representatives of the Local Unions and Contractors involved in the issues being discussed. The Committee may conduct business through mutually agreed sub-committees.

## **8.0 GRIEVANCE AND ARBITRATION PROCEDURE**

### **8.1 PROCEDURE FOR RESOLUTION OF GRIEVANCES**

Any question, dispute or claim arising out of, or involving the interpretation or application of this Agreement (other than jurisdictional disputes or alleged violations of Section 6.1) shall be considered a grievance and shall be resolved pursuant to the exclusive procedure of the steps described below; provided, in all cases, that the question, dispute or claim arose during the term of this Agreement.

#### **8.1.1 Step One**

- A. When any Employee covered by this Agreement feels aggrieved by a claimed violation of this Agreement, the employee shall, through the Local Union business representative or job Steward give notice of the claimed violation to the work site representative of the involved Contractor. To be timely, such notice of the grievance must be within fourteen (14) calendar days after the act, occurrence or event given rise to the grievance. The business representative of the Local Union or the job Steward and the work site representative of the involved Contractor shall meet and endeavor to adjust the matter within fourteen (14) calendar days after a timely notice has been given. If they fail to resolve the matter within the prescribed period, the grieving party, may, within fourteen (14) calendar days thereafter, pursue Step Two of the grievance procedure by serving the involved Contractor and Rockland Green with written copies of the grievance occurred and the provisions of the Agreement alleged to have been violated. Grievances and disputes settled at Step One are non-precedential except as to the specific Local Union, employee and Contractor directly involved unless the settlement is accepted in writing by the County as creating a precedent.
- B. Should any signatory to this Agreement have a dispute (excepting jurisdictional disputes or alleged violations of Section 6.1) with any other signatory to this Agreement and after conferring, a settlement is not reached within fourteen (14) calendar days, the dispute shall be reduced to writing and proceed to Step Two in the same manner as outlined in subparagraph (a) for the adjustment of employee grievances.

### **8.1.2 Step Two**

- A. The Business Manager or designee of the involved Local Union, together with representatives of the Council, the involved Contractor and Rockland Green's Construction Representative shall meet in Step Two within fourteen (14) calendar days of service of the written grievance to arrive at a satisfactory settlement.

### **8.1.3 Step Three**

- A. If the grievance shall have been submitted but not resolved in Step Two, any of the participating Step 2 entities may, within twenty-one (21) calendar days after the initial Step Two meeting, submit the grievance in writing (copies to other participants) to the Arbitrators under this procedure. The Labor Arbitration Rules of the American Arbitration Association shall govern the conduct of the arbitration hearing, at which all Step Two participants shall be parties. The decision of the Arbitrator shall be final and binding on the involved Contractor, Local Union and employees, and the fees, expenses and all advanced deposits required by the AAA of such arbitration shall be borne equally by the involved Contractor and Local Union.
- B. Failure of the grieving party to adhere to the time limits set forth in this Section shall render the grievance null and void. These time limits may be extended only by written consent of Rockland Green, involved Contractor and involved Local Union at the particular step where the extension is agreed upon. The Arbitrator shall have authority to make decisions only on the issue presented to him and shall not have the authority to change, add to, delete or modify any provision of this Agreement.

## **8.2 LIMITATIONS AS TO RETROACTIVITY**

No arbitration decision or award may provide retroactivity of any kind exceeding sixty (60) calendar days prior to the date of service of the written grievance on Rockland Green and the involved Contractor or Local Union.

## **8.3 PARTICIPATION BY ROCKLAND GREEN CONSTRUCTION REPRESENTATIVE**

The Rockland Green Construction Representative shall be notified by the involved Contractor of all actions at Steps Two and Three and at its election, may participate in full all proceedings at these Steps, including Step Three arbitration.

## **9.0 JURISDICTIONAL DISPUTES**

### **9.1 NO DISRUPTIONS**

There shall be no strikes, sympathy strikes, work stoppages, slowdowns, picketing or other disruptive activity of any kind arising out of any jurisdictional dispute. Pending the resolution of the dispute, the work

shall continue uninterrupted and as assigned by the Contractor. No jurisdictional dispute shall excuse a violation of Section 6.0.

## **9.2 ASSIGNMENT**

All project construction work assignments shall be made pursuant to law.

## **9.3 PROCEDURE FOR SETTLEMENT OF DISPUTES**

- A. Any Union having a jurisdictional dispute with respect to Project work assigned to another Union shall submit the dispute in writing to the Construction Representative, Plan for the Settlement of Jurisdictional Disputes in the Construction Industry (“The Plan”) within seventy-two (72) hours and send a copy of the letter to the other Union involved, the Contractor involved, Rockland Green and the Council. Upon receipt of a dispute letter from any union, the Construction Representative will invoke the procedures set forth in the plan to resolve the jurisdictional dispute. The jurisdictional dispute letter shall contain the information described in Section 3.0 of the Plan.
- B. Within five (5) calendar days of receipt of the dispute letter, there shall be a meeting of the Contractor involved, Rockland Green, the Local Unions involved and designees of the Council involved for the purpose of resolving the jurisdictional dispute.
- C. If the dispute remains unresolved after this meeting, the parties shall proceed to final and binding arbitration in accordance with the principles and procedures set forth in the rules of the “Plan for the Settlement of Jurisdictional Disputes in the Construction Industry.”
- D. The Arbitrator appointed under this Section shall render a short-form decision within five (5) days of the hearing based upon the evidence submitted at the hearing, with a written decision to follow within thirty (30) days of the close of the hearing.
- E. This Jurisdictional Dispute Resolution Procedure will only apply to work performed by Local Unions at the Project.
- F. Any Local Union involved in a jurisdictional dispute on this Project shall continue working in accordance with Section 9.2 above and without disruption of any kind.

## **9.4 AWARD**

Any jurisdictional award pursuant to Section 9.3 shall be final and binding on the disputing Local Unions and the involved Contractor on this Project only and may be enforced by the Supreme Court of New York, County of Rockland in any court of Rockland County. Such award or resolution shall not establish a precedent on any other construction work not covered by this Agreement. In all disputes under this Section, Rockland Green and the involved Contractors shall be considered parties in interest.

## **9.5 LIMITATIONS**

The Arbitrator appointed under this Section shall have no authority to assign work to a double crew, that is, to more employees than the minimum required by the Contractor to perform the work involved; nor to assign the work to employees who are not qualified to perform work involved; nor to assign work being performed by non-union employees to union employees. This does not prohibit the establishment, with the agreement of the involved Contractor, of composite crews where more than one (1) employee is needed for the job. The aforesaid determinations shall decide only to whom the disputed work belongs.

## **9.6 NO INTERFERENCE WITH WORK**

There shall be no interference or interruption of any kind with the work of the Project while any jurisdictional dispute is being resolved. The work shall proceed as assigned by the Contractor until finally resolved under the applicable procedure of this Section.

The award shall be confirmed in writing to the involved parties. There shall be no strike, work stoppage, or interruption in protest of any such award.

## **10.0 WAGES AND BENEFITS**

### **10.1 CLASSIFICATION AND BASE HOURLY RATE**

All employees covered by this Agreement shall be classified in accordance with the work performed and paid the base hourly wage rates for those classifications as specified in the attached Schedule A, New York State Wage Rates included in the contract specifications, as amended during this Agreement. Recognizing, however, that special conditions may exist or occur on the Project, the parties, by mutual agreement may establish rates and/or hours for one or more classifications which may differ from Schedule A. Parties to such agreements shall be Rockland Green, the Contractor and the Local Unions.

### **10.2 EMPLOYEE BENEFIT FUNDS**

- A. The Contractors agree to pay contributions on behalf of all employees covered by this Agreement to the established employee benefit funds in the amount designated in the appropriate Schedule A; provided, however, that the Contractor and the Union agree that only such bona fide employee benefits as are explicitly required under Section 220 of the New York State Labor Law shall be included in this requirement and paid by the Contractor on this Project. Bona fide jointly trusted fringe benefit plans established or negotiated through collective bargaining during the life of this Agreement may be added if similarly protected under Section 220. Contractors shall not be required to contribute to non-Section 220 benefits, trusts or plans.
- B. The Contractor agrees to be bound by the written terms of the legally-established Trust Agreements specifying the detailed basis on which payments are to be paid into and benefits paid

out of, such Trust Funds but only with regard to work done on this Project and only for those employees to whom this Agreement requires such benefit payments.

- C. In the event that the Contractor becomes delinquent on the foregoing obligations and upon notification of at least fifteen (15) days from the date of a default from any affiliated Local Union that a signatory employer has become delinquent in the payment of Fund contributions due in connection with the work on this Project, the Contractor authorizes Rockland Green to immediately stop payment on all monies due or which may become due to the delinquent Contractor up to the amount alleged to be owed from this Project and to pay all such funds directly to the complaining Local Union to be applied against the amounts owed by the defaulting Contractor in order to ensure the full and timely remittance of all union dues, IAF, PAC and fringe benefit funds, including but not limited to Health and Welfare, Pension, Annuity, Legal Service, Education and Training, S.U.B., Apprenticeship (hereafter "Funds" or "Fund") due the affiliated Local Unions as provided for in all applicable collective bargaining agreements between the Local Unions and signatory employers which have contracted to perform work on the subject construction Project. Before such payment is made, Rockland Green shall first advise the defaulting Contractor in writing of the complaint made by the Local Union and the amounts claimed and shall allow the defaulting Contractor a period of ten (10) days from the date of notification to produce a written letter signed by the Business Manager of the complaining Local Union that the amount in default has been paid in full and the Contractor is current in the remittance of Funds or a bona-fide explanation acceptable to the complaining Local Union of why in the Contractor's opinion the amounts are not due as alleged. In the event of such a bona-fide dispute, Rockland Green shall use its best effort to act as an initial arbiter and take action it then deems appropriate.
- D. No monies, however, shall be paid to the delinquent employer who may request arbitration of the dispute in accordance with Section 8.0 herein. In the event such request in writing is not delivered to Rockland Green, Construction Representative, within ten (10) days from the date of notification to the defaulting Contractor, Rockland Green shall immediately pay over to the Fund Administrator of the complaining Local Union all monies due the defaulting Contractor to the extent necessary to satisfy the amounts payable to the Contractor by Rockland Green for the Project. None of the foregoing is to be construed as having created a debt on the part of Rockland Green to the Local Union. Both the Contractor and the complaining Local Union agree that there shall be no strike, work stoppage or disruption pending resolution of the dispute.
- E. Notwithstanding any other provisions of this Agreement, including any provisions to arbitrate disputes, the members of a Local Union can elect to refuse to perform services for a delinquent employer anytime after a Benefit Fund delinquency exceeds forty-five (45) days, on five (5) calendar day's written notice the President of the Council and Rockland Green. The provisions of

Section 10.2 shall remain in full force and effect with respect to all other Local Union members working on the Project. If a Contractor fails to contribute to a Local Union's Benefit Funds because of the Contractor's inability to collect payment from Rockland Green for work performed on the Project, Rockland Green agrees that the Contractor shall not be removed from the job for non-performance which results from a Local Union's members refusing to perform services as set forth in this Section.

## **11.0 HOURS OF WORK, PREMIUM PAYMENTS, SHIFTS AND HOLIDAYS**

### **11.1 WORK WEEK AND WORK DAY**

- A. The standard work week shall consist of forty (40) hours of work at straight time rates of the following schedule:
  - 1. Five (5) Day Work Week: Monday through Friday – five (5) days, eight (8) hours plus half (½) hour unpaid lunch period each day.
- B. The Day shift shall commence between the hours of 7:00 am and 8:00 am and shall end between the hours of 3:30 pm and 4:30 pm. Starting and quitting times shall occur at the staging areas as may be designated by the Contractor.
- C. Contractors shall provide not less than five (5) days prior notice to the Local Union involved as to the work week and work hours schedules to be worked or such lesser notice as may be mutually agreed upon.

### **11.2 OVERTIME**

Overtime pay for hours outside of the standard work week and work day, described in paragraph 11.1.A above, shall be paid in accordance with the applicable Schedule A. There will be no restriction upon the Contractor' scheduling of overtime or the non-discriminatory designation of employees who shall be worked. There shall be no pyramiding of overtime pay under any circumstances. The Contractor shall have the right to schedule work so as to minimize overtime.

### **11.3 SHIFTS**

- A. Flexible Schedules:

Scheduling of shift work shall remain flexible in order to meet Project schedules and existing Project conditions including the minimization of interference with traffic. It is not necessary to work a day shift in order to schedule a second shift. Shifts must be worked a minimum of five (5) consecutive work days, must have prior approval of the Construction Project Manager and must be scheduled with not less than five (5) work days notice to the Local Union.

B. Second/Shift:

The second shift (starting between 3:30 pm and 4:30 pm) shall consist of eight (8) hours work for and equal number of hours pay at the straight time rate plus 15% in lieu of overtime and exclusive of a ½ hour unpaid lunch period. Where specifically required by the applicable Schedule A, employee's second shift, where there are no first shift employees scheduled for that craft, will be paid at time and one-half rates for such second shift work, but without any shift differential. In all other cases, the first sentence of this paragraph B shall apply.

C. Flexible Starting Times:

Shift starting times shall be adjusted by the Contractor as necessary to fulfill Project requirements subject to the notice requirements of paragraph A.

**11.4 HOLIDAYS**

A. Schedule:

There shall be 9 recognized holidays on the Project:

New Year's Day	Veterans Day
President's Day	Thanksgiving Day
Memorial Day	Day after Thanksgiving
Fourth of July	Christmas Day
Labor Day	

All said holidays shall be observed on the dates designated by New York State Law. In the absence of such designation, they shall be observed on the calendar date except those holidays which occur on Sunday shall be observed on the following Monday.

B. Payment:

Regular holiday pay, if any, and/or premium pay for work performed on such a recognized holiday shall be in accordance with the Holidays set forth in Section 11.4.A.

C. Exclusivity:

No holidays other than those listed in Section 11.4.A above shall be recognized nor observed.

**11.5 REPORTING PAY**

A. Employees who report to the work location pursuant to the regular schedule and who are not provided with work or whose work is terminated early by a Contractor, for whatever reason, shall receive minimum, reporting pay in accordance with the applicable Schedule A.

B. When an employee, who has completed their scheduled shift and left the Project site, is "called out" to perform special work of a casual, incidental or irregular nature, the employee shall receive

pay for actual hours worked with a minimum guarantee, as may be required by the applicable Schedule A, at the employee's straight time rate.

- C. When an employee leaves the job or work location of their own volition or is discharged for cause or is not working as a result of the Contractor's invocation of Section 11.7 below, they shall be paid only for the actual time worked.
- D. Except as specifically set forth in this Section, there shall be no premiums, bonuses, high time or other special payment of any kind.
- E. There shall be no pay for time not actually worked except as specifically set forth in this Section and except where an applicable Schedule A requires a full weeks' pay.

#### **11.6 PAYMENT OF WAGES**

A. Payday:

Payment shall be made by check, drawn on a New York State bank with branches located within commuting distance of the job site. Paychecks shall be issued by the Contractor at the job site by 10 am on Thursdays. In the event that the following Friday is a bank holiday, paychecks shall be issued on Wednesday of that week. Not more than three (3) days wages shall be held back in any pay period. Paycheck stubs shall contain the name and business address of the Contractor, together with an itemization of deductions from gross wages.

B. Termination:

Employees who are laid off or discharged for cause shall be paid in full for that which is due them at the time of termination. The Contractor shall also provide the employee with a written statement setting forth the date of lay off or discharge.

#### **11.7 EMERGENCY WORK SUSPENSION**

- A. Contractor may, if considered necessary for the protection of life and/or safety of employees or others, suspend all or a portion of Project work. In such instances, employees shall be paid for actual time worked; provided, however, that when a Contractor requests that employees remain at the job site available for work, be paid for "stand by" time at their hourly rate of pay.

#### **11.8 INJURY – DISABILITY**

An employee who, after commencing work, suffers a work-related injury or disability while performing work duties; shall receive no less than 8 hours wages for that day. Further, the employee shall be rehired at such time as able to return to duties provided there is still work available on the Project for which the employee is qualified and able to perform.

## **11.9 TIME KEEPING**

A Contractor may utilize brassing or other systems to check employees in and out. Each employee must check in and out. The Contractor shall provide adequate facilities for checking in and out in an expeditious manner.

## **11.10 MEAL PERIOD**

A Contractor shall schedule an unpaid period of not more than 1/2-hour duration at the work location between the 3rd and 5th hour of the scheduled shift. A Contractor may, for efficiency of operation, establish a schedule, which coordinates the meal periods of two or more crafts. If an employee is required to work through the meal period, the employee shall be compensated in a manner established in the applicable Schedule A.

## **11.11 BREAK PERIODS**

There shall be no rest periods, organized coffee breaks or other non-working time established during working hours. Individual coffee containers will be permitted at the employee's work location.

## **12.0 APPRENTICES**

### **12.1 RATIOS**

Recognizing the need to maintain continuing supportive programs designed to develop adequate numbers of competent workers in the construction industry and to provide craft entry opportunities for minorities, women and economically disadvantaged non-minority males, Contractors will employ apprentices in their respective crafts to perform such work as is within their capabilities and which is customarily performed by the craft in which they are indentured. Contractors may utilize apprentices and such other appropriate classifications as are contained in the applicable Schedule A in a ratio not to exceed 25% of the work force by craft (without regard to whether a lesser ratio is set forth in Schedule A), unless the applicable Schedules A provide for a higher percentage. Apprentices and such other classifications as are appropriate shall be employed in a manner consistent with the provisions of the appropriate Schedule A.

### **12.2 DEPARTMENT OF LABOR**

To assist the Contractors in attaining a maximum effort on this Project, the Unions agree to work in close cooperation with, and accept monitoring by, the New York State Department of Labor to ensure that minorities and women are afforded every opportunity to participate in apprenticeship programs which result in the placement of apprentices on this Project. To further ensure that this Contractor effort is attained, up to 50% of the apprentices placed on this Project shall be first year, minority, women or economically disadvantaged apprentices as shall be 60% of the apprentice equivalents, placed on the Project, who do not necessarily meet all of the age or entrance requirements for the apprentice program

or have necessarily passed the entrance examination. The Local Unions will cooperate with the Contractor requests for minority, women or economically disadvantaged referrals to meet this Contractor effort.

## **13.0 SAFETY PROTECTION OF PERSON AND PROPERTY**

### **13.1 SAFETY REQUIREMENTS**

Each Contractor shall ensure that applicable OSHA requirements are at all times maintained on the Project and the employees and Unions agree to cooperate fully with these efforts. Contractors shall ensure that employees perform their work at all times in a safe manner and protect themselves and the property of the Contractor and Rockland Green from injury or harm. Failure of the employee to do so shall be grounds for discipline, including discharge.

### **13.2 CONTRACTOR RULES**

Employees covered by this Agreement shall at all times be bound by the reasonable safety, security, and visitor rules as established by the Contractors and Rockland Green for this Project. Such rules shall be published and posted in conspicuous places throughout the Project.

### **13.3 INSPECTIONS**

The Contractors and Rockland Green, Construction Representative retain the right to inspect incoming shipments of equipment, apparatus, machinery and construction materials of every kind.

## **14.0 NO DISCRIMINATION**

### **14.1 COOPERATIVE EFFORTS**

The Contractors and Unions agree that they shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin or age in any manner prohibited by law or regulation. It is recognized that special procedures may be established by Contractors and Local Unions and the New York State Department of Labor for the training and employment of persons who have not previously qualified to be employed on construction projects of the type covered by this Agreement. The parties to this Agreement shall assist in such programs and to agree to use their best efforts to ensure that the goals for female and minority employment are met on this Project.

### **14.2 LANGUAGE OF AGREEMENT**

The use of the masculine or feminine gender in this Agreement shall be construed as including both genders.

## **15.0 GENERAL TERMS**

### **15.1 PROJECT RULES**

Rockland Green, Construction Representative and the Contractors shall establish such reasonable Project rules as are appropriate for the good order of the Project. These rules shall be explained at the pre-job conference and posted at the Project site and may be amended thereafter as necessary. Failure of an employee to observe these rules and regulations shall be grounds for discipline, including discharge. The fact that no order was posted prohibiting a certain type of misconduct shall not be a defense to an employee disciplined or discharged for such misconduct when the action taken is for cause.

### **15.2 TOOLS OF THE TRADE**

The welding/cutting torch and chain fall are tools of the trade having jurisdiction over the work performed. Employees using these tools shall perform any of the work of the trade. There shall be no restrictions on the emergency use of any tools or equipment by any qualified employee or on the use of any tools or equipment for the performance of work within the employee's jurisdictions.

### **15.3 SUPERVISION**

Employees shall work under the supervision of the craft foreperson or general foreperson.

### **15.4 TRAVEL ALLOWANCES**

There shall be no payments for travel expenses, travel time, subsistence allowance or other such reimbursements or special pay except as expressly set forth in this Agreement.

### **15.5 FULL WORK DAY**

Employees shall be at their staging area at the starting time established by the Contractor and shall be returned to their staging area by quitting time after performing their assigned functions under the supervision of the Contractor. The signatories reaffirm their policy of a fair day's work for a fair day's wage.

### **15.6 COOPERATION**

Rockland Green, Construction Representative and the Unions shall cooperate in seeking any New York State Department of Labor approvals that may be required for implementation of any terms of this Agreement.

## **16.0 SAVINGS AND SEPARABILITY**

### **16.1 THIS AGREEMENT**

In the event that the application of any provision of this Agreement is enjoined, on either an interlocutory or permanent basis, or otherwise found in violation of law, the provision involved shall be rendered, temporarily or permanently, null and void but the remainder of the Agreement shall remain in full force and effect. In such event, the Agreement shall remain in effect for contracts already bid and awarded or in construction where the Contractor voluntarily accepts the Agreement. The parties to this Agreement shall enter into negotiations for a substitute provision in conformity with the law the intent of the parties for contracts to be let in the future.

### **16.2 THE BID SPECIFICATIONS**

In the event that Rockland Greens bid specifications, or other action, requiring that a successful bidder become signatory to this Agreement is enjoined, on either an interlocutory or permanent basis, or otherwise found in violation of law such requirement shall be rendered, temporarily or permanently, null and void but the Agreement shall remain in full force and effect to the extent allowed by law. In such event, the Agreement shall remain in effect for contracts already bid and awarded or in construction where the Contractor voluntarily accepts the Agreement. The parties shall enter into negotiations as to modifications to the Agreement to reflect the court action taken and the intent of the parties for contracts to be let in the future.

### **16.3 NON-LIABILITY**

In the event of an occurrence referenced in Section 16.1 or 16.2, neither Rockland Green, Construction Representative, or any or any Contractor, or any signatory Union shall be liable, directly or indirectly, for any action taken, or not taken, to comply with any court order, injunction or determination. Project bid specifications shall be issued in conformance with court orders then in effect and no retroactive payments or other action shall be required if the original court determination is ultimately reversed.

### **16.4 NON-WAIVER**

Nothing in this Section shall be construed as waiving the prohibitions of Section 6.0 as to signatory Contractors and signatory Unions.

## **17.0 FUTURE CHANGES IN COLLECTIVE BARGAINING AGREEMENTS**

### **17.1 CHANGES TO AGREEMENTS**

- A. The Collective Bargaining Agreement incorporated herein shall continue in full force and effect until the Contractor and/or Unions to the Collective Bargaining Agreements notify Rockland Green in writing of the mutually agreed upon changes in provisions of such agreements which are applicable to the Project, and their effective dates.

- B. It is agreed that any provisions negotiated into the Collective Bargaining Agreements incorporated by reference herein shall not apply to work on this Project if such provisions are less favorable to this Project than those uniformly required of contractors for construction work normally covered by those agreements; nor shall any provision be recognized or applied on this Project if it may be construed to apply exclusively, or predominantly, to work covered by this Agreement.
  
- C. Any disagreement between signatories to this Agreement over the incorporation into provisions agreed upon in the renegotiation of a Collective Bargaining Agreements incorporated by reference herein shall be resolved in accordance with the procedure set forth in Section 8.0 of this Agreement.

## **17.2 LABOR DISPUTES DURING LOCAL CONTRACT NEGOTIATIONS**

The Unions agree that there shall be no strikes, work stoppages, sympathy actions, picketing, slowdowns or other disruptive activity or other violations of Section 6.0 affecting the Project by any Local Union involved in the renegotiation of Local Collective Bargaining Agreements nor shall there be any lock-out on this Project affecting a Local Union during the course of such renegotiations.

**APPENDIX A**  
**Listing of Local Collective Bargaining Agreements**

1. Bricklayers and Allied Crafts, Local #1, New York.
2. Agreement between International Brotherhood of Electrical Workers, Local Union #363 and Hudson Valley Chapter National Electrical Contractors Association.
3. Agreement between Fabricators and Erectors Association, Inc., and Local Union 417 of the International Association of Bridge, Structural, Ornamental and Reinforcing Ironworkers.
4. Heavy, Highway and Utility Agreement between the Contractors Association of Rockland County, Inc. and the Eastern New York Laborers' International District Council and its Affiliate Laborers' Local 754.
5. Building Agreement between the Construction Contractors Association of the Hudson Valley, Inc. and the Eastern New York Laborers' International District Council and its Affiliate Laborers' Local 754.
6. Agreement by and between International Union of Operating Engineers affiliated with AFL-CIO, Local Union No. 825, 825-A, 825-B, 825-C, 825-D, 825-R, 825-RH.
7. Agreement between Mechanical Contractors Association of Rockland County and Vicinity, New York and Local Union No. 373, United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada.
8. Agreement between Sheet Metal Workers International Association, Local 38 and SMCNA Southeastern New York & The Associated Sheet Metal and Roofing Contractors of Connecticut, Inc.
9. Agreement between the Boiler Makers Association of Greater New York and Boilermakers Local Lodge No. 5 of the International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers and Helpers, AFL-CIO.
10. Agreement between Industrial Insulation Contractors of Southern New York and The International Association of Heat and Frost Insulators and Asbestos Workers Local #91.
11. Teamsters Local #445, New York.
12. Agreement between Independent Resilient Floor Coverers and The District Council of New York City and Vicinity of the United Brotherhood of Carpenters and Joiners of America, AFL-CIO.
13. Operative Plasterers' and Cement Masons Local 530.
14. United Cement Masons Local 780.
15. Metallic Lathers Local 46
16. Painters Local 155
17. Millwrights Local 740

## **APPENDIX A (Continued)**

18. Tri-State Marble BAC Local 7 and Local 7 Tile, Marble & Terrazzo
19. Road Sprinkler Fitters Local 669
20. District Council 9 Local 1281 Glaziers
21. Dockbuilders Local 1556
22. North Atlantic States Regional Council of Carpenters Local 279

**APPENDIX B**  
**Letter of Assent**

Pursuant to the Introduction and Sections 1.0 and 2.0 of the Project Labor Agreement (PLA) negotiated by the Rockland County Solid Waste Management Authority d/b/a Rockland Green for and on behalf of all contractors and subcontractors (at any tier) to be engaged in the construction of the Project as defined in the Introduction and Section 2.0 of the PLA, the undersigned authorized representative of the *Contractor* hereby agrees to comply with and be bound by all of the terms and conditions of the PLA and any amendments or addenda thereto. By signing this Letter of Assent (LOA), the undersigned acknowledges the PLA as the singular binding Agreement for the defined Project. The PLA, including the applicable Schedule A and this LOA shall only apply to the Project defined in the PLA and Appendix A and to no other project(s).

The LOA shall remain in effect for the duration of all work performed under the PLA, by the undersigned Employer, at the defined Project site of construction, after which this LOA and any collective bargaining relationship established therein for this Project, will terminate, without notice, and shall have no further force or effect.

**FOR THE CONTRACTOR**

Name of Employer: \_\_\_\_\_

License or Registration Number: \_\_\_\_\_

Are you signatory to a local or national Building Trades labor agreement:      q NO    or    q YES

Specify the details of your company's union affiliation(s): \_\_\_\_\_

Contractor Address: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

Authorized Representative (Print): \_\_\_\_\_

Title: \_\_\_\_\_ Cell Phone: \_\_\_\_\_

Authorized Representative (Signature): \_\_\_\_\_

Date: \_\_\_\_\_ Witness: \_\_\_\_\_

Company Seal: \_\_\_\_\_ Notary: \_\_\_\_\_

**SIGNATURES**

IN WITNESS WHEREOF the parties have caused the Agreement to be executed and effective as the \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_.

**FOR THE ROCKLAND COUNTY SOLID WASTE MANAGEMENT AUTHORITY:**

\_\_\_\_\_  
Gerard M. Damiani Jr., - Executive Director

**FOR THE ROCKLAND COUNTY BUILDING TRADES COUNCIL:**

By: \_\_\_\_\_  
John Maraia President of the Rockland County Building & Construction Trades Council

By: \_\_\_\_\_  
North Atlantic States Regional Council of Carpenters Local 279

By: \_\_\_\_\_  
Ironworkers Local 417

By: \_\_\_\_\_  
Laborers Local 754

By: \_\_\_\_\_  
Bricklayers & Allied Craftworkers Local 1

By: \_\_\_\_\_  
Operating Engineers Local 825

By: \_\_\_\_\_  
Teamsters Local 445

By: \_\_\_\_\_  
Resilient & Floor Coverers Local 2287

By: \_\_\_\_\_  
International Brotherhood of Electrical Workers Local 363

By: \_\_\_\_\_  
Plumbers and Pipefitters Local 373

By: \_\_\_\_\_  
Sheet Metal Workers Local 38

By: \_\_\_\_\_  
Asbestos Workers Local 91

By: \_\_\_\_\_  
Glaziers & Painters District Council 9

By: \_\_\_\_\_  
Boilermakers Local 5

By: \_\_\_\_\_  
Metallic Lathers & Reinforcing Ironworkers Local 46

By: \_\_\_\_\_  
Dockbuilders & Timberman Local 1556

By: \_\_\_\_\_  
Millwrights Local 740

By: \_\_\_\_\_  
Tri-State Tile, Marble & Terrazzo BAC Local 7 of NY & NJ

By: \_\_\_\_\_  
Road Sprinkler Fitters Local 669

By: \_\_\_\_\_  
OPCMIA Local 262

By: \_\_\_\_\_  
United Cement Masons Local 780

By: \_\_\_\_\_  
Roofers, Waterproofers & Allied Workers Roofers Local 8

**SIGNATURES**

IN WITNESS WHEREOF the parties have caused the Agreement to be executed and effective as the \_\_\_\_\_ day of \_\_\_\_\_ 2024.

**FOR THE COUNTY OF ROCKLAND:**

\_\_\_\_\_  
Gerard M. Damiani., Executive Director

**FOR THE ROCKLAND COUNTY BUILDING TRADES COUNCIL:**

By: *John Marain*  
John Marain/ President of the Rockland County Building & Construction Trades Council

By: *Scott J. Smith*  
North Atlantic States Regional Council of Carpenters Local 279

By: *Matthew P. Stoddard*  
Ironworkers Local 417

By: *St. Rivers*  
Laborers Local 754

By: *Michael J. Clifford*  
Bricklayers & Allied Craftworkers Local 1

By: *Wood*  
Operating Engineers Local 825

By: *[Signature]*  
Teamsters Local 445

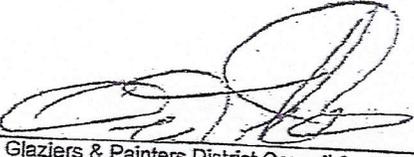
By: *[Signature]* Assistant EST  
Resilient & Floor Coverers Local 2287

By: *Samuel Fub...*  
International Brotherhood of Electrical Workers Local 363

By: *[Signature]*  
Plumbers and Pipefitters Local 373

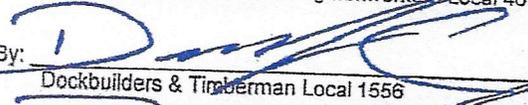
By: *[Signature]*  
Sheet Metal Workers Local 38

By: *[Signature]*, Business Manager  
Asbestos Workers Local 91

By:  BRS  
Glaziers & Painters District Council 9

By: Thomas F. Ryan  
Boilermakers Local 5

By: \_\_\_\_\_  
Metallic Lathers & Reinforcing Ironworkers Local 46

By:  Assistant EST  
Dockbuilders & Timberman Local 1556

By:  Assistant EST  
Millwrights Local 740

By: \_\_\_\_\_  
Tri-State Tile, Marble & Terrazzo BAC Local 7 of NY & NJ

By: Kenneth W. Kilgus Business Agent  
Road Sprinkler Fitters Local 669

By:   
OPCMIA Local 262

By: Robert Burtz  
United Cement Masons Local 760

By: Bill [Signature]  
Roofers, Waterproofers & Allied Workers Roofers Local 8

Rockland Green  
Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in  
Haverstraw, NY  
RFP 2024-01

**APPENDIX H**

**CONTRACT**

*[to be provided by Addendum]*

Rockland Green  
Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in  
Haverstraw, NY  
RFP 2024-01

**APPENDIX I**  
**FORMS OF BONDS**

Rockland Green  
Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in  
Haverstraw, NY  
RFP 2024-01

**FORM OF PROPOSAL BOND**

Rockland Green  
Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in  
Haverstraw, NY  
RFP 2024-01

### **FORM OF PROPOSAL BOND**

KNOW ALL MEN BY THESE PRESENTS, that we [NAME OF PROPOSER], as Principal (hereinafter the “Proposer”) and [NAME OF SURETY], a [Corporation, Partnership, LLC, etc.] duly organized under the laws of the State of [\_\_\_\_\_], as Surety, are held and firmly bound unto the Rockland County Solid Waste Management Authority a/k/a Rockland Green, Rockland County, New York (hereinafter “Rockland Green”), as Obligee, in the sum of [\_\_\_\_\_] Dollars (\$\_\_\_\_\_) lawful money of the United States of America to be paid to Rockland Green, its successors or assigns, for which payment, well and truly to be made, we bind ourselves, our successors and assigns, jointly and severally, firmly by these presents; and

WHEREAS, the above-named Proposer has submitted or is about to submit to Rockland Green a Proposal to build out and equip a warehouse located at 427 Beach Road in Haverstraw, NY, to transform it into a new state-of-the-art animal shelter and to provide related services as described in the Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in Haverstraw, NY (RFP 2024-01), dated July 25, 2024 (the “RFP”), issued by Rockland Green and covered by the Proposal submitted by the Proposer in response thereto, which Proposal is made a part hereof.

NOW, THEREFORE, the Surety hereby understands that if the above-referenced Proposer is selected by Rockland Green as a preferred Proposer, then the Proposer will enter into the Contract and the surety bonds acceptable to Rockland Green ensuring faithful performance of the Contract will be delivered to Rockland Green within the time specified in the RFP, or any extension thereof agreed to in writing by Rockland Green. Surety hereby agrees that if the Proposer shall fail to do so, Surety will pay to Rockland Green, as liquidated damages, the full amount of this bond within thirty (30) calendar days after receipt by Proposer and Surety of written notice of such failure from Rockland Green, which notice shall be given with reasonable promptness, identifying this bond and including a statement of the amount due. Upon execution of the Contract and delivery of the performance bond, this bond shall thereafter become null and void, otherwise to remain in full force and effect unless terminated as hereinafter provided.

Rockland Green  
Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in  
Haverstraw, NY  
RFP 2024-01

It is agreed that this bond shall become effective on the date the Proposal is submitted and will continue in full force and effect for one hundred eighty (180) days from such date of submittal (unless extended for up to an additional one hundred eighty (180) days) or until terminated as hereinafter provided.

If the Proposal is not accepted within the time specified in the RFP, or any extension thereof agreed to in writing by Rockland Green, then after written notice by Rockland Green of such non-acceptance, this bond may be terminated by the Surety or Proposer upon written notice to each other and to Rockland Green by registered mail at least ten (10) days prior to the termination date specified in such notice. Upon the giving of such notice, Surety shall be discharged from all liability under this bond for any act or omission of the Proposer occurring after the date of the notice of non-acceptance.

Any suit or action under this bond shall be commenced only in a court of competent jurisdiction located in the State of New York.

IN WITNESS WHEREOF, Surety and Proposer, intending to be legally bound hereby, do each cause this Proposal bond to be duly executed on its behalf by its authorized officers, agent or representative.

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_.

SURETY

[NAME OF SURETY]

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

PROPOSER

[NAME OF PROPOSER]

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Rockland Green  
Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in  
Haverstraw, NY  
RFP 2024-01

**FORM OF PERFORMANCE BOND**

Rockland Green  
Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in  
Haverstraw, NY  
RFP 2024-01

## FORM OF PERFORMANCE BOND

Bond No. \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENT, that we \_\_\_\_\_ with a place of business at \_\_\_\_\_ as principal (the “Principal”), and \_\_\_\_\_, a [\_\_\_\_\_] qualified to do business in the State of New York, with a place of business at \_\_\_\_\_ as Surety (the “Surety”), are held and firmly bound unto the Rockland County Solid Waste Management Authority a/k/a Rockland Green as Obligee (the “Obligee”), in the sum of *[insert amount and spell out bond penal sum]* lawful money of the United States of America, to be paid to the Obligee, for which payment, well and truly to be made, we bind ourselves, our respective heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these present.

WHEREAS, the Principal has assumed and made a contract with the Obligee, bearing the date of \_\_\_\_\_, and entitled Contract for the Build Out of a New Animal Shelter located at 427 Beach Road in Haverstraw, NY (the “Contract”).

NOW THE CONDITIONS of this obligation are such that if the Principal and all Subcontractors or suppliers under said Contract shall well and truly keep and perform all the undertakings, covenants, agreement, terms, and conditions of said Contract on its part to be kept and performed during the original term of said Contract and any extensions thereof that may be granted by the Obligee, with or without notice to the Surety, and during the life and including any guarantee required under the Contract, and shall also well and truly keep and perform all the undertakings, covenants, agreements, terms and conditions of any and all duly authorized modifications, alterations, changes or additions, the obligations of the Surety set forth herein shall become null and void; otherwise such obligations shall remain in full force and virtue.

WHENEVER the Principal shall be declared by the Obligee to be in default under the Contract, the Obligee having performed the Obligee’s material obligations thereunder, at the Obligee’s option as declared in writing, the Surety may promptly remedy the default whatever it may be or shall promptly perform the Contract in accordance with all of its terms and conditions. To the extent that the Obligee elects to not have the Surety remedy the default nor promptly perform the Contract, the Surety shall make payment to the Obligee up to the Penal Sum of this instrument.

IN THE EVENT the Contract is abandoned by the Principal, or is terminated by the Obligee under the applicable provisions of the Contract, the Surety hereby further agrees that the Surety shall, if requested in writing by the Obligee, promptly take all such actions as are necessary to complete said Contract in accordance with its terms and conditions. To the extent that the Obligee elects not to require the Surety to take all such actions as are necessary to complete said Contract, the Surety shall make payment to the Obligee up to the Penal Sum of this instrument.

Rockland Green

Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in

Haverstraw, NY

RFP 2024-01

IN WITNESS WHEREFORE, the Principal and Surety have hereto set their hands and seals this \_\_\_\_\_ day of \_\_\_\_\_, 2024.

PRINCIPAL SURETY

\_\_\_\_\_

\_\_\_\_\_  
[Name and Seal] [Attorney-In-Fact][Seal]

\_\_\_\_\_  
[Title] [Address]

\_\_\_\_\_  
[Phone]

Attest: \_\_\_\_\_ Attest: \_\_\_\_\_

The rate for this Bond is \_\_\_\_\_% of the first \$ \_\_\_\_\_ and \_\_\_\_\_% for the next \$ \_\_\_\_\_.

The total premium for this Bond is \$ \_\_\_\_\_.

[END OF PERFORMANCE BOND]

Rockland Green

Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in  
Haverstraw, NY

RFP 2024-01

**FORM OF LABOR AND MATERIALS PAYMENT BOND**

Rockland Green  
Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in  
Haverstraw, NY  
RFP 2024-01

**FORM OF LABOR AND MATERIALS PAYMENT BOND**

Bond No. \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENT, that we [ \_\_\_\_\_ ] with a place of business at \_\_\_\_\_ as principal (the “Principal”), and \_\_\_\_\_, a [ \_\_\_\_\_ ] qualified to do business in the State of New York, with a place of business at \_\_\_\_\_ as Surety (the “Surety”), are held and firmly bound unto Rockland County Solid Waste Management Authority a/k/a Rockland Green as Obligee (the “Obligee”), in the sum of [ \_\_\_\_\_ Dollars (\$) ] lawful money of the United States of America, to be paid to the Obligee, for which payment, well and truly to be made, we bind ourselves, our respective heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these present.

WHEREAS, the Principal has assumed and made a contract with the Obligee, bearing the date of [ \_\_\_\_\_ ], and entitled Contract for the Build Out of a New Animal Shelter located at 427 Beach Road in Haverstraw, NY (the “Contract”).

NOW, THE CONDITIONS of this obligation are such that if the Principal and all Subcontractors under said Contract shall promptly pay for all labor performed or furnished and for all materials and equipment used or employed in said Contract (including any amendments or modifications thereto), notice to the Surety of such amendments or modifications being hereby waived, and defends, indemnifies and holds harmless the Obligee from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in performance of the Contract, then this obligation shall become null and void; otherwise, it shall remain in full force and virtue.

The Surety’s obligation to the Obligee under this Bond shall arise after the Obligee provides notice to the Principal and Surety of claims, demands, liens or suits against the Obligee or the Obligee’s property by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Contract.

The Surety shall promptly and at the Surety’s expense defend, indemnify and hold harmless the Obligee against any duly tendered claim, demand, lien or suit against the Obligee or the Obligee’s property.

IN WITNESS WHEREFORE, the Principal and Surety have hereto set their hands and seals this \_\_\_\_\_ day of \_\_\_\_\_, 2024.

PRINCIPAL

\_\_\_\_\_

[Name and Seal]

[Title]

SURETY

\_\_\_\_\_

[Name and Seal]

[Title]

Rockland Green

Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in  
Haverstraw, NY  
RFP 2024-01

\_\_\_\_\_

\_\_\_\_\_

[Address]

[Address]

\_\_\_\_\_

\_\_\_\_\_

[Phone]

[Phone]

Attest: \_\_\_\_\_

Attest: \_\_\_\_\_

The rate of the Bond is \_\_\_\_\_% of the first \$\_\_\_\_\_ and \_\_\_\_\_% for the next  
\$\_\_\_\_\_. The total premium for this Bond is \$\_\_\_\_\_.

Rockland Green  
Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in  
Haverstraw, NY  
RFP 2024-01

**APPENDIX J**  
**SITE VISIT PROTOCOL**

## APPENDIX J

### SITE VISIT PROTOCOL

I. Rockland Green is soliciting Proposals for Animal Shelter Build-Out at the New Animal Shelter (the “RFP”). Rockland Green has established a date for a mandatory Site visit and will accommodate Proposer’s reasonable requests for additional access to the Site, in addition to the mandatory Site visit. During every visit to the Site, all Proposers, including any representative, agent, consultant, Subcontractor, Affiliate or interested party, is required to comply with this Site Visit Protocol during access to and inspection of the Site. Failure to do so may result in the rejection of a Proposal.

#### II. Protocol:

- The mandatory Site visit and meeting will take place on the date and time indicated in the RFP.
- Potential Proposers must notify Ryan Montal, Confidential Secretary to the Executive Director at [rmontal@rocklandgreen.com](mailto:rmontal@rocklandgreen.com) in writing at least three days prior to the mandatory Site visit and meeting to indicate the total number of individuals representing such potential Proposer that will be in attendance at the Site visit and meeting and their names.
- Any individuals representing the Proposer at the Site visit and meeting must be employees or principals of the Proposer. A Proposer may not use a surrogate as its representative at the mandatory Site visit and meeting.
- All representatives from a Proposer must attend the same Site visit.
- Rockland Green will designate specific individuals to conduct a tour of the facility and answer questions.
- The Proposer, including any member of the team, representative, agent, consultant, Subcontractor, Affiliate or interested party, shall not engage in any communication concerning this RFP with a member of Rockland Green, except the individuals specifically identified by Rockland Green as allowed to guide Site visits and answer questions from the Proposer.
- The Proposer’s team members must be dressed appropriately for Site visits, including correct footwear and hard hats. Any additional safety equipment required would be supplied by Rockland Green.
- Any request for information and clarifications regarding the RFP shall be submitted in writing. No oral information given by a Rockland Green team member during a Site visit shall be binding. Rockland Green is not responsible for any oral explanation given during a Site visit.

Rockland Green  
Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in  
Haverstraw, NY  
RFP 2024-01

- Proposers must comply with any Rockland Green, Rockland County Board of Health or other applicable policies or orders with regard to any public health protocols that may be required during Site visits.

### **III. Acknowledgement**

The Proposer acknowledges that this Site Visit Protocol is part of the procurement process. The Proposer understands that failure to comply with the requirements may result in the rejection of its Proposal.

Name of Proposer

Authorized Representative

Title

Signature

Rockland Green

Request for Proposals for the Build Out of a New Animal Shelter located at 427 Beach Road in  
Haverstraw, NY

RFP 2024-01

# NY CLS Agr & M, Art. 26-C

Current through 2024 released Chapters 1-202

***New York Consolidated Laws Service > Agriculture And Markets Law (Arts. 1 — 30) > Article 26-C Regulation of Animal Shelters (§§ 420 — 434)***

## Article 26-C Regulation of Animal Shelters

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### History

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L 2022, ch 683, § 2, effective December 15, 2022.

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# NY CLS Agr & M § 420

Current through 2024 released Chapters 1-202

***New York Consolidated Laws Service > Agriculture And Markets Law (Arts. 1 — 30) > Article 26-C Regulation of Animal Shelters (§§ 420 — 434)***

## **§ 420. Definitions.**

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For purposes of this article, the following terms shall have the following meanings:

1. "Adoption" means the transfer of legal ownership to and possession by any natural person eighteen years of age or older, for the limited purpose of harboring a pet, of any dog or cat, owned by the animal shelter regardless of whether a fee is involved.
2. "Adult" shall mean cats and dogs five months of age and older, for the purposes of determining appropriate housing within an animal shelter.
3. "Animal" shall mean a dog or cat as defined in this section, but shall not be construed to diminish or restrict the mission of any animal shelter defined in this section or other entity duly incorporated pursuant to section fourteen hundred three of the not-for-profit corporation law solely to the care of dogs or cats.
4. "Air handling system" shall mean the device or equipment used to regulate, circulate, exchange, heat, and/or cool the air inside a building.
5. "Ambient temperature" shall mean the temperature of the environment inside a room or building.
6. "Animal shelter" shall mean a public or not-for-profit entity owning, operating, or otherwise maintaining a building, structure, or facility where temporary or permanent housing and care is provided to stray, abandoned, abused, seized, impounded, owner-surrendered or otherwise unwanted animals regardless of whether or not such facility also serves as a personal residence. This includes but is not limited to: facilities owned, operated, or maintained by a duly incorporated society for the prevention of cruelty to animals, duly incorporated humane society dog or cat protective association, or pound; any person in the employ of, or organization operated by or under contract to a municipality to provide care for seized or impounded animals; or any other not-for-profit organization involved in the protection, care, or rehoming of animals. Unless otherwise provided in this article, the term "animal shelter" shall not include the personal residence of any foster care provider as defined in this section; a facility commonly known as a boarding kennel, where the ownership of the animal is not transferred; any entity licensed as a pet dealer pursuant to article twenty-six-A of this chapter; any duly incorporated animal hospital owned, operated or supervised by a duly licensed veterinarian; or any facility where the owner or operator is licensed by the New York state department of environmental conservation as a nuisance wildlife control agent or wildlife rehabilitator.
7. "Aseptic" shall mean procedures or techniques performed in a manner sufficient to exclude harmful bacteria, viruses, or other microorganisms.
8. "Behavioral evaluation" shall mean an ordered series of interactions with an animal to determine their behavioral response to various stimuli likely to be encountered in a typical home environment.
9. "Cat" shall mean any member of the species *Felis catus*, regardless of age, sex, breed, ownership status or behavior around humans.
10. "Chemical capture" shall mean the use of drugs administered to an animal by a remote delivery system in order to immobilize it for the purposes of capture.

## § 420. Definitions.

11. "Cleaning" shall mean the physical removal of debris and organic material from an environment.
12. "Conspecific" shall mean another member of the same species.
13. "Control pole" shall mean a restraint device consisting of a rigid metal pole with an adjustable wire noose used for handling and restraint of dogs, also commonly referred to as a catch pole or rabies pole.
14. "Death", for the purposes of describing the disposition of an animal, shall mean those animals who die but are not euthanized, regardless of cause.
15. "Disinfection" shall mean the process where microorganisms are killed or inactivated, typically through the application of a chemical or by some physical process (e.g. steam, heat, etc).
16. "Dog" shall mean any member of the species *Canis lupis familiaris*, regardless of age, sex, breed, ownership status, or behavior around humans.
17. "Drop boxes" shall mean unattended enclosures at an animal shelter that are accessible to the public and used to contain animals brought to the animal shelter outside of regular business hours.
18. "Enclosure" shall be defined as an area of confinement used for housing a single animal or group of animals housed together. An enclosure may be a cage, run, kennel, room, or other such confining area.
19. "Enriched" shall mean environment that reduces stress and promotes the physical health and behavioral well-being of an animal.
20. "Enrichment" shall mean a process for improving the environment and behavioral care of confined animals in order to reduce stress and improve well-being. Enrichment shall include, but not be limited to, providing physical and mental stimulation, encouraging species-typical behaviors, and modifying the animal's housing environment.
21. "Foster care provider" shall mean any individual voluntarily providing temporary care for one or more animals in their home that remain in the custody and under the responsibility of an animal shelter.
22. "Infectious disease" shall mean a disease or condition caused by bacteria, viruses, fungi or parasites that can be transmitted, directly or indirectly, from one animal or individual to another.
23. "Intracardiac" shall mean an injection made directly into one of the chambers of the heart.
24. "Intrahepatic" shall mean an injection made into the liver.
25. "Intrarenal" shall mean an injection made into the kidney.
26. "Intrasplenic" shall mean an injection made into the spleen.
27. "Juvenile" shall mean any cat or dog between two and five months of age for the purposes of determining appropriate housing within an animal shelter.
28. "Loss" for the purposes of describing the disposition of an animal, shall mean those animals who escape or go missing while in the care of an animal shelter.
29. "Long-term stay" shall mean any duration of care in an animal shelter of fourteen days or longer.
30. "Neonate" shall mean any cat or dog less than two months of age, for the purposes of determining appropriate housing within an animal shelter.
31. "Pathogen" shall mean a biologic organism capable of causing disease in an animal, such as a bacteria, virus, or fungus.
32. "Primary enclosure" shall mean the area of confinement used for housing an animal and where the animal spends the majority of its time in an animal shelter.
33. "Thermoregulation" shall mean the ability of an animal to maintain its internal body temperature within a normal physiologic range.

## § 420. Definitions.

- 34.** “Transport” shall mean the physical movement of an animal from one location to another, regardless of purpose and whether or not custody or responsibility for such animal changes as a result, when carried out by the shelter or an agent thereof.
- 35.** “Transfer” shall mean the transfer of ownership and physical custody of an animal for an animal’s care and well-being from an animal shelter to another organization as authorized pursuant to subdivision five of section three hundred seventy-four of this chapter.
- 36.** “Unenveloped virus” shall mean those viruses without an outer lipid layer that are more difficult to inactivate through sanitation procedures. Unenveloped viruses of concern in an animal shelter environment include canine and feline parvoviruses, feline calicivirus, and canine adenovirus-2.
- 37.** “Zoonotic” shall mean any disease that may be transmitted between humans and animals.

## History

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L 2022, ch 683, § 2, effective December 15, 2022.

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## NY CLS Agr & M § 421

Current through 2024 released Chapters 1-202

***New York Consolidated Laws Service > Agriculture And Markets Law (Arts. 1 — 30) > Article 26-C Regulation of Animal Shelters (§§ 420 — 434)***

### **§ 421. License required and inspection of facilities.**

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1. Any person eligible for exemption from the definition of pet dealer pursuant to paragraphs (b) and (c) of subdivision four of section four hundred of this chapter shall be licensed by the department pursuant to the provisions of this section. Notwithstanding the foregoing, any person, operating an animal shelter on or before the effective date of this section, who has filed an application for an initial license under this article is hereby authorized to operate without such license until the commissioner grants or, after notice of an opportunity to be heard, declines to grant such license. Each application for license shall be made on a form supplied by the department and shall contain such information as required by the commissioner. Renewal applications shall be submitted to the commissioner at least thirty days prior to the commencement of the next license year.
2. Application for licensure as set forth in this section shall be made annually to the commissioner on a form prescribed by the commissioner. Such form shall include but not be limited to the following information, provided however that paragraphs (a), (b) and (c) of this subdivision shall not apply to municipal pounds or shelters as defined in paragraph (b) of subdivision four of section four hundred of this chapter:
  - (a) Proof of the applicant's tax exempt designation pursuant to paragraph 3 of subsection (c) of section 501 of the federal Internal Revenue Code, 26 U.S.C. 501, or any subsequent corresponding sections of the federal Internal Revenue Code, as from time to time amended;
  - (b) Proof of the applicant's incorporation as a not-for-profit organization in this state pursuant to the not-for-profit corporation law, provided further that such organization is in good standing with the attorney general and the department of state;
  - (c) Proof of the applicant's registration with the attorney general pursuant to article seven-A of the executive law;
  - (d) If the applicant is a municipal pound or shelter as defined in paragraph (b) of subdivision four of section four hundred of this chapter, a copy of the applicant's employer identification number;
  - (e) The name of the applicant and the name or names under which the applicant offers its services to the public, any name under which the applicant has offered such services to the public during the past five years, and whether the applicant has ever held a pet dealer license issued pursuant to article twenty-six-A of this chapter;
  - (f) The address and telephone number of the applicant and for any other premises owned or leased by such applicant's organization to carry out the purposes for which it was incorporated and by which it is eligible for a licensing exemption pursuant to paragraphs (b) and (c) of subdivision four of section four hundred of this chapter;
  - (g) The website and email address of the applicant;
  - (h) The number of animals taken in, adopted, placed into permanent or temporary homes, or otherwise transferred into, out of, or within the state by the applicant during the prior calendar year;
  - (i) The number of animals currently harbored by the applicant;

## § 421. License required and inspection of facilities.

- (j)** The species of animal the applicant typically harbors for adoption, placement or transfer;
  - (k)** A description of facilities by which the applicant carries out the purposes for which it was incorporated, including a statement regarding whether the applicant harbors the animals in its care in its own physical animal shelter or utilizes foster care provider homes, commercial boarding kennels or other arrangements;
  - (l)** A sworn statement, signed by the applicant, declaring an exemption from the definition of pet dealer pursuant to section four hundred of this chapter;
  - (m)** Current training protocol and procedural practices as prescribed pursuant to sections four hundred twenty-two and four hundred twenty-three of this article; and
  - (n)** Other information as deemed necessary to satisfy the commissioner of the applicant's character and responsibility.
- 3.** The commissioner shall conduct an inspection of the applicant's facilities prior to the issuance of a license pursuant to this section, and annual inspections of the applicant's facilities licensed pursuant to this section prior to renewal of such license. The commissioner may periodically conduct unannounced inspections of such facilities, and whenever, in the discretion of the commissioner, a complaint warrants such investigation. Animal shelters licensed pursuant to this section shall provide open hours to the commissioner so that inspections can occur in a timely manner. Renewal of an animal shelter license shall not be granted until all outstanding violations issued pursuant to this article are corrected and any outstanding monetary penalties assessed pursuant to this article are paid in full.
- 4.** Upon validation by the commissioner, the application shall become the license of the animal shelter and an exemption from the definition of pet dealer as defined in section four hundred of this chapter shall be granted. The commissioner shall retain a copy of such license and provide a copy of the license to the animal shelter. Animal shelters licensed pursuant to this section shall conspicuously display their license on the premises where its animals are harbored. The commissioner shall also provide the licensee with a pet dealer exemption identification number. The licensee's pet dealer exemption identification number shall be prominently displayed on the licensee's websites and any publications or advertisements made available to the public.
- 5.** Such license shall be renewable annually, upon the payment of a nonrefundable fee of one hundred fifty dollars.
- 6.** The moneys received by the commissioner pursuant to this section shall be deposited in the "animal shelter regulation fund" established pursuant to section ninety-nine-pp of the state finance law.
- 7.** The commissioner may decline to grant or renew, or may suspend or revoke an animal shelter license, on any one or more of the following grounds, provided that before any of the aforementioned actions are taken pursuant to this section, the commissioner shall hold a hearing, upon due notice to the licensee in accordance with any regulations promulgated by the department and in accordance with articles three and four of the state administrative procedure act, and provided further that any action of the commissioner is subject to judicial review in a proceeding under article seventy-eight of the civil practice law and rules:
- (a)** material misstatement in the license application;
  - (b)** material misstatement in or falsification of records required to be kept pursuant to this article, or under any regulation promulgated thereunder, or failure to allow the commissioner to inspect records of animal shelter facilities;
  - (c)** violation of any provision of this article or conviction of a violation of any provision of article twenty-six of this chapter or regulations promulgated thereunder pertaining to humane treatment of animals, cruelty to animals, endangering the life or health of an animal, or violation of any federal, state, or local law pertaining to the care, treatment, sale, possession, or handling of animals or any regulation or rule relating to the endangerment of the life or health of an animal;

§ 421. License required and inspection of facilities.

- (d) failure to comply with any of the provisions of this article or the licensing exemption requirements of section four hundred of this chapter; 1 NYCRR Part 65 regarding the importation of dogs and cats; section twenty-one hundred forty-one of the public health law or any rule or regulation promulgated thereunder; or any rule or regulation promulgated by the commissioner following the effective date of this article to effectuate the purposes of this article;
- (e) failure to renew a license within the period prescribed in subdivision one of this section; or
- (f) the applicant or registrant was previously licensed as a pet dealer pursuant to article twenty-six-A of this chapter.

## History

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L 2022, ch 683, § 2, effective December 15, 2022.

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# NY CLS Agr & M § 422

Current through 2024 released Chapters 1-202

***New York Consolidated Laws Service > Agriculture And Markets Law (Arts. 1 — 30) > Article 26-C Regulation of Animal Shelters (§§ 420 — 434)***

## **§ 422. Personnel training requirements.**

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1. Each animal shelter licensed pursuant to this article shall provide training to all staff members and volunteers having direct animal care responsibilities. Such training shall be provided within the first sixty days of employment and at least annually thereafter and shall be in addition to any and all training otherwise required by federal, state, or local law or regulation.
2. Acceptable training modalities shall include, but not be limited to, online webinars, on-site lectures or seminars, off-site conferences for animal shelter staff, or other formal training modalities as authorized by the commissioner.
3. Training topics shall include, but not be limited to, the following:
  - (a) humane handling techniques;
  - (b) infectious diseases commonly found in animal shelters;
  - (c) zoonotic diseases;
  - (d) animal cruelty;
  - (e) sanitation procedures;
  - (f) body language and normal behaviors for all species regularly handled; and
  - (g) required documentation and data entry.
4. Complete documentation of training sessions shall be maintained for a period of not less than three years from the date of training completion. Such documentation shall include, but not be limited to, the following:
  - (a) the date of training delivery and the date of completion;
  - (b) the topic or topics of the training session; and
  - (c) the provider of the training and a list of training course attendees.

## **History**

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L 2022, ch 683, § 2, effective December 15, 2022.

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## NY CLS Agr & M § 423

Current through 2024 released Chapters 1-202

***New York Consolidated Laws Service > Agriculture And Markets Law (Arts. 1 — 30) > Article 26-C Regulation of Animal Shelters (§§ 420 — 434)***

### **§ 423. Recordkeeping and protocols.**

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1. Each animal shelter shall examine an animal upon intake for unique identifiers and any other form of identification that may allow for reunification with an owner, as prescribed in sections one hundred seventeen and three hundred eighty-two of this chapter.
2. Each animal shelter shall create and maintain a record for each animal in their custody or possession which shall minimally include:
  - (a) Unique identifiers and any other identification associated with the animal upon examination at entry, including but not limited to a tattoo, a permanent official identification number as prescribed in section one hundred twelve of this chapter or other identification tags, rabies tags and numbers, or a microchip number, if present;
  - (b) The name, address and telephone number of the person surrendering an animal or from whom an animal is seized, and additional contact information as the commissioner may require, or the address or cross-streets and city, town, or village where the animal was located or found prior to intake, if known;
  - (c) The date of intake into and departure from the animal shelter;
  - (d) Whether the animal was adopted, transferred, redeemed by its owner, died or was humanely euthanized, and, if applicable, the name, address, and phone number of the receiving individual or agency;
  - (e) Basic descriptors including species, age, gender, physical description including color, and the spay or neuter status at entry if determinable with reasonable certainty;
  - (f) Any available behavioral or health history or information otherwise obtained at intake, including bite history and rabies vaccination status, when known; and
  - (g) All veterinary and behavioral examinations, treatments, procedures, or medications occurring during the animal's time under the care of the shelter.
3. Notwithstanding any other provision of law or regulation to the contrary, records for each animal shall be maintained for not less than three years from the date of animal departure.
4. Previous bite history shall be fully disclosed in writing to an adopter, transfer partner, or reclaiming owner and provided in any reports regarding the animal, as applicable.
5. Nothing in this section shall preclude or otherwise supersede record disclosure requirements prescribed in section sixty-seven hundred fourteen of the education law, or any requirement regarding the creation, maintenance, or retention of veterinary medical records in state or federal law or veterinary practice guideline.
6. Each animal shelter shall maintain a record of its designated foster care providers that shall include the written agreement established between such animal shelter and such providers pursuant to section four hundred thirty-two of this article, each provider's name, address, telephone number, email address if available, types of animals for which the provider is willing to provide care, inspection reports, and current

## § 423. Recordkeeping and protocols.

number of animals in the care of a designated foster care provider. Such records shall be updated immediately in the event any contact information for a given foster care provider changes.

**7.** Each animal shelter shall maintain summary records of their total annual animal intake and dispositions by species, by source of intake, and by type of disposition. Such records shall be made available to the commissioner upon request. The commissioner shall make such records available to the public upon request pursuant to article six of the public officers law.

**8.** Each animal shelter shall develop and maintain written protocols sufficiently detailed to achieve and maintain the standards prescribed in this section. These shall include, but not be limited to, the following:

- (a)** animal handling;
- (b)** behavioral assessment;
- (c)** enrichment and stress reduction;
- (d)** management of bite/scratch cases; and
- (e)** sanitation.

**9.** Each animal shelter shall also develop and maintain the following written protocols, approved by a duly licensed veterinarian and sufficiently detailed to achieve and maintain the standards prescribed in this article:

- (a)** nutrition and feeding;
- (b)** physical examination;
- (c)** emergency veterinary care;
- (d)** pain management;
- (e)** vaccinations;
- (f)** parasite control;
- (g)** anesthesia and surgery, if performed on-site by the organization;
- (h)** humane euthanasia; and
- (i)** outbreak management/control of infectious diseases.

**10.** Protocols established by each animal shelter pursuant to this section shall be reviewed annually and updated as necessary by designated administrative and managerial staff. Such protocols shall be made readily accessible to appropriate staff and volunteers.

## History

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L 2022, ch 683, § 2, effective December 15, 2022.

# NY CLS Agr & M § 424

Current through 2024 released Chapters 1-202

***New York Consolidated Laws Service > Agriculture And Markets Law (Arts. 1 — 30) > Article 26-C Regulation of Animal Shelters (§§ 420 — 434)***

## **§ 424. General facility standards.**

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1. All facilities and all interior components of each animal shelter shall be constructed of materials that ensure a sound physical structure, and shall be maintained so as to protect animals from injury, ensure containment of animals within the property, and restrict unauthorized entry of other animals and humans to the building.
2. Indoor building surfaces in direct contact with animals shall be constructed of materials that are non-porous, water resistant, non-toxic and able to withstand regular cleaning and disinfection. Adequate drainage shall prevent the accumulation of water or other liquids on floors.
3. Electrical power and running water shall be maintained to all parts of the facility that house animals, with written emergency plans for back-up sources or relocation of the animals to a safe environment in the event of outages lasting more than four hours.
4. Readily accessible sinks shall be convenient to all animal care areas. Single service soap and towels or electric hand dryers shall be available at all hand-washing locations.
5. Ambient temperatures in all indoor animal housing areas shall be routinely maintained between sixty and eighty degrees fahrenheit.
6. Each animal shall be monitored and provided with an environment allowing maintenance of normal body temperature based on species, breed, body condition, medical condition, and age.
7. Each animal shelter shall document regular maintenance of air handling systems according to the manufacturer's recommendations.
8. Ammonia levels shall be kept at less than two parts per million.
9. Each animal shelter shall provide separate housing areas, segregated by species and from uninfected, unexposed animals, for the housing of any animal with an infectious disease that may be transmitted within the shelter environment and requiring isolation as determined by a licensed veterinarian. Doors separating such rooms from the remainder of the facility shall be kept closed.
10. Each animal shelter shall minimize continuous exposure of personnel and animals to sound levels exceeding eighty-five decibels. Active measures shall be taken and documented to minimize sound levels in housing areas. Such measures may include modified kennel design, relocation of particularly loud animals, or use of visual barriers, sound baffling, and behavioral enrichment protocols. Each animal shelter shall use a decibel-meter at a minimum of once weekly to measure the level of sound in their kennels during cleaning and resting times. A record of such measurements and the date such measurements were recorded shall be maintained by each animal shelter.
11. Each animal shelter shall provide animal housing areas that provide adequate lighting and a means to maintain diurnal light cycles pursuant to an established schedule. All animals shall have a minimum of eight hours each of light and darkness within a twenty-four-hour cycle.
12. Each animal shelter shall establish and maintain a written plan for pest and vermin control including the following:

§ 424. General facility standards.

- (a) Method of controlling rodent infestation that is effective and safe for both humans, and animals housed in the facility;
  - (b) A record or copies of service reports from outside service providers related to pest and vermin control that documents dates, methods, locations, and outcomes, if applicable; and
  - (c) Food stored in rodent proof containers to prevent spoilage, contamination, and infestation once opened, if packaging has been damaged, or as otherwise required by such plan.
13. The use of unattended drop boxes for intake of animals is prohibited.

## History

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L 2022, ch 683, § 2, effective December 15, 2022.

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## NY CLS Agr & M § 425

Current through 2024 released Chapters 1-202

***New York Consolidated Laws Service > Agriculture And Markets Law (Arts. 1 — 30) > Article 26-C Regulation of Animal Shelters (§§ 420 — 434)***

### **§ 425. Animal housing.**

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1. Each licensed animal shelter shall provide each animal in its custody or possession with a suitable primary enclosure that meets the requirements prescribed in this section.
2. Unsupervised tethering for periods exceeding thirty minutes is prohibited.
3. Animal housing shall meet the following requirements:
  - (a) materials used in housing construction shall be non-porous, water-resistant, non-toxic, and able to withstand regular cleaning and disinfection;
  - (b) drainage shall prevent accumulation of water or other liquids on floors; and
  - (c) housing shall be structurally sound, in good repair and maintained in a safe, working condition to properly confine animals, prevent injury, keep animals safe from predation, keep other animals out, and allow animals to remain dry and clean.
4. Wire or slat-bottom cages are prohibited unless a solid tray is provided for the cage bottom to prevent injury to the animal.
5. Animal populations shall be segregated appropriately, in accordance with the following requirements:
  - (a) dogs and cats shall be housed in separate rooms with efforts made to minimize the exposure of cats to the barking of dogs to the extent practicable;
  - (b) animals of the same species shall be separated by age groups (e.g. neonates and juveniles; adults) except that nursing animals may be housed with their offspring;
  - (c) animals with known or suspected infectious diseases shall be housed in isolation areas as prescribed in subdivision nine of section four hundred twenty-four of this article;
  - (d) nothing in this subdivision shall be construed to prevent the temporary housing of animals in areas without such segregation for medical care and in pre- and post-operative surgical areas.
6. Well-socialized, healthy animals may be housed with one or more conspecifics. Animals housed together shall be compatible and have similar environmental requirements. Such housing shall not allow exposure to numerous different animals on a frequently changing basis.
7. Prior to being housed with one or more other animals the following conditions shall apply:
  - (a) all animals are vaccinated and dewormed against the pathogens specified in section four hundred twenty-nine of this article;
  - (b) physical examinations verifying the absence of clinical signs of infectious diseases have been performed;
  - (c) surgical sterilization or housing in same-sex groupings, except littermates under twelve weeks of age; and

## § 425. Animal housing.

- (d) the animal has a collar or tag to facilitate visual identification, unless the animal's age or condition is such that application of visual identification is not practicable or would be detrimental to the animal's health.
8. Animals that are poorly socialized, fearful, or aggressive towards other animals or that are ill, injured, or within a week of whelping or queening shall be housed individually in a suitably sized, enriched primary enclosure.
- (a) Littermates under the age of twelve weeks may be co-housed in an isolation area if all individuals are infected with the same infectious, contagious, parasitic or communicable disease.
- (b) Dogs and cats within a week of giving birth or until separation from the offspring shall be provided with a box with a solid floor large enough to allow the animal to lie fully stretched on its side, permitting all offspring to nurse and to accommodate all offspring until weaned; and an area large enough to allow the dam or queen to leave the whelping box.
9. Each enclosure shall clearly indicate the identities of all animals contained within, specifying each animal's unique identifier as required under section four hundred twenty-three of this article. Each animal shall also be individually identified.
10. All primary enclosures shall provide sufficient space to allow each animal, regardless of species, to:
- (a) make all normal postural adjustments;
- (b) fully stretch its body and have sufficient room to circle, lie down, and stand upright without the head or tail touching the sides of the enclosure even with the presence of water and food bowls, beds, litter boxes, and other normal cage objects; and
- (c) allow animals to sit, sleep and eat away from areas of their enclosure where they defecate and urinate.
11. Any primary enclosure housing two or more animals shall provide the following:
- (a) sufficient space and quality of environment to allow all animals to maintain social distances;
- (b) adequate areas for hiding, resting, feeding, and elimination with sufficient space to separate areas and the ability for all animals to access those areas.
12. Regardless of the size of the primary enclosure, the number of animals cohoused in a primary enclosure at one time shall not exceed the following thresholds:
- (a) twelve adult cats;
- (b) two litters of kittens not to exceed ten kittens total;
- (c) five adult dogs; or
- (d) one litter of puppies.
13. Puppies and kittens less than sixteen weeks of age shall not be housed in the same enclosure with adults other than their dam or queen, or foster or surrogate dam or queen.
14. All animals housed with one or more conspecifics shall be separated for feeding or observed at feeding times for antagonistic interactions that pose a safety and welfare concern.
15. Animals shall not be housed outdoors for more than twelve hours within a twenty-four-hour period, with the exception of free-roaming cats under the care of the animal shelter.
16. Outdoor primary enclosures shall comply with all housing requirements prescribed in this section and shall provide the following:
- (a) protection from the elements at all times;
- (b) adequate drainage to prevent the accumulation of excess water in or around the enclosures;

## § 425. Animal housing.

- (c) a moisture-proof, insulated shelter structure large enough to simultaneously accommodate all animals in the enclosure, unless immediate entry to an indoor portion of the enclosure is accessible;
  - (d) security from unauthorized entry of other animals into the enclosure;
  - (e) a separate, shaded area sufficient to simultaneously accommodate all animals, except when animals have immediate access to an indoor portion of the enclosure;
  - (f) clean dry bedding at all times and a heat source when the outdoor temperature falls below fifty degrees fahrenheit; and
  - (g) enclosures that allow outdoor access for cats shall be fully enclosed to prevent escape from the enclosure.
17. For any animal in the custody or possession of any animal shelter for fourteen days or longer, alternative housing shall be provided in one of the following formats:
- (a) enriched cages at least twice the size otherwise required for an animal's size;
  - (b) foster care in a private home, office, or other suitable off-site location; or
  - (c) room housing.

## History

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L 2022, ch 683, § 2, effective December 15, 2022.

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# NY CLS Agr & M § 426

Current through 2024 released Chapters 1-202

***New York Consolidated Laws Service > Agriculture And Markets Law (Arts. 1 — 30) > Article 26-C Regulation of Animal Shelters (§§ 420 — 434)***

## **§ 426. Sanitation.**

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Any animal shelter licensed pursuant to this article shall establish and maintain sanitation protocols that include the following:

1. use of one or more agents that have cleaning and disinfectant properties that are effective under conditions present in a given environment and with demonstrated effectiveness against the pathogens for which animals are at risk;
2. removal of animals from enclosures and placement in another appropriate enclosure or separation from the area being cleaned or disinfected by a functional compartment door when water, cleaning, or disinfecting agents are sprayed in or near an animal's enclosure;
3. dedicated equipment for cleaning and disinfection for use in each separate area of the shelter designated as cat or dog isolation, holding, adoptions or other functionally separate areas within the facility;
4. cleaning and disinfecting in between each use of items and surfaces that come into contact with animals, including but not limited to food and water bowls, litter boxes and exam tables, or procedures to discard and replace with new items for each animal;
5. cleaning and disinfecting all enclosures for temporary or permanent housing before a new animal enters such enclosure;
6. daily cleaning and at least once weekly disinfecting of enclosures that house the same animal or animals during a long-term stay;
7. cleaning and disinfecting enclosures when the enclosure becomes heavily soiled or otherwise contaminated or a new animal is added to the enclosure;
8. laundering of all animal bedding in a machine with detergent when soiled and thoroughly drying such bedding before reuse, or removing and disposing of such bedding appropriately;
9. cleaning of outdoor premises from clutter that may pose a safety concern and fecal material removed at least once daily;
10. appropriate use and disposal of protective garments worn during cleaning and intensive animal-handling activities within an animal shelter; and
11. proper hygiene of shelter staff, volunteers, and visitors, including signage, supervision, and hand sanitation.

## **History**

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L 2022, ch 683, § 2, effective December 15, 2022.

§ 426. Sanitation.

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End of Document

# NY CLS Agr & M § 427

Current through 2024 released Chapters 1-202

***New York Consolidated Laws Service > Agriculture And Markets Law (Arts. 1 — 30) > Article 26-C Regulation of Animal Shelters (§§ 420 — 434)***

## **§ 427. Shelter management protocols.**

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1. Each animal shelter shall have a clear, written, management structure that defines staff authority, reporting structure and responsibilities, and is readily accessible to all staff and volunteers.
2. Staffing shall be sufficient to allow adequate time, per animal, for cleaning and daily feeding, and to meet the minimum requirements for socialization and exercise of animals as prescribed in section four hundred thirty of this article.
3. The total number of animals housed in an animal shelter facility or foster home shall not exceed the number of housing units available at the facility as required by section four hundred twenty-five of this article; provided, however, that exceptions to the provisions of this subdivision shall be permissible for periods not to exceed forty-five contiguous days in the event of an animal seizure pursuant to article twenty-six of this chapter or a natural disaster where an official declaration of the disaster or emergency has been made.
4. All animals shall be observed daily by a manager or designee to identify each animal's needs for care, housing and service and to ensure that each animal has a plan to advance efficiently through the shelter.

## **History**

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L 2022, ch 683, § 2, effective December 15, 2022.

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## NY CLS Agr & M § 428

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***New York Consolidated Laws Service > Agriculture And Markets Law (Arts. 1 — 30) > Article 26-C Regulation of Animal Shelters (§§ 420 — 434)***

### **§ 428. Animal husbandry.**

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1.

(a) Each animal shelter shall provide each animal under its care with fresh, potable water at all times unless otherwise directed by a duly licensed veterinarian.

(b) Each animal shelter shall feed each animal under its care a complete and nutritionally balanced, species-specific and life-stage-appropriate diet as indicated by the animal's age, weight, and medical health, or as directed by a duly licensed veterinarian in accordance with the written protocols required by section four hundred twenty-three of this article.

(c) Food shall be provided at least once daily for adult animals, at least twice daily for animals less than six months of age, and at least three times daily for animals less than two months of age.

(d) Perishable animal food shall be refrigerated.

(e) Animal food and water containers shall be present in sufficient number and location to safely enable each animal in the enclosure to access an adequate supply of food and water. Food and water bowls shall be of the type that can be easily sanitized, be kept clean and shall be cleaned and disinfected prior to use by a different animal, unless disposable bowls are used and replaced between animals.

(f) Each animal shall be observed during or following each feeding time to ensure daily food intake, or at least once every twenty-four hours for animals continually offered food. Such observations shall be recorded.

2.

(a) Humane and safe physical restraint to limit some or all normal voluntary movement of any animal in each animal shelter's care shall minimize fear, pain, stress and suffering for the animal, protect both the animal and personnel from harm, and be of the least intensity and duration required to allow the specific procedure or procedures to be performed properly.

(b)

(i) Frightened or fractious animals may be appropriately tranquilized, under the orders and supervision of a duly licensed veterinarian, if they cannot be restrained safely and humanely.

(ii) No physical force shall be used as punishment or in anger.

(iii) Handling methods shall minimize the chance of escape and ensure the safety of both humans and animals.

(c) Restraint devices and handling techniques employed by each animal shelter shall be used in a manner that minimizes animal stress and risk of injury to both animals and personnel, in the event such devices and techniques are necessary for the safe handling of the animal.

(i) All equipment shall be maintained in good working order.

§ 428. Animal husbandry.

(ii) Cats shall not be restrained with control poles. Humane traps, cat boxes, nets, towels, or other equipment appropriate for handling fractious animals may be used. Squeeze cages, feral cat boxes, or humane traps with dividers shall be used for restraining cats and administering tranquilizers prior to handling.

## History

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## NY CLS Agr & M § 429

Current through 2024 released Chapters 1-202

***New York Consolidated Laws Service > Agriculture And Markets Law (Arts. 1 — 30) > Article 26-C Regulation of Animal Shelters (§§ 420 — 434)***

### **§ 429. Veterinary care.**

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1. Prescription medications and treatments shall be administered by each animal shelter under the advisement of or in accordance with written protocols provided by a duly licensed veterinarian.
2. All drugs shall be documented and dispensed by each animal shelter in accordance with applicable local, state, and federal laws and regulations.
3. All incoming animals shall be assessed within two hours after intake by a trained animal shelter staff member to determine if any physical abnormalities exist that require immediate veterinary attention in accordance with the shelter's written protocol for emergency care, as required by section four hundred twenty-three of this article.
4. Each animal shelter shall have the ability to provide for veterinary assessment and humane care in a timely fashion through in-house facilities or at an off-site location.
5. Pursuant to the written protocol for emergency veterinary care required by section four hundred twenty-three of this article, each animal shelter shall provide appropriate and timely veterinary care for any animal that is in distress, experiencing pain, or showing signs of significant illness or injury.
6. Each animal shelter shall recognize and treat acute and chronic pain appropriately, as set forth in article twenty-six of this chapter. The legal status regarding the ownership of any animal shall not prevent treatment to relieve suffering.
7. Each animal shelter shall provide a complete physical examination of all animals in its custody or possession by trained shelter staff within twenty-four hours of intake to identify medical or behavioral conditions that require further evaluation and care. Animals shall specifically be examined for bite wounds; animals that have potentially been exposed to rabies shall be managed in accordance with applicable local and state laws. Each animal shelter shall comply with the rabies reporting requirements prescribed in 10 NYCRR 2.14.
8. Each animal shelter shall vaccinate each animal in its custody or possession with core vaccines as recommended by national standards and guidelines specific to animal shelters as established, endorsed or approved by the American Association of Feline Practitioners (AAFP), American Animal Hospital Association (AAHA), or the Association of Shelter Veterinarians (ASV).
9. Each animal shelter shall provide all dogs, cats, and ferrets in its custody or possession with a rabies vaccination prior to release in accordance with local public health laws. Each animal shelter shall be in compliance at all times with section one hundred nine of this chapter and title four of article twenty-one of the public health law.
10. At a minimum, each animal shelter shall treat all animals in its custody or possession for hookworms and roundworms prior to release and/or placement in foster care.
11. When a physical or behavioral abnormality is identified at the time of intake or at any time during any animal's shelter stay, staff members shall follow written medical protocols required by section four hundred twenty-three of this article, to determine if and when any animal in its custody or possession needs to be examined by a duly licensed veterinarian. If the animal is in foster care, the foster care provider shall follow

## § 429. Veterinary care.

written medical protocols to determine whether the animal needs to be examined by a duly licensed veterinarian.

**12.** Any animal in the custody or possession of any animal shelter for more than thirty days shall be examined and weighed at least monthly by a trained staff member. Animals in foster care shall be examined and weighed at least once every six months by a trained staff member.

**13.** Any apparently healthy animal remaining within the custody or possession of any animal shelter shall be examined by a duly licensed veterinarian at least every six months, or more frequently if problems are identified.

**14.** Each animal shelter shall provide regular grooming to prevent discomfort or injury to each animal in its custody or possession. Matted, soiled, or otherwise unkempt animals shall be provided with timely grooming to alleviate discomfort and prevent injury within forty-eight hours of intake or identification of condition. Severe matting that prevents normal movement, an animal's ability to eat, drink, urinate, or defecate, or that compromises tissue health shall be treated as a medical emergency requiring immediate care.

**15.**

**(a)** No animal shelter shall release any dog or cat for adoption to any person unless the dog or cat has been spayed or neutered, in accordance with section three hundred seventy-seven-a of this chapter.

**(b)** Prior to performing spay/neuter surgery at any animal shelter:

**(i)** All animals in such shelter's custody or possession shall receive an examination by a duly licensed veterinarian within twenty-four hours of surgery and anesthesia. Such examination may be performed under sedation or anesthesia if, due to the animal's behavior, an examination is not possible while awake.

**(ii)** Balanced anesthetic protocols that include sedation, the provision of pre- and post-operative analgesia, stress reduction, muscle relaxation and controlled, reversible loss of consciousness shall be utilized for all animals.

**(iii)** While surgery is being performed, the operating area shall be dedicated to surgery and contain the necessary equipment for anesthesia and patient monitoring.

**(iv)** Aseptic surgical technique shall be required, and separate sterile instruments shall be used for each patient. All instruments and equipment shall be maintained in proper working condition.

**(v)** A permanent tattoo shall be placed on the ventral abdomen of shelter-owned cats and dogs at the time of spay or neuter.

**(vi)** Each animal shelter shall provide adoptive owners instructions in both written and verbal forms for ten-day post-operative care of recently spayed or neutered animals.

**(c)** Written protocols required by section four hundred twenty-three of this chapter, shall be followed to handle related post-operative emergencies.

## History

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L 2022, ch 683, § 2, effective December 15, 2022.

## NY CLS Agr & M § 430

Current through 2024 released Chapters 1-202

***New York Consolidated Laws Service > Agriculture And Markets Law (Arts. 1 — 30) > Article 26-C Regulation of Animal Shelters (§§ 420 — 434)***

### **§ 430. Behavior.**

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1. Each animal shelter shall take measures, by way of written questionnaire, personal interview or other means deemed necessary by the commissioner, to collect a behavioral history for each animal in its custody or possession at the time of intake.
2. Routine care and handling of any animal in the custody or possession of each animal shelter, including the timing of feeding and sanitation procedures shall be performed on a regular daily schedule.
3. At least twenty minutes of positive social interactions, in addition to time spent providing feeding, cleaning, basic husbandry or care with people shall be provided by each animal shelter on a daily basis for any animal in such shelter's custody or possession except those so poorly socialized to humans that such contact would be unpleasant, stressful or pose a safety risk to other animals or humans. Daily handling and positive exposure to people and other animals shall be provided for any dog or cat less than four months of age, while taking appropriate precautions to limit infectious disease. Positive social interactions shall include but not be limited to petting an animal, walking, reward based training or interactive play with toys. Time spent providing basic husbandry and animal care shall not be used to offset the social interaction time requirements of this subdivision.
4. Each animal shelter shall provide each animal in its custody or possession opportunity for exercise and exploration in the following manner:
  - (a) all cats housed in a cage, kennel, or room that provides less than eighteen square feet of floor space per cat for fourteen days or longer shall be permitted at least fifteen minutes per day at least five days per week outside of their primary enclosure to exercise and explore;
  - (b) all dogs residing in the shelter for fourteen days or longer shall be permitted time outside of their primary enclosure to exercise and explore for at least twenty minutes per day five days per week; or
  - (c) in the event such activities are not possible due to any animal's health, behavior, order of the commissioner or legal restriction, the condition and reason shall be documented in such animal's medical record.
5. Each animal shelter shall implement additional measures for enrichment and stress reduction for any animal in its custody or possession showing persistent hiding, hostile interactions with other animals, reduced activity, depression or social withdrawal, barrier frustration or aggression, self-injurious behavior, repetitive non goal-oriented movement, or stereotypic behaviors. Such measures shall be documented in such animal's medical record created pursuant to section four hundred twenty-three of this article.
6. Use of aversive methods in animal training or behavioral modification is prohibited except in reward-based method situations, where skilled application of the least aversive method that is expected to succeed may be appropriate.
7. Animal shelters may perform a systematic behavioral evaluation on animals prior to rehoming or other placement. In the event such evaluations are performed, the following requirements shall apply:
  - (a) staff performing such evaluations shall receive, in advance, adequate training in the performance and interpretation of the behavioral evaluation or evaluations; and

§ 430. Behavior.

(b) documentation of the results of every behavior evaluation performed shall be added to the animal's record created pursuant to section four hundred twenty-three of this article.

8. Each licensed animal shelter shall fully disclose all available information regarding the behavior of any animal in its custody or possession prior to such animal's transfer to an individual or another organization as authorized pursuant to section three hundred seventy-four of this chapter. Such information shall include, but not be limited to prior history, observed behaviors in the shelter, and the results of any systematic behavioral evaluations performed.

9. Any animal in the custody or possession of a licensed animal shelter that is observed to be experiencing mental suffering or behavioral deterioration shall be assessed and appropriately treated.

## History

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# NY CLS Agr & M § 431

Current through 2024 released Chapters 1-202

***New York Consolidated Laws Service > Agriculture And Markets Law (Arts. 1 — 30) > Article 26-C Regulation of Animal Shelters (§§ 420 — 434)***

## **§ 431. Transportation.**

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### 1. Vehicle requirements.

- (a)** Vehicles and operators employed by or otherwise serving as an agent of any animal shelter to transport animals shall adhere to all applicable federal, state, and local laws.
- (b)** Any animal transported by an animal shelter or its agent shall not be placed unconfined or tethered in the back of an open pick-up or flatbed truck.
- (c)** Any animal shelter or its agent transporting any animal shall safely and securely confine such animal in an enclosure such as a crate, carrier, or cage within the vehicle. Foster care providers serving as an agent of any animal shelter for purposes of this section may be authorized to provide secure alternatives to enclosures for transport of large dogs.
- (d)** Any transport vehicle transporting dogs or cats for any animal shelter shall have adequate space, comfortable environmental conditions, and good air quality. The animal compartment of the transport vehicle shall provide fresh air, free of vehicle exhaust fumes.
- (e)** Each transport vehicle, including cargo spaces, shall be heated and cooled as necessary to provide for normal thermoregulation of the animals being transported.
- (f)** Each transport vehicle shall have a thermometer placed in the animal compartment. The ambient temperature in the cargo space shall be maintained between sixty and eighty-five degrees fahrenheit, unless the health of the animal necessitates an ambient temperature that exceeds or is less than such parameters. The operator of such vehicle shall monitor cargo area temperatures at least every four hours to ensure such temperatures are maintained.

### 2. General responsibilities of animal shelters of origin prior to transport.

- (a)** It is the responsibility of the animal shelter of origin to reasonably ensure that its destination animal shelters have the ability to meet the requirements of subdivision four of this section prior to transporting any animal. A written contract or memorandum of understanding between the animal shelter of origin, any intermediate animal shelter, the destination animal shelter and any transporting agent not directly employed by such shelters, shall be executed for each animal transfer of one or more animals. Such document shall include the responsibilities of each party and shall be revised or updated as necessary to ensure that information is current.
- (b)** A contact person shall be designated for each animal shelter and any intermediate transfer points.
- (c)** Each transporting organization identified in any agreement established pursuant to subparagraph (i) of paragraph (d) of this subdivision shall adhere to all public health laws and local laws for source location, intermediate transfer points, and final destination.
- (d)**
  - (i)** For dogs or cats imported into the state, the animal shelter of origin shall ensure that each dog or cat to be transported aged three months of age or older has been vaccinated against rabies not more than twelve months prior to the date of transport when using a one-year vaccine, or not more

## § 431. Transportation.

than thirty-six months prior to the date of transport when using a three-year vaccine, as evidenced by a valid certificate of immunization signed by a duly licensed veterinarian. Such vaccine shall be approved by the United States department of agriculture. The immunization requirement shall not apply if a veterinarian certifies in writing that because of old age or other reason, the life of the dog would be endangered by the administration of the rabies vaccine.

**(ii)** At a minimum, the animal shelter of origin shall administer the following core vaccinations to each dog or cat to be transported that is four weeks of age or older:

**(1)** For dogs, a modified live product for Distemper virus, Adenovirus, and Parvovirus as well as an intranasal or oral avirulent culture Bordetella bronchiseptica vaccination prior to departing from the animal shelter of origin.

**(2)** For cats, a modified live product for Feline Viral Rhinotracheitis, Feline Calici Virus, and Feline Panleukopenia.

**(iii)** The animal shelter of origin shall treat each animal for internal and external parasites as appropriate for the age, species, and medical condition.

**(iv)**

**(1)** The animal shelter of origin shall examine each dog and cat for medical or behavioral concerns at most twenty-four hours prior to initiation of transport. All medical and behavioral observations shall be recorded and communicated to any intermediate animal shelter, the destination animal shelter and any transporting agent not directly employed by such shelters.

**(2)** A health record shall accompany each animal to be transported.

**(3)** A health certificate is required for each animal to be transported into the state in accordance with part sixty-five of the commissioner's rules and regulations. Such certificate shall accompany each animal during transport and be completed and signed by a duly licensed veterinarian.

**(v)** Each animal shall be individually identified with a collar, tag, tattoo, microchip or combination of such identifiers. All animals shall have, at a minimum, one form of visual identification.

**3.** General responsibilities during transport.

**(a)** Each animal transported shall be provided with absorbent bedding.

**(b)** No animal shall be sedated or tranquilized unless recommended by a duly licensed veterinarian and veterinary guidance is provided for such animal's care during transport.

**(c)** The maximum transport time to an intermediate animal shelter or a destination animal shelter for dogs and cats shall include not more than fourteen hours confined to the transport vehicle, including load time. Transports exceeding fourteen hours must include an overnight stop at an intermediary location, where the dogs and cats being transported shall be allowed the opportunity to exercise and eliminate outside of the transport vehicle.

**(d)** The transporting animal shelter or its agent shall observe each animal being transported as often as circumstances allow, but not less than once every four hours. During such observations, animals should be watered and fed consistent with paragraphs (g) and (h) of this subdivision, and the transport area cleaned as appropriate.

**(e)** Each dog shall be provided with the opportunity to exercise and eliminate at least once every twelve hours while confined to the transport vehicle, including load time. Each dog being transported that is less than twelve weeks of age shall be removed from their enclosure and allowed to exercise and eliminate at least every two hours.

**(f)** No dog or cat shall be left unattended in any transport vehicle for more than one hour, regardless of whether heating, ventilation and air conditioning (HVAC) is provided in such vehicle.

## § 431. Transportation.

**(g)** The transporting animal shelter or its agent shall provide each animal being transported with wholesome and palatable food except when there are instructions from a duly licensed veterinarian to withhold food for medical reasons. Such food shall be free from contamination, of nutritional value sufficient to maintain each animal in good health and be provided at least every twelve hours for adult animals; at least every eight hours for animals less than six months of age; and at least every six hours for animals less than four months of age.

**(h)** If water cannot be provided at all times, the transporting animal shelter or its agent shall provide clean, fresh water to each animal being transported at least every four hours during observation stops required pursuant to paragraph (b) of subdivision four of this section. Such water shall be supplied in a sanitary manner sufficient for its needs, except where there are instructions from a duly licensed veterinarian to withhold water for medical reasons.

**(i)** Animal enclosure requirements.

**(i)** Animal enclosures in transport vehicles shall be suitable to allow the animal to stand, sit erect, turn around while standing, and to lie in a natural position. If more than one animal occupies any enclosure during transport, such enclosure shall provide adequate space for each to lie down comfortably at the same time without lying on top of each other.

**(ii)** Unfamiliar animals shall not be contained together in the same enclosure.

**(iii)** Crates, carriers or cages shall not be stacked in the transport vehicle in a manner that increases animal stress or discomfort, compromises ventilation, allows waste material to pass between cages, interferes with care and observation, or hinders emergency removal.

**(iv)** All animal enclosures and compartments shall be free of sharp edges or other hazardous materials.

**(v)** The floor of any enclosure shall prevent injury, discomfort, and leakage of fluids into other enclosures.

**(vi)** The animal shelter or its agent shall ensure that each animal transported is safely and securely confined within each enclosure as prescribed by this section and that enclosure doors are secured to prevent accidental opening.

**(vii)** The animal shelter or its agent shall secure each primary enclosure to prevent movement within the transport vehicle.

**(viii)** Each dog or cat less than eight weeks of age shall be transported in an enclosure with their mother, with adequate space to allow the mother to lie down on her side with legs extended to facilitate nursing unless such dog or cat is orphaned, a duly licensed veterinarian directs otherwise, the transport period does not exceed one hour, or transport with the mother is deemed to pose a significant safety risk. In the event such dog or cat is not transported with its mother, the animal shelter or its agent shall ensure an adequate environment and temperature for the offspring. The transporting animal shelter or its agent shall transport animals with known or suspected infectious diseases that could be spread during transport in separate compartments from healthy animals.

**(ix)** The transporting animal shelter or its agent shall clean animal enclosures and replace litter as often as necessary to prevent soiling any animal being transported. If any animal must be removed from an enclosure to facilitate cleaning, the transporting animal shelter or its agent shall employ safeguards to ensure animal safety and prevent escape.

**(j)** Transport vehicle operators.

**(i)** Transport vehicle operators and individuals who assist in the transport of animals shall have training in animal health, animal care, and safety issues to recognize and respond to animal needs during transport.

## § 431. Transportation.

(ii) Transport vehicle operators shall avoid unnecessary sudden acceleration, deceleration, excessive lateral movement, noise and vibration.

(iii) Transport vehicle operators and individuals who assist in the transport of animals shall observe dogs and cats for any medical or behavioral concerns during each stop and shall respond appropriately to any concerns identified.

(iv) Transport vehicle operators and individuals who assist in the transport of animals shall clean and disinfect each enclosure after use in transporting an animal and before transporting different animals in the same enclosure.

4. General requirements of destination animal shelters. Each destination animal shelter shall provide the following:

- (a) Adequately trained personnel ready to receive and medically evaluate each animal received from any transporting animal shelter or its agent upon arrival;
- (b) A physical examination of each animal received from any transporting animal shelter with corresponding documentation performed by trained personnel pursuant to section four hundred twenty-three of this article within four hours of arrival;
- (c) Veterinary care in accordance with section four hundred twenty-nine of this article for each animal received from any transporting animal shelter requiring such care and additional reasonable care.
- (d) Adequate housing for arriving animals prepared in advance of arrival, including:
  - (i) Housing in a quarantine area if needed, based on assessment of health status, animal source, and risk of infectious, contagious, parasitic or communicable disease; and
  - (ii) Isolation areas for animals with known or suspected contagious diseases, as required under sections four hundred twenty-four and four hundred twenty-five of this article.

5. No animal shelter or its agents shall transport any dog or cat less than one year of age whose point of origin is any breeder licensed by the United States department of agriculture pursuant to the provisions of U.S.P.L. 89-544 as of August twenty-fourth, nineteen sixty-six, or any subsequent corresponding sections of the federal Animal Welfare Act, as from time to time amended.

## History

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## NY CLS Agr & M § 432

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***New York Consolidated Laws Service > Agriculture And Markets Law (Arts. 1 — 30) > Article 26-C Regulation of Animal Shelters (§§ 420 — 434)***

### **§ 432. Foster care provider requirements.**

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1. No person may operate as a foster care provider in this state without first having signed a written agreement with an animal shelter licensed pursuant to this article stating that such person may operate as a foster care provider with the approval and under the responsibility of such animal shelter. Such agreement shall be renewed not less than once every two years, and a copy of such agreement shall be kept by both the animal shelter and foster care provider and made available for inspection by the commissioner upon request. It shall be the responsibility of the animal shelter entering into such agreement with any foster care provider pursuant to this article to ensure that such foster care provider is able to responsibly harbor and provide necessary sustenance for any animal placed in their care by such animal shelter in a manner that promotes the good health, safety and welfare of such animals. No animal shelter shall knowingly enter into any agreement pursuant to this subdivision with any person who has been previously convicted of a violation of any provision of article twenty-six of this chapter or regulations promulgated thereunder pertaining to humane treatment of animals, cruelty to animals, endangering the life or health of an animal, or violation of any federal, state, or local law pertaining to the care, treatment, sale, possession, or handling of animals or any regulation or rule relating to the endangerment of the life or health of an animal.
2. Foster care providers may harbor animals owned by a licensed animal shelter but shall not own such animals and shall keep a copy of the current record of each animal harbored under any agreement established pursuant to subdivision one of this section. Such record shall be maintained at the physical premises where such foster care providers harbor such animals. Animal shelters may, if appropriate to protect the identity of the source of any animal, provide their foster care providers with a partial animal record that excludes the name and address of the organization or individual from whom such animal was obtained and the date of receipt, so long as such animal shelters keep a copy of the complete record at the location where it maintains such records pursuant to section four hundred twenty-three of this article. It is the responsibility of the animal shelter with which such foster care provider has established an agreement pursuant to subdivision one of this section to ensure compliance with this subdivision.
3. Any animal harbored by a foster care provider pursuant to this section that is affected by an infectious or contagious disease shall be handled in a manner that prevents the spread of such disease in accordance with subdivision nine of section four hundred twenty-four of this article. It shall be the responsibility of the animal shelter with which such foster care provider has established an agreement pursuant to subdivision one of this section to ensure compliance with this subdivision.

### **History**

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L 2022, ch 683, § 2, effective December 15, 2022.

§ 432. Foster care provider requirements.

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End of Document

# NY CLS Agr & M § 433

Current through 2024 released Chapters 1-202

***New York Consolidated Laws Service > Agriculture And Markets Law (Arts. 1 — 30) > Article 26-C Regulation of Animal Shelters (§§ 420 — 434)***

## **§ 433. Violations.**

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1. Any animal shelter that violates any provision of this article may be subject to licensure denial, revocation, suspension, or refusal of license renewal in accordance with the provisions of subdivision seven of section four hundred twenty-one of this article.
2. Violation of any provision of this article shall be a civil offense, for which a penalty of not less than one hundred dollars and not more than one thousand dollars for each violation may be imposed by the commissioner; provided, that whenever there shall be a violation of this article, application may be made by the attorney general in the name of the people of the state of New York to a court or justice having jurisdiction by a special proceeding to issue an injunction, and upon notice to the defendant of not less than five days, to enjoin and restrain the continuance of such violations; and if it shall appear to the satisfaction of the court or justice that the defendant has, in fact, violated this article, an injunction may be issued by such court or justice, enjoining and restraining any further violation, without requiring proof that any person has, in fact, been injured or damaged thereby. In any such proceeding, the court may make allowances to the attorney general as provided in paragraph six of subdivision (a) of section eighty-three hundred three of the civil practice law and rules, and direct restitution. Whenever the court shall determine that a violation of this article has occurred, the court may impose a civil penalty of not less than one hundred dollars and not more than one thousand dollars. In connection with any such proposed application, the attorney general is authorized to take proof and make a determination of the relevant facts and to issue subpoenas in accordance with the civil practice law and rules.
3. Any animal shelter that violates any provisions of this article shall correct such violations to the satisfaction of the commissioner within a period not to exceed ten days; provided, however, that where such violation poses a severe or immediate threat to public health or animal safety or well-being, such violation shall be corrected to the satisfaction of the commissioner within a period not to exceed seventy-two hours.
4. Nothing in this section shall preclude the commissioner from taking additional actions to address violations related to the immediate threat to animal safety or well-being, including but not limited to, suspension of animal shelter operations until such violations are corrected to the satisfaction of the commissioner.
5. Upon identification of one or more violations, the commissioner shall provide the animal shelter with a written description of all violations issued and the steps necessary to correct such deficiencies.

## **History**

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L 2022, ch 683, § 2, effective December 15, 2022.

§ 433. Violations.

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End of Document

## NY CLS Agr & M § 434

Current through 2024 released Chapters 1-202

***New York Consolidated Laws Service > Agriculture And Markets Law (Arts. 1 — 30) > Article 26-C Regulation of Animal Shelters (§§ 420 — 434)***

### **§ 434. Waiving of requirements authorized.**

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The commissioner is hereby authorized to waive the requirements established pursuant to this article during a disaster emergency, provided that an official declaration of such disaster emergency has been made by the governor or his or her delegated state official pursuant to section twenty-eight of the executive law.

### **History**

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L 2022, ch 683, § 2, effective December 15, 2022.

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