TETRA TECH
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Addendum

Dobbs Ferry Union Free School District
Dobbs Ferry, New York

SED NO. 66-04-03-03-0-004-019
66-04-03-03-0-001-020

Reconstruction to
Springhurst Elementary School
Dobbs Ferry Middle School / High School

Tt Project No. 234903-23001

BID Addendum No. 1
to
Drawings and Project Manual

January 22, 2025

To: ALL BIDDERS

This ADDENDUM forms a part of the BIDDING AND CONTRACT DOCUMENTS and modifies the following documents:
Original DRAWINGS dated December 1, 2023.
PROJECT MANUAL dated December 1, 2023.
Acknowledge receipt of the ADDENDUM in the space provided on the FORM OF PROPOSAL

This ADDENDUM consists of (2) pages and the following:

ATTACHMENTS

PRE-BID REQUEST FOR INFORMATION QUESTIONS/ANSWERS

REISSUED PROJECT MANUAL SECTIONS

SECTION 01 12 00 – MULTIPLE CONTRACT PROJECT SUMMARY PROJECT SCHEDULE
SECTION 04 20 00 – UNIT MASONRY
SECTION 12 24 13 – ROLLER WINDOW SHADES

REISSUED DRAWINGS (30 x 42)

AC120	Site Layout Plan
AC140	Site Utility Plan
BC110	Site Soil Erosion and Sediment Control Plan

PROJECT MANUAL MODIFICATIONS

ITEM 1-C-1: Refer to SECTION 01 12 00 – MULTIPLE CONTRACT PROJECT SUMMARY PROJECT SCHEDULE

1. DELETE section in its entirety and, ADD new section attached to this addendum.

PROJECT MANUAL MODIFICATIONS - ARCHITECTURAL

ITEM 1-C-2: Refer to SECTION 04 20 00 – UNIT MASONRY

1. DELETE section in its entirety and, ADD new section attached to this addendum.

ITEM 1-C-3: Refer to SECTION 12 24 13 – ROLLER WINDOW SHADES

1. DELETE section in its entirety and, ADD new section attached to this addendum.

DRAWING MODIFICATIONS - LANDSCAPE

ITEM 1-C-4: Refer to DRAWING AC120

1. DELETE drawing in its entirety and, ADD new drawings attached to this addendum.

ITEM 1-C-5: Refer to DRAWING AC140

1. DELETE drawing in its entirety and, ADD new drawings attached to this addendum.

ITEM 1-C-6: Refer to DRAWING BC110

1. DELETE drawing in its entirety and, ADD new drawings attached to this addendum.

END OF ADDENDUM

TETRA TECH
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INSTRUCTIONS TO BIDDERS
ATTACHMENT #1:
PRE-BID REQUEST FOR INTERPRETATION FORM

SUBMIT FORM BY EMAIL TO INE.DobbsFerry@tetratech.com

Project No.: 234903-23001 **Date:** 1/17/2025

Project Name: Reconstruction to Springhurst Elementary School and Dobbs Ferry Middle/High School

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Bidder Contact Person: Leonardo Andrade
Bidder Company Name: Nicky Diggs Excavation.
Bidder Phone: 914-232-1878
Bidder Email Address: pm@nickydiggs.com

Question Pertains to:

Drawing Number: AC-140
Plan Area:
Room Number:
Drawing Detail Number:
Specification Section:

Question:

We do not have the invert elevations for the catch basins. Could you please provide this information? Additionally, could you also provide us with drawings AC501 and BC501? These plans are referenced in certain activities but were not included in the set of drawings provided to the bidders.

Review by Architect/Engineers: **Responded By:** T Farlow, PE **Date:** 01/21/2025

Site Utility Drawing AC140 with invert information to be reissued in Bid Addendum No. 1 on 01/22/25.

Site Layout Drawing AC120 with new detail and revised key notes removing reference to drawing AC501 to be reissued in Bid Addendum No. 1

Site SESC Drawing BC110 with details and revised key notes, removing reference to drawing BC501 to be reissued in Bid Addendum No. 1

Submit requests not less than 5 working days prior to the specified Bid Opening date and time. In the event that this question requires clarification or modification of the Bidding Documents, such written information can only be provided by formal Addendum, distributed to all plan holders.

SECTION 01 12 00 - MULTIPLE CONTRACT PROJECT SUMMARY-PROJECT SCHEDULE

NOTE: Items highlighted in yellow indicate changes in Bid Addendum # 1

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes:

1. Project information.
2. Work covered by Contract Documents.
3. Construction schedule.
4. Requirements and assignments for each Contract.
5. Owner-furnished products.
6. Access to site.
7. Coordination with occupants.
8. Work restrictions.

B. Section includes a summary of each contract, including responsibilities for coordination and temporary facilities and controls.

C. Each Contractor is responsible to review all Drawings and Specifications for every contract to gain a complete understanding and knowledge of the entire Project, to determine how the work of each contract is to interface with every other contract.

1.3 DEFINITIONS

A. Permanent Enclosure: As determined by Architect, the condition at which roofing is insulated and weathertight; exterior walls are insulated and weathertight; and all openings are closed with permanent construction; and all exterior joints are sealed.

1.4 PROJECT INFORMATION

A. Project Identification: Reconstruction to Dobbs Ferry Springhurst Elementary School and Dobbs Ferry Middle High School.

1. Project Location:

a. Springhurst Elementary School, 175 Walgrove Avenue, Dobbs Ferry, New York 10522
b. Dobbs Ferry Middle / High School, 505 Broadway, Dobbs Ferry, New York 10522

B. Owner: Board of Education of Dobbs Ferry Union Free School District

1. Address: 505 Broadway, Dobbs Ferry, New York 10522

C. Architect: Tetra Tech Engineers, Architects & Landscape Architects, P.C., d/b/a Tetra Tech Architects & Engineers.

1. Address: Cornell Business & Technology Park, 10 Brown Road, Ithaca, New York 14850.

D. Other Owner Consultants: The Owner has retained the following who have prepared designated portions of the Contract Documents:

1. Hazardous Materials Abatement: Enviroscience Consultants, Inc.

a. Address: 37 Moore Avenue, Mt. Kisco, New York 10549.

E. Commissioning Authority (CxA): **To Be Determined**

1. Address: **To Be Determined**

2. Commissioning Authority has been engaged for this Project to provide commissioning services, according to provisions of Division 01 Section "General Commissioning Requirements."

F. Construction Manager: Calgi Construction Management

1. Address: 56 Lafayette Avenue, Suite 350, White Plains, New York 10603

2. Construction Manager has been engaged for this Project to serve as an advisor to Owner and to provide assistance in administering the Contract for Construction between Owner and each Contractor, according to a separate contract between Owner and Construction Manager.

G. Project Representative: Project Representative will be appointed by Owner.

1. Project Representative will provide assistance in administering the Contract for Construction between Owner and each Contractor, according to provisions of Division 01 Section "Project Management and Coordination".

H. Building Code in Effect for Project: New York State Uniform Fire Prevention and Building Code and the Energy Conservation Construction Code of New York State.

1. Comply with the following: Building standards of the New York State Education Department.

1.5 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work of the Project is defined by the Contract Documents and consists of the following:

1. Springhurst Elementary School:

a. Interior and exterior renovations to existing buildings and facilities at Springhurst Elementary School. These include miscellaneous reconstruction and alterations to existing building, including reconstruction of the gymnasium and cafeteria operable partitions, select mechanical improvements and a new exterior stairs to improve access around the exterior of the building.

2. Dobbs Ferry Middle / High School:

a. Interior and exterior renovations to existing buildings and facilities at the Dobbs Ferry Middle / High School. These include miscellaneous reconstruction and alterations to existing building, including roof reconstruction, fire alarm upgrades, reconstruction of interior spaces, select door hardware replacement.

B. Type of Contract:

1. Project will be constructed under coordinated, generally concurrent multiple contracts. Contracts for this Project include the following:

a. General Contract
b. Site Contract
c. Mechanical Contract
d. Electrical Contract
e. Plumbing Contract

C. Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract or other contracts. Coordinate the Work of this Contract with work performed under separate contracts.

1.6 CONSTRUCTION SCHEDULE – SPRINGHURST ELEMENTARY SCHOOL

A. The Work shall be conducted in accordance with the following schedule:

1. MHS / SES-1 GC - General Contract:

a. Commencement of Construction (Off-Site Activities): Immediately following Contract Award.
b. Commencement of Construction (On-Site Activities): **June 27, 2025**.
c. Submittals: Provide all submittals within 30 days after award of contract.
d. Substantial Completion date: **August 29, 2025**.
e. Final completion date: 30 days after Substantial Completion.

2. MHS / SES-2 SC - Site Contract:

    a. Commencement of Construction (Off-Site Activities): Immediately following Contract Award.
    b. Commencement of Construction (On-Site Activities): **June 27, 2025**.
    c. Submittals: Provide all submittals within 30 days after award of contract.
    d. Substantial Completion date: **August 29, 2025**.
    e. Final completion date: 30 days after Substantial Completion.

3. MHS / SES-3 MC - Mechanical Contract:

    a. Commencement of Construction (Off-Site Activities): Immediately following Contract Award.
    b. Commencement of Construction (On-Site Activities): **June 27, 2025**.
    c. Submittals: Provide all submittals within 30 days after award of contract.
    d. Substantial Completion date: **August 29, 2025**.
    e. Final completion date: 30 days after Substantial Completion.

4. MHS / SES-4 EC - Electrical Contract:

    a. Commencement of Construction (Off-Site Activities): Immediately following Contract Award.
    b. Commencement of Construction (On-Site Activities): **June 27, 2025**.
    c. Submittals: Provide all submittals within 30 days after award of contract.
    d. Substantial Completion date: **August 29, 2025**.
    e. Final completion date: 30 days after Substantial Completion.

1.7 CONSTRUCTION SCHEDULE – DOBBS FERRY MIDDLE / HIGH SCHOOL

A. The Work shall be conducted in accordance with the following schedule:

1. MHS / SES-1 GC - General Contract:

    a. Commencement of Construction (Off-Site Activities): Immediately following Contract Award.
    b. Commencement of Construction (On-Site Activities): **June 27, 2025**.
    c. Submittals: Provide all submittals within 30 days after award of contract.
    d. Substantial Completion date: **August 29, 2025**.
    e. Final completion date: 30 days after Substantial Completion.

2. MHS / SES-2 SC - Site Contract:

    a. Commencement of Construction (Off-Site Activities): Immediately following Contract Award.
    b. Commencement of Construction (On-Site Activities): **June 27, 2025**.
    c. Submittals: Provide all submittals within 30 days after award of contract.
    d. Substantial Completion date: **August 29, 2025**.
    e. Final completion date: 30 days after Substantial Completion.

3. MHS / SES-3 MC - Mechanical Contract:

    a. Commencement of Construction (Off-Site Activities): Immediately following Contract Award.
    b. Commencement of Construction (On-Site Activities): **June 27, 2025**.
    c. Submittals: Provide all submittals within 30 days after award of contract.
    d. Substantial Completion date: **August 29, 2025**.
    e. Final completion date: 30 days after Substantial Completion.

4. MHS / SES-4 EC - Electrical Contract:

    a. Commencement of Construction (Off-Site Activities): Immediately following Contract Award.
    b. Commencement of Construction (On-Site Activities): **June 27, 2025**.
    c. Submittals: Provide all submittals within 30 days after award of contract.
    d. Substantial Completion date: **August 29, 2025**.
    e. Final completion date: 30 days after Substantial Completion.

5. MHS-5 PC - Plumbing Contract:

    a. Commencement of Construction (Off-Site Activities): Immediately following Contract Award.
    b. Commencement of Construction (On-Site Activities): **June 27, 2025**.
    c. Submittals: Provide all submittals within 30 days after award of contract.
    d. Substantial Completion date: **August 29, 2025**.
    e. Final completion date: 30 days after Substantial Completion.

1.8 REQUIREMENTS FOR EACH CONTRACT

A. Included in Each Contract:

1. In addition to specific responsibilities indicated in this Section, each contract is responsible to provide the following for its own work:

    a. Construction layout.
    b. Sleeves.
    c. Anchor bolts.
    d. Hangers and supports for piping, equipment, and systems.
    e. Equipment pads.
    f. Cutting and patching.
    g. Through-penetration firestopping.

2. Provide materials and comply with installation requirements specified in Sections other than Contractor's own designated Specification Sections for above-listed items, as applicable.

B. Substitutions: Each contractor shall cooperate with other contractors involved to coordinate approved substitutions with remainder of the work.

C. Temporary Facilities and Controls: In addition to specific responsibilities for temporary facilities and controls indicated in this Section, each contractor is responsible for the following:

1. Installation, operation, maintenance, and removal of each temporary facility necessary for its own normal construction activity, and costs and use charges associated with each facility, except as otherwise provided for in this Section.

2. Temporary utilities, as follows:

   a. Drinking water for its own construction personnel.
   b. Provisions for dust, fume and odor control for its own activities.
   c. Supplemental heating, cooling, and ventilation necessary exclusively for its own activities.
   d. Plug-in electric power cords and extension cords, supplementary plug-in task lighting, and special lighting necessary exclusively for its own activities.

3. Support facilities, as follows:

   a. Its own storage sheds.
   b. Traffic controls for its own construction activities.
   c. Dewatering facilities and drains for its own construction activities.
   d. Waste disposal facilities for collection and legal disposal of its own hazardous waste materials.
   e. Shoring and bracing for its own construction activities.
   f. Staging and scaffolding for its own construction activities.
   g. Lifts and hoists for its own construction activities.

4. Security and protection facilities, as follows:

   a. Environmental protection for its own construction activities.
   b. Temporary erosion and sedimentation control for its own construction activities.
   c. Security enclosure and lockup of its own tools, materials, and equipment.
   d. Temporary enclosures for its own construction activities.
   e. Temporary fire protection for its own construction activities.

5. Moisture and mold control.

6. Construction aids and miscellaneous services and facilities necessary exclusively for its own construction activities.

D. Cleaning and Protection: Each contractor is responsible for the following:

1. Progress cleaning of work areas affected by its operations on a daily basis.
2. Protection of its own installed construction.
3. Final cleaning of its work and of work areas affected by its operations.

1.9 CONTRACT ASSIGNMENTS

A. Contract Assignments: In addition to specific responsibilities indicated in this Section, the contracts noted below are assigned certain responsibilities, as follows:

1. Excavation (including support and protection), shall be the work of the General Contract, unless required solely for the Work of another contract.

    a. Excavation for plumbing work within the building footprint and to a distance five feet outside the building footprint shall be the work of the Plumbing Contract.

        1) Excavation for natural-gas service shall be the work of the Plumbing Contract.

    b. Excavation for mechanical work shall be the work of the Mechanical Contract.

    c. Excavation for electrical work shall be the work of the Electrical Contract.

2. Blocking (including roof blocking) for the work of each contract shall be the work of the General Contract. Each contract is responsible for identifying blocking sizes and locations for its own work and advising of the General Contractor of such, in writing, in a timely manner.

3. Openings in walls, floors and roofs:

    a. In new surfaces: Providing openings, including lintels and structural framing shall be the work of the General Contract. Each contract is responsible for identifying opening sizes and locations for its own work and advising the General Contractor of such, in writing, in a timely manner.

    b. In existing surfaces: Providing openings, including lintels and structural framing shall be the work of each contract for its own work.

    c. Size lintels and structural framing for openings in accordance with the information on the Drawings.

    d. Provide openings by personnel experienced in work similar to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.

4. Furnishing of access panels for the work of each contract shall be the work of each contract for its own work.

    a. In new surfaces: Installing access panels shall be the work of the General Contract.
    b. In existing surfaces: Installing access panels shall be the work of each contract for its own work.

5. Furnishing roof-mounted equipment curbs for the work of each contract shall be the work of each contract for its own work.

    a. Installing roof-mounted equipment curbs (including flashing and sealing) shall be the work of the General Contract.

6. Furnishing vandal-resistant roof vent caps and roof drain clamping ring, adjustable extensions and dome strainers, shall be the work of the Plumbing Contract.

    a. Installing vandal-resistant roof vent caps and roof drain clamping ring, adjustable extensions and dome strainers shall be the work of the General Contract.

7. Painting for the work of each contract shall be the work of the General Contract, except as follows:

    a. Identification painting (such as for piping and equipment) for the work of each contract shall be the work of each contract for its own work.

8. Science Rooms:

    a. Providing casework as detailed on Contract Documents and approved shop drawings shall be the work of the General Contractor.

        1) Providing field alterations/cutouts in casework and coordinating with appropriate contractors shall be the work of the General Contractor.

        2) Providing exposed end and finish panels shall be the work of the General Contractor.

        3) Ensuring field alterations/cutouts for equipment are clean and completed with finished end and trim pieces shall be the work of the General Contractor.

        4) Ensuring filler panels, grilles, louvers and removable panels are correctly installed and are as specified shall be the work of the General Contractor.

        5) Coordinating removable sink and unit ventilator/fin tube radiation wall unit panels shall be the work of the General Contractor.

        6) Providing linear grilles for casework shall be the work of the General Contract.

        7) Providing keys for cabinets as per specification requirements and making sure all keys work in units shall be the work of the General Contractor.

        8) Providing accessory labels, file drawer inserts, etc. and verifying they are provided as detailed shall be the work of the General Contractor.

        9) Verifying drawer fronts, doors, etc. are in correct alignment and close/latch correctly shall be the work of the General Contractor.

    b. Providing epoxy tops (with or without drip edge details) shall be the work of the General Contractor.

        1) Providing cutouts in countertops and coordinating with appropriate contractors shall be the work of the General Contractor.

2) Providing epoxy resin sinks in epoxy resin tops shall be the work of the General Contractor.

a) Coordinating drain locations for accessible sinks with the General Contractor and verifying clearances for accessible knee space with sink drain pipes are correct and meet accessibility requirements shall be the work of the Plumbing Contractor.

b) Providing faucets, water supplies, waste outlets and plug, drains, traps and final plumbing connections at epoxy resin sinks shall be the work of the Plumbing Contractor.

c) Providing acid neutralization equipment shall be the work of the Plumbing Contractor.

3) Providing grommets as shown on Contract Documents shall be the work of the General Contractor.

4) Providing linear grilles for countertops shall be the work of the General Contract.

5) Reviewing details for areas of required surface sealant (i.e., at laminate countertops) and providing the sealant shall be the work of the General Contractor.

6) Providing gas cocks shall be the work of the Plumbing Contractor.

9. Providing linear grilles for casework shall be the work of the General Contract.

10. Furnishing mechanical louvers and grilles for exterior walls shall be the work of the Mechanical Contract.

a. Installing louvers and grilles for exterior walls (including flashing and sealing) shall be the work of the General Contract.

11. Furnishing motor starters for the work of each contract shall be the work of each contract for its own work.

a. Installing constant speed motor starters shall be the work of the Electrical Contract.
b. Installing Variable Frequency Motor Controllers shall be the work of each contract for its own work.

12. Providing automatic door operators shall be the work of the General Contract, including installing control wiring from activation device (push-plate switch) to operator.

a. Providing power to operator shall be the work of the Electrical Contract.

13. Contractors' Preliminary Construction Schedule: At the Preconstruction Conference, the General Contractor shall submit a preliminary horizontal bar-chart-type construction schedule in accordance with Division 01 Section "Construction Progress Documentation". At the initial progress meeting, each contract shall submit a matching preliminary horizontal bar-chart schedule showing construction operations sequenced and coordinated with overall construction in accordance with Division 01 Section "Construction Progress Documentation".

    a. The schedules shall be mutually coordinated by the contractors, and the General Contractor shall perform the administrative task of producing a composite master schedule and distributing to Architect, Construction Manager, Owner, separate contractors, testing and inspecting agencies, and other parties with a need-to-know schedule responsibility.

14. Contractors' Construction Schedules: At intervals provided in Division 01 Section "Construction Progress Documentation", each contract shall update its schedule, from which the General Contractor shall produce a composite master schedule.

    a. The General Contractor shall distribute composite master schedules to Architect, Construction Manager, Owner, separate contractors, testing and inspecting agencies, and other parties with a need-to-know schedule responsibility.

15. Provide work specified in Sections other than Contractor's own designated Specification Sections for above-listed items, as applicable.

B. Field Engineering and Surveying: The General Contract is responsible for field engineering and surveying.

C. Temporary HVAC: The General Contract is responsible for temporary HVAC before permanent enclosure of building is complete and all associated costs. The General Contract is responsible for temporary HVAC after permanent enclosure of building is complete, but Owner will pay utility-use charges.

    1. Use of permanent systems for temporary HVAC is prohibited.

D. Temporary Ventilation: The General Contract is responsible for temporary ventilation before permanent enclosure of building is complete and all associated costs. The General Contract is responsible for temporary ventilation after permanent enclosure of building is complete, but Owner will pay utility-use charges.

    1. Use of permanent systems for temporary ventilation is prohibited.

E. Waste Disposal and Recycling Facilities: For debris not classified as hazardous waste, the General Contract is responsible for providing waste-collection and recycling containers, including all costs for hauling, tipping fees, and placement on site.

    1. Each contractor is responsible for daily collection of its own waste materials and disposal into the waste-collection containers that are provided by the General Contract.

2. Each contractor is responsible for daily collection of its own recyclable waste and disposal into recycling containers or bins, as well as daily inspection of containers or bins for contamination and removal of contaminated materials.

F. Equipment Coordination: Refer to "Connection Schedule" at the end of this Section for each contract's responsibilities.

1.10 GENERAL CONTRACT REQUIREMENTS – SPINGHURST ELEMENTARY SCHOOL – MHS / SES-1 GC – GENERAL WORK

A. Unless noted otherwise, Work in the General Contract includes, but is not limited to, that shown on the following Drawings:

1. Title Sheets.
2. Symbols and Abbreviations (G) Drawings.
3. Code Compliance (G) Drawings.
4. General Information (G) Drawings.
5. Phasing (G) Drawings.
6. Structural (S) Drawings.
7. Architectural (A) Drawings.

B. Unless noted otherwise, Work in the General Contract includes, but is not limited to, that covered by the following Specifications:

1. Division 01 (General Requirements) Specification sections.

2. Division 02 (Existing Conditions) Specification sections.

3. Division 03 (Concrete) Specification sections.

4. Division 04 (Masonry) Specification sections:

5. Division 05 Metals) Specification sections:

6. Division 06 (Wood, Plastics, and Composites) Specification sections~~, except the following~~.

~~a. 06 10 26 Roofing Rough Carpentry~~

7. Division 07 (Thermal and Moisture Protection) Specification sections:

8. Division 08 (Openings) Specification sections:

9. Division 09 (Finishes) Specification sections~~, except the following~~.

~~a. 09 30 13 Ceramic Tiling~~
~~b. 09 65 13 Resilient Base and Accessories~~
~~c. 09 68 13 Tile Carpeting~~

10. Division 10 (Specialties) Specification sections, except the following:

~~a. 10 11 00 Visual Display Surfaces~~
b. 10 14 53 Traffic Signage
~~c. 10 28 00 Toilet and Shower Accessories~~

11. Division 11 (Equipment) Specification sections~~, except the following~~

~~a. 11 53 63 Laboratory Equipment~~

12. Division 12 (Furnishing) Specification sections.

C. Temporary facilities and controls in the General Contract include, but are not limited to, the following:

1. Support facilities, as follows:

a. Temporary roads and paved areas.
b. Project signs.
c. Temporary stairs.

2. Security and protection facilities, as follows:

a. Environmental protection.
b. Security enclosure and lockup.
c. Barricades, warning signs, and lights.
d. Temporary railings.
e. Temporary egress.
f. Temporary partitions.
g. Temporary fire-protection facilities.

3. Restoration of Owner's existing facilities used as temporary facilities.

1.11 SITE CONTRACT REQUIREMENTS – SPINGHURST ELEMENTARY SCHOOL – MHS / SES-2 SC – SITE WORK

A. Unless noted otherwise, Work in the General Contract includes, but is not limited to, that shown on the following Drawings:

1. Title Sheets.
2. Symbols and Abbreviations (G) Drawings.
3. Code Compliance (G) Drawings.
4. General Information (G) Drawings.
5. Phasing (G) Drawings.
6. Boundary Topographic Survey (AV) Drawings
7. Civil / Landscape (C) Drawings.

B. Unless noted otherwise, Work in the General Contract includes, but is not limited to, that covered by the following Specifications:

1. Division 01 (General Requirements) Specification sections.

2. Division 02 (Existing Conditions) Specification sections.

3. Division 03 (Concrete) Specification sections.

4. Division 04 (Masonry) Specification sections:

   a. 04 20 00 Unit Masonry

5. Division 10 (Specialties) Specification sections:

   a. 10 14 53 Traffic Signs

6. Division 31 (Earthwork) Specification sections.

7. Division 32 (Exterior Improvements) Specification sections, ~~except the following~~:

   ~~a. 32 31 19 Decorative Metal Fences and Gates~~

8. Division 33 (Utilities) Specification sections.

C. Temporary facilities and controls in the General Contract include, but are not limited to, the following:

1. Support facilities, as follows:

   a. Temporary roads and paved areas.
   b. Snow and ice removal.

2. Security and protection facilities, as follows:

   a. Environmental protection.
   b. Stormwater control.
   c. Tree and plant protection.
   d. Site enclosure fence.
   e. Exterior barricades, warning signs, and lights.
   f. Temporary railings.
   g. Temporary site egress.

3. Restoration of Owner's existing facilities used as temporary facilities.

1.12 MECHANICAL CONTRACT REQUIREMENTS – SPINGHURST ELEMENTARY SCHOOL – MHS / SES-3 MC - MECHANICAL WORK

A. Unless noted otherwise, Work in the Mechanical Contract includes, but is not limited to, that shown on the following Drawings:

1. Title Sheets.
2. Symbols and Abbreviations (G) Drawings.
3. General Information (G) Drawings.
4. Code Compliance (G) Drawings.
5. Phasing (G) Drawings.
6. Mechanical (M) Drawings.

B. Unless noted otherwise, Work in the Mechanical Contract includes, but is not limited to, the following:

1. Division 01 (General Requirements) Specification sections.
2. Division 02 (Existing Conditions) Specification sections.
3. Division 23 (Heating, Ventilating and Air Conditioning):

1.13 ELECTRICAL CONTRACT REQUIREMENTS – SPINGHURST ELEMENTARY SCHOOL – MHS / SES-4 EC – ELECTRICAL WORK

A. Unless noted otherwise, Work in the Electrical Contract includes, but is not limited to, that shown on the following Drawings:

1. Title Sheets.
2. Symbols and Abbreviations (G) Drawings.
3. General Information (G) Drawings.
4. Code Compliance (G) Drawings.
5. Phasing (G) Drawings.
6. Electrical (E) Drawings.

B. Unless noted otherwise, Work in the Electrical Contract includes, but is not limited to, the following:

1. Division 01 (General Requirements) Specification sections.
2. Division 02 (Existing Conditions) Specification sections.
3. Division 26 (Electrical) Specification sections:
4. Division 28 (Electronic Safety and Security) Specification sections:

~~1.14 GENERAL CONTRACT REQUIREMENTS – DOBBS FERRY MIDDLE / HIGH SCHOOL – MHS / SES-1 GC – GENERAL WORK~~

~~A. Unless noted otherwise, Work in the General Contract includes, but is not limited to, that shown on the following Drawings:~~

~~1. Title Sheets.~~
~~2. Symbols and Abbreviations (G) Drawings.~~
~~3. Code Compliance (G) Drawings.~~
~~4. General Information (G) Drawings.~~
~~5. Phasing (G) Drawings.~~
~~6. Hazardous Materials (H) Drawings.~~
~~7. Structural (S) Drawings.~~
~~8. Architectural (A) Drawings.~~

~~B. Unless noted otherwise, Work in the General Contract includes, but is not limited to, that covered by the following Specifications:~~

~~1. Division 01 (General Requirements) Specification sections.~~

~~2. Division 02 (Existing Conditions) Specification sections.~~

3. Division 03 (Concrete) Specification sections.

4. Division 06 (Wood, Plastics, and Composites) Specification sections.

5. Division 07 (Thermal and Moisture Protection) Specification sections.

6. Division 08 (Openings) Specification sections.

7. Division 09 (Finishes) Specification sections.

8. Division 10 (Specialties) Specification sections, except the following:

a. 10 14 53 Traffic Signage
b. 10 22 39 Gymnasium Operable Panel Partitions

9. Division 11 (Equipment) Specification sections, except the following

a. 11 66 53 Gymnasium Dividers

C. Temporary facilities and controls in the General Contract include, but are not limited to, the following:

1. Support facilities, as follows:

a. Temporary roads and paved areas.
b. Project signs.
c. Temporary stairs.

2. Security and protection facilities, as follows:

a. Environmental protection.
b. Security enclosure and lockup.
c. Barricades, warning signs, and lights.
d. Temporary railings.
e. Temporary egress.
f. Temporary partitions.
g. Temporary fire protection facilities.

3. Restoration of Owner's existing facilities used as temporary facilities.

1.15 SITE CONTRACT REQUIREMENTS – DOBBS FERRY MIDDLE / HIGH SCHOOL – MHS / SES-2 SC – SITE WORK

A. Unless noted otherwise, Work in the General Contract includes, but is not limited to, that shown on the following Drawings:

1. Title Sheets.
2. Symbols and Abbreviations (G) Drawings.
3. Code Compliance (G) Drawings.
4. General Information (G) Drawings.
5. Phasing (G) Drawings.

6. Boundary Topographic Survey (BV) Drawings
7. Civil / Landscape (C) Drawings.

B. Unless noted otherwise, Work in the General Contract includes, but is not limited to, that covered by the following Specifications:

1. Division 01 (General Requirements) Specification sections.

2. Division 02 (Existing Conditions) Specification sections.

3. Division 03 (Concrete) Specification sections.

4. Division 05 (Metals) Specification sections.

5. Division 10 (Specialties) Specification sections:

a. 10 14 53 Traffic Signs

6. Division 31 (Earthwork) Specification sections.

7. Division 32 (Exterior Improvements) Specification sections, except the following:

a. 32 31 19 Decorative Metal Fences and Gates

8. Division 33 (Utilities) Specification sections.

C. Temporary facilities and controls in the General Contract include, but are not limited to, the following:

1. Support facilities, as follows:

a. Temporary roads and paved areas.
b. Snow and ice removal.

2. Security and protection facilities, as follows:

a. Environmental protection.
b. Stormwater control.
c. Tree and plant protection.
d. Site enclosure fence.
e. Exterior barricades, warning signs, and lights.
f. Temporary railings.
g. Temporary site egress.

3. Restoration of Owner's existing facilities used as temporary facilities.

1.16 MECHANICAL CONTRACT REQUIREMENTS – DOBBS FERRY MIDDLE / HIGH SCHOOL – MHS / SES-3 MC - MECHANICAL WORK

A. Unless noted otherwise, Work in the Mechanical Contract includes, but is not limited to, that shown on the following Drawings:

1. Title Sheets.
2. Symbols and Abbreviations (G) Drawings.
3. General Information (G) Drawings.
4. Code Compliance (G) Drawings.
5. Phasing (G) Drawings.
6. Mechanical (M) Drawings.

B. Unless noted otherwise, Work in the Mechanical Contract includes, but is not limited to, the following:

1. Division 01 (General Requirements) Specification sections.
2. Division 02 (Existing Conditions) Specification sections.
3. Division 23 (Heating, Ventilating and Air Conditioning):

1.17 ELECTRICAL CONTRACT REQUIREMENTS – DOBBS FERRY MIDDLE / HIGH SCHOOL – MHS / SES-4 EC – ELECTRICAL WORK

A. Unless noted otherwise, Work in the Electrical Contract includes, but is not limited to, that shown on the following Drawings:

1. Title Sheets.
2. Symbols and Abbreviations (G) Drawings.
3. General Information (G) Drawings.
4. Code Compliance (G) Drawings.
5. Phasing (G) Drawings.
6. Electrical (E) Drawings.

B. Unless noted otherwise, Work in the Electrical Contract includes, but is not limited to, the following:

1. Division 01 (General Requirements) Specification sections.
2. Division 02 (Existing Conditions) Specification sections.
3. Division 26 (Electrical) Specification sections:
4. Division 28 (Electronic Safety and Security) Specification sections:

1.18 PLUMBING CONTRACT REQUIREMENTS – DOBBS FERRY MIDDLE / HIGH SCHOOL – MHS-5 PC – PLUMBING WORK

A. Unless noted otherwise, Work in the Plumbing Contract includes, but is not limited to, that shown on the following Drawings:

1. Title Sheets.
2. Symbols and Abbreviations (G) Drawings.
3. General Information (G) Drawings.
4. Code Compliance (G) Drawings.
5. Phasing (G) Drawings.
6. Plumbing (P) Drawings.

B. Unless noted otherwise, Work in the Plumbing Contract includes, but is not limited to, the following:

1. Division 01 (General Requirements) Specification sections.
2. Division 02 (Existing Conditions) Specification sections.
3. Division 03 (Concrete) Specification sections.
4. Division 22 (Plumbing) Specification sections:

C. Temporary facilities and controls in the Plumbing Contract include, but are not limited to, the following:

1. Temporary utilities, as follows:

a. Water service.

2. Water Service from Existing System: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for use by all entities for construction operations.

3. Restoration of Owner's existing facilities used as temporary facilities.

1.19 ACCESS TO SITE

A. General: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.

B. Use of Site: Limit use of Project site to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

1. Driveways, Walkways and Entrances: Keep driveways, loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.

a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

C. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period. Repair damage caused by construction operations.

D. Condition of Existing Grounds: Maintain portions of existing grounds, landscaping, and hardscaping affected by construction operations throughout construction period. Repair damage caused by construction operations.

1.20 COORDINATION WITH OCCUPANTS

A. Owner Occupancy: Owner will occupy site and existing and adjacent building(s) during entire construction period with the exception of areas under construction. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.

1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Construction Manager and approval of authorities having jurisdiction.

2. Maintain in operation all life safety provisions and devices (including, but not limited to, fire alarms, fire extinguishers, smoke detectors, heat sensors, emergency and exit lighting, defibrillators, and similar items).

3. Notify the Construction Manager not less than 72 hours in advance of activities that will affect Owner's operations.

B. Coordination with School Schedule:

1. Normal School Year: Owner intends to maintain a full educational program during the normal school year throughout duration of Project, and will make full use of the building and site, unless noted otherwise.

   a. School and special activities may be conducted within building and on site outside regular school hours, including holidays and weekends.

   b. Owner's personnel will perform normal custodial and maintenance services for the building areas and systems not involved in construction activities, unless noted otherwise.

2. Summer: Owner may schedule a summer school program or organized recreation activities at the building or site.

   a. Owner will staff building, at a minimum, with administrative, custodial and maintenance personnel during summer period.

C. Identification: The Contractor shall require its personnel and those of its subcontractors, sub-subcontractors and suppliers to wear yellow safety vests and visible photo-identification badges acceptable to the Owner, at all times for identification and security purposes.

1.21 WORK RESTRICTIONS

A. Work Restrictions, General: Comply with restrictions on construction operations.

1. Comply with limitations on use of public streets and other requirements of authorities having jurisdiction.

B. On-Site Work Hours: Limit work to normal business working hours of 7:00 AM. to 10:00 PM., Monday through Friday, except as otherwise indicated. Movement of materials is not permitted in Owner-occupied areas during normal business hours.

1. Other Weekday Hours: At Owner's discretion.
2. Weekend Hours: At Owner's discretion.
3. Hours for Noisy Activity (in excess of 60 dB): At Owner's discretion in non-student-occupied areas while school is in session.

C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:

1. Notify Construction Manager not less than 72 hours in advance of proposed utility interruptions.
2. Obtain Construction Manager's written permission before proceeding with utility interruptions.

D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy.

1. Notify Construction Manager not less than 72 hours in advance of proposed disruptive operations.
2. Obtain Construction Manager's written permission before proceeding with disruptive operations.

E. Indoor Air Quality (IAQ): Protect indoor air quality, including control of emissions and moisture control during construction. Develop a construction IAQ management plan to be followed.

1. Control of Emissions: Provide measures and conduct operations to:

    a. Protect HVAC systems.

    b. Protect against emissions from such sources as environmental tobacco smoke, combustion contaminants, biological contaminants, volatile organic compounds (VOCs), formaldehyde, soil gases, pesticides, particles and fibers.

    c. Provide low- and zero-VOC materials.

    d. Protect against dust infiltration, especially during dust-producing activities.

    e. Isolate work areas to prevent contamination of clean or occupied spaces.

    f. Continuously maintain and regularly inspect areas and IAQ measures to prevent contamination of building areas.

g. Provide adequate ventilation, including, but not limited to:

1) Minimum **48-hour** pre-ventilation of packaged dry products which have odors or VOC emissions, prior to installation. Condition products without containers and packaging to maximize off-gassing of VOCs.

2) Adequate ventilation during and after installation of interior wet products and interior final finishes, and

3) Appropriate air filtration, including filter replacement.

h. Schedule construction operations involving wet products prior to packaged dry products to the greatest extent possible.

i. Vacuum carpeted and soft surfaces with a high-efficiency particulate arrestor (HEPA) vacuum.

j. Flush out building for a minimum of **72 hours**, or longer if required to dissipate emissions, prior to occupancy.

2. Moisture Control: Provide measures and conduct operations to:

a. Provide proper housekeeping to keep materials dry.
b. Inspect areas and materials for dampness and mold growth.
c. Schedule construction operations so that absorptive materials are protected and weather-proof building as quickly as possible.
d. Test for moisture content, moisture penetration and microbial growth to maintain within permissible limits.

F. Comply with requirements in Division 01 Section "Governmental Safety Requirements".

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 12 00

SECTION 04 20 00 - UNIT MASONRY

NOTE: Items highlighted in yellow indicate changes in Bid Addendum #1.

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Concrete masonry units.
2. Brick
3. Decorative concrete masonry units.
4. Mortar and grout.
5. Steel reinforcing bars.
6. Masonry-joint reinforcement.
7. Ties and anchors.
8. Embedded flashing.
9. Miscellaneous masonry accessories.

B. Products Installed but not Furnished under This Section:

1. Steel lintels in unit masonry.
2. Steel shelf angles for supporting unit masonry.
3. Cavity wall insulation.

1.3 DEFINITIONS

A. CMU(s): Concrete masonry unit(s).
B. NRC: Noise Reduction Coefficient.
C. Reinforced Masonry: Masonry containing reinforcing steel in grouted cells.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.5 SUBMITTALS, GENERAL

A. General: Submit all action submittals (except Samples for Verification) and informational submittals required by this Section concurrently.

1.6 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

1. CMUs.
2. Face Brick
3. Portland cement.
4. Aggregate for mortar.
5. Masonry-joint reinforcement for multiwythe masonry.
6. Individual wire ties.
7. Anchors for connecting CMU to existing masonry.
8. Anchors for connecting veneer to existing concrete or masonry, spiral type.
9. Joint stabilization anchors.
10. Adjustable masonry-veneer anchors.
11. Adhesives, primers, and seam tapes for flashings.
12. Proprietary cleaner.

B. As-Specified Data: If the product to be incorporated into Project is as specified by manufacturer name and product designation in Part 2 of this Specification Section, submit the "**As-Specified Verification Form**" (attached to Division 01 Section "Submittal Procedures") for each item listed below, otherwise submit full Product Data for the following:

1. Decorative CMUs.
2. Flexible flashing.
3. Drip plate flashing.
4. Termination bars for flexible flashing.
5. Weep/cavity vent products.

C. Samples for Initial Selection:

1. Decorative CMUs, in the form of small-scale units.
2. Face brick, in the form of portable display panels.
3. Colored mortar.

D. Samples for Verification: For each type and color of the following:

1. Decorative CMUs.
2. Face brick, in the form of straps of five or more bricks.
3. Colored mortar

1.7 INFORMATIONAL SUBMITTALS

A. Material Certificates: For each type and size of the following:

1. Masonry units.

    a. Include material test reports substantiating compliance with requirements.
    b. For brick, include size-variation data verifying that actual range of sizes falls within specified tolerances.
    c. For exposed brick, include test report for efflorescence according to ASTM C67.

d. For masonry units, include data and calculations establishing average net-area compressive strength of units.

2. Cementitious materials. Include name of manufacturer, brand name, and type.

3. Preblended, dry mortar mixes. Include description of type and proportions of ingredients.

4. Grout mixes. Include description of type and proportions of ingredients.

5. Reinforcing bars.

6. Low-alloy steel reinforcing bars.

7. Joint reinforcement.

8. Anchors, ties, and metal accessories.

B. Mix Designs: For each type of mortar and grout. Include description of type and proportions of ingredients.

1. Include test reports, according to ASTM C1019, for grout mixes required to comply with compressive strength requirement.

C. Statement of Compressive Strength of Masonry: For each combination of masonry unit type and mortar type, provide statement of average net-area compressive strength of masonry units, mortar type, and resulting net-area compressive strength of masonry determined according to TMS 602.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Store masonry units on elevated platforms in a dry location. If units are not stored in an enclosed location, cover tops and sides of stacks with waterproof sheeting, securely tied. If units become wet, do not install until they are dry.

B. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.

C. Store aggregates where grading and other required characteristics can be maintained and contamination avoided.

D. Deliver preblended, dry mortar mix in moisture-resistant containers. Store preblended, dry mortar mix in delivery containers on elevated platforms in a dry location or in covered weatherproof dispensing silos.

E. Store masonry accessories, including metal items, to prevent corrosion and accumulation of dirt and oil.

1.9 FIELD CONDITIONS

A. Protection of Masonry: During construction, cover tops of walls, projections, and sills with waterproof sheeting at end of each day's work. Cover partially completed masonry when construction is not in progress.

1. Extend cover a minimum of 24 inches down both sides of walls, and hold cover securely in place.

2. Where one wythe of multiwythe masonry walls is completed in advance of other wythes, secure cover a minimum of 24 inches down face next to unconstructed wythe, and hold cover in place.

B. Do not apply uniform floor or roof loads for at least 12 hours and concentrated loads for at least three days after building masonry walls or columns.

C. Stain Prevention: Prevent grout, mortar, and soil from staining the face of masonry to be left exposed or painted. Immediately remove grout, mortar, and soil that come in contact with such masonry.

1. Protect base of walls from rain-splashed mud and from mortar splatter by spreading coverings on ground and over wall surface.
2. Protect sills, ledges, and projections from mortar droppings.
3. Protect surfaces of window and door frames, as well as similar products with painted and integral finishes, from mortar droppings.
4. Turn scaffold boards near the wall on edge at the end of each day to prevent rain from splashing mortar and dirt onto completed masonry.

D. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements contained in TMS 602.

1. Cold-Weather Cleaning: Use liquid cleaning methods only when air temperature is 40 deg F and higher and will remain so until masonry has dried, but not less than seven days after completing cleaning.

E. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in TMS 602.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations for Masonry Units: Obtain exposed masonry units of a uniform texture and color, or a uniform blend within the ranges accepted for these characteristics, from single source from single manufacturer for each product required.

B. Source Limitations for Mortar Materials: Obtain mortar ingredients of a uniform quality, including color for exposed masonry, from single manufacturer for each cementitious component and from single source or producer for each aggregate.

2.2 PERFORMANCE REQUIREMENTS

A. Provide unit masonry that develops indicated net-area compressive strengths at 28 days.

1. Determine net-area compressive strength of masonry from average net-area compressive strengths of masonry units and mortar types (unit-strength method) according to TMS 602.

2.3 UNIT MASONRY, GENERAL

A. Masonry Standard: Comply with TMS 602, except as modified by requirements in the Contract Documents.

B. Defective Units: Referenced masonry unit standards may allow a certain percentage of units to contain chips, cracks, or other defects exceeding limits stated. Do not use units where such defects are exposed in the completed Work and will be within 20 feet vertically and horizontally of a walking surface.

2.4 CONCRETE MASONRY UNITS

A. Shapes: Provide shapes indicated and as follows, with exposed surfaces matching exposed faces of adjacent units unless otherwise indicated.

1. Provide special shapes for lintels, corners, jambs, sashes, movement joints, headers, bonding, and other special conditions.
2. Provide square-edged units for outside corners unless otherwise indicated.

B. CMUs: ASTM C90.

1. Density Classification: Lightweight unless otherwise indicated.
2. Size (Width): Manufactured to dimensions 3/8 inch less than nominal dimensions.

C. Decorative CMUs: ASTM C90.

1. Decorative CMU:

a. Products: Subject to compliance with requirements, available products that may be incorporated in the Work, include, but are not limited to:

1) Nitterhouse Masonry Products, LLC; Split 8 Flute

b. Density Classification: Normal weight.

c. Size (Width): Manufactured to dimensions specified in "CMUs" Paragraph.

d. Pattern and Texture:

1) Standard pattern, split-face finish.
2) Standard pattern, smooth-face finish, at concealed locations
3) Scored vertically so units laid in running bond appear as square units laid in stacked bond, standard finish.

e. Color: As selected by Architect from manufacturer's full range.

2.5 BRICK

A. General: Provide shapes indicated and as follows, with exposed surfaces matching finish and color of exposed faces of adjacent units:

1. For ends of sills and caps and for similar applications that would otherwise expose unfinished brick surfaces, provide units without cores or frogs and with exposed surfaces finished.

2. Provide special shapes for applications where stretcher units cannot accommodate special conditions, including those at corners, movement joints, bond beams, sashes, and lintels.

3. Provide special shapes for applications requiring brick of size, form, color, and texture on exposed surfaces that cannot be produced by sawing.

4. Provide special shapes for applications where shapes produced by sawing would result in sawed surfaces being exposed to view.

B. Face Brick: Facing brick complying with ASTM C216.

1. Basis-of-Design Product: Subject to compliance with requirements, provide brick to match existing adjacent brick at patching areas.
2. Grade: SW.
3. Type: FBX.
4. Initial Rate of Absorption: Less than 30 g/30 sq. in. per minute when tested according to ASTM C67.
5. Efflorescence: Provide brick that has been tested according to ASTM C67 and is rated "not effloresced."
6. Size (Actual Dimensions): 3-5/8 inches wide by 2-1/4 inches high by 7-5/8 inches long (verify in field).
7. Application: Use where brick is exposed unless otherwise indicated.
8. Where shown to "match existing" provide face brick matching color range, texture, and size of existing adjacent brickwork.

2.6 MORTAR AND GROUT MATERIALS

A. Portland Cement: ASTM C150/C150M, Type I or II, except Type III may be used for cold-weather construction. Provide natural color or white cement as required to produce mortar color indicated.

1. Alkali content shall not be more than 0.1 percent when tested according to ASTM C114.

B. Hydrated Lime: ASTM C207, Type S.

C. Portland Cement-Lime Mix: Packaged blend of portland cement and hydrated lime containing no other ingredients.

D. Mortar Pigments: Natural and synthetic iron oxides and chromium oxides, compounded for use in mortar mixes and complying with ASTM C979/C979M. Use only pigments with a record of satisfactory performance in masonry mortar.

E. Colored Cement Products: Packaged blend made from portland cement and hydrated lime and mortar pigments, all complying with specified requirements, and containing no other ingredients.

1. Formulate blend as required to produce color indicated.

a. Color: As selected from manufacturer's standard colors.

2. Pigments shall not exceed 10 percent of portland cement by weight.

F. Aggregate for Mortar: ASTM C144.

1. For mortar that is exposed to view, use washed aggregate consisting of natural sand or crushed stone.
2. For joints less than 1/4 inch thick, use aggregate graded with 100 percent passing the No. 16 sieve.
3. White-Mortar Aggregates: Natural white sand or crushed white stone.
4. Colored-Mortar Aggregates: Natural sand or crushed stone of color necessary to produce required mortar color.

G. Aggregate for Grout: ASTM C404.

H. Water: Potable.

2.7 REINFORCEMENT

A. Uncoated-Steel Reinforcing Bars: ASTM A615/A615M or ASTM A996/A996M, Grade 60.

B. Low-Alloy Steel Reinforcing Bars: Where reinforcement is to be welded, provide reinforcing bars meeting ASTM A706/A706M, deformed.

C. Reinforcing Bar Positioners: Wire units designed to fit into mortar bed joints spanning masonry unit cells and to hold reinforcing bars in center of cells. Units are formed from 0.148-inch (9 gage) steel wire, hot-dip galvanized after fabrication. Provide units designed for number of bars indicated.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

    a. Heckmann Building Products Inc., Div. of Mechanical Plastics Corp.; Wire Rebar Positioner (376).
    b. Hohmann & Barnard, Inc.; RB Rebar Positioners or RB-Twin Rebar Positioners.
    c. Wire-Bond; Figure 8 Rebar Positioners.

D. Masonry-Joint Reinforcement, General: ASTM A951/A951M.

1. Interior Walls: Mill- galvanized carbon steel.
2. Exterior Walls: Stainless steel.
3. Wire Size for Side Rods: 0.148-inch diameter (9 gage).
4. Wire Size for Cross Rods: 0.148-inch diameter (9 gage).
5. Wire Size for Veneer Ties: 0.187-inch diameter.
6. Spacing of Cross Rods, Tabs, and Cross Ties: Not more than 16 inches o.c.
7. Provide in lengths of not less than 10 feet, with prefabricated corner and tee units.

E. Masonry-Joint Reinforcement for Multiwythe Masonry:

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

    a. Hohmann & Barnard, Inc.; 270 Ladder or 170 Truss Eye-Wire.
    b. Wire-Bond; Series 800 Ladder or 900 Truss Level-Eye (Hook & Eye).

2. Adjustable (two-piece) type, ladder or truss design, with one side rod at each face shell of backing wythe and with separate adjustable ties with pintle-and-eye connections having a maximum horizontal play of 1/16 inch and maximum vertical adjustment of 1-1/4 inches. Size ties to extend at least halfway through facing wythe but with at least 5/8-inch cover on outside face. Ties have hooks or clips to engage a continuous horizontal wire in the facing wythe.

2.8 TIES AND ANCHORS

A. General: Ties and anchors shall extend at least 1-1/2 inches into veneer but with at least a 5/8-inch cover on outside face.

B. Materials: Provide ties and anchors specified in this article that are made from materials that comply with the following unless otherwise indicated:

1. Hot-Dip Galvanized, Carbon-Steel Wire: ASTM A82/A82M, with ASTM A153/A153M, Class B-2 coating.
2. Stainless Steel Wire: ASTM A580/A580M, Type 304.
3. Steel Sheet, Galvanized after Fabrication: ASTM A1008/A1008M, Commercial Steel, with ASTM A153/A153M, Class B coating.
4. Stainless Steel Sheet: ASTM A240/A240M or ASTM A666, Type 304.
5. Steel Plates, Shapes, and Bars: ASTM A36/A36M.

C. Individual Wire Ties: Rectangular units with closed ends and not less than 4 inches wide.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

   a. Heckmann Building Products Inc., Div. of Mechanical Plastics Corp.; Double Eye Rod Anchor (262) and Double Pintle Tie (263).
   b. Hohmann & Barnard, Inc.; Adjustable Wall Ties (Pintles & Eyes).

2. Where wythes do not align or are of different materials, use adjustable ties with pintle-and-eye connections having a maximum adjustment of 1-1/4 inches.

3. Wire: Fabricate from 3/16-inch-diameter, stainless steel wire.

D. Anchors for Connecting CMU to Existing Masonry: Corrugated strips formed from 0.062-inch-thick (16 gage) stainless-steel sheet, 1-1/4 inch wide, with 1-1/2 inch bend.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

   a. Heckmann Building Products Inc., Div. of Mechanical Plastics Corp.; #187 Hole-Type Brick Veneer Anchor.
   b. Wire-Bond; #2501 Veneer Anchor Corrugated.

E. Anchors for Connecting Veneer to Existing Concrete or Masonry, Spiral Type: Stainless steel spiral rods for anchoring veneer to existing walls; driven-in anchors for installation in drilled holes, relying on screw effect, rather than adhesive to secure veneer to backing.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

   a. Heckmann Building Products Inc., Div. of Mechanical Plastics Corp.; Helix Remedial Tie (391).
   b. Hohmann & Barnard, Inc.; Spira-Lok.

F. Adjustable Anchors for Connecting to Structural Steel Framing: Provide anchors that allow vertical or horizontal adjustment but resist tension and compression forces perpendicular to plane of wall.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

   a. Hohmann & Barnard, Inc.; 359-C - Weld-On Ties and VBT – Vee Byna-Ties.
   b. Wire-Bond; #1000C Type I Continuous Weld-On Anchors and #1100 Triangular Ties.

2. Anchor Section for Welding to Steel Frame: Crimped 1/4-inch-diameter, stainless steel wire.

3. Tie Section: Triangular-shaped wire tie made from 0.187-inch-diameter, stainless steel wire.

G. Joint Stabilization Anchors: Provide anchors that bond masonry walls across expansion and control joints while allowing lateral movement, made from stainless-steel.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

a. Heckmann Building Products Inc., Div. of Mechanical Plastics Corp.; Control Joint Anchor (353).
b. Hohmann & Barnard, Inc.; Slip-Set Stabilizer.
c. Wire-Bond; #1700 Control Joint Anchor.

H. Adjustable Masonry-Veneer Anchors:

1. General: Provide anchors that allow vertical adjustment but resist a 100-lbf load in both tension and compression perpendicular to plane of wall without deforming or developing play in excess of 1/16 inch.

2. Fabricate wire ties from 0.187-inch- diameter, stainless steel wire unless otherwise indicated.

3. Screw-Attached, Thermally-Isolated, Masonry-Veneer Anchors: Wire tie and a corrosion-resistant, self-drilling, barrel screw designed to receive wire tie. Barrel has gasketed washer head that covers hole in insulation.

a. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

1) Heckmann Building Products Inc., Div. of Mechanical Plastics Corp.; Original Pos-I-Tie Veneer Anchoring Clip (75), Pos-I-Tie ThermalClip (75TC), and Pintle Wire Tie for ThermalClip (282-N).

2) Hohmann & Barnard, Inc.; Thermal 2-Seal Wing Nut Anchor and Adjustable Wall Ties (pintle).

3) Wire-Bond; #4522 SureTie WS, #4590 Thermal Grip Washer, and #4515 SureTie Double Hook.

2.9 EMBEDDED FLASHING MATERIALS

A. Flexible Flashing: Use the following unless otherwise indicated:

1. Copper-Laminated Flashing: 5-oz./sq. ft. copper sheet bonded between two layers of glass-fiber cloth/polymer fabric; non-asphaltic type. Use only where flashing is fully concealed in masonry.

a. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

1) Advanced Building Products, Inc.; Copper Sealtite 2000.
2) Wire-Bond; Copper Seal (Copper Fabric Flashing) #4140.
3) York Manufacturing, Inc.; Multi-Flash 500.

B. Drip Plate Flashing: Fabricate from copper to shape indicated, including inside corners, outside corners, and end dams. Provide hemmed edge drip plate flashing materials with foam seal and adhesive strip as follows:

1. Basis-of-Design Product: Subject to compliance with requirements, provide Hohmann & Barnard, Inc.; FTS Series Drip Plate or comparable product.
2. Width: Not less than 3 inches.
3. Copper: 16-oz./sq. ft.

C. Adhesives, Primers, and Seam Tapes for Flashings: Flashing manufacturer's standard products or products recommended by flashing manufacturer for bonding flashing sheets to each other and to substrates.

D. Termination Bars for Flexible Flashing: Stainless steel bars not less than 1/8 inch by 1 inch.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

a. Heckmann Building Products Inc., Div. of Mechanical Plastics Corp.; Termination Bar (1050).
b. Hohmann & Barnard, Inc.; T1 - Termination Bar.
c. Wire-Bond; #4200 Termination Bar.

2.10 MISCELLANEOUS MASONRY ACCESSORIES

A. Weep/Cavity Vent Products: Use the following unless otherwise indicated:

1. Cellular Plastic Weep/Vent: One-piece, flexible extrusion made from UV-resistant polypropylene copolymer, full height and width of head joint and depth 1/8 inch less than depth of outer wythe, in color selected from manufacturer's standard.

a. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

1) Advanced Building Products, Inc.; Mortar Maze Weep Vents.
2) Heckmann Building Products Inc., Div. of Mechanical Plastics Corp.; Cell Vent (85).
3) Hohmann & Barnard, Inc.; QV – Quadro-Vent.
4) Wire-Bond; #3601 Cell Vent.

B. Cavity Drainage Material: Free-draining mesh, made from polymer strands that will not degrade within the wall cavity.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

a. Hohmann & Barnard, Inc.; Mortar Trap.
b. Mortar Net Solutions; WallDefender.
c. Wire-Bond; Cavity Net DT.

2. Configuration: Provide one of the following:

a. Strips, full depth of cavity and 10 inches high, with dovetail-shaped notches 7 inches deep that prevent clogging with mortar droppings.

2.11 MASONRY CLEANERS

A. Proprietary Cleaner: Manufacturer's standard-strength cleaner designed for removing mortar/grout stains, efflorescence, and other new construction stains from new masonry without discoloring or damaging masonry surfaces. Use product expressly approved for intended use by cleaner manufacturer and manufacturer of masonry units being cleaned.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. Prosoco, Inc.

2.12 MORTAR AND GROUT MIXES

A. General: Do not use admixtures, including pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures unless otherwise indicated.

1. Do not use calcium chloride in mortar or grout.
2. Use portland cement-lime mortar unless otherwise indicated.

B. Preblended, Dry Mortar Mix: Furnish dry mortar ingredients in form of a preblended mix. Measure quantities by weight to ensure accurate proportions, and thoroughly blend ingredients before delivering to Project site.

C. Mortar for Unit Masonry: Comply with ASTM C270, Proportion Specification. Provide the following types of mortar for applications stated unless another type is indicated.

1. For concrete masonry unit backup in exterior walls, masonry bearing walls, shear walls and masonry below grade or in contact with earth, use Type S. Not for use in masonry veneer construction.

2. Use Type N mortar in all masonry veneer construction and in all masonry construction other than noted in the requirements for Type S mortar above.

D. Pigmented Mortar: Use colored cement product.

1. Application: Use pigmented mortar for exposed mortar joints with the following units:

a. Decorative CMUs.

E. Grout for Unit Masonry: Comply with ASTM C476.

1. Use grout of type indicated or, if not otherwise indicated, of type (fine or coarse) that will comply with TMS 602 for dimensions of grout spaces and pour height.
2. Proportion grout in accordance with ASTM C476, Table 1 or paragraph 4.2.2 for specified 28-day compressive strength indicated, but not less than 2000 psi.
3. Provide grout with a slump of 8 to 11 inches as measured according to ASTM C143/C143M.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

1. Verify that foundations are within tolerances specified.
2. Verify that reinforcing dowels are properly placed.
3. Verify that substrates are free of substances that impair mortar bond.

B. Before installation, examine rough-in and built-in construction for piping systems to verify actual locations of piping connections.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

D. Beginning installation constitutes Contractor’s acceptance of substrates and conditions.

3.2 INSTALLATION, GENERAL

A. Thickness: Build cavity and composite walls and other masonry construction to full thickness shown. Build single-wythe walls to actual widths of masonry units, using units of widths indicated.

B. Build chases and recesses to accommodate items specified in this and other Sections.

C. Leave openings for equipment to be installed before completing masonry. After installing equipment, complete masonry to match construction immediately adjacent to opening.

D. Use full-size units without cutting if possible. If cutting is required to provide a continuous pattern or to fit adjoining construction, cut units with motor-driven saws; provide clean, sharp, unchipped edges. Allow units to dry before laying unless wetting of units is specified. Install cut units with cut surfaces and, where possible, cut edges concealed.

E. Select and arrange units for exposed unit masonry to produce a uniform blend of colors and textures. Mix units from several pallets or cubes as they are placed.

F. Matching Existing Masonry: Match coursing, bonding, color, and texture of existing masonry.

G. Wetting of Brick: Wet brick before laying if initial rate of absorption exceeds 30 g/30 sq. in. per minute when tested according to ASTM C67. Allow units to absorb water so they are damp but not wet at time of laying.

3.3 TOLERANCES

A. Dimensions and Locations of Elements:

1. For dimensions in cross section or elevation, do not vary by more than plus 1/2 inch or minus 1/4 inch.
2. For location of elements in plan, do not vary from that indicated by more than plus or minus 1/2 inch.
3. For location of elements in elevation, do not vary from that indicated by more than plus or minus 1/4 inch in a story height or 1/2 inch total.

B. Lines and Levels:

1. For bed joints and top surfaces of bearing walls, do not vary from level by more than 1/4 inch in 10 feet, or 1/2-inch maximum.

2. For conspicuous horizontal lines, such as lintels, sills, parapets, and reveals, do not vary from level by more than 1/8 inch in 10 feet, 1/4 inch in 20 feet, or 1/2-inch maximum.

3. For vertical lines and surfaces, do not vary from plumb by more than 1/4 inch in 10 feet, 3/8 inch in 20 feet, or 1/2-inch maximum.

4. For conspicuous vertical lines, such as external corners, door jambs, reveals, and expansion and control joints, do not vary from plumb by more than 1/8 inch in 10 feet, 1/4 inch in 20 feet, or 1/2-inch maximum.

5. For lines and surfaces, do not vary from straight by more than 1/4 inch in 10 feet, 3/8 inch in 20 feet, or 1/2-inch maximum.

6. For vertical alignment of exposed head joints, do not vary from plumb by more than 1/4 inch in 10 feet or 1/2-inch maximum.

7. For faces of adjacent exposed masonry units, do not vary from flush alignment by more than 1/16 inch except due to warpage of masonry units within tolerances specified for warpage of units.

C. Joints:

1. For bed joints, do not vary from thickness indicated by more than plus or minus 1/8 inch, with a maximum thickness limited to 1/2 inch.

2. For exposed bed joints, do not vary from bed-joint thickness of adjacent courses by more than 1/8 inch.

3. For head and collar joints, do not vary from thickness indicated by more than plus 3/8 inch or minus 1/4 inch.

4. For exposed head joints, do not vary from thickness indicated by more than plus or minus 1/8 inch. Do not vary from adjacent bed-joint and head-joint thicknesses by more than 1/8 inch.

5. For exposed bed joints and head joints of stacked bond, do not vary from a straight line by more than 1/16 inch from one masonry unit to the next.

3.4 LAYING MASONRY WALLS

A. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of openings, movement-type joints, returns, and offsets. Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at other locations.

B. Bond Pattern for Exposed Masonry: Unless otherwise indicated, lay exposed masonry in running bond; do not use units with less-than-nominal 4-inch horizontal face dimensions at corners or jambs.

C. Lay concealed masonry with all units in a wythe in running bond or bonded by lapping not less than 2 inches. Bond and interlock each course of each wythe at corners. Do not use units with less-than-nominal 4-inch horizontal face dimensions at corners or jambs.

D. Stopping and Resuming Work: Stop work by stepping back units in each course from those in course below; do not tooth. When resuming work, clean masonry surfaces that are to receive mortar, remove loose masonry units and mortar, and wet brick if required before laying fresh masonry.

E. Built-in Work: As construction progresses, build in items specified in this and other Sections. Fill in solidly with masonry around built-in items.

F. Fill space between steel frames and masonry solidly with mortar unless otherwise indicated.

G. Where built-in items are to be embedded in cores of hollow masonry units, place a layer of metal lath, wire mesh, or plastic mesh in the joint below, and rod mortar or grout into core.

H. Fill cores in hollow CMUs with grout 24 inches under bearing plates, beams, lintels, posts, and similar items unless otherwise indicated.

I. Build nonload-bearing interior partitions full height of story to underside of solid floor or roof structure above unless otherwise indicated.

3.5 MORTAR BEDDING AND JOINTING

A. Lay CMUs as follows:

1. Bed face shells in mortar and make head joints of depth equal to bed joints.
2. Bed webs in mortar in all courses of piers, columns, and pilasters.
3. Bed webs in mortar in grouted masonry, including starting course on footings.
4. Fully bed entire units, including areas under cells, at starting course on footings where cells are not grouted.

5. Fully bed units and fill cells with mortar at anchors and ties as needed to fully embed anchors and ties in mortar.

B. Lay solid masonry units with completely filled bed and head joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not deeply furrow bed joints or slush head joints.

C. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness unless otherwise indicated.

D. Cut joints flush for masonry walls to receive plaster or other direct-applied finishes (other than paint) unless otherwise indicated.

E. Cut joints flush where indicated to receive air barriers unless otherwise indicated.

3.6 CAVITY WALLS

A. Bond wythes of cavity walls together using one of the following methods:

1. Masonry-Joint Reinforcement: Installed in horizontal mortar joints.

a. Use adjustable-type (two-piece-type) reinforcement.

2. Adjustable Masonry-Veneer Anchors: Comply with requirements for anchoring masonry veneers.

B. Keep cavities clean of mortar droppings and other materials during construction. Bevel beds away from cavity, to minimize mortar protrusions into cavity.

C. Install air barrier system to comply with Division 07 Section “Fluid-Applied Membrane Air Barriers.”

D. Installing Cavity Wall Insulation: Place small dabs of adhesive, spaced approximately 12 inches o.c. both ways, on inside face of insulation boards, or attach with plastic fasteners designed for this purpose. Fit courses of insulation between wall ties and other confining obstructions in cavity, with edges butted tightly both ways. Press units firmly against inside wythe of masonry or other construction as shown.

1. Fill cracks and open gaps in insulation with crack sealer compatible with insulation, air barrier, and masonry.

3.7 ANCHORED MASONRY VENEERS

A. Anchor masonry veneers to concrete and masonry backup with masonry-veneer anchors to comply with the following requirements:

1. Fasten anchors to concrete and masonry backup with metal fasteners of type indicated. Use two fasteners unless anchor design only uses one fastener.

2. Embed connector sections and continuous wire in masonry joints.

3. Locate anchor sections to allow maximum vertical differential movement of ties up and down.

4. Space anchors as indicated, but not more than 16 inches o.c. vertically and 16 inches o.c. horizontally, with not less than one anchor for each 2 sq. ft. of wall area. Install additional anchors within 12 inches of openings and at intervals, not exceeding 8 inches, around perimeter.

B. Provide not less than 2 inches of airspace between back of masonry veneer and face of insulation.

1. Keep airspace clean of mortar droppings and other materials during construction. Bevel beds away from airspace, to minimize mortar protrusions into airspace.

3.8 MASONRY-JOINT REINFORCEMENT

A. General: Install entire length of longitudinal side rods in mortar with a minimum cover of 5/8 inch on exterior side of walls, 1/2 inch elsewhere. Lap reinforcement a minimum of 6 inches.

1. Space reinforcement not more than 16 inches o.c.
2. Space reinforcement not more than 8 inches o.c. in parapet walls.
3. Provide reinforcement not more than 8 inches above and below wall openings and extending 12 inches beyond openings in addition to continuous reinforcement.

B. Interrupt joint reinforcement at control and expansion joints unless otherwise indicated.

C. Provide continuity at wall intersections by using prefabricated T-shaped units.

D. Provide continuity at corners by using prefabricated L-shaped units.

E. Cut and bend reinforcing units as directed by manufacturer for continuity at returns, offsets, column fireproofing, pipe enclosures, and other special conditions.

3.9 LINTELS

A. Install steel lintels where indicated.

B. Provide masonry lintels where shown and where openings of more than 12 inches for brick-size units and 24 inches for block-size units are shown without structural steel or other supporting lintels.

C. Provide minimum bearing of 8 inches at each jamb unless otherwise indicated.

3.10 FLASHING, WEEP HOLES, AND CAVITY VENTS

A. General: Install embedded flashing and weep holes in masonry at shelf angles, lintels, ledges, other obstructions to downward flow of water in wall, and where indicated. Install cavity vents at shelf angles, ledges, and other obstructions to upward flow of air in cavities, and where indicated.

B. Install flashing as follows unless otherwise indicated:

1. Prepare masonry surfaces so they are smooth and free from projections that could puncture flashing. Where flashing is within mortar joint, place through-wall flashing on sloping bed of mortar and cover with mortar. Before covering with mortar, seal penetrations in flashing with adhesive, sealant, or tape as recommended by flashing manufacturer.

2. At multiwythe masonry walls, including cavity walls, extend flashing through outer wythe, turned up a minimum of 12 inches, and at least 6 inches above the top of cavity drainage material or to height as recommended by cavity drainage material manufacturer. Fasten upper edge of flexible flashing to inner wythe through termination bar.

3. At masonry-veneer walls, extend flashing through veneer, across airspace behind veneer, and up face of sheathing at least 12 inches, and at least 6 inches above the top of the cavity drainage material or to height as recommended by cavity drainage material manufacturer. Fasten upper edge of flexible flashing to sheathing through termination bar.

4. Apply a continuous bead of compatible sealant to the top of the termination bar.

5. At lintels, extend flashing a minimum of 6 inches into masonry at each end. At heads and sills, extend flashing 6 inches at ends and turn up not less than 2 inches to form end dams.

6. Install metal drip plate flashing beneath flexible flashing at exterior face of wall as recommended by manufacturer. Stop flexible flashing 1/2 inch back from outside face of wall and adhere flexible flashing to top of metal drip plate flashing.

C. Install weep holes in exterior wythes and veneers in head joints of first course of masonry immediately above embedded flashing.

1. Use specified weep/cavity vent products to form weep holes.
2. Space weep holes 24 inches o.c. unless otherwise indicated.

D. Install cavity vents in head joints in exterior wythes at 24 inches o.c. unless otherwise indicated. Use specified weep/cavity vent products to form cavity vents.

1. Close cavities off vertically and horizontally with blocking in manner indicated. Install through-wall flashing and weep holes above horizontal blocking.

3.11 REINFORCED UNIT MASONRY

A. Temporary Formwork and Shores: Construct formwork and shores as needed to support reinforced masonry elements during construction.

1. Construct formwork to provide shape, line, and dimensions of completed masonry as indicated. Make forms sufficiently tight to prevent leakage of mortar and grout. Brace, tie, and support forms to maintain position and shape during construction and curing of reinforced masonry.

2. Do not remove forms and shores until reinforced masonry members have hardened sufficiently to carry their own weight and that of other loads that may be placed on them during construction.

B. Placing Reinforcement: Comply with requirements in TMS 602.

C. Grouting: Do not place grout until entire height of masonry to be grouted has attained enough strength to resist grout pressure.

1. Comply with requirements in TMS 602 for cleanouts and for grout placement, including minimum grout space and maximum pour height.
2. Limit height of vertical grout pours to not more than 60 inches.

3.12 CORRECTING, POINTING, AND CLEANING

A. Remove and replace masonry units that are loose, chipped, broken, stained, or otherwise damaged or that do not match adjoining units. Install new units to match adjoining units; install in fresh mortar, pointed to eliminate evidence of replacement.

B. Pointing: During the tooling of joints, enlarge voids and holes, except weep holes, and completely fill with mortar. Point up joints, including corners, openings, and adjacent construction, to provide a neat, uniform appearance. Prepare joints for sealant application, where indicated.

C. In-Progress Cleaning: Clean unit masonry as work progresses by dry brushing to remove mortar fins and smears before tooling joints.

D. Final Cleaning: After mortar is thoroughly set and cured, clean exposed masonry as follows:

1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.

2. Test cleaning methods on sample wall panel; leave one-half of panel uncleaned for comparison purposes. Obtain Architect's approval of sample cleaning before proceeding with cleaning of masonry.

3. Protect adjacent stone and nonmasonry surfaces from contact with cleaner by covering them with liquid strippable masking agent or polyethylene film and waterproof masking tape.

4. Wet wall surfaces with water before applying cleaners; remove cleaners promptly by rinsing surfaces thoroughly with clear water.

5. Clean brick by bucket-and-brush hand-cleaning method described in BIA Technical Notes 20.

6. Clean concrete masonry by applicable cleaning methods indicated in NCMA TEK 8-4A.

7. Clean masonry with a proprietary cleaner applied according to manufacturer's written instructions.

END OF SECTION 04 20 00

SECTION 12 24 13 - ROLLER WINDOW SHADES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Manually operated roller shades with single rollers.
2. Roller shade fabrics.

1.3 SUBMITTALS, GENERAL

A. General: Submit all action submittals (except Samples for Verification) and informational submittals required by this Section concurrently.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include styles, material descriptions, construction details, dimensions of individual components and profiles, features, finishes, and operating instructions for roller shades.

B. Shop Drawings: Show fabrication and installation details for roller shades, including shadeband materials, their orientation to rollers, and their seam and batten locations, all dimensions, and clearances for each shade installation.

1. Include typical elevation layout showing separation between shade units and meeting edges at corners with sections and details at head and sill between blind units and corners.
2. Provide verified in field details showing all types of shade installation conditions.
3. Components and conditions not fully dimensioned or detailed in manufacturers product data indicating relationship to adjoining construction.
4. Manufactures specification instructions and details specific to components and conditions not fully dimensioned or detailed in manufactures product data.
5. Provide data for all components required for installation.

C. Samples for Verification and Initial Color Selection: For each type and color of shadeband material.

1. Include Samples of accessories involving color selection.
2. Actual color samples of manufactures full range – no color copies will be accepted.

3. Shadeband Material: Not less than 10 inches square. Mark inside face of material if applicable.
4. Roller Shade: Full-size operating unit, not less than 16 inches wide by 36 inches long for each type of roller shade indicated.
5. Installation Accessories: Full-size unit, not less than 10 inches long.

1.5 INFORMATIONAL SUBMITTALS

A. Product Certificates: For each type of shadeband material, signed by product manufacturer.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For roller shades to include in maintenance manuals.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver roller shades in factory packages, marked with manufacturer, product name, and location of installation using same designations indicated on Drawings.

1.8 WARRANTY

A. Manufacturer's Warranty - Provide manufacturer's warranty including coverage of at least following components:

1. Corrosion of all metal parts.
2. Sagging, creasing, or breaking of slats.
3. Sagging, creasing, or ripping of shadeband material.
4. Smoothly performing mechanism without slippage or jams.
5. Finish of all components matching in color, uniform, and against fading or discoloration.
6. Defects in materials and installation workmanship.

1.9 FIELD CONDITIONS

A. Environmental Limitations: Do not install roller shades until construction and finish work in spaces, including painting, is complete and dry and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

B. Field Measurements: Where roller shades are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication and indicate measurements on Shop Drawings. Allow clearances for operating hardware of operable glazed units through entire operating range. Notify Architect of installation conditions that vary from Drawings. Coordinate fabrication schedule with construction progress.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain roller shades from single source from single manufacturer.

2.2 MANUALLY OPERATED SHADES WITH SINGLE ROLLERS

A. Basis-of-Design Product: Subject to compliance with requirements, provide Draper Inc.; Manual FlexShade Systems or comparable product by one of the following:

1. Hunter Douglas Contract.
2. MechoShade Systems, Inc.

B. Chain-and-Clutch Operating Mechanisms: With continuous-loop bead chain and clutch that stops shade movement when bead chain is released; permanently adjusted and lubricated; with chain retainer.

1. Bead Chains: Manufacturer's standard.

a. Limit Stops: Provide upper and lower ball stops.

b. Tension hold Down Device – to comply with Child Safety Standard ANSI/WCMA- this product must contain and be installed with the required clutch operated hold down device at all locations.

c. Hold Down Devices – provide sill, side wall or extender types- verify in field types required.

C. Rollers: Corrosion-resistant steel or extruded-aluminum tubes of diameters and wall thicknesses required to accommodate operating mechanisms and weights and widths of shadebands indicated without deflection. Provide with permanently lubricated drive-end assemblies and idle-end assemblies designed to facilitate removal of shadebands for service.

1. Roller Drive-End Location: Right or left side as require per shade layout.

2. Direction of Shadeband Roll: Regular, from back of roller and or back to front to clear window handles, extrusions etc.

3. Shadeband-to-Roller Attachment: Manufacturer's standard method- no double-side tape will be accepted. Provide adequate brackets on multiple sash windows to hold roller pin ends no more than 1/8 inch apart over centerline of mullion.

D. Roller-Coupling Assemblies: Coordinated with operating mechanism and designed to join up to three inline rollers into a multiband shade, not to exceed manufactures recommendation that is operated by one roller drive-end assembly.

E. Shadebands:

1. Shadeband Material: Light-blocking fabric similar to “Sun-Bloc Series” fabric by Draper Inc.

F. Shadeband Bottom (Hem) Bar: Steel or extruded aluminum.

1. Type: Enclosed in sealed pocket of shadeband material.

G. Fabrication:

1. Cut shades perfectly square and true and mount on rollers using suitable fasteners. Provide all material used in shade manufacture new, commercially perfect and of first quality. Provide material in one piece.

2. Provide one finished length of each single hung shade after hemming 14 inches longer than portion of sash covered by shade. Provide finished shade width to cover adequately, but not more than 1/4 inch of barrel exposed at each end of roller.

   a. Where necessary, increase diameter of roller from 1-1/4 inches to correspond with size of shade.
   b. Provide hems of proper width for slat, double turn hems, and sew with straight stitch. Neatly backstitch all hems at the ends.
   c. Hem at top and bottom of shade.

3. Fabrication Tolerances:

   a. Size shades to fit openings head – including but not limited to wall, door, window head etc., to sill including but not limited to windowsill, floor sill etc. (allowing for 6 to 10 inches in additional length) and between mullions, unless otherwise indicated on Drawings.

   b. Provide single sets of shades no greater in width than distance between 2 mullions at openings up to 15 ft. wide.

   c. Provide minimum clearances for appropriate operation of shades.

H. Installation Accessories:

1. Front Fascia: Aluminum extrusion that conceals front and underside of roller and operating mechanism and attaches to roller endcaps without exposed fasteners.

   a. Shape: L-shaped.
   b. Height: Manufacturer's standard height required to conceal roller and shadeband when shade is fully open.
   c. Provide full range of manufactures colors.

2. Exposed Headbox: Rectangular, extruded-aluminum enclosure including front fascia, top and back covers, endcaps, and removable bottom closure.

   a. Height: Manufacturer's standard height required to enclose roller and shadeband when shade is fully open.
   b. Provide full range of manufactures colors.

3. Endcap Covers: To cover exposed endcaps.

4. Installation Accessories Color and Finish: As selected from manufacturer's full range.

2.3 SHADEBAND MATERIALS

A. Shadeband Material Flame-Resistance Rating: Comply with NFPA 701. Testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

B. Light-Blocking Fabric: Opaque fabric, stain and fade resistant.

1. Source: Roller-shade manufacturer.
2. Type: Fiberglass textile with PVC film bonded to both sides.
3. Thickness: 0.015 inches.
4. Weight: 12 oz./sq. yd.
5. Features: Washable.
6. Color: As selected by Architect from manufacturer's full range.
7. Basis-of-Design Product: Subject to compliance with requirements, provide Draper Inc.; SunBloc Series SB9000 or comparable product.

C. Rescue Window Labels: Provide and install on window shade in every space of pupil occupancy opaque labels with words "RESCUE WINDOW" Install labels on shades associated with rescue window coordinate with Architect for location.

1. Color: Opaque, bright yellow background with black letters.
2. Size: 2 inches by 1 inches, 3/8” wide lines to form letters.
3. Text: “RESCUE WINDOW”, readable from room side of window.

2.4 ROLLER-SHADE FABRICATION

A. Product Safety Standard: Fabricate roller shades to comply with WCMA A 100.1, including requirements for flexible, chain-loop devices; lead content of components; and warning labels.

B. Unit Sizes: Fabricate units in sizes to fill window and other openings as follows, measured at 74 deg F:

1. Between (Inside) Jamb Installation: Width equal to jamb-to-jamb dimension of opening in which shade is installed less 1/4 inch per side or 1/2-inch total, plus or minus 1/8 inch. Length equal to head-to-sill dimension of opening in which shade is installed less 1/4 inch, plus or minus 1/8 inch.

2. Outside of Jamb Installation: Width and length as indicated, with terminations between shades of end-to-end installations at centerlines of mullion or other defined vertical separations between openings.

C. Shadeband Fabrication: Fabricate shadebands without battens or seams to extent possible.

D. Rescue Window Labels: Provide and install on window shade in every space of pupil occupancy opaque labels with words "RESCUE WINDOW" Install labels on shades associated with rescue window coordinate with Architect for location.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, operational clearances and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

C. Beginning installation constitutes Contractor’s acceptance of substrates and conditions.

3.2 ROLLER-SHADE INSTALLATION

A. Install roller shades level, plumb, and aligned with adjacent units according to manufacturer's written instructions.

1. Opaque Shadebands: Located so shadeband is not closer than 2 inches to interior face of glass. Allow clearances for window operation hardware.

2. Hang shades at window to fit opening properly and operate smoothly and efficiently. Hang each shade perfectly level and with spring tension of roller properly adjusted. Locate tips of adjoining shades no further than 3/8 inch apart when two or more are mounted back-to-back.

3. Install each shade on brackets securely fastened to ceiling or wall as shown on Drawings. Furnish and install new brackets and other hardware required for proper installation of shades.

B. Prior to installation of roller-shade units, coordinate installation locations and method of installation with window manufacturer, do not secure roller-shade units to window frame.

3.3 ADJUSTING

A. Adjust and balance roller shades to operate smoothly, easily, safely, and free from binding or malfunction throughout entire operational range.

3.4 CLEANING AND PROTECTION

A. Clean roller-shade surfaces after installation, according to manufacturer's written instructions.

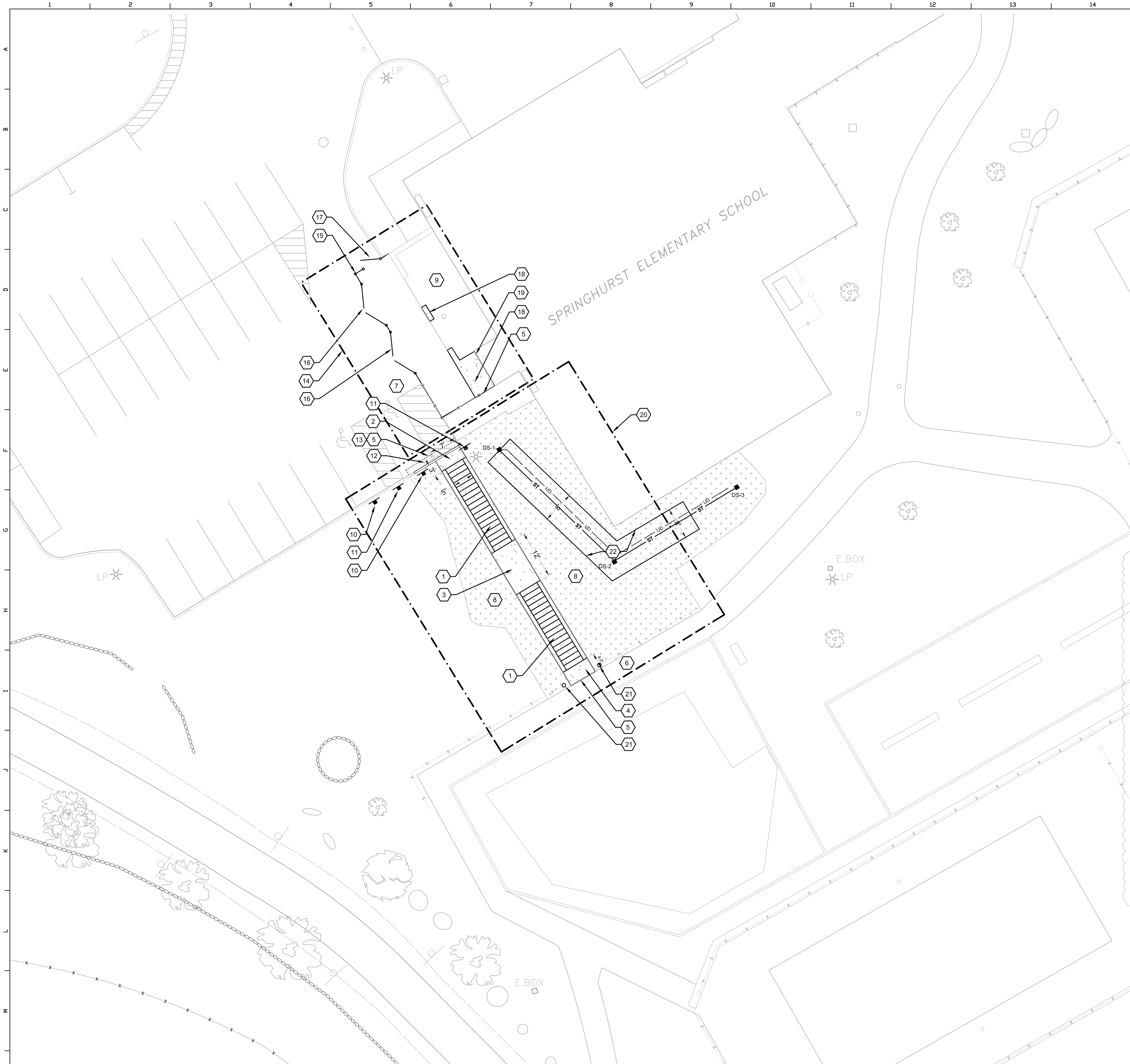
B. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and Installer, that ensure that roller shades are without damage or deterioration at time of Substantial Completion.

C. Replace damaged roller shades that cannot be repaired, in a manner approved by Architect, before time of Substantial Completion.

3.5 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain motor-operated roller shades.

END OF SECTION 12 24 13



1 Site Layout Plan
1" = 10'

Site Layout Keynotes

1 ALTERNATE No. SES-03: 6'-FT WIDE CONCRETE STAIRS, 16-IN TREADS WITH 6-IN RISERS WITH STAINLESS STEEL RAILINGS. SEE DETAILS 1 AND 2 / AC500.

2 ALTERNATE No. SES-03: 3-FT X 7-FT CONCRETE LANDING. SEE DETAILS 3 AND 4 / AC500.

3 ALTERNATE No. SES-03: 12-FT X 7-FT CONCRETE LANDING. SEE DETAILS 3 AND 4 / AC500.

4 ALTERNATE No. SES-03: 4-FT X 7-FT CONCRETE LANDING. SEE DETAILS 3 AND 4 / AC500.

5 ALTERNATE No. SES-03: SMOOTH TRANSITION FROM PROPOSED SURFACE TO ADJACENT EXISTING SURFACE, (TYP.).

6 ALTERNATE No. SES-03: EXISTING ASPHALT SIDEWALK TO REMAIN, PROTECT.

7 ALTERNATE No. SES-03: EXISTING ASPHALT PAVEMENT TO REMAIN, PROTECT.

8 ALTERNATE No. SES-03: SEEDED AREA - 6-IN OF AMENDED TOPSOIL, FINE GRADE, SEED, FETILIZE AND MULCH. LEAVE NEAT SMOOTH EDGE (TYP.)

9 ALTERNATE No. SES-03: EXISTING CONCRETE PAVEMENT TO REMAIN, PROTECT.

10 ALTERNATE No. SES-03: "ACCESSIBLE PARKING" SIGN AND POST IN LAWN. SEE DETAILS 14 AND 15 / AC500.

11 ALTERNATE No. SES-03: "NO PARKING" SIGN AND POST IN LAWN. SEE DETAILS 14 AND 15 / AC500.

12 ALTERNATE No. SES-03: AUTO DUTY ASPHALT PAVING. SEE DETAIL 16 / AC500.

13 ALTERNATE No. SES-03: ASPHALT PAVING AT EXISTING ASPHALT. SEE DETAIL 17 / AC500.

14 ALTERNATE No. SES-02: LIMIT OF WORK.

15 ALTERNATE No. SES-02: 8-FT TALL BLACK VINYL CLAD CHAIN LINK FENCE WITH PRIVACY SLATS. SEE DETAIL 11 / AC500.

16 ALTERNATE No. SES-02: 8-FT TALL BLACK VINYL CLAD CHAIN LINK FENCE WITH PRIVACY SLATS. TWO 12-FT WIDE DOUBLE SWING GATES. SEE DETAIL 13 / AC500.

17 ALTERNATE No. SES-02: 8-FT TALL BLACK VINYL CLAD CHAIN LINK FENCE WITH PRIVACY SLATS. 5-FT WIDE SINGLE SWING GATE. SEE DETAIL 12 / AC500.

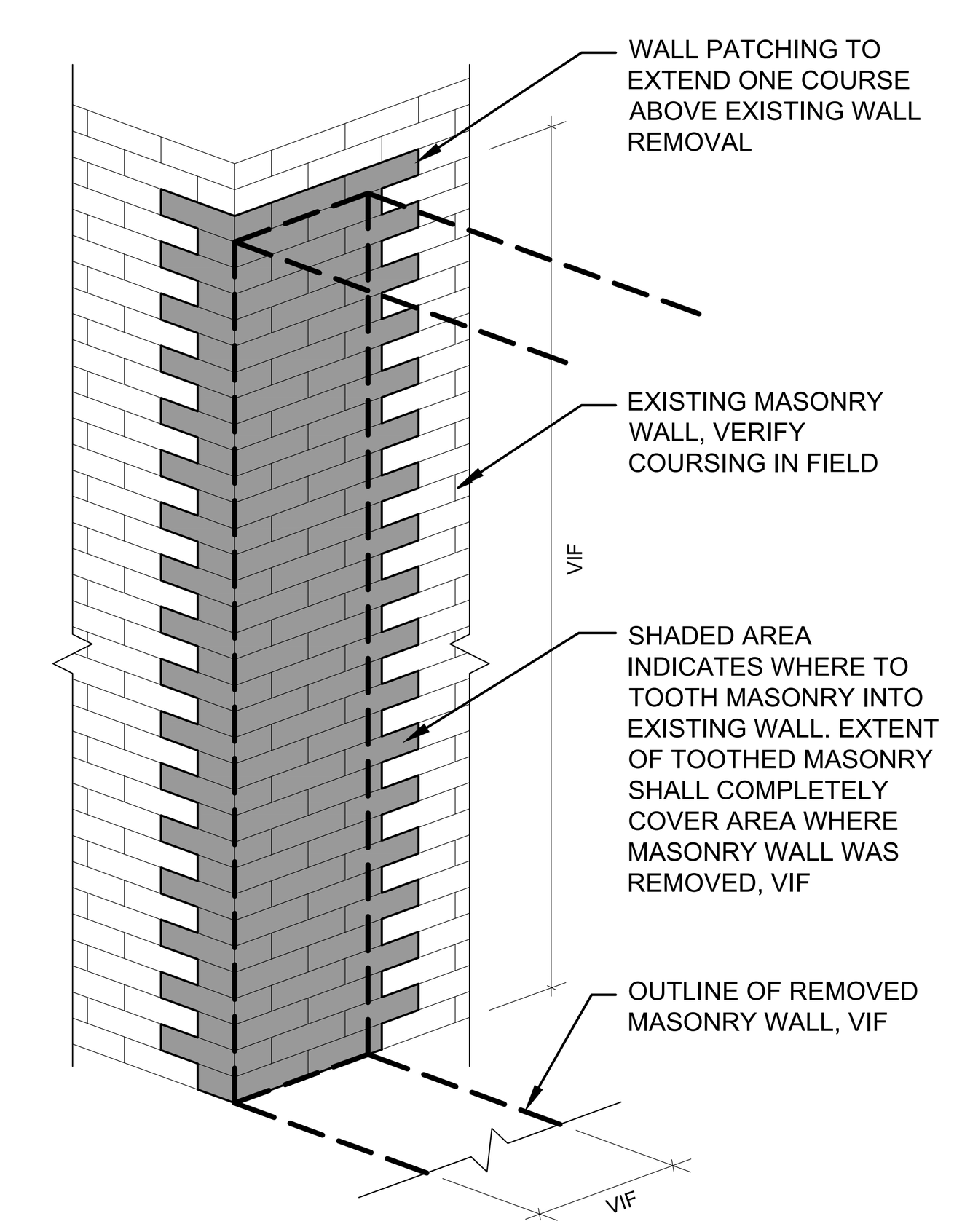
18 ALTERNATE No. SES-02: CONCRETE SURFACE LEVEL WITH SURROUNDING SURFACE. SEE DETAIL 3 AND 4 / AC500.

19 ALTERNATE No. SES-02: ~~SEE ARCHITECTURAL DRAWINGS FOR~~ REPAIR OF BUILDING BRICK WORK IN AREA OF DEMOLISHED WALL. SEE DETAIL 2 / AC120.

20 ALTERNATE No. SES-03: LIMIT OF WORK.

21 ALTERNATE No. SES-03: PROVIDE AND INSTALL 4-FT TALL BLACK VINYL CLAD CHAIN LINK FENCE POSTS AT NEW OPENING WITHIN EXISTING 4-FT TALL CHAIN LINK FENCE. SEE DETAIL 11 / AC500.

22 ALTERNATE No. SES-03: REINSTALL SALVAGED RIP-RAP SURFACE AND PROVIDE AND INSTALL ADDITIONAL RIP-RAP SURFACE FOR REMAINING AREA.



2 Masonry Patching Detail
NTS

2025-01-21_JMR

N

0 5' 10' 20'
SCALE: 1" = 10'

General Site Notes

1. REFER TO DRAWING AC100 FOR GENERAL SITE NOTES THAT APPLY TO ALL AC-SERIES DRAWINGS.

Site Layout Notes

1. LAYOUT DIMENSIONS GIVEN ARE FROM FACE OF BUILDING (FOB), FACE OF CURB (F.O.C.), CENTER LINE (CL) AND EDGE OF PAVEMENTS UNLESS OTHERWISE NOTED.
2. OBJECTS ARE PARALLEL OR PERPENDICULAR TO EACH OTHER UNLESS OTHERWISE NOTED.
3. PAINTED TRAFFIC MARKINGS AND TRAFFIC SIGNS TO COMPLY WITH THE LATEST EDITION OF THE NYSDOT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND LOCAL REQUIREMENTS.
4. VERIFY DIMENSIONS IN FIELD WITH OWNER'S REPRESENTATIVE ANY DIMENSIONS NOTED AS "V.I.F."
5. AT EDGE OF NEW PAVING MEETING LAWN: ADD TOPSOIL ALONG EDGE OF NEW PAVING TO BRING ADJACENT GRADE FLUSH WITH EDGE OF NEW PAVING AT MAXIMUM 3% SLOPE. CUT NEAT LINE IN EXISTING LAWN AT NEW TOPSOIL LIMIT LINE. REFER TO PROJECT MANUAL SIDEWALK AND ASPHALT PAVEMENT SECTIONS FOR ADDITIONAL REQUIREMENTS.
6. SCORE CONCRETE SIDEWALKS AT 5-FT SQUARE UNLESS OTHERWISE NOTED.
7. ALL DISTURBED AREAS TO RECEIVE 6-IN TOPSOIL AND SEED UNLESS OTHERWISE NOTED.

Site Layout Legend	
(symbol)	CONCRETE PAVING
(symbol)	ASPHALT PAVING -AUTO DUTY
(symbol)	LAWN AREA
CC	CONCRETE CURB

S.E.D. Control No. 66-04-03-03-0-004-019

Rev. No.:	Date:	Description:
1	01/22/25	BID ADDENDUM No. 1

Dobbs Ferry School District
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TETRA TECH
ARCHITECTS & ENGINEERS

Dobbs Ferry Union Free School District
Dobbs Ferry, New York

Reconstruction to:
Springhurst Elementary School

Site Layout Plan

Drawn by: J.L.P.	Date: 12/01/2023	Drawing No.:
234903-23001		AC120

DRAWING REISSUED AS PART OF BID ADDENDUM #1

1 Site Grading Plan
1" = 10'

Site Utility and Drainage Keynotes

1 EXISTING UTILITY TO REMAIN, PROTECT.

2 ALTERNATE No. SES-03: 4-IN CONDUIT FOR FUTURE UTILITIES.

3 EXISTING FIBER OPTIC LINE TO PASS THROUGH NEW STAIRS STRUCTURE.

4 ALTERNATE No. SES-02: LIMIT OF WORK.

5 ALTERNATE No. SES-03: LIMIT OF WORK.

6 PROVIDE PRECAST CONCRETE 24-IN BY 24-IN CATCH BASIN. SEE DETAIL 2 / AC140.

DS-1
TG = 316.6
INV (N) Exist Invert Assumed 313.5 (Verify in Field)
INV (S) 313.5

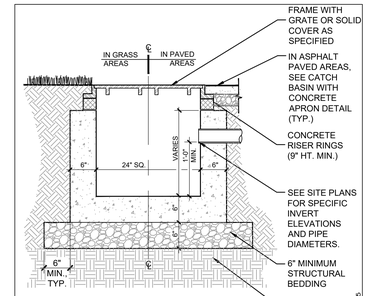
DS-2
TG = 326.0
INV (N) 323.0
INV (E) 323.0

DS-3
TG = 329.5
INV (W) 326.5

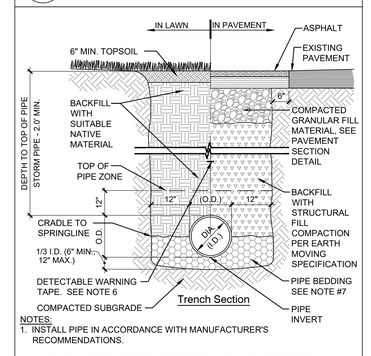
7 NEW 12-INCH HDPE STORM PIPING. SEE DETAIL 3 / AC140.

FROM DS-1 TO DS-2 40 FT
FROM DS-2 TO DS-3 35 FT

8 NEW 4-INCH UNDERDRAIN. SEE DETAIL 4 / AC140.

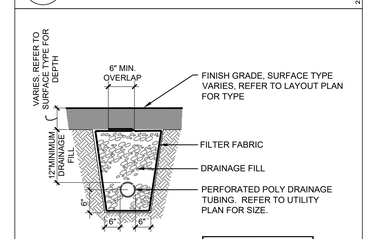


2 Catch Basin - 24" X 24"
NTS



NOTES:
1. INSTALL PIPE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. INCLUDE SHORING AND DEWATERING IN TRENCHING OPERATIONS.
3. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS. THICKNESSES INDICATED ARE MINIMUMS. WHERE EXISTING CONDITIONS EXCEED THOSE SHOWN, MATCH EXISTING.
4. USE MOVABLE PROTECTIVE TRENCH SHIELDS IN UNSHEETED TRENCH AREAS AS REQUIRED BY OSHA REGULATIONS.
5. MINIMUM BURY DEPTHS SHOWN ABOVE APPLY UNLESS OTHERWISE INDICATED.
6. PROVIDE DETECTABLE WARNING TAPE AS SPECIFIED.
7. PIPE BEDDING SHALL BE:
STORM - USE STRUCTURAL FILL OR APPROVED FILL MATERIAL IN PIPE ZONE.

3 Pipe Trench
NTS



NOTE:
SEE PROJECT MANUAL FOR INFORMATION ON FILL TYPES.

4 Porous Underdrain
N.T.S. SECTION

General Site Notes

1. REFER TO DRAWING AC100 FOR GENERAL SITE NOTES THAT APPLY TO ALL AC-SERIES DRAWINGS.

General Utility Plan Notes

1. CONTRACTOR IS RESPONSIBLE FOR REPAIRS OR DAMAGE TO ANY EXISTING UTILITY DURING CONSTRUCTION AT NO COST TO THE OWNER.
2. SEE PROJECT MANUAL FOR BACKFILLING AND COMPACTION REQUIREMENTS FOR UTILITY TRENCHES.
3. FILL MATERIAL IS TO BE IN PLACE AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
4. ALL WATER AND OTHER UTILITIES SHOULD BE KEPT TEN-FEET 10-FT)APART(PARALLEL)OR WITH 18 INCH CLEARANCE WHEN CROSSING VERTICALLY(OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE.)
5. LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING.
6. TOPS OF EXISTING MANHOLES, DRAINAGE INLETS, HYDRANTS AND WATER LINE VALVE BOXES SHALL BE RAISED AS NECESSARY TO BE FLUSH WITH PROPOSED PAVEMENT ELEVATIONS.
7. DRAWINGS DO NOT PURPORT TO SHOW ALL EXISTING UTILITIES.
8. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
9. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND/OR MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. CONTRACTOR TO REFER TO PROJECT MANUAL REGARDING COORDINATION WITH UTILITY COMPANIES BEFORE ANY EXCAVATION REGARDING FIELD LOCATION OF UTILITIES.
10. THE CONTRACTOR SHALL CONDUCT REQUIRED TESTS TO THE SATISFACTION OF THE RESPECTIVE UTILITY COMPANIES AND THE OWNER'S INSPECTING AUTHORITIES.
11. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, AND OTHER MEANS OF PROTECTION. THIS TO INCLUDE BUT IS NOT LIMITED TO ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE TO COMPLY WITH PERFORMANCE CRITERIA FOR OSHA.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEWATERING, PUMPING AND TREATMENT OF WATER. NO WATER FROM ANY CONSTRUCTION WORK, PROCESS OR AREA SHALL BE RELEASED DOWN STREAM OR INTO STORM SYSTEMS WITH OUT FIRST BEING TREATED TO REMOVE SEDIMENT, OILS, OR OTHER POLLUTANTS.

Site Utility Legend

UE — ELECTRIC CONDUIT

S.E.D. Control No. 66-04-03-03-0-004-019

Rev. No.:	Date:	Description:
1	01/22/25	BID ADDENDUM No. 1

Dobbs Ferry School District
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BID SET

TETRA TECH
ARCHITECTS & ENGINEERS

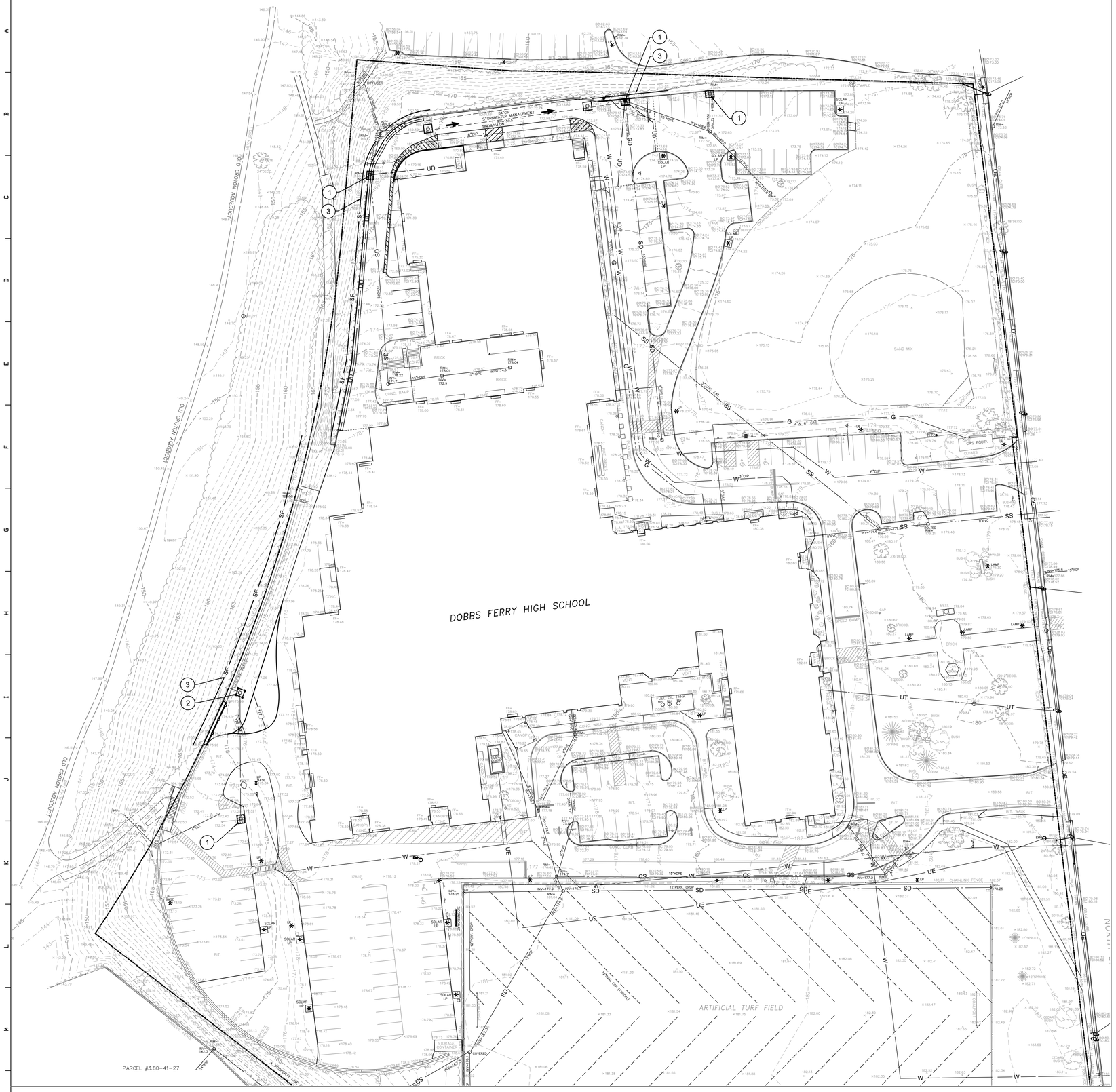
Dobbs Ferry Union Free School District
Dobbs Ferry, New York

Reconstruction to:
Springhurst Elementary School

Site Utility Plan

Drawn by:	Date:	Drawing No.:
J.L.P.	12/01/2023	AC140
234903-23001		

DRAWING REISSUED AS PART OF BID ADDENDUM #1



1 Site Soil Erosion and Sediment Control Plan
1" = 30'

Site Erosion and Sediment Control Notes

1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS SPECIFIED IN THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (BLUE BOOK), LATEST EDITION, AND WILL BE INSTALLED IN PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.

2. ANY DISTURBED AREA THAT WILL BE LEFT EXPOSED FOR MORE THAN THIRTY DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PROHIBITS TEMP. SEEDING, THE DISTURBED AREA WILL BE MULCHED WITH SALT HAY OR EQUIVALENT AND BOUND IN ACCORDANCE WITH THE NY STANDARDS.

3. NYS DEC REGULATIONS REQUIRE THAT DISTURBANCE BE LIMITED TO AREAS LESS THAN 5-ACRES AT ANY ONE TIME.

4. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT ACCORDING TO NYS DEC STANDARDS.

5. STABILIZATION SPECIFICATIONS:

   A. SOIL AMENDMENTS:

   LIME - PROVIDE GROUND LIMESTONE TO PH OF 6.0.

   FERTILIZER - 14 LBS/1,000 S.F., 5-10-10 OR EQUIVALENT WORKED INTO SOIL A MINIMUM OF 4".

   B. TEMPORARY SEEDING AND MULCHING:

   SEED - ANNUAL RYEGRASS 30 LBS/ACRE; PLANT BETWEEN MARCH 1 AND MAY 15 OR BETWEEN AUGUST 15 AND OCTOBER 1. USE WINTER RYE IF SEEDING IN OCT./NOV.

   MULCH - SALT HAY OR SMALL GRAIN STRAW AT A RATE OF 90 LBS/1,000 S.F.. TO BE APPLIED ACCORDING TO THE NY STANDARDS. MULCH SHALL BE SECURED BY WOOD FIBER MULCH (HYDROMULCH) AT 11-17 LBS./1,000 S.F. WOOD FIBER MULCH MUST BE APPLIED THROUGH A HYDROSEEDER IMMEDIATELY AFTER MULCHING.

   C. PERMANENT SEEDING AND MULCHING:

   SEED - REFER TO PROJECT MANUAL SPECIFICATIONS FOR SEED TYPE, RATE OF SEEDING AND SEASON OF SEEDING. RATE AND SEED TYPE ARE TO MEET THE MINIMUM REQUIREMENTS OF THE NY STANDARDS.

   MULCH - REFER TO PROJECT MANUAL SPECIFICATIONS FOR MULCH TYPE, RATE OF APPLICATION, ETC. RATE AND MULCH TYPE ARE TO MEET THE MINIMUM REQUIREMENTS OF THE NY STANDARDS.

6. TEMPORARY BERMS ARE TO BE INSTALLED ON ALL CLEARED ROADWAYS AND EASEMENT AREAS IN ACCORDANCE WITH SECTION 5A OF THE NY STANDARDS.

7. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORMWATER RUN-OFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.

8. ALL SEDIMENTATION STRUCTURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS.

9. STOCKPILES ARE NOT TO BE LOCATED WITHIN 50' OF A FLOODPLAIN, SLOPE, ROADWAY, OR DRAINAGE FACILITY. THE BASE OF ALL STOCKPILES SHOULD BE PROTECTED BY A SILT DAM OR STRAW BALE DIKE IN ACCORDANCE WITH NY STANDARDS.

10. A CRUSHED STONE, VEHICLE WHEEL-CLEANING BLANKET WILL BE INSTALLED WHEREVER A CONSTRUCTION ACCESS ROAD INTERSECTS ANY PAVED ROADWAY. SAID BLANKET WILL BE COMPOSED OF 2" CRUSHED STONE, 6" THICK, WILL BE AT LEAST 30'X100' AND SHOULD BE UNDERLAIN WITH A SUITABLE SYNTHETIC SEDIMENT FILTER FABRIC AND MAINTAINED (SEE DETAIL).

11. ALL CATCH BASIN INLETS WILL BE PROTECTED WITH A FABRIC FILTER CRUSHED STONE OR FABRIC FILTER (FILTER DETAILS APPEAR ON THE PLAN).

12. ALL STORM DRAINAGE OUTLETS WILL BE STABILIZED, AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.

13. ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT TRAP OR APPROVED AFTERMARKET PRODUCT IN ACCORDANCE WITH SECTION 5A OF THE NY STANDARDS.

14. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.

15. STABILIZED CONSTRUCTION ENTRANCE AND CONSTRUCTION ACCESS AREAS TO BE RESTORED TO EXISTING CONDITIONS, LAWN RESTORATION SHALL INCLUDE REMOVAL GRANULAR FILL, GRAVEL AND STONE. SCARIFY SUBGRADE. PROVIDE TOPSOIL AND LIGHTLY COMPACT TO BE FLUSH WITH SURROUNDING GRADE. FINE GRADE, FERTILIZE, SEED AND MULCH.

Site Erosion & Sediment Control Sequence

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE PAD.
2. INSTALL TEMPORARY TREE PROTECTION AT EXISTING TREES WITHIN CONSTRUCTION AREA. PRIOR TO COMMENCEMENT OF GRADING OPERATIONS,
3. INSTALL SILT FENCE, SEDIMENT TRAPS AND SEDIMENT BASINS.
4. INSTALL TEMPORARY STORM SEWER INLET PROTECTION AT ALL EXISTING DRAINAGE INLETS THAT WILL BE RECEIVING STORM DRAINAGE FROM CONSTRUCTION ACTIVITIES.
5. PREPARE CONTRACTOR ACCESS DRIVES, PARKING AND STAGING AREAS WITH TYPE 2 FILL OR OTHER SURFACING THAT WILL PREVENT EROSION OF THESE AREAS. STRIP TOPSOIL AND STOCKPILE IN LOCATION SHOWN.
6. SURROUND ALL STOCKPILES WITH SILT FENCE OR HAY BALE BARRIER. THROUGHOUT GRADING OPERATIONS,
7. PROVIDE TEMPORARY AND PERMANENT SEEDING PER SOIL EROSION AND SEDIMENT CONTROL NOTES NOS. 2, 3, & 4.
8. AFTER SLOPES ARE CUT OR FILLED, PROVIDE EROSION CONTROL MATTING AT ALL SLOPES THAT ARE THREE HORIZONTAL TO ONE VERTICAL AND STEEPER.
9. BEFORE COMMENCEMENT OF EXCAVATING FOR FOOTINGS, INSPECT SITE WITH OWNER/ARCHITECT FOR COMPLIANCE WITH SOIL EROSION AND SEDIMENT CONTROL REQUIREMENTS.
10. DURING EXCAVATION FOR FOOTINGS, TRENCHES, ETC., WHEN DEWATERING IS REQUIRED, PROVIDE MEANS TO REMOVE SEDIMENT IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTE #13 THIS DRAWING.
11. AS STORM STRUCTURES ARE BEING INSTALLED, PROVIDE TEMPORARY STORM SEWER INLET PROTECTION PER DETAIL AT ALL GRATED STORM SEWER INLETS PRIOR TO CONNECTING BASINS TO NEW STORM PIPING. MAINTAIN EROSION CONTROL DEVICES IN FULLY FUNCTIONAL CONDITION THROUGHOUT CONTRACT PERIOD.
12. PROVIDE ADDITIONAL EROSION CONTROL MEASURES AS REQUIRED TO MEET NEW YORK STANDARDS OR AS REQUIRED BY SOIL CONSERVATION DISTRICT.
13. UPON OWNER APPROVAL, REMOVE TEMPORARY SOIL & EROSION CONTROL MEASURES AFTER PERMANENT MEASURES ARE IN PLACE AND FUNCTIONING EFFECTIVELY.

#Soil Erosion & Sediment Control Key Notes

1 DROP-IN INLET PROTECTION, (TYP.). SEE DETAIL 2 / BC110.
2 INLET PROTECTION IN LAWN, SEE DETAIL 3 / BC110.
3 SILT FENCE, (TYP.). SEE DETAIL 4 / BC110.

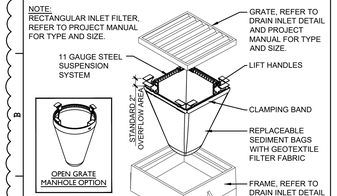
N

SOIL EROSION AND SEDIMENT CONTROL LEGEND

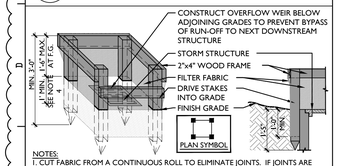
SYMBOL	DESCRIPTION
SF	SILT FENCE
	DROP-IN INLET PROTECTION
	INLET PROTECTION IN LAWN

General Site Notes

1. REFER TO DRAWING BC100 FOR GENERAL SITE NOTES THAT APPLY TO BC-SERIES DRAWINGS.

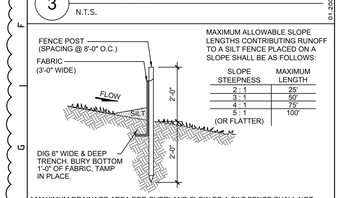


2 Drop Inlet Protection - Drop In Filter
NTS



NOTES:
1. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED, THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
2. STAKE MATERIALS WILL BE STANDARD 2"x4" WOOD OR EQUIVALENT METAL WITH A MINIMUM LENGTH OF THREE FEET.
3. SPACE STAKES EVENLY AROUND INLET THREE FEET APART AND DRIVE A MINIMUM OF 18 INCHES DEEP. SPANS GREATER THAN THREE FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
4. EMBED FILTER FABRIC ONE FOOT MINIMUM BELOW GROUND AND BACKFILL. FASTEN FILTER FABRIC SECURELY TO STAKES AND FRAME.
5. A 2"x4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FILTER FABRIC FOR OVERFLOW STABILITY.

3 Inlet Protection
N.T.S.



MAXIMUM ALLOWABLE SLOPE LENGTHS CONTRIBUTING RUNOFF TO A SILT FENCE PLACED ON A SLOPE SHALL BE AS FOLLOWS:

SLOPE STEEPNESS	MAXIMUM LENGTH
2 : 1	25'
3 : 1	50'
4 : 1	75'
5 : 1 (OR FLATTER)	100'

* MAXIMUM DRAINAGE AREA FOR OVERLAND FLOW TO A SILT FENCE SHALL NOT EXCEED ½ ACRE PER 100 FEET OF FENCE, WITH A MAXIMUM PONDING DEPTH OF 1.5' BEHIND THE FENCE.
* SILT FENCE SHALL BE UTILIZED ONLY TO CAPTURE SHEET EROSION.
* CONCENTRATED FLOW OF STORMWATER RUNOFF TO THE SILT FENCE BARRIER SHALL NOT BE PERMITTED
* PLACE SILT FENCE AS CLOSE TO DISTURBANCE AREAS AS POSSIBLE, BUT AT LEAST 10' FROM TOE OF SLOPE AREAS TO ALLOW FOR MAINTENANCE.
* WHERE ENDS OF FILTER CLOTH ADJOIN EACH OTHER, OVERLAP 6", FOLD AND STAPLE ENDS TO PREVENT SEDIMENT BYPASS FROM OCCURRING.

4 Silt Fence - Standard
NTS

S.E.D. Control No. 66-04-03-03-0-001-020

Rev. No.:	Date:	Description:
1	01/22/25	BID ADDENDUM No. 1

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BID SET

TETRA TECH
ARCHITECTS & ENGINEERS

Dobbs Ferry Union Free School District
Dobbs Ferry, New York

Reconstruction to:
Dobbs Ferry Middle / High School

Site Soil Erosion and Sediment Control Plan

Drawn by:	Date:	Drawing No.:
J.L.P.	12/01/2023	BC110

234903-23001

DRAWING REISSUED AS PART OF BID ADDENDUM #1