
BID ADDENDUM #1

Nanuet Union Free School District
103 Church Street
Nanuet, NY 10954

Nanuet Bond Projects Phase 3

Date: June 22, 2023

NOTICE TO CONTRACTORS

This Addendum issued prior to receipt of Bid shall and does hereby become a part of the Construction Documents for the above project.

All principal Contractors shall be responsible for seeing that their Subcontractors are properly apprised of the contents of this Addendum.

All information contained in this Addendum shall supersede and shall take precedence over any conflicting information in the original Bidding Documents dated **June 6, 2023**, and all previous addenda.

All Contractors shall acknowledge receipt of this Addendum in the space provided in the Bid Form. Failure to do so may subject Bidder to disqualification.

CLARIFICATIONS:

1. What contractor is responsible for asbestos abatement?
Response: Each trade is responsible for their own abatement. Please refer to the contract summary for drawings containing abatement scope.
2. Drawings show 4" hydronic piping being removed and installed in the crawl space. The drawings show the piping going through the crawl space, does it end there, or does it go further? There are no drawings showing a continuation.
Response: The 4" hot water supply and return piping shown on drawing HS-M107 continue on drawing HS-M108 boiler room plan detail A9.
3. The elevator replacement drawings call for the new elevator to be Elvoro by Garaventa Lift. But the specs call for Lula Elevator by Symmetry. Elvoro elevator will not fit in the existing shaft. Please clarify which spec to follow.
Response: Refer to spec SECTION 14 26 00 – LIMITED USE/APPLICATION HYDRAULIC ELEVATOR. Provide Limited Use/Limited Application (LU/LA) Hydraulic Passenger Elevator by Symmetry
4. Drawing HS-M002, Equipment Schedule does not show the following equipment: R1-1, R1-2, R1-3, R1-4, R1-5, R1-6 & R1-7. Please advise.

Response: Radiation panels R-1-1, R-1-2, R-1-3, R-1-4, R-1-5, R-1-6, and R-1-7 correspond to R-1 in the Heating Water Radiation Schedule.

5. Equipment Schedule on Drawing HS-M002 shows Heating Water Radiators R1-1, R-2 and R-3, Drawing HS-M109 shows the install using equipment R2-1, R2-2, Rs-3 and R2-4. Please advise. Also, can you provide a pipe detail on this equipment?

Response: Radiation panels R-2-1, R-2-2, R-2-3, and R-2-4 correspond to R-2 in the Heating Water Radiation Schedule. Radiation panel R-3-1 corresponds to R-3 in the Heating Water Radiation Schedule. See detail H13 on drawing HS-M601 for the Hot Water Radiation Panel Detail for these items.

6. Is the existing sump pump in the Barr MS elevator shaft being replaced or to remain? Is the GC or PC responsible to replace? Is the plumbing scope for the MS & HS under the GC contract or the MC contract?

Response: Per BM-P101, the sump pump SP-1 is new. All plumbing scope for the MS & HS are under the GC contract.

7. On page 285 of the specifications the start of construction date for the building envelope is June 24, 2023 even though the current bid due date is July 11, 2023. Would you confirm that this is a typo and that start date is really June 24, 2024?

Response: That is a typo. All construction starts in 2024. Please see attached revise specification 01 11 00 reflecting the correct milestone dates.

8. Can BE-01 roofing work start sooner than June 2024?

Response: Yes, roofing work may proceed during the school year providing it is non-noisy. This likely limits this work to reroofing with the liquid. Full rip re-roofing will need to take place in the summer months.

9. Can some of the mechanical work take place before summer 2024?

Response: Yes, work that is not intrusive, such as the running of line sets for the VRF system may take place second shift during the school year.

10. There are two schools indicated on the bid forms for each contract. Can we bid one or the other?

Response: No, all schools must be bid by each contract. The total lump sum bid of both schools is what will be used to determine the lowest responsible bidder. Please see revised bid forms with this clarification.

11. Note M1 on AD103 says that casework and plumbing fixtures are to be removed and capped by GC. Does this confirm that PC is under the GC contract? Or does the GC have to disconnect, cap and cut separately from the PC.

Response: All plumbing scope for the MS & HS are under the GC contract.

CHANGES TO SPECIFICATIONS:

1. ADD Specification Section **03 30 01-Cast in Place Concrete**
2. Modify Specification Section **05 12 00- Structural Steel**
 - a. Refer to the attached updated specification

REVISIONS TO DRAWINGS:

ARCHITECTURAL

1. **Sheet BM-A100-LOWER LEVEL FLOOR PLAN AND ENLARGED ELEVATOR PLANS**
 - a. Noted regarding the new sump pump pit were edited.

STRUCTURAL

1. **Sheet HS-S101-ROOF FRAMING PLAN**
 - a. Roof framing updated
2. **Sheet HS-S501-STRUCTURAL DETAILS**
 - b. Details regarding Mechanical unit support were added
3. **Sheet BM-S101-STRUCTURAL PLANS**
 - a. New Sump Pump Pit Plan added
4. **Sheet BM-S501-STRUCTURAL DETAILS**
 - a. Details regarding new sump pump pit were added

ELECTRICAL

1. **Sheet BM-E101 & BM-E601**
 - a. Supplemental information attached on Owner furnished, Contractor Installed MDP

ENCLOSURES:

00 30 00- BE-01 Bid Form

00 30 01- GC-01 Bid Form

00 30 02- EC-01 Bid Form

00 30 03- MC-01 Bid Form

01 11 00- Milestone Schedule

03 30 01-Cast in Place Concrete

05 12 00- Structural Steel

Electrical Switchgear Shop Drawing- For Reference and Coordination

SHEETS

GENERAL	CIVIL	STRUCT	ARCH	MECH	ELEC	PLUMB	ABATEMENT
		HS-S101	BM-A100				
		HS-S501					
		MS-S101					



215 West 40th Street, 15th Floor
New York, New York 10018

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ksq.design

END OF BID ADDENDUM No. 1

SECTION 00 30 00 – BE BID FORM

CONTRACT 1 – BUILDING ENVELOPE CONSTRUCTION PROPOSAL (BE-01):

Bidding Firm Name

To The Board of Education,

The undersigned hereby proposes to furnish all labor, materials, devices, appliances, supplies, equipment, services and other facilities necessary to complete all of the work of the above referenced Contract for the Nanuet Union Free School District, Nanuet, New York, as required by, and in accordance with, the provisions of the Instructions to Bidders, the Supplementary Instructions to Bidders, the Conditions of the Contract, the Drawings and Specifications, all as prepared by KSQ Design designated as Nanuet Union Free School District Phase 3 Projects, dated **June 6, 2023** and that, if this Proposal is accepted, the Undersigned agrees to enter into an Agreement with the owner to perform this work for the lump sum of:

NANUET HIGH SCHOOL (For bid leveling purposes):

Dollars & No Cents

(\$_____.00)
herein referred to as the Base Bid.

BARR MIDDLE SCHOOL (For bid leveling purposes):

Dollars & No Cents

(\$_____.00)
herein referred to as the Base Bid.

TOTAL LUMP SUM BID (This sum is to be used as the official bid amount):

Dollars & No Cents

(\$_____.00)
herein referred to as the Base Bid.

ALLOWANCES:

The undersigned Contractor has included the Allowance(s) as specified in Section 01 2100 in their Base Bid.

UNIT PRICE:

BE BID FORM

00 3000 - 1 of 3

Unit Price BE-01 #1: Roof Caulk Abatement \$ _____ Dollars \$ No Cents

Unit Price BE-01 #2: Roof System complete demo and replacement \$ _____ Dollars \$ No Cents

Unit Price BE-01 #3: Replacement of Metal Coping \$ _____ Dollars \$ No Cents

ALTERNATES: NONE

ADDENDA:

The undersigned acknowledges the receipt of the following addenda:

Addendum Number	Date	Addendum Number	Date
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

The Undersigned understands that the Owner reserves the right to accept or reject any or all proposals, but that if notice of the acceptance of the above Proposal is sent via United States Postal Service or any other overnight carrier, with signature required, to the Undersigned within sixty (60) days after the formal opening of Bids or anytime thereafter before this Proposal is withdrawn, the Undersigned will enter into, execute, and deliver a Contract within five (5) days after the date of said notification.

TIME OF COMPLETION:

The Undersigned agrees in the Base Bid to complete the work as per the Milestone Schedule provided in Specifications.

CLOSING: (signature) _____

DATE: _____

BY: _____

TITLE: _____

FIRM: _____

ADDRESS: _____

TELEPHONE NUMBER: _____

FAX NUMBER: _____

CONTACT PERSON: _____

E-MAIL: _____

Submit Bid Form in duplicate.

END OF SECTION 00 3000

SECTION 00 3001 - GC BID FORM

CONTRACT 1 – GENERAL CONSTRUCTION PROPOSAL (GC):

Bidding Firm Name

To The Board of Education,

The undersigned hereby proposes to furnish all labor, materials, devices, appliances, supplies, equipment, services and other facilities necessary to complete all of the work of the above referenced Contract for the Nanuet Union Free School District, Nanuet, New York, as required by, and in accordance with, the provisions of the Instructions to Bidders, the Supplementary Instructions to Bidders, the Conditions of the Contract, the Drawings and Specifications, all as prepared by KSQ Design designated as Nanuet Union Free School District Phase 3 Projects, dated **June 6, 2023** and that, if this Proposal is accepted, the Undersigned agrees to enter into an Agreement with the owner to perform this work for the lump sum of:

NANUET HIGH SCHOOL (For bid leveling purposes):

Dollars & No Cents

(\$_____.00)
herein referred to as the Base Bid.

BARR MIDDLE SCHOOL (For bid leveling purposes)::

Dollars & No Cents

(\$_____.00)
herein referred to as the Base Bid.

TOTAL LUMP SUM BID (This sum is to be used as the official bid amount):

Dollars & No Cents

(\$_____.00)
herein referred to as the Base Bid

ALLOWANCES:

The undersigned Contractor has included the Allowance(s) as specified in Section 01 2100 in their Base Bid.

UNIT PRICE:

Unit Price GC-#1: Abatement of ACM Floor Tile (VAT) and Mastic: \$_____ Dollars \$ No Cents

Unit Price GC- #2: Abatement of ACM Pipe Insulation (including elbows):

\$_____ Dollars \$ No Cents

Unit Price GC-#3: Abatement of Transite paneling \$_____ Dollars \$ No Cents

ALTERNATES:

Add Alternate GC-01 Alt #1: \$_____ Dollar \$ No Cents

Add Alternate GC-01 Alt #2: \$_____ Dollar \$ No Cents

Add Alternate GC-01 Alt #3: \$_____ Dollar \$ No Cents

Add Alternate GC-01 Alt #4: \$_____ Dollar \$ No Cents

Add Alternate GC-01 Alt #5: \$_____ Dollar \$ No Cents

ADDENDA:

The undersigned acknowledges the receipt of the following addenda:

Addendum Number	Date	Addendum Number	Date
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

The Undersigned understands that the Owner reserves the right to accept or reject any or all proposals, but that if notice of the acceptance of the above Proposal is sent via United States Postal Service or any other overnight carrier, with signature required, to the Undersigned within sixty (60) days after the formal opening of Bids or anytime thereafter before this Proposal is withdrawn, the Undersigned will enter into, execute, and deliver a Contract within five (5) days after the date of said notification.

TIME OF COMPLETION:

The Undersigned agrees in the Base Bid to complete the work as per the Milestone Schedule provided in Specifications.

CLOSING: (signature) _____

DATE: _____

BY: _____

TITLE: _____

FIRM: _____

ADDRESS: _____

TELEPHONE NUMBER: _____

FAX NUMBER: _____

CONTACT PERSON: _____

E-MAIL: _____

Submit Bid Form in duplicate.

END OF SECTION 00 3001

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SECTION 00 3002 - EC BID FORM

CONTRACT 1 – ELECTRICAL CONSTRUCTION PROPOSAL (EC-01):

Bidding Firm Name

To The Board of Education,

The undersigned hereby proposes to furnish all labor, materials, devices, appliances, supplies, equipment, services and other facilities necessary to complete all of the work of the above referenced Contract for the Nanuet Union Free School District, Nanuet, New York, as required by, and in accordance with, the provisions of the Instructions to Bidders, the Supplementary Instructions to Bidders, the Conditions of the Contract, the Drawings and Specifications, all as prepared by KSQ Design designated as Nanuet Union Free School District Phase 3 Projects, dated **June 6, 2023** and that, if this Proposal is accepted, the Undersigned agrees to enter into an Agreement with the owner to perform this work for the lump sum of:

NANUET HIGH SCHOOL (For bid leveling purposes):

Dollars & No Cents

(\$_____.00)
herein referred to as the Base Bid.

BARR MIDDLE SCHOOL (For bid leveling purposes):

Dollars & No Cents

(\$_____.00)
herein referred to as the Base Bid.

TOTAL LUMP SUM BID (This sum is to be used as the official bid amount):

Dollars & No Cents

(\$_____.00)
herein referred to as the Base Bid.

ALLOWANCES:

The undersigned Contractor has included the Allowance(s) as specified in Section 01 21 00 in their Base Bid.

UNIT PRICE:

Unit Price EC-#1: Abatement of ACM wire insulation \$_____ Dollars \$ No Cents

ALTERNATES:

Add Alternate EC-01 Alt #1: NOT USED

Add Alternate EC-01 Alt #2: \$ _____ Dollar \$ No Cents

Add Alternate EC-01 Alt #3: \$ _____ Dollar \$ No Cents

Add Alternate EC-01 Alt #4: \$ _____ Dollar \$ No Cents

Add Alternate EC-01 Alt #5: \$ _____ Dollar \$ No Cents

ADDENDA:

The undersigned acknowledges the receipt of the following addenda:

Addendum Number	Date	Addendum Number	Date
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

The Undersigned understands that the Owner reserves the right to accept or reject any or all proposals, but that if notice of the acceptance of the above Proposal is sent via United States Postal Service or any other overnight carrier, with signature required, to the Undersigned within sixty (60) days after the formal opening of Bids or anytime thereafter before this Proposal is withdrawn, the Undersigned will enter into, execute, and deliver a Contract within five (5) days after the date of said notification.

TIME OF COMPLETION:

The Undersigned agrees in the Base Bid to complete the work as per the Milestone Schedule provided in Specifications.

CLOSING: (signature) _____

DATE: _____

BY: _____

TITLE: _____

FIRM: _____

ADDRESS: _____

TELEPHONE NUMBER: _____

FAX NUMBER: _____

CONTACT PERSON: _____

E-MAIL: _____

Submit Bid Form in duplicate.

END OF SECTION 00 3002

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SECTION 00 3003 - MC BID FORM

CONTRACT 1 – MECHANICAL CONSTRUCTION PROPOSAL (MC-01):

Bidding Firm Name

To The Board of Education,

The undersigned hereby proposes to furnish all labor, materials, devices, appliances, supplies, equipment, services and other facilities necessary to complete all of the work of the above referenced Contract for the Nanuet Union Free School District, Nanuet, New York, as required by, and in accordance with, the provisions of the Instructions to Bidders, the Supplementary Instructions to Bidders, the Conditions of the Contract, the Drawings and Specifications, all as prepared by KSQ Design designated as Nanuet Union Free School District Phase 3 Projects, dated **June 6, 2023** and that, if this Proposal is accepted, the Undersigned agrees to enter into an Agreement with the owner to perform this work for the lump sum of:

NANUET HIGH SCHOOL (For bid leveling purposes):

Dollars & No Cents

(\$_____.00)
herein referred to as the Base Bid.

BARR MIDDLE SCHOOL (For bid leveling purposes):

Dollars & No Cents

(\$_____.00)
herein referred to as the Base Bid.

TOTAL LUMP SUM BID (This sum is to be used as the official bid amount):

Dollars & No Cents

(\$_____.00)
herein referred to as the Base Bid.

ALLOWANCES:

The undersigned Contractor has included the Allowance(s) as specified in Section 01 21 00 in their Base Bid.

UNIT PRICE:

Unit Price MC-#1: Abatement of ACM Floor Tile (VAT) AND Mastic: \$_____ Dollars \$ No Cents

Unit Price MC-#2: Abatement of ACM Pipe Insulation (including elbows):

\$ _____ Dollars \$ No Cents

Unit Price MC-#3: New Ductwork as specified in the contract documents: \$ _____

Dollars \$ No Cents

ALTERNATES: NONE NOTED

ADDENDA:

The undersigned acknowledges the receipt of the following addenda:

Addendum Number	Date	Addendum Number	Date
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

The Undersigned understands that the Owner reserves the right to accept or reject any or all proposals, but that if notice of the acceptance of the above Proposal is sent via United States Postal Service or any other overnight carrier, with signature required, to the Undersigned within sixty (60) days after the formal opening of Bids or anytime thereafter before this Proposal is withdrawn, the Undersigned will enter into, execute, and deliver a Contract within five (5) days after the date of said notification.

TIME OF COMPLETION:

The Undersigned agrees in the Base Bid to complete the work as per the Milestone Schedule provided in Specifications.

CLOSING: (signature) _____

DATE: _____

BY: _____

TITLE: _____

FIRM: _____

ADDRESS: _____

TELEPHONE NUMBER: _____

FAX NUMBER: _____

CONTACT PERSON: _____

E-MAIL: _____

Submit Bid Form in duplicate.

END OF SECTION 00 3003

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SECTION 01 11 00 - MILESTONE SCHEDULE

PART 1 - GENERAL

1.1 Milestone

The following milestone schedule serves as a basis for bidding. A Master Schedule will be developed at a general meeting of all successful bidders within 21 days of Letter of Intent to Award the Contracts. This sequence and time frame has been coordinated with the school program, no acceleration or changes will be permitted. Each prime contractor will coordinate activities, forward submittals, deliver materials and provide necessary manpower to meet the milestones listed below.

1.2 Milestone Schedule - Building Envelope Projects Both Schools (Roofing): BE-01, EC-01

Start of Construction:	June 24, 2024
Equipment Submittals & Approvals:	August – October 2023
Substantial Completion All Schools:	September 10, 2024

1.4 Milestone Schedule - High School Projects: GC-01, MC-01, EC-01

Start of Construction Classroom Renovation:	June 28, 2024
Start of Construction Hydronic Conversion:	June 28, 2024
Start of Construction BMS Controls Upgrade:	June 28, 2024
Equipment Submittals & Approvals:	August – October 2023
Substantial Completion Classroom Renovation:	August 24, 2024
Substantial Completion Hydronic Conversion:	September 17, 2024
Substantial Completion BMS Controls Upgrade:	September 17, 2024

1.4 Milestone Schedule - Barr Middle School Projects: GC-01, MC-01, EC-01

Start of Construction Elevator Replacement:	June 26, 2024
Start of Construction Switchgear & Transformer:	June 26, 2024
Start of Construction BMS Controls Upgrades:	June 26, 2024
Start of Construction Air Conditioning Project:	June 26, 2024
Equipment Submittals & Approvals:	August – October 2023
Substantial Completion Elevator Replacement:	August 28, 2024
Substantial Completion Switchgear & Transformer:	August 19, 2024
Substantial Completion BMS Controls Upgrades:	September 19, 2024
Substantial Completion Air Conditioning Project:	September 19, 2024

Note: Second shift/double shift work could be required to meet substantial completion dates. Second shift/ double shift work is expected to take place as required to meet the milestone schedule if necessary. The contractor will have blackout dates during school days where work may not take place. It is the contractor's responsibility to request in writing any blackout dates prior to commencement of work to coordinate schedule.

Second shift hours are before 6AM or after 3:30 pm.

Failure to meet the milestone schedule will result in a per day financial penalty as indicated in the AIA A232/A132

All work required by any of the Owner's representatives and consultants, including the Architect, Construction Manager and their consultants, Owner's Attorneys, etc., to execute final close-out of contract after 60 days beyond Milestone dates if determined to be caused by contractor, shall result in payment(s) to the Owner's representatives and consultants, including the Architect, Architect's consultants, Owner's Attorneys, etc., in the form of a change order deduct to the base contract.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 011100

SECTION 03 30 01 – CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes:

1. Concrete formwork, reinforcing steel, and cast-in-place concrete, for concrete foundation walls and footings.

1.2 SUBMITTALS

A. Product Data: Manufacturer's name, specifications, and installation instructions, for each item specified.

B. Steel Reinforcement Shop Drawings: Details of fabrication, bending, and placement, prepared according to ACI 315, "Details and Detailing of Concrete Reinforcement." Include material, grade, bar schedules, stirrup spacing, bent bar diagrams, arrangement, and supports of concrete reinforcement. Include special reinforcement required for openings through concrete structures.

C. Construction Joint Layout: Indicate proposed construction joints required to construct the structure.

D. Location of construction joints is subject to approval of the Engineer.

E. Design Mixes: For each concrete mix. Include alternate mix designs when characteristics of materials, project conditions, weather, test results, or other circumstances warrant adjustments.

1. Indicate amounts of mix water to be withheld for later addition at Project site.

F. Material Certificates: Signed by manufacturers certifying that each of the following items complies with requirements:

1. Cementitious materials and aggregates.
2. Admixtures.
3. Curing materials.

4. Bonding agents.
5. Adhesives.
6. Repair materials.

1.3 REFERENCES

- A. Comply with ACI 301-89 for all Work of this Section, unless otherwise indicated on the Contract Drawings or herein specified.
- B. New York State Department of Transportation Standard Specifications for Construction and Materials, Latest Edition.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who has completed concrete Work similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- B. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products complying with ASTM C 94 requirements for production facilities and equipment.
 1. Testing Agency Qualifications: An independent agency, acceptable to authorities having jurisdiction, qualified according to ASTM C 1077 and ASTM E 329 for testing indicated.
 2. Personnel conducting field tests shall be qualified as ACI Concrete Field Testing Technician, Grade 1, according to ACI CP-1 or an equivalent certification program.
 3. Personnel performing laboratory tests shall be ACI-certified Concrete Strength Testing Technician and Concrete Laboratory Testing Technician, Grade I. Testing agency laboratory supervisor shall be an ACI-certified Concrete Laboratory Testing Technician, Grade II.
- C. Source Limitations: Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant, each aggregate from one source, and each admixture from the same manufacturer.

1.5 FIELD CONDITIONS

- A. Cold-Weather Placement: Comply with ACI 306.1 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
 1. When average high and low temperature is expected to fall below 40 deg F for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301.
 2. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
 3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.
- B. Hot-Weather Placement: Comply with ACI 301 and as follows:

1. Maintain concrete temperature below 90 deg F at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
2. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade uniformly moist without standing water, soft spots, or dry areas.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Prefabricated metal-framed plywood matched, tight fitting, stiffened to support weight of concrete.
- B. Reinforcing Steel: ASTM A615, Grade60; deformed billet steel bars.
 1. Joint Dowel Bars: ASTM A 615, Grade 60 plain-steel bars. Cut bars true to length with ends square and free of burrs.
- C. Chairs, Bolsters, Bar Supports, and Spacers: Sized and shaped for support of reinforcing.
- D. Cast-In-Place Concrete: Normal weight, air entrained concrete with a minimum compressive strength of 4,000 PSI at the end of 28 days.
 1. Design Air Content: ASTM C-260, and on the NYSDOT's current "Approved List"; 6% by volume, 1.5% +/- . Entrained air shall be provided by use of an approved air-entraining admixture.
 2. Cement: ASTM C-150 Type I or II Portland cement.
 3. Normal-Weight Aggregates: ASTM C 33, uniformly graded. Provide aggregates from a single source.
 - a. Maximum Coarse-Aggregate Size: 3/4 inches nominal.
 - b. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement
 4. Water: Potable.
 5. Slump: Between 2 and 4 inches; except when a water-reducing admixture is used maximum slump shall be 6 inches and when a high range water reducing admixture is used maximum slump shall be 8 inches.
 6. Water-reducing Admixture: ASTM C-494 Type A and on the NYSDOT's current "Approved List".
 7. High Range Water-reducing Admixture: ASTM C-494 Type F and on the NYSDOT's current "Approved List".
- E. Concrete Sealer:
 1. Surebond/Safebond SB-7000 clear concrete sealer or equivalent for sidewalks.
 2. Non-water based penetrating type protective sealer which is on the NYSDOT Material List for concrete pavement.

- F. Concrete Hardener and Dustproofers: Magnesium-fluorosilicate concrete hardener and dustproofers that bonds chemically with the concrete.
 - 1. Lapidolith by Sonneborn Building Products, Chemrex, Inc., 889 Valley Park Dr., Shakopee, MN 55379, (800) 433-9517, or approved equivalent.
- G. Fabric Reinforcement: 6 inch x 6 inch – W2.9 x W2.9, ASTM A-185, welded wire fabric, fabricated into flat sheets.
- H. Closed Cell Polyethylene Foam Joint Filler: For use around penetrations. Flexible, chemical resistant, non-bleeding, non-staining, “strip-off” edge, by A.H. Harris & Sons, Inc. or approved equivalent.
- I. Fiber Expansion Joint Filler: Resilient, flexible, non-extruding joint compound composed of cellular fibers securely bonded together and uniformly saturated with asphalt, by A.H. Harris & Sons, Inc. or approved equivalent.
- J. Bedding: NYSDOT Subbase Course Type 2. See Section 312000 – “Excavation and Fill.”
- K. Chamfer Strips: Wood, metal, PVC or rubber; one inch chamfer, unless stated otherwise in Construction Documents.
- L. Epoxy Bonding Agent (Adhesive): 100 percent solids epoxy-resin-base bonding compound, complying with ASTM C 881, Types I, II, IV and V, Grade 2 (horizontal areas) or Grade 3 (overhead/vertical areas), and Class B (40-60 degrees Fahrenheit) or Class C (60 degree Fahrenheit and above).
 - 1. SurePoxy HM Series by Kaufman Products, Inc., 3811 Curtis Avenue, Baltimore, MD 21226, (800) 637-6372.
 - 2. Sikadur Hi-Mod 32 by Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071, (800) 933-7452.
 - 3. Epogrip by Sonneborn/ BASF Building Systems, 889 Valley Park Drive, Shakopee, MN 55379, (800) 433-9517.
 - 4. Approved Equal.

2.2 PRODUCTION (Amendments to ACI 301, Chapter 7):

- A. Provide ready-mixed concrete, either central-mixed or truck-mixed.

PART 3 - EXECUTION

3.1 FORMWORK INSTALLATION

- A. Design, construct, erect, brace, and maintain formwork according to ACI 301.

3.2 EMBEDDED ITEM INSTALLATION

- A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.

3.3 STEEL REINFORCEMENT INSTALLATION

- A. Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.

3.4 JOINTS

- A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.
- B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Engineer.

3.5 CONCRETE PLACEMENT

- A. Comply with ACI 301 for placing concrete.
- B. Before test sampling and placing concrete, water may be added at Project site, subject to limitations of ACI 301.
- C. Consolidate concrete with mechanical vibrating equipment according to ACI 301.

3.6 FINISHING FORMED SURFACES

- A. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie holes and defects repaired and patched. Remove fins and other projections exceeding 1/2 inch.
 - 1. Apply to concrete surfaces not exposed to public view.
- B. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defective areas. Remove fins and other projections exceeding 1/8 inch.
 - 1. Apply to concrete surfaces exposed to public view, to receive a rubbed finish.

- C. Rubbed Finish: Apply the following rubbed finish, defined in ACI 301, to smooth-formed-finished as-cast concrete where indicated:
 - 1. Smooth-rubbed finish.
 - 2. Grout-cleaned finish.
 - 3. Cork-floated finish.
- D. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated.

3.7 FINISHING UNFORMED SURFACES

- A. General: Comply with ACI 302.1R for screening, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.

3.8 CONCRETE PROTECTING AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and with ACI 301 for hot-weather protection during curing.
- B. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
- C. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
- D. Curing Methods: Cure formed and unformed concrete for at least seven days by one or a combination of the following methods:
 - 1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:
 - a. Water.
 - b. Continuous water-fog spray.
 - c. Absorptive cover, water saturated, and kept continuously wet. Cover concrete surfaces and edges with 12-inch lap over adjacent absorptive covers.
 - 2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period, using cover material and waterproof tape.
 - 3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three

hours after initial application. Maintain continuity of coating and repair damage during curing period.

3.9 FIELD QUALITY CONTROL

A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.

B. Inspections:

1. Steel reinforcement placement in accordance with ACI 318 Sections 3.5 and 7.1-7.7.
2. Verification of use of required design mixture.
3. Concrete placement, including conveying and depositing in accordance with ACI 318 Sections 5.9 and 5.10
4. Curing procedures and maintenance of curing temperature.
5. Verification of concrete strength before removal of shores and forms in accordance with ASTM C39.

C. Concrete Tests: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:

1. Testing Frequency: Obtain one composite sample for each day's pour of each concrete mixture exceeding 5 cu. yd., but less than 25 cu. yd., plus one set for each additional 50 cu. yd. or fraction thereof.
 - a. When frequency of testing provides fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
2. Slump: ASTM C 143; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture. Perform additional tests when concrete consistency appears to change.
3. Air Content: ASTM C 231, pressure method, for normal-weight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
4. Concrete Temperature: ASTM C 1064; one test hourly when air temperature is 40 deg F and below or 80 deg F and above, and one test for each composite sample.
5. Compression Test Specimens: ASTM C 31.
 - a. Cast and laboratory cure cylinder specimens for each composite sample.
6. Compressive-Strength Tests: ASTM C 39; at a minimum test one set of two laboratory-cured specimens at 7 days and one set of two specimens at 28 days.
 - a. Test one set of two field-cured specimens at 7 days and one set of two specimens at 28 days.
 - b. A compressive-strength test shall be the average compressive strength from a set of two specimens obtained from same composite sample and tested at age indicated.
7. Strength of each concrete mixture will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi.

8. Test results shall be reported in writing to Owner and Engineer, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
9. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Engineer but will not be used as sole basis for approval or rejection of concrete.
10. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Engineer. The cost for the additional testing shall be borne by the Contractor. Testing and inspecting agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42 or by other methods as directed by Engineer.
11. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
12. Correct deficiencies in the Work that test reports and inspections indicate do not comply with the Contract Documents.

D.
END OF SECTION

SECTION 05 12 00 – STRUCTURAL STEEL

PART 1 - GENERAL

1.1 SCOPE

- A. The extent of Structural Steel is as shown on the Contract Documents and as herein specified. The General and Supplementary Conditions and Division 1 Specification sections apply to work of this section.

1.2 GENERAL PROVISIONS

- A. Standard Specifications and Codes issued by professional organizations and governmental agencies are specified hereinafter by basic designations and only the latest editions and revisions thereto shall apply to the work of this Section.
- B. Applicable Standard Specifications and Codes:
 - 1. The 2015 International Building Code with Current New York State Supplement.
 - 2. Specifications for the Design, Fabrication and Erection of Structural Steel for Buildings issued by the American Institute of Steel Construction. (AISC).
 - 3. AWS D1.1 "Structural Welding Code – Steel" issued by the American Welding Society (AWS).
 - 4. "Specification for Structural Joints Using ASTM A325 or A490 Bolts" issued by the AISC.
 - 5. Painting Manual, Volume 2, "Systems and Specifications", as issued by the Steel Structures Painting Council (SSPC).
 - 6. "Code of Standard Practice for Steel Buildings and Bridges" as issued by the AISC.
- C. In case of any conflict between the referenced standards and these specifications, the one having more stringent requirements shall prevail.
- D. Coordination: Carry out the work of this Section in coordination and cooperation with contiguous work of other trades and/or Contracts involved.

1.3 SHOP DRAWINGS

Retain "Preinstallation Conference" Paragraph below if Work of this Section is extensive or complex enough to justify a preinstallation conference.

- A. Submit Shop Drawings for the Architect's approval in accordance with the provisions of Section 013300.
- B. The submittals shall include the following:

1. Erection plans: Shall be submitted for approval as early as possible.
 2. Standard and special details: Submit standard and special details for approval as soon as possible.
 3. Shop drawings shall indicate type, size and dimensions of all welds, and shall include details of the surface preparation and shop painting.
 4. The details shall be made in such a way as to avoid having steel connections, bracing, etc. interfere with architectural details or in any way reduce the areas of shafts, openings, clearances, etc.
 5. Shop drawings submitted electronically shall follow proper channels of submission as established with the owner and the design team. In addition, provisions of the General Conditions, as well as Section 013300 shall be followed as established for hard copy submissions. Shop drawings shall be submitted under a separate cover, include the title block and clearly identify the project on each drawing. Provide all other pertinent information and include the general contractor's review comments and review status on the electronic submission.
- C. No fabrication shall be undertaken until respective shop drawings are marked "No Exception Taken" or "No Exception Except as Noted".

1.4 ALTERATIONS AND ADDITIONS TO EXISTING STEEL STRUCTURE

- A. The Contractor shall verify existing conditions before submitting shop drawings for approval, including:
1. Dimensions and elevations.
 2. Sizes.
 3. Acceptable condition (not deteriorated or damaged).
- B. The Contractor shall notify the Architect of any varying or interfering conditions affecting the alterations or additions so that the design may be adjusted to suit.
- C. The Contractor shall carefully fit new connections to safe and acceptable tolerances.
- D. Cutting of existing steel shall be done with extreme care. Do not over cut. Shore and brace whenever safety is questionable.

Verify available warranties and warranty periods for fire extinguishers with manufacturers.

PART 2 - PRODUCTS

See Editing Instruction No. 1 in the Evaluations for cautions about named manufacturers and products. For an explanation of options and Contractor's product selection procedures, see Section 01 60 00 "Product Requirements."

2.1 MATERIALS

- A. Structural Steel shall conform to the following unless otherwise noted:
 - 1. Channels, angles, plates and bars – ASTM A36
 - 2. Round HSS – ASTM A53, Grade B
 - 3. Square and rectangular HSS - ASTM A500, Grade B
 - 4. HP shapes – ASTM A572, Grade 50
 - 5. All others – ASTM A992, Grade 50
- B. Bolts shall be ASTM A325, or A490. A307 may be used, if approved by the Structural Engineer of Record.
- C. High Strength Bolts:
 - 1. Bolts: Use ASTM A325 or A490 bolts manufactured by Infasco or approved equal. ASTM F1852 twist-off type tension control bolts produced by manufacturer may be used if approved by the Structural Engineer of Record.
 - 2. Hardened washers: Use ASTM F436 washers manufactured by Infasco or approved equal.
 - 3. Heavy hex nuts: Use only ASTM A563 heavy hex nuts manufactured by Infasco or Unytite Inc.
 - 4. Galvanized Bolts: Where shown or noted as galvanized, bolts nuts and washers shall be hot-dip galvanized in compliance with ASTM A153. Nuts shall be lubricated in accordance with ASTM A563. Rotational capacity tests shall be performed on each assembly lot.
- D. Filler Metal:
 - 1. Electrodes: As required for matching base metal as specified in AWS "Structural Welding Code-Steel".
 - 2. The electrodes and flux used for submerged arc welding shall be provided by the same manufacturer. The flux shall be free of contamination from dirt, mill scale and other foreign material. Fused flux used in welding shall not be reused.
 - 3. Filler metal for welding of new to existing steel shall be determined based on the test results conducted by a testing laboratory approved by the Structural Engineer of Record.
- E. Paint for Shop Coat, except as otherwise required for compatibility with finish paints as specified in Section 099000, shall be "Azeron H.S. Primer No. 88-555" by Tnemec, or a comparable suitable product by DuPont or Glidden.

PART 3 - EXECUTION

3.1 DESIGN AND WORKMANSHIP

- A. Unless otherwise specified or indicated, the design, fabrication and erection of steel work included in this Contract shall conform to the Specifications for the Design, Fabrication and Erection of Structural Steel for Buildings, by the American Institute of Steel Construction, and the regulations of the Building Code, including all amendments made thereto, whichever is the more restrictive.
- B. Existing Conditions:
 - 1. Visit the project site and advise the Architect of any discrepancy or conflict. Field verify existing construction requirements, existing conditions, restrictions and clearances which may affect structural steel erection.
 - 2. Examine the substrates, adjoining construction and the conditions under which the work is to be installed. Do not proceed until unsuitable conditions have been corrected. Consider all conditions which will affect satisfactory erection of the structural steel.
- C. Erection:
 - 1. Check the alignment and elevations of all column supports and location of all anchor bolts with transit and level instruments before starting erection. Notify and obtain Structural Engineer of Record's approval of methods proposed for correcting errors prior to proceeding with corrections.
 - 2. Drift pins may be used only to align the erected parts. They shall not be used in such manner as to distort or damage the steel.
 - 3. Make all necessary provisions for temporary shoring and bracing with connections of sufficient strength to sustain the imposed loads and for completion of erection where structural members are temporarily left out for erection at a later date.
 - 4. Base and Bearing Plates:
 - a. Clean concrete and masonry bearing surfaces of deleterious materials and roughen as necessary to provide adequate bond. Clean bottom surface of base and bearing plates immediately prior to erection.
 - b. Set loose and attached base plates and bearing plates for structural members on wedges or other adjusting devices.
 - c. Tighten anchor bolts after supported members have been positioned and plumbed. Do not remove wedges or shims. Cut off protruding parts flush with edges of base or bearing plates prior to packing with grout.
 - d. Pack grout solidly between bearing surfaces and steel or plates. Ensure that no voids remain. Finish exposed surfaces, protect installed materials, and allow to cure as per manufacturer's specifications.

3.2 HIGH STRENGTH BOLTING

- A. High Strength Bolts shall be installed as per "Specification for Structural Joints using ASTM A325 or A490 Bolts".

3.3 WELDING

- A. Materials and Workmanship:

- 1. Welding shall be done in accordance with the Building Department and Fire Department Regulations and the requirements of the AWS "Structural Welding Code-Steel", referenced herein.
- 2. Peening: Used only after permission for its use is obtained from the Architect.
- 3. Protection, storage and drying of welding electrodes shall be as specified in AWS "Structural Welding Code-Steel".
- 4. Groove welds shall be complete penetration welds unless otherwise shown.

- B. Welders and Welding Operators:

- 1. Welders and welding operators to be employed for this work must be qualified as prescribed in AWS "Structural Welding Code-Steel" and carry current certification as required by the Department of Buildings.
- 2. All costs for qualifying welders will be borne by the Contractor.

3.4 SURFACE PRAPARATION AND PAINTING

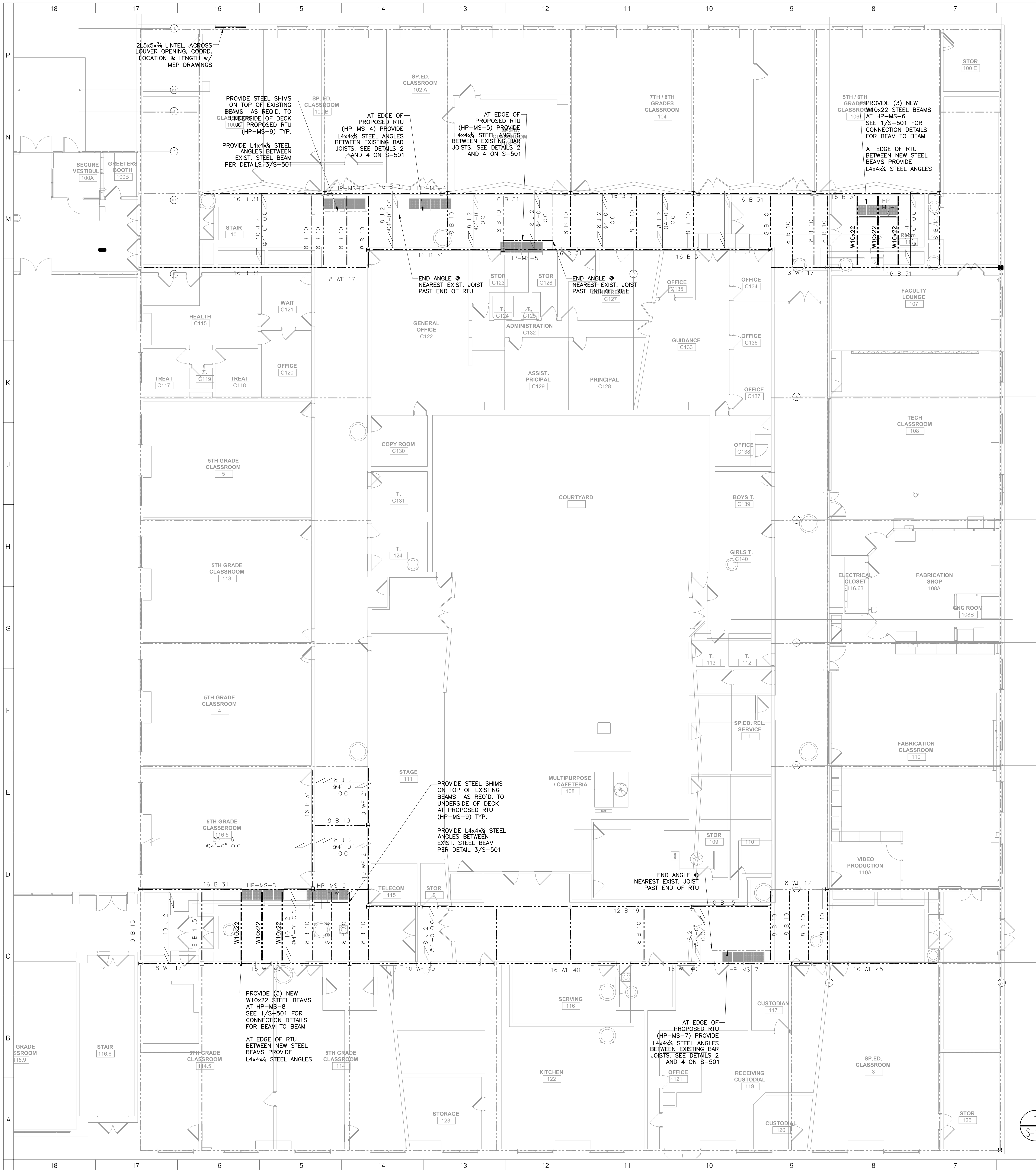
- A. All steel shall be cleaned in accordance with SSPC SP-2 "Hand Tool Cleaning", except as specified below for "Architectural Steel".

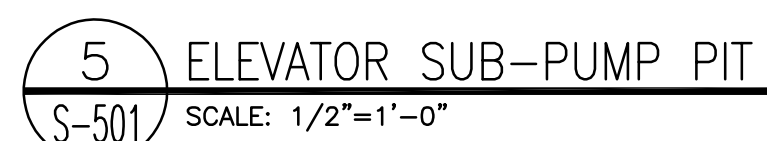
- B. After fabrication, steel shall receive a shop coat of paint to provide 2.0 - 4.0 mils dry film thickness, except for the following:

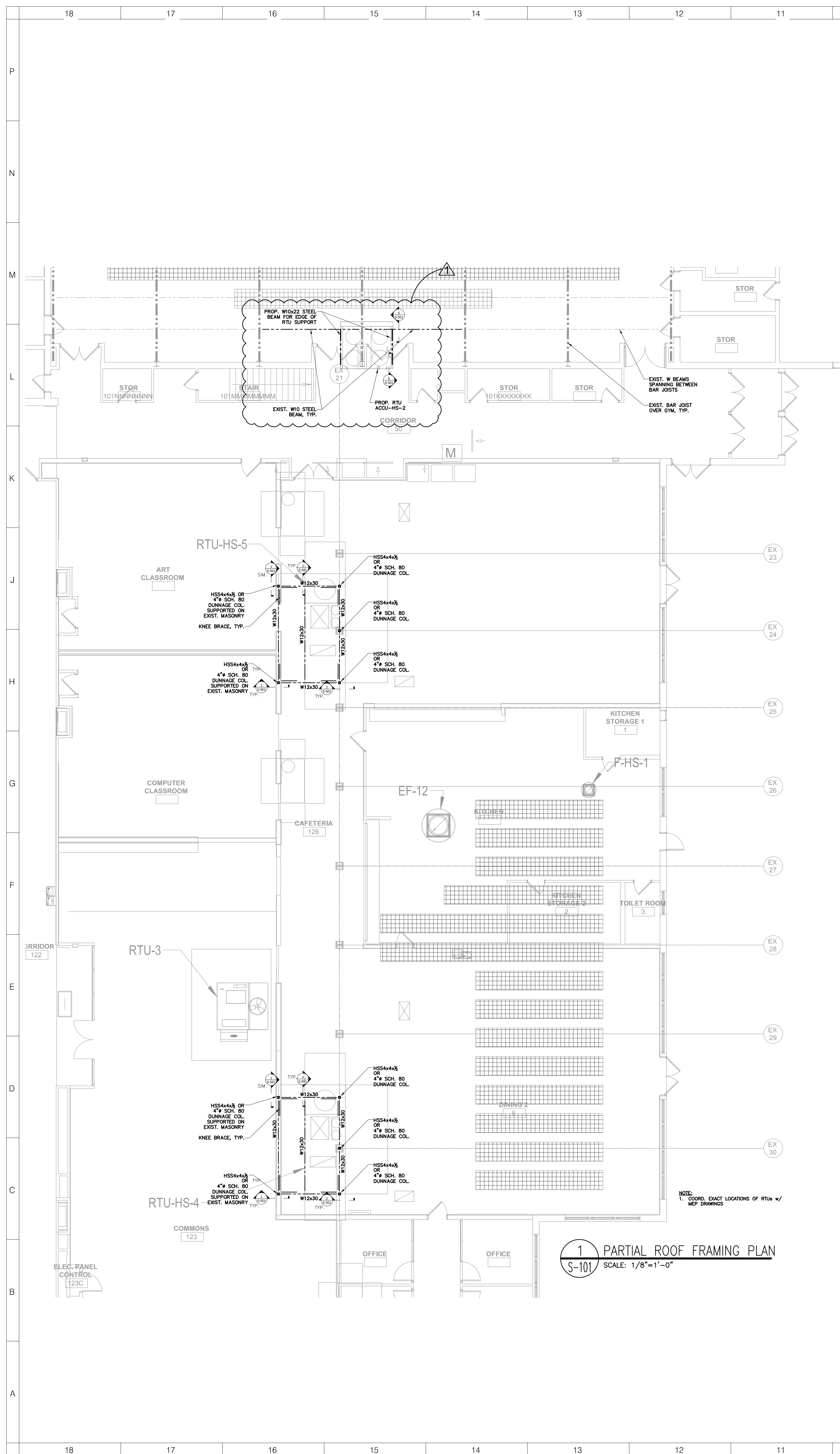
- 1. Members to be encased in concrete.
- 2. Areas within 2" of field welds.
- 3. Contact surfaces of high-strength bolted connections.
- 4. Surfaces receiving shear studs rebar dowels, etc.
- 5. Milled surfaces (protect with an approved rust- inhibitive coating readily removable prior to erection, or of a type not requiring removal).
- 6. Members which will receive cementitious fireproofing.
- 7. Members to be galvanized.

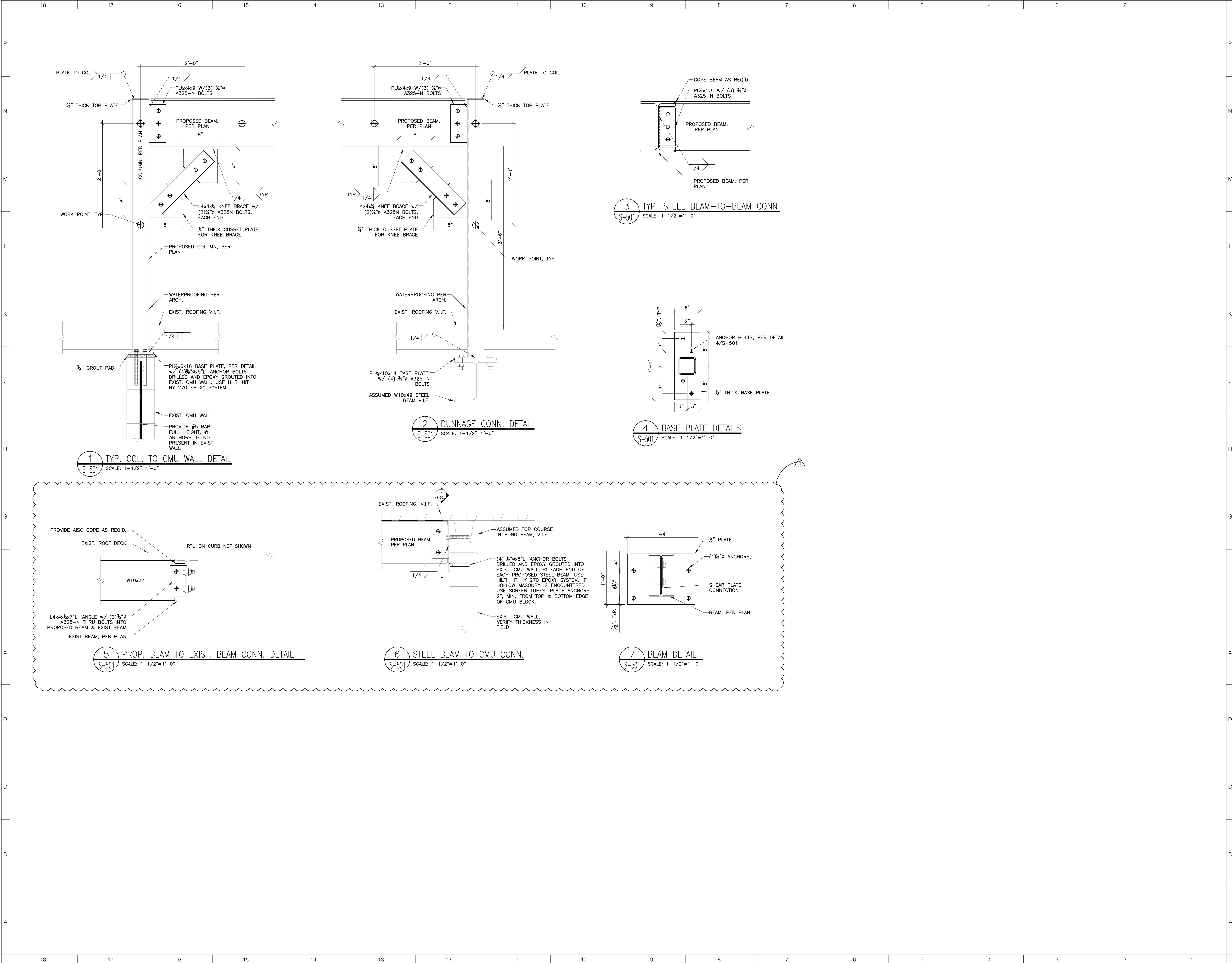
- C. After erection all damaged areas in the shop-coat, loosened scale, rust, exposed surfaces of bolts, nuts and washers, and all field welds and unpainted areas shall be cleaned to the same standards as for the shop coat and spot painted with the same paint used for the shop coat, at same film thickness.
- D. Steel surfaces which will be inaccessible after erection and are not concrete encased shall be painted prior to erection with an additional coat of shop paint.

END OF SECTION 05 12 00









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NEW YORK OKLAHOMA
KSQ Design
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646.435.0660 office
www.ksq.design
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845.627.9860 office
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www.clapperstructural.com
MEP Engineer
Sage Engineering Associates, LLP
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Albany NY 12203
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One Penn Plaza
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New York, NY 10119
646.806.6550
www.jacobs.com

NUFSD
BOND
PROJECTS
PH3

SED#50-01-08-03-0-003-035 (HIGH SCHOOL)

High School
103 Church St.
Nanuet, NY 10954

REVISIONS

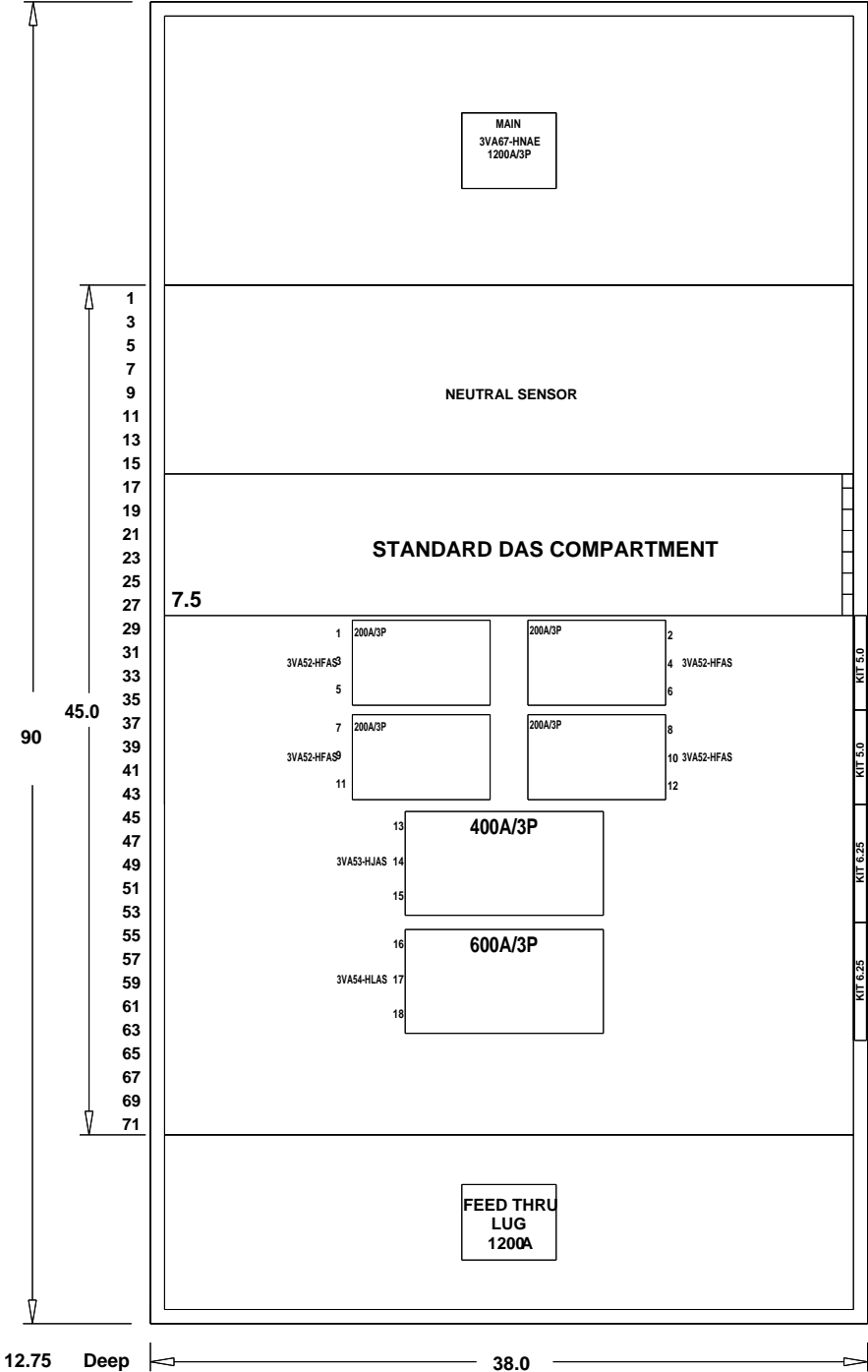
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1	BID ADDENDUM #1	6/22/2023

ISSUED: BID SET ISSUANCE
DATE: 6/6/2023
SCALE: AS SHOWN
SHEET NAME: STRUCTURAL DETAILS
SHEET NUMBER: HS-S501

SECTION :1 OF 2
PANEL TYPE :P5
CATALOG NUMBER :P5E90ML120ETS
ENCLOSURE :1 Indoor
SYSTEM VOLTAGE :480Y/277 3Ø 4W Wye AC
IR RATING :42 K AIC
MAIN BUS :1,200 A
BUS MATERIAL :Silver Plated Copper
FEED :Top
MOUNTING :Surface
SE LABEL :No
SERIES RATED :No
CONDUIT AREA :36.000 x 10.75
*INDICATES POSITIONING NUMBERS TO HELP WITH THE
MANUAL PLACEMENT OF BREAKERS ON THE MECHANICAL VIEW

PANELBOARD COMPONENTS

- Main :
1 - 1200A /3P-3VA67-HNAE SS MAIN BREAKER
1-(4)1/0-500Kcmil Al/Cu
1-ETU860 LSIG - LCD Display Metering
10 1-3VA Mechanical (4)1/0-500 Kcmil AL / CU Lug
12 1-Breaker Sensor: 1,200
1-Breaker Trip: 1200
14 1-24VDC COMM Power Supply
16 1-24VDC COMM Power Supply
18 1-Standard DAS (Dynamic Arc-Flash Sentry)
Maitanance Mode w/Keyed Switch
20 1-Lug Catalog #: 3VA97730JJ43
22
24 Branches :
4 - 200A /3P-3VA52-HFAS
26 1-Mechanical (1)#6 AWG- 350 KCMIL AL / CU Lug
28 1-Lug Catalog #: 3VA92330JB12
30 1 - 400A /3P-3VA53-HJAS
32 1-3VA Mechanical (2)2/0-250Kcmil Cu/Al Lug
34 1-Lug Catalog #: 3VA94730JJ23
36 1 - 600A /3P-3VA54-HLAS
38 1-3VA Mechanical (2)2/0-500Kcmil Cu/Al Lug
1-Lug Catalog #: 3VA94730JJ23
40 Options :
42 1-Std Stl/Al Gnd Connector
44 1-Master NP Secured -Adhesive
46 1-Feed Thru Lug
48 1-Card Holder-Std Plastic Sleeve
50 1-Certification - UL



JOB

RAM - Nanuet MDP

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Norcross, Georgia		APP. MFG. LOC. =	REV. 1
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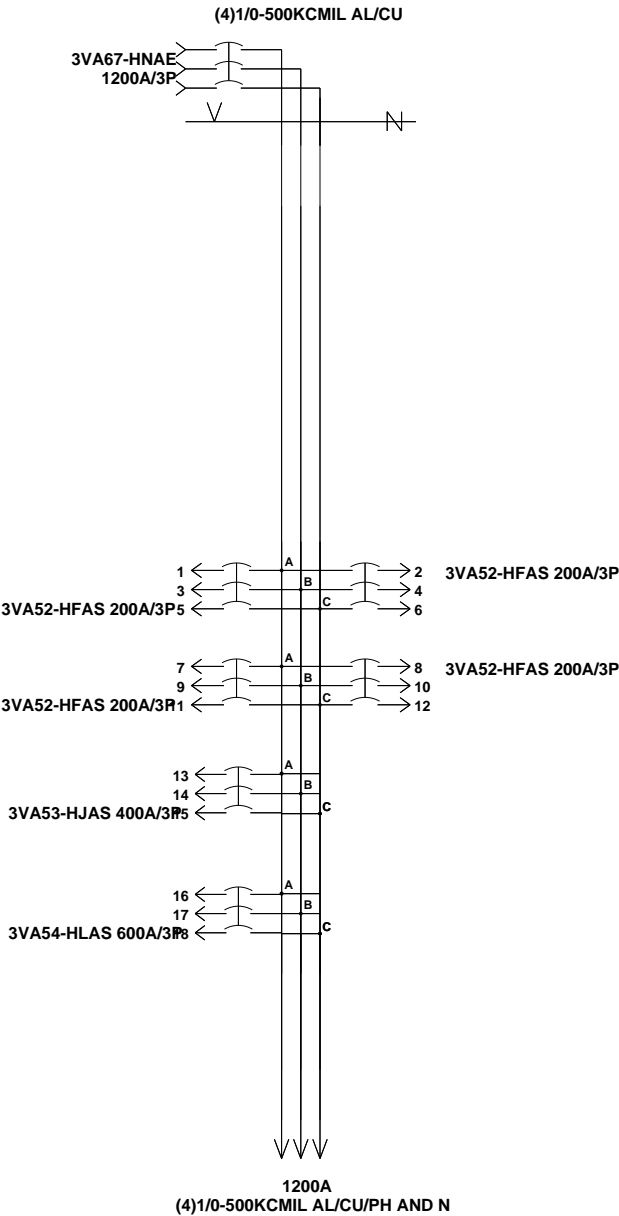
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PANELBOARD NOTES

SECTION	:1 OF 2
PANEL TYPE	:P5
CATALOG NUMBER	:P5E90ML120ETS
ENCLOSURE	:1 Indoor
SYSTEM VOLTAGE	:480Y/277 3Ø 4W Wye AC
IR RATING	:42 K AIC
MAIN BUS	:1,200 A
BUS MATERIAL	:Silver Plated Copper
FEED	:Top
MOUNTING	:Surface
SE LABEL	:No
SERIES RATED	:No
CONDUIT AREA	:36.000 x 10.75
*INDICATES POSITIONING NUMBERS TO HELP WITH THE MANUAL PLACEMENT OF BREAKERS ON THE MECHANICAL VIEW	

ABBREVIATIONS

- 'MLO' MAIN LUGS ONLY
- 'PROV' PROVISION FOR FUTURE DEVICE



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Siemens Industry, Inc.		APP. =	REV. =
Norcross, Georgia		DWG. FILE =	SHEET 2 OF 6
			1

CIRCUIT SCHEDULE

CIRCUIT NUMBER	UNIQUE ID NO.	TRIP AMPS (A)	POLES	DEVICE TYPE	INTERRUPT RATING (AIC)	METER ACC	CT RATING	LOAD LUG SIZE PER PHASE	CIRCUIT IDENTIFICATION
1/3/5	147	200	3	3VA52-HFAS	65,000	N/A	—	(1)#6 AWG - 350 KCMIL CU/AL	-
7/9/11	150	200	3	3VA52-HFAS	65,000	N/A	—	(1)#6 AWG - 350 KCMIL CU/AL	-
13/14/15	153	400	3	3VA53-HJAS	65,000	N/A	—	(2)2/0-250KCMIL CU/AL	-
16/17/18	155	600	3	3VA54-HLAS	65,000	N/A	—	(2)2/0-500KCMIL CU/AL	-
2/4/6	148	200	3	3VA52-HFAS	65,000	N/A	—	(1)#6 AWG - 350 KCMIL CU/AL	-
8/10/12	151	200	3	3VA52-HFAS	65,000	N/A	—	(1)#6 AWG - 350 KCMIL CU/AL	-

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		SHEET 3 OF 6	
		REV. 1	

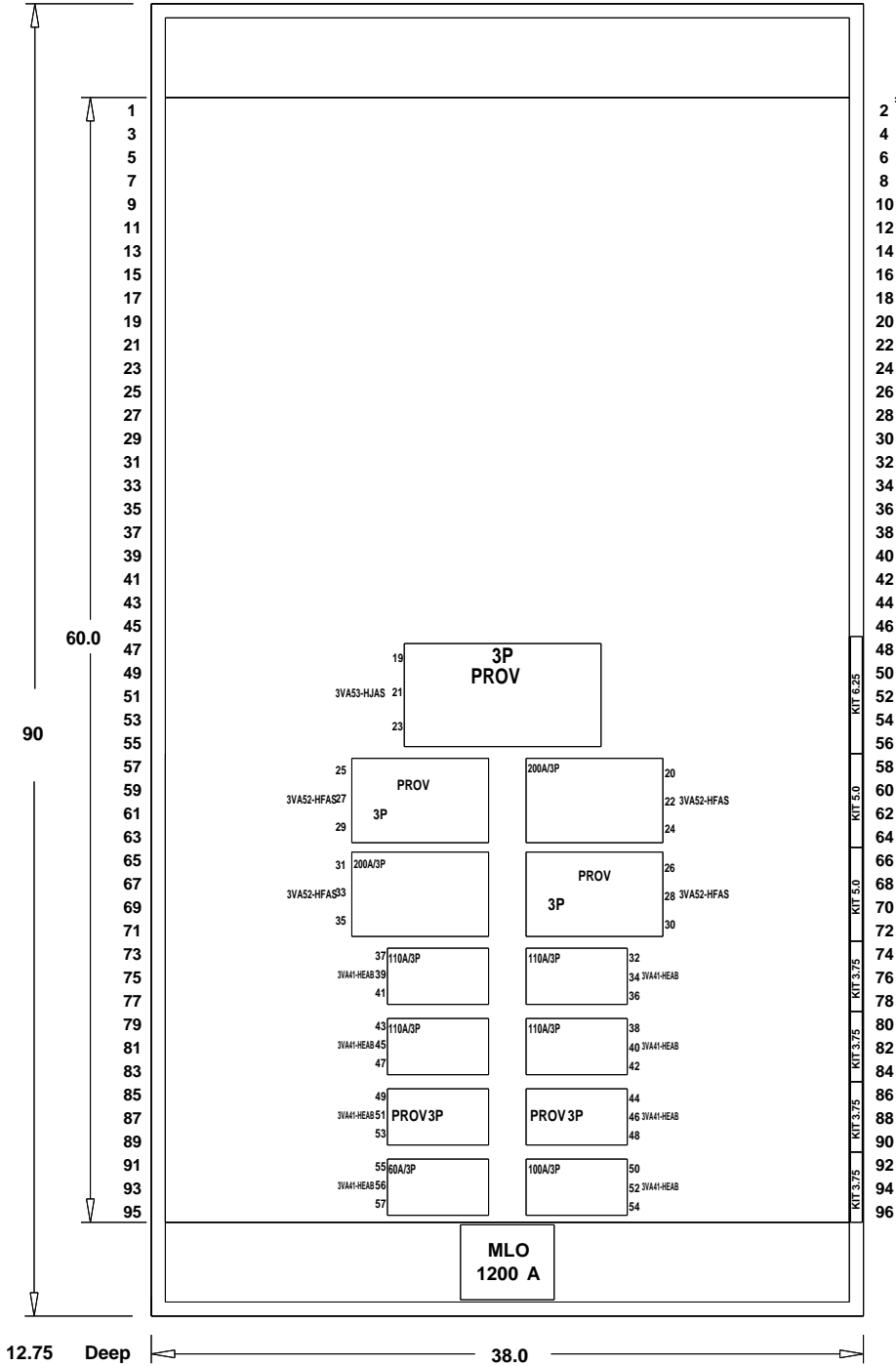
SECTION :2 OF 2
PANEL TYPE :P5
CATALOG NUMBER :P5E90ML120EBS
ENCLOSURE :1 Indoor
SYSTEM VOLTAGE :480Y/277 3Ø 4W Wye AC
IR RATING :42 K AIC
MAIN BUS :1,200 A
BUS MATERIAL :Silver Plated Copper
FEED :Bottom
MOUNTING :Surface
SE LABEL :No
SERIES RATED :No
CONDUIT AREA :36.000 x 10.75
*INDICATES POSITIONING NUMBERS TO HELP WITH THE
MANUAL PLACEMENT OF BREAKERS ON THE MECHANICAL VIEW

PANELBOARD COMPONENTS

Main :
1 - 1200A MAIN LUG
1-(4)3/0-500Kcmil

Branches :
1 - 60A /3P-3VA41-HEAB
1-3VA Mechanical (1)#14-3/0 AL / CU Lug
1 - 100A /3P-3VA41-HEAB
1-3VA Mechanical (1)#14-3/0 AL / CU Lug
2 - 3P-3VA41-HEAB - PROV
4 - 110A /3P-3VA41-HEAB
1-3VA Mechanical (1)#14-3/0 AL / CU Lug
2 - 200A /3P-3VA52-HFAS
1-Mechanical (1)#6 AWG- 350 KCMIL AL / CU Lug
1-Lug Catalog #: 3VA92330JB12
2 - 3P-3VA52-HFAS - PROV
1 - 3P-3VA53-HJAS - PROV

Options :
1-Std Stl/Al Gnd Connector
1-Card Holder-Std Plastic Sleeve
1-Master NP Secured -Adhesive
1-Certification - UL



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Norcross, Georgia					

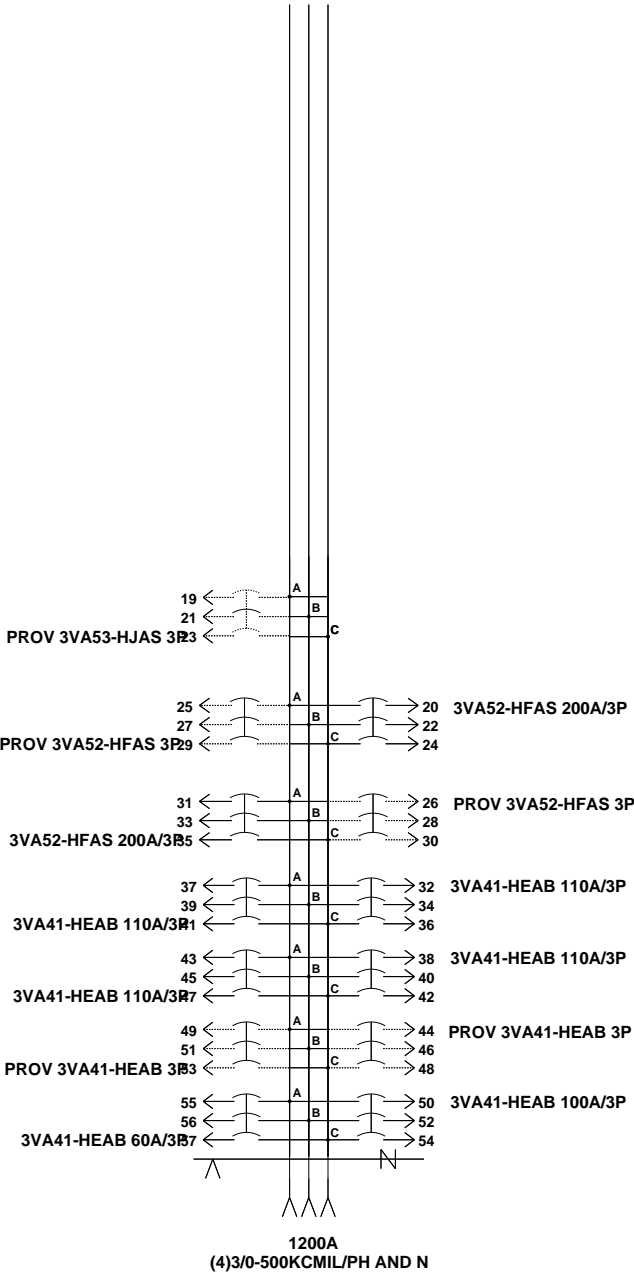
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PANELBOARD NOTES

SECTION	:2 OF 2
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Siemens Industry, Inc.			
Norcross, Georgia		APP. -	REV. 1
		MFG. LOC. -	
		DWG. FILE	SHEET 5 of 6

CIRCUIT SCHEDULE

CIRCUIT NUMBER	UNIQUE ID NO.	TRIP AMPS (A)	POLES	DEVICE TYPE	INTERRUPT RATING (AIC)	METER ACC	CT RATING	LOAD LUG SIZE PER PHASE	CIRCUIT IDENTIFICATION
19/21/23	193	400	3	3VA5363-PROV	65,000	N/A	—	(2)2/0-250KCMIL CU/AL	-
25/27/29	190	200	3	3VA526X-PROV	65,000	N/A	—	(1)#6 AWG - 350 KCMIL CU/AL	-
31/33/35	178	200	3	3VA52-HFAS	65,000	N/A	—	(1)#6 AWG - 350 KCMIL CU/AL	-
37/39/41	173	110	3	3VA41-HEAB	65,000	N/A	—	(1)#14-3/0 CU/AL	-
43/45/47	170	110	3	3VA41-HEAB	65,000	N/A	—	(1)#14-3/0 CU/AL	-
49/51/53	167	100	3	VLG-PROV	65,000	N/A	—	(1)#14-3/0 CU/AL	-
55/56/57	164	60	3	3VA41-HEAB	65,000	N/A	—	(1)#14-3/0 CU/AL	-
20/22/24	247	200	3	3VA52-HFAS	65,000	N/A	—	(1)#6 AWG - 350 KCMIL CU/AL	-
26/28/30	188	200	3	3VA526X-PROV	65,000	N/A	—	(1)#6 AWG - 350 KCMIL CU/AL	-
32/34/36	246	110	3	3VA41-HEAB	65,000	N/A	—	(1)#14-3/0 CU/AL	-
38/40/42	171	110	3	3VA41-HEAB	65,000	N/A	—	(1)#14-3/0 CU/AL	-
44/46/48	168	100	3	VLG-PROV	65,000	N/A	—	(1)#14-3/0 CU/AL	-
50/52/54	165	100	3	3VA41-HEAB	65,000	N/A	—	(1)#14-3/0 CU/AL	-

JOB			
RAM - Nanuet MDP			
P.O.		CUST.	
-		Siemens Industry, Inc. -SSINewJ. SERELProj/QS	
CONTR		CONSULT	
-		-	
TIE		BY	ENG. LOC.
-		barrdj2	-
S.O.		DATE	DESIGNATION
-		6-1-2023	MDP_2 SECTIONS
DWG. NO.		barrdj200_04112300_00_00_M00-22000-6	
Siemens Industry, Inc.		APP.	MFG. LOC.
Norcross, Georgia		APP.	DWG. FILE
		SHEET 6 OF 6	
		REV. 1	