

2026 Multi-Facility Maintenance Project

Fargo Public Schools

Fargo, North Dakota



Construction Manager at Risk
510 4th Ave North – Fargo, ND
Phone: (701) 297-0704



Architect
420 Main Ave – Moorhead, MN
Phone: (218) 233-4422

Project Specification Manual for Bid Package Work:

3A	CONCRETE – BUILDING
4	MASONRY
5B	STRUCTURAL STEEL (MATERIALS & ERECTION)
5C	MISCELLANEOUS METALS (MATERIAL)
5D	MISCELLANEOUS METALS (LABOR)
6A	GENERAL WORK AND LABOR
7A	MOISTURE PROTECTION
7A7E	MOISTURE PROTECTION/PREFINISHED METAL PANELS
8E	GLAZING SYSTEMS
9B/9I	DRYWALL/PAINTING
9E	ACOUSTICAL
9G	RESILIENT FLOORING AND CARPETING
9I	PAINTING
10A	SITE SIGNS
22/23	PLUMBING/HVAC
26	ELECTRICAL SYSTEMS
31	EARTHWORK
32A	PAVING AND SURFACING

*Prebid walkthroughs: See Information to Bidders for a schedule of each site.

February 18, 2026

GCS Project No. 25-011
YHR Project No.

BID DATE & TIME: Tuesday, March 17, 2026
at 2:00 p.m. local time

LOCATION: Fargo Public Schools
District Office Board Room
700 7th Street South
Fargo, ND 58103



420 MAIN AVENUE
MOORHEAD, MN 56560
PH: 218-233-4422
FX: 218-233-7988

PROJECT MANUAL

FOR

ALL WORK, GENERAL CONSTRUCTION WORK, MECHANICAL WORK, and ELECTRICAL WORK

FOR

Maintenance and Remodeling
FPS 2026 Maintenance Projects
Fargo Public Schools
Fargo, North Dakota

PROJECT NUMBER: 202519

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**SECTION 00 01 05
CERTIFICATIONS PAGE**

PROJECT MANUAL

**MAINTENANCE AND REMODELING
FPS 2026 MAINTENANCE PROJECTS
FARGO PUBLIC SCHOOLS
FARGO, NORTH DAKOTA**

Project Number: 202519

GENERAL CONSTRUCTION WORK, MECHANICAL WORK, AND ELECTRICAL WORK

YHR PARTNERS, LTD.

420 Main Avenue

Moorhead, Minnesota 56560

Telephone: 218.233.4422

Fax: 218.233.7988

ARCHITECT

HEYER ENGINEERING, PC

4180 24TH AVE S

Fargo, North Dakota 58103

Telephone: 701.280.0949

STRUCTURAL ENGINEER

MARTIN MECHANICAL DESIGN, INC.

702 28th Ave N, Suite 200

Fargo, North Dakota 58102

Telephone: 701.293.7957

Fax: 701.293.7381

MECHANICAL ENGINEER

MBN ENGINEERING, INC.

503 N 7th Street, Suite 200

Fargo, North Dakota 58102

Telephone: 701.478.6336

Fax: 701.478.6340

ELECTRICAL ENGINEER

CIVIL ENGINEER

I hereby certify that this drawing, specification or report was prepared by me or under my direct supervision, and that I am a duly Registered Architect or Professional Engineer under the laws of the state of the State in which the Project is located.



RICHARD MEIER
ARCHITECT

Registration No. 1423
Date: 2026



JOHN VINJE
STRUCTURAL ENGINEER

Registration No. 30183
Date: 2026



Dylan Thompson
MECHANICAL ENGINEER

Registration No. 41096
Date: 2026



Michael Berger
ELECTRICAL ENGINEER

Registration No. 4438
Date: 2026

END OF SECTION

**SECTION 00 0108
BID PACKAGES SCOPE OF WORK (SOW)**

**THE FOLLOWING PAGES CONTAIN INDIVIDUAL BID PACKAGE SCOPE OF WORK (SOW)
DESCRIPTIONS INCLUDING TECHNICAL SECTIONS INCLUDED IN EACH PACKAGE.**

The Scope of Work is intended to be a general description of the items included in each Bid Package. It is not intended to be an exhaustive list of all items included and does not supercede or replace information provided elsewhere within the Construction Documents or elsewhere within the specifications.

Bid Package 3A: Concrete
Bid Package 4: Masonry
Bid Package 5B: Structural Steel (Materials & Erection)
Bid Package 5C: Miscellaneous Metals (Material)
Bid Package 5D: Miscellaneous Metal (Labor)
Bid Package 6A: General Work and Labor
Bid Package 7A: Moisture Protection
Bid Package 7A/7E: Moisture Protection/Prefinished Metal Panels
Bid Package 8E: Glazing Systems
Bid Package 9B/9I: Drywall/Painting
Bid Package 9E: Acoustical
Bid Package 9G: Resilient Flooring and Carpeting
Bid Package 9I: Painting
Bid Package 10A: Site Signs
Bid Package 22/23: Plumbing/HVAC
Bid Package 26: Electrical Systems
Bid Package 31: Earthwork
Bid Package 32A: Paving and Surfacing

END OF SECTION 00 0108

Bid Group 1

Trollwood Performing Arts

Scope of Work

Bid Package 5C – Miscellaneous Metals - Materials

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification sections as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 05 – Metals
 - a. 05 50 00 - Metal Fabrications
 - 5. Division 09 – Finishes
 - a. 09 9000 – Painting and Coatings (Shop Primer)

1.01 INSTALLATION AND COORDINATION

- A. Provide all misc. metals and steel components as noted in the plans and spec, but not limited to stairs, landings, railings for stairs, pans, handrails, access ladders and enclosure, and grates as shown and specified. (FOB jobsite)
- B. Provide shop priming as specified.
- C. Provide engineering of stairs/railings as required per spec.
- D. Complete all field measurements and layout work necessary for the completion of this contractor's work.
- E. See allowances, unit prices, and alternates as applicable.
- F. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried of site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction cleaning shall be performed daily for debris generated by this contractor.

1.03 SUBMITTALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.

- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).

Bid Package 5D – Miscellaneous Metals - Labor

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification sections as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - a. 02 40 00 – Demolition
 - b. 02 41 00 – Selective Site Demolition
 - 4. Division 05 – Metals
 - a. 05 50 00 - Metal Fabrications

1.01 INSTALLATION AND COORDINATION

- A. Install all misc. metals as noted in the plans and spec, but not limited to stairs, landings, railings for stairs, pans, handrails, catwalk steel, enclosed access ladder, and grates as shown and specified.
- B. Remove and dispose of existing misc. metals to the proper trash containers as shown and specified.
- C. All welds to be ground smooth and blemishes repaired so steel is ready for painting.
- D. Touch-up of shop primed and/or painting misc. steel as specified.
- E. Provide all equipment necessary to access the catwalk for installation. The stage floor is not constructed to hold heavy equipment. Only scaffolding will be allowed on the deck.
- F. Provide lawn protection if equipment needs to drive on the grass areas.
- G. All field measurements and layout work necessary for the completion of this contractor's work.
- H. See allowances, unit prices, and alternates as applicable.
- I. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried of site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuously cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction cleaning shall be performed daily for debris generated by this contractor.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all item needed to achieve start dates and meet the project schedule.
- D. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).

Bid Package 9I - Painting

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification section as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 09 – Finishes
 - a. 09 90 00 - Painting and Coating

1.01 INSTALLATION AND COORDINATION

- A. Furnish and install all painting materials including surface preparations as shown and specified. Contractor shall clean / scrape surfaces as required for a smooth finish.
- B. Paint all new misc. metals shown on the plans and specs.
 - a. Provide lifts or scaffolding as needed to paint the underside of the new misc. metals.
- C. Paint all new electrical conduit installed for the lighting systems. All conduit is located on the catwalk level and should be accessible from there. (Provide 40 hours and \$500 material allowance within bid).
- D. Mask all adjacent surfaces to avoid overspray.
- E. All field measurements and layout work necessary for the completion of this contractor's work.
- F. See allowances, unit prices, and alternates as applicable.
- G. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried of site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction cleaning shall be performed daily for debris generated by this contractor.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.

- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).
- C. Concrete and grout trucks either need to wash out in a designated concrete washout pit, or into their hopper, coordinate with the Construction Manager. Details must be communicated to all persons involved in activity.

Bid Package 26 – Electrical Systems

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification sections as contained in the project manual including but not limited to:
 - 1. Division 00 - Procurement and Contracting Requirements
 - 2. Division 01 - General Requirements
 - 3. Division 02 – Existing Conditions
 - a. 02 40 00 – Demolition
 - b. 02 41 00 – Selective Site Demolition
 - 4. Division 26 – Electrical
 - a. See Specifications on Electrical Plans

1.01 INSTALLATION AND COORDINATION

- A. Remove and relocate existing electrical panels and conduit within the new stair location areas.
- B. Provide and install lighting systems per plans and specs.
- C. See specification section 01 2200 for unit prices and specification section 01 2300 for alternates as applicable.
- D. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried of site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction cleaning shall be performed daily for debris generated by this contractor.
- D. Provide and maintain all sump pumps as required for completion of this contractor's work.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Accurate set of as-built drawings at the completion of the project.
- E. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.

- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).

Bid Group 1

Discovery Middle School

Scope of Work

Bid Package 7A – Moisture Protection

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification sections as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 06 – Wood, Plastic, and Composites
 - a. 06 1000 – Rough Carpentry
 - 5. Division 07 – Thermal and Moisture Protection
 - a. 07 20 00 – Thermal Insulation
 - b. 07 25 00 – Weather Barriers
 - c. 07 41 00 – Metal Roof & Wall Panels
 - d. 07 53 00 – Elastomeric Membrane Roofing
 - e. 07 60 00 – Flashing & Sheet Metal
 - f. 07 92 00 – Joint Sealants

1.01 INSTALLATION AND COORDINATION

- A. Remove existing roofing systems as indicated.
 - a. All roofing debris will be removed from site by this bid package.
- B. Furnish and install as shown on the drawings all membrane roofing, flashing, sealer, elastic sheet, underlayment, thermal barrier, scuppers, downspouts (as needed), thermal roof insulation, prefinished flashing, prefinished metal perimeter wall caps, protective walkway pads, and all miscellaneous accessories to complete the roof system.
 - a. Remove and reinstall as needed roof hatches, smoke hatches, splash blocks.
 - b. Provide and install roof wood blocking as per plans and details at roof edge, misc. roof locations, and curbs.
 - c. Provide plumbing modification to existing plumbing systems.
 - d. Provide modification needed to all HVAC units/curbs as needed.
 - e. Provide Electrical services as required.
- C. Provide and install insulation and wood blocking to parapets and control joints per details.
- D. Provide all adhesives, anchors, nails, bolts, and screws for installation of the contractors' work.
- E. Provide manufacturer's warranty, contractors' warranty
- F. Flash all curbs and pipes as per the manufacturer's recommendations.
- G. Replace all sound batt insulation in the flutes at the metal decking areas as indicated at the gyms. (as applicable)
- H. Contractor to ensure the roof is watertight for the duration of the project. Provide temp systems as needed to prevent water infiltration.
- I. Flashing at sleepers and mechanical curbs as shown on the roof plans.
- J. **Removal of all roofing debris from jobsite.**
- K. Provide and maintain safety guardrails and ladders needed to complete this contractor's work.
- L. All field measurements and layout work necessary for the completion of this contractor's work.
- M. See allowances, unit prices, and alternates as applicable.

- a. Provide a \$20,000 allowance for unforeseen conditions. Usage must be approved by the CM.
- N. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried of site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
 - a. **Provide temp coverage to lawn areas not to be disturbed.**
- B. Remove snow accumulation as needed to complete work.
- C. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- D. Construction cleaning shall be performed daily for debris generated by this contractor.
- E. Limit all traffic in areas that could cause damage to turf or planted areas.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. All stored materials to be secured from blowing off the jobsite. Contractor is responsible for immediate cleanup if materials blow off the project.
- C. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- D. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- E. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- F. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.

- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).

Bid Group 1

**Bennett Elementary
School**

Scope of Work

Bid Package 5B– Structural Steel Material and Erection

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification section as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 05 – Metals
 - a. 05 50 00 – Metal Fabrications

1.01 INSTALLATION AND COORDINATION

- A. Provide all structural steel materials as shown and detailed on the plans. (provide submittals See below)
- B. Complete installation of all structural steel as needed for joist reinforcement.
- C. Provide fire blankets, fire extinguishers, smoke exhaust systems, and any other equipment needed to complete the welding/installation of the steel joist reinforcement systems within an existing building.
- D. Facilitate all on-site testing and inspections.
- E. Coordinate with other trades for access needed to the area.
- F. All field measurements and layout work necessary for the completion of this contractor's work.
- G. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Construction cleaning shall be performed daily for debris generated by this contractor.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

Bid Package 22/23– Plumbing / HVAC

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification sections as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 22 – Plumbing
 - a. See Specifications on Mechanical Plans
 - 5. Division 23 – Heating, Ventilation, and Air-Conditioning (HVAC)
 - a. See Specifications on Mechanical Plans
 - b. Division 25 - Integrated Automation (Temperature Controls)

1.01 INSTALLATION AND COORDINATION

- A. Remove all existing heat pumps per plan. All equipment to be discarded to the appropriate trash receptacle. (Provided by Owner)
- B. Reinstall all temp controls.
- C. Disconnect and reconnect all heat pumps mechanical and piping systems.
- D. Reinsulate all duct and pipe as needed.
- E. Provide and install pipe labeling.
- F. Provide and coordinate all permits and inspections.
- G. Remove and reinstall ACT ceilings as needed to access heat pumps that are above the ceiling. (1) location.
- H. Responsible for training the owner on new equipment and verifying equipment is working properly in the summer and winter months.
- I. Provide factory start up.
- J. Provide one set of extra filters for the owner.
- K. Alternate – See alternate for the dry cooler. – This contractor to include roofing systems installation for the roof curb.
 - a. Provide 50 Allowance hours and \$2500.00 to remove and reinstall HVAC and/or plumbing systems as part of the alternate only.
- L. All field measurements and layout work necessary for the completion of this contractor’s work.
- M. See allowances, unit prices, and alternates as applicable.
- N. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried of site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction cleaning shall be performed daily for debris generated by this contractor.
- D. Provide and maintain all sump pumps as required for completion of this contractor’s work.

1.03 SUBMITTALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Accurate set of as-built drawings at the completion of the project.
- E. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).

- C. Concrete and grout trucks either need to wash out in a designated concrete washout pit, or into their hopper, coordinate with the Construction Manager. Details must be communicated to all persons involved in activity.

Bid Package 26 – Electrical Systems

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification sections as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 26 – Electrical
 - a. See Specifications on Electrical Plans

1.01 INSTALLATION AND COORDINATION

- A. Remove and reinstall electrical systems as needed to complete the replacement of the mechanical units.
- B. Provide and install electrical systems for new dry cooler alternate.
 - 1. Provide 50 Allowance hours and \$2,000.00 to remove and reinstall electrical systems as part of the alternate only.
- C. Remove and reinstall all light fixtures and other ceiling mounted electrical systems in area where joists are being reinforced. (as applicable)
- D. Contractor shall provide all electrical permits and inspections.
- E. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Construction cleaning shall be performed daily for debris generated by this contractor.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Accurate set of as-built drawings at the completion of the project.
- E. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

Bid Group 2

Davies Highschool

Scope of Work

Bid Package 32A – Paving and Surfacing

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification section as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – General Conditions
 - 4. Division 32 – Exterior Improvements
 - a. See Specifications on Civil Plans

1.01 INSTALLATION AND COORDINATION

- A. Surveying is to be provided by the contractor.
- B. Testing will be provided by CM.
- C. Touch up aggregate base prior to installing concrete sidewalks and curbs, (Bid Package 31 to install subgrade to final grade), install concrete collars, curb and gutter, speed table, and sidewalks per plan.
- D. Provide and install concrete/asphalt (alt) pavements per plan.
 - a. Provide and install concrete reinforcement.
 - b. Provide and install all parking lot striping, ADA warning panels, and signage per plans.
 - c. See alternates and unit prices.
- E. Responsible for all sealants and curing as shown in the plans and specifications.
- F. Responsible for dewatering site once areas are turned over by the earthwork contractor.
- G. Installation of control joint sealants as indicated.
- H. Responsible for calling in all locates for the completion of this contractor's work.
- I. See allowances, unit prices, and alternates as applicable.
- J. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried off site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction cleaning shall be performed daily for debris generated by this contractor.
- D. Provide and maintain all sump pumps as required for completion of this contractor's work.
- E. Remove all form boards, rebar, stakes, and excess concrete debris generated by this contractor's work throughout the project.
- F. Reinstall any storm protection that is disturbed during this contractor's work.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.

- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).
- C. Concrete and grout trucks either need to wash out in a designated concrete washout pit, or into their hopper, coordinate with the Construction Manager. Details must be communicated to all persons involved in activity.

Bid Package 31 – Earthwork

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification section as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – General Conditions
 - a. 02 4100 – Selective Site Demolition (See Demolition Notes on Plan)
 - 4. Division 31 – Earthwork
 - a. See Specifications on Civil Plans

1.01 INSTALLATION AND COORDINATION

- A. All field measurements and layout work necessary for the completion of this contractor's work.
- B. Contractor to supply all surveying needed to complete your work for final grading.
- C. Remove all existing pavement surfaces, curb (base bid), sidewalk, etc. noted on the plans.
 - a. Base bid – Remove all subgrade and fabric materials / Scarify 12" of clay and recompact. Replace fabric and reinstall subgrade materials to proper finish grades.
 - i. Proof roll all subgrade clay and gravel prior to acceptance of the paving contractor.
 - ii. Provide and install any additional subgrade as needed for concrete pavement.
 - b. See alternative and unit prices:
 - c. Provide and install additional subgrade as needed.
- D. **See alternates in Spec. and plans**
- E. All demo debris to be removed from site by this contractor.
- F. At the completion of the curb and sidewalk replace all black dirt and seed areas as required.
- G. Haul out all excess materials.
- H. Provide and install traffic control signage as needed. This signage to remain until concrete work is completed.
- I. Provide, install, and maintain all SWPPP plan items as noted below and on the plans. Remove when project is complete. See SWPPP plans for more information.
- J. Provide concrete wash out pits as detailed. Clean out as needed and remove from site.
- K. Assist in coordination of compaction testing.
- L. Contactor will dewater site as needed until it is turned over to the paving contractor. Dewater site per swppp regulations.
- M. Responsible for calling in all locations for the completion of this contractor's work.
- N. Responsible for coordinating private locates with the Construction Manager
- O. See allowances, unit prices, and alternates as applicable.
 - a. Provide an allowance of \$25,000 to be used as needed per the CM instructions and approval.
 - b. See spec for unit prices.
- P. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried off site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction cleaning shall be performed daily for debris generated by this contractor.
- D. Provide and maintain all sump pumps as required for completion of this contractor's work.
- E. Remove/clean concrete washout pits as needed throughout the life of the project.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Accurate set of as-built drawings at the completion of the project.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials for this contractor's work.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Comply with all federal, state, and local Erosion and Sediment Control guidelines.
 - a. NDR11-0000 North Dakota Pollutant Discharge Elimination System (NDPDES) General Permit for Stormwater Discharges from Construction Activity
- B. The contractor will need to understand the Storm Water Pollution Prevention Plan (SWPPP), and employ a competent person on site while this contractor is performing work.
- C. The competent person shall be certified under state Erosion and Sediment Control guidelines in the state, or states in which the work is being performed.
- D. Provide, install, and maintain all SWPPP plan items as noted below and on the plans. Remove when project is complete, or permanent coverage reaches 70%.
 - 1. Provide and maintain tracking pads/construction access road as detailed.
 - 2. Provide and maintain BMP's around site as detailed.
 - 3. Provide and maintain BMP's so that they are compliant.
 - 4. Provide and maintain inlet protection at existing and new storm sewer.
 - 5. Provide and maintain stabilization, temporary or permanent, according to SWPPP.
 - 6. Provide and maintain stormwater discharge and dewatering according to SWPPP and Erosion and Sediment Control guidelines.
 - 7. Correct all areas of noncompliance within 24 hours after notification of noncompliance.
 - 8. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).
 - 9. Provide concrete wash out pits as detailed. Clean out as needed and remove from site.
 - 10. Provide information to GCS regarding any modifications or amendments to the SWPPP.

Bid Group 3

**Jefferson Elementary
School**

Scope of Work

Bid Package 3A-Concrete

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification section as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 03 - Concrete
 - a. 03 2000 – Concrete Reinforcing
 - b. 03 3000 – Cast-in-Place Concrete
 - 5. Division 31 – Earthwork
 - a. See Specifications on Civil Plans (Building Fill as Applicable)

1.01 INSTALLATION AND COORDINATION

- A. Locate and survey the sign foundation. Coordinate with BP 31 Building Earthwork.
- B. All field measurements and layout work necessary for the completion of this contractor's work. Coordinate surveying and control points needed with Construction Manager.
- C. Provide and install footings, foundations wall, pad/piers, slab on grade concrete/sidewalk, as specified and detailed for a complete installation.
- D. All concrete wash out must be collected by the concrete truck.
- E. Provide and install all rebar materials.
- F. Provide electric generator for power needs if no power is on site.
- G. Provide and install concrete additives, hardeners, curing agents, sealers, and dust proofing compounds called out in the plans or specs for completion of contractor's work.
- H. Responsible for receiving, coordination, layout, and installation of embeds within cast-in-place concrete.
- I. See allowances, unit prices, and alternates as applicable.
- J. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried off site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction clean-up shall be performed daily for debris generated by this contractor.
- D. Provide and maintain all sump pumps as required for completion of this contractor's work.
- E. Removal all concrete debris and materials from site at completion of work. Concrete tools and trucks must wash out in the provided wash out pit location.
- F. Clean adjacent floors and finishes of all slurry, splatter, and any other debris from pouring or cutting slabs.
- G. Must follow OSHA guidelines for all concrete cutting operations.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).
- C. Concrete and grout trucks, pumpers and all equipment used must wash out in a designated concrete washout pit, or into their hopper, coordinate with the Construction Manager. Details must be communicated to all persons involved in activity.

Bid Package 4 – Masonry

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification sections as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 04 – Masonry
 - a. 04 0500 – Masonry Mortar and Grout
 - b. 04 2000 – Unit Masonry
 - 5. Division 07 – Thermal and Moisture Protection
 - a. 07 6000 – Flashing and Sheet Metal (as applicable)

1.01 INSTALLATION AND COORDINATION

- A. Masonry installation of all brick sign base as shown on the plans.
- B. Supply and install mortar, masonry accessories, anchors and ties, water repellants, flashing, weeps for a complete installation
- C. Supply and install brick veneer as detailed and mortar (colored mortar as applicable)
- D. Provide and install cast stone, anchors, pins, dowels, and any other anchoring devices
- E. Contractor to clean up and remove **ALL** masonry debris from the site.
- F. Coordinate all onsite storage and mortar mixing station with the Construction Manager.
- G. All field measurements and layout work necessary for the completion of this contractor's work.
- H. See allowances, unit prices, and alternates as applicable.
- I. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried of site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction cleaning shall be performed daily for debris generated by this contractor.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.

- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- A. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- B. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).
- C. Concrete and grout trucks either need to wash out in a designated concrete washout pit, or into their hopper, coordinate with the Construction Manager. Details must be communicated to all persons involved in activity.

Bid Package 10A – Signage

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification section as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 10 – Specialties
 - a. 10 1200 – Display Cases
 - b. 10 1500 – Video Display Systems

1.01 INSTALLATION AND COORDINATION

- A. Furnish and install all materials associated will the fabrication and installation of the sign above the brick foundation. (see plans and spec)
- B. Supply any embeds needed for mounting of the sign. (coordinate with CM)
- C. Supply all equipment for installation.
- D. Provide owner training. Sign will need to have Bluetooth or wireless connection to the school.
- E. See existing sign at Bennett Elementary for example.
- F. Coordinate with the electrical contractor for placement of all rough in and final connections.
- G. All field measurements and layout work necessary for the completion of this contractor’s work.
- H. See allowances, unit prices, and alternates as applicable.
- I. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried of site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction cleaning shall be performed daily for debris generated by this contractor.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor’s work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.

- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).
- C. Concrete and grout trucks either need to wash out in a designated concrete washout pit, or into their hopper, coordinate with the Construction Manager. Details must be communicated to all persons involved in activity.

Bid Package 26 – Electrical Systems

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification sections as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 26 – Electrical
 - a. See Specifications on Electrical Plans

1.01 INSTALLATION AND COORDINATION

- A. Furnish and install the complete and operable electrical system for the project as shown and specified, including but not limited to:
 - 1. Installation of power to the sign location from the existing building.
- B. Rough in at the sign location.
- C. Final electrical connections to the sign. Coordinate with sign company.
- D. Repair any damage to existing lawn irrigation. (Plan for 3 slices.)
- E. Provide electrical permits and inspections.
- F. Responsible for calling in all locates for the completion of this contractor's work.
- G. Responsible for coordinating private locates with the Construction Manager.
- H. Backfill all conduit trenches. Turf repair by others.
- I. All field measurements and layout work necessary for the completion of this contractor's work.
- J. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried off site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction cleaning shall be performed daily for debris generated by this contractor.
- D. Provide and maintain all sump pumps as required for completion of this contractor's work.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Accurate set of as-built drawings at the completion of the project.
- E. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).
- C. Concrete and grout trucks either need to wash out in a designated concrete washout pit, or into their hopper, coordinate with the Construction Manager. Details must be communicated to all persons involved in activity.

Bid Package 31 – Earthwork

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification section as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 31 – Earthwork
 - a. See Specifications on Arch Plans

1.01 INSTALLATION AND COORDINATION

- A. All field measurements and layout work necessary for the completion of this contractor's work.
- B. Site stripping, demolition of existing site signs, and landscaping items as noted with the general site demolition notes.
- C. Contractor is responsible for dumpster/hauling of all demolition debris from the jobsite.
- D. Protect all existing site items during construction.
- E. Excavate / backfill (compacted) sign foundation
- F. Final grade black dirt once site sign is completed and seed. Also seed location of electrical trenching (approx. 125').
- G. Repair irrigation systems as needed after completion of the sign installation. (4-line splices and 3 heads)
- H. Haul out all excess materials.
- I. Provide, install, and maintain all SWPPP plan items as noted below and on the plans. Remove when project is complete. See section 1.06 SWPPP for more information
- J. Responsible for calling in all locates for the completion of this contractor's work.
- K. Responsible for coordinating private locates with the Construction Manager and the foreman for Bid Package 26.
- L. See allowances, unit prices, and alternates as applicable.
- M. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried off site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction cleaning shall be performed daily for debris generated by this contractor.
- D. Provide and maintain all sump pumps as required for completion of this contractor's work.
- E. Remove/clean concrete washout pits as needed throughout the life of the project.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.

- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Accurate set of as-built drawings at the completion of the project.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials for this contractor's work.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Comply with all federal, state, and local Erosion and Sediment Control guidelines.
 - a. NDR11-0000 North Dakota Pollutant Discharge Elimination System (NDPDES) General Permit for Stormwater Discharges from Construction Activity
 - b. MNR100001 Minnesota Pollution Control Agency Construction Stormwater General Permit
- B. The contractor will need to understand the Storm Water Pollution Prevention Plan (SWPPP), and employ a competent person on site while this contractor is performing work.
- C. The competent person shall be certified under state Erosion and Sediment Control guidelines in the state, or states in which the work is being performed.
- D. Provide, install, and maintain all SWPPP plan items as noted below and on the plans. Remove when project is complete, or permanent coverage reaches 70%.
 - 1. Provide and maintain tracking pads/construction access road as detailed.
 - 2. Provide and maintain BMP's around site as detailed.

3. Provide and maintain BMP's so that they are compliant.
4. Provide and maintain inlet protection at existing and new storm sewer.
5. Provide and maintain stabilization, temporary or permanent, according to SWPPP.
6. Provide and maintain stormwater discharge and dewatering according to SWPPP and Erosion and Sediment Control guidelines.
7. Correct all areas of noncompliance within 24 hours after notification of noncompliance.
8. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).
9. Provide concrete wash out pits as detailed. Clean out as needed and remove from site.
10. Provide information to GCS regarding any modifications or amendments to the SWPPP.

Bid Group 3

**Longfellow Elementary
School**

Scope of Work

Bid Package 3A-Concrete

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification section as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 03 - Concrete
 - a. 03 2000 – Concrete Reinforcing
 - b. 03 3000 – Cast-in-Place Concrete
 - 5. Division 31 - Earthwork
 - a. See Specifications on Civil Plans (Building Fill as Applicable)

1.01 INSTALLATION AND COORDINATION

- A. Locate and survey the sign foundation. Coordinate with BP 31 Building Earthwork.
- B. All field measurements and layout work necessary for the completion of this contractor's work. Coordinate surveying and control points needed with Construction Manager.
- C. Provide and install footings, foundations wall, pad/piers, slab on grade concrete/sidewalk, as specified and detailed for a complete installation.
- D. All concrete wash out must be collected by the concrete truck.
- E. Provide and install all rebar materials.
- F. Provide electric generator for power needs if no power on site.
- G. Provide and install concrete additives, hardeners, curing agents, sealers, and dust proofing compounds called out in the plans or specs for completion of contractor's work.
- H. Responsible for receiving, coordination, layout, and installation of embeds within cast-in-place concrete.
- I. See allowances, unit prices, and alternates as applicable.
- J. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried off site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction clean-up shall be performed daily for debris generated by this contractor.
- D. Provide and maintain all sump pumps as required for completion of this contractor's work.
- E. Removal all concrete debris and materials from site at completion of work. Concrete tools and trucks must wash out in the provided wash out pit location.
- F. Clean adjacent floors and finishes of all slurry, splatter, and any other debris from pouring or cutting slabs.
- G. Must follow OSHA guidelines for all concrete cutting operations.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).
- C. Concrete and grout trucks, pumpers and all equipment used must wash out in a designated concrete washout pit, or into their hopper, coordinate with the Construction Manager. Details must be communicated to all persons involved in activity.

Bid Package 4 – Masonry

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification sections as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 04 – Masonry
 - a. 04 0500 – Masonry Mortar and Grout
 - b. 04 2000 – Unit Masonry
 - 5. Division 07 – Thermal and Moisture Protection
 - a. 07 6000 – Flashing and Sheet Metal (as applicable)

1.01 INSTALLATION AND COORDINATION

- A. Masonry installation of all brick sign base as shown on the plans.
- B. Supply and install mortar, masonry accessories, anchors and ties, water repellants, flashing, weeps for a complete installation
- C. Supply and install brick veneer as detailed and mortar (colored mortar as applicable)
- D. Provide and install cast stone, anchors, pins, dowels, and any other anchoring devices
- E. Coordinate electrical rough-in with Bid Package 26 and Construction Manager.
- F. Contractor to clean up and remove **ALL** masonry debris from the site.
- G. Coordinate all onsite storage and mortar mixing station with the Construction Manager.
- H. All field measurements and layout work necessary for the completion of this contractor's work.
- I. See allowances, unit prices, and alternates as applicable.
- J. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried of site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction cleaning shall be performed daily for debris generated by this contractor.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- A. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- B. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).
- C. Concrete and grout trucks either need to wash out in a designated concrete washout pit, or into their hopper, coordinate with the Construction Manager. Details must be communicated to all persons involved in activity.

Bid Package 10A – Signage

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification section as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 10 – Specialties
 - a. 10 1200 – Display Cases
 - b. 10 1500 – Video Display Systems

1.01 INSTALLATION AND COORDINATION

- A. Furnish and install all materials associated will the fabrication and installation of the sign above the brick foundation.
- B. Supply any embeds needed for mounting of the sign.
- C. Supply all equipment for installation.
- D. Provide owner training. Sign will need to have Bluetooth or wireless connection to the school.
- E. See existing sign at Bennett Elementary school for example.
- F. Coordinate with the electrical contractor for placement of all rough in and final connections.
- G. All field measurements and layout work necessary for the completion of this contractor’s work.
- H. See allowances, unit prices, and alternates as applicable.
- I. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried of site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction cleaning shall be performed daily for debris generated by this contractor.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor’s work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.

- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).
- C. Concrete and grout trucks either need to wash out in a designated concrete washout pit, or into their hopper, coordinate with the Construction Manager. Details must be communicated to all persons involved in activity.

Bid Package 26 – Electrical Systems

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification sections as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 26 – Electrical
 - a. See Specifications on Electrical Plans

1.01 INSTALLATION AND COORDINATION

- A. Furnish and install the complete and operable electrical system for the project as shown and specified, including but not limited to:
 - 1. Installation of power to the sign location from the existing building.
- B. Demo at existing sign and relocate power out of the road construction area.
- C. Rough in at the sign location.
- D. Final electrical connections to the sign. Coordinate with sign company.
- E. Provide electrical permit and inspections.
- F. Responsible for calling in all locates for the completion of this contractor's work.
- G. Responsible for coordinating private locates with the Construction Manager.
- H. Backfill all conduit trenches. Turf repair by others.
- I. All field measurements and layout work necessary for the completion of this contractor's work.
- J. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried off site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction cleaning shall be performed daily for debris generated by this contractor.
- D. Provide and maintain all sump pumps as required for completion of this contractor's work.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Accurate set of as-built drawings at the completion of the project.
- E. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).
- C. Concrete and grout trucks either need to wash out in a designated concrete washout pit, or into their hopper, coordinate with the Construction Manager. Details must be communicated to all persons involved in activity.

Bid Package 31 – Earthwork

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification section as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 31 – Earthwork
 - a. See Specifications on Arch Plans

1.01 INSTALLATION AND COORDINATION

- A. All field measurements and layout work necessary for the completion of this contractor's work.
- B. Site stripping, demolition of existing site sign, and landscaping items as noted with the general site demolition notes.
- C. Contractor is responsible for dumpster/hauling of all demolition debris from the jobsite.
- D. Protect all existing site items during construction.
- E. Excavate / backfill (compacted) sign foundation
- F. Final grade black dirt once site sign is completed and seed.
- G. Haul out all excess materials.
- H. Provide, install, and maintain all SWPPP plan items as noted below and on the plans. Remove when project is complete. See section 1.06 SWPPP for more information
- I. Responsible for calling in all locates for the completion of this contractor's work.
- J. Responsible for coordinating private locates with the Construction Manager and the foreman for Bid Package 26.
- K. See allowances, unit prices, and alternates as applicable.
- L. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried off site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction cleaning shall be performed daily for debris generated by this contractor.
- D. Provide and maintain all sump pumps as required for completion of this contractor's work.
- E. Remove/clean concrete washout pits as needed throughout the life of the project.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Accurate set of as-built drawings at the completion of the project.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials for this contractor's work.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Comply with all federal, state, and local Erosion and Sediment Control guidelines.
 - a. NDR11-0000 North Dakota Pollutant Discharge Elimination System (NDPDES) General Permit for Stormwater Discharges from Construction Activity
 - b. MNR100001 Minnesota Pollution Control Agency Construction Stormwater General Permit
- B. The contractor will need to understand the Storm Water Pollution Prevention Plan (SWPPP), and employ a competent person on site while this contractor is performing work.
- C. The competent person shall be certified under state Erosion and Sediment Control guidelines in the state, or states in which the work is being performed.
- D. Provide, install, and maintain all SWPPP plan items as noted below and on the plans. Remove when project is complete, or permanent coverage reaches 70%.
 - 1. Provide and maintain tracking pads/construction access road as detailed.
 - 2. Provide and maintain BMP's around site as detailed.
 - 3. Provide and maintain BMP's so that they are compliant.
 - 4. Provide and maintain inlet protection at existing and new storm sewer.
 - 5. Provide and maintain stabilization, temporary or permanent, according to SWPPP.

6. Provide and maintain stormwater discharge and dewatering according to SWPPP and Erosion and Sediment Control guidelines.
7. Correct all areas of noncompliance within 24 hours after notification of noncompliance.
8. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).
9. Provide concrete wash out pits as detailed. Clean out as needed and remove from site.
10. Provide information to GCS regarding any modifications or amendments to the SWPPP.

Bid Group 3

North High School

Scope of Work

Bid Package 7A – Moisture Protection

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification sections as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 06 – Wood, Plastic, and Composites
 - a. 06 1000 – Rough Carpentry
 - 5. Division 07 – Thermal and Moisture Protection
 - a. 07 2000 – Thermal Insulation
 - b. 07 2500 – Weather Barriers
 - c. 07 4100 – Metal Roof and Wall Panels
 - d. 07 5300 – Elastomeric Membrane Roofing
 - e. 07 6000 – Flashing and Sheet Metal
 - f. 07 9200 – Joint Sealants

1.01 INSTALLATION AND COORDINATION

- A. Remove all existing roof systems as per the plan. Roof cap to be removed and replaced.
- B. Remove and replace rotted wood under the roof systems.
- C. Provide any insulation and wood blocking at the roof edge as per details.
- D. Provide and install all noted metal panel wall installation at the roof edge.
- E. Furnish and install all membrane roofing, flashing, sealer, elastic sheet, underlayment, thermal barrier, scuppers, downspouts, thermal roof insulation, prefinished flashing, prefinished metal perimeter wall caps, splash blocks, protective walkway on the roof, manufacturer’s warranty, contractors’ warranty, and all miscellaneous accessories to complete the roof system.
- F. See mechanical and electrical plans for penetrations and curbs that need to be flashed. Furnish and install boots for new mechanical penetrations.
- G. Contractor to ensure the roof is watertight for the duration of the project.
- H. Flashing at sleepers and mechanical curbs as shown on the roof plans.
- I. Removal of all roofing debris from jobsite.
- J. Provide and maintain safety guardrails and ladders needed to complete this contractor’s work.
- K. All field measurements and layout work necessary for the completion of this contractor’s work.
- L. See allowances, unit prices, and alternates as applicable.
 - a. Provide a \$10,000 allowance for unforeseen conditions. Approval needed by CM
- M. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried of site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Remove snow accumulations as need to complete work.

- C. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- D. Construction cleaning shall be performed daily for debris generated by this contractor.

1.03 SUBMITTALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).

- C. Concrete and grout trucks either need to wash out in a designated concrete washout pit, or into their hopper, coordinate with the Construction Manager. Details must be communicated to all persons involved in activity.

Bid Package 22/23 – Plumbing/HVAC

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification sections as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 22 – Plumbing
 - a. See Specifications on Mechanical Plans
 - 5. Division 23 – Heating, Ventilating, and Air-Conditioning (HVAC)
 - a. See Specifications on Mechanical Plans

1.01 INSTALLATION AND COORDINATION

- A. Remove existing MAU unit and prepare the existing curb for replacement.
- B. Furnish and install a new MAU unit and complete all plumbing and mechanical systems reconnection.
- C. Factory start up, Test and verify operation and balance.
- D. Modify roof drains and curbs at the pool roof replacement area as needed.
- E. Provide all permitting and inspections as needed for the plumbing/mechanical/electrical systems.
- F. Provide Plumbing contractors to ensure proper installation.
- G. All field measurements and layout work necessary for the completion of this contractor's work.
- H. See allowances, unit prices, and alternates as applicable.
- I. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried off site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction cleaning shall be performed daily for debris generated by this contractor.
- D. Provide and maintain all sump pumps as required for completion of this contractor's work.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Accurate set of as-built drawings at the completion of the project.
- E. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).
- C. Concrete and grout trucks either need to wash out in a designated concrete washout pit, or into their hopper, coordinate with the Construction Manager. Details must be communicated to all persons involved in activity.

Bid Package 26 – Electrical Systems

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification sections as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 26 – Electrical
 - a. See Specifications on Electrical Plans

1.01 INSTALLATION AND COORDINATION

- A. Remove and reinstall electrical systems as needed to complete the replacement of the mechanical units.
- B. Coordinate with Construction Manager and Bid Packages 22/23.
- C. Coordinate with Bid Package 7A at new roofing area.
- D. Contractor shall provide all electrical permits and inspections.
- E. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Construction cleaning shall be performed daily for debris generated by this contractor.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Accurate set of as-built drawings at the completion of the project.
- E. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".

- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

Bid Group 4

South High School

Scope of Work

Bid Package 3A-Concrete

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification section as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 03 – Concrete
 - a. 03 1100 – Permanent Forms
 - b. 03 2000 – Concrete Reinforcing
 - c. 03 3000 – Cast-in-Place Concrete
 - 5. Division 31 – Earthwork
 - a. See Specifications on Architectural Plans

1.01 INSTALLATION AND COORDINATION

- A. Provide cover at existing turf/grass to minimize damage.
- B. Demo existing concrete slabs as per demo plans and remove from site.
- C. Drill new foundation for stoop.
- D. Provide and install support angle at the existing wall.
- E. Provide and install form deck.
- F. Backfill and install final subgrade grade with proper materials.
- G. Provide proper compaction.
- H. Responsible for installing concrete foundation and sidewalk installations. See plans.
- I. Provide and install all rebar materials.
- J. Final grade black dirt and seed areas that have been disturbed.
- K. Provide electric generator for power needs if no power on site.
- L. Provide and install concrete additives, hardeners, curing agents, sealers, and dust proofing compounds called out in the plans or specs for completion of contractor's work.
- M. See allowances, unit prices, and alternates as applicable.
- N. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried off site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction clean-up shall be performed daily for debris generated by this contractor.
- D. Provide and maintain all sump pumps as required for completion of this contractor's work.
- E. Removal all concrete debris and materials from site at completion of work. Concrete tools and trucks must wash out in the provided wash out pit location.
- F. Clean adjacent floors and finishes of all slurry, splatter, and any other debris from pouring or cutting slabs.
- G. Must follow OSHA guidelines for all concrete cutting operations.

1.03 SUBMITTALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).
- C. Concrete and grout trucks, pumpers and all equipment used must wash out in a designated concrete washout pit, or into their hopper, coordinate with the Construction Manager. Details must be communicated to all persons involved in activity.

Bid Package 6A – General Work and Labor

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification sections as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 06 – Wood, Plastics, and Composites
 - a. 06 1000 - Rough Carpentry
 - 5. Division 07 – Thermal and Moisture Protection
 - a. 07 2000 – Thermal Insulation
 - b. 07 2500 – Weather Barriers (as applicable)
 - c. 07 9200 – Joint Sealants
 - 6. Division 09 – Finishes
 - a. 09 2116 – Gypsum Board Assemblies
 - b. 09 5100 – Acoustical Ceilings (Demo only see Arch. plans)

1.01 INSTALLATION AND COORDINATION

- A. Demo existing HM frames and doors system. (coordinate with electrical contractor)
- B. Temp existing opening as needed with plywood to make sure the opening is secure during installation of the new entrance.
- C. Remove the ACT ceiling systems in locations noted on the plans. Remove debris to provided dumpster.
- D. **Fargo South Alternate 1:** Remove existing aluminum windows, Infill existing opening with FR wood framing, batt insulation, vapor barrier, drywall, and exterior sheathing per detail. Taping and painting by others.
- E. Provide new wood blocking at door 14 perimeter.
- F. Provide and Install new header at door 14 store front.
- G. Provide all adhesives, anchors, nails, bolts, and screws for installation of the contractors' work.
- H. Coordination with other trades in the placement of blocking and backing to be used by others for the completion of their work (window blocking).
- I. This contractor will verify all field dimensions for supplied materials.
- J. Repair adjacent walls as needed if damaged during removal.
- K. Contractor is responsible for off-loading all material supplied by others but installed by this contractor.
- L. See allowances, unit prices, and alternates as applicable.
 - a. Provide \$1,500 material and \$2,500 labor allowance. Must be approved by CM.
- M. Cooperate with other trades on site in the completion of their work. Cooperation with the owner's Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried of site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.

- D. See Spec for other items.

1.03 SUBMITTALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).

- C. Concrete and grout trucks either need to wash out in a designated concrete washout pit, or into their hopper, coordinate with the Construction Manager. Details must be communicated to all persons involved in activity.

Bid Package 9B.9I – Drywall/Painting

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification sections as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 09 – Finishes
 - a. 09 2116 – Gypsum Board Assemblies
 - b. 09 9000 – Painting and Coatings

1.01 INSTALLATION AND COORDINATION

- A. Provide 40 hours for a taper and 2,000 material allowance for wall repairs.
- B. Provide 50 hours for one painter and 1,000 Material allowance to paint wall repairs.
- C. Cover any floors at areas of taping and painting.
- D. Removal of all debris to the owner provided dumpster by this contractor.
- E. All field measurements and layout work necessary for the completion of this contractor's work.
- F. See allowances, unit prices, and alternates as applicable.
- G. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried off site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction cleaning shall be performed daily for debris generated by this contractor.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.

- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).
- C. Concrete and grout trucks either need to wash out in a designated concrete washout pit, or into their hopper, coordinate with the Construction Manager. Details must be communicated to all persons involved in activity.

Bid Package 7A/7E – Moisture Protection/Metal Panels

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification sections as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 06 – Wood, Plastics, and Composites
 - a. 06 1000 – Rough Carpentry
 - 5. Division 07 – Thermal and Moisture Protection
 - a. 07 2000 – Thermal Insulation
 - b. 07 2500 – Weather Barriers
 - c. 07 4100 – Metal Roof and Wall Panels
 - d. 07 5300 – Elastomeric Membrane Roofing
 - e. 07 6000 – Flashing and Sheet Metal
 - f. 07 9200 – Joint Sealants

1.01 INSTALLATION AND COORDINATION

- A. Remove all existing roof systems as per the items noted. Replace metal roof cap. Remove all wood blocking indicated at the roof edge.
- B. All demo debris to be removed from site by this contractor for their respective work.
- C. Provide and install new wood parapet wood blocking as shown. Provide and install all batt insulation in parapet as shown.
- D. Furnish and install all membrane roofing, flashing, sealer, elastic sheet, underlayment, thermal barrier, scuppers, downspouts, thermal roof insulation, prefinished flashing, prefinished metal perimeter wall caps, splash blocks, protective walkway on the roof, manufacturer's warranty, contractors' warranty, and all miscellaneous accessories to complete the roof system.
- E. Remove all existing metal panel systems as shown.
- F. Furnish and install all prefinished metal panels, complete with flashings, trims, reinforcing, fasteners, stiffeners, and sealant for a complete installation as per manufactures instructions. Supply and install all materials as noted in the spec for a complete system.
- G. See mechanical and electrical plans for penetrations and curbs that need to be flashed. Furnish and install boots for new mechanical penetrations.
- H. Contractor to ensure the roof is watertight for the duration of the project.
- I. Flashing at sleepers and mechanical curbs as shown on the roof plans.
- J. Removal of all roofing debris from jobsite.
- K. Provide and maintain safety guardrails and ladders needed to complete this contractor's work.
- L. Provide snow removal as needed for this contractor's work.
- M. All field measurements and layout work necessary for the completion of this contractor's work.
- N. See allowances, unit prices, and alternates as applicable.
 - a. Provide \$15,000 allowance for unforeseen conditions. Must be approved by CM.
- O. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried off site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Remove snow accumulation as needed to complete work.
- C. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- D. Construction cleaning shall be performed daily for debris generated by this contractor.

1.03 SUBMITTALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.

- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).
- C. Concrete and grout trucks either need to wash out in a designated concrete washout pit, or into their hopper, coordinate with the Construction Manager. Details must be communicated to all persons involved in activity.

Bid Package 8E – Glazing Systems

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification sections as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 07 – Thermal and Moisture Protection
 - a. 07 2000 – Thermal Insulation
 - b. 07 2500 – Weather Barriers
 - c. 07 6000 – Flashing and Sheet Metal
 - d. 07 9200 – Joint Sealants
 - 5. Division 08 – Openings
 - a. 08 1116 – Aluminum Doors and Frames
 - b. 08 7000 – Door Hardware (incl. Handicap Assist Operators)
 - c. 08 8000 – Glass and Glazing

1.01 INSTALLATION AND COORDINATION

- A. Furnish and install new aluminum framing systems as per plans and specifications complete with aluminum doors and hardware. All systems must meet or exceed requirements as per State of ND energy and building codes and specifications.
- B. Furnish and install all door hardware associated with the aluminum door systems. **(Properly keyed cores and/or cylinders for the door hardware associated with the aluminum door systems will be provided by 8E.) 8E will install all cylinders and cores. Coordinate with FPS for the keying**
- C. Furnish and install glazing, glazing setting materials and accessories as shown and specified.
- D. Furnish and install foam insulation as noted in framing.
- E. Furnish and install perimeter sealant at interior and exterior of aluminum frames and window systems.
- F. Furnish and install batt or blanket insulation for stuffing perimeter window and door shim spaces.
- G. Furnish and install break metal as noted and detailed.
- H. Furnish and wrap header with break metal at door 14.
- I. Furnish and install all shims, as necessary in the installation of the contractor's work.
- J. Coordinate all electrical door hardware with the electrical contractor.
- K. Load, handle, unload, and store materials in a manner that will not bend, deform, or otherwise damage the final product.
- L. Coordinate frame prep locations for hardware with wood door supplier for wood doors that go in aluminum frames.
- M. All field measurements and layout work necessary for the completion of this contractor's work.
- N. See allowances, unit prices, and alternates as applicable.
- O. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried off site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction cleaning shall be performed daily for debris generated by this contractor.

1.03 SUBMITTALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.

- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).
- C. Concrete and grout trucks either need to wash out in a designated concrete washout pit, or into their hopper, coordinate with the Construction Manager. Details must be communicated to all persons involved in activity.

Bid Package 9E – Acoustical

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification section as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 09 - Finishes
 - a. 09 5100 – Acoustical Ceilings

1.01 INSTALLATION AND COORDINATION

- A. Furnish and install all suspended acoustic ceiling systems as shown and specified.
- B. Furnish owner stock material as specified.
- C. All field measurements and layout work necessary for the completion of this contractor's work.
- D. See allowances, unit prices, and alternates as applicable.
- E. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried off site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction cleaning shall be performed daily for debris generated by this contractor.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).
- C. Concrete and grout trucks either need to wash out in a designated concrete washout pit, or into their hopper, coordinate with the Construction Manager. Details must be communicated to all persons involved in activity.

Bid Package 9G – Resilient Flooring/Carpeting

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification section as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 09 - Finishes
 - a. 09 6813 – Tile Carpeting

1.01 INSTALLATION AND COORDINATION

- A. Remove existing flooring and prep concrete subfloor as needed for new flooring installation.
 - a. All debris to be placed in provided dumpster.
- B. Furnish and install all base, carpeting, and transition strips per plans and spec.
- C. Floor preparation, floor filling and minor grinding, adhesive and accessories as shown and specified.
- D. Furnish owner stock material as specified.
- E. All field measurements and layout work necessary for the completion of this contractor's work.
- F. See allowances, unit prices, and alternates as applicable.
- G. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried off site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction cleaning shall be performed daily for debris generated by this contractor.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.
- D. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.

- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).
- C. Concrete and grout trucks either need to wash out in a designated concrete washout pit, or into their hopper, coordinate with the Construction Manager. Details must be communicated to all persons involved in activity.

Bid Package 22/23 – Plumbing/HVAC

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification sections as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - a. 02 4000 – Demolition (as applicable)
 - 4. Division 22 - Plumbing
 - a. See Specifications on Mechanical Plans
 - 5. Division 23 – Heating, Ventilating, and Air-Conditioning (HVAC)
 - a. See Specifications on Mechanical Plans

1.01 INSTALLATION AND COORDINATION

- A. Remove existing MUA unit. Provide and install new mechanical unit. Prep existing curb for the new unit. Provide and install all plumbing and HVAC connections. (coordinate with electrical contractor)
- B. Provide 100 hours' labor and \$2000 material allowance to assist the roofing contractor with misc. items at the reroof areas.
- C. Provide and install hood at louvers as noted on the plans. Louver must be watertight around the perimeter.
- D. Remove and reinstall HVAC systems per plan in areas with new acoustic ceiling systems locations.
- E. Provide and coordinate all plumbing/HVAC permits and inspections.
- F. Coordinate with Electrical contractors to ensure proper installation.
- G. Provide start up and balance of the new unit.
- H. All field measurements and layout work necessary for the completion of this contractor's work.
- I. See allowances, unit prices, and alternates as applicable.
- J. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried off site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction cleaning shall be performed daily for debris generated by this contractor.
- D. Provide and maintain all sump pumps as required for completion of this contractor's work.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.

- D. Accurate set of as-built drawings at the completion of the project.
- E. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).
- C. Concrete and grout trucks either need to wash out in a designated concrete washout pit, or into their hopper, coordinate with the Construction Manager. Details must be communicated to all persons involved in activity.

Bid Package 26 – Electrical Systems

1.00 BID PACKAGE SUMMARY

- A. Comply with all specification sections as contained in the project manual including but not limited to:
 - 1. Division 00 – Procurement and Contracting Requirements
 - 2. Division 01 – General Requirements
 - 3. Division 02 – Existing Conditions
 - 4. Division 26 – Electrical
 - a. See Specifications on Electrical Plans
 - 5. Division 28 – Electronic Safety and Security
 - a. See Specifications on Electrical Plans

1.01 INSTALLATION AND COORDINATION

- A. Furnish and install the complete and operable electrical system for the project as shown and specified, including but not limited to:
 - 1. Remove and reconnect power to the new MAU unit.
 - 2. Remove and reconnect power and systems to the new doorway system.
 - 3. Modify or provide connections to the fire alarm systems as needed.
- B. Provide private locates at the new door and concrete location.
- C. Remove and reinstall electrical systems per plan in areas with new acoustical ceiling systems locations.
- D. Provide 100 labor hours and \$2,000 material allowance to work on misc. items at the reroofing areas. Coordinate with BP 7A and CM.
- E. Provide permit and inspections for the electrical work.
- F. All field measurements and layout work necessary for the completion of this contractor's work.
- G. See specification section 01 2200 for unit prices and specification section 01 2300 for alternates as applicable.
- H. Cooperate with other trades on site in the completion of their work. Cooperation with the owners Construction Manager in the use and management of the site, and in the coordination of work with other trades.

1.02 SITE CLEANING AND MAINTANENCE

- A. Debris tracked or carried of site into traffic lanes must be cleaned up immediately. If tracking continues, the Contractor shall provide continuous cleaning operations during activities of their work.
- B. Mandatory cleaning every Thursday from 2:00-4:00, see section 01 7000.
- C. Construction cleaning shall be performed daily for debris generated by this contractor.
- D. Provide and maintain all sump pumps as required for completion of this contractor's work.

1.03 SUBMITALS

- A. Provide timely submission of shop drawings, submittals, product data, and samples as noted in the specification.
- B. Submittals will be uploaded to Procore or emailed to the Construction Manager running the project.
- C. Provide phased and accelerated submittals and shop drawings for all items needed to achieve start dates and meet the project schedule.

- D. Accurate set of as-built drawings at the completion of the project.
- E. Provide warranties, maintenance, manuals, and training as specified.

1.04 MATERIAL HANDLING AND STORAGE

- A. All equipment necessary to complete this contractor's work including but not limited to scaffold, hoists, forklifts, pumps, etc.
- B. Housekeeping and final cleanup must be completed before leaving the site weekly. Final payment will not be authorized unless site is clean.
- C. All freight and delivery charges for the delivery of material shall be paid for by this contractor.
- D. Contractor is responsible for coordinating, receiving, and off-loading of materials installed by this contractor.
- E. Storage of onsite materials shall be approved by the Construction manager and coordinated with the other trades.

1.05 SAFETY

- A. Comply with all federal, state, and local safety guidelines.
- B. Comply with Gehrtz Construction Services "Site Specific Safety Plan".
- C. Every contractor needs to have a safety plan and competent person on site while the contractor is performing work.
- D. Thoroughly plan all work activities and operations so they are performed safely, as well as efficiently.
- E. Effectively communicate the health and safety requirements of Gehrtz Construction Services' Site-Specific Safety Plan to all contractors and their workers through open communications, comprehensive training, assessments, and workplace inspections.
- F. Develop an understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthy workplace.
- G. Plan and coordinate work operations and activities to minimize or eliminate situations which may jeopardize worker's health and safety due to conflicting or simultaneous work operations or activities.
- H. Communicate to all workers that safety is their responsibility, and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

1.06 SWPPP

- A. Dewatering must follow the SWPPP and Erosion and Sediment Control guidelines.
- B. Sweep city streets and site roads as needed during excavation, hauling, backfilling, utility work, foundation work, paving, or when contractor vehicles track out of the site. (Minimum of once per week).
- C. Concrete and grout trucks either need to wash out in a designated concrete washout pit, or into their hopper, coordinate with the Construction Manager. Details must be communicated to all persons involved in activity.

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09 51 00 - ACOUSTICAL CEILINGS	2
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09 90 00 - PAINTING AND COATING	5
DIVISION 10 -- SPECIALTIES	
10 12 00 – DISPLAY CASES	2
10 15 00 - VIDEO DISPLAY SYSTEMS	1
DIVISION 12 -- FURNISHINGS	
DIVISION 13 -- SPECIAL CONSTRUCTION	
DIVISION 14 -- CONVEYING EQUIPMENT	
DIVISION 21 -- FIRE SUPPRESSION	
DIVISION 22 – PLUMBING	
SEE SPECIFICATIONS ON MECHANICAL PLANS	

**DIVISION 23 -- HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC)
SEE SPECIFICATIONS ON MECHANICAL PLANS**

DIVISION 25 -- INTEGRATED AUTOMATION

**DIVISION 26 -- ELECTRICAL
SEE SPECIFICATIONS ON ELECTRICAL PLANS**

DIVISION 27 -- COMMUNICATIONS

DIVISION 28 -- ELECTRONIC SAFETY AND SECURITY

**DIVISION 31 -- EARTHWORK
SEE SPECIFICATIONS ON CIVIL PLANS**

**DIVISION 32 -- EXTERIOR IMPROVEMENTS
SEE SPECIFICATIONS ON CIVIL PLANS**

**DIVISION 33 -- UTILITIES
SEE SPECIFICATIONS ON CIVIL PLANS**

DIVISION 34 -- TRANSPORTATION

DIVISION 40 -- PROCESS INTEGRATION

DIVISION 46 -- WATER AND WASTEWATER EQUIPMENT

END OF SECTION

**SECTION 00 1100
ADVERTISEMENT FOR BIDS**

PROJECT:

2026 Multi-Facility Maintenance Project
700 7th Street South
Fargo, North Dakota 58103

OWNER:

Fargo Public Schools
700 7th Street South
Fargo, North Dakota 58103

SEPARATE SEALED BIDS FOR THE FOLLOWING BID GROUP PACKAGES OF CONSTRUCTION WORK FOR THE PROJECT NAMED ABOVE WILL BE RECEIVED BY GEHRTZ CONSTRUCTION SERVICES UNTIL TUESDAY, MARCH 17, 2026 AT 2:00 PM LOCAL TIME, WHERE BIDS WILL BE PUBLICLY OPENED AND READ.

See below for bid submission options, locations, and times

BID PACKAGES:

3A: Concrete
4: Masonry
5B: Structural Steel (Materials & Erection)
5C: Miscellaneous Metals (Materials)
5D: Miscellaneous Metals (Labor)
6A: General Work and Labor
7A: Moisture Protection
7A/7E: Moisture Protection/Prefinished Metal Panels
8E: Glazing Systems
9B/9I: Drywall/Painting
9E: Acoustical
9G: Resilient Flooring and Carpeting
9I: Painting
10A: Site Signs
22/23: Plumbing/HVAC
26: Electrical Systems
31: Earthwork
32A: Paving and Surfacing

BID PACKAGE WORK BY SITE

Bennett Elementary: 5B, 22/23, 26
Jefferson Elementary: 3A, 4, 10A, 26, 31
Longfellow Elementary: 3A, 4, 10A, 26, - 31
Discovery Middle School: 7A

Fargo Davies High School: 31, 32A

Fargo North High School: 7A, 22/23, 26

Fargo South High School: 3A, 6A, 7A/7E, 8E, 9B/9I, 9E, 9G, 22/23, 26

Trollwood Performing Arts School: 5C, 5D, 9I, 26

The construction is expected to begin upon contract awards approximately April 7, 2026. Completion of the project is scheduled for 08-18-2026. See Section 01 3216 - Project Construction Schedule for more information.

The Information to Bidders, Form of Bid, Form of Contract, Drawings, Specifications, and other contract documents may be examined at the following places:

1. North Dakota Builders Exchanges: Bismarck Mandan Builder's Exchange, Bismarck Construction Plains Exchange, Fargo-Moorhead Builder's Exchange, Grand Forks Builders & Traders Exchange, and Minot Builders Exchange.
2. Minnesota Builders Exchanges: Minnesota Builders Exchange (Minneapolis) and St. Cloud Builders Exchange.
3. South Dakota Builders Exchanges: Aberdeen Builder's Exchange, Construction Industry Center Exchange (Rapid City), and Plains Builders Exchange (Sioux Falls).

Electronic copies of the above documents may be obtained from Gehrtz Construction Services. Request documents via email at info@gcs-fm.com.

Bids shall be submitted by mail or in-person, using the bid form contained in the specifications at the following locations:

1. **Submitting by mail:** Bids will be received by Gehrtz Construction Services until 1:30 pm on the bid date. These bids will be taken to the Fargo Public Schools District Office and read publicly at 2:00 pm.
 - a. The Office of Gehrtz Construction Services: 510 4th Avenue North, Fargo, ND 58102.
2. **Submitting in-person at Gehrtz Construction Services:** Bids will be received by Gehrtz Construction Services until 1:30 pm on the bid date. These bids will be taken to the Fargo Public Schools District Office and read publicly at 2:00 pm.
 - a. The Office of Gehrtz Construction Services: 510 4th Avenue North, Fargo, ND 58102.
3. **Submitting in-person at Fargo Public Schools:** Between the hours of 12:00 (noon) and 2:00 pm on the bid date, bids will be received at the District Office of the Fargo Public Schools. These bids will be read publicly at 2:00 pm.
 - a. The Office of Fargo Public Schools: 700 7th Street South, Fargo, North Dakota 58103.

The Construction Manager reserves the right to waive any informality or to reject any or all bids.

No bidder may withdraw their bid within 30 days after the actual date of the opening thereof.

Each bid shall be accompanied by a **separate envelope** containing a bidders bond in a sum equal to 5 % of the full amount of the bid made payable to the Owner, executed by the bidder as principal and by a surety company authorized to do business in the state of the project location, conditioned that if the principal's bid be accepted and the contract awarded to the principal, within ten days after notice of award, the principal will execute and effect a contract in accordance with the terms of the bid and a contractors bond as required by law the regulations and determinations of the governing board.

Bids must be submitted in the following manner:

- a. Sealed Envelope #1: Contains bid bond and contractor license.
- b. Sealed Envelope #2: Contains bid form.
 - 1) No bid will be read or considered which does not fully comply with the above provisions as to bond and license, and any deficient bid submitted will be resealed and returned to the bidder immediately.
- c. If forwarded by mail, both sealed envelopes shall be enclosed in another envelope addressed as specified in the Bid Form.

All bidders must be licensed for the highest amount of their bids, as approved by Section 43-07-07 of the North Dakota Century Code. **A copy of the bidder's contractor's license, valid as of the bid date, must be included in the separate bid bond envelope.**

END OF SECTION

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**SECTION 00 2100
INFORMATION TO BIDDERS**

1.01 CONSTRUCTION MANAGEMENT METHOD OF BIDDING/CONSTRUCTING THE PROJECT

- A. The construction work for this project, 2026 Multi-Facility Maintenance Project, in Fargo, North Dakota will be completed utilizing the Construction Management at Risk (CMaR) method of securing bids for the work and administrating the Construction Phase work. Primarily, this means that the construction work will be divided into a larger number of bid packages or divisions than the normal three - General, Mechanical and Electrical, and contracts for the work will be executed by the Construction Manager with the contractor selected for each of these additional portions of the work.
- B. YHR Partners will provide to the Owner on this project the architectural and engineering services normal to this type of project. Gehrtz Construction Services will provide Construction Management at Risk (CMaR) services to the Owner and will be the on site Construction Manager. Your attention is called to Article 2 - Administration of the Contract of the General Conditions that outlines the responsibilities of each entity in this method of project construction.
- C. EACH BID PACKAGE CONTRACTOR IS HEREBY CAUTIONED TO BE AWARE THAT SOME ADDITIONAL RESPONSIBILITIES MAY BE INCLUDED IN YOUR WORK THAT IS NORMALLY PROVIDED BY A PRIME CONTRACTOR, SUCH AS LAYOUT WORK, DIMENSION VERIFICATION, COORDINATION OF WORK WITH OTHER CONTRACTORS, CLEANUP, ETC. ALSO, ALL REQUIREMENTS INCLUDED IN DIVISION 00 - CONDITIONS OF THE CONTRACT AND DIVISION 01 - GENERAL REQUIREMENTS OF THESE SPECIFICATIONS SHALL BE INCLUDED IN THE RESPONSIBILITIES OF EACH BID PACKAGE CONTRACTOR. (SEE TABLE OF CONTENTS FOR ITEMS AND SPECIFICATION SECTIONS INCLUDED IN DIVISION 00 AND DIVISION 01.)

1.02 RECEIPT AND OPENING OF BIDS

- A. Please provide separate sealed bids on the form attached hereto for Bid Package Work for the 2026 Multi-Facility Maintenance Project, located in Fargo, North Dakota. Bids will be received by Gehrtz Construction Services until Tuesday, March 17, 2026 at 2:00 pm local time, where bids will be publicly opened and read aloud.
- B. Bids shall be submitted by mail or in-person, using the bid form contained in the specifications.
- C. The Construction Manager reserves the right to waive any informality or to reject any or all bids.
- D. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof.
- E. Any bid received after the time and date specified shall not be considered.
- F. No bidder may withdraw their bid within 30 days after the actual date of the opening thereof.

1.03 BID SECURITY

- A. Each bid must be accompanied by a Bid Bond, duly executed by the bidder as principal and having as surety thereon a surety company approved by the Construction Manager in the amount of 5% of the bid.

1.04 PREPARATION OF AND SUBMISSION OF BIDS

- A. See Section 00 1100 - Advertisement for Bids for bid submission requirements.
- B. Each bid must be submitted on the bid form contained in these specifications.
- C. The Owner, Architect, and Construction Manager assume no responsibility for the delivery or receiving of bids. Bidders are encouraged to submit their bids as early as possible to avoid the possibility of rejection due to late submittal.

1.05 MODIFICATIONS OF BIDS

- A. Modifications of bids by fax or email is not permitted.

1.06 LAWS AND REGULATIONS

- A. The bidder's attention is directed to the fact that all applicable State laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over the construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.
- B. Bidders must hold a North Dakota Contractor's license, carry North Dakota Workmen's Compensation Insurance, and conform to all governing laws of the State of North Dakota.

1.07 STATE EXCISE AND USE TAX (SALES TAX)

- A. In submitting the bid, the bidder is understood to have included in the bid price the state excise tax on all sales of building materials, supplies and equipment to contractors, subcontractors or builders for the erection of buildings or their alteration, repair or improvement.

1.08 MATERIAL ONLY CONTRACTS

- A. "Material Only" contracts **MUST INCLUDE** all sales or use tax and shall be bid as F.O.B. jobsite.
- B. No performance or payment bond shall be required for "Material Only" contracts.

1.09 PRE-BID MEETING

- A. Pre-bid informational meetings will be held at each site on March 2, 2026. Attendance at the meetings is optional.
 1. Trollwood Performing Arts School - 9:00 am.
 - a. 801 50th Ave. South, Moorhead, MN.
 - b. Meet at the Stage.
 2. Discovery Middle School - 10:00 am.
 - a. 1717 40th Ave. South, Fargo, ND.
 - b. Meet at the south side of the school.
 3. Bennett Elementary - 11:00 am.
 - a. 2000 58th Ave. South, Fargo, ND.
 - b. Meet at the north side of the school by the overhead door/maintenance area.
 4. Fargo Davies High School - 1:00 pm.
 - a. 7150 25th St. South, Fargo, ND.
 - b. Meet at the south side of the school next to the tennis court and pool area.
 5. Fargo South High School - 2:00 pm.
 - a. 1840 15th Ave. South, Fargo, ND.
 - b. Meet at the south parking lot (in the NW corner).
 6. Jefferson Elementary - 3:00 pm.
 - a. 1701 4th Ave. South, Fargo, ND.
 - b. Meet at the SW corner of the site at the sign.
 7. Fargo North High School - 3:30 pm.
 - a. 801 17th Ave. North, Fargo, ND.
 - b. Meet in the NW parking lot north of the pool area.
 8. Longfellow Elementary - 4:30 pm.
 - a. 20 29th Ave. Northeast, Fargo, ND.
 - b. Meet at the SW corner of the site at the sign location.

1.10 OBLIGATION OF BIDDER

- A. At bid opening, each Bidder shall be considered to have inspected the site and to have thoroughly reviewed the Drawings and all Contract Documents (including all issued addenda). Any failure to examine any portion of the documents shall not relieve the Bidder from responsibilities associated with the submission of a bid.

- B. Bidders and Sub-bidders shall promptly notify the Architect and/or Engineer of any ambiguities, inconsistencies, or errors discovered in the Bidding Documents or in site or local conditions. No claim for additional costs arising from failure to do so will be considered.
- C. Requests for clarification or interpretation of the Bidding Documents shall be submitted in writing to the Architect no later than 7 days prior to the Bid Date.
- D. Interpretations, corrections, or changes to the Bidding Documents will be issued only by Addendum. Any information provided in any other manner shall not be binding, and Bidders shall not rely on such information.
- E. Where materials, products, or equipment are specified by manufacturer and name and are preceded by "Equal to" or followed by "or equal," Bidders may base their bids on any material, product, or equipment meeting the functional, dimensional, appearance, and quality standards of the specified item. Approval for substitution prior to Bid Date is not required.
- F. Where materials, products, or equipment are specified by manufacturer and name and are followed by "or approved equal," bids shall be based solely on the items specified or those approved as substitutions by Addendum.
- G. Where materials, products, or equipment are specified by manufacturer and name and are followed by "no exceptions," bids shall be based solely on the items specified.

1.11 INDIVIDUAL BIDS

- A. Contractors/suppliers are required to submit an individual bid for each bid package. However, contractors/suppliers may stipulate that they will only accept a contract for a combination of bid packages.
- B. Construction Manager will determine if multiple bid packages will be awarded to an individual contractor.

1.12 SUBSTITUTIONS OF MATERIALS AND EQUIPMENT

- A. Contractor's, subcontractor's, & supplier's attention is directed to specification Section 00 4325 - Substitution Request Form - During Procurement, regarding substitutions of materials and/or equipment.

1.13 ALTERNATE PROPOSALS

- A. See Section 01 2300 - Alternates, for general description of alternates. The technical sections of these specifications shall also apply to the alternate work, whether so noted in each technical section or not.

1.14 METHODS OF AWARD - LOWEST QUALIFIED BIDDER

- A. The contract will be awarded on the following basis:
 1. Base bid or combination of base bid and such alternates that produce the most complete project.
 2. Ability to staff the project to keep pace with construction.
 3. Past performance on similar projects. Provide references upon request of the Construction Manager.
 4. Approval of the owner's representative(s) of the above criteria.
 5. Time of completion.

1.15 CONTRACTS AND SUBCONTRACTS

- A. The bidder is specifically advised that any person, firm, or other party to whom it is proposed to award a contract or subcontract under this contract must be acceptable to the Owner. Causes for rejection include but are not limited to the following:
 1. Poor workmanship on past projects.
 2. Lack of cooperation and/or inability to meet construction schedule on past projects.
 3. Inadequate personnel to meet construction schedule.
 4. Inability to meet project contract requirements.

- B. The lowest bidder must submit to the Construction Manager a complete list of all suppliers and subcontractors within seven (7) days after the time of the award of contract. Inability to provide a list of acceptable subcontractors shall be just cause for rejection of the bidder's proposal.

1.16 PERFORMANCE AND PAYMENT BONDS (SEE NOTE ON BID FORM)

- A. If Instructed to, with the delivery of the executed contract, each contractor shall furnish a performance-payment bond as security for faithful performance of this contract and furnishing materials in connection with this contract. The surety of such bond or bonds shall be a duly authorized surety company satisfactory to the Construction Manager. The amount of the bonds shall be 100% of the contract.

1.17 POWER OF ATTORNEY

- A. Attorneys-in-fact who sign bonds on contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

1.18 BUILDERS RISK

- A. Builder's Risk Insurance will be maintained by the Owner to cover all contractors. The contractor submitting the claim will be responsible for the deductible portion of the claim. The Owner will have a \$25,000.00 deductible. The Owner's policy does not include coverage for contractor's equipment or materials stored off-site. It is the contractor's responsibility to properly secure all on-site materials. Unsecured on-site storage is not eligible for a claim.

1.19 WAGES

- A. **NO** Federal funds are involved on this project; therefore, federal wage rates **DO NOT** apply.
- B. **NO** State funds are involved on this project; therefore, State prevailing wages **DO NOT** apply.

1.20 TIME OF COMPLETION

- A. Bidder must agree to commence work upon notification to proceed. See Section 01 3216 - Project Construction Schedule for project completion.

1.21 WORK HOURS

- A. Normal work hours on the site shall be 6:00 am to 6:00 pm, Monday through Friday. Work outside of these hours are to be coordinated and approved by the Owner.
- B. All work that may disrupt Owner activities must be coordinated with the Construction Manager.

1.22 CONDITIONS OF WORK

- A. Each bidder must inform themselves fully of the conditions relating to the construction of the project. Failure to do so will not relieve a successful bidder of their obligation to furnish all material and labor necessary to carry out the provisions of their contract. Insofar as possible, the contractor in carrying out their work must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor or the owner.
- B. Upon award of contract, successful bidders shall order materials and begin off-site equipment fabrication.
- C. Contractor's Note: If any machinery is used on the project inside the existing or new building floor to complete any work, the individual contractor shall clean and repair (at contractor's expense) any equipment or material spills, etc. caused by their work, and/or machinery to a condition satisfactory to the Construction Manager.

1.23 TOBACCO-FREE BUILDINGS

- A. Smoking/chewing tobacco, vaping, etc is NOT permitted on the site or in the building.

1.24 ALCOHOL

- A. Absolutely no alcoholic beverages are allowed on the jobsite at any time during the construction process.

1.25 FOOD

- A. No food, food products, or beverages will be permitted inside the construction of the building.

1.26 DRIVEWAYS AND ENTRANCES

- A. Keep driveways and entrances serving the premises clear and available to the Owner, the Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials. Schedule deliveries with Construction Manager to minimize space and time requirements for storage of materials and equipment on-site.

1.27 SITE DAMAGE AND REPAIRS

- A. Damage to streets, curbs, sidewalks, plantings, buildings, and any other elements surrounding the site shall be repaired to the Owner's satisfaction by the responsible party. The Construction Manager shall have the complete, unrestricted authority to assign responsibility for making repairs to the contractor or contractors they feel is responsible for the damages.

1.28 CONTRACT CLOSEOUT

- A. Each contractor will be required to submit the following forms, fully executed, at the appropriate time prior to retainage reduction or final payment as requested by the Construction Manager.
 - 1. Signed lien waiver for the amount of each pay request.
 - 2. AIA G707 - Consent of Surety to Final Payment.
 - 3. AIA G706A - Contractor's Affidavit of Release of Liens.
 - 4. AIA G706 - Contractor's Affidavit of Payment of Debts and Claims.
 - 5. AIA G704 - Certificate of Substantial Completion.

END OF SECTION

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**For Divisions 22 – Plumbing and Divisions 23 HVAC,
See Specifications on Mechanical Plans**

For Divisions 26 Electrical, See Specifications on Electrical Plans

**For Divisions 31 Earthwork, 32 Exterior Improvements and 33 Utilities
See Specifications on Civil Plans**

**SECTION 00 4100
PROPOSAL FORM**

Project:

Fargo Public Schools 2026 Maintenance Projects
Fargo, North Dakota

Date: TBD, 2026

Proposal of _____, hereinafter called the bidder, a
_____ corporation / partnership / an individual, doing business as
(State) (strike out inapplicable terms)
_____ to Gehrtz Construction Services, Inc., hereinafter called the
Construction Manager at Risk.

To the Owner:

The bidder in compliance with the Invitation for Bids for the construction of Fargo Public Schools – 2026 Maintenance Projects having examined the plans and specifications with related documents and the site of the proposed work and being familiar with all of the conditions surrounding the construction of the proposed project including the availability of materials and labor, hereby proposes to furnish all labor, materials, and supplies and to construct the project in accordance with the contract documents within the time set forth therein and at the prices stated below.

These prices are to cover all expenses incurred in performing the work required under the contract documents of which this proposal is a part.

Bidder hereby agrees to commence work under this contract on or before a date noted in the Information to Bidders included in these specifications and to fully complete the project in the time allotted by this same schedule.

Bidder acknowledges receipt of the following addenda: _____.

Bidder acknowledges section 00 300 contractors' scope of work: _____ **(Initial)**

BASE PROPOSAL:

Bidder agrees to perform all the Construction Work described in the specifications and shown on the plans for the following Bid Package(s) for the sum of money as noted following each Bid Package: (Contractors are required to submit individual bids for each Bid Package. Bidders are allowed to submit combined bids as well.)

Note: The intention is to have a single contractor per Bid Group for each bid package. Separate project bids per location are listed separately for accounting purposes only.

BID GROUP 1 –

Trollwood Performing Arts Center

Bid package Number/Name	Amount of Bid
# _____	\$ _____
# _____	\$ _____
# _____	\$ _____

Discovery Middle School

Bid package Number/Name	Amount of Bid
# _____	\$ _____
# _____	\$ _____
# _____	\$ _____

Bennett Elementary School

Bid package Number/Name	Amount of Bid
# _____	\$ _____
# _____	\$ _____
# _____	\$ _____

BID GROUP 2 –

Davies High School

Bid package Number/Name	Amount of Bid
# _____	\$ _____
# _____	\$ _____
# _____	\$ _____

BID GROUP 3 –

Jefferson Elementary School

Bid package Number/Name	Amount of Bid
# _____	\$ _____
# _____	\$ _____
# _____	\$ _____

Longfellow Elementary School

Bid package Number/Name	Amount of Bid
# _____	\$ _____
# _____	\$ _____
# _____	\$ _____

North High School

Bid package Number/Name	Amount of Bid
# _____	\$ _____
# _____	\$ _____
# _____	\$ _____

BID GROUP 4 –

South High School

Bid package Number/Name	Amount of Bid
# _____	\$ _____
# _____	\$ _____
# _____	\$ _____

PERFORMANCE AND PAYMENT BOND:

The Bidder shall include a separate price to the CMAR for providing a Performance and Payment bond on the scope of work covered by their bid or bids. The CMAR may elect to require Bonding on any or all bid packages at their discretion. By providing this optional cost for bonding to the CMAR, the Bidder is indicating their ability to become bonded on their scope of work. If the CMAR requires Bidder to bond their scope of work and the bidder is unable to execute the bond, the CMAR may elect to reject the bid.

Bonding Cost ADD \$ _____

ALTERNATE PROPOSAL: BG 1- Bennett Elementary

Alternate No. 1 - All work associated to provide and install dry cooler per plans and spec.

Add/Deduct\$ _____

ALTERNATE PROPOSALS: BG 2 Davis High School Parking lot.

Alternate No. 1 - All work associated to omit the removal and replacement of the subgrade.

Add/Deduct\$ _____

Alternate No. 2 - All work associated to provide asphalt in lieu of Concrete pavement

Add/Deduct\$ _____

Alternate No. 3 - All work associated to remove and reinstall additional concrete curb and gutter.

Add/Deduct\$ _____

Alternate No. 4 - All work associated to remove 12" of clay subgrade and scarify an additional 6" of clay. Reinstall clay as per plan and spec with the proper compaction and moisture content.

Add/Deduct\$ _____

ALTERNATE PROPOSALS: BG 4 South High School.

Alternate No. 1 - All work associated to reroof Area A as per plans and specs.

Add/Deduct\$ _____

Alternate No. 2 - All work associated to reroof Area B as per plans and specs.

Add/Deduct\$ _____

UNIT PRICES:

BG 2 Davies High School

Unit Price No. 1 - Price to remove additional concrete curb and gutter (Bid Package 31).

UP-1 \$ _____ add/ per Lineal Foot

Unit Price No. 2 – Price to install additional concrete curb and gutter (Bid package 32A)

UP-2 \$ _____ add per LF in place.

Unit Price No. 3 – Provide and install additional clay fill in areas where existing clay is not suitable.

UP-3 \$ _____ add per LF in place.

Bidder understands that the CMAR reserves the right to reject any or all bids and to waive any informality in the bidding. Bidder must agree to commence work immediately upon being given the notice to proceed.

The bidder agrees that this bid shall be good and may not be withdrawn for a period of 30 days after the scheduled closing time for receiving bids.

Upon receipt of written notice of acceptance of this bid, bidder will execute the formal contract attached within 10 days and deliver a surety bond or bonds as required by the specifications.

Respectfully submitted,

By _____

(signature)

Title _____

Business Address _____

(SEAL if bid is by a corporation)

Telephone No. _____

E-Mail _____

**SECTION 00 4200
BID BOND**

The Standard AIA Form Document A310 - 2010 Bid Bond shall be made a part of these Contract Documents. A copy of the document is included herein.

END OF SECTION

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AIA[®]

Document A310™ – 2010

Bid Bond

CONTRACTOR:

(Name, legal status and address)

SURETY:

(Name, legal status and principal place of business)

OWNER:

(Name, legal status and address)

BOND AMOUNT:

PROJECT:

(Name, location or address, and Project number, if any)

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

init.

**SECTION 00 4325
SUBSTITUTION REQUEST FORM - DURING PROCUREMENT**

The Substitution Request form shall be made part of these contract documents. A copy of the document is included herein.

END OF SECTION

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SUBSTITUTION REQUEST

Project: 2026 Multi-Facility Maintenance Project Substitution Request Number: _____
Fargo, North Dakota From: _____
 To: Gehertz Construction Services – Attn: Dan Kleist Date: _____
510 4th Avenue North, Fargo, ND 58102 A/E Project Number: 25-028
 Re: Substitution Request Contract For: _____

Specification Title: _____ Description: _____
 Section: _____ Page: _____ Article/Paragraph: _____

Proposed Substitution: _____

Manufacturer: _____ Address: _____ Phone: _____

Trade Name: _____ Model No.: _____

Installer: _____ Address: _____ Phone: _____

History: New product 2-5 years old 5-10 years old More than 10 years old

Differences between proposed substitution and specified product: _____

Point-by-point comparative data attached

Reason for not providing specified item: _____

Similar Installation:

Project: _____ Architect: _____

Address: _____ Owner: _____

_____ Date Installed: _____

Proposed substitution affects other parts of Work: No Yes; explain _____

Savings to Owner for accepting substitution: _____ (\$ _____).

Proposed substitution changes Contract Time: No Yes [Add] [Deduct] _____ days.

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____

SUBSTITUTION REQUEST (Continued)

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted by: _____

Signed by: _____

Firm: _____

Address: _____

Telephone: _____

Attachments: _____

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specification Section 01330.
- Substitution approved as noted - Make submittals in accordance with Specification Section 01330.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by:

Date:

Additional Comments: Contractor Subcontractor Supplier Manufacturer A/E _____

**SECTION 00 5200
AGREEMENT FORM**

PART 1 GENERAL

1.01 FORM OF AGREEMENT

- A. Construction Manager at Risk
 - 1. Contractor Subcontractor Agreement Form: AIA Document A401 - 2017 Standard Form of Agreement Between Contractor and Subcontractor shall be made a part of these Contract Documents.

1.02 THE AGREEMENT TO BE EXECUTED IS ATTACHED FOLLOWING THIS PAGE.

1.03 RELATED REQUIREMENTS

- A. Section 00 7200 - General Conditions.
- B. Section 00 7300 - Supplementary Conditions.
- C. Section 01 4216 - Definitions.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

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AIA[®] Document A401[®] – 2017

Standard Form of Agreement Between Contractor and Subcontractor

AGREEMENT made as of the day of in the year
(In words, indicate day, month and year.)

BETWEEN the Contractor:
(Name, legal status, address and other information)

and the Subcontractor:
(Name, legal status, address and other information)

The Contractor has made a contract for construction (hereinafter, the Prime Contract) dated:

with the Owner:
(Name, legal status, address and other information)

for the following Project:
(Name, location and detailed description)

The Prime Contract provides for the furnishing of labor, materials, equipment and services in connection with the construction of the Project. A copy of the Prime Contract, consisting of the Agreement Between Owner and Contractor (from which compensation amounts may be deleted) and the other Contract Documents enumerated therein, has been made available to the Subcontractor.

The Architect for the Project:
(Name, legal status, address and other information)

ADDITIONS AND DELETIONS:
The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

The Contractor and the Subcontractor agree as follows.



Init.

TABLE OF ARTICLES

1	THE SUBCONTRACT DOCUMENTS
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15	ENUMERATION OF SUBCONTRACT DOCUMENTS

ARTICLE 1 THE SUBCONTRACT DOCUMENTS

§ 1.1 The Subcontract Documents consist of (1) this Agreement; (2) the Prime Contract, consisting of the Agreement between the Owner and Contractor and the other Contract Documents enumerated therein; (3) Modifications to the Prime Contract, whether issued before or after the execution of this Agreement, in accordance with the provisions of Article 5; (4) other documents listed in Article 15 of this Agreement; and (5) Modifications to this Subcontract issued after execution of this Agreement, in accordance with the provisions of Article 5. These form the Subcontract, and are as fully a part of the Subcontract as if attached to this Agreement or repeated herein.

§ 1.2 The Subcontract Documents form the Subcontract for Construction. The Subcontract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. An enumeration of the Subcontract Documents, other than Modifications to the Prime Contract or Modifications to this Subcontract issued subsequent to the execution of this Agreement, appears in Article 15.

§ 1.3 Except to the extent of a conflict with a specific term or condition contained in the Subcontract Documents, the General Conditions governing this Subcontract shall be the AIA Document A201™-2017, General Conditions of the Contract for Construction.

§ 1.4 The Subcontract may be amended or modified only by a Modification to this Subcontract. A Modification to this Subcontract is a written amendment to this Agreement signed by both parties, or as otherwise described in, and in accordance with the provisions of, Article 5.

§ 1.5 The Subcontract Documents shall not be construed to create a contractual relationship of any kind (1) between the Architect and the Subcontractor, (2) between the Owner and the Subcontractor, or (3) between any persons or entities other than the Contractor and Subcontractor.

§ 1.6 The Contractor shall make the Subcontract Documents available to the Subcontractor prior to execution of this Agreement, and thereafter, upon request. The Contractor may charge the Subcontractor for the reasonable cost to reproduce the Subcontract Documents provided to the Subcontractor.

ARTICLE 2 MUTUAL RIGHTS AND RESPONSIBILITIES

The Contractor and Subcontractor shall be mutually bound by the terms of this Agreement and, to the extent that the provisions of AIA Document A201–2017 apply to this Agreement pursuant to Section 1.3 and provisions of the Prime Contract apply to the Work of the Subcontractor, the Contractor shall assume toward the Subcontractor all obligations and responsibilities that the Owner, under such documents, assumes toward the Contractor, and the Subcontractor shall assume toward the Contractor all obligations and responsibilities that the Contractor, under such documents, assumes toward the Owner and the Architect. The Contractor shall have the benefit of all rights, remedies, and redress against the Subcontractor that the Owner, under such documents, has against the Contractor, and the Subcontractor shall have the benefit of all rights, remedies, and redress against the Contractor that the Contractor, under such documents, has against the Owner, insofar as applicable to this Subcontract. Where a provision of such documents is inconsistent with a provision of this Agreement, this Agreement shall govern.

ARTICLE 3 CONTRACTOR

§ 3.1 General

§ 3.1.1 The Contractor is the person or entity identified as such in this Agreement and is referred to throughout the Subcontract Documents as if singular in number. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all Project matters requiring the Contractor's approval or authorization. The term "Contractor" means the Contractor or the Contractor's authorized representative.

§ 3.1.2 The Contractor shall render decisions in a timely manner and in accordance with the Contractor's construction schedule.

§ 3.2 Services Provided by the Contractor

§ 3.2.1 The Contractor shall cooperate with the Subcontractor in scheduling and performing the Contractor's Work to avoid conflicts or interference in the Subcontractor's Work and shall review, and expedite written responses to, submittals made by the Subcontractor in accordance with Section 4.2.3 and Article 5. Promptly after execution of this Agreement, the Contractor shall provide the Subcontractor with copies of the Contractor's construction schedule and schedule of submittals, together with such additional scheduling details as will enable the Subcontractor to plan and perform the Subcontractor's Work properly. The Contractor shall promptly notify the Subcontractor of subsequent changes in the construction and submittal schedules and additional scheduling details.

§ 3.2.2 The Contractor shall provide suitable areas for storage of the Subcontractor's materials and equipment during the course of the Work. Except as previously agreed upon, additional costs to the Subcontractor resulting from relocation of such storage areas at the direction of the Contractor shall be reimbursed by the Contractor.

§ 3.3 Communications

§ 3.3.1 The Contractor shall promptly make available to the Subcontractor information, including information received from the Owner, that affects the performance of this Subcontract and that becomes available to the Contractor subsequent to execution of this Subcontract.

§ 3.3.2 The Contractor shall not give instructions or orders directly to the Subcontractor's employees or to the Subcontractor's Sub-subcontractors or suppliers unless such persons are designated as authorized representatives of the Subcontractor.

§ 3.3.3 The Contractor shall permit the Subcontractor to request information directly from the Architect regarding the percentages of completion and the amount certified on account of Work done by the Subcontractor.

§ 3.3.4 If hazardous materials or substances are being used on the site by the Contractor, a subcontractor, or anyone directly or indirectly employed by them (other than the Subcontractor), and they are a type of hazardous material or substance of which an employer is required by law to notify its employees, the Contractor shall, prior to delivery to the Project site or exposure of the Subcontractor's employees to such material or substance, give notice of the chemical

composition thereof to the Subcontractor in sufficient detail and time to permit the Subcontractor's compliance with such laws.

§ 3.3.5 The Contractor shall promptly notify the Subcontractor of any fault or defect in the Work under this Subcontract or nonconformity with the Subcontract Documents.

§ 3.3.6 The Contractor shall furnish to the Subcontractor within 30 days after receipt of a written request, or earlier if so required by law, information necessary and relevant for the Subcontractor to evaluate, give notice of or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property, usually referred to as the site, on which the Project is located and the Owner's interest therein. If the Contractor does not have such information, the Contractor shall request the information from the Owner in accordance with Article 2 of AIA Document A201-2017 and promptly furnish the information received from the Owner to the Subcontractor.

§ 3.3.7 If the Contractor asserts a Claim against, or defends a Claim by, the Owner that relates to the Work of the Subcontractor, the Contractor shall promptly make available to the Subcontractor all information relating to the portion of the Claim that relates to the Work of the Subcontractor.

§ 3.4 Claims by the Contractor

§ 3.4.1 Liquidated damages, if provided for in the Prime Contract, shall be assessed against the Subcontractor only to the extent caused by the Subcontractor or any person or entity for whose acts the Subcontractor may be liable, and in no case for delays or causes arising outside the scope of this Subcontract.

§ 3.4.2 The Contractor's Claims for the costs of services or materials provided due to the Subcontractor's failure to execute the Work shall require

- .1 seven days' notice prior to the Contractor's providing services or materials, except in an emergency; and
- .2 written compilations to the Subcontractor of services and materials provided by the Contractor and charges for such services and materials no later than the fifteenth day of the month following the Contractor's providing such services or materials.

§ 3.5 Contractor's Remedies

If the Subcontractor defaults or neglects to carry out the Work in accordance with this Agreement and fails within five working days after receipt of notice from the Contractor to commence and continue correction of such default or neglect with diligence and promptness, the Contractor may, without prejudice to other remedies the Contractor may have, remedy such default or neglect and withhold, in accordance with Section 11.1.7.2, the reasonable cost thereof from current or future payments due the Subcontractor. If payments due to the Subcontractor are not sufficient to cover such amounts, the Subcontractor shall pay the difference to the Contractor.

ARTICLE 4 SUBCONTRACTOR

§ 4.1 General

The Subcontractor is the person or entity identified as such in this Agreement and is referred to throughout the Subcontract Documents as if singular in number. The Subcontractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Subcontractor shall designate in writing a representative who shall have express authority to act on the Subcontractor's behalf with respect to the Project. The term "Subcontractor" means the Subcontractor or the Subcontractor's authorized representative.

§ 4.2 Execution and Progress of the Work

§ 4.2.1 For all Work the Subcontractor intends to subcontract, the Subcontractor shall enter into written agreements with Sub-subcontractors performing portions of the Work of this Subcontract by which the Subcontractor and the Sub-subcontractor are mutually bound, to the extent of the Work to be performed by the Sub-subcontractor, assuming toward each other all obligations and responsibilities that the Contractor and Subcontractor assume toward each other and having the benefit of all rights, remedies and redress each against the other that the Contractor and Subcontractor have by virtue of the provisions of this Agreement.

§ 4.2.2 The Subcontractor shall supervise and direct the Subcontractor's Work, and shall cooperate with the Contractor in scheduling and performing the Subcontractor's Work to avoid conflict, delay in, or interference with the Work of the Contractor, other subcontractors, the Owner, or Separate Contractors.

Init.

§ 4.2.3 Submittals

§ 4.2.3.1 The Subcontractor shall submit Shop Drawings, Product Data, Samples, and similar submittals required by the Subcontract Documents with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Contractor or other subcontractors.

§ 4.2.3.2 By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Subcontractor represents to the Contractor that the Subcontractor has (1) reviewed and approved them; (2) determined and verified materials, field measurements, and field construction criteria related thereto, or will do so; and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Subcontract Documents.

§ 4.2.4 The Subcontractor shall furnish to the Contractor periodic progress reports on the Work of this Subcontract as mutually agreed, including information on the status of materials and equipment that may be in the course of preparation, manufacture, or transit.

§ 4.2.5 The Subcontractor agrees that the Contractor and the Architect each have the authority to reject Work of the Subcontractor that does not conform to the Prime Contract. The Architect's decisions on matters relating to aesthetic effect shall be final and binding on the Subcontractor if consistent with the intent expressed in the Prime Contract.

§ 4.2.6 The Subcontractor shall pay for all materials, equipment, and labor used in connection with the performance of this Subcontract through the period covered by previous payments received from the Contractor, and shall furnish satisfactory evidence, when requested by the Contractor, to verify compliance with the above requirements.

§ 4.2.7 The Subcontractor shall take necessary precautions to properly protect the work of the Contractor, Separate Contractors, and other subcontractors from damage caused by operations under this Subcontract.

§ 4.2.8 The Subcontractor shall cooperate with the Contractor, other subcontractors, the Owner, and Separate Contractors whose work might affect the Subcontractor's Work. The Subcontractor shall participate in the preparation of coordinated drawings in areas of congestion, if required by the Prime Contract, specifically noting and advising the Contractor of potential conflicts between the Work of the Subcontractor and that of the Contractor, other subcontractors, the Owner, or Separate Contractors.

§ 4.3 Permits, Fees, Notices, and Compliance with Laws

§ 4.3.1 The Subcontractor shall give notices and comply with applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities bearing on performance of the Work of this Subcontract. The Subcontractor shall secure and pay for permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Subcontractor's Work, the furnishing of which is required of the Contractor by the Prime Contract.

§ 4.3.2 The Subcontractor shall comply with Federal, state, and local tax laws; social security acts; unemployment compensation acts; and workers' compensation acts, insofar as applicable to the performance of this Subcontract.

§ 4.4 Safety Precautions and Procedures

§ 4.4.1 The Subcontractor shall take reasonable safety precautions with respect to performance of this Subcontract. The Subcontractor shall comply with safety measures initiated by the Contractor and with applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, for the safety of persons and property, in accordance with the requirements of the Prime Contract. The Subcontractor shall notify the Contractor within three days of an injury to an employee or agent of the Subcontractor which occurred at the site.

§ 4.4.2 If hazardous materials or substances are being used on the site by the Subcontractor, the Subcontractor's Sub-subcontractors, or anyone directly or indirectly employed by them, and they are a type of hazardous material or substance of which an employer is required by law to notify its employees, the Subcontractor shall, prior to delivery to the Project site or exposure of the Contractor, other subcontractors, and other employers on the site to such material or substance, give notice of the chemical composition thereof to the Contractor in sufficient detail and time to permit compliance with the laws by the Contractor, other subcontractors, and other employers on the site.

Init.

§ 4.4.3 If reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a hazardous material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Subcontractor, the Subcontractor shall, upon recognizing the condition, immediately stop Work in the affected area and promptly report the condition to the Contractor in writing. When the material or substance has been rendered harmless, the Subcontractor's Work in the affected area shall resume upon written agreement of the Contractor and Subcontractor. The Subcontract Time shall be extended appropriately and the Subcontract Sum shall be increased in the amount of the Subcontractor's reasonable additional costs of demobilization, delay, and remobilization, which adjustments shall be accomplished as provided in Article 5 of this Agreement.

§ 4.4.4 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Subcontractor, the Subcontractor's Sub-subcontractors, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 4.4.3 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) except to the extent that such damage, loss, or expense is due to the fault or negligence of the party seeking indemnity.

§ 4.4.5 The Subcontractor shall reimburse the Contractor for the cost and expense the Contractor incurs (1) for remediation of a hazardous material or substance brought to the site and negligently handled by the Subcontractor or (2) where the Subcontractor fails to perform its obligations under Section 4.4.3, except to the extent that the cost and expense are due to the Contractor's fault or negligence.

§ 4.5 Cleaning Up

§ 4.5.1 The Subcontractor shall keep the premises and surrounding area free from accumulation of waste materials or rubbish caused by operations performed under this Subcontract. The Subcontractor shall not be held responsible for conditions caused by other contractors or subcontractors.

§ 4.5.2 As provided under Section 3.4.2, if the Subcontractor fails to clean up as provided in the Subcontract Documents, the Contractor may charge the Subcontractor for the Subcontractor's appropriate share of cleanup costs.

§ 4.6 Warranty

§ 4.6.1 The Subcontractor warrants to the Owner, Architect, and Contractor that materials and equipment furnished under this Subcontract will be of good quality and new unless the Subcontract Documents require or permit otherwise. The Subcontractor further warrants that the Work will conform to the requirements of the Subcontract Documents and will be free from defects, except for those inherent in the quality of the Work the Subcontract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Subcontractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Subcontractor, improper or insufficient maintenance, improper operation, or normal wear and tear under normal usage. If required by the Architect and Contractor, the Subcontractor shall provide satisfactory evidence as to the kind and quality of materials and equipment furnished or to be furnished.

§ 4.6.2 All material, equipment, or other special warranties required by the Subcontract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with the Subcontract Documents.

§ 4.7 Indemnification

§ 4.7.1 To the fullest extent permitted by law, the Subcontractor shall indemnify and hold harmless the Owner, Contractor, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorney's fees, arising out of or resulting from performance of the Subcontractor's Work under this Subcontract, provided that any such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Subcontractor, the Subcontractor's Sub-subcontractors, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or otherwise reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Section 4.7.

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§ 4.7.2 In claims against any person or entity indemnified under this Section 4.7 by an employee of the Subcontractor, the Subcontractor's Sub-subcontractors, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under Section 4.7.1 shall not be limited by a limitation on the amount or type of damages, compensation or benefits payable by or for the Subcontractor, or the Subcontractor's Sub-subcontractors under workers' compensation acts, disability benefit acts, or other employee benefit acts.

§ 4.8 Remedies for Nonpayment

If the Contractor does not pay the Subcontractor through no fault of the Subcontractor, within seven days from the time payment should be made as provided in this Agreement, the Subcontractor may, without prejudice to any other available remedies, upon seven additional days' notice to the Contractor, stop the Work of this Subcontract until payment of the amount owing has been received. The Subcontract Sum shall, by appropriate Modification, be increased by the amount of the Subcontractor's reasonable costs of demobilization, delay, and remobilization.

§ 4.9 Professional Services Provided by Subcontractor

§ 4.9.1 The Subcontractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Subcontract Documents or unless the Subcontractor is required to provide such services in order to carry out the Subcontractor's responsibilities for its own construction means, methods, techniques, sequences, and procedures. The Subcontractor shall not be required to provide professional services in violation of applicable law.

§ 4.9.2 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Subcontractor by the Subcontract Documents, the Contractor will provide all performance and design criteria that such services must satisfy to the extent the Contractor has received such performance and design criteria from the Owner and Architect under the terms of the Prime Contract.

§ 4.9.3 If professional design services or certifications by a design professional are required because of means, methods, techniques, sequences, or procedures required by the Contractor and related to the Work of the Subcontractor, the Contractor will provide all performance and design criteria that such services must satisfy.

§ 4.9.4 The Subcontractor shall be entitled to rely upon the adequacy, accuracy, and completeness of the performance and design criteria received from the Contractor under this Section 4.9.

§ 4.9.5 The Subcontractor shall cause the professional services performed under this Section 4.9 to be provided by a properly licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop drawings and other submittals related to the Work designed by such design professional shall bear the professional's written approval when submitted to the Contractor. The Contractor shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals, provided the Contractor has provided to the Subcontractor all performance and design criteria required by this Section 4.9.

ARTICLE 5 CHANGES IN THE WORK

§ 5.1 The Owner may make changes in the Work by issuing Modifications to the Prime Contract. Upon receipt of a Modification to the Prime Contract issued subsequent to the execution of this Agreement, the Contractor shall promptly notify the Subcontractor of such Modification. Unless otherwise directed by the Contractor, the Subcontractor shall not thereafter order materials or perform Work that would be inconsistent with the changes made by the Modification to the Prime Contract.

§ 5.2 The Subcontractor may be ordered in writing by the Contractor, without invalidating this Subcontract, to make changes in the Work within the general scope of this Subcontract consisting of additions, deletions, or other revisions, including those required by Modifications to the Prime Contract issued subsequent to the execution of this Agreement, with the Subcontract Sum and the Subcontract Time adjusted accordingly. The Subcontractor, prior to the commencement of such changed or revised Work, shall submit promptly to the Contractor written copies of a Claim for adjustment to the Subcontract Sum and Subcontract Time for such revised Work in a manner consistent with requirements of the Subcontract Documents.

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§ 5.3 The Subcontractor shall make all Claims promptly to the Contractor for additional cost, extensions of time and damages for delays, or other causes in accordance with the Subcontract Documents. A Claim which will affect or become part of a Claim which the Contractor is required to make under the Prime Contract within a specified time period or in a specified manner shall be made in sufficient time to permit the Contractor to satisfy the requirements of the Prime Contract. Such Claims shall be received by the Contractor not less than two working days preceding the time by which the Contractor's Claim must be made. Failure of the Subcontractor to make such a timely Claim shall bind the Subcontractor to the same consequences as those to which the Contractor is bound.

ARTICLE 6 CLAIMS AND DISPUTES

§ 6.1 Mediation

§ 6.1.1 Claims, disputes, or other matters in controversy arising out of or related to this Subcontract, except those waived as provided for in Sections 6.4 and 11.3.2, shall be subject to mediation as a condition precedent to binding dispute resolution.

§ 6.1.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to this Subcontract and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section 6.1.2, the parties may nonetheless proceed to the selection of the arbitrators(s) and agree upon a schedule for later proceedings.

§ 6.1.3 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

§ 6.2 Binding Dispute Resolution

For any Claim subject to, but not resolved by mediation pursuant to Section 6.1, the method of binding dispute resolution shall be as follows:

(Check the appropriate box.)

- Arbitration pursuant to Section 6.3 of this Agreement
- Litigation in a court of competent jurisdiction
- Other: *(Specify)*

If the Contractor and Subcontractor do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, Claims will be resolved by litigation in a court of competent jurisdiction.

§ 6.3 Arbitration

§ 6.3.1 If the Contractor and Subcontractor have selected arbitration as the method of binding dispute resolution in Section 6.2, any Claim subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of this Agreement. The arbitration should be conducted in the place where the Project is located, unless another location is mutually agreed upon. A demand for arbitration shall be made in writing, delivered to the other party to the Subcontract, and filed with the person or entity administering the arbitration. The party filing a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.

§ 6.3.2 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim

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would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.

§ 6.3.3 The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

§ 6.3.4 The foregoing agreement to arbitrate, and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement, shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

§ 6.3.5 Consolidation or Joinder

§ 6.3.5.1 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation; (2) the arbitrations to be consolidated substantially involve common questions of law or fact; and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 6.3.5.2 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of a Claim, dispute, or other matter in question not described in the written consent.

§ 6.3.5.3 The Contractor and Subcontractor grant to any person or entity made a party to an arbitration conducted under this Section 6.3, whether by joinder or consolidation, the same rights of joinder and consolidation as the Contractor and Subcontractor under this Agreement.

§ 6.4 Waiver of Claims for Consequential Damages

The Contractor and Subcontractor waive claims against each other for consequential damages arising out of or relating to this Subcontract, including without limitation, any consequential damages due to either party's termination in accordance with Article 7. Nothing contained herein shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of this Agreement.

ARTICLE 7 TERMINATION, SUSPENSION OR ASSIGNMENT OF THE SUBCONTRACT

§ 7.1 Termination by the Subcontractor

The Subcontractor may terminate the Subcontract for the same reasons and under the same circumstances and procedures with respect to the Contractor as the Contractor may terminate with respect to the Owner under the Prime Contract, or for nonpayment of amounts due under this Subcontract for 60 days or longer. In the event of such termination by the Subcontractor for any reason which is not the fault of the Subcontractor, the Subcontractor's Sub-subcontractors, or their agents or employees or other persons or entities performing portions of the Work under contract with the Subcontractor, the Subcontractor shall be entitled to recover from the Contractor payment for Work executed and for proven loss with respect to materials, equipment, tools, and construction equipment and machinery, as well as reasonable overhead and profit on work not executed and costs incurred by reason of such termination.

§ 7.2 Termination by the Contractor

§ 7.2.1 Termination for Cause

If the Subcontractor repeatedly fails or neglects to carry out the Work in accordance with the Subcontract Documents or otherwise to perform in accordance with this Subcontract and fails within a ten-day period after receipt of notice to commence and continue correction of such default or neglect with diligence and promptness, the Contractor may, by notice to the Subcontractor and without prejudice to any other remedy the Contractor may have, terminate the Subcontract and finish the Subcontractor's Work by whatever method the Contractor may deem expedient. If the unpaid balance of the Subcontract Sum exceeds the expense of finishing the Subcontractor's Work and other damages incurred by the Contractor and not expressly waived, such excess shall be paid to the Subcontractor. If such expense and damages exceed the unpaid balance of the Subcontract Sum, the Subcontractor shall pay the difference to the Contractor.

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§ 7.2.2 Termination for Convenience

§ 7.2.2.1 If the Owner terminates the Prime Contract for the Owner's convenience, the Contractor shall promptly deliver notice to the Subcontractor.

§ 7.2.2.2 In case of such termination for the Owner's convenience, the Subcontractor shall be entitled to receive payment for Work properly executed, costs incurred by reason of the termination, and reasonable overhead and profit on the Work not executed.

§ 7.2.2.3 Upon receipt of notice of termination, the Subcontractor shall

- .1 cease operations as directed by the Contractor in the notice;
- .2 take actions necessary, or that the Contractor may direct, for the protection and preservation of the Work; and
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing Sub-subcontracts and purchase orders and enter into no further Sub-subcontracts and purchase orders.

§ 7.3 Suspension by the Contractor for Convenience

§ 7.3.1 The Contractor may, without cause, order the Subcontractor in writing to suspend, delay, or interrupt the Work of this Subcontract in whole or in part for such period of time as the Contractor may determine. In the event of suspension ordered by the Contractor, the Subcontractor shall be entitled to an equitable adjustment of the Subcontract Time and Subcontract Sum.

§ 7.3.2 The Subcontract Time and Subcontract Sum shall be adjusted for increases in the cost and time caused by suspension, delay or interruption as described in Section 7.3.1. Adjustment of the Subcontract Sum shall include profit on the increased cost of performance caused by suspension, delay, or interruption. No adjustment shall be made to the extent that

- .1 performance is, was or would have been so suspended, delayed, or interrupted by another cause for which the Subcontractor is responsible; or
- .2 an equitable adjustment is made or denied under another provision of this Subcontract.

§ 7.4 Assignment of the Subcontract

§ 7.4.1 In the event the Owner terminates the Prime Contract for cause, this Subcontract is assigned to the Owner pursuant to Section 5.4 of AIA Document A201-2017 provided the Owner accepts the assignment by notifying the Contractor and Subcontractor.

§ 7.4.2 Without the Contractor's written consent, the Subcontractor shall not assign the Work of this Subcontract, subcontract the whole of this Subcontract, or subcontract portions of this Subcontract.

ARTICLE 8 THE WORK OF THIS SUBCONTRACT

The Subcontractor shall execute the following portion of the Work described in the Subcontract Documents, including all labor, materials, equipment, services and other items required to complete such portion of the Work, except to the extent specifically indicated in the Subcontract Documents to be the responsibility of others.

(Insert a precise description of the Work of this Subcontract, referring where appropriate to numbers of Drawings, sections of Specifications and pages of Addenda, Modifications, and accepted alternates.)

ARTICLE 9 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 9.1 The date of commencement of the Subcontractor's Work, shall be:

(Check one of the following boxes.)

- The date of this Agreement.
- A date set forth in a notice to proceed issued by the Contractor.
- Established as follows:

(Insert a date or a means to determine the date of commencement of the Subcontractor's Work.)

If a date of commencement of the Subcontractor's Work is not selected, then the date of commencement shall be the date of this Agreement.

§ 9.2 Subcontract Time

§ 9.2.1 The Subcontract Time is the period of time, including authorized adjustments, allotted in the Subcontract Documents for Substantial Completion of the Work described in the Subcontract Documents. The Subcontract Time shall be measured from the date of commencement of the Subcontractor's Work.

§ 9.2.2 Subject to adjustments of the Subcontract Time as provided in the Subcontract Documents, the Subcontractor shall achieve substantial completion of the Subcontractor's Work:

(Check one of the following boxes and complete the necessary information.)

Not later than () calendar days from the date of commencement of the Subcontractor's Work.

By the following date:

§ 9.2.3 Subject to adjustments of the Subcontract Time as provided in the Subcontract Documents, if portions of the Subcontractor's Work are to be completed prior to substantial completion of the Subcontractor's Work, then the Subcontractor shall achieve earlier substantial completion of such portions by the following dates.

(List all portions of the Subcontractor's Work required to achieve substantial completion of the Subcontractor's Portion of the Work.)

Portion of Work

Substantial Completion

§ 9.2.4 If the Subcontractor fails to achieve substantial completion as provided in this Section 9.2, liquidated damages, if any, shall be assessed as set forth in Section 3.4.

§ 9.3 With respect to the obligations of both the Contractor and the Subcontractor, time is of the essence of this Subcontract.

§ 9.4 No extension of time will be valid without the Contractor's written consent after a Claim is made by the Subcontractor in accordance with Section 5.3.

ARTICLE 10 SUBCONTRACT SUM

§ 10.1 The Contractor shall pay the Subcontractor the Subcontract Sum in current funds for the Subcontractor's performance of the Subcontract. The Subcontract Sum shall be (\$), subject to additions and deductions as provided in the Subcontract Documents.

§ 10.2 Alternates

§ 10.2.1 Alternates, if any, included in the Subcontract Sum:

Item

Price

§ 10.2.2 Subject to the conditions noted below, the following alternates may be accepted by the Contractor following execution of this Agreement. Upon acceptance, the Contractor shall issue a Modification to this Subcontract:

(Insert below each alternate and the conditions that must be met for the Contractor to accept the alternate.)

Item

Price

Conditions for Acceptance

§ 10.3 Unit prices, if any:

(Identify and state the unit price, and quantity limitations, if any, to which the unit price will be applicable.)

Item	Units and Limitations	Price Per Unit (\$0.00)
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§ 10.4 Allowances, if any, included in the Subcontract Sum:
(Identify allowance and state exclusions, if any, from the allowance price.)

Item	Price
------	-------

ARTICLE 11 PAYMENTS

§ 11.1 Progress Payments

§ 11.1.1 Based upon Applications for Payment submitted to the Contractor by the Subcontractor, corresponding to Applications for Payment submitted by the Contractor to the Architect, and Certificates for Payment issued by the Architect, the Contractor shall make progress payments on account of the Subcontract Sum to the Subcontractor as provided below and elsewhere in the Subcontract Documents. Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor and Subcontractor for Work properly performed by their contractors and suppliers shall be held by the Contractor and Subcontractor for those contractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor or Subcontractor for which payment was made to the Contractor by the Owner or to the Subcontractor by the Contractor, as applicable. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor or Subcontractor, shall create any fiduciary liability or tort liability on the part of the Contractor or Subcontractor for breach of trust, or shall entitle any person or entity to an award of punitive damages against the Contractor or Subcontractor for breach of the requirements of this provision.

§ 11.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

§ 11.1.3 Provided an Application for Payment is received by the Contractor not later than the day of a month, the Contractor shall include the Subcontractor's Work covered by that application in the next Application for Payment which the Contractor is entitled to submit to the Architect. The Contractor shall pay the Subcontractor each progress payment no later than seven working days after the Contractor receives payment from the Owner. If the Architect does not issue a Certificate for Payment or the Contractor does not receive payment for any cause which is not the fault of the Subcontractor, the Contractor shall pay the Subcontractor, on demand, a progress payment computed as provided in Sections 11.1.7, 11.1.8, 11.1.9 and 11.2.

§ 11.1.4 If the Subcontractor's Application for Payment is received by the Contractor after the application date fixed above, the Subcontractor's Work covered by it shall be included by the Contractor in the next Application for Payment submitted to the Architect.

§ 11.1.5 The Subcontractor shall submit to the Contractor a schedule of values prior to submitting the Subcontractor's first Application for Payment. Each subsequent Application for Payment shall be based upon the most recent schedule of values submitted by the Subcontractor in accordance with the Subcontract Documents. The schedule of values shall allocate the entire Subcontract Sum among the various portions of the Subcontractor's Work and be prepared in such form and supported by such data to substantiate its accuracy as the Contractor may require, and unless objected to by the Contractor, shall be used as a basis for reviewing the Subcontractor's Applications for Payment.

§ 11.1.6 Applications for Payment submitted by the Subcontractor shall indicate the percentage of completion of each portion of the Subcontractor's Work as of the end of the period covered by the Application for Payment.

§ 11.1.7 Subject to the provisions of the Subcontract Documents, the amount of each progress payment shall be computed as follows:

§ 11.1.7.1 The amount of each progress payment shall first include:

.1 That portion of the Subcontract Sum properly allocable to completed Work:

- .2 That portion of the Subcontract Sum properly allocable to materials and equipment delivered and suitably stored at the site by the Subcontractor for subsequent incorporation in the Subcontractor's Work or, if approved by the Contractor, suitably stored off the site at a location agreed upon in writing; and
- .3 The amount, if any, for changes in the Work that are not in dispute and have been properly authorized by the Contractor, to the same extent provided in the Prime Contract, pending a final determination by the Contractor of the cost of changes in the Subcontractor's Work, even though the Subcontract Sum has not yet been adjusted.

§ 11.1.7.2 The amount of each progress payment shall then be reduced by:

- .1 The aggregate of previous payments made by the Contractor;
- .2 The amount, if any, for Work that remains uncorrected and for which the Contractor has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A201-2017 for a cause that is the fault of the Subcontractor;
- .3 For Work performed or defects discovered since the last payment application, any amount for which the Contractor may withhold payment in whole or in part, as provided in Article 9 of AIA Document A201-2017, for a cause that is the fault of the Subcontractor; and
- .4 Retainage withheld pursuant to Section 11.1.8 of this Agreement.

§ 11.1.8 Retainage

§ 11.1.8.1 For each progress payment made prior to substantial completion of the Subcontractor's Work, the Contractor may withhold the following amounts as retainage from the payment otherwise due:

(Insert a percentage or amount to be withheld as retainage from each Application for Payment. The amount of retainage may be limited by governing law.)

§ 11.1.8.1.1 The following items are not subject to retainage:

(Insert any items not subject to the withholding of retainage, such as general conditions, insurance, etc.)

§ 11.1.8.2 Reduction or limitation of retainage, if any, shall be as follows:

(If the retainage established in Section 11.1.8.1 is to be modified prior to substantial completion of the entire Work, including modifications for substantial completion of portions of the Subcontractor's Work as provided in Section 9.2.3, insert provisions for such modification.)

§ 11.1.9 Upon the partial or entire disapproval by the Contractor of the Subcontractor's Application for Payment, the Contractor shall provide notice to the Subcontractor. If the Subcontractor disputes the Contractor's decision regarding a Subcontractor's Application for Payment in whole or in part, the Subcontractor may submit a Claim in accordance with Article 6. When the basis for the disapproval has been remedied, the Subcontractor shall be paid the amounts withheld.

§ 11.1.10 Provided the Contractor has fulfilled its payment obligations under the Subcontract Documents, the Subcontractor shall defend and indemnify the Contractor and Owner from all loss, liability, damage, or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any of the Subcontractor's subcontractors, suppliers, or vendors of any tier. Upon receipt of notice of such lien claim or other claim for payment, the Contractor shall notify the Subcontractor. If approved by the applicable court, when required, the Subcontractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

§ 11.2 Substantial Completion

When the Subcontractor's Work or a designated portion thereof is substantially complete and in accordance with the requirements of the Prime Contract, the Contractor shall, upon application by the Subcontractor, make prompt Application for Payment for such Work. Within 30 days following issuance by the Architect of the Certificate for

Payment covering such substantially completed Work, the Contractor shall, to the full extent allowed in the Prime Contract, make payment to the Subcontractor, deducting any portion of the funds for the Subcontractor's Work withheld in accordance with the certificate to cover costs of items to be completed or corrected by the Subcontractor. Such payment to the Subcontractor shall be the entire unpaid balance of the Subcontract Sum if a full release of retainage is allowed under the Prime Contract for the Subcontractor's Work prior to the completion of the entire Project. If the Prime Contract does not allow for a full release of retainage, then such payment shall be an amount which, when added to previous payments to the Subcontractor, will reduce the retainage on the Subcontractor's substantially completed Work to the same percentage of retainage as that on the Contractor's Work covered by the certificate.

§ 11.3 Final Payment

§ 11.3.1 Final payment, constituting the entire unpaid balance of the Subcontract Sum, shall be made by the Contractor to the Subcontractor when the Subcontractor's Work is fully performed in accordance with the requirements of the Subcontract Documents, the Architect has issued a Certificate for Payment covering the Subcontractor's completed Work and the Contractor has received payment from the Owner. If, for any cause which is not the fault of the Subcontractor, a Certificate for Payment is not issued or the Contractor does not receive timely payment or does not pay the Subcontractor within seven days after receipt of payment from the Owner, final payment to the Subcontractor shall be made upon demand.

(Insert provisions for earlier final payment to the Subcontractor, if applicable.)

§ 11.3.2 Before issuance of the final payment, the Subcontractor, if required, shall submit evidence satisfactory to the Contractor that all payrolls, bills for materials and equipment, and all known indebtedness connected with the Subcontractor's Work have been satisfied. Acceptance of final payment by the Subcontractor shall constitute a waiver of claims by the Subcontractor, except those previously made in writing and identified by the Subcontractor as unsettled at the time of final Application for Payment.

§ 11.4 Interest

Payments due and unpaid under this Subcontract shall bear interest from the date payment is due at such rate as the parties may agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

(Insert rate of interest agreed upon, if any.)

%

ARTICLE 12 INSURANCE AND BONDS

§ 12.1 Subcontractor's Required Insurance Coverage

§ 12.1.1 The Subcontractor shall purchase and maintain the following types and limits of insurance, from a company or companies lawfully authorized to issue insurance in the jurisdiction where the Project is located, as will protect the Subcontractor from claims that may arise out of, or result from, the Subcontractor's operations and completed operations under the Subcontract:

(Specify each type of insurance, such as commercial general liability, automobile, worker's compensation, employers' liability, professional liability, and pollution, required to be carried by the Subcontractor, the limits of coverage for each type of insurance, and any other pertinent requirements.)

Type of Insurance	Limits	Other Pertinent Requirements
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§ 12.1.2 Coverages, whether written on an occurrence or claims-made basis, shall be maintained without interruption from the date of commencement of the Subcontractor's Work until the date of final payment and termination of any coverage required to be maintained after final payment to the Subcontractor, and, with respect to the Subcontractor's completed operations coverage, until the expiration of the period for correction of Work or for such other period for maintenance of completed operations coverage as specified in the Prime Contract.

§ 12.1.3 If professional services are required under Section 4.9, the Subcontractor shall provide the professional liability insurance coverage required under this Section 12.1 for the following period after completion of the Work:

§ 12.1.4 Certificates of Insurance. The Subcontractor shall provide certificates of insurance acceptable to the Contractor evidencing compliance with the requirements in this Article 12 at the following times: (1) prior to commencement of the Subcontractor's Work; (2) upon renewal or replacement of each required policy of insurance; and (3) upon the Contractor's written request. An additional certificate evidencing continuation of liability coverage, including coverage for completed operations, shall be submitted with the final Application for Payment and thereafter upon renewal or replacement of such coverage until the expiration of the time required in this Article 12. The certificates shall show the Contractor and the Owner as additional insureds on the Subcontractor's Commercial General Liability and any excess or umbrella liability policy.

§ 12.1.5 Deductibles and Self-Insured Retentions. The Subcontractor shall disclose to the Contractor any deductible or self-insured retentions applicable to any insurance required to be provided by the Subcontractor.

§ 12.1.6 Additional Insured Obligations. To the fullest extent permitted by law, the Subcontractor shall cause its commercial general liability coverage to include: (1) the Contractor, the Owner, the Architect, and the Architect's consultants as additional insureds for claims caused in whole or in part by the Subcontractor's negligent acts or omissions during the Subcontractor's operations; and (2) the Contractor and Owner as additional insureds for claims caused in whole or in part by the Subcontractor's negligent acts or omissions for which loss occurs during the Subcontractor's completed operations. The additional insured coverage shall be primary and non-contributory to any of the Contractor's and Owner's general liability insurance policies and shall apply to both ongoing and completed operations. To the extent commercially available, the additional insured coverage shall be no less than that provided by Insurance Services Office, Inc. (ISO) CG 20 10 07 04, CG 20 37 07 04, and, with respect to the Architect and the Architect's consultants, CG 20 32 07 04.

§ 12.1.7 Notice of Cancellation or Change in Coverage. Within three (3) business days of the date the Subcontractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Subcontract Documents, the Subcontractor shall provide notice to the Contractor of such impending or actual cancellation or expiration. Upon receipt of notice from the Subcontractor, the Contractor shall, unless the lapse in coverage arises from an act or omission of the Contractor, have the right to suspend the Work in accordance with this Agreement until the lapse in coverage has been cured by the procurement of replacement coverage by the Subcontractor. The furnishing of notice by the Subcontractor shall not relieve the Subcontractor of any contractual obligation to provide any required coverage.

§ 12.2 Subcontractor's Required Performance Bond and Payment Bond

§ 12.2.1 The Subcontractor shall provide surety bonds, from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located, as follows:
(Specify type and penal sum of bonds.)

Type	Penal Sum (\$0.00)
Payment Bond	
Performance Bond	

Payment and Performance Bonds shall be AIA Document A312™, Payment Bond and Performance Bond, or contain provisions identical to AIA Document A312™, current as of the date of this Agreement.

§ 12.2.2 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations under this Agreement, the Subcontractor shall promptly furnish a copy of the bonds or shall permit a copy to be made.

§ 12.3 Contractor's Insurance and Bond Obligations

§ 12.3.1 The Contractor shall furnish to the Subcontractor certificates of insurance evidencing insurance coverage required of the Contractor under the Prime Contract.

§ 12.3.2 The Contractor shall promptly, upon request of the Subcontractor, furnish a copy or permit a copy to be made of any bond covering payment of obligations arising under the Subcontract.

§ 12.4 Property Insurance

§ 12.4.1 When requested in writing, the Contractor shall provide the Subcontractor with copies of the property and equipment policies in effect for the Project, to the extent copies of the policies are available to the Contractor. The Contractor shall notify the Subcontractor if the required property insurance policies are not in effect.

§ 12.4.2 If the required property insurance is not in effect for the full value of the Subcontractor's Work, then the Subcontractor shall purchase insurance for the value of the Subcontractor's Work, and the Subcontractor shall be reimbursed for the cost of the insurance by an adjustment in the Subcontract Sum.

§ 12.4.3 Property insurance for the Subcontractor's materials and equipment required for the Subcontractor's Work, stored off site or in transit and not covered by the Project property insurance, shall be paid for through the Application for Payment process.

§ 12.5 Waivers of Subrogation

The Contractor and Subcontractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents, and employees, each of the other, and (2) the Owner, the Architect, the Architect's consultants, and (3) Separate Contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees for damages caused by fire or other causes of loss to the extent those losses are covered by property insurance provided under the Prime Contract or other property insurance applicable to the Work or to property at or adjacent to the Project site, except such rights as they may have to proceeds of such insurance held by the Owner as a fiduciary. The Subcontractor shall require similar written waivers in favor of the individuals and entities enumerated herein from the Subcontractor's Sub-subcontractors, agents, and employees. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this Section 12.5 shall not prohibit this waiver of subrogation, which shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, (2) even though that person or entity did not pay the insurance premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the property damaged.

ARTICLE 13 TEMPORARY FACILITIES, SERVICES, EQUIPMENT AND WORKING CONDITIONS

§ 13.1 The Contractor shall furnish and make the Contractor's temporary facilities and services available to the Subcontractor at no cost, except as noted below:

§ 13.2 The Contractor's equipment will be available to the Subcontractor only at the Contractor's discretion and on mutually satisfactory terms, except as noted below:

§ 13.3 Specific working conditions as noted below:

(Insert any specific arrangements or requirements concerning working conditions and labor matters applicable to the Subcontractor's Work.)

ARTICLE 14 MISCELLANEOUS PROVISIONS

§ 14.1 Where reference is made in this Subcontract to a provision of another Subcontract Document, the reference refers to that provision as amended or supplemented by other provisions of the Subcontract Documents.

§ 14.2 The Contractor's representative:

(Name, address, email address and other information)

§ 14.3 The Subcontractor's representative:
(Name, address, email address and other information)

§ 14.4 Notice

§ 14.4.1 Except as otherwise provided in Section 14.4.2, where the Subcontract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission if a method for electronic notice is set forth in Section 14.4.3.

§ 14.4.2 Notice of Claims shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

§ 14.4.3 Notice in electronic format, pursuant to Section 14.4.1, may be given in accordance with AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, if completed, or as otherwise set forth below:

(If other than in accordance with AIA Document E203™–2013, insert requirements for delivering notice in electronic format such as name, title, and email address of the recipient and whether and how the system will be required to generate a read receipt for the transmission.)

§ 14.5 Neither the Contractor's nor the Subcontractor's representative shall be changed without ten days' prior notice to the other party.

§ 14.6 The invalidity of any provision of the Subcontract Documents shall not invalidate the Subcontract or its remaining provisions. If it is determined that any provision of the Subcontract violates any law or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case, the Subcontract shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Subcontract.

§ 14.7 The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form. The parties will use AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, to establish the protocols for the development, use, transmission, and exchange of digital data.

§ 14.7.1 Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth in AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, and the requisite AIA Document G202™–2013, Project Building Information Modeling Protocol Form, shall be at the using or relying party's sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

ARTICLE 15 ENUMERATION OF SUBCONTRACT DOCUMENTS

§ 15.1 This Agreement is comprised of the following documents:

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User Notes:

(1482318949)

- .1 AIA Document A401™-2017, Standard Form Agreement Between Contractor and Subcontractor;
- .2 Prime Agreement between the Owner and Contractor, including all exhibits thereto, attached as Exhibit A;
- .3 AIA Document E203™-2013, Building Information Modeling and Digital Data Exhibit, if not included in the Prime Agreement, dated as indicated below:
(Insert the date of the E203-2013 incorporated into this Agreement.)

- .4 Other Exhibits incorporated into this Agreement:
(Clearly identify any other exhibits incorporated into this Agreement.)

- .5 Other documents:
(List other documents, if any, forming part of the Agreement.)

This Agreement entered into as of the day and year first written above.

CONTRACTOR *(Signature)*

(Printed name and title)

SUBCONTRACTOR *(Signature)*

(Printed name and title)

**SECTION 00 54 00
AGREEMENT FOR STORING MATERIALS OR EQUIPMENT OFF-SITE**

**THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO THIS _____ DAY OF _____,
20___, BETWEEN _____**

(hereinafter Called the "Owner") and

(hereinafter called the "Contractor") for _____ Work for the
Project identified as _____ under Contract dated

WHEREAS, the Contractor desires to properly store certain materials or equipment purchased
for the Project off the site at _____ in order to furnish
better storage than available on the site, and desires to obtain advances for these materials or
equipment in accordance with Contract provisions as if they were properly stored on the site.

The Owner agrees to pay the Contractor the invoice value of the materials or equipment stored
off-site, less the specified retainage, provided the following conditions are complied with:

1. The above described warehouse location selected for off-site storage must be suitable for storage and satisfactory to Owner;
2. Any extra expense incurred because of off-site storage shall be borne by the Contractor;
3. Storage shall be at the risk of the Contractor and the loss damage, or destruction of any materials or equipment so stored does not relieve the Contractor of the duty to complete the Contract and the Contractor shall, if necessary, replace such items at his own expense;
4. Application for Payment shall be made on the prescribed form at the regular monthly interval, the same as for materials or equipment stored on the site, with copies of invoices for all purchased items attached.
5. All materials or equipment stored off-site shall be adequately covered by property insurance naming the Owner as insured, evidence of which is herein attached; and
6. the consent of the Surety shall be obtained and evidenced by signatures hereto.

COUNTERSIGNED BY:

Surety

Resident Agent for Surety

By _____

Attorney in Fact

IN WITNESS WHEREOF, these Parties hereto have caused this Agreement to be executed in three original counterparts.

Contractor

Owner

By _____

By _____

Title

Title

SECTION 00 54 00 Agreement for Storing Materials or Equipment Off-Site

END OF SECTION

**SECTION 00 6100
PERFORMANCE AND PAYMENT BOND**

AIA Document A312 - 2010 Performance and Payment Bond shall be made a part of these Contract Documents. A copy of the document is included herein.

END OF SECTION

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AIA[®] Document A312[™] – 2010

Performance Bond

CONTRACTOR:

(Name, legal status and address)

SURETY:

(Name, legal status and principal place of business)

OWNER:

(Name, legal status and address)

CONSTRUCTION CONTRACT

Date:

Amount: \$

Description:

(Name and location)

BOND

Date:

(Not earlier than Construction Contract Date)

Amount: \$

Modifications to this Bond: None See Section 16

CONTRACTOR AS PRINCIPAL

Company: *(Corporate Seal)*

SURETY

Company: *(Corporate Seal)*

Signature: _____

Name and

Title:

(Any additional signatures appear on the last page of this Performance Bond.)

Signature: _____

Name and

Title:

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:

OWNER'S REPRESENTATIVE:

(Architect, Engineer or other party:)

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

Init.

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

§ 2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Section 3.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after

- .1 the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;
- .2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
- .3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

§ 4 Failure on the part of the Owner to comply with the notice requirement in Section 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

§ 5 When the Owner has satisfied the conditions of Section 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

§ 5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

§ 5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

§ 5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Section 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

§ 5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

- .1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
- .2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

§ 6 If the Surety does not proceed as provided in Section 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Section 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

§ 7 If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

- .1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
- .2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and
- .3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

§ 8 If the Surety elects to act under Section 5.1, 5.3 or 5.4, the Surety's liability is limited to the amount of this Bond.

§ 9 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors and assigns.

§ 10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 11 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

§ 13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 14 Definitions

§ 14.1 **Balance of the Contract Price.** The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

§ 14.2 **Construction Contract.** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

§ 14.3 **Contractor Default.** Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

§ 14.4 **Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 14.5 **Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

Init.

§ 15 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 16 Modifications to this bond are as follows:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

Company: _____
(Corporate Seal)

SURETY

Company: _____
(Corporate Seal)

Signature: _____

Name and Title: _____

Address: _____

Signature: _____

Name and Title: _____

Address: _____

Init.



AIA[®] Document A312[™] – 2010

Payment Bond

CONTRACTOR:

(Name, legal status and address)

SURETY:

(Name, legal status and principal place of business)

OWNER:

(Name, legal status and address)

CONSTRUCTION CONTRACT

Date:

Amount: \$

Description:

(Name and location)

BOND

Date:

(Not earlier than Construction Contract Date)

Amount: \$

Modifications to this Bond: None See Section 18

CONTRACTOR AS PRINCIPAL

Company: *(Corporate Seal)*

SURETY

Company: *(Corporate Seal)*

Signature: _____

Name and

Title:

Signature: _____

Name and

Title:

(Any additional signatures appear on the last page of this Payment Bond.)

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:

OWNER'S REPRESENTATIVE:

(Architect, Engineer or other party:)

ADDITIONS AND DELETIONS:

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This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

Init.

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

§ 2 If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Section 13) of claims, demands, liens or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety.

§ 4 When the Owner has satisfied the conditions in Section 3, the Surety shall promptly and at the Surety's expense defend, indemnify and hold harmless the Owner against a duly tendered claim, demand, lien or suit.

§ 5 The Surety's obligations to a Claimant under this Bond shall arise after the following:

§ 5.1 Claimants, who do not have a direct contract with the Contractor,

- .1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
- .2 have sent a Claim to the Surety (at the address described in Section 13).

§ 5.2 Claimants, who are employed by or have a direct contract with the Contractor, have sent a Claim to the Surety (at the address described in Section 13).

§ 6 If a notice of non-payment required by Section 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Section 5.1.1.

§ 7 When a Claimant has satisfied the conditions of Sections 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

§ 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

§ 7.2 Pay or arrange for payment of any undisputed amounts.

§ 7.3 The Surety's failure to discharge its obligations under Section 7.1 or Section 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Section 7.1 or Section 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

§ 8 The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Section 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

§ 9 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

§ 10 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.

§ 11 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 12 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Section 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 13 Notice and Claims to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

§ 14 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 15 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

§ 16 Definitions

§ 16.1 **Claim.** A written statement by the Claimant including at a minimum:

- .1 the name of the Claimant;
- .2 the name of the person for whom the labor was done, or materials or equipment furnished;
- .3 a copy of the agreement or purchase order pursuant to which labor, materials or equipment was furnished for use in the performance of the Construction Contract;
- .4 a brief description of the labor, materials or equipment furnished;
- .5 the date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- .6 the total amount earned by the Claimant for labor, materials or equipment furnished as of the date of the Claim;
- .7 the total amount of previous payments received by the Claimant; and
- .8 the total amount due and unpaid to the Claimant for labor, materials or equipment furnished as of the date of the Claim.

§ 16.2 **Claimant.** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

§ 16.3 **Construction Contract.** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

§ 16.4 **Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 16.5 **Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

§ 17 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 18 Modifications to this bond are as follows:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

Company: _____
(Corporate Seal)

SURETY

Company: _____
(Corporate Seal)

Signature: _____
Name and Title: _____
Address: _____

Signature: _____
Name and Title: _____
Address: _____

**SECTION 00 65 00
AFFIDAVIT OF CONTRACTOR**

STATE OF: _____

COUNTY OF: _____

The undersigned, pursuant to the General Conditions of the Contract, hereby certifies that, except as listed below, he has paid in full or has otherwise satisfied all obligations for all materials and equipment furnished, for all work, labor and services performed, and for all known indebtedness and claims against the Contractor for damages arising in any manner in connections with the performance of the Contract dated _____ entered into between the Contractor and _____

, the Owner, for _____ Work on the Project identified as _____

_____ ,
for which the Owner or his property might in any way be held responsible.

EXCEPTIONS: (If none, write "None." If required by the Owner, the Contractor shall furnish bond satisfactory to the Owner for each exception.)

CONTRACTOR: _____

By: _____

Title

Subscribed and sworn to before me this ____ day of _____, 20__.

Notary Public _____

(Seal) My Commission Expires: _____

CONSENT OF SURETY COMPANY TO FINAL PAYMENT

In accordance with the provisions of the Contract indicated above, the _____

_____ SURETY COMPANY, on bond of the Contractor hereby approves the final payment to the Contractor and agrees that final payment to the Contractor not relieve the Surety Company of any obligations to the Owner as set forth in the said Surety Company's bond.

IN WITNESS WHEREOF,

The Surety Company has hereunto set its hand this _____ day of _____, 20__.

Attest: _____

(Seal) Surety Company

Signature of Authorized Representative

Title

END OF SECTION

**SECTION 00 7200
GENERAL CONDITIONS**

PART 1 GENERAL

1.01 FORM OF GENERAL CONDITIONS

- A. Construction Manager at Risk
 - 1. AIA Document A201 - 2017 (Articles 1 through 15, inclusive) General Conditions of the Contract for Construction shall be made a part of these Contract Documents.

1.02 THE GENERAL CONDITIONS APPLICABLE TO THIS CONTRACT IS ATTACHED FOLLOWING THIS PAGE.

1.03 RELATED REQUIREMENTS

- A. SECTION 00 7300 - Supplementary Conditions.
- B. SECTION 01 4216 - Definitions.

1.04 SUPPLEMENTARY CONDITIONS

- A. REFER TO DOCUMENT 00 7300 - Supplementary Conditions FOR AMENDMENTS TO THESE GENERAL CONDITIONS.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

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AIA[®] Document A201[™] – 2017

General Conditions of the Contract for Construction

for the following PROJECT:
(Name and location or address)

THE OWNER:
(Name, legal status and address)

THE ARCHITECT:
(Name, legal status and address)

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- 13 MISCELLANEOUS PROVISIONS
- 14 TERMINATION OR SUSPENSION OF THE CONTRACT
- 15 CLAIMS AND DISPUTES

ADDITIONS AND DELETIONS:
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This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

For guidance in modifying this document to include supplementary conditions, see AIA Document A503[™], Guide for Supplementary Conditions.

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ARTICLE 1 GENERAL PROVISIONS

§ 1.1 Basic Definitions

§ 1.1.1 The Contract Documents

The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement, and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive, or (4) a written order for a minor change in the Work issued by the Architect. Unless specifically enumerated in the Agreement, the Contract Documents do not include the advertisement or invitation to bid, Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals, the Contractor's bid or proposal, or portions of Addenda relating to bidding or proposal requirements.

§ 1.1.2 The Contract

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and a Subcontractor or a Sub-subcontractor, (3) between the Owner and the Architect or the Architect's consultants, or (4) between any persons or entities other than the Owner and the Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Architect's duties.

§ 1.1.3 The Work

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

§ 1.1.4 The Project

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner and by Separate Contractors.

§ 1.1.5 The Drawings

The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.

§ 1.1.6 The Specifications

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

§ 1.1.7 Instruments of Service

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

§ 1.1.8 Initial Decision Maker

The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2. The Initial Decision Maker shall not show partiality to the Owner or Contractor and shall not be liable for results of interpretations or decisions rendered in good faith.

§ 1.2 Correlation and Intent of the Contract Documents

§ 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent

consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

§ 1.2.1.1 The invalidity of any provision of the Contract Documents shall not invalidate the Contract or its remaining provisions. If it is determined that any provision of the Contract Documents violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case the Contract Documents shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Contract.

§ 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

§ 1.2.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

§ 1.3 Capitalization

Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles, or (3) the titles of other documents published by the American Institute of Architects.

§ 1.4 Interpretation

In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

§ 1.5 Ownership and Use of Drawings, Specifications, and Other Instruments of Service

§ 1.5.1 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and retain all common law, statutory, and other reserved rights in their Instruments of Service, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.

§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and suppliers are authorized to use and reproduce the Instruments of Service provided to them, subject to any protocols established pursuant to Sections 1.7 and 1.8, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and suppliers may not use the Instruments of Service on other projects or for additions to the Project outside the scope of the Work without the specific written consent of the Owner, Architect, and the Architect's consultants.

§ 1.6 Notice

§ 1.6.1 Except as otherwise provided in Section 1.6.2, where the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission if a method for electronic transmission is set forth in the Agreement.

§ 1.6.2 Notice of Claims as provided in Section 15.1.3 shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

§ 1.7 Digital Data Use and Transmission

The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form. The parties will use AIA Document E203™-2013, Building Information Modeling and Digital Data Exhibit, to establish the protocols for the development, use, transmission, and exchange of digital data.

§ 1.8 Building Information Models Use and Reliance

Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth in AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, and the requisite AIA Document G202™–2013, Project Building Information Modeling Protocol Form, shall be at the using or relying party's sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

ARTICLE 2 OWNER

§ 2.1 General

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

§ 2.1.2 The Owner shall furnish to the Contractor, within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of, or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein.

§ 2.2 Evidence of the Owner's Financial Arrangements

§ 2.2.1 Prior to commencement of the Work and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. The Contractor shall have no obligation to commence the Work until the Owner provides such evidence. If commencement of the Work is delayed under this Section 2.2.1, the Contract Time shall be extended appropriately.

§ 2.2.2 Following commencement of the Work and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract only if (1) the Owner fails to make payments to the Contractor as the Contract Documents require; (2) the Contractor identifies in writing a reasonable concern regarding the Owner's ability to make payment when due; or (3) a change in the Work materially changes the Contract Sum. If the Owner fails to provide such evidence, as required, within fourteen days of the Contractor's request, the Contractor may immediately stop the Work and, in that event, shall notify the Owner that the Work has stopped. However, if the request is made because a change in the Work materially changes the Contract Sum under (3) above, the Contractor may immediately stop only that portion of the Work affected by the change until reasonable evidence is provided. If the Work is stopped under this Section 2.2.2, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided in the Contract Documents.

§ 2.2.3 After the Owner furnishes evidence of financial arrangements under this Section 2.2, the Owner shall not materially vary such financial arrangements without prior notice to the Contractor.

§ 2.2.4 Where the Owner has designated information furnished under this Section 2.2 as "confidential," the Contractor shall keep the information confidential and shall not disclose it to any other person. However, the Contractor may disclose "confidential" information, after seven (7) days' notice to the Owner, where disclosure is required by law, including a subpoena or other form of compulsory legal process issued by a court or governmental entity, or by court or arbitrator(s) order. The Contractor may also disclose "confidential" information to its employees, consultants, sureties, Subcontractors and their employees, Sub-subcontractors, and others who need to know the content of such information solely and exclusively for the Project and who agree to maintain the confidentiality of such information.

§ 2.3 Information and Services Required of the Owner

§ 2.3.1 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements,

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assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

§ 2.3.2 The Owner shall retain an architect lawfully licensed to practice architecture, or an entity lawfully practicing architecture, in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.

§ 2.3.3 If the employment of the Architect terminates, the Owner shall employ a successor to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Architect.

§ 2.3.4 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

§ 2.3.5 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.

§ 2.3.6 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.

§ 2.4 Owner's Right to Stop the Work

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or repeatedly fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3.

§ 2.5 Owner's Right to Carry Out the Work

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such default or neglect. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect and the Architect may, pursuant to Section 9.5.1, withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect, or failure. If current and future payments are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner. If the Contractor disagrees with the actions of the Owner or the Architect, or the amounts claimed as costs to the Owner, the Contractor may file a Claim pursuant to Article 15.

ARTICLE 3 CONTRACTOR

§ 3.1 General

§ 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.

§ 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.

§ 3.1.3 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect's administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

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§ 3.2 Review of Contract Documents and Field Conditions by Contractor

§ 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed, and correlated personal observations with requirements of the Contract Documents.

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.3.4, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.

§ 3.2.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.

§ 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall submit Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner, subject to Section 15.1.7, as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.

§ 3.3 Supervision and Construction Procedures

§ 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof and shall be solely responsible for the jobsite safety of such means, methods, techniques, sequences, or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely notice to the Owner and Architect, and shall propose alternative means, methods, techniques, sequences, or procedures. The Architect shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction. Unless the Architect objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures.

§ 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.

§ 3.3.3 The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

§ 3.4 Labor and Materials

§ 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

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§ 3.4.2 Except in the case of minor changes in the Work approved by the Architect in accordance with Section 3.12.8 or ordered by the Architect in accordance with Section 7.4, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive.

§ 3.4.3 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.

§ 3.5 Warranty

§ 3.5.1 The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

§ 3.5.2 All material, equipment, or other special warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Section 9.8.4.

§ 3.6 Taxes

The Contractor shall pay sales, consumer, use and similar taxes for the Work provided by the Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

§ 3.7 Permits, Fees, Notices and Compliance with Laws

§ 3.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as for other permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded.

§ 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.

§ 3.7.3 If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

§ 3.7.4 Concealed or Unknown Conditions

If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Architect before conditions are disturbed and in no event later than 14 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if the Architect determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend that an equitable adjustment be made in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner and Contractor, stating the reasons. If either party disputes the Architect's determination or recommendation, that party may submit a Claim as provided in Article 15.

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§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.

§ 3.8 Allowances

§ 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

§ 3.8.2 Unless otherwise provided in the Contract Documents,

- .1 allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
- .2 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and
- .3 whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2.

§ 3.8.3 Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness.

§ 3.9 Superintendent

§ 3.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.

§ 3.9.2 The Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the name and qualifications of a proposed superintendent. Within 14 days of receipt of the information, the Architect may notify the Contractor, stating whether the Owner or the Architect (1) has reasonable objection to the proposed superintendent or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed.

§ 3.10 Contractor's Construction and Submittal Schedules

§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. The schedule shall contain detail appropriate for the Project, including (1) the date of commencement of the Work, interim schedule milestone dates, and the date of Substantial Completion; (2) an apportionment of the Work by construction activity; and (3) the time required for completion of each portion of the Work. The schedule shall provide for the orderly progression of the Work to completion and shall not exceed time limits current under the Contract Documents. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project.

§ 3.10.2 The Contractor, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, shall submit a submittal schedule for the Architect's approval. The Architect's approval shall not be unreasonably delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect reasonable time to review submittals. If the Contractor fails to submit a submittal schedule, or fails to provide submittals in accordance with the approved submittal schedule, the

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Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

§ 3.10.3 The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner and Architect.

§ 3.11 Documents and Samples at the Site

The Contractor shall make available, at the Project site, the Contract Documents, including Change Orders, Construction Change Directives, and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and the approved Shop Drawings, Product Data, Samples, and similar required submittals. These shall be in electronic form or paper copy, available to the Architect and Owner, and delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

§ 3.12 Shop Drawings, Product Data and Samples

§ 3.12.1 Shop Drawings are drawings, diagrams, schedules, and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work.

§ 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

§ 3.12.3 Samples are physical examples that illustrate materials, equipment, or workmanship, and establish standards by which the Work will be judged.

§ 3.12.4 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate how the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Architect, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of Separate Contractors.

§ 3.12.6 By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

§ 3.12.7 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples, or similar submittals, until the respective submittal has been approved by the Architect.

§ 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from the requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples, or similar submittals, unless the Contractor has specifically notified the Architect of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals, by the Architect's approval thereof.

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§ 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such notice, the Architect's approval of a resubmission shall not apply to such revisions.

§ 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures. The Contractor shall not be required to provide professional services in violation of applicable law.

§ 3.12.10.1 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop Drawings, and other submittals related to the Work, designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy and accuracy of the services, certifications, and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor the performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review and approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 3.12.10.2 If the Contract Documents require the Contractor's design professional to certify that the Work has been performed in accordance with the design criteria, the Contractor shall furnish such certifications to the Architect at the time and in the form specified by the Architect.

§ 3.13 Use of Site

The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders of public authorities, and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

§ 3.14 Cutting and Patching

§ 3.14.1 The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting, or patching shall be restored to the condition existing prior to the cutting, fitting, or patching, unless otherwise required by the Contract Documents.

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or Separate Contractors by cutting, patching, or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter construction by the Owner or a Separate Contractor except with written consent of the Owner and of the Separate Contractor. Consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold, from the Owner or a Separate Contractor, its consent to cutting or otherwise altering the Work.

§ 3.15 Cleaning Up

§ 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery, and surplus materials from and about the Project.

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the Owner shall be entitled to reimbursement from the Contractor.

§ 3.16 Access to Work

The Contractor shall provide the Owner and Architect with access to the Work in preparation and progress wherever located.

§ 3.17 Royalties, Patents and Copyrights

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for defense or loss when a particular design, process, or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications, or other documents prepared by the Owner or Architect. However, if an infringement of a copyright or patent is discovered by, or made known to, the Contractor, the Contractor shall be responsible for the loss unless the information is promptly furnished to the Architect.

§ 3.18 Indemnification

§ 3.18.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section 3.18.

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

ARTICLE 4 ARCHITECT

§ 4.1 General

§ 4.1.1 The Architect is the person or entity retained by the Owner pursuant to Section 2.3.2 and identified as such in the Agreement.

§ 4.1.2 Duties, responsibilities, and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified, or extended without written consent of the Owner, Contractor, and Architect. Consent shall not be unreasonably withheld.

§ 4.2 Administration of the Contract

§ 4.2.1 The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative during construction until the date the Architect issues the final Certificate for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 4.2.2 The Architect will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents.

§ 4.2.3 On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and promptly report to the Owner (1) known deviations from the

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Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of, and will not be responsible for acts or omissions of, the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

§ 4.2.4 Communications

The Owner and Contractor shall include the Architect in all communications that relate to or affect the Architect's services or professional responsibilities. The Owner shall promptly notify the Architect of the substance of any direct communications between the Owner and the Contractor otherwise relating to the Project. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and suppliers shall be through the Contractor. Communications by and with Separate Contractors shall be through the Owner. The Contract Documents may specify other communication protocols.

§ 4.2.5 Based on the Architect's evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

§ 4.2.6 The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.4.2 and 13.4.3, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 4.2.7 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5, and 3.12. The Architect's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

§ 4.2.8 The Architect will prepare Change Orders and Construction Change Directives, and may order minor changes in the Work as provided in Section 7.4. The Architect will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.

§ 4.2.9 The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10; and issue a final Certificate for Payment pursuant to Section 9.10.

§ 4.2.10 If the Owner and Architect agree, the Architect will provide one or more Project representatives to assist in carrying out the Architect's responsibilities at the site. The Owner shall notify the Contractor of any change in the duties, responsibilities and limitations of authority of the Project representatives.

§ 4.2.11 The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

§ 4.2.12 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. When making such interpretations

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and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either, and will not be liable for results of interpretations or decisions rendered in good faith.

§ 4.2.13 The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

§ 4.2.14 The Architect will review and respond to requests for information about the Contract Documents. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

ARTICLE 5 SUBCONTRACTORS

§ 5.1 Definitions

§ 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a Separate Contractor or the subcontractors of a Separate Contractor.

§ 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

§ 5.2 Award of Subcontracts and Other Contracts for Portions of the Work

§ 5.2.1 Unless otherwise stated in the Contract Documents, the Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the persons or entities proposed for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design. Within 14 days of receipt of the information, the Architect may notify the Contractor whether the Owner or the Architect (1) has reasonable objection to any such proposed person or entity or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 5.2.2 The Contractor shall not contract with a proposed person or entity to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 5.2.3 If the Owner or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner or Architect has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.

§ 5.2.4 The Contractor shall not substitute a Subcontractor, person, or entity for one previously selected if the Owner or Architect makes reasonable objection to such substitution.

§ 5.3 Subcontractual Relations

By appropriate written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work that the Contractor, by these Contract Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor,

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prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

§ 5.4 Contingent Assignment of Subcontracts

§ 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that

- .1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor; and
- .2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

When the Owner accepts the assignment of a subcontract agreement, the Owner assumes the Contractor's rights and obligations under the subcontract.

§ 5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.

§ 5.4.3 Upon assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor contractor or other entity. If the Owner assigns the subcontract to a successor contractor or other entity, the Owner shall nevertheless remain legally responsible for all of the successor contractor's obligations under the subcontract.

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 6.1 Owner's Right to Perform Construction and to Award Separate Contracts

§ 6.1.1 The term "Separate Contractor(s)" shall mean other contractors retained by the Owner under separate agreements. The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and with Separate Contractors retained under Conditions of the Contract substantially similar to those of this Contract, including those provisions of the Conditions of the Contract related to insurance and waiver of subrogation.

§ 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.

§ 6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each Separate Contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with any Separate Contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to its construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, Separate Contractors, and the Owner until subsequently revised.

§ 6.1.4 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces or with Separate Contractors, the Owner or its Separate Contractors shall have the same obligations and rights that the Contractor has under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6, and Articles 10, 11, and 12.

§ 6.2 Mutual Responsibility

§ 6.2.1 The Contractor shall afford the Owner and Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a Separate Contractor, the Contractor shall, prior to proceeding with that portion of the Work,

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promptly notify the Architect of apparent discrepancies or defects in the construction or operations by the Owner or Separate Contractor that would render it unsuitable for proper execution and results of the Contractor's Work. Failure of the Contractor to notify the Architect of apparent discrepancies or defects prior to proceeding with the Work shall constitute an acknowledgment that the Owner's or Separate Contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work. The Contractor shall not be responsible for discrepancies or defects in the construction or operations by the Owner or Separate Contractor that are not apparent.

§ 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a Separate Contractor because of the Contractor's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of a Separate Contractor's delays, improperly timed activities, damage to the Work or defective construction.

§ 6.2.4 The Contractor shall promptly remedy damage that the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or Separate Contractor as provided in Section 10.2.5.

§ 6.2.5 The Owner and each Separate Contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

§ 6.3 Owner's Right to Clean Up

If a dispute arises among the Contractor, Separate Contractors, and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect will allocate the cost among those responsible.

ARTICLE 7 CHANGES IN THE WORK

§ 7.1 General

§ 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.

§ 7.1.2 A Change Order shall be based upon agreement among the Owner, Contractor, and Architect. A Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor. An order for a minor change in the Work may be issued by the Architect alone.

§ 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents. The Contractor shall proceed promptly with changes in the Work, unless otherwise provided in the Change Order, Construction Change Directive, or order for a minor change in the Work.

§ 7.2 Change Orders

§ 7.2.1 A Change Order is a written instrument prepared by the Architect and signed by the Owner, Contractor, and Architect stating their agreement upon all of the following:

- .1 The change in the Work;
- .2 The amount of the adjustment, if any, in the Contract Sum; and
- .3 The extent of the adjustment, if any, in the Contract Time.

§ 7.3 Construction Change Directives

§ 7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

§ 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

§ 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

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- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 Unit prices stated in the Contract Documents or subsequently agreed upon;
- .3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- .4 As provided in Section 7.3.4.

§ 7.3.4 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Architect shall determine the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount. In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.4 shall be limited to the following:

- .1 Costs of labor, including applicable payroll taxes, fringe benefits required by agreement or custom, workers' compensation insurance, and other employee costs approved by the Architect;
- .2 Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed;
- .3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
- .4 Costs of premiums for all bonds and insurance, permit fees, and sales, use, or similar taxes, directly related to the change; and
- .5 Costs of supervision and field office personnel directly attributable to the change.

§ 7.3.5 If the Contractor disagrees with the adjustment in the Contract Time, the Contractor may make a Claim in accordance with applicable provisions of Article 15.

§ 7.3.6 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

§ 7.3.7 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

§ 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work completed under the Construction Change Directive in Applications for Payment. The Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Architect determines, in the Architect's professional judgment, to be reasonably justified. The Architect's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.

§ 7.3.10 When the Owner and Contractor agree with a determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Architect will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

§ 7.4 Minor Changes in the Work

The Architect may order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. The Architect's order for minor changes shall be in writing. If the Contractor believes that the proposed minor change in the Work will

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affect the Contract Sum or Contract Time, the Contractor shall notify the Architect and shall not proceed to implement the change in the Work. If the Contractor performs the Work set forth in the Architect's order for a minor change without prior notice to the Architect that such change will affect the Contract Sum or Contract Time, the Contractor waives any adjustment to the Contract Sum or extension of the Contract Time.

ARTICLE 8 TIME

§ 8.1 Definitions

§ 8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

§ 8.1.2 The date of commencement of the Work is the date established in the Agreement.

§ 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8.

§ 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 8.2 Progress and Completion

§ 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

§ 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, commence the Work prior to the effective date of insurance required to be furnished by the Contractor and Owner.

§ 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

§ 8.3 Delays and Extensions of Time

§ 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by (1) an act or neglect of the Owner or Architect, of an employee of either, or of a Separate Contractor; (2) by changes ordered in the Work; (3) by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, adverse weather conditions documented in accordance with Section 15.1.6.2, or other causes beyond the Contractor's control; (4) by delay authorized by the Owner pending mediation and binding dispute resolution; or (5) by other causes that the Contractor asserts, and the Architect determines, justify delay, then the Contract Time shall be extended for such reasonable time as the Architect may determine.

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.

§ 8.3.3 This Section 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents.

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 Contract Sum

§ 9.1.1 The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

§ 9.1.2 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed so that application of such unit prices to the actual quantities causes substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

§ 9.2 Schedule of Values

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit a schedule of values to the Architect before the first Application for Payment, allocating the entire Contract Sum to the various portions of the Work. The schedule of values shall be prepared in the form, and supported by the data to substantiate its accuracy, required by the Architect. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment. Any changes to the schedule of values shall be submitted to the Architect and supported by such data to substantiate its accuracy as the Architect may require, and

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unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's subsequent Applications for Payment.

§ 9.3 Applications for Payment

§ 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. The application shall be notarized, if required, and supported by all data substantiating the Contractor's right to payment that the Owner or Architect require, such as copies of requisitions, and releases and waivers of liens from Subcontractors and suppliers, and shall reflect retainage if provided for in the Contract Documents.

§ 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives, or by interim determinations of the Architect, but not yet included in Change Orders.

§ 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or supplier, unless such Work has been performed by others whom the Contractor intends to pay.

§ 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage, and transportation to the site, for such materials and equipment stored off the site.

§ 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or encumbrances, in favor of the Contractor, Subcontractors, suppliers, or other persons or entities that provided labor, materials, and equipment relating to the Work.

§ 9.4 Certificates for Payment

§ 9.4.1 The Architect will, within seven days after receipt of the Contractor's Application for Payment, either (1) issue to the Owner a Certificate for Payment in the full amount of the Application for Payment, with a copy to the Contractor; or (2) issue to the Owner a Certificate for Payment for such amount as the Architect determines is properly due, and notify the Contractor and Owner of the Architect's reasons for withholding certification in part as provided in Section 9.5.1; or (3) withhold certification of the entire Application for Payment, and notify the Contractor and Owner of the Architect's reason for withholding certification in whole as provided in Section 9.5.1.

§ 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data in the Application for Payment, that, to the best of the Architect's knowledge, information, and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is entitled to payment in the amount certified. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion, and to specific qualifications expressed by the Architect. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences, or procedures; (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data requested by the Owner to substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

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§ 9.5 Decisions to Withhold Certification

§ 9.5.1 The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or suppliers for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or a Separate Contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 repeated failure to carry out the Work in accordance with the Contract Documents.

§ 9.5.2 When either party disputes the Architect's decision regarding a Certificate for Payment under Section 9.5.1, in whole or in part, that party may submit a Claim in accordance with Article 15.

§ 9.5.3 When the reasons for withholding certification are removed, certification will be made for amounts previously withheld.

§ 9.5.4 If the Architect withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or supplier to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Contractor shall reflect such payment on its next Application for Payment.

§ 9.6 Progress Payments

§ 9.6.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Architect.

§ 9.6.2 The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment from the Owner, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

§ 9.6.3 The Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done by such Subcontractor.

§ 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. Neither the Owner nor Architect shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.

§ 9.6.5 The Contractor's payments to suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

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§ 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

§ 9.6.7 Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors or provided by suppliers shall be held by the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, create any fiduciary liability or tort liability on the part of the Contractor for breach of trust, or entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.

§ 9.6.8 Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any Subcontractor or supplier of any tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Contractor. If approved by the applicable court, when required, the Contractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

§ 9.7 Failure of Payment

If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within seven days after the date established in the Contract Documents, the amount certified by the Architect or awarded by binding dispute resolution, then the Contractor may, upon seven additional days' notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided for in the Contract Documents.

§ 9.8 Substantial Completion

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.

§ 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

§ 9.8.3 Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect to determine Substantial Completion.

§ 9.8.4 When the Work or designated portion thereof is substantially complete, the Architect will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion; establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance; and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in the Certificate. Upon such acceptance, and consent of surety if any, the Owner shall make payment of retainage applying to the Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

§ 9.9 Partial Occupancy or Use

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner, Contractor, and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

§ 9.10 Final Completion and Final Payment

§ 9.10.1 Upon receipt of the Contractor's notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection. When the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect, (3) a written statement that the Contractor knows of no reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment, (5) documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties, and (6) if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts and releases and waivers of liens, claims, security interests, or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien, claim, security interest, or encumbrance. If a lien, claim, security interest, or encumbrance remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging the lien, claim, security interest, or encumbrance, including all costs and reasonable attorneys' fees.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed, corrected, and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of the surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

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§ 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from

- .1 liens, Claims, security interests, or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents;
- .3 terms of special warranties required by the Contract Documents; or
- .4 audits performed by the Owner, if permitted by the Contract Documents, after final payment.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor, or a supplier, shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 Safety Precautions and Programs

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract.

§ 10.2 Safety of Persons and Property

§ 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury, or loss to

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor, a Subcontractor, or a Sub-subcontractor; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

§ 10.2.2 The Contractor shall comply with, and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, bearing on safety of persons or property or their protection from damage, injury, or loss.

§ 10.2.3 The Contractor shall implement, erect, and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards; promulgating safety regulations; and notifying the owners and users of adjacent sites and utilities of the safeguards.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3. The Contractor may make a Claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

§ 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.

§ 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

§ 10.2.8 Injury or Damage to Person or Property

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, notice of the injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

§ 10.3 Hazardous Materials and Substances

§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner and Architect of the condition.

§ 10.3.2 Upon receipt of the Contractor's notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of the material or substance or who are to perform the task of removal or safe containment of the material or substance. The Contractor and the Architect will promptly reply to the Owner in writing stating whether or not either has reasonable objection to the persons or entities proposed by the Owner. If either the Contractor or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor and the Architect have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable additional costs of shutdown, delay, and start-up.

§ 10.3.3 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), except to the extent that such damage, loss, or expense is due to the fault or negligence of the party seeking indemnity.

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for hazardous materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner shall be responsible for hazardous materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.

§ 10.3.5 The Contractor shall reimburse the Owner for the cost and expense the Owner incurs (1) for remediation of hazardous materials or substances the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

§ 10.3.6 If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall reimburse the Contractor for all cost and expense thereby incurred.

§ 10.4 Emergencies

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury, or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7.

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 Contractor's Insurance and Bonds

§ 11.1.1 The Contractor shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Contractor shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Owner, Architect, and Architect's consultants shall be named as additional insureds under the Contractor's commercial general liability policy or as otherwise described in the Contract Documents.

§ 11.1.2 The Contractor shall provide surety bonds of the types, for such penal sums, and subject to such terms and conditions as required by the Contract Documents. The Contractor shall purchase and maintain the required bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

§ 11.1.3 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

§ 11.1.4 **Notice of Cancellation or Expiration of Contractor's Required Insurance.** Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Contract Documents, the Contractor shall provide notice to the Owner of such impending or actual cancellation or expiration. Upon receipt of notice from the Contractor, the Owner shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by the Contractor. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

§ 11.2 Owner's Insurance

§ 11.2.1 The Owner shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Owner shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located.

§ 11.2.2 **Failure to Purchase Required Property Insurance.** If the Owner fails to purchase and maintain the required property insurance, with all of the coverages and in the amounts described in the Agreement or elsewhere in the Contract Documents, the Owner shall inform the Contractor in writing prior to commencement of the Work. Upon receipt of notice from the Owner, the Contractor may delay commencement of the Work and may obtain insurance that will protect the interests of the Contractor, Subcontractors, and Sub-Subcontractors in the Work. When the failure to provide coverage has been cured or resolved, the Contract Sum and Contract Time shall be equitably adjusted. In the event the Owner fails to procure coverage, the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent the loss to the Owner would have been covered by the insurance to have been procured by the Owner. The cost of the insurance shall be charged to the Owner by a Change Order. If the Owner does not provide written notice, and the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain the required insurance, the Owner shall reimburse the Contractor for all reasonable costs and damages attributable thereto.

§ 11.2.3 **Notice of Cancellation or Expiration of Owner's Required Property Insurance.** Within three (3) business days of the date the Owner becomes aware of an impending or actual cancellation or expiration of any property insurance required by the Contract Documents, the Owner shall provide notice to the Contractor of such impending or actual cancellation or expiration. Unless the lapse in coverage arises from an act or omission of the Contractor: (1) the Contractor, upon receipt of notice from the Owner, shall have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by either the Owner or the Contractor; (2) the Contract Time and Contract Sum shall be equitably adjusted; and (3) the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent any loss to the Owner would have been covered by the insurance had it not expired or been cancelled. If the Contractor purchases replacement coverage, the cost of the insurance shall be charged to the Owner by an appropriate Change Order. The furnishing of notice by the Owner shall not relieve the Owner of any contractual obligation to provide required insurance.

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§ 11.3 Waivers of Subrogation

§ 11.3.1 The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents, and employees, each of the other; (2) the Architect and Architect's consultants; and (3) Separate Contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees, for damages caused by fire, or other causes of loss, to the extent those losses are covered by property insurance required by the Agreement or other property insurance applicable to the Project, except such rights as they have to proceeds of such insurance. The Owner or Contractor, as appropriate, shall require similar written waivers in favor of the individuals and entities identified above from the Architect, Architect's consultants, Separate Contractors, subcontractors, and sub-subcontractors. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this section 11.3.1 shall not prohibit this waiver of subrogation. This waiver of subrogation shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, (2) even though that person or entity did not pay the insurance premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the damaged property.

§ 11.3.2 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, to the extent permissible by such policies, the Owner waives all rights in accordance with the terms of Section 11.3.1 for damages caused by fire or other causes of loss covered by this separate property insurance.

§ 11.4 Loss of Use, Business Interruption, and Delay in Completion Insurance

The Owner, at the Owner's option, may purchase and maintain insurance that will protect the Owner against loss of use of the Owner's property, or the inability to conduct normal operations, due to fire or other causes of loss. The Owner waives all rights of action against the Contractor and Architect for loss of use of the Owner's property, due to fire or other hazards however caused.

§ 11.5 Adjustment and Settlement of Insured Loss

§ 11.5.1 A loss insured under the property insurance required by the Agreement shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.5.2. The Owner shall pay the Architect and Contractor their just shares of insurance proceeds received by the Owner, and by appropriate agreements the Architect and Contractor shall make payments to their consultants and Subcontractors in similar manner.

§ 11.5.2 Prior to settlement of an insured loss, the Owner shall notify the Contractor of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Contractor shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Contractor does not object, the Owner shall settle the loss and the Contractor shall be bound by the settlement and allocation. Upon receipt, the Owner shall deposit the insurance proceeds in a separate account and make the appropriate distributions. Thereafter, if no other agreement is made or the Owner does not terminate the Contract for convenience, the Owner and Contractor shall execute a Change Order for reconstruction of the damaged or destroyed Work in the amount allocated for that purpose. If the Contractor timely objects to either the terms of the proposed settlement or the allocation of the proceeds, the Owner may proceed to settle the insured loss, and any dispute between the Owner and Contractor arising out of the settlement or allocation of the proceeds shall be resolved pursuant to Article 15. Pending resolution of any dispute, the Owner may issue a Construction Change Directive for the reconstruction of the damaged or destroyed Work.

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 Uncovering of Work

§ 12.1.1 If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Architect, be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time.

§ 12.1.2 If a portion of the Work has been covered that the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an equitable adjustment to

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the Contract Sum and Contract Time as may be appropriate. If such Work is not in accordance with the Contract Documents, the costs of uncovering the Work, and the cost of correction, shall be at the Contractor's expense.

§ 12.2 Correction of Work

§ 12.2.1 Before Substantial Completion

The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, discovered before Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense.

§ 12.2.2 After Substantial Completion

§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of notice from the Owner to do so, unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.5.

§ 12.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

§ 12.2.2.3 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.

§ 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction of the Owner or Separate Contractors, whether completed or partially completed, caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

§ 12.3 Acceptance of Nonconforming Work

If the Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 13 MISCELLANEOUS PROVISIONS

§ 13.1 Governing Law

The Contract shall be governed by the law of the place where the Project is located, excluding that jurisdiction's choice of law rules. If the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 15.4.

§ 13.2 Successors and Assigns

§ 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to covenants, agreements, and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.2.2 The Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate the assignment.

§ 13.3 Rights and Remedies

§ 13.3.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law.

§ 13.3.2 No action or failure to act by the Owner, Architect, or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed upon in writing.

§ 13.4 Tests and Inspections

§ 13.4.1 Tests, inspections, and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules, and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The Owner shall bear costs of tests, inspections, or approvals that do not become requirements until after bids are received or negotiations concluded. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.

§ 13.4.2 If the Architect, Owner, or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection, or approval not included under Section 13.4.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection, or approval, by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Such costs, except as provided in Section 13.4.3, shall be at the Owner's expense.

§ 13.4.3 If procedures for testing, inspection, or approval under Sections 13.4.1 and 13.4.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Architect's services and expenses, shall be at the Contractor's expense.

§ 13.4.4 Required certificates of testing, inspection, or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect.

§ 13.4.5 If the Architect is to observe tests, inspections, or approvals required by the Contract Documents, the Architect will do so promptly and, where practicable, at the normal place of testing.

§ 13.4.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

§ 13.5 Interest

Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at the rate the parties agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 Termination by the Contractor

§ 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, for any of the following reasons:

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- .2 An act of government, such as a declaration of national emergency, that requires all Work to be stopped;
- .3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or
- .4 The Owner has failed to furnish to the Contractor reasonable evidence as required by Section 2.2.

§ 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, repeated suspensions, delays, or interruptions of the entire Work by the Owner as described in Section 14.3, constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.

§ 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed, as well as reasonable overhead and profit on Work not executed, and costs incurred by reason of such termination.

§ 14.1.4 If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, or their agents or employees or any other persons or entities performing portions of the Work because the Owner has repeatedly failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days' notice to the Owner and the Architect, terminate the Contract and recover from the Owner as provided in Section 14.1.3.

§ 14.2 Termination by the Owner for Cause

§ 14.2.1 The Owner may terminate the Contract if the Contractor

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors or suppliers in accordance with the respective agreements between the Contractor and the Subcontractors or suppliers;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

§ 14.2.2 When any of the reasons described in Section 14.2.1 exist, and upon certification by the Architect that sufficient cause exists to justify such action, the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

§ 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance,

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the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Initial Decision Maker, upon application, and this obligation for payment shall survive termination of the Contract.

§ 14.3 Suspension by the Owner for Convenience

§ 14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work, in whole or in part for such period of time as the Owner may determine.

§ 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay, or interruption under Section 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent

- .1 that performance is, was, or would have been, so suspended, delayed, or interrupted, by another cause for which the Contractor is responsible; or
- .2 that an equitable adjustment is made or denied under another provision of the Contract.

§ 14.4 Termination by the Owner for Convenience

§ 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

§ 14.4.2 Upon receipt of notice from the Owner of such termination for the Owner's convenience, the Contractor shall

- .1 cease operations as directed by the Owner in the notice;
- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

§ 14.4.3 In case of such termination for the Owner's convenience, the Owner shall pay the Contractor for Work properly executed; costs incurred by reason of the termination, including costs attributable to termination of Subcontracts; and the termination fee, if any, set forth in the Agreement.

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 Claims

§ 15.1.1 Definition

A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, a change in the Contract Time, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim. This Section 15.1.1 does not require the Owner to file a Claim in order to impose liquidated damages in accordance with the Contract Documents.

§ 15.1.2 Time Limits on Claims

The Owner and Contractor shall commence all Claims and causes of action against the other and arising out of or related to the Contract, whether in contract, tort, breach of warranty or otherwise, in accordance with the requirements of the binding dispute resolution method selected in the Agreement and within the period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all Claims and causes of action not commenced in accordance with this Section 15.1.2.

§ 15.1.3 Notice of Claims

§ 15.1.3.1 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered prior to expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party and to the Initial Decision Maker with a copy sent to the Architect, if the Architect is not serving as the Initial Decision Maker. Claims by either party under this Section 15.1.3.1 shall be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later.

§ 15.1.3.2 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party. In such event, no decision by the Initial Decision Maker is required.

§ 15.1.4 Continuing Contract Performance

§ 15.1.4.1 Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

§ 15.1.4.2 The Contract Sum and Contract Time shall be adjusted in accordance with the Initial Decision Maker's decision, subject to the right of either party to proceed in accordance with this Article 15. The Architect will issue Certificates for Payment in accordance with the decision of the Initial Decision Maker.

§ 15.1.5 Claims for Additional Cost

If the Contractor wishes to make a Claim for an increase in the Contract Sum, notice as provided in Section 15.1.3 shall be given before proceeding to execute the portion of the Work that is the subject of the Claim. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

§ 15.1.6 Claims for Additional Time

§ 15.1.6.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, notice as provided in Section 15.1.3 shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary.

§ 15.1.6.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated, and had an adverse effect on the scheduled construction.

§ 15.1.7 Waiver of Claims for Consequential Damages

The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

- .1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and
- .2 damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit, except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this Section 15.1.7 shall be deemed to preclude assessment of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

§ 15.2 Initial Decision

§ 15.2.1 Claims, excluding those where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2 or arising under Sections 10.3, 10.4, and 11.5, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, an initial decision shall be required as a condition precedent to mediation of any Claim. If an initial decision has not been rendered within 30 days after the Claim has been referred to the Initial Decision Maker, the party asserting the Claim may demand mediation and binding dispute resolution without a decision having been rendered. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

§ 15.2.2 The Initial Decision Maker will review Claims and within ten days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the

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Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.

§ 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.

§ 15.2.4 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of the request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished, or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part.

§ 15.2.5 The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial decision shall be final and binding on the parties but subject to mediation and, if the parties fail to resolve their dispute through mediation, to binding dispute resolution.

§ 15.2.6 Either party may file for mediation of an initial decision at any time, subject to the terms of Section 15.2.6.1.

§ 15.2.6.1 Either party may, within 30 days from the date of receipt of an initial decision, demand in writing that the other party file for mediation. If such a demand is made and the party receiving the demand fails to file for mediation within 30 days after receipt thereof, then both parties waive their rights to mediate or pursue binding dispute resolution proceedings with respect to the initial decision.

§ 15.2.7 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

§ 15.2.8 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

§ 15.3 Mediation

§ 15.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract, except those waived as provided for in Sections 9.10.4, 9.10.5, and 15.1.7, shall be subject to mediation as a condition precedent to binding dispute resolution.

§ 15.3.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section 15.3.2, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

§ 15.3.3 Either party may, within 30 days from the date that mediation has been concluded without resolution of the dispute or 60 days after mediation has been demanded without resolution of the dispute, demand in writing that the other party file for binding dispute resolution. If such a demand is made and the party receiving the demand fails to file for binding dispute resolution within 60 days after receipt thereof, then both parties waive their rights to binding dispute resolution proceedings with respect to the initial decision.

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§ 15.3.4 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

§ 15.4 Arbitration

§ 15.4.1 If the parties have selected arbitration as the method for binding dispute resolution in the Agreement, any Claim subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of the Agreement. The Arbitration shall be conducted in the place where the Project is located, unless another location is mutually agreed upon. A demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The party filing a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.

§ 15.4.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.

§ 15.4.2 The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

§ 15.4.3 The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement, shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

§ 15.4.4 Consolidation or Joinder

§ 15.4.4.1 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation, (2) the arbitrations to be consolidated substantially involve common questions of law or fact, and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 15.4.4.2 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.

§ 15.4.4.3 The Owner and Contractor grant to any person or entity made a party to an arbitration conducted under this Section 15.4, whether by joinder or consolidation, the same rights of joinder and consolidation as those of the Owner and Contractor under this Agreement.

**SECTION 00 7300
SUPPLEMENTARY CONDITIONS**

PART 1 GENERAL

1.01 SUMMARY

- A. These Supplementary Conditions amend and supplement the General Conditions defined in Document 00 7200 - General Conditions and other provisions of Contract Documents as indicated below. Provisions that are not so amended or supplemented remain in full force and effect.
- B. The terms used in these Supplementary Conditions that are defined in the General Conditions have the meanings assigned to them in the General Conditions.

1.02 MODIFICATIONS TO GENERAL CONDITIONS APPLICABLE TO THIS CONTRACT ARE ATTACHED FOLLOWING THIS PAGE.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

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SECTION 00 7300

ARTICLE 16. SUPPLEMENTARY CONDITIONS

PART 1 GENERAL

The following supplements modify, change, delete from, or add to the "General Conditions of the Contract for Construction," AIA Document A201 - 2017. Where any article of the General Conditions is modified or any paragraph, subparagraph or clause thereof or deleted by these Supplementary Conditions, the unaltered provisions of the Article, Paragraph, Subparagraph or clause shall remain in effect.

ARTICLE 1 - GENERAL PROVISIONS

1.1 Basic Definitions

1.1.3.1 Add subparagraph: The term "provide" shall mean furnish and install in place.

1.1.5 Add to paragraph: The general character and scope of the Work is shown by the Drawings. Where a portion of the Work is fully drawn and the remainder is merely indicated, the portion fully drawn shall apply to all similar parts of the Work.

1.1.5.1 Add subparagraph: Figured dimensions on the Drawings shall be followed in preference to scaled measurements on the Drawings.

1.1.6 Add to paragraph: Where Specifications are abbreviated type, they indicate complete sentences in the same manner as when a note occurs in the Drawings. Omissions of words such as "the Subcontractor shall" and "as shown on the Drawings" is intentional. The words "shall" or "shall be" are to be supplied by inference.

1.1.6.1 Add subparagraph: Where a number is listed in the Specifications (as for gauges, weights, temperatures, amounts of time, etc.), the number shall be interpreted as that or better.

1.2 Correlation and Intent of the Contract Documents

1.2.4 Add subparagraph: In the case of an inconsistency between Drawings and Specifications or within either Document not clarified by addendum, the better quality or greater quantity of Work shall be provided.

1.5 Ownership and Use of Drawings, Specifications and Other Instruments of Service

1.5.2.1 Add Subparagraph: The Subcontractor(s) may retain one record set of Drawings and Project Manual(s).

1.5.2.2 Add Subparagraph: All copies of Instruments of Service including Addenda, except for the Subcontractor(s) record set, shall be returned or suitably accounted for to the Architect, on request, upon Final Completion of the Work.

ARTICLE 2 - OWNER

2.2 Information and Services Required for the Owner

2.2.5 Replace the text with: The Subcontractor(s) will be furnished as many sets of Drawings and Project Manuals as the Architect has available for distribution, but in no case less than one. If the Subcontractor(s) require additional sets, they will be furnished to the Subcontractor(s) at the cost of reproduction, postage and handling to be paid by the Subcontractor(s).

ARTICLE 3 - SUBCONTRACTOR

3.2 Review of Contract Documents and Field Conditions By Subcontractor

3.2.1 At the end of the sentence add "and geotechnical report, if any".

3.4 Labor and Materials

Add the following five paragraphs:

3.4.4 Add subparagraph: No trade shall commence Work until conditions are satisfactory for carrying out the Work properly, and surfaces to be covered are suitable.

3.4.5 Add subparagraph: Manufacturer's printed instructions covering details of installation shall be followed where not in conflict with these Specifications. If there is a conflict, notify the Architect and obtain Architect's approval before proceeding.

3.4.6 Add subparagraph: Completed Work shall be left plumb, level, true to line or plane, anchored securely in place, and free from damage.

3.4.7 Add subparagraph: Unless otherwise called for, all pieces of material shall be as large a stock size as is in conformity with standard good practice of the trade.

3.4.8 Add subparagraph: Except where in conflict with the Specifications, current manufacturer's printed instructions of herein specified proprietary products are made part of the Specifications.

3.5 Warranty

3.5.1 Add to paragraph: The Subcontractor further warrants that all products, materials and equipment provided under the Contract are asbestos-free as defined under current EPA Guidelines, and that they do not contain any other materials currently known to be hazardous.

3.7 Permits, Fees, Notices, and Compliance With Laws

The AIA 201 – 2017 General Conditions of the Contract for Construction indicates: "Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as for other permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded." The term "Contractor" as used in A201-2017 shall mean the Construction Manager at Risk (CMaR). CMaR will be responsible for the building permit and fees as noted above.

ARTICLE 4 - ARCHITECT

4.2 Administration of the Contract

4.2.3 Add to paragraph: The Architect will not be responsible for the acts or omissions of the Owner.

4.2.4.1 Add subparagraph: If there are any direct communications between the Owner and the Subcontractor(s) that affect the performance or Architect's administration of the Contract, a written summary of such communications shall be prepared by the Owner and a copy of said summary submitted to the Architect.

ARTICLE 5 - SUBSUBCONTRACTORS

No supplement.

ARTICLE 6 - CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

No supplement.

ARTICLE 7 - CHANGES IN THE WORK

7.2 Change Orders

7.2.2 Add subparagraph: Neither the Owner nor the Architect are responsible to give Notice of Change Orders to the surety.

7.3 Construction Change Directives

7.3.2 At the end of the sentence Add "or as deemed necessary by the Architect".

7.3.3.1 After "lump sum" Add ", determined in accordance with the provisions of subparagraph 7.3.10,".

7.3.4 Add to paragraph "The costs for overhead, profit and commission shall be determined in accordance with the provisions of subparagraph 7.3.7.7."

7.3.7 At the end of the first sentence replace "...a reasonable allowance for overhead and profit." with "...allowances for overhead and profit as indicated in 7.3.7.7."

7.3.7.6 Add subparagraph: At a minimum the detailed breakdown shall include and indicate the terms enumerated below. Items (a) and (b) constitute the cost of labor, and items (a), (b), (c) and (d) constitute the basic costs referred to under this Article 7.

(a) Labor costs, itemized by each trade involved, showing the hourly rates for each, and the hours required for the change. Labor rates shall be the same for extra and credit computations and shall be the actual rate paid the workmen in accordance with established labor management agreements.

(b) Burden on labor, which shall be only the actual costs of mandatory fringe benefits required by established agreements, taxes on labor, worker's or workmen's compensation, insurance on labor as affected by payroll, unemployment taxes and insurance, including FICA and FUTA.

(c) Quantities of materials, equipment and supplies, at their actual cost, with unit costs indicated, plus applicable sales tax.

(d) The cost of subcontracted work, computed in the same way as provided for under this subparagraph.

(e) Overhead, profit or commission added after the above computations are complete. See Section 01 2000 for determining overhead & profit.

7.3.7.7.1 Add subparagraph: Not more than three percentages for overhead, profit and commission will be allowed. The mark-up on any part of the Work a SubSubcontractor subcontracts will be limited to one overhead figure and one profit figure, in addition to the Subcontractor's commission. The SubSubcontractor and Sub-subSubcontractor may divided the overhead and profit amount as they agree upon.

7.3.7.7.2 Add subparagraph: The burden on labor may be indicated as a dollar/cents addition to the hourly rate or may be expressed as a percentage of the extended hourly rate costs. If required by the Owner or the Architect, the Subcontractor shall provide a detailed breakdown to justify the labor burden. The Owner and Architect reserve the right to reject any labor burden which is inconsistent with other similar Subcontractors or where the cost of fringe benefits are in excess of established labor agreements. The burden on labor shall not include any costs noted as general overhead.

7.3.7.7.3 Add subparagraph: Material, equipment and supply costs shall be quoted at the actual cost to the Subcontractor or SubSubcontractor. Upon request, the Subcontractor, or SubSubcontractor, shall submit evidence to substantiate the costs. Said costs shall be quoted at trade discount prices, with quantity discounts also applied where the quantities warrant. Cash or prompt payment discounts need not be credited. In any proposal with material, equipment and supply credits, the credit shall be based on the actual Contract costs of the material, including trade and quantity discounts, less any charges actually incurred for handling or returning a material which has been delivered. No cancellation, restocking or similar charge will be allowed unless actually incurred by the purchaser and generally will not be allowed when the product has not been shipped. The sales tax burden shall be indicated as a dollars/cents addition with the percentage also listed.

7.3.7.7.4 Add subparagraph: The percentages allowed for overhead, profit or commission under clause 7.3.7.7 shall be deemed to include, and no further addition allowed for: (1) field and office supervision and administration, including the field superintendent and foremen; (2) general insurance, except that listed as the labor burden; (3) use or replacement of tools; (4) shop burden; (5) equipment rental, other than specifically required hoisting equipment, required excavating equipment or similar equipment necessary solely as a result of the Change; (6) engineering and estimating costs; (7) performance (guaranty) bond; (8) cost of safety measures including those imposed by OSHA; (9) shipping, drayage and demurrage; (10) parking charges; (11) clean up and debris removal; (12) testing; (13) permits, unless a new permit type is required; (14) or any other costs except those enumerated under clause 7.3.7.6.

7.3.7.7.5 Add subparagraph: Cost changes shall be computed by determining the basic costs enumerated under clause 7.3.7.6, as further specified under this subparagraph, to which the overhead may be added, then the profit figure maybe added.

7.3.7.7.6 SubSubcontractors, or Sub-subSubcontractors, shall compute their costs in the same way and are subject to the same conditions of what may be included in the cost and the same maximum percentages for overhead and profit. To the SubSubcontractor's price, the Subcontractor may add up to 10% commission.

7.3.7.7.7 Add subparagraph: For Changes involving work of the Subcontractor with its own forces and work by a SubSubcontractor, or Sub-subSubcontractor, the commission shall be applied directly to the SubSubcontractor's price, with the overhead and profit figure applied only to the Work the Subcontractor performs with its own forces.

7.3.7.7.8 Add subparagraph: For Changes involving both extra and credit amount, the overhead and profit, or commission, shall be applied only to the net difference where the extra exceeds the credit.

7.3.7.7.9 Add subparagraph: For Changes resulting in a credit in the basic costs, allowances for overhead, profit or commission as specified above may be required to be credited the Owner, as approved by the Architect [Initial Decision Maker]. In general no credit for overhead, profit or commission will be required where the net change credit is minor or where the Change in Work indicates it is reasonable that no credit be allowed to the Owner due to the effort, cost or responsibility of the Subcontractor. In the event of substantial subcontract credits, or for Work not performed by the Subcontractor, a reasonable overhead, profit or commission credit shall be allowed to the Owner.

ARTICLE 8 - TIME

8.1 Definitions

8.1.3 Add to paragraph: Minor corrective Work and the replacement of defective Work or materials, and the adjustment of control apparatus, will not delay the determination that the Contract is Substantially Complete. See Paragraph 12.2.2.

8.1.3.1 Add subparagraph: The date of Final Completion is the date certified by the Architect in accordance with Paragraph 9.10.2.

8.3 Delays and Extensions of Time

8.3.1 Add to paragraph: The following will not be considered justifications for extension of time unless due to one of the causes stated within this Article 8:

- (a) Delay caused by SubSubcontractors or Supplier except if the Supplier goes out of business and another Supplier cannot be found in time to meet the schedule.
- (b) Shortage of workmen.

8.3.1.1 Add subparagraphs: Change Orders for extension of Contract Time shall be considered only under the following conditions or circumstances:

.1 As indicated in Paragraph 8.3.1. The burden of proof to substantiate the extension of time shall rest with the Subcontractor, including evidence that the cause was beyond his control. The Subcontractor shall be deemed to have had control of the supply of labor except in the case of organized labor disputes, materials, equipment, methods, and techniques, and of the SubSubcontractors.

.2 A delay in the progress of the Work actually occurred as a result of one of the valid causes for time extension.

.3 Unusual delay in delivery solely due to a delay in transportation. An extension of time shall not be considered when delay in delivery is due to improperly scheduled delivery, or when an order has not been promptly and properly placed.

.4 Abnormal weather conditions. The Subcontractor shall consider the location of the Project, and shall recognize the existence of variations from average climatic conditions. Foul weather in and of itself shall not be a valid cause for a time extension. Time extensions resulting from abnormal weather shall not be considered unless a significant deviation from average seasonal climatic conditions occurred for an extended period of time, and the progress of the Work was delayed to a significant extent. The climatic conditions before and after the period for which the delay is sought shall be evaluated.

.5 Changes in the Work which significantly affect the progress of the Work. When the anticipated delay can be determined the extension will be made when the Change in Work is authorized by the Owner. When the anticipated delay cannot be determined, the Subcontractor shall estimate the additional time required, and a mechanism for all parties to determine the allowable delay. In such a case, the Architect will determine the time extension and the Contract Time adjusted accordingly by Change Order. For

changes in the Work which affect only a portion or Phase of the entire project, the Owner reserves the right to grant a time extension only for that portion or Phase affected by the Change.

.6 Labor disputes except for lockouts over which the Subcontractor has control. The amount of time extension shall not be longer than the actual dispute period plus a reasonable time for mobilization, and such extension may be less than the actual dispute period depending on the effect the dispute had upon the progress of the Work.

.7 Unavoidable delays such as damage caused by severe weather, fire or other casualty to the Work; remediation of contaminants, pollutants, or hazardous materials or substances discovered after award of the Contract; litigation including without limitation bankruptcy proceedings; the acts of any federal, state or local government unit that directly result in delays; and other delays outside the control of the Party claiming the delay.

.8 Delays caused by SubSubcontractors shall be considered only under the conditions noted above.

8.3.1.2 Time extensions shall not be granted as a result of delays caused by improper scheduling, or by failure of the Subcontractor to have Shop Drawings or other required submittals submitted in sufficient time for review.

ARTICLE 9 - PAYMENTS AND COMPLETION

9.3 Applications for Payment

9.3.1 In the first sentence replace "At least ten days before the date established for each progress payment, ..." with "Not more than once a month..."

9.3.4 Add paragraph: Progress payments shall be made monthly upon application, in the amount of 90% of the Work completed and materials described under 9.3.2. For a Contract of over \$100 thousand, the Architect will authorize the payment of 100% of the amount completed after a total of 5% of the Contract amount has been retained, providing progress on the Work is in accordance with or ahead of the Subcontractor's construction schedule and is satisfactory to the Architect and if the Subcontractor has filed a Consent of Surety with the Architect.

9.8 Substantial Completion

9.8.1 Add to paragraph: Minor corrective Work, the replacement of defective Work or materials, and the adjustment of control apparatus will not delay the determination of Substantial Completion. See paragraph 12.2.2.

9.8.2 Add to paragraph: Minor punch list items that do not interfere with using the Work as intended may be corrected between Substantial Completion and Final Completion.

9.10 Final Completion and Final Payment

9.10.2 After "...consent of surety, if any, to final payment" DELETE "and (5)" and REPLACE WITH ",(5) written certification from Subcontractor in accordance with Final Inspection requirements of Section 01 7000, (6) all Contract Closeout submittals required by Section 01 7800, each submittal having been approved by the Architect, and (7)".

ARTICLE 10 - PROTECTION OF PERSONS AND PROPERTY

10.3 Hazardous Materials

10.3.1 In the first sentence add "lead-containing materials" after "asbestos".

ARTICLE 11 - INSURANCE

11.1 Subcontractor's Liability Insurance

11.1.1.9 Liability Insurance shall be provided by each Prime Subcontractor and shall include the following:

(a) Commercial General Liability on an Occurrence Basis, including Premises/Operations, Products/Completed Operations and Personal Injury. There shall be no endorsements deleting XCU coverages where they are applicable.

(b) Automobile Liability: Written on a Business Auto Policy with liability covered auto symbols (1) or (2, 8 and 9). If the carrier does not use the Business Auto Policy, an equivalent form providing liability coverage on a comprehensive basis including all owned, non-owned and hired autos shall be used.

(c) Umbrella Liability or Excess Liability with minimum limits of \$2,000,000 per occurrence and \$2,000,000 yearly aggregate amount. The policy shall provide a minimum of following form liability over the previous specified general liability and automobile liability.

(d) The Architect and Owner assume no responsibility in the event that the limits set above are not adequate.

The Owner and Architect shall be listed as additional insured on each Subcontractor's General Liability and Automobile Liability policies.

11.1.2 Replace the first sentence with: The insurance required by Section 11.1.1 shall be written for not less than the limits of liability specified in Section 11.1.2.1 or required by law, whichever coverage is greater.

11.1.2.1 Add paragraph and subparagraphs: Limits of liability shall be as follows. The limits of liability specified shall be considered minimum requirements.

General Liability: \$1,000,000 each occurrence; \$2,000,000 aggregate.

Automobile Liability: \$1,000,000.

Worker's Compensation: As required by law.

11.3 Property Insurance

11.3.1.3 Revise the text to read: The SubSubcontractor submitting the claim will be responsible for the deductible portion of the claim. The Owner will have a \$10,000.00 deductible. The Owner's policy does not include coverage for Subcontractor's equipment or materials stored off-site. It is the Subcontractor's responsibility to properly secure all on-site materials. Unsecured on-site storage is not eligible for a claim.

11.3.1.6 Add paragraph: The insurance required by Paragraph 11.3 is not intended to cover machinery, tools or equipment owned or rented by the Subcontractor that are utilized in the performance of the Work but not incorporated into the permanent improvements. The Subcontractor shall, at the Subcontractor's own expense, provide insurance coverage for owned or rented machinery, tools or equipment which shall be subject to the provisions of Subparagraph 11.3.7.

11.3.2 Add "Architect," after "SubSubcontractors,"

11.3.2.1 The Mechanical Subcontractor shall give notice to the Owner stating when the boilers are to be first operated in order for the Owner to effect the Boiler Insurance.

11.3.2.2 The Owner shall carry the boiler insurance and shall maintain it in effect until final payment has been made as provided in Paragraph 9.10. This insurance shall cover the total value of the boiler equipment at the site, including both new and existing, plus damage to the building and personal property, plus bodily injury and in no case be less than \$500,000. The Subcontractor may at his option carry such insurance until the Owner's insurance takes effect.

11.3.4 Delete the text.

11.3.6 Replace the text with: Before an exposure to loss may occur, the General Subcontractor shall file with the Owner two certified copies of the policy or policies providing insurance coverages required by this Paragraph 11.3. Each policy shall contain all generally applicable conditions, definitions, exclusions and endorsements specifically related to the Project. Each policy shall contain a provision that the policy will not be canceled or allowed to expire, and that its limits will not be reduced, until at least 30 days' prior written notice has been given to the Owner.

11.4 Performance and Payment Bond

11.4.3 The Subcontractor shall require the attorney-in-fact who executes the required bond or bonds on behalf of the surety to affix thereto a certified and correct copy of the power of attorney.

11.4.4 Bond amounts shall not exceed the single bond limit for the Subcontractor's bonding company as set forth in the Federal Register current as of the bid date.

ARTICLE 12 - UNCOVERING AND CORRECTION OF WORK

No supplement.

ARTICLE 13 - MISCELLANEOUS PROVISIONS

No supplement.

ARTICLE 14 - TERMINATION OR SUSPENSION OF THE CONTRACT

14.2 Termination By Owner For Cause

14.2.1.2 At the end of the Subparagraph Add "or in accordance with the Contract Documents".

14.2.1.5 Add paragraph: files a bankruptcy petition or has a bankruptcy action commenced against it that is not discharged within 30 days of commencement of same, makes an assignment for the benefit of its creditors, has a receiver appointed to manage the Subcontractor's assets or otherwise becomes insolvent;

14.2.1.6 Add paragraph: fails to maintain schedules as required by the Contract Documents, or fails to comply in a material way with design requirements of the Contract Documents, or persistently fails to perform the Work in accordance with the Contract Documents.

14.2.4 Replace the text with:

If the unpaid balance of the Contract Sum exceeds the direct and indirect consequential costs of completing the Work (including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs), and other damages incurred by the Owner, such excess will be paid to the Subcontractor. If such costs and damages exceed such unpaid balance, the Subcontractor shall pay the difference to the Owner. Such costs incurred by the Owner will be approved as to reasonableness by the Architect, but when exercising any rights or remedies under this paragraph, the Owner shall not be required to obtain the lowest price for the Work performed. This obligation to payment shall survive termination of the Contract.

ARTICLE 15 - CLAIMS AND DISPUTES.

No Supplement.

ARTICLE 16 - ADDITIONAL CONDITIONS (ADD THIS ARTICLE AND THE FOLLOWING PARAGRAPHS)

16.1 Additional Definitions

16.1.1 Provide: As used in connection with labor, materials and equipment shall mean to furnish and install complete, including connections to utilities or service, complete anchorage and suspension, fastening or anchor devices, trim, finish and other related work, unless specified otherwise.

16.1.2 Accepted, approved, satisfactory, equal to, proper, as directed and similar terms: These shall mean the decision rests with the architect, whose decision shall be final and binding upon the Subcontractor and subSubcontractors.

16.1.3 Project, work, job: In the technical sections or on the drawings, these terms may be used interchangeably and are synonymous. They shall mean the facility, construction and/or improvement within the intent and scope of the contract documents. The terms shall mean the entire facility, or separable parts as appropriate to the use of the term, including that under subcontract where applicable, and includes labor, materials, equipment, service and skill.

16.1.4 Notice to Proceed: This shall be written notice by the architect to the Subcontractor to commence work of the contract, issued either before or after execution of the contract. In issuing the notice, stipulations may be included as to time and other requirements that may condition commencement of the work.

16.2 Use of Drawings and Specifications

16.2.1 During construction, the Subcontractor shall examine and use all specifications and drawings for the project, including those that may primarily pertain to other work the Subcontractor normally does not perform with his own forces. The Subcontractor shall use all of the project drawings and specifications: for a complete understanding of the project and the work; to determine the type of construction and systems; for coordination; to determine what other work may be involved in various parts or phases; to anticipate and notify others when work will be required; and all other relevant matters related to the project. The Subcontractor shall also be bound by all the requirements to complete his work, that are applicable to, pertain to, or affect the work, as may be shown or inferred by the entire set of drawings and specifications.

16.3 Periodic Payment Estimate

16.3.1 When required by the owner to establish a schedule of money available to make payment of periodic Applications for Payment, the Subcontractor shall provide an estimate by months; of the anticipated amounts for each periodic payment. The retained percentage shall be considered in the estimate schedule, as well as anticipated job progress and materials delivery. The schedule will be deemed an estimate only, for financial planning purposes, and the Subcontractor shall not be bound to conform to the schedule. The schedule may be required by the contract documents or requested by the owner and contract execution.

16.4 Layout of the Work

16.4.1 Each Subcontractor shall employ a qualified engineer or registered surveyor to stake out and locate the construction, locate property markers and other points as needed to properly locate the work under this contract.

16.4.2 The Subcontractor shall recognize that the drawings necessarily are diagrammatic, in many instances. All work and in particular, exposed piping, ducts, conduit and similar items shall be neatly and carefully laid out to provide the most useful space utilization and the most orderly appearance. Except as otherwise indicated or directed, piping and similar work shall be installed as close to ceilings and walls as conditions permit, located to prevent interference with other work or with the use of the spaces in the manner required by the functions of the room and the owner. Valves shall be located in inconspicuous but accessible places. Before proceeding with any work, particularly where exposed, the Subcontractor shall carefully plan the layout and review it with the architect for acceptability of location.

16.4.3 The Subcontractor shall verify grades, lines levels and dimensions shown on drawings and report any errors or inconsistencies to architect for decision before commencing work. The Subcontractor and subSubcontractor shall be responsible for the correct location, dimensions and elevations of his work. As the work progresses, the Subcontractor shall be responsible for the layout of the exact location of all partitions and similar features, as guide to all trades.

16.5 General Quality of Work, Installation and Operation

16.5.1 All the work shall be strictly first quality, in materials, erection, installation and workmanship.

16.5.2 The Subcontractor shall request interpretations from the architect, through the construction manager, for the following: work indicated on the drawings or specified in such a manner as to make it impossible to produce work of the highest quality within the space shown; possibilities of damaging effects of expansion and contraction; discrepancies found between drawings or between drawings and specifications. If the Subcontractor does not request such interpretation, no excuse will be entertained thereafter for failure to carry out and guarantee the work in a satisfactory manner. Elements of the work intended to protect against the weather shall be guaranteed weatherproof and watertight.

16.5.3 Proper performance of the contract shall imply correct and proper placement, proper or published results for products and equipment, fitting and operation of fixed or

movable and operating parts of the work, including doors, windows, hardware and all systems and equipment. Materials and equipment shall be completed in every respect, with parts, connections, anchors, devices, backing, fittings and other necessary items, and shall be completely installed, anchored, fitted and placed in operating condition. Before buying, construction or installing work, the Subcontractor shall notify the architect of conditions, which exist in the contract documents, which will adversely affect proper operation of first quality installation.

16.5.4 Throughout the project, accommodate various materials and pieces of equipment that are fitted to their materials and equipment and various materials that are applied to which other materials attach. Take all reasonable precautions to insure materials, devices, items, equipment or other products can be satisfactorily applied or installed to each other or work of others and make necessary adjustments during preparation of shop drawings or in advance of field work, or stop work to accommodate other work.

16.5.5 Materials or equipment shall be installed or applied according to directions of the manufacturer or recommendations of an association dealing primarily with materials, unless specifically designated otherwise. In no case shall installation, including any temporary work necessary (i.e. shoring), be below standards recommended by manufacturer. Where specified requirements exceed the manufacturer's standards, the specifications shall govern. Fabrication (including reinforcing and accessories) and installation shall be provided to insure proper placement and use of the item or material under the location, use, condition and available space to serve intended function and to meet code requirements. Equipment devices shall be provided and installed to "fail safe" under normal operating conditions and it shall be Subcontractor's obligation to provide and install work in such manner.

16.6 General Fire Safety

16.6.1 The Subcontractor shall exercise extreme care to maintain and exercise adequate fire safety precautions throughout construction. This shall include providing sufficient devices, watchmen, standby helpers or other precautions during construction, in use of temporary heat, welding, brazing, sweating, testing or other phases of work. Welding, brazing, cutting and sweating operations performed in vicinity of, or accessible to, combustible material shall be adequately protected to make certain that sparks or hot slag do not reach the combustible material and start a fire. Glass and glazed material shall be masked from splatter. When necessary to do cutting, welding, brazing, sweating, in vicinity of wood, or combustible materials (and the combustible material cannot be removed), the material shall be adequately protected with fireproof coverings. In addition, a helper shall be stationed nearby with proper fire extinguishers to guard against sparks and fire.

16.6.2 Whenever combustible materials have been exposed to sparks, molten metal, hot slag, or splatter, a man shall be kept at the place of work for at least two hours after completion to make sure that smoldering fires have not been started. Whenever cutting or welding operations are carried on in a vertical pipe shaft, a man to act as a fireguard shall be employed to examine floors below the point of cutting or welding. This fireguard shall be kept on duty at least two hours after completion of the work to guard against fires and he shall examine each level after this time, prior to leaving.

END OF SECTION

**SECTION 01 1400
WORK RESTRICTIONS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. This section of the Project Manual establishes Owner requirements and construction-related work restrictions. The provisions of this section shall be considered part of the Contract Documents. Each Contractor shall ensure full compliance by all personnel with the requirements herein.
- B. Construction Personnel Requirements
 - 1. All construction personnel present on school property shall comply with the Fargo Public Schools policy, "Sexual Offenders on School Property," included as part of this Project Manual.
 - 2. All construction personnel shall comply with background check and fingerprinting requirements prior to being granted site access.

1.02 RELATED REQUIREMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Section 01 5000 - Temporary Facilities and Controls
- C. Section 01 7000 - Execution and Closeout Requirements.

1.03 RADIO, DRUG, FIREARM, AND TOBACCO

- A. Radios, controlled substances, firearms, tobacco, and alcohol are strictly prohibited on the project site and shall not be permitted at any time during the construction period.

1.04 USE OF PREMISES

- A. Use of Site: Restrict use of the premises to areas designated for performance of the Work. Do not disturb or interfere with other portions of the site not so designated.
 - 1. Limits: Confine all construction operations to the areas indicated on the Civil Plan.
 - 2. Owner Occupancy: Coordinate construction activities to allow continued Owner occupancy of the site during construction.
 - 3. Driveways and Entrances: Keep all driveways and entrances serving the premises clear and accessible for the 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 any use of driveways and entrances.
 - b. Verify delivery routes and locations of approved delivery drops with the Owner prior to delivery activities.
 - 4. Existing Trees and Plants:
 - a. Provide adequate protection to prevent damage to existing trees and plants by the Contractor or subcontractors.
 - b. Trim obstructing branches only with Architect's approval prior to any operations that could damage trees.
 - c. Damage to existing trees or plants may require replacement with acceptable size stock at no additional cost to the Owner.
 - 5. Existing Lawns:
 - a. Access to the building via lawns shall be limited. Do not drive across lawn areas without prior approval of the Construction Manager.
 - b. Permission to cross lawn areas will only be granted with the presumption that the Contractor will restore the lawn to its original condition.
 - c. Ruts and tire tracks shall be filled and new sod installed as required to restore damaged lawn areas.

- B. Use of Existing Building: Maintain the existing building in a weather-tight condition throughout the construction period. Repair all damage caused by construction operations. Protect the building and its occupants during construction activities.
 - 1. Construction personnel shall not enter or occupy areas of the building where no Work is occurring.
- C. Utility Interruptions
 - 1. Contractor shall provide the Owner with a minimum of 48 hours' prior notice before shutting down or interrupting any utility service.
 - 2. Data and communication wiring shall not be cut, disconnected, or otherwise interrupted without first verifying that such lines are inactive. The Contractor shall be responsible for repairing, at the Contractor's expense, any damage resulting from failure to confirm line status prior to interruption.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 SIGNAGE - "NO SMOKING"

- A. The Construction Manager shall provide and maintain "No Smoking" signage clearly visible throughout the project site for the duration of construction.

3.02 ADMINISTRATIVE FEE FOR VIOLATIONS OF "NO SMOKING" POLICY

- A. Violations of the "No Smoking" policy will result in an administrative fee of \$150 per occurrence, to be deducted from the Contractor's payment.

PART 4 POLICY REGARDING SEXUAL OFFENDERS ON SCHOOL PROPERTY

4.01 DEFINITIONS

- A. For the purpose of this policy:
 - 1. A sexual offender is defined in NDCC 12.1-20-25.
 - 2. A parent sexual offender is an individual who meets this policy's definition of sexual offender and who has either parental or legal guardianship rights to a child attending a district school.
 - 3. A nonparent sexual offender is an individual who meets this policy's definition of sexual offender and who has no parental rights or legal guardianship rights to a child attending a district school.
 - 4. A student sexual offender is an individual who meets this policy's definition of sexual offender and who is enrolled in a district school.
 - 5. School property includes all land within the perimeter of the school site and all school buildings, structures, facilities, computer networks and systems, and school vehicles, whether owned or leased by the school district.

4.02 NONPARENT SEXUAL OFFENDERS

- A. A nonparent sexual offender is prohibited from entering school property except:
 - 1. When they are a qualified voter and are entering school property solely for the purpose of casting their vote.
 - 2. To attend an open meeting as defined in NDCC chapter 44-04, and/or
 - 3. Under other circumstances on a case-by-case basis, as determined by the superintendent.
- B. A nonparent sexual offender who attempts to communicate electronically with a student while the student is on school property will be considered on school property without permission and will be in violation of this policy.

4.03 PARENT SEXUAL OFFENDERS

- A. Parent sexual offenders are prohibited from entering school property except for purposes outlined in section 1(a)-(c) of this policy, and with the superintendent's prior written approval, and only to the extent set out therein, in the following instances:
 - 1. To transport their child to and/or from school.
 - 2. To attend a conference to discuss their student's progress, placement, or individual education plan (IEP), and/or,
 - 3. Under other circumstances, on a case-by-case basis, as determined by the superintendent.
- B. A parent sexual offender who attempts to communicate electronically with a student other than their own child while the student is on school property will be considered on school property without permission and will be in violation of this policy.

4.04 STUDENT SEXUAL OFFENDERS

- A. The superintendent shall determine the appropriate educational placement for student sexual offenders except those identified as having a disability. When determining educational placement, the superintendent shall consider such factors as the safety and health of the student population. The superintendent shall develop guidelines for managing each student sexual offender in district schools. If the superintendent determines that, in the best interest of the district schools, the student sexual offender should be placed in an alternative educational setting, the district shall pay for the costs associated with this placement.
- B. An IEP team shall determine the educational placement of a student sexual offender with a disability. The student with a disability is entitled to all due process procedures available to a student with a disability under the Individuals with Disabilities Education Act. The IEP team shall develop procedures for managing each student sexual offender with a disability that attends a district school. If the IEP team determines that the student sexual offender should be

placed in an alternative educational setting, the district shall pay for the costs associated with this placement.

4.05 GENERAL PROVISIONS

- A. The superintendent will inform the appropriate principal and other relevant district staff of the scope of the permission granted to each sexual offender.
- B. The superintendent shall establish a process for identifying sexual offenders and will inform known sexual offenders of this policy. Lack of notification does not excuse sexual offenders from abiding by the requirements and prohibitions in this policy. It is not the intent of the district to expand or modify the district's potential liability exposure through the implementation of this notification system. The district's voluntary creation of this safety precaution shall not be construed to create or assume any potential liability under any local, state, or federal law or regulation. Lack of notification does not excuse sexual offenders from abiding by the requirements and prohibitions in this policy.
- C. The superintendent will contact law enforcement upon learning that a sexual offender has violated this policy and will immediately revoke any privileges granted to the sexual offender under this policy.

4.06 JOINT USE FACILITIES

- A. Fargo Public Schools maintains a number of joint use facilities in conjunction with the City of Fargo, the Fargo Park District, and other lease holders.
 - 1. Fargo Public Schools shall physically mark those areas of a joint use facility which shall be considered closed to the public.
 - 2. An offender shall be restricted to access of those areas identified as open to the public and shall remain in the area only for the purpose of conducting an intended business.

END OF SECTION 01 1400

**SECTION 01 15 00
ELECTRONIC DOCUMENTS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Procedures for requesting electronic documents.

1.02 RELATED REQUIREMENTS

- A. Section 00 11 13 - Advertisement for Bids: Cost for Electronic Bid Documents (DIGITAL DOWNLOAD ACCESS OR PDF FILES ON DISK).
- B. Section 01 33 00 - Submittal Procedures.
- C. Section 01 57 13 - Erosion Control.

1.03 ELECTRONIC BID DOCUMENTS

- A. Complete and submit Request for Electronic Documents Form on next page if requesting electronic bid documents referenced in Section 00 11 13 - Advertisement for Bids. Digital Electronic Bid Documents are only available in PDF format.

1.04 REQUEST FOR PAYMENT, SCHEDULE OF VALUES, SUBCONTRACTORS, SUPPLIERS AND MANUFACTURERS LIST

- A. Following contract award, the Architect will furnish electronic copies of these documents in excel (XLS) format to the Contractor(s) at no charge upon request.

1.05 PLAN BACKGROUNDS

- A. Following contract award, electronic CAD plan backgrounds for use by the Contractor(s) or Subcontractors for preparation of layout drawings of building systems such as roof trusses, fire sprinklers, etc., Shop Drawings and other required submittals, will be furnished upon request for \$60.00 for each sheet of documents with exception of the site plan to be furnished under Section 01 57 13 Erosion Control which shall be furnished at no cost.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PROCEDURES

- A. Requests for Electronic Documents shall be made in writing identifying the name(s) of the document(s) requested (including specific sheets), format, quantity, unit price, sub-total and total amount included using the form following this section. No requests will be processed until Request for Electronic Documents form is completed including signature and payment payable to "YHR Partners, Ltd." has been received, as applicable.
 - 1. For Electronic Bid Documents, under "Name(s) of Document(s) Requested" heading list "Electronic Bid Documents", under the "Format" heading list your preference for either "Download" or "Disk", under the "QTY" heading list "1" for digital download or insert the number of disks requested, under the "Unit Price" heading enter "\$50", and under the "Sub-Total" heading multiply your quantity by the unit price and list that value. Add up your sub-totals and fill in that value in the "Total Amount Included" box.

REQUEST FOR ELECTRONIC DOCUMENTS

**PROJECT: MAINTENANCE AND REMODELING
 FPS 2026 MAINTENANCE PROJECTS
 FARGO PUBLIC SCHOOLS
 FARGO, NORTH DAKOTA**

ARCHITECT'S PROJECT NO. 202519

The electronic information, which has been requested, is copyrighted by YHR Partners, Inc. By accessing the computer-generated information included in the requested electronic documents, the above party hereby agrees that the information is provided by the Architect for use exclusively on the above project. No other use is authorized or implied.

Due to the unsecured nature of the ELECTRONIC Documents and the inability of YHR Partners Inc. or the RECIPIENT to establish controls over their use, YHR Partners, Inc. assumes no responsibility for any consequences arising out of the use of the data. It is the sole responsibility of the RECIPIENT to check the validity of all information contained herein. The RECIPIENT shall at all times refer to the signed and sealed hard copy documents of the project during all phases of the project. The RECIPIENT shall assume all risks and liabilities resulting from the use of this data, and the RECIPIENT agree(s) to waive any and all claims and liability against YHR Partners, Inc. and its consultants resulting in any way from the use of the ELECTRONIC Documents.

Name(s) of Document(s) Requested (CAD Files, Request for Payment, Schedule of Values and SS&M List only available after contract award)	Format (XLS; PDF or CAD; Disk or Download)	Qty.	Unit Price (Excel Files=\$0; Entire Project PDF's=\$50 or \$60 per each Drawing sheet requested in CAD)	Sub-Total
<i>*Electronic files will not be transmitted until after payment is received.</i>			Total Amount Included <i>Payable to YHR Partners Ltd.</i>	

Read and Accepted By:

Company Name: _____ Signature: _____
 Address: _____ Name (printed): _____
 _____ Title: _____
 Phone: _____ Date: _____
 E-mail: _____

END OF SECTION

**SECTION 01 2000
PRICE AND PAYMENT PROCEDURES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Procedures for preparation and submittal of applications for progress payments.

1.02 RELATED REQUIREMENTS

- A. Section 00 5200 - Agreement Form: Contract Sum, retainages, payment period, monetary values of unit prices.
- B. Section 00 7200 - General Conditions: Additional requirements for progress payments, final payment, changes in the Work.
- C. Section 01 2010 - Change Order Procedures: Percentage allowances for overhead and profit.
- D. Section 01 2100 - Allowances: Payment procedures relating to allowances.
- E. Section 01 2200 - Unit Prices: Payment and modification procedures relating to unit prices.
- F. Section 01 7800 - Closeout Submittals: Project record documents.

1.03 SCHEDULE OF VALUES

- A. Use Schedule of Values Form: AIA G703, edition stipulated in the Agreement.
- B. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit draft to Architect for approval.
- C. Forms filled out by hand will not be accepted.
- D. Submit Schedule of Values in duplicate within 15 days after date established in Notice to Proceed.
- E. Format: Utilize the Table of Contents of this Project Manual. Identify each line item with number and title of the specification section. Identify site mobilization and bonds and insurance.
- F. Include in each line item, the amount of Allowances specified in this section. For unit cost Allowances, identify quantities taken from Contract Documents multiplied by the unit cost to achieve the total for the item.
- G. Revise schedule to list approved Change Orders, with each Application For Payment.

1.04 APPLICATIONS FOR PROGRESS PAYMENTS

- A. Payment Period: Submit at intervals stipulated in the Agreement.
- B. Use Form AIA G702 and Form AIA G703, edition stipulated in the Agreement.
- C. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample to Architect for approval.
- D. Forms filled out by hand will not be accepted.
- E. Execute certification by signature of authorized officer.
- F. Each Application of Payment must be notarized by a duly authorized Notary Public.
- G. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored products.
- H. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of work.
- I. Submit three hard-copies of each Application for Payment.
- J. Include the following with the application:
 - 1. Transmittal letter as specified for submittals in Section 01 3000.
 - 2. Construction progress schedule, revised and current as specified in Section 01 3216.

3. Affidavits attesting to off-site stored products.

K. When Architect requires substantiating information, submit data justifying dollar amounts in question.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 01 2010
CHANGE ORDER PROCEDURES**

PART 1 GENERAL

1.01 SUMMARY

- A. This section shall establish procedures for the submission of change order proposals.
- B. Change Orders may also be known as "Contract Amendments". The two terms may be used interchangeably with the same meaning.
- C. Changes in the work involving an adjustment in the contract price shall be authorized by a written change order signed by the Owner.
- D. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.
- E. This section specifies administrative and procedural requirements for handling and processing contract modifications.

1.02 CHANGE ORDER PROCEDURES

- A. Processing Procedure:
 - 1. Upon the determination of the Architect, Construction Manager, and Owner that extra work beyond that indicated on the drawings and/or specifications, or that certain portions of the work will be deleted from the Contract, the Contractor shall submit a change order proposal to the Construction Manager for review.
 - 2. Upon acceptance of the change order proposal, the Construction Manager will prepare copies of the change order and obtain the necessary signatures of the Contractor and Owner indicating acceptance of the amendment of the contract.
 - 3. Copies of the change order will be distributed by the Construction Manager to the Owner and Contractor, Architect and other agencies or individuals as required.
- B. Change Order Proposals
 - 1. The proposal shall be itemized to show the following:
 - a. Quantities and cost of materials F.O.B. jobsite
 - b. Costs of labor
 - c. Subcontractors work and cost thereof
 - d. Overhead*
 - e. Profit
 - 2. Proposals may be either "Add" or "Deduct" types as necessary to cover the change.
 - 3. Allowable mark ups for overhead and profit.
 - 4. All proposals shall include allowances for overhead and profit as follows:
 - a. When change order proposals include an add and deduct as part of the same change, one overhead and one profit figure shall be used for the difference. Overhead and profit figures shall be based on the following tables.

5. Add type change order proposal mark-up shall not exceed the following:

Construction Contract Amounts	Up to \$100,000	\$100,000 to \$500,000	\$500,000 to \$1 Million	\$1 Million to \$2 Million	Over \$2 Million
Overhead	10%	9%	7%	5%	3%
Profit	6%	5.5%	5%	4.5%	4%

6. Deduct type change order proposal mark-up shall not be less than the following:

Construction Contract Amounts	Up to \$100,000	\$100,000 to \$500,000	\$500,000 to \$1 Million	\$1 Million to \$2 Million	Over \$2 Million
Overhead	10%	9%	7%	5%	3%
Profit	3%	2.75%	2.5%	2.25%	2%

7. *Overhead includes general office operating costs that are not direct costs related to the project. Overhead items would include but are not limited to general company insurance, office rental or operating costs, company vehicles and/or equipment, etc. Overhead shall also include Performance/Payment Bond costs associated with the contract amendments.

END OF SECTION

**SECTION 01 2100
ALLOWANCES**

PART 1 GENERAL

1.01 SUMMARY

- A. This Section includes administrative and procedural requirements governing allowances.
 - 1. Selected materials and equipment are specified in the Contract Documents by allowances. In some cases, these allowances include installation. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when additional information is available for evaluation. If necessary, additional requirements will be issued by Change Order.
- B. See Section 00 7200 - General Conditions for additional requirements.

1.02 SUBMITTALS

- A. Comply with 01 3000 - Administrative Requirements.
- B. Submit proposals for purchase of products or systems included in allowances in the form specified for Change Orders.
- C. Submit invoices or delivery slips to show the actual quantities of materials delivered to the site for use in fulfillment of each allowance.

1.03 ALLOWANCE BREAKDOWN

- A. These allowances shall cover the cost to the Contractor, less any applicable trade discount, of the materials and equipment required by the allowance, delivered at the site, and all applicable taxes.
- B. The Contractor's costs for unloading and handling on the site, labor, installation costs, overhead, profit, and other expenses contemplated for the original allowance shall be included in the Contract Sum and not in the allowance.
- C. Whenever the cost is more or less than the allowance, the Contract Sum shall be adjusted accordingly by Change Order, the amount of which will recognize changes, if any, in handling costs on the site, labor, installation costs, overhead, profit, and other expenses.

1.04 SCHEDULE OF ALLOWANCES

- A. See Scope of Work Sections for allowances per bid package.
- B. Provide a weekly time sheet of allowance used for approval.
- C. Upon completion of the project, any difference in time will be adjusted by Change Order.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

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**SECTION 01 2200
UNIT PRICES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. List of unit prices, for use in preparing Bids.
- B. Measurement and payment criteria applicable to Work performed under a unit price payment method.

1.02 COSTS INCLUDED

- A. Unit Prices included on the Bid Form shall include full compensation for all required labor, products, tools, equipment, plant, transportation, services and incidentals; erection, application or installation of an item of the Work; overhead and profit.

1.03 MEASUREMENT OF QUANTITIES

- A. Take all measurements and compute quantities. Measurements and quantities will be verified by Construction Manager .
- B. Assist by providing necessary equipment, workers, and survey personnel as required.

1.04 PAYMENT

- A. Payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities of Work that is incorporated in or made necessary by the Work and accepted by the Construction Manager, multiplied by the unit price.
- B. Payment will not be made for any of the following:
 - 1. Products wasted or disposed of in a manner that is not acceptable.
 - 2. Products determined as unacceptable before or after placement.
 - 3. Products not completely unloaded from the transporting vehicle.
 - 4. Products placed beyond the lines and levels of the required Work.
 - 5. Products remaining on hand after completion of the Work.
 - 6. Loading, hauling, and disposing of rejected Products.

1.05 SCHEDULE OF UNIT PRICES

- A. Unit Price No. 1 - Price to remove additional concrete curb and gutter.
 - 1. Bid Package 31.
 - 2. Price per Lineal Foot.
- B. Unit Price No. 2 - Price to install additional concrete curb and gutter
 - 1. Bid Package 32A.
 - 2. Price per Lineal Foot in place.
- C. Unit Price No. 3 - Provide and install additional clay fill in areas where existing clay is not suitable.
 - 1. Bid Package 31.
 - 2. Price per Lineal Foot in place.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

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**SECTION 01 2300
ALTERNATES**

PART 1 GENERAL

1.01 SUMMARY

- A. The bidder shall bid on each Alternate specified as part of the specifications. Alternates not specifically requested will not be considered unless prior approval has been granted by the Construction Manager and Architect.
- B. The technical sections of these specifications shall also apply to the Alternate work, whether so noted in each technical section or not.
- C. Drawings and general provisions of the Contract, including General Conditions and Supplementary Conditions and other Division 00 and 01 Specification Sections apply to this Section.
- D. This Section includes administrative and procedural requirements governing Alternates.

1.02 ACCEPTANCE OF ALTERNATES

- A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in the Owner-Contractor Agreement.
- B. Coordinate related work and modify surrounding work to integrate the Work of each Alternate.

1.03 SCHEDULE OF ALTERNATES

- A. Alternate Proposal: BG-1 - Bennett Elementary
 - 1. Alternate No. 1 - All work associated to provide and install dry cooler per plans and spec.
- B. Alternate Proposal: BG-2 - Davies High School Parking Lot
 - 1. Alternate No. 1 - All work associated to omit the removal & replacement of the subgrade.
 - 2. Alternate No. 2 - All work associated to provide asphalt in lieu of concrete pavement.
 - 3. Alternate No. 3 - All work associated to remove and reinstall additional concrete curb and gutter.
 - 4. Alternate No. 4 - All work associated to remove 12" of clay subgrade and scarify an additional 6" of clay. Reinstall clay as per plan and spec with the proper compaction and moisture content.
- C. Alternate Proposal: BG-4 - South High School
 - 1. Alternate No. 1 - All work associated to reroof Area A as per plans and specs.
 - 2. Alternate No. 2 - All work associated to reroof Area B as per plans and specs.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

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**SECTION 01 3000
ADMINISTRATIVE REQUIREMENTS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. General administrative requirements.
- B. Electronic document submittal service.
- C. Preconstruction meeting.
- D. Progress meetings.
- E. OwnerArchitectConstruction Managerr (OACM) Meetings
- F. Coordination drawings.
- G. Submittals for review, information, and project closeout.
- H. Number of copies of submittals.
- I. Requests for Information (RFI) procedures.
- J. Submittal procedures.

1.02 RELATED REQUIREMENTS

- A. Section 01 3216 - Project Construction Schedule: Form, content, and administration of schedules.
- B. Section 01 6000 - Product Requirements: General product requirements.
- C. Section 01 7000 - Execution and Closeout Requirements: Additional coordination requirements.
- D. Section 01 7800 - Closeout Submittals: Project record documents; operation and maintenance data; warranties and bonds.

1.03 DEFINITIONS

- A. Coordination drawings show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or to function as intended.
- B. Field samples are full-size physical examples erected on-site to illustrate finishes, coatings, or finish materials. Field samples are used to establish the standard by which the Work will be judged.
- C. Mockups are full-size assemblies for review of construction, coordination, testing, or operation; they are not samples.

1.04 GENERAL ADMINISTRATIVE REQUIREMENTS

- A. Comply with requirements of Section 01 7000 - Execution and Closeout Requirements for coordination of execution of administrative tasks with timing of construction activities.

1.05 PROJECT COORDINATOR

- A. Project Coordinator: Construction Manager.
- B. Overall Project Coordination will be the responsibility of the Construction Manager as outlined in Section 00 7200 - General Conditions. As noted therein, in no way is the Construction Manager responsible for, or does he have control or charge of procedures, or for safety precautions and programs in connection with the work, but rather will provide the scheduling and coordination of the work of the various Contractors as a convenience to them as well as a service to the Owner.
- C. Cooperate with the Project Coordinator in allocation of mobilization areas of site; for field offices and sheds, for site access, traffic, and parking facilities.
- D. During construction, coordinate use of site and facilities through the Project Coordinator.

- E. Comply with Project Coordinator's procedures for intra-project communications; submittals, reports and records, schedules, coordination drawings, and recommendations; and resolution of ambiguities and conflicts.
- F. Comply with instructions of the Project Coordinator for use of temporary utilities and construction facilities. Responsibility for providing temporary utilities and construction facilities is identified in Section 01 5000 - Temporary Facilities and Controls.
- G. Coordinate field engineering and layout work under instructions of the Project Coordinator.
- H. Make the following types of submittals to Architect through the Project Coordinator:
 - 1. Requests for Information.
 - 2. Requests for substitution.
 - 3. Shop drawings, product data, and samples.
 - 4. Test and inspection reports.
 - 5. Design data.
 - 6. Manufacturer's instructions and field reports.
 - 7. Applications for payment and change order requests.
 - 8. Progress schedules.
 - 9. Coordination drawings.
 - 10. Correction Punch List and Final Correction Punch List for Substantial Completion.
 - 11. Closeout submittals.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 ELECTRONIC DOCUMENT SUBMITTAL SERVICE

- A. All documents transmitted for purposes of administration of the contract are to be in electronic (PDF) format, as appropriate to the document, and transmitted via an Internet-based submittal service that receives, logs and stores documents, provides electronic stamping and signatures, and notifies addressees via email.
 - 1. Besides submittals for review, information, and closeout, this procedure applies to Requests for Information (RFIs), progress documentation, contract modification documents (e.g. supplementary instructions, change proposals, change orders), applications for payment, field reports and meeting minutes, Contractor's correction punchlist, and any other document any participant wishes to make part of the project record.
 - 2. Contractor and Architect are required to use this service.
 - 3. It is Contractor's responsibility to submit documents in allowable format.
 - 4. Subcontractors, suppliers, and Architect's consultants will be permitted to use the service at no extra charge.
 - 5. Users of the service need an email address, internet access, and PDF review software that includes ability to mark up and apply electronic stamps (such as Adobe Acrobat, www.adobe.com, or Bluebeam PDF Revu, www.bluebeam.com), unless such software capability is provided by the service provider.
 - 6. Paper document transmittals will not be reviewed; emailed electronic documents will not be reviewed.
 - 7. All other specified submittal and document transmission procedures apply, except that electronic document requirements do not apply to samples or color selection charts.
- B. Cost: The Construction Manager's submittal service will be used.
- C. Submittal Service: The selected service is:
 - 1. Procure (866-477-6267): www.procure.com.
- D. Training: Web-based training sessions are available for all Contractors, Subcontractors, Suppliers, and Owner's representatives.

- E. Project Closeout: Architect will determine when to terminate the service for the project and is responsible for obtaining archive copies of files for Owner.

3.02 PRECONSTRUCTION MEETING AT EACH PROJECT SITE

- A. Construction Manager will schedule a meeting after Notice of Award.
- B. Attendance Required:
 - 1. Owner.
 - 2. Architect and their consultants.
 - 3. Construction Manager
- C. Agenda:
 - 1. Execution of Owner-Contractor Agreement.
 - 2. Submission of executed bonds and insurance certificates.
 - 3. Distribution of Contract Documents.
 - 4. Submission of list of subcontractors, list of products, schedule of values, and progress schedule.
 - 5. Designation of personnel representing the parties to Contract and Architect.
 - 6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
 - 7. Scheduling.
- D. Construction Manager will record minutes and distribute copies within two days after meeting to participants, Architect, Owner, and those affected by decisions made.

3.03 PROGRESS MEETINGS AT EACH PROJECT SITE

- A. Construction Manager will schedule and administer meetings throughout progress of the work at maximum weekly intervals.
 - 1. Provide a virtual meeting setup, including video and audio conferencing capabilities, to allow remote attendance and full participation by all required parties.
- B. Construction Manager will make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.
- C. Attendance Required as appropriate to agenda topics for each meeting: Job Superintendents, Major Subcontractors and Suppliers, Bid Package Contractor Project Managers, Construction Manager, Owner, and Architect and their consultants.
- D. Agenda:
 - 1. Review minutes of previous meetings.
 - 2. Review of work progress.
 - 3. Field observations, problems, and decisions.
 - 4. Identification of problems that impede, or will impede, planned progress.
 - 5. Review of submittals schedule and status of submittals.
 - 6. Review of RFIs log and status of responses.
 - 7. Review of off-site fabrication and delivery schedules.
 - 8. Maintenance of progress schedule.
 - 9. Corrective measures to regain projected schedules.
 - 10. Planned progress during succeeding work period.
 - 11. Maintenance of quality and work standards.
 - 12. Effect of proposed changes on progress schedule and coordination.
 - 13. Other business relating to work.
- E. Construction Manager will record minutes and distribute copies within two days after meeting to participants, Architect, Owner, and those affected by decisions made.
- F. **Failure to attend meetings will result in holding of payment.**

3.04 OWNER ARCHITECT CONSTRUCTION MANAGER (OACM) MEETINGS

- A. Construction Manager will schedule and administer OACM meetings throughout progress of the work at maximum bi-monthly intervals.
 - 1. Provide a virtual meeting setup, including video and audio conferencing capabilities, to allow remote attendance and full participation by all required parties.
- B. Construction Manager will make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.
- C. Attendance Required as appropriate to agenda topics for each meeting: Owner Representative, Architect, Engineers, and Construction Manager
- D. Agenda:
 - 1. Review minutes of previous meetings.
 - 2. Review of work progress.
 - 3. Field observations, problems, and decisions.
 - 4. Identification of problems that impede, or will impede, planned progress.
 - 5. Review of submittals schedule and status of submittals.
 - 6. Review of RFIs log and status of responses.
 - 7. Review of off-site fabrication and delivery schedules.
 - 8. Maintenance of progress schedule.
 - 9. Corrective measures to regain projected schedules.
 - 10. Planned progress during succeeding work period.
 - 11. Coordination of projected progress.
 - 12. Maintenance of quality and work standards.
 - 13. Effect of proposed changes on progress schedule and coordination.
 - 14. Other business relating to work.
- E. Construction Manager will record minutes and distribute copies within two days after meeting to participants, Architect, Owner, and those affected by decisions made.

3.05 CONSTRUCTION PROGRESS SCHEDULE - SEE SECTION 01 3216

3.06 COORDINATION DRAWINGS

- A. Provide information required by Project Coordinator for preparation of coordination drawings.
- B. Review drawings prior to submission to Architect.

3.07 REQUESTS FOR INFORMATION (RFI)

- A. Definition: A request seeking one of the following:
 - 1. An interpretation, amplification, or clarification of some requirement of Contract Documents arising from inability to determine from them the exact material, process, or system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of work is described differently at more than one place in Contract Documents.
 - 2. A resolution to an issue which has arisen due to field conditions and affects design intent.
- B. Whenever possible, request clarifications at the next appropriate project progress meeting, with response entered into meeting minutes, rendering unnecessary the issuance of a formal RFI.
- C. Preparation: Prepare an RFI immediately upon discovery of a need for interpretation of Contract Documents. Failure to submit a RFI in a timely manner is not a legitimate cause for claiming additional costs or delays in execution of the work.
 - 1. Prepare a separate RFI for each specific item.
 - a. Review, coordinate, and comment on requests originating with subcontractors and/or materials suppliers.
 - b. Do not forward requests which solely require internal coordination between subcontractors.
 - 2. Prepare using software provided by the Electronic Document Submittal Service.

3. Combine RFI and its attachments into a single electronic file. PDF format is preferred.
- D. Reason for the RFI: Prior to initiation of an RFI, carefully study all Contract Documents to confirm that information sufficient for their interpretation is definitely not included.
1. Include in each request Contractor's signature attesting to good faith effort to determine from Contract Documents information requiring interpretation.
 2. Unacceptable Uses for RFIs: Do not use RFIs to request the following::
 - a. Approval of submittals (use procedures specified elsewhere in this section).
 - b. Approval of substitutions (see Section - 01 6000 - Product Requirements)
 - c. Changes that entail change in Contract Time and Contract Sum (comply with provisions of the Conditions of the Contract).
 - d. Different methods of performing work than those indicated in the Contract Drawings and Specifications (comply with provisions of the Conditions of the Contract).
 3. Improper RFIs: Requests not prepared in compliance with requirements of this section, and/or missing key information required to render an actionable response. They will be returned without a response, with an explanatory notation.
- E. Content: Include identifiers necessary for tracking the status of each RFI, and information necessary to provide an actionable response.
1. Official Project name and number, and any additional required identifiers established in Contract Documents.
 2. Discrete and consecutive RFI number, and descriptive subject/title.
 3. Issue date, and requested reply date.
 4. Reference to particular Contract Document(s) requiring additional information/interpretation. Identify pertinent drawing and detail number and/or specification section number, title, and paragraph(s).
 5. Annotations: Field dimensions and/or description of conditions which have engendered the request.
 6. Contractor's suggested resolution: A written and/or a graphic solution, to scale, is required in cases where clarification of coordination issues is involved, for example; routing, clearances, and/or specific locations of work shown diagrammatically in Contract Documents. If applicable, state the likely impact of the suggested resolution on Contract Time or the Contract Sum.
- F. Attachments: Include sketches, coordination drawings, descriptions, photos, submittals, and other information necessary to substantiate the reason for the request.
- G. Responses: Content of answered RFIs will not constitute in any manner a directive or authorization to perform extra work or delay the project. If in Contractor's belief it is likely to lead to a change to Contract Sum or Contract Time, promptly issue a notice to this effect, and follow up with an appropriate Change Order request to Owner.
1. Response may include a request for additional information, in which case the original RFI will be deemed as having been answered, and an amended one is to be issued forthwith. Identify the amended RFI with an R suffix to the original number.
 2. Do not extend applicability of a response to specific item to encompass other similar conditions, unless specifically so noted in the response.

3.08 SUBMITTAL SCHEDULE

- A. Submit to Architect for review a schedule for submittals in tabular format.
1. Submit at the same time as the preliminary schedule specified in Section - 01 3216 - Project Construction Schedule.
 2. Coordinate with Contractor's construction schedule and schedule of values.
 3. Format schedule to allow tracking of status of submittals throughout duration of construction.
 4. Arrange information to include scheduled date for initial submittal, specification number and title, submittal category (for review or for information), description of item of work covered, and role and name of subcontractor.

5. Account for time required for preparation, review, manufacturing, fabrication and delivery when establishing submittal delivery and review deadline dates.
 - a. For assemblies, equipment, systems comprised of multiple components and/or requiring detailed coordination with other work, allow for additional time to make corrections or revisions to initial submittals, and time for their review.

3.09 SUBMITTALS FOR REVIEW

- A. When the following are specified in individual sections, submit them for review:
 1. Product data.
 2. Shop drawings.
 3. Samples for selection.
 4. Samples for verification.
- B. Submit to Architect for review for the limited purpose of checking for compliance with information given and the design concept expressed in Contract Documents.
- C. Samples will be reviewed for aesthetic, color, or finish selection.
- D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01 7800 - Closeout Submittals.

3.10 SUBMITTALS FOR INFORMATION

- A. When the following are specified in individual sections, submit them for information:
 1. Design data.
 2. Certificates.
 3. Test reports.
 4. Inspection reports.
 5. Manufacturer's instructions.
 6. Manufacturer's field reports.
 7. Other types indicated.
- B. Submit for Architect's knowledge as contract administrator or for Owner.

3.11 SUBMITTALS FOR PROJECT CLOSEOUT

- A. Submit Correction Punch List for Substantial Completion.
- B. Submit Final Correction Punch List for Substantial Completion.
- C. When the following are specified in individual sections, submit them at project closeout in compliance with requirements of Section 01 7800 - Closeout Submittals:
 1. Project record documents.
 2. Operation and maintenance data.
 3. Warranties.
 4. Bonds.
 5. Other types as indicated.
- D. Submit for Owner's benefit during and after project completion.

3.12 NUMBER OF COPIES OF SUBMITTALS

- A. Electronic Documents: Submit one electronic copy in PDF format; an electronically-marked up file will be returned. Create PDFs at native size and right-side up; illegible files will be rejected.
- B. Samples: Submit the number specified in individual specification sections; one of which will be retained by Architect.
 1. After review, produce duplicates.
 2. Retained samples will not be returned to Contractor unless specifically so stated.

3.13 SUBMITTAL PROCEDURES

- A. General Requirements:
 1. Use a single transmittal for related items.

2. Sequentially identify each item. For revised submittals use original number and a sequential numerical suffix.
 3. Identify: Project; Contractor; subcontractor or supplier; pertinent drawing and detail number; and specification section number and article/paragraph, as appropriate on each copy.
 4. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the work and Contract Documents.
 - a. Submittals from sources other than the Contractor, or without Contractor's stamp will not be acknowledged, reviewed, or returned.
 5. Deliver each submittal on date noted in submittal schedule, unless an earlier date has been agreed to by all affected parties, and is of the benefit to the project.
 - a. Upload submittals in electronic form to Electronic Document Submittal Service website.
 6. Schedule submittals to expedite the Project, and coordinate submission of related items.
 - a. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
 - b. For sequential reviews involving Architect's consultants, Owner, or another affected party, allow an additional 7 days.
 7. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of the completed work.
 8. Provide space for Contractor and Architect review stamps.
 9. When revised for resubmission, identify all changes made since previous submission.
 10. Distribute reviewed submittals. Instruct parties to promptly report inability to comply with requirements.
 11. Incomplete submittals will not be reviewed, unless they are partial submittals for distinct portion(s) of the work, and have received prior approval for their use.
 12. Submittals not requested will not be recognized or processed.
- B. Product Data Procedures:
1. Submit only information required by individual specification sections.
 2. Collect required information into a single submittal.
 3. Do not submit (Material) Safety Data Sheets for materials or products.
- C. Shop Drawing Procedures:
1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting Contract Documents and coordinating related work.
 2. Do not reproduce Contract Documents to create shop drawings.
 3. Generic, non-project-specific information submitted as shop drawings do not meet the requirements for shop drawings.
- D. Samples Procedures:
1. Transmit related items together as single package.
 2. Identify each item to allow review for applicability in relation to shop drawings showing installation locations.
- E. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
 - a. The Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.

3.14 SUBMITTAL REVIEW

- A. Submittals for Review: Architect will review each submittal, and approve, or take other appropriate action.
- B. Submittals for Information: Architect will acknowledge receipt, but will take no other action.
- C. Architect's actions will be reflected by marking each returned submittal using virtual stamp on electronic submittals.
 - 1. Notations may be made directly on submitted items and/or listed on appended Submittal Review cover sheet.
- D. Architect's and consultants' actions on items submitted for review:
 - 1. Authorizing purchasing, fabrication, delivery, and installation:
 - a. "Approved".
 - b. "Approved as Noted".
 - 1) At Contractor's option, submit corrected item, with review notations acknowledged and incorporated.
 - 2. Not Authorizing fabrication, delivery, and installation:
 - a. "Revise and Resubmit".
 - 1) Resubmit revised item, with review notations acknowledged and incorporated.
 - 2) Non-responsive resubmittals may be rejected.
 - b. "Rejected".
 - 1) Submit item complying with requirements of Contract Documents.
- E. Architect's and consultants' actions on items submitted for information:
 - 1. Items for which no action was taken:
 - a. "For Record Only" - to notify the Contractor that the submittal has been received for record only.

END OF SECTION

SECTION 01 3030 WORKSITE SAFETY

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. General worksite safety requirements

1.02 GENERAL NOTES

- A. Health and safety will always remain the top priority for all levels of management, supervision, and workers engaged in construction activities. Health and safety will never be sacrificed in lieu of schedule, cost, production, or any other component of the work process. Gehrtz Construction Services expects all Contractors to execute their work on this project with a proactive commitment to safety at all levels. Each Contractor should plan their work focusing on protecting their workers from incidents and injuries.
- B. All contractors will incorporate, as a minimum, OSHA 29 CFR 1926 Construction Safety Standards, OSHA 29 CFR 1910 General Industry Standards (as applicable), specific state safety regulations, specific Owner requirements, project safety rules, and this Site-Specific Safety Policies (SSSP) when determining the safe work practices and protection of all workers. If any of these standards, requirements, or procedures conflict, the more stringent requirement shall prevail.
- C. This document is not all encompassing of Gehrtz Construction Services safety policies. Reference the Gehrtz Construction Services Site-Specific Safety Policies for additional information regarding policies and procedures.

1.03 REFERENCE STANDARDS

- A. 29 CFR 1910 - Occupational Safety and Health Standards; current edition.
- B. 29 CFR 1910.134 - Respiratory Protection; current edition.
- C. 29 CFR 1926 - U.S. Occupational Safety and Health Standards; current edition.
- D. NFPA 70E - Standard for Electrical Safety in the Workplace; 2015.

1.04 SAFETY TRAINING

- A. Safety and health training are a requirement and mandatory for all Contractor workers assigned to this project to promote and ensure that an incident and injury free environment exists.
- B. Training:
 - 1. ***** Each Contractor is responsible for the proper training of their employee(s) in accordance with OSHA 29 CFR 1926 Construction Safety Standards, OSHA 29 CFR 1910 General Industry Standards (as applicable), specific state safety regulations, specific Owner requirements, project safety rules, and this Site-Specific Safety Policy manual. Training records and experience shall be maintained and available for review by Gehrtz Construction Services. *****

1.05 DESIGNATED CONTRACTOR COMPETENT PERSON

- A. Each Contractor will designate a competent person(s), as defined by OSHA 29 CFR 1926.32(f) as "one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them", as their project safety representative. This person(s) name will be submitted (pg. 27) to Gehrtz Construction Services and this person(s) must have the authority and responsibility to ensure the proper implementation and enforcement of this SSSP. Two competent people for each category is preferred. **Contractors shall have a competent person(s) on site at all times.**
 - 1. The **General Trades Competent Person/Foreman** designated will be expected to have an adequate knowledge of OSHA construction standards.

2. The **Scaffold Competent Person** designated to oversee erection and dismantling of scaffolds will be expected to have an above average knowledge of OSHA 29 CFR 1926.450 Subpart L - Scaffolds, and proof of qualification training.
 3. The Trenching and Excavation Competent Person designated to oversee digging trenches and excavations will be expected to have an above average knowledge of OSHA 29 CFR 1926.650 Subpart P - Excavations, and proof of qualification training.
 4. The **Fall Protection Competent Person** designated to oversee their company's fall protection plan will be expected to have an above average knowledge of OSHA 29 CFR 1926.500 Subpart M - Fall Protection, and proof of qualification training.
 5. The **Electrical Competent Person** designated to oversee their company's electrical protection plan will be expected to have an above average knowledge of OSHA 29 CFR 1926.400 Subpart K and NFPA 70E - and proof of qualification training.
 6. The **Rigging Qualified Person** designated to oversee the rigging of structural steel, concrete panels, materials, or other equipment hoisted above the ground will be expected to have an above average knowledge of OSHA 29 CFR 1926.251. Competent Person designated for rigging structural steel shall have an above average knowledge of OSHA 29 CFR 1926.753 Hoisting and Rigging, and formal training.
 7. The **Safety Competent Person** designated to oversee the safety of their employees and subcontractors will be expected to have an above average knowledge of OSHA construction standards.
- B. As a minimum, each of these competent persons must:
1. be proficient in the development and execution of pre-task safety plans, competency plans and risk/severity assessments. Audit, document and submit as required.
 2. obtain an OSHA 10-hour certificate from a certified OSHA trainer and a minimum of 3 years' experience as a foreman/competent person. OSHA 30-hour certificate and at least 5 years construction safety training is highly recommended. Experience must be in the non-residential construction industry.
 3. obtain certified competency training conducted by an authorized OSHA certified trainer.
 4. conduct regular safety meetings with workers to instruct them on safe work practices and requirements.
 5. provide timely submission of all safety-related documents.
 6. conduct documented pre-task safety plans and communicate daily to workers to ensure compliance with safe work practices, this Site Safety and Prevention Program and OSHA safety regulations.
- C. For the purposes of the Program, the use of the words "competent person", in any format, is defined pursuant to the OSHA definition as stated above.

1.06 PERSONAL PROTECTIVE EQUIPMENT

- A. All personal protective equipment (PPE) shall meet applicable standard of the American National Standards Institute (ANSI), American Society for Testing and Materials (ASTM) and properly used in accordance with the manufactures' recommendations. Each employer shall furnish their employees approved PPE that fits to size and provide training in the selection, use and care of such, retraining to be performed as necessary. Employees must maintain their PPE in good sanitary conditions, if defective or showing signs of excessive wear PPE must be replaced. All person(s) entering the jobsite will ,as a minimum, always wear the following personal protective equipment in the designated work area while on this project (except in office and lunch areas). At no time during the project will PPE requirements be relaxed.
1. Head Protection: An approved type 2 hard hat must always be worn. The employer and employee's name shall be on the front of the hard hat.
 2. Eye and Face Protection
 - a. Safety glasses (Z87.1) with side shields must always be worn.
 3. Workers that wear prescription glasses may do one of the following:
 - a. Obtain prescription safety glasses (Z87.1) with rigid side shields.
 - b. Wear over-the-glass safety glasses.

4. In addition, the following eye/face equipment must be worn when performing the following work activities:
 - a. Arc welding - Welding hood with proper shading.*
 - b. Burning - Burning goggles with proper shading.
 - c. Grinding or cutting metals - Face shield.*
 - d. Drilling (rock) - Face shield.*
 - e. Chemical handling - Face shield.*
 - f. Molten materials - Face shield.*
 - g. Corrosive liquids - Face shield.*
 - h. Concrete pouring - Face shield.*

Note: *Safety glasses will be worn in conjunction with face shields & welding hoods.
5. Foot Protection: Above the ankle hard-sole work boots or shoes that are in good condition must always be worn. Safety-toed work boots if worn must conform to ASTM F2412-05 & ASTM F2413-05.

1.07 WORK ATTIRE

- A. Clothing
 1. Shirt sleeves will have a minimum length of 4 inches. No shorts, tank tops, or cut-off shirts are permitted.
 2. All personnel shall wear ANSI class II reflective vests or high visibility clothing while in the designated work zone. During the hours of dusk to dawn ANSI class II reflective vests or clothing shall be worn.
 3. Long pants that fit properly around the waist and are of proper length so as not to create a trip hazard.
 4. Long hair must be contained so as not to create a hazard of getting caught.
- B. Respiratory Protection
 1. All Contractors are required to determine if hazards exist that require respiratory protection. If so, the Competent Person must submit a plan to Gehrtz Construction Services prior to the start of work. Respiratory protection would be required if OSHA permissible exposure limits are exceeded, and no means of engineering controls could be used. The subcontractor would be responsible for determining the exposure level by sampling airborne contamination.
 2. When respiratory protection is required, the employer must establish a comprehensive respiratory protection program, as outlined in OSHA's Small Entity Compliance Guide for Respiratory Protection, and as required in the OSHA respiratory protection standard 29 CFR 1910.134 and 29 CFR 1926.103.
 3. Use of Respirators: As the primary means of preventing or minimizing exposures to airborne contaminants, use effective source controls such as substitution, automation, enclosed systems, local exhaust ventilation or wet methods.
- C. Hearing Protection: Approved hearing protection will be worn as specified in posted areas and while working with or around high-noise level producing machines, tools, or equipment. A good rule to follow is: When you must raise your voice to be heard, you need hearing protection. Exposure to impulsive or impact noise must not exceed 140dB noise level. Wired and Wireless earphones are not permitted as hearing protection.
- D. Hand Protection: Workers will wear an appropriate level of hand protection as necessary and as determined by the Competent Person to prevent hand and finger injuries.
- E. Additional Protections: Specific activities may require that additional personal protective equipment be worn such as working on energized circuits. Contractors and their Competent Persons shall evaluate the need for additional protection based on their pre-task safety plan.
- F. Hand and Power Tools: All hand and power tools will be operated, kept in good condition, and regularly maintained per manufacturer's recommendations. Workers working 6 feet or greater above a lower level while using handheld tools and or power tools that may be subject to

dropping shall be tethered or area barricaded to prevent tools from hitting unsuspected workers below.

1.08 DEMOLITION

- A. Demolition plans shall follow OSHA 29 CFR 1926 Subpart T.
- B. Prior to the start of any demolition work, an engineering survey of the building or area to be demolished is required to determine the condition of the area. Debris and material shall not be dropped through walls, floor holes, windows, or other elevated work areas without the area below being barricaded and proper signs posted.
- C. Debris chutes shall have a substantial gate at all elevated openings.
- D. Gehrtz Construction Services may require the demolition Contractor to submit a site-specific fall protection plan if the work requires the removal of exterior walls and or flooring.

1.09 CRANE SAFETY, RIGGING AND HOISTING OPERATIONS

- A. Any Contractor who uses a crane on the Project Site shall adhere to the requirements of 29 CFR 1926.1400 Cranes and Derricks in Construction and ASME B30. All crane operators shall provide required documentation such as annual inspection certification, operator's license, and signalman training when requested.
- B. Each qualified crane operator will be responsible for conducting a detailed daily inspection of their crane and ensuring findings are properly logged in a written daily report.

1.10 FALL PROTECTION

- A. All individuals will take all practical measures to eliminate, prevent, and control fall hazards. All work will be planned with the intent to eliminate identified and potential fall hazards. Gehrtz Construction Services fall protection policy and OSHA 29 CFR 1926.500 Subpart M govern the requirements to protect workers exposed to falls. Gehrtz Construction Services fall protection policy is 100% fall protection when exposed to 6 feet or greater above a lower level. The use of conventional fall protection systems (passive preferred) shall be utilized to protect workers from falls to lower levels. Workers wearing personal fall arrest systems shall not free fall more than 6 feet or contact a lower level.
- B. A written fall protection and prevention plan, including a rescue plan as applicable, may be required as deemed necessary by Gehrtz Construction Services. Contractors engaged in the following shall submit their fall protection plan for approval prior to beginning work on site: Steel erection, concrete (cast in place), wood framing, dry laid masonry wall (segmented), pre-cast concrete walls, tilt-up concrete walls, and roofing work. The plan must be agreed to prior to beginning work and the designated competent person must enforce said plan.
- C. Acceptable fall protection systems include the following conventional systems: guardrails, safety netting, floor and wall hole covers, positioning device systems, fall restraint systems, protection from falling objects and personal fall arrest systems.
 - 1. *****Gehrtz Construction Services does not allow the higher regulatory thresholds for fall protection systems found in Subpart R Steel Erection, Subpart L Scaffold, or Subpart Q Concrete and Masonry, including Pre-Cast Concrete. Safety monitoring system is prohibited.*****
- D. Workers exposed to fall hazards shall be uniformly equipped, trained, and given periodic refresher training in fall protection at specific intervals to minimize the adverse effects of accidental falls. Fall protection training records will be maintained on the project and available for review by Gehrtz Construction Services.

1.11 HAZARDOUS COMMUNICATIONS/SDS

- A. All Contractors will submit their hazardous communication program and SDS to Gehrtz Construction Services prior to the start of work. Each Contractor must supervise employees under their direct supervision for proper training and proper precautions prior to the hazardous chemical's introduction to the jobsite.

1.12 HOT WORK PERMIT REQUIREMENTS

- A. A Hot Work Permit is required for any temporary operation involving open flames or producing heat and/or sparks. This includes, but is not limited to brazing, flame cutting, grinding, soldering, torch applied roofing and welding. Hot Work Permits will be issued by Gehrtz Construction Services and will be filled out by the Contractor engaged in hot work operations in an enclosed building/structure.
- B. All provisions of the Hot Work Permit will be followed including fire watch personnel. Hot Work Permits can be issued for the duration of the hot work but not to exceed the work shift.

1.13 HOUSEKEEPING AND ORDERLINESS

- A. All people shall always maintain their work locations in an orderly and clean manner. Daily cleanup of work areas is mandatory for all.
- B. Gehrtz Construction Services Cleanliness Standard:
 - 1. Dumpsters for general trash, construction debris (wood, metal, concrete... etc.) and recycling will be provided pursuant to contract requirements. Contractors shall provide trash containers on site for general trash and debris. All miscellaneous trash generated by workers shall be deposited in a container or in the back of pickup trucks daily. Do not throw bottles, food wrappers, cups, or any other types of trash on the floor or ground. When containers are 3/4 full, they will be either removed from the site or dumped in a large metal dumpster. Contractors, as required by contract, will provide their own dumpsters for their specific excess materials, and allocate adequate resources to ensure the housekeeping standard is maintained throughout their time on the project. Gehrtz Construction Services shall address this housekeeping standard with all subcontractors prior to beginning work.
- C. General Housekeeping Requirements:
 - 1. Housekeeping is an important part of daily work. All materials, equipment, etc. brought on site shall be organized and stored in areas designated by Gehrtz Construction Services. Trade partners are responsible for organizing material, equipment, and tools so they do not create tripping hazards or impede/block exits. Trade partners are responsible for the daily clean-up of excess material and debris which shall be deposited in appropriate containers throughout the day. When work is completed in a room or area, all excess material and debris shall be removed and broom cleaned.

1.14 LADDER SAFETY

- A. Gehrtz Construction Services requires all portable ladders to be rated heavy duty Type 1, 1A, or 1AA. Type II or Type III Ladders (<225 Lbs.) & all types of aluminum ladders are prohibited. Job-made ladders shall comply with ANSI A14.4 1979 and 2009 as well as OSHA 29 CFR 1926 Subpart X. Contractor Competent Person shall evaluate the use of person fall protection systems while on ladders great than 6 feet above the finished floor the ladder sits on.
- B. If working on a ladder near an edge or opening, the employee shall be a distance equal to the height of the ladder plus four feet from the edge or opening or use a fall arrest or restraint system to prevent a greater fall distance.
- C. Refer to manufacturer's specifications for the proper use of all ladders.

1.15 STEEL ERECTION

- A. The steel erection Contractor shall submit a written steel erection plan to Gehrtz Construction Services prior to any work being performed. The plan must be comprehensive and include all aspects of the erection process, including but not limited to storage/staging of materials, equipment for hoisting materials, routes for lifting operations, critical lifts, rigging procedures, connection procedures, erection bridging procedures, stability requirements, fall protection requirements, decking procedures, and proper training of workers. Steel erection procedures shall follow OSHA 29 CFR 1926.750 Subpart R - Steel Erection Standard and any supplemental requirements required by Gehrtz Construction Services. The following requirements shall be incorporated in the plan:

1. 100% continuous fall protection for heights 6 feet or greater above a lower level. Workers engaged in steel erection activities to include connecting, bolt-up and decking are not exempt from the project's 100% fall protection requirements.
2. During skeletal steel erection, a tightly planked temporary floor shall be maintained within 2 stories or 30 feet, whichever is less, below, and directly under that portion of each tier of beams on which any work is being performed.
3. During structural steel assembly, a safety railing of wire rope (at least 3/8" dia.) or equivalent shall be installed. The top railing should be 45 inches and a mid-railing at 22 inches above the deck along all open sides including stairway landings and elevator shafts. The railing must support 200 lbs. of downward force and not deflect below 39 inches and shall not deflect outward beyond the edge of the floor. Flagging must be placed no more than every 6 feet apart using a hi-visibility material.
4. When placing structural steel members, the load shall not be released from the hoisting line until the member is secured by at least two bolts or the equivalent at each connection, drawn up wrench tight.

1.16 TRENCHING & EXCAVATION SAFETY

- A. The following regulations apply to all trenching and excavation activities on this site: OSHA 29 CFR 1926 Subpart P.
 1. Any Contractor engaged in trenching operations deeper than 5 feet shall designate a Competent Person and inform Gehrtz Construction Services.
 2. Underground utilities must be located.
 3. Trenches or excavations greater than 5 feet in depth shall be sloped, benched, or otherwise protected from cave-ins as determined by the Competent Person. Sloping, benching or other protective systems are recommended for any trenches and excavations over 3 feet in depth.
 4. Protective systems designed to be placed in trenches such as trench boxes must have tabulated data available for review as necessary. Trench boxes shall have permanent identification to link it to manufacturer's tabulated data.
 5. Spoil piles and other materials will be placed a minimum of 2 feet from the edges of all trenches and excavations.
 6. In trenches deeper than 4 feet, locate means of egress, such as ladders or steps or ramps (45-degree slope), so they are no more than 25 feet of travel from anyone in the trench.
 7. The Competent Person must inspect all trenches daily before work begins and after every rainstorm or other hazardous conditions. A Competent Person shall be onsite during trenching and excavating activities.
 8. A registered professional engineer must design all excavation and protective systems over 20 feet in depth.

1.17 UNDERGROUND UTILITY LOCATIONS

- A. Any Contractor who digs a trench or excavation shall call the State appropriate 811 service. Before digging, be sure that all utilities have responded to the locate request.

1.18 DOCUMENTS

- A. **This document is not all encompassing of Gehrtz Construction Services safety policies.**
Reference:
 1. **Gehrtz Construction Services Site-Specific Safety Policies (SSSP),**
 2. **OSHA 29 CFR 1926 Construction Safety Standards,**
 3. **OSHA 29 CFR 1910 General Industry Standards (as applicable),**
 4. **Your company's safety policies and procedures,**
 5. **Specific State safety regulations,**
 6. **Specific Owner requirements,**
- B. **for additional information regarding policies and procedures. If any of these standards, requirements, or procedures conflict, the more stringent requirement shall prevail.**

PART 2 PRODUCTS - NOT USED
PART 3 EXECUTION - NOT USED

END OF SECTION

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**SECTION 01 3216
PROJECT CONSTRUCTION SCHEDULE**

PART 1 GENERAL

1.01 SUMMARY

- A. General Construction Timeline
 - 1. Construction Start Date: See attached schedule.
 - 2. Construction Completion: See attached schedule.
 - a. The entire project must be fully completed including major punch list items.
 - b. In no case will the deadline be extended.
 - 3. Refer to the Construction Schedule included herein for intermediate completion dates.
- B. Project Construction
 - 1. The Construction Schedule will become part of each Contractor's contract.
 - 2. There are no liquidated damages or penalties associated with any of the contracts for this project. However, each Contractor will be contractually required to commit adequate resources, both on-site and administrative, to ensure timely delivery of materials, equipment, and labor necessary to meet the Construction Schedule. If during the course of the construction period a Contractor is unable to confirm their ability to meet the Construction Schedule or has demonstrated the same, the Owner reserves the right to terminate the contract and, if possible, secure another Contractor that can meet the Construction Schedule.
 - 3. Time and Personnel: Each bidder shall include in their proposal adequate provisions for time and personnel to meet the Construction Schedule which could include overtime if necessary.
 - 4. Material and Equipment Delivery: If the delivery time for any material or equipment indicated on the drawings or specified herein is anticipated by a bidder to pose a risk to meeting the Construction Schedule, the bidder is asked to contact the Construction Manager immediately so that any necessary adjustments can be made to maintain the Schedule.
 - 5. Material Storage: Deliver materials only as needed for each day's work to be completed, or as agreed upon by the Construction Manager. Site storage space will be limited.
 - 6. The Architect will make every effort to expedite the project through prompt review of shop drawings, early decisions regarding construction questions, and any other assistance that can be offered the Contractors during the construction process.

1.02 SUBMITTALS

- A. Within 10 days after date of Agreement, submit preliminary schedule defining planned operations for the first 60 days of Work, with a general outline for remainder of Work.
- B. If preliminary schedule requires revision after review, submit revised schedule within 10 days.
- C. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
 - 1. Include written certification that major contractors have reviewed and accepted proposed schedule.
- D. Within 10 days after joint review, submit complete schedule.
- E. Submit updated schedule with each Application for Payment.
- F. Submit in PDF format.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 CONTENT

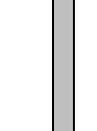
- A. Show complete sequence of construction by activity, with dates for beginning and completion of each element of construction.

- B. Identify each item by specification section number.
- C. Identify work of separate stages and other logically grouped activities.
- D. Show accumulated percentage of completion of each item, and total percentage of Work completed, as of the first day of each month.
- E. Indicate delivery dates for owner-furnished products and products identified under Allowances.
- F. Provide legend for symbols and abbreviations used.

3.02 UPDATING SCHEDULE

- A. Maintain schedules to record actual start and finish dates of completed activities.
- B. Indicate progress of each activity to date of revision, with projected completion date of each activity.
- C. Annotate diagrams to graphically depict current status of Work.
- D. Identify activities modified since previous submittal, major changes in Work, and other identifiable changes.
- E. Indicate changes required to maintain Date of Substantial Completion.
- F. Submit reports required to support recommended changes.

END OF SECTION

Issued: 02/17/2026 FPS 2026 Misc. Projects Fargo, ND Project No. 25-028 Project Schedule																															
		2026			April		May		June		July		August		September		October														
		6	13	20	27	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10	17	24	31	7	14	21	28	5	12	19	26
DISCOVERY MIDDLE SCHOOL																															
7A																															
TROLLWOOD PERFORMING ARTS																															
5C		MOISTURE PROTECTION / ROOFING																													
5D		Misc. Metals - Materials																													
9I		Misc. Metals - Labor																													
26		Painting																													
		Electrical Systems																													
BENNETT ELEMENTARY SCHOOL																															
59		Structural Steel Materials & Erection																													
22		Plumbing																													
23		HVAC																													
26		Electrical Systems																													
DAVIES HIGH SCHOOL																															
31		Earthwork																													
32A		Paving & Surfacing Concrete																													
JEFFERSON ELEMENTARY SCHOOL																															
3A		Concrete																													
4		Masonry																													
10A		Signage																													
26		Electrical Systems																													
31		Earthwork																													
LONGFELLOW ELEMENTARY SCHOOL																															
3A		Concrete																													
4		Masonry																													
10A		Signage																													
26		Electrical Systems																													
31		Earthwork																													
NORTH HIGH SCHOOL																															
7A		Moisture Protection																													
22		Plumbing																													
23		HVAC																													
26		Electrical Systems																													
SOUTH HIGH SCHOOL																															
3A		Concrete																													
6A		General Work and Labor																													
7A		Moisture Protection / Metal Panels																													
8E		Glazing Systems																													
9B		Drywall / Painting																													
9E		Acoustical																													
9G		Resilient Flooring & Carpet																													
22		Plumbing																													
23		HVAC																													
26		Electrical Systems																													

**SECTION 01 33 10
SUBMITTALS****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Submittal Procedures.

1.02 RELATED REQUIREMENTS

- A. General Conditions of the Contract: Definitions and basic responsibilities of entities.
- B. Supplementary Conditions: Coordination of construction schedule.
- C. Section 01 20 00 - Price and Payment Procedures.
- D. Section 01 40 00 - Quality Requirements: Testing Laboratory reports.
- E. Section 01 45 30 - Special Inspections: Reports.
- F. Section 01 45 31 - Special Structural Testing and Inspection Program Summary Schedule.
- G. Section 01 60 00 - Product Requirements: Subcontractors, Suppliers and Manufacturers List.
- H. Section 01 77 00 - Closeout Procedures.
- I. Section 01 78 00 - Closeout Submittals.
- J. Section 01 78 10 - Project Record Documents.

1.03 CONSTRUCTION SCHEDULE:

- A. General Contractor shall prepare in cooperation with other Prime Contractors and submit three copies of horizontal bar chart with separate bar for each major trade or operation, identifying first workday of each week. Indicated when addition will be enclosed. Submit written evidence of other Prime Contractors concurrence with schedule.
- B. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities.

1.04 SCHEDULE OF VALUES:

- A. Submit three copies of typed schedule on Request for Payment form furnished by Architect.
- B. List separate "labor" and "materials" value for each Specification Section, except where only labor is involved. Each value shall include directly proportional amount of Contractor's overhead and profit.
- C. List separate value item for temporary Facilities, Insurance, Supervision, Bond, etc.
- D. Sum of all values listed in Schedule shall equal total Contract Sum.
- E. First Application for Payment cannot be processed until Construction Schedule, Subcontractors, Suppliers and Manufacturers List, Schedule of Submittals, Special Structural Testing and Inspection Program Summary Schedule, and completed Schedule of Values have been received by Architect.
- F. Revise Schedule of Values to list Change Orders for each request for payment.

1.05 SUBCONTRACTORS, SUPPLIERS AND MANUFACTURERS LIST:

- A. Submit in accordance with Section 01 60 00.

1.06 SPECIAL STRUCTURAL TESTING AND INSPECTION PROGRAM SUMMARY SCHEDULE:

- A. As soon as possible after award of Contract, submit completed Special Structural Testing and Inspection Program Summary Schedule found in Section 01 45 31. The Building Permit will not be issued nor can the first Application for Payment be processed until the form has been submitted to the Architect and accepted by the Building Official.

1.07 SHOP DRAWINGS:

- A. Shop Drawings may be submitted in electronic (pdf) format.

- B. Present in clear and thorough manner. Title each Drawing with Project name and number. Identify each element of Drawing by reference to sheet number and detail, schedule or room number of Contract Documents.
- C. Identify field dimensions; show relation to adjacent or critical features of Work or products. Identify product(s). Indicate applicable standards such as ASTM or Federal Specification numbers. Identify deviations from Contract Documents.

1.08 PRODUCT DATA:

- A. Product data may be submitted in either paper or electronic (pdf) format.
- B. Submit only pages which are pertinent; clearly mark each copy of standard printed data to identify pertinent products, colors, options and accessories, referenced to Specifications Section, page and line number. Show reference standards, performance characteristics and capacities; wiring and piping diagrams and controls; component parts; finishes; dimensions and required clearances.
- C. Modify manufacturer's standard schematic Drawings and diagrams to supplement standard information and to furnish information specifically applicable to the Work. Delete information not applicable. Identify deviations from Contract Documents.
- D. Submit manufacturer's preparation, assembly and installation instructions.

1.09 SAMPLES:

- A. Submit full range of manufacturer's standard finishes except when more restrictive requirements are specified, indicating colors, textures and patterns for Architect's selection.
- B. Submit samples to illustrate functional characteristics of products, including parts and attachments.
- C. Approved samples which may be used in the Work are indicated in the Specifications Section.
- D. Label each sample with identification required for transmittal letter.
- E. Furnish field samples of finishes at Project site at location acceptable to Architect, as required by individual Specification Section. Install each sample complete and finished. Applicable finishes in place may be retained in completed Work. Remove other samples at conclusion of Work or when acceptable to Architect.

1.10 CERTIFICATIONS:

- A. Definition: Certifications are manufacturer's testimonials prepared by manufacturer or by an independent testing agency which certify conformance with specified requirements.
- B. Content: Identify product by reference to Specification Section, and by reference to applicable Drawings. Clearly mark each copy to identify pertinent model, if more than one certification is required.

1.11 TEST REPORTS:

- A. Reports of field testing as required by individual Sections. Furnish reports to the Authority Having Jurisdiction as required.

1.12 CONTRACTOR REVIEW:

- A. Review and stamp Shop Drawings and Product Data prior to transmittal; determine and verify field measurements, field construction criteria, manufacturer's catalog numbers and conformance of submittal with requirements of Contract Documents.
- B. Coordinate submittals with requirements of Work and of Contract Documents.
- C. Apply Contractor's stamp, signed or initialed, to the Submittal Transmittal of each submittal certifying to review, verification of products, field dimensions and field construction criteria and coordination of information with requirements of Work and Contract Documents. Notify Architect in writing at time of submittal of any deviations from requirements of Contract Documents.

- D. Submittals which do not bear Contractor's signed or initialed approval stamp certifying compliance, and submittals which are not in conformance with the requirements of this Section will be returned to Contractor. Submittals which have numerous deviations from the requirements of the Contract Documents indicating insufficient review by the Contractor will be returned to the Contractor for further review prior to review by the Architect.
- E. Do not fabricate products or begin Work which requires submittals until return of submittal with Architect's acceptance.

1.13 SUBMITTAL REQUIREMENTS:

- A. Submit minimum of four (4) sets of Shop Drawings and Product Data for printed submittals. Only one (1) electronic copy of submittals, when acceptable, need be submitted. After review by Architect, and Engineer when applicable, minimum of two (2) sets of approved or revised documents will be returned to the Contractor for revisions or distribution to Subcontractors and Suppliers. Electronic submittals will be returned to the Contractor(s) by e-mail.
- B. Submit number of samples required by individual Specification Section.
- C. Transmit each Submittal under separate transmittal form. Identify Project, Contractor, Subcontractor, major supplier; identify pertinent Drawing Sheet and detail number and Specification Section number, as appropriate. Identify deviations from Contract Documents.
- D. Comply with construction schedule for submittals related to Work progress. Coordinate submittal of related items.
- E. Coordinate submittals into logical groupings to facilitate interrelation of several items:
- F. Finishes which involve Architect's selection of colors, textures, or patterns. Associated items which require correlation for efficient function or for installation.
- G. Submit Foundation, Wall and Roof Assembly Data Sheets within (30) days after award of contract.
 - 1. Concrete
 - 2. Masonry
 - 3. Metals - Framing Materials, Structural Components
 - 4. Wood, Pastics & Composites
 - 5. Thermal & Moisture Protection - Insulation, Air barriers, Roofing , Siding & Moisture Barriers
 - 6. Openings - Doors, Windows, Skylights & Overhead Doors
 - 7. Finishes - Gypsum Board & Sheathing
 - 8. Special Construction - Glazed Structures and Metal Building Systems

1.14 RESUBMITTALS:

- A. Make resubmittals under procedures specified for initial submittals; identify changes made since previous submittal.

1.15 DISTRIBUTION:

- A. Duplicate and distribute reproductions and/or copies of Shop Drawings and copies of Product Data and Samples which bear Architect's stamp of approval to job site file, Record Documents file, Subcontractors, Suppliers and other entities requiring information and for inclusion in Maintenance Manual when required by individual Section.

1.16 CLOSEOUT SUBMITTALS:

- A. Submit in accordance with Section 01 78 00.

PART 2 PRODUCTS - NOT USED**PART 3 EXECUTION - NOT USED****END OF SECTION**

**SECTION 01 35 00
SPECIAL PROCEDURES**

PART 1 GENERAL:

1.01 SECTION INCLUDES

- A. Special Procedures
 - 1. Related requirements.
 - 2. General information.
 - 3. Sequence of Work

1.02 RELATED REQUIREMENTS

- A. Section 01 14 00 - Work Restrictions.
- B. Section 01 50 00 - Temporary Facilities and Controls.
- C. Section 01 74 00 - Cleaning.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 GENERAL INFORMATION

- A. The Contractor shall endeavor to reduce the amount of construction waste to be sent to the landfill whenever possible. Materials that should be considered for recycling include asphalt, concrete, lumber, aluminum, steel, and new gypsum board.
- B. The Contractor is encouraged to recycle general solid waste such as steel and aluminum cans, glass and plastic bottles, newspapers, magazines and cardboard. See Section 01 74 00 Cleaning.
- C. The **CONTRACTOR MUST ORDER INTERIOR FINISHES RIGHT AWAY** for materials to arrive in time to meet the project timelines.

3.02 SEQUENCE OF WORK:

- A. The following sequence of construction for remodeling and additions has been compiled to inform Contractors when they can work in certain areas and when completion of certain areas is desired.
- B. Each Contractor and all Subcontractors shall comply with sequence. Any necessary deviation shall be worked out in compiling Construction Schedule or by notice to Architect sufficiently in advance to allow discussion with and action by Owner.
- C. **Final completion for ALL WORK for the entire project shall be reached on or before mm-dd-yyyy**

END OF SECTION

**SECTION 01 40 00
QUALITY REQUIREMENTS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Quality Control.
- B. Submittals.
- C. Quality assurance.
- D. Testing and inspection agencies and services.
- E. Defect Assessment.

1.02 RELATED REQUIREMENTS

- A. Section 00 31 32 - Geotechnical Data: Soil investigation data.
- B. Document 00 72 00 - General Conditions: Inspections and approvals required by public authorities.
- C. Section 01 33 00 - Submittal Procedures: Submittal procedures.
- D. Section 01 42 16 - Definitions.
- E. Section 01 42 19 - Reference Standards.
- F. Section 01 45 30 - Special Inspections: Code required special inspections and tests.
- G. Section 01 78 00 - Closeout Submittals: Operation and Maintenance Manuals.
- H. Each Specification Section Herein Listed: Laboratory tests required and standards for testing.
- I. Respective Specification Sections: Certification of Products.

1.03 REFERENCE STANDARDS

- A. IAS AC89 Accreditation Criteria for Testing Laboratories, 2021
- B. ASTM E329 - Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection.

1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Submit copy of report of inspection of facilities made by Materials Reference Laboratory of National Bureau of Standards during most recent tour of inspection, with memorandum of remedies of any deficiencies reported by inspection.
- C. Design Data: Submit for Architect's knowledge as contract administrator for the limited purpose of assessing compliance with information given and the design concept expressed in the Contract Documents, or for Owner's information.
- D. Test Reports: After each test/inspection, promptly submit two copies of report to Architect and to Contractor.
 - 1. Include:
 - a. Date issued.
 - b. Project title and number.
 - c. Testing laboratory name, address and telephone number.
 - d. Name and signature of laboratory inspector and field inspector(s) and list of inspector's certification(s).
 - e. Date and time of sampling or inspection.
 - f. Record of temperature and weather conditions.
 - g. Identification of product and specifications section.
 - h. Location of sample or test in the Project.
 - i. Type of test/inspection.

- j. Date of test/inspection.
 - k. Results of test/inspection.
 - l. Compliance with Contract Documents.
 - m. When requested by Architect, provide interpretation of results.
2. Test report submittals are for Architect's knowledge as contract administrator for the limited purpose of assessing compliance with information given and the design concept expressed in the Contract Documents, or for Owner's information.

1.05 QUALITY ASSURANCE

- A. Testing Agency Qualifications:
 - 1. Prior to start of work, submit agency name, address, and telephone number, and names of full time registered Engineer and responsible officer.
 - 2. Submit copy of report of laboratory facilities inspection made by NIST Construction Materials Reference Laboratory during most recent inspection, with memorandum of remedies of any deficiencies reported by the inspection.
 - 3. Qualification Statement: Provide documentation showing testing laboratory is accredited under IAS AC89.

1.06 REFERENCES AND STANDARDS - SEE SECTION 01 42 19

1.07 TESTING AND INSPECTION AGENCIES AND SERVICES

- A. Owner will employ and pay for services of an independent testing agency to perform specified testing and inspection.
- B. Contractor shall cooperate with laboratory to facilitate execution of its required services. Owner's employment of laboratory shall in no way relieve Contractor's obligations to perform Work of Contract in compliance with the Contract Document requirements.
- C. Approved Testing Laboratories: Braun Intertec Corporation; Northern Technologies, LLC.; Lakehead Testing Laboratory, Inc.; Midwest Testing Laboratory, Inc.; Interstate Testing Service; Soil Exploration Company; Independent Testing Technologies; Terracon Consultants, Inc..
 - 1. Meet "Recommended Requirements for Independent Laboratory Qualifications," published by American Council of Independent Laboratories.
 - 2. Inspection agency: Comply with requirements of ASTM D3740 and ASTM E329.
 - 3. Laboratory: Authorized to operate in the State in which the Project is located.
 - 4. Testing Equipment: Calibrated at reasonable intervals by devices of accuracy traceable to either National Bureau of Standards or Accepted Values of Natural Physical Constants.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 TESTING AND INSPECTION

- A. See individual specification sections for testing and inspection required. Sampling and/or testing is required for:
 - 1. Cast-In-Place Concrete: Section 03 30 00.
 - 2. Masonry Mortaring and Grouting: Section 04 05 00.
 - 3. Unit Masonry: Section 04 20 00.
 - 4. Metal Fabrications: Section 05 50 00.
 - 5. Elastomeric Membrane Roofing: Section 07 53 00.
 - 6. Firestopping: Section 07 84 00.
- B. Testing Agency Duties:
 - 1. Provide qualified personnel at site after due notice. Cooperate with Architect and Contractor in performance of services.
 - 2. Perform specified inspections, sampling and testing of products and methods of construction in accordance with specified standards.

3. Ascertain compliance of materials and mixes with requirements of Contract Documents and specified standards.
 4. Promptly notify Architect and Contractor of observed irregularities or non-compliance of Work or products.
 5. Perform additional tests and inspections required by Architect.
 6. Submit written reports of all tests/inspections specified to Architect, the Owner, Contractor, Structural Engineer as applicable, building official and the Owner's consultant(s).
- C. Limits on Testing/Inspection Agency Authority:
1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 2. Agency may not approve or accept any portion of the Work.
 3. Agency may not assume any duties of Contractor.
 4. Agency has no authority to stop the Work.
- D. Contractor Responsibilities:
1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs. The Contractor is responsible for the cost of each.
 2. Cooperate with laboratory personnel, and provide safe access to the Work requiring testing/ observations and secure and protect samples and testing equipment.
 3. Furnish copies of Products test reports as required.
 4. Provide incidental labor and facilities:
 - a. To provide safe access to Work to be tested/inspected.
 - b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
 - c. To facilitate tests/inspections.
 - d. To provide storage and curing of test samples.
 5. Notify Architect and laboratory 48 hours prior to expected time for operations requiring testing/inspection services.
 6. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
- E. Re-testing and/ or re-observation required because of non-compliance with specified requirements shall be performed by the same agency on instructions by Architect.
- F. Re-testing and/ or re-observation required because of non-compliance with specified requirements shall be paid for by Contractor including additional services of the A/E, A/E's consultants, and the Owner's consultants, and shall be deducted from the Contract amount by deductive Change Order.

3.02 DEFECT ASSESSMENT

- A. Responsible Contractor shall replace Work or portions of the Work not conforming to specified requirements.

END OF SECTION

**SECTION 01 42 13
ABBREVIATIONS AND ACRONYMS**

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. Basic definitions relating to standard abbreviations and acronyms referenced throughout the contract documents.
- B. Where no definition is given for an abbreviation or acronym referenced in the contract documents the industry standard definition shall apply. Where an industry standard definition does not exist the Merriam-Webster definition shall apply. Where a Merriam-Webster definition does not exist the Architect shall interpret and determine the applicable definition.

1.02 DEFINITIONS

@	At	BRKT	Bracket	CORR	Corridor
AB	Anchor bolt	BSMT	Basement	CR	Cold rolled
AC	Acoustic	BTW	Between	CSMT	Casement
A/C	Air conditioner(ing)	BUR	Built-up roofing	CT	Ceramic tile
ACB	Acoustic ceiling board	C	Channel	CTR.	Center/ counter
ACOUS	Acoustical	CAB	Cabinet	CTSK	Countersink(sunk)
ACRY	Acrylic	CPT	Carpet	CUST	Custodian
AD	Access door	CSNG	Casing	DBL.	Double
ADJ	Adjustable	CB	Chalkboard	DF	Drinking fountain
AFF	Above finish floor	C.B.	Catch basin	DH	Doublehung
AFG	Above finish grade	CCJ	Construction control joint	DIA	Diameter
ALT	Alternate	CEM	Cement	DIAG	Diagonal
ALUM	Aluminum	CER	Ceramic	DIM	Dimension
ANCH	Anchor	CFM	Cubic feet per minute	DISP	Dispenser
ANOD	Anodized	CG	Corner guard	DL	Dead load
AP	Access panel	C&G	Curb & gutter	DN	Down
APPROX	Approximate	CH	Coat hook	DO	Ditto (the same)
ARCH	Architect(ural)	CJ	Control joint	DR	Door
ASB	Asbestos	CL	Centerline	DRWG	Drawing
ATTEN	Attenuation	CLG	Ceiling	DS	Downspout
BD	Board/ bead	CLR	Clear	DT	Double tee/ drain tile
		CMaR	Construction Manager at Risk		
BITUM	Bituminous	CMU	Concrete masonry unit	DET/ DTL	Detail
BLKT	Blanket	CO	Clean out	DW	Dishwasher
BLDG	Building	COL	Column	DWG	Drawing

SECTION 01 42 13 Abbreviations and Acronyms

BLK	Block	COMP	Composition	DWL	Dowel
BLKG	Blocking	CONC	Concrete	E	East
BM	Beam	CONN	Connect	EA	Each
BM	Bench Mark	CONST	Construction	EJ	Expansion joint
BOT	Bottom	CONT	Continuous	ELEC	Electrical
BRG	Bearing	CONTR	Contractor	ELECT	Electrical
EL	Elevation	GRND	Ground	MAX	Maximum
ELEV	Elevation	GR	Grille	MB	Mop basin
EM	Emergency	GYP	Gypsum board	MC	Metal channel
		BD			
ENAM	Enamel	GYP	Gypsum	MDO	Medium density overlay
ENTR	Entrance	GWB	Gypsum wall board	MECH	Mechanical
EQ	Equal	H	High	MEMB	Membrane
EQUIP	Equipment	HC	Hollow core	MET	Metal
ETT	Epoxy terrazzo tile	HD	Heavy duty	MFR	Manufacturer
EW	Each way	HDBD	Hardboard	MH	Manhole
EWC	Electric water cooler	HDCP	Handicap	MK	Mark
EXIST	Existing	HDWD	Hardwood	MIL	Millimeter
EXP	Expansion/ exposed	HM	Hollow metal	MIN	Minimum
EXP	Expansion joint	HORIZ	Horizontal	MISC	Miscellaneous
JT					
EXT	Exterior	HP	Horsepower	MNT	Mount
FD	Floor drain	HR	Hour	MTD	Mounted
FDN	Foundation	HT	Height	MO	Masonry opening
FF	Finish floor	HTR	Heater	MTL	Metal/ material
FH	Flat head	HVAC	Heating, ventilating & air conditioning	MULL	Mull
FIN	Finish	HW	Hot water	N	North
FIXT	Fixture	ID	Inside diameter	NAP	Napkin
FLEX	Flexible	IJ	Isolation joint	NEC'Y	Necessary
FLG	Flashing/ flange	IN	Inch	NO/ #	Number
FLR	Floor	INSUL	Insulat(ion)(ed)(ing)	NOM	Nominal
FO	Finished opening	INT	Interior/ Internal	NTS	Not to scale
FOIC	Furnished by owner contractor installed	INV	Invert	OA	Overall length
FP	Fire protection	JB	Junction box	OBSC	Obscure
FR	Fire retardant	JST	Joist	OC	On center

SECTION 01 42 13 Abbreviations and Acronyms

FS	Floor sink	JT	Joint	OD	Outside diameter
FT	Foot/ feet	KD	Knockdown	OF	Outside face
F TR	Fire treated	LAM	Laminate(d)	OH	Overhead
FTG	Footing	LAV	Lavatory	OPG	Opening
FURR	Furring	LB/ #	Pound	OPNG	Opening
FE	Fire extinguisher	LH	Left hand	OPP	Opposite
GA	Gauge	LOC	Location	PART	Partial
GALV	Galvanized	LONGIT	Longitudinal	PARTN	Partition
GB	Grab bar	LT	Light	PC	Precast concrete
GC	General contractor	LT WT	Light weight	PGB	Painted gyp. bd.
GEN	General	MACH	Machine	PI	Position indicator
GL	Glass	MANUF	Manufacturer	PLYWD	Plywood
GLZD	Glazed	MAS	Masonry	POL	Polish(ed)
POLY	Polyethylene	RH	Right hand	TOC	Top of curb (concrete)
PORC	Porcelain	RI	Rough in	TEL(E)	Telephone
PORT	Portland	RL	Rain leader	T & G	Tongue & groove
PR	Pair/ proposal request	RM	Room	THLD	Threshold
PREF	Prefinished	RND	Round	THRU	Through
PROP	Property	RO	Rough opening	TOB	Top of beam
PSF	Pounds per square foot	RS	Rough sawn	TOF	Top of footing
PSI	Pounds per square inch	R & S	Rod & shelf	TOFLR	Top of floor
PT	Paint	RTG	Rating	TOJ	Top of joist
PTD	Painted	S	South	TPH	Toilet paper holder
PVC	Polyvinylchloride	SA	Supply air	TUB	Tubular
QT	Quarry tile	SAN	Sanitary	TYP	Typical
QTR	Quarter	SC	Solid core	UG	Underground
QTZ	Quartz	SCHED	Schedule	UNEX	Unexcavated
R	Riser/ radius/ rubber	SD	See detail	UNFIN	Unfinished
RA	Return Air	SECT	Section	UNPT	Unpainted
RAD	Radius	SF	Square feet	V	Verify/ volt
RB	Rubber Base	SGL	shingle	VCT	Vinyl composite tile
RD	Roof drain	SHTHG	Sheathing	VEN	Veneer
REC	Recessed	SHT	Sheet	VERT	Vertical
RECPT	Receptacle	SIM	Similar	VOL	Volume

SECTION 01 42 13 Abbreviations and Acronyms

RE/ REF	Reference	SPEC	Specifications	VSF	Vinyl sheet flooring
REFR	Refrigerator	SQ	Square	VWC	Vinyl wall covering
REFL	Reflected	SS	Stainless steel/ service sink	W	Wide/ west
REG	Register	STAG	Staggered	W/	With
REINF	Reinforcing	STD	Standard	WC	Water closet
REQD	Required	STL	Steel	WD	Wood
RES	Resistant	STOR	Storage	WDW	Window
RESIL	Resilient	STRUCT	Structural	WF	Wide flange
RET	Return/ retaining	SUSP	Suspended	WP	Waterproofing
REV	Revised	SV	Sheet Vinyl	WT	Weight
RFG	Roofing	T	Tire/ tread	WWF	Welded wire fabric

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 01 4216
DEFINITIONS**

PART 1 GENERAL

1.01 SUMMARY

- A. This section supplements the definitions contained in the General Conditions.
- B. Other definitions are included in individual specification sections.

1.02 DEFINITIONS

- A. Furnish: To supply, deliver, unload, and inspect for damage.
- B. Install: To unpack, assemble, erect, apply, place, finish, cure, protect, clean, start up, and make ready for use.
- C. Product: Material, machinery, components, equipment, fixtures, and systems forming the work result. Not materials or equipment used for preparation, fabrication, conveying, or erection and not incorporated into the work result. Products may be new, never before used, or re-used materials or equipment.
- D. Project Manual: The book-sized volume that includes the procurement requirements (if any), the contracting requirements, and the specifications.
- E. Provide: To furnish and install.
- F. Supply: Same as Furnish.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

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**SECTION 01 42 19
REFERENCE STANDARDS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Requirements relating to referenced standards.

1.02 QUALITY ASSURANCE

- A. For products or workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard of date of issue current on date of Contract Documents, except where a specific date is established by applicable code.
- C. Furnish copy of standard where needed for proper performance of Work. Obtain directly from publication sources.
- D. Should specified reference standards conflict with Contract Documents, request clarification from the Architect before proceeding.
- E. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of the Architect shall be altered by the Contract Documents by mention or inference otherwise in any reference document.

1.03 SCHEDULE OF REFERENCES

- A. Where acronyms or abbreviations are used in Specifications, they are defined to mean industry recognized name of trade association, standards generating organization, governing authority or other entity applicable to provision.
- B. The following acronyms or abbreviations as referenced in Specification Sections are subject to change and are believed to be, but not assured to be, accurate and up-to-date as of date of Contract Documents (not all acronyms or abbreviations are used on Drawings):

1.04 CONSTRUCTION INDUSTRY ORGANIZATION DOCUMENTS

- A. AA -- ALUMINUM ASSOCIATION, INC.
- B. AABC -- ASSOCIATED AIR BALANCE COUNCIL
- C. AAMA -- AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION
- D. AASHTO -- AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
- E. ACI -- AMERICAN CONCRETE INSTITUTE INTERNATIONAL
- F. ACPA - AMERICAN CONCRETE PAVEMENT ASSOCIATION
- G. AGA -- AMERICAN GALVANIZERS ASSOCIATION, INC.
- H. AHA -- AMERICAN HARDBOARD ASSOCIATION
- I. AHAM -- ASSOCIATION OF HOME APPLIANCE MANUFACTURERS:
- J. AHRI -- AIR-CONDITIONING, HEATING, AND REFRIGERATION INSTITUTE
- K. AI -- THE ASPHALT INSTITUTE
- L. AIA -- THE AMERICAN INSTITUTE OF ARCHITECTS
- M. AISC -- AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC.
- N. AISI -- AMERICAN IRON AND STEEL INSTITUTE
- O. AITC -- AMERICAN INSTITUTE OF TIMBER CONSTRUCTION
- P. ALSC -- AMERICAN LUMBER STANDARDS COMMITTEE

- Q. AMCA -- AIR MOVEMENT AND CONTROL ASSOCIATION INTERNATIONAL, INC.
- R. ANSI -- AMERICAN NATIONAL STANDARDS INSTITUTE
- S. APA -- APA - THE ENGINEERED WOOD ASSOCIATION
- T. API -- ALLIANCE FOR THE POLYURETHANES INDUSTRY, AMERICAN PLASTICS COUNCIL
- U. ARI -- AIR-CONDITIONING AND REFRIGERATION INSTITUTE (See AHRI)
- V. ARMA -- ASPHALT ROOFING MANUFACTURERS ASSOCIATION
- W. ASA -- ACOUSTICAL SOCIETY OF AMERICA
- X. ASC -- ADHESIVE AND SEALANTS COUNCIL
- Y. ASCA -- ARCHITECTURAL SPRAY COATERS ASSOCIATION
- Z. ASCE -- AMERICAN SOCIETY OF CIVIL ENGINEERS
- AA. ASHRAE -- AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS, INC.
- BB. ASME -- THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS
- CC. ASTM - American Society for Testing and Materials.
- DD. ASTM A Series -- ASTM INTERNATIONAL
- EE. ASTM B Series -- ASTM INTERNATIONAL
- FF. ASTM C Series -- ASTM INTERNATIONAL
- GG. ASTM D Series -- ASTM INTERNATIONAL
- HH. ASTM E Series -- ASTM INTERNATIONAL
- II. ASTM F Series -- ASTM INTERNATIONAL
- JJ. ASTM G Series -- ASTM INTERNATIONAL
- KK. AWCI -- ASSOCIATION OF THE WALL AND CEILING INDUSTRIES INTERNATIONAL
- LL. AWI -- ARCHITECTURAL WOODWORK INSTITUTE
- MM. AWMA -- AMERICAN WALNUT MANUFACTURERS ASSOCIATION
- NN. AWPA -- AMERICAN WOOD-PRESERVERS' ASSOCIATION
- OO. AWPB -- AMERICAN WOOD PRESERVERS BUREAU
- PP. BHMA -- BUILDERS HARDWARE MANUFACTURERS ASSOCIATION
- QQ. BIA -- BRICK INDUSTRY ASSOCIATION
- RR. CDA -- COPPER DEVELOPMENT ASSOCIATION, INC.
- SS. CRI -- CARPET AND RUG INSTITUTE
- TT. CRA -- CALIFORNIA REDWOOD ASSOCIATION
- UU. CRSI -- CONCRETE REINFORCING STEEL INSTITUTE
- VV. CTI -- CERAMIC TILE INSTITUTE
- WW. DHI -- DOOR AND HARDWARE INSTITUTE
- XX. EIMA -- EXTERIOR INSULATION MANUFACTURERS ASSOCIATION
- YY. FGMA -- FLATT GLASS MARKETING ASSOCIATION
- ZZ. FM -- FACTORY MUTUAL GLOBAL
- AAA. FSC -- FOREST STEWARDSHIP COUNCIL
- BBB. GA -- GYPSUM ASSOCIATION
- CCC. GANA -- GLASS ASSOCIATION OF NORTH AMERICA

- DDD. HI -- THE HYDRONICS INSTITUTE (See AHRI)
- EEE. HPVA -- HARDWOOD PLYWOOD VENEER ASSOCIATION
- FFF. ICBO -- INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS
- GGG. ICC -- INTERNATIONAL CODE COUNCIL, INC.
1. ICC A117.1 - Accessible and Usable Buildings and Facilities
 2. ICC (IBC) - International Building Code
 3. ICC (IEC) - International Electrical Code Administrative Provisions
 4. ICC (IECC) - International Energy Conservation Code
 5. ICC (IFC) - International Fire Code
 6. ICC (IFGC) - International Fuel Gas Code
 7. ICC (IMC) - International Mechanical Code
 8. ICC (IPC) - International Plumbing Code
- HHH. ICC-ES -- ICC EVALUATION SERVICE, INC.
- III. IEEE -- INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS
- JJJ. IES/IESNA -- ILLUMINATING ENGINEERING SOCIETY
- KKK. IGCC -- INSULATING GLASS CERTIFICATION COUNCIL
- LLL. IGMA -- INSULATING GLASS MANUFACTURERS ALLIANCE
- MMM. ILI -- INDIANA LIMESTONE INSTITUTE OF AMERICA, INC.
- NNN. IMIAWC -- INTERNATIONAL MASONRY INDUSTRY ALL-WEATHER COUNCIL
- OOO. ISDI -- INSULATED STEEL DOOR INSTITUTE
- PPP. ISO -- INTERNATIONAL STANDARDS ORGANIZATION
- QQQ. ITS -- INTERTEK TESTING SERVICES NA, INC.
1. WH-ETL Mark - Combined Warnock Hersey and Electrical Safety Mark.
- RRR. LEED - LEADERSHIP FOR ENERGY AND ENVIRONMENTAL DESIGN - SEE USGBC.
- SSS. LPI -- LIGHTNING PROTECTION INSTITUTE
- TTT. MFMA -- METAL FRAMING MANUFACTURERS ASSOCIATION
- UUU. ML/SFA -- METAL LATH/STEEL FRAMING ASSOCIATION - See NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS
- VVV. MPI -- MASTER PAINTERS INSTITUTE (MASTER PAINTERS AND DECORATORS ASSOCIATION)
- WWW. MPCA - Minnesota Pollution Control Agency.
- XXX. MSJC - Masonry Standards Joint Committee.
- YYY. NAA -- NATIONAL ARBORIST ASSOCIATION
- ZZZ. NAAMM -- THE NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS
- AAAA. NAMM -- NATIONAL ASSOCIATION OF MIRROR MANUFACTURERS
- BBBB. NCMA -- NATIONAL CONCRETE MASONRY ASSOCIATION
- CCCC. NECA -- NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION
- DDDD. NEII -- NATIONAL ELEVATOR INDUSTRY, INC.
- EEEE. NEMA -- NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
1. NEMA LD 3 - High-Pressure Decorative Laminates.
- FFFF. NEMRA -- NATIONAL ELECTRICAL MANUFACTURER'S REPRESENTATIVES ASSOCIATION.
- GGGG. NFPA -- NATIONAL FIRE PROTECTION ASSOCIATION

1. NFPA 70 - National Electrical Code.
 2. NFPA 101 - Life Safety Code.
- HHHH. NHLA -- NATIONAL HARDWOOD LUMBER ASSOCIATION
- IIII. NKBA -- NATIONAL KITCHEN AND BATH ASSOCIATION
- JJJJ. NOFMA -- NATIONAL OAK FLOORING MANUFACTURERS ASSOCIATION
- KKKK. NPCA -- NATIONAL PAINT AND COATINGS ASSOCIATION
- LLLL. NRCA -- NATIONAL ROOFING CONTRACTORS ASSOCIATION
- MMMM. NSF -- NSF INTERNATIONAL (THE PUBLIC HEALTH AND SAFETY ORGANIZATION)
- NNNN. NTMA -- NATIONAL TERRAZZO AND MOSAIC ASSOCIATION, INC., THE
- OOOO. PCA -- PORTLAND CEMENT ASSOCIATION
- PPPP. PCI -- PRECAST/PRESTRESSED CONCRETE INSTITUTE
- QQQQ. PDCA -- PAINTING AND DECORATING CONTRACTORS OF AMERICA
- RRRR. PDI -- PLUMBING AND DRAINAGE INSTITUTE
- SSSS. PEI -- PORCELAIN ENAMEL INSTITUTE
- TTTT. RIS -- REDWOOD INSPECTION SERVICE
- UUUU. RFCI -- RESILIENT FLOOR COVERING INSTITUTE
- VVVV. SCAQMD -- SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
- WWWW. SCS - SCIENTIFIC CERTIFICATION SYSTEMS
- XXXX. SDI -- STEEL DECK INSTITUTE
- YYYY. SDI -- STEEL DOOR INSTITUTE
- ZZZZ. SGCC -- SAFETY GLAZING CERTIFICATION COUNCIL.
- AAAA. SIGMA -- SEALED INSULATING GLASS MANUFACTURERS ASSOCIATION (SEE IGMA)
- BBBB. SJI -- STEEL JOIST INSTITUTE
- CCCC. SMACNA -- SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION, INC.
- DDDD. SPRI -- SINGLE PLY ROOFING INDUSTRY
- EEEE. TCNA -- TILE COUNCIL OF NORTH AMERICA, INC.
- FFFF. TMS -- THE MASONRY SOCIETY
- GGGG. TPI -- TRUSS PLATE INSTITUTE
- HHHH. TPI -- TURFGRASS PRODUCERS INTERNATIONAL
- IIII. UL -- UNDERWRITERS LABORATORIES INC.
- JJJJ. USGBC -- U. S. GREEN BUILDING COUNCIL
- KKKK. WDMA -- WINDOW AND DOOR MANUFACTURERS ASSOCIATION (formerly NWWDA)
- LLLL. WMMPA -- WOOD MOULDING AND MILLWORK PRODUCERS ASSOCIATION
- MMMM. WWPA -- WESTERN WOOD PRODUCTS ASSOCIATION

1.05 UNITED STATES GOVERNMENT AND RELATED AGENCIES DOCUMENTS

- A. CFR -- CODE OF FEDERAL REGULATIONS
- B. EPA -- ENVIRONMENTAL PROTECTION AGENCY
- C. FEMA -- U.S. FEDERAL EMERGENCY MANAGEMENT AGENCY
- D. FS -- FEDERAL SPECIFICATIONS AND STANDARDS (General Services Administration)

- E. GSA -- U.S. GENERAL SERVICES ADMINISTRATION
- F. NBS -- NATIONAL BUREAU OF STANDARDS
- G. OSHA -- OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
- H. PS -- PRODUCT STANDARDS
- I. USDA -- UNITED STATES DEPARTMENT OF AGRICULTURE

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 01 45 30
SPECIAL INSPECTIONS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Code-required special inspections and tests.
- B. Submittals.

1.02 RELATED REQUIREMENTS:

- A. Conditions of The Contract: Inspections and testing required by laws, ordinances, rules, regulations, orders or approvals of public authorities.
- B. Section 01 33 00 - Submittal Procedures.
- C. Section 01 40 00 - Quality Requirements: Quality control testing and inspections separate and independent from code required special inspections.
- D. Section 01 78 00 - Closeout Submittals: Operation and Maintenance Manuals.
- E. Section 03 11 00 - Permanent Forms: Concrete form deck.
- F. Section 03 20 00 - Concrete Reinforcing.
- G. Section 03 30 00 - Cast-in-Place Concrete.
- H. Section 03 41 13 - Precast Concrete Hollow Core Planks.
- I. Section 04 05 00 - Masonry Mortar and Grout.
- J. Section 04 20 00 - Unit Masonry.
- K. Section 05 10 00 - Structural Metal Framing.
- L. Section 05 20 00 - Metal Joists.
- M. Section 05 31 00 - Steel Decking.
- N. Section 05 40 00 - Cold-Formed Metal Framing.
- O. Section 05 50 00 - Metal Fabrications.
- P. Section 05 51 00 - Metal Stairs.
- Q. Section 07 84 00 - Firestopping.
- R. Section 31 22 00 - Site Grading.
- S. Section 31 23 00 - Excavation and Fill.
- T. Fire Suppression Work Backfill: Division 21.
- U. Plumbing Work Backfill: Division 22.
- V. HVAC Work Backfill: Division 23.
- W. Electrical Work Backfill: Division 26.
- X. Communication Work Backfill: Division 27.

1.03 REFERENCE STANDARDS

- A. ACI 318 - American Concrete Institute.
- B. ACI 318 - Building Code Requirements for Structural Concrete.
- C. AISC 360 - Specification for Structural Steel Buildings.
- D. ASTM A706/A706M - Standard Specification for Deformed and Plain Low-Alloy Steel Bars for Concrete Reinforcement.
- E. ASTM C1077 - Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation.
- F. ASTM C1093 - Standard Practice for Accreditation of Testing Agencies for Masonry.

- G. ASTM C172/C172M - Standard Practice for Sampling Freshly Mixed Concrete.
- H. ASTM C31/C31M - Standard Practice for Making and Curing Concrete Test Specimens in the Field.
- I. ASTM D3740 - Standard Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
- J. ASTM E2174 - Standard Practice for On-Site Inspection of Installed Firestop Systems.
- K. ASTM E2393 - Standard Practice for On-Site Inspection of Installed Fire Resistive Joint Systems and Perimeter Fire Barriers.
- L. ASTM E329 - Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection.
- M. ASTM E543 - Standard Specification for Agencies Performing Nondestructive Testing.
- N. AWS D1.3/D1.3M - Structural Welding Code - Sheet Steel.
- O. AWS D1.4/D1.4M - Structural Welding Code - Steel Reinforcing Bars.
- P. ICC (IBC) - International Building Code.
- Q. ICC (IBC)-2021 - International Building Code.
- R. SDI (DM) - Publication No.30, Design Manual for Composite Decks, Form Decks, and Roof Decks.
- S. TMS 402/602 - Building Code Requirements and Specification for Masonry Structures.
- T. UL (DIR) - Online Certifications Directory.
- U. Council of American Structural Engineers - Guideline Program for Structural Testing and Special Inspection.

1.04 SUBMITTALS

- A. As soon as possible after award of Contracts the Special Inspector shall furnish the Construction Manager at Risk(CMaR) and Architect with a type-written list of all observations, tests and inspections required by this Section.
- B. Prior to start of Work, the Special Inspector Submit agency name, address, and telephone number, name(s) of full time registered Engineer(s), responsible officer, personnel qualifications, and certification that Special Inspection Agency and personnel are acceptable to Authority Having Jurisdiction.
- C. The Special Inspector shall submit reports of tests, inspections and observations as outlined herein and in accordance with ICC (IBC) Section 1704.2.4.
 - 1. The Special Inspector shall submit a final signed report stating whether the work requiring special inspection was, to the best of the inspector's knowledge, in conformance with the approved plans, specifications and the applicable provisions of the Code.
- D. The Construction Manager at Risk(CMaR) shall submit to testing laboratory preliminary mix designs as outlined herein.
- E. The Fabricator(s) shall submit to Construction Manager at Risk(CMaR), for distribution to Architect, Structural Engineer of Record and Authority Having Jurisdiction, Certificate of Compliance as outlined herein and in accordance with ICC (IBC) Section 1704.2.5.1.

1.05 SPECIAL INSPECTIONS AND TESTS:

- A. Owner will employ and pay for services of Testing Agency and/ or Special Inspector as applicable to the project.
- B. Contractor(s) shall cooperate with Testing Agency and/ or Special Inspector to facilitate execution of his required services. Coordination with Testing Agency and/ or Special Inspector shall in no way relieve Contractor's obligations to perform Work of Contract.

1.06 QUALIFICATIONS

- A. Testing Agency (TA): The testing agency shall be an approved, independent testing agency acceptable to the Owner, Architect, Structural Engineer of Record (SER), Authority Having Jurisdiction, and as noted below:
 - 1. Shall meet or exceed the requirements of ASTM E329 and ICC (IBC).
 - 2. Authorized to operate in the state in which the project is located, and experienced with the requirements and testing methods specified herein.
 - 3. Meeting applicable requirements of Reference Standards.
 - 4. Testing equipment shall be calibrated at reasonable intervals by devices of accuracy traceable to either the National Bureau of Standards, or to accepted values of natural physical constants.
 - 5. Testing Agency may serve as special inspector provided their personnel meets the minimum requirements listed below for special inspector.
- B. Special Inspector (SI): The Special Inspector shall be under the direct supervision of a registered civil/structural engineer, experienced with the type of work requiring structural testing and special inspection.
 - 1. Categories of Special Inspector (Type of Inspector) are:
 - a. Special Inspector Technical (SI-T): Technical I, II or III.
 - b. Special Inspector Structural (SI-S): Structural I or II.
 - c. Where the category of Special Inspector (Type of Inspector) is not specified or included in reference standard, the testing agency personnel shall have the necessary education, training, technical knowledge, certification as appropriate, experience of similar complexity, scope and type for their assigned functions, shall meet or exceed ASTM E329, the special inspector qualifications of ICC (IBC) Section 1704.2.1 and shall be acceptable to the Authority Having Jurisdiction.
 - 2. Unique special inspector requirements, for specific materials and systems, are noted in the required inspections tables.

1.07 CONDITIONS

- A. If inspection of fabricator's work is required, the Owner's representative may require testing and inspection of the work at the plant, before shipment. The Owner, Architect and SER reserve the right to reject material not complying with the Contract Documents.
- B. Testing and inspection shall be performed in accordance with the industry standard used as the reference for the specific material or procedure unless other criteria are specified. In the absence of a referenced standard, test shall be accomplished in accordance with generally accepted industry standards.
- C. Work shall be checked as it progresses, but failure to detect any defective Work or materials shall in no way prevent later rejection if defective work or materials are discovered, nor shall it obligate Owner to accept such Work.

1.08 RESPONSIBILITIES

- A. Special Inspectors: Sign the Special Structural Testing and Inspection Program Summary Schedule in conjunction with other responsible parties prior to commencement of construction; attend pre-construction meeting to review the scope of structural testing and special inspection; test and/or inspect the work assigned for conformance with the building department approved design drawings, specifications and applicable material and workmanship provisions of the Code; perform testing and inspections in a timely manner to avoid delay of the Work; bring discrepancies to the immediate attention of the Construction Manager at Risk(CMaR) for correction, confirm that they are corrected and if uncorrected after a reasonable period of time, bring to the attention of the SER, the Building Official and the Architect; submit test and/or inspection reports to the Building Official, Construction Manager at Risk(CMaR), SER, and other designated persons in accordance with the Special Structural Testing and Inspection Program Summary Schedule; submit a final, signed report stating whether the Work requiring special inspection was, to the best of the Inspector's knowledge, in conformance with the

approved plans, specifications and applicable workmanship provisions of the Code; cooperate with Architect and Construction Manager at Risk(CMaR); provide qualified personnel after due notice; perform specified special inspections as required herein; and comply with specified standards.

- B. Testing Agency: Sign the Special Structural Testing and Inspection Program Summary Schedule in conjunction with other responsible parties prior to commencement of construction; attend pre-construction meeting to review the scope of structural testing and special inspection; when engaged as a Special Inspector, provide structural testing and special inspection services as described above; pay for shipping costs of samples transported from site (Project and/or fabricator) and lab.
- C. Architect: Complete and sign the Special Structural Testing and Inspection Program Summary Schedule in conjunction with other responsible parties prior to commencement of construction; provide a completed copy of the Schedule to all signed parties including the Building Official; arrange and attend pre-construction meeting to review the scope of structural testing and special inspection; include Construction Manager at Risk(CMaR), Building Official, SER, Testing Agency and other parties concerned in pre-construction meeting; coordinate the flow of reports and related information to expedite resolution of construction issues.
- D. Structural Engineer of Record (SER): Identify items requiring structural testing and special inspection including special cases (ICC (IBC) 1705.1.1); define "type" of special inspector required for "description" of work indicated on the Special Structural Testing and Inspection Program Summary Schedule; complete and sign the Special Structural Testing and Inspection Program Summary Schedule prior to commencement of construction; attend pre-construction meeting to review the scope of structural testing and special inspection; review reports submitted by Special Inspector(s); if engaged as a Special Inspector provide structural testing and special inspection services as described above.
- E. Construction Manager at Risk(CMaR): Sign the Special Structural Testing and Inspection Program Summary Schedule in conjunction with other responsible parties prior to commencement of construction; attend pre-construction meeting to review the scope of structural testing and special inspection; post or make available the Special Structural Testing and Inspection Program Summary Schedule within its office at the job site; provide adequate notification to those parties designated on the Schedule so they may properly prepare for and schedule their work; provide the Special Inspector(s) access to the approved drawings and specifications at the job site; review reports submitted by the Special Inspector(s); retain at the job sit all reports submitted by the Special Inspector(s) for review by the Building Official upon request; correct in a timely manner, deficiencies identified in inspection and/or testing reports; provide the special inspector safe access to the Work requiring inspection and/or testing; provide labor and facilities to provide access to the Work and to obtain, handle, and deliver samples to facilitate testing and inspection and for storage and curing of test samples; submit to laboratory preliminary design mix proposed to be used for concrete, and other materials mixes which require control by testing laboratory; provide and pay for all materials, samples, mock-ups, and assemblies required for testing and inspection and pay for all shipping costs related to delivery of this work; make arrangements with Special Inspector and pay for additional tests required for Contractor's convenience and to perform additional inspections and testing required when initial tests indicate Work does not comply with Contract Documents. Verification of conformance of the Work within specified construction tolerances is solely the Construction Manager at Risk(CMaR) responsibility. If exploratory work is required to determine the cause of defects, the cost of such work shall be paid by the Construction Manager at Risk(CMaR), if the Work is found to be defective in the judgment of the Architect or SER. Construction Manager at Risk(CMaR) shall reimburse the Owner for all costs incurred in this event. Any tests required to qualify the Construction Manager at Risk(CMaR), or the workmen for any phase of the Work, shall be performed at no additional cost to the Owner.
- F. Fabricator: Sign the Special Structural Testing and Inspection Program Summary Schedule in conjunction with other responsible parties prior to commencement of construction; submit a

Certificate of Compliance to the Building Official, Special Inspector, and SER that the work was performed in accordance with the approved plans and specifications.

- G. Owner: Establish direct funding to provide for cost of structural testing and special inspection services; provide Special Inspector with approved Contract Drawings and Shop Drawings; provide Special Inspector(s) and testing agencies with full access to site at all times; and Sign the Special Structural Testing and Inspection Program Summary Schedule in conjunction with other responsible parties prior to commencement of construction.

1.09 LIMITATIONS OF AUTHORITY OF TESTING AGENCY AND/ OR SPECIAL INSPECTOR

- A. Special Inspector is not authorized to:
 1. Release, revoke, alter or enlarge on requirements of Contract Documents.
 2. Approve or accept any portion of Work.
 3. Perform any duties of Contractor(s).

1.10 INSPECTION NOTICE

- A. Construction Manager at Risk(CMaR) shall provide a minimum of 48 hours notice for all items requiring testing or inspection. Items requiring testing and/or inspection services prior to or during placement shall not be placed until testing and inspection services are available. Items requiring testing and inspection services after placement shall not be enclosed or obscured until testing and inspection services are performed.
- B. When tests or inspections cannot be performed after such notice, reimburse Owner for special inspection personnel and travel expenses incurred due to Contractor's negligence.

1.11 REPORTS

- A. Testing agency and/or Special Inspector(s) shall submit reports in accordance with the Special Structural Testing and Inspection Program Summary Schedule and Section 01 33 00, and shall conduct and interpret tests and inspections and state in each report whether; (1) test specimens and observations comply with Contract Documents, and specifically state any deviations, (2) record types and locations of defects found in the Work, (3) record work required and performed, to correct deficiencies.
- B. Reports for structural testing and special inspection shall be submitted in a timely manner to the Contractor, Building Official, SER and Architect. Submit reports for ongoing work, to provide the following information: date issued; project title and number; firm name and address; name and signature of tester or inspector; date and time of sampling; date of test or inspection; identification of product and specification section; location in project, including elevations, grid locations and detail; type of test or inspections; results of tests or inspections and interpretation of same; observations regarding compliance with Contract Documents or deviations there from. Final report stating whether the work requiring special inspection was, to the best of the inspector's knowledge, in conformance with the approved plans, specifications and the applicable workmanship provisions of the code, shall be submitted within seven (7) calendar days of date of inspection.

1.12 PROTECTION AND REPAIR

- A. Upon completion of testing, sample-taking, or inspections, the Construction Manager at Risk(CMaR) shall repair damaged work and restore substrates and finishes to eliminate deficiencies, including deficiencies in the visual qualities of exposed surfaces, as judged solely by the Architect or SER. Protect work exposed by or for testing and/or inspection and protect required work. Repair and protection is the Construction Manager at Risk(CMaR) 's responsibility, regardless of the assignment of responsibility for testing and/or inspection.

1.13 TESTS TO DEMONSTRATE QUALIFICATION

- A. If the Construction Manager at Risk(CMaR) proposes a product material, method, or other system that has not been pre-qualified, the Architect may require applicable tests, to establish a basis for acceptance or rejection. These tests will be paid for by the Construction Manager at Risk(CMaR) .

- B. The Architect and SER reserve the right to required certification or other proof that the system proposed is in compliance with any tests, criteria or standards called for. The certificate shall be signed by a representative of an independent testing agency.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 SCHEDULE OF SPECIAL INSPECTIONS AND TESTS, GENERAL

- A. The parties involved shall complete and sign the Special Structural Testing and Inspection Program Summary Schedule. The Program, including the Summary Schedule, shall be submitted to the Building Official for approval prior to issuance of a building permit. The completed schedule includes the following: a specific listing of the items requiring inspection and testing; the associated technical scope sections that define the applicable standards by which to judge conformance with the approved plans and specifications in accordance with the ICC (IBC); the technical scope sections should also include the degree or basis of inspection and testing (i.e. intermittent/will-call or full-time/continuous); the frequency of reporting (i.e. weekly, monthly, per test/inspection, per floor etc.); the parties responsible for performing the inspection and testing work; the required acknowledgements of each designated party.
- B. The Special Inspector and/or Testing Agency shall perform the inspections and/or tests as indicated on the table(s) following this Section.

3.02 CODE REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

- A. In accordance with applicable requirements of ICC (IBC) Section 1705.2.
1. Special inspection for structural steel shall be in accordance with the quality assurance inspection requirements of AISC 360.
 - a. Exceptions: Special inspection of railing systems composed of structural steel elements shall be limited to welding inspection of welds at the base of cantilevered rail posts.

3.03 CODE REQUIRED SPECIAL INSPECTIONS OF COLD-FORMED STEEL DECK

- A. In accordance with the applicable requirements of ICC (IBC) Section 1705.2.2.
1. Special inspections and qualifications of welding special inspectors for cold-formed steel floor and roof deck shall be in accordance with the quality assurance inspection requirements of SDI (DM) QA/QC.

3.04 CODE REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

- A. In accordance with applicable requirements of ICC (IBC) Section and Table 1705.3.

Verification and Inspection	Contin- uous	Peri- odic	Reference Standard	Inspector
1. Inspection of reinforcing steel, including prestressing tendons, and placement	-	X	ACI 318: Ch 20, 25.2, 25.3, 26.6.1-26.6.3	Structural I
2. Reinforcing bar welding:				
a. Verify weldability of reinforcing bars other than ASTM A706/A706M;	-	X	AWS D1.4/D1.4M; ACI 318: 26.13.1.4	Structural I
b. Inspect welding of reinforcement for special moment frames, boundary elements of special structural walls and coupling beams.	X	-	AWS D1.4/D1.4M ;ACI 318 : 26.13.3	
c. Inspect welded	X	-	-	

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reinforcement splices. d. Inspect welding of primary tension reinforcement in corbels. e. Inspect single-pass fillet welds, maximum 5/16". f. Inspect all other welds.	X - -	- X X	- AWS D1.4/D1.4M; ACI 318: 26.13.3 AWS D1.4/D1.4M;ACI 318: 26.13.3	
3. Inspect anchors cast in concrete.	-	X	ACI 318:26.13.3.3	Structural I
4. Inspection of anchors post-installed in hardened concrete members. a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads. b. Mechanical anchors and adhesive anchors not defined in 4.a.	X -	- X	ACI 318: 26.13.3.2; ACI 318: 26.13.3	Structural I
5. Verifying use of required design mix.	-	X	ACI 318: Ch 19, 26.4.3, 26.4.4	Technical I
6. Prior to concrete placement fabricate specimens for strength tests, perform slump and air-content tests and determine temperature of the concrete.	X	-	ASTM C172/C172M ASTM C31/C31M, ACI 318: 26.5, 26.12	Technical I
7. Inspection of concrete and shotcrete placement for proper application techniques.	X	-	ACI 318: 26.5	Structural I
8. Verify maintenance of specified curing temperature and techniques.	-	X	ACI 318: 26.5.3 - 26.5.5	Structural I
9. Inspection pre-stressed concrete for: a. Application of prestressing forces. b. Grouting of bonded prestressed tendons.	X X	- -	ACI 318: 26.10	Structural I
10. Inspection erection of precast concrete members.	-	X	ACI 318: Ch. 26.9	Structural I

<p>11. For precast concrete diaphragm connections or reinforcement at joints classified as moderate or high deformability elements (MDE or HDE) in structures assigned to Seismic Design Category C, D, E, or F, inspect such connections and reinforcement.</p> <p>a. Installation of the embedded parts.</p> <p>b. Completion of the continuity of reinforcement across joints.</p> <p>c. Completion of connections in the field.</p>	<p>X</p> <p>X</p> <p>X</p>	<p>-</p> <p>-</p> <p>-</p>	<p>ACI 318 26.13.1.3;</p> <p>ACI 550.5</p>	<p>Structural I</p>
<p>12. Inspection installation tolerances of precast concrete diaphragm connections for compliance with ACI 550.5.</p>	<p>-</p>	<p>X</p>	<p>ACI 318: 26.13.1.3</p>	<p>Structural I</p>
<p>13. Verification of in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.</p>	<p>-</p>	<p>X</p>	<p>ACI 318: 26.11.2</p>	<p>Structural I</p>
<p>14. Inspect formwork for shape, location and dimensions of the concrete member being formed.</p>	<p>-</p>	<p>X</p>	<p>ACI 318: 26.11.1.2(b)</p>	<p>Structural I</p>

B. Special Inspector Qualifications:

1. Special Inspector - Technical I, II and III:
2. Technical I: ACI Certified Grade I inspector. Inspector shall be employed by a testing laboratory, under the direct supervision of a Technical III.
3. Technical II: ACI Certified Grade II inspector. Inspector shall be employed by a testing laboratory, under the direct supervision of a Technical III.
4. Technical III: A civil/structural engineer regularly engaged in this type of work, with a minimum of (4) years experience and licensed in the State in which the Project is located and is an employee of a qualified and approved testing laboratory. The licensed engineer shall review and approve all reports.
5. Testing laboratory shall have C.C.R.L. certification at the National Bureau of Standards.

6. Special Inspector - Structural I and II:
 - a. Structural I: Graduate civil/structural engineer, or other personnel acceptable to SER, with experience in the inspection of structural systems of this type. Inspections shall be performed under the direct supervision of a Structural II.
 - b. Structural II: Civil/structural professional engineer regularly engaged in the inspection of structural systems of this type, licensed in the State in which the Project is located. This licensed engineer shall review and approve all inspection reports.
7. Special Inspector - Structural may be an employee of the SER hired by Testing Agency.

3.05 CODE REQUIRED SPECIAL INSPECTIONS FOR MASONRY CONSTRUCTION

- A. In accordance with applicable requirements of ICC (IBC) Section 1705.4.
 1. Masonry construction and vertical masonry foundation elements shall be inspected and verified in accordance with TMS 402/602 quality assurance program requirements.

3.06 CODE REQUIRED VERIFICATION AND INSPECTION OF SOILS

- A. In accordance with applicable requirements of ICC (IBC) Section and Table 1705.6.

Verification and Inspection Task	Continuous During Task Listed	Periodically During Task Listed	Inspector
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.		X	Technical II
2. Verify excavations are extended to proper depth and have reached proper material.		X	Technical II
3. Perform classification and testing of compacted fill materials.		X	Technical I
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	X		Technical II
5. Prior to placement of compacted fill, inspect subgrade and verify that site has been properly prepared.		X	Technical III

- B. Special Inspector - Qualifications:
 1. Special Inspector - Technical I, II and III:
 - a. Technical I: Under direct supervision of Technical III; work performed in qualified geotechnical/testing laboratory.
 - b. Technical II: Min. (2) years experience or a graduate engineer, and an employee of a qualified and approved geotechnical/testing laboratory, under the direct supervision of a Technical III.
 - c. Technical III: Civil/geotechnical engineer regularly engaged in the type of work with a minimum of (4) years experience, licensed in the State in which the Project is located, and is an employee of a qualified and approved geotechnical/testing laboratory. This licensed engineer shall review and approve all final field reports.
 2. Special Inspector - Structural I and II:
 - a. Structural I: Graduate civil/structural engineer, or other personnel acceptable to SER, with experience in the inspection of structural systems of this type. Inspections shall be performed under the direct supervision of a Structural II.

- b. Structural II: Civil/structural professional engineer regularly engaged in the inspection of structural systems of this type, licensed in the State in which the Project is located. This licensed engineer shall review and approve all inspection reports.

3.07 CODE REQUIRED SPECIAL INSPECTIONS OF FABRICATED ITEMS

- A. Special Inspections of Fabricated Items shall be in accordance with applicable requirements of ICC (IBC) Sections 1704.2.5 and 1705.1.
 - 1. Where fabrication of structural, load-bearing or lateral load-resisting members or assemblies is being conducted on the premises of a fabricator's shop, special inspections of the fabricated items shall be performed during fabrication, except where the fabricator has been approved to perform work without special inspections in accordance with Section 1704.2.5.1.
 - a. ICC (IBC) Section 1704.2.5.1 Fabricator Approval:
 - 1) Special inspections during fabrication are not required where the work is done on the premises of a fabricator registered and approved to perform such work without special inspection. Approval shall be based upon review of the fabricator's written procedural and quality control manuals that provide a basis for control of materials and workmanship, with periodic auditing of fabrication and quality control practices by an approved agency or the building official. At completion of fabrication, the approved fabricator shall submit a certificate of compliance to the owner or owner's authorized agent for submittal to the building official as specified in Section 1704.5 stating that that the work was performed in accordance with the approved construction documents.

3.08 CODE REQUIRED SPECIAL INSPECTIONS OF FIRE-RESISTANT PENETRATIONS AND JOINTS (SECTION 07 84 00)

- A. In accordance with the applicable requirements of ICC (IBC) Section 1705.17.
 - 1. In high-rise buildings or in buildings assigned to Risk Category III or IV, Special inspections for through-penetrations, membrane penetration firestops, fire-resistant joint systems and perimeter fire barrier systems that are tested and listed in accordance with ICC (IBC) Sections 714.4.1.2, 714.5.1.2, 715.3 and 715.4 shall in accordance with Section 1705.17.1 or 1705.17.2.
 - a. ICC (IBC) 1705.17.1 Penetration Firestops: Inspections of penetration firestop systems that are tested and listed in accordance with Sections 714.4.1.2 and 714.5.1.2 shall be conducted by an approved testing agency in accordance with ASTM E2174.
 - b. ICC (IBC) 1705.17.2 Fire-Resistant Joint System: Inspection of fire-resistant joint systems that are tested and listed in accordance with ICC (IBC) Sections 715.3 and 715.4 shall be conducted by an approved agency in accordance with ASTM E2393.

END OF SECTION

SECTION 01 45 31 Special Structural Testing and Inspection Program Summary Schedule

Project Name: FPS 2026 Maintenance Projects Project No. 202519

Location: Fargo, North Dakota Permit No. (1)

Technical (2)		Description (3)	Type of Inspector (4)	Specified Report Frequency (5)	Assigned Firm (6)
Section	Article				
014530	3.02	Steel	As Per Spec	As Per Spec	
014530	3.03	Steel Deck	As Per Spec	As Per Spec	
014530	3.04	Concrete	As Per Spec	As Per Spec	
014530	3.05	Masonry	As Per Spec	As Per Spec	
014530	3.06	Soils	As Per Spec	As Per Spec	
014530	3.07	Fabricated Items	As Per Spec	As Per Spec	
014530	3.08	F.R. Penetrations/ Joints	As Per Spec	As Per Spec	

Note: This schedule shall be filled out and included in a Special Structural Testing & Inspection Program.

Footnotes:

- (1) Permit number to be provided by Building Official.
- (2) Referenced to the specific technical scope section in the program.
- (3) Use descriptions per IBC Chapter 17.
- (4) Special Inspector - Technical (SIT); Special Inspector - Structural (SIS)
- (5) Weekly, monthly, per test/inspection, per floor etc.
- (6) Name of firm contracted to perform services.

ACKNOWLEDGEMENTS

(Each appropriate representative shall sign below)

Owner:	Firm: Fargo Public School District No.	Date:
Contractor:	Firm:	Date:
Architect:	Firm: YHR Partners, Ltd.	Date:
SER:	Firm: Solien & Larson Engineering	Date:
SI-T:	Firm:	Date:
SI-S:	Firm:	Date:
TA:	Firm:	Date:
F:	Firm:	Date:

If requested by engineer/architect of record or building official, the individual names of all prospective special inspectors and the work they intend to observe shall be identified as an attachment.

Legend:

SER = STRUCTURAL ENGINEER OF RECORD	SI-T = SPECIAL INSPECTOR-TECHNICAL
SI-S = SPECIAL INSPECTOR - STRUCTURAL	TA = TESTING AGENCY
F = Fabricator	

Accepted for the Building Department By: _____ Date: _____

END OF SECTION

**SECTION 01 5000
TEMPORARY FACILITIES AND CONTROLS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Dewatering
- B. Temporary Light and Power.
- C. Temporary Water Supply.
- D. Temporary telecommunications services.
- E. Temporary sanitary facilities.
- F. Temporary Controls: Barriers and enclosures.
- G. Security requirements.
- H. Vehicular access and parking.
- I. Waste removal facilities and services.
- J. Field offices.

1.02 DEWATERING

- A. Provide temporary means and methods for dewatering all temporary facilities and controls.
 - 1. Each Contractor and/or Subcontractor is responsible for dewatering their own work areas.
 - 2. The Concrete Contractor (Bid Package 3A) is responsible for dewatering footing trenches until backfilled as applicable.
- B. Maintain temporary facilities in operable condition.

1.03 TEMPORARY LIGHT AND POWER (AS APPLICABLE)

- A. The Electrical Contractor shall provide temporary lighting during construction as follows:
 - 1. Lighting Requirements:
 - a. A minimum of one (1) 300-watt lamp shall be provided for every 900 square feet of building area.
 - b. For any room with an area less than 900 square feet, a minimum of one (1) 300-watt lamp shall be installed.
 - 2. Installation and Maintenance:
 - a. The Electrical Contractor shall furnish, install, and maintain all lamps and associated sockets.
 - b. All temporary lighting shall be kept in proper working order for the duration of the construction period.
- B. The Electrical Contractor shall coordinate with the local power utility to arrange for installation of the temporary secondary electrical service. The service shall be brought to a location on the construction site as directed by the Construction Manager. All costs associated with this portion of the temporary service, as charged by the utility provider, shall be borne by the Owner.
- C. Each Contractor is required to provide temporary power via generators. If available at the facility, Contractors must use a GFCI prior to plugging in a piece of equipment.
 - 1. Each contractor and subcontractor shall furnish their own extension cords, equipped with proper ground-fault protection, as required for connection to the temporary sub-panels.
- D. The cost of electrical power consumed from both temporary and permanent services during construction shall be borne by the Owner , consisting of connection to existing facilities.
 - 1. All contractors shall be responsible for diligently supervising the use of electricity and temporary lighting. Abuse or waste of electrical power or lamps may be grounds for a back charge to the responsible contractor, as determined by the Construction Manager.

- E. In the event of any dispute regarding the quantity of temporary wiring or lamps required, the Construction Manager shall be the sole authority to determine the necessary amount.

1.04 TEMPORARY WATER SUPPLY

- A. Each Contractor shall furnish and install temporary water service from the nearest available source and provide all necessary temporary water distribution piping, fittings, and related materials as required by any or all contractors and subcontractors. All temporary water systems shall be removed when no longer needed. Hoses for water distribution around the building shall be furnished by the respective contractors requiring them.
- B. Use trigger-operated nozzles for water hoses, to avoid waste of water.
- C. The cost of water consumed from both temporary and permanent services during construction shall be borne by the Owner, consisting of connection to existing facilities.
 - 1. All contractors shall be responsible for diligently supervising the use of water. Abuse or waste of water may be grounds for a back charge to the responsible contractor, as determined by the Construction Manager.
- D. If the water supply at or available to the construction site is inadequate, requiring water to be hauled to the site, the cost of the water and its transportation shall be borne by the contractor requiring the water for their work.

1.05 TELECOMMUNICATIONS SERVICES

- A. Construction Manager to provide, maintain, and pay for telecommunications services to field office at time of project mobilization.
 - 1. Each Contractor is responsible for providing, maintaining, and paying for their own telecommunications services.

1.06 TEMPORARY SANITARY FACILITIES (BY CONSTRUCTION MANAGER)

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Use of existing facilities is not permitted.
- C. New permanent facilities may not be used during construction operations.
- D. Maintain daily in clean and sanitary condition.
- E. At end of construction, return facilities to same or better condition as originally found.

1.07 BARRIERS (BY CONSTRUCTION MANAGER)

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing building.
- C. Provide protection for plants designated to remain. Replace damaged plants.
- D. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.08 ENCLOSURES (BY BID PACKAGE 6A) - SEE SCOPE OF WORK / PLANS FOR LOCATIONS

- A. Provide temporary partitions as indicated to separate work areas from Owner-occupied areas, to prevent penetration of dust, building security, and moisture into Owner-occupied areas, and to prevent damage to existing materials and equipment.
- B. Construction: Framing and reinforced polyethylene sheet materials or plywood for security with closed joints and sealed edges at intersections with existing surfaces:

1.09 SECURITY

- A. Provide security and facilities to protect Work, existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.

- B. Each individual contractor shall provide security for their own equipment and materials.
- C. Each Contractor shall be responsible for removing all ladders and similar means of access to the Work under their control at the conclusion of each working day. All building entrances and access points shall be securely barricaded or locked daily to prevent unauthorized entry, as directed by the Construction Manager or by a Contractor designated by the Construction Manager.
- D. Coordinate with Owner's security program.

1.10 VEHICULAR ACCESS AND PARKING

- A. Comply with regulations relating to use of streets and sidewalks, access to emergency facilities, and access for emergency vehicles.
- B. Coordinate access and haul routes with governing authorities and Owner.
- C. Provide and maintain access to fire hydrants, free of obstructions.
- D. Provide means of removing mud from vehicle wheels before entering streets.
- E. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.

1.11 WASTE REMOVAL

- A. See Section 01 7000 - Execution and Closeout Requirements for requirements.

1.12 FIELD OFFICES (BY CONSTRUCTION MANAGER)

- A. Office: Weathertight, with lighting, electrical outlets, heating, cooling equipment, and equipped with sturdy furniture and drawing display table.
- B. Provide space for Project meetings, with table and chairs to accommodate 15 persons.

1.13 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Date of Substantial Completion inspection.
- B. Remove underground installations to a minimum depth of 2 feet. Grade site as indicated.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing facilities used during construction to original condition.
- E. Restore new permanent facilities used during construction to specified condition.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

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**SECTION 01 5713
TEMPORARY EROSION AND SEDIMENT CONTROL**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Prevention of erosion due to construction activities.
- B. Prevention of sedimentation of waterways, open drainage ways, and storm and sanitary sewers due to construction activities.
- C. Restoration of areas eroded due to insufficient preventive measures.
- D. Compensation of Owner for fines levied by authorities having jurisdiction due to non-compliance by Contractor.

1.02 REFERENCE STANDARDS

- A. ASTM D3786/D3786M - Standard Test Method for Bursting Strength of Textile Fabrics-- Diaphragm Bursting Strength Tester Method; 2018 (Reapproved 2023).
- B. ASTM D4355/D4355M - Standard Test Method for Deterioration of Geotextiles by Exposure to Light, Moisture, and Heat in a Xenon Arc-Type Apparatus; 2021.
- C. ASTM D4491/D4491M - Standard Test Methods for Water Permeability of Geotextiles by Permittivity; 2022.
- D. ASTM D4533/D4533M - Standard Test Method for Trapezoid Tearing Strength of Geotextiles; 2015 (Reapproved 2023).
- E. ASTM D4632/D4632M - Standard Test Method for Grab Breaking Load and Elongation of Geotextiles; 2015a (Reapproved 2023).
- F. ASTM D4751 - Standard Test Methods for Determining Apparent Opening Size of a Geotextile; 2021a.
- G. ASTM D4833/D4833M - Standard Test Method for Index Puncture Resistance of Geomembranes and Related Products; 2007 (Reapproved 2020).
- H. ASTM D4873/D4873M - Standard Guide for Identification, Storage, and Handling of Geosynthetic Rolls and Samples; 2017 (Reapproved 2021).

1.03 PERFORMANCE REQUIREMENTS

- A. Comply with all requirements of the state of North Dakota , the City of Fargo , and jurisdictions having authority for erosion and sedimentation control .
- B. Develop and follow an Erosion and Sedimentation Prevention Plan and submit periodic inspection reports.
- C. Do not begin clearing, grading, or other work involving disturbance of ground surface cover until applicable permits have been obtained; furnish all documentation required to obtain applicable permits.
 - 1. Owner will obtain permits and pay for securities required by authority having jurisdiction.
- D. Timing: Put preventive measures in place as soon as possible after disturbance of surface cover and before precipitation occurs.
- E. Storm Water Runoff: Control increased storm water runoff due to disturbance of surface cover due to construction activities for this project.
 - 1. Prevent runoff into storm and sanitary sewer systems, including open drainage channels, in excess of actual capacity or amount allowed by authorities having jurisdiction, whichever is less.
 - 2. Anticipate runoff volume due to the most extreme short term and 24-hour rainfall events that might occur in 25 years.
- F. Erosion On Site: Minimize wind, water, and vehicular erosion of soil on project site due to construction activities for this project.

1. Control movement of sediment and soil from temporary stockpiles of soil.
 2. Prevent development of ruts due to equipment and vehicular traffic.
 3. If erosion occurs due to non-compliance with these requirements, restore eroded areas at no cost to Owner.
- G. Erosion Off Site: Prevent erosion of soil and deposition of sediment on other properties caused by water leaving the project site due to construction activities for this project.
1. Prevent windblown soil from leaving the project site.
 2. Prevent tracking of mud onto public roads outside site.
 3. Prevent mud and sediment from flowing onto sidewalks and pavements.
 4. If erosion occurs due to non-compliance with these requirements, restore eroded areas at no cost to Owner.
- H. Sedimentation of Waterways On Site: Prevent sedimentation of waterways on the project site, including rivers, streams, lakes, ponds, open drainage ways, storm sewers, and sanitary sewers.
1. If sedimentation occurs, install or correct preventive measures immediately at no cost to Owner; remove deposited sediments; comply with requirements of authorities having jurisdiction.
 2. If sediment basins are used as temporary preventive measures, pump dry and remove deposited sediment after each storm.
- I. Sedimentation of Waterways Off Site: Prevent sedimentation of waterways off the project site, including rivers, streams, lakes, ponds, open drainage ways, storm sewers, and sanitary sewers.
1. If sedimentation occurs, install or correct preventive measures immediately at no cost to Owner; remove deposited sediments; comply with requirements of authorities having jurisdiction.
- J. Open Water: Prevent standing water that could become stagnant.
- K. Maintenance: Maintain temporary preventive measures until permanent measures have been established.

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Erosion and Sedimentation Control Plan:
1. Submit not less than 30 days prior to anticipated start of clearing, grading, or other work involving disturbance of ground surface cover.
 2. Include:
 - a. Site plan identifying soils and vegetation, existing erosion problems, and areas vulnerable to erosion due to topography, soils, vegetation, or drainage.
 - b. Site plan showing grading; new improvements; temporary roads, traffic accesses, and other temporary construction; and proposed preventive measures.
 - c. Where extensive areas of soil will be disturbed, include storm water flow and volume calculations, soil loss predictions, and proposed preventive measures.
 - d. Schedule of temporary preventive measures, in relation to ground disturbing activities.
 - e. Other information required by law.
 - f. Format required by law is acceptable, provided any additional information specified is also included.
 3. Obtain the approval of the Plan by authorities having jurisdiction.
 4. Obtain the approval of the Plan by Owner.
- C. Certificate: Mill certificate for silt fence fabric attesting that fabric and factory seams comply with specified requirements, signed by legally authorized official of manufacturer; indicate actual minimum average roll values; identify fabric by roll identification numbers.

- D. Inspection Reports: Submit report of each inspection; identify each preventive measure, indicate condition, and specify maintenance or repair required and accomplished.
- E. Maintenance Instructions: Provide instructions covering inspection and maintenance for temporary measures that must remain after Substantial Completion.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Mulch: Use one of the following:
 - 1. Straw or hay.
 - 2. Wood waste, chips, or bark.
 - 3. Erosion control matting or netting.
- B. Grass Seed For Temporary Cover: Select a species appropriate to climate, planting season, and intended purpose. If same area will later be planted with permanent vegetation, do not use species known to be excessively competitive or prone to volunteer in subsequent seasons.
- C. Silt Fence Fabric: Woven polypropylene geotextile resistant to common soil chemicals, mildew, and insects; non-biodegradable; in longest lengths possible; fabric including seams with the following minimum average roll lengths:
 - 1. Average Opening Size: 30 U.S. Std. Sieve, maximum, when tested in accordance with ASTM D4751.
 - 2. Permittivity: 0.05 sec⁻¹, minimum, when tested in accordance with ASTM D4491/D4491M.
 - 3. Ultraviolet Resistance: Retaining at least 70 percent of tensile strength, when tested in accordance with ASTM D4355/D4355M after 500 hours exposure.
 - 4. Tensile Strength: 100 pounds-force, minimum, in cross-machine direction; 124 pounds-force, minimum, in machine direction; when tested in accordance with ASTM D4632/D4632M.
 - 5. Elongation: 15 to 30 percent, when tested in accordance with ASTM D4632/D4632M.
 - 6. Tear Strength: 55 pounds-force, minimum, when tested in accordance with ASTM D4533/D4533M.
 - 7. Color: Manufacturer's standard, with embedment and fastener lines preprinted.
- D. Silt Fence Posts: One of the following, minimum 5 feet long:
 - 1. Steel U- or T-section, with minimum mass of 1.33 pound per linear foot.
- E. Temporary Sediment Filter.
 - 1. Drop-in Sediment Filter unit that inserts into an inlet.
 - a. Use Flexstorm Inlet Filter by ADS or equal.
 - 1) Provide curb opening protection for existing inlets with curb openings.
- F. Temporary Pumped Sediment Control Device.
 - 1. Non-woven geotextile fabric sewn into a bag using a double needle machine and high strength thread.
 - a. Seams shall have an average width strength of 60 lb/inch as per ASTM D4883 and meet or exceed the following:
 - 1) Grab tensile of 205 lbs as per ASTM D4632/D4632M.
 - 2) Puncture of 110 lbs as per ASTM D4833/D4833M.
 - 3) Flow rate of 95 gal/min/sf as per ASTM D4491/D4491M.
 - 4) Permittivity of 1.5 Sec-1 as per ASTM D4491/D4491M.
 - 5) Mullen Burst Strength of 350 psi as per ASTM D3786/D3786M.
 - 6) AOS% of 80% US Sieve as per ASTM D4751.
 - 2. Spout large enough to accommodate a 4 inch discharge hose with strap to tie unit closed.
 - 3. Use one of the following:
 - a. Dirtbag by ACF Environmental Inc.
 - b. Dandy Dewatering Bag by Dandy Products Inc.

c. Or approved equal.

G. Gravel: See Section 31 2323 for aggregate.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine site and identify existing features that contribute to erosion resistance; maintain such existing features to greatest extent possible.

3.02 PREPARATION

A. Schedule work so that soil surfaces are left exposed for the minimum amount of time.

3.03 SCOPE OF PREVENTIVE MEASURES

A. In all cases, if permanent erosion resistant measures have been installed temporary preventive measures are not required.

B. Construction Entrances: Traffic-bearing aggregate surface.

1. Width: As required; 20 feet, minimum.

2. Length: 50 feet, minimum.

3. Provide at each construction entrance from public right-of-way.

4. Where necessary to prevent tracking of mud onto right-of-way, provide wheel washing area out of direct traffic lane, with drain into sediment trap or basin.

C. Natural vegetation shall be retained whenever feasible.

D. Land grading and excavating shall be kept at a minimum to reduce the possibility of creating runoff and erosion problems which require extensive control measures.

E. Land exposure shall be minimized in terms of area and time.

F. Linear Sediment Barriers: Made of silt fences.

1. Provide linear sediment barriers:

a. Along downhill perimeter edge of disturbed areas, including soil stockpiles.

b. Along the top of the slope or top bank of drainage channels and swales that traverse disturbed areas.

c. Along the toe of cut slopes and fill slopes.

d. Perpendicular to flow across the bottom of existing and new drainage channels and swales that traverse disturbed areas or carry runoff from disturbed areas; space at maximum of 200 feet apart.

e. Across the entrances to culverts that receive runoff from disturbed areas.

2. Space sediment barriers with the following maximum slope length upslope from barrier:

a. Slope of Less Than 2 Percent: 100 feet..

b. Slope Between 2 and 5 Percent: 75 feet.

c. Slope Between 5 and 10 Percent: 50 feet.

d. Slope Between 10 and 20 Percent: 25 feet.

e. Slope Over 20 Percent: 15 feet.

G. Temporary Sediment Filters. See Civil Drawings for details.

1. Place immediately before land is disturbed adjacent to existing storm sewer manholes with open grates.

2. Place immediately after new storm sewer manholes with open grates are installed and immediately before land is disturbed adjacent to existing storm sewer manholes with open grates.

3. Remove, maintain, reinstall, etc. when requested by local authorities.

H. Temporary Pumped Sediment Control Device.

1. Device shall be used to control sediment discharge in any dewatering or pumped water application.

I. Temporary Concrete Washout.

1. Provide at a defined area on site or to an area designated for cement washout.
 2. Shall be sufficient in size to contain the wash water and residual cement.
- J. Temporary Splash Pads: Stone aggregate over filter fabric; size to suit application; provide at downspout outlets and storm water outlets.
- K. Soil Stockpiles: Protect using one of the following measures:
1. Cover with polyethylene film, secured by placing soil on outer edges.
 2. Cover with mulch at least 4 inches thickness of pine needles, sawdust, bark, wood chips, or shredded leaves, or 6 inches of straw or hay.
- L. Mulching: Use only for areas that may be subjected to erosion for less than 6 months.
1. Wood Waste: Use only on slopes 3:1 or flatter; no anchoring required.
- M. Temporary Seeding: Use where temporary vegetated cover is required.

3.04 INSTALLATION

- A. Traffic-Bearing Aggregate Surface:
1. Excavate minimum of 6 inches.
 2. Place geotextile fabric full width and length, with minimum 12 inch overlap at joints.
 3. Place and compact at least 6 inches of 1 1/2 to 3 1/2 inch diameter stone.
- B. Silt Fences:
1. Store and handle fabric in accordance with ASTM D4873/D4873M.
 2. Where slope gradient is less than 3:1 or barriers will be in place less than 6 months, use nominal 16 inch high barriers with minimum 36 inch long posts spaced at 6 feet maximum, with fabric embedded at least 4 inches in ground.
 3. Where slope gradient is steeper than 3:1 or barriers will be in place over 6 months, use nominal 28 inch high barriers, minimum 48 inch long posts spaced at 6 feet maximum, with fabric embedded at least 6 inches in ground.
 4. Where slope gradient is steeper than 3:1 and vertical height of slope between barriers is more than 20 feet, use nominal 32 inch high barriers with woven wire reinforcement and steel posts spaced at 4 feet maximum, with fabric embedded at least 6 inches in ground.
 5. Install with top of fabric at nominal height and embedment as specified.
 6. Embed bottom of fabric in a trench on the upslope side of fence, with 2 inches of fabric laid flat on bottom of trench facing upslope; backfill trench and compact.
 7. Do not splice fabric width; minimize splices in fabric length; splice at post only, overlapping at least 18 inches, with extra post.
 8. Fasten fabric to steel posts using wire, nylon cord, or integral pockets.
 9. Wherever runoff will flow around end of barrier or over the top, provide temporary splash pad or other outlet protection; at such outlets in the run of the barrier, make barrier not more than 12 inches high with post spacing not more than 4 feet.
- C. Temporary Sediment Filters.
1. Drop-in Sediment Trap, place as recommended by manufacturer.
- D. Temporary Pumped Sediment Control Device.
1. Install per manufacturer's recommendations.
- E. Temporary Seeding:
1. When hydraulic seeder is used, seedbed preparation is not required.
 2. When surface soil has been sealed by rainfall or consists of smooth undisturbed cut slopes, and conventional or manual seeding is to be used, prepare seedbed by scarifying sufficiently to allow seed to lodge and germinate.
 3. If temporary mulching was used on planting area but not removed, apply nitrogen fertilizer at 1 pound per 1000 sq ft.
 4. On soils of very low fertility, apply 10-10-10 fertilizer at rate of 12 to 16 pounds per 1000 sq ft.
 5. Incorporate fertilizer into soil before seeding.

6. Apply seed uniformly; if using drill or cultipacker seeders place seed 1/2 to 1 inch deep.
7. Irrigate as required to thoroughly wet soil to depth that will ensure germination, without causing runoff or erosion.
8. Repeat irrigation as required until grass is established.

3.05 MAINTENANCE

- A. Inspect preventive measures weekly, within 24 hours after the end of any storm that produces 0.25 inches or more rainfall at the project site, and daily during prolonged rainfall.
- B. Repair deficiencies immediately.
- C. Silt Fences:
 1. Promptly replace fabric that deteriorates unless need for fence has passed.
 2. Remove silt deposits that exceed one-third of the height of the fence.
 3. Repair fences that are undercut by runoff or otherwise damaged, whether by runoff or other causes.
- D. Clean out temporary sediment control structures weekly and relocate soil on site.
- E. Temporary Pumped Sediment Control Device.
 1. Replace the unit when half full of sediment or when sediment has reduced the flow rate of the pump discharge to an impractical rate.
- F. Place sediment in appropriate locations on site; do not remove from site.

3.06 CLEAN UP

- A. Remove temporary measures after permanent measures have been installed, unless permitted to remain by Architect.
- B. Clean out temporary sediment control structures that are to remain as permanent measures.
- C. Where removal of temporary measures would leave exposed soil, shape surface to an acceptable grade and finish to match adjacent ground surfaces.

END OF SECTION

**SECTION 01 6000
PRODUCT REQUIREMENTS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. General product requirements.
- B. Re-use of existing products.
- C. Transportation, handling, storage and protection.
- D. Product option requirements.
- E. Substitution limitations.
- F. Maintenance materials, including extra materials, spare parts, tools, and software.

1.02 RELATED REQUIREMENTS

- A. Section 01 4000 - Quality Requirements: Product quality monitoring.

1.03 SUBMITTALS

- A. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- B. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
 - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

PART 2 PRODUCTS

2.01 EXISTING PRODUCTS

- A. Do not use materials and equipment removed from existing premises unless specifically required or permitted by Contract Documents.
- B. Unforeseen historic items encountered remain the property of the Owner; notify Owner promptly upon discovery; protect, remove, handle, and store as directed by Owner.
- C. Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to the Owner, or otherwise indicated as to remain the property of the Owner, become the property of the Contractor; remove from site.

2.02 NEW PRODUCTS

- A. Provide new products unless specifically required or permitted by Contract Documents.
- B. See Section 01 4000 - Quality Requirements, for additional source quality control requirements.
- C. Use of products having any of the following characteristics is not permitted:
 - 1. Containing lead, cadmium, or asbestos.
- D. Provide interchangeable components by the same manufacture for components being replaced.

2.03 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.

- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions:
Submit a request for substitution for any manufacturer not named.

2.04 MAINTENANCE MATERIALS

- A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.
- B. Deliver to Project site; obtain receipt prior to final payment.

PART 3 EXECUTION

3.01 SUBSTITUTION LIMITATIONS

- A. Any item referenced to a Commercial Standard, Federal Specification, trade association standard, or similar standard shall meet the latest applicable requirements for design, manufacture, and installation in effect as of the date of the Advertisement or Invitation for Bids. If this specification calls for a higher level of quality than the referenced standard, this specification shall take precedence.
- B. Where a proprietary material or method is specified for a particular use, the intent is to define a standard of quality, performance, or size, and not to exclude other products of equal or superior merit.
 - 1. For the items specified above, bids shall be based on the products identified in the specifications or on products designated by the Architect via addendum as approved equals. A product named in the specifications or by addendum will be acceptable only if it meets all requirements of the specifications, including the manufacturer's specifications in effect on the date of the Advertisement or Invitation for Bids. Requests for approval of a product as an equal will not be considered unless sufficient data is submitted for the Architect to properly evaluate it. In reviewing such requests, the Architect will consider delivery time, service availability, and the product itself in determining approval under this provision.
- C. Submitting a request for substitution represents that the submitter:
 - 1. Has evaluated the proposed product and determined that it meets or exceeds the specified product's quality standards.
 - 2. Agrees to provide the same warranty for the substitution as is required for the specified product.
 - 3. Will coordinate installation and make any necessary modifications to related Work to ensure completion without additional cost to the Owner.
 - 4. Waives any claims for additional cost or time extensions that may later arise from the substitution.
- D. Substitution Submittal Procedure (after contract award):
 - 1. Submit two copies of each substitution request for review. Each request shall address only one proposed substitution.
 - 2. Provide shop drawings, product data, and certified test results demonstrating the proposed product's equivalence. The proposer is responsible for proving equivalency.

3.02 TRANSPORTATION AND HANDLING

- A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.
- B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.
- C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- D. Transport and handle products in accordance with manufacturer's instructions.
- E. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.

- F. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- G. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.
- H. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.03 STORAGE AND PROTECTION

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication. See Section 01 7419.
- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.
- D. Store sensitive products in weathertight, climate-controlled enclosures in an environment favorable to product.
- E. For exterior storage of fabricated products, place on sloped supports above ground.
- F. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.
- G. Comply with manufacturer's warranty conditions, if any.
- H. Do not store products directly on the ground.
- I. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- J. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- K. Prevent contact with material that may cause corrosion, discoloration, or staining.
- L. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- M. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

END OF SECTION

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**SECTION 01 61 50
HAZARDOUS MATERIALS PROHIBITION**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Hazardous Materials Prohibition

1.02 RELATED WORK

- A. Section 00 62 10 - Certificate of Contractor.
- B. Section 00 62 20 - Certificate of Manufacturer.

1.03 REQUIREMENTS

- A. Furnishing and installing any products which are not "asbestos-free"*** is strictly prohibited.

1.04 CERTIFICATIONS

- A. Contractor(s) shall:
 1. Require Manufacturers of products herein itemized as most likely to contain asbestos to submit a Certificate of Manufacturer representing, warranting and certifying products they manufactured and were furnished for this Project are "asbestos-free"***.
 2. Submit a Certificate representing, warranting and certifying all products furnished and installed under their Contract are "asbestos-free"***.
 3. Submit above required Certificates to Architect no later than Date of Substantial Completion of Project.
 4. Copy of Certificates are included in Project Manual under Contract Requirements.

1.05 REMOVAL AND REPLACEMENT

- A. Any products which have been furnished and installed without herein required certification shall be deemed to be "Defective" and "Non-conforming" Work as defined in General Conditions and shall accordingly be removed and replaced with acceptable products.
- B. ** "Asbestos-free" is defined under current EPA Guidelines as a material containing no more than 1% asbestos.

PART 2 PRODUCTS

2.01 LIST OF PRODUCTS MOST LIKELY TO CONTAIN ASBESTOS:

- A.

Divisions 2 thru 14;

Acoustical materials
Carpet and adhesives
Cement
Chalkboards and adhesives
Composition wood materials
Concrete masonry products
Fire blankets
Fire-rated doors
Gypsum board, joint material and adhesives
Resilient flooring and adhesives
Thermal insulation (except fiberglass)
Wall & ceiling surface materials (spray-applied & trowled-on)

Divisions 21 thru 23:

Cement asbestos pipe
Cloth material adjoining air ducts
Fume hood lining
Gaskets in heating & air conditioning equipment
Thermal insulation including that in mechanical equipment (except fiberglass)

Divisions 25 thru 28:

Thermal insulation as component of a product (except fiberglass)

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 01 7000
EXECUTION AND CLOSEOUT REQUIREMENTS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Examination, preparation, and general installation procedures.
- B. Requirements for alterations work, including selective demolition, except removal, disposal, and/or remediation of hazardous materials and toxic substances.
- C. Pre-installation meetings.
- D. Cutting and patching.
- E. Surveying for laying out the work.
- F. Cleaning and protection.
- G. Starting of systems and equipment.
- H. Demonstration and instruction of Owner personnel.
- I. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.
- J. General requirements for maintenance service.

1.02 RELATED REQUIREMENTS

- A. Section 01 3030 - Worksite Safety: General worksite safety requirements.
- B. Section 01 5000 - Temporary Facilities and Controls: Temporary exterior enclosures.
- C. Section 01 5000 - Temporary Facilities and Controls: Temporary interior partitions.
- D. Section 01 5713 - Temporary Erosion and Sediment Control: Additional erosion and sedimentation control requirements.

1.03 REFERENCE STANDARDS

- A. 29 CFR 1910 - Occupational Safety and Health Standards; Current Edition.
- B. 29 CFR 1926 - Safety and Health Regulations for Construction; Current Edition.

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Survey work: Submit name, address, and telephone number of Surveyor before starting survey work.
 - 1. On request, submit documentation verifying accuracy of survey work.
 - 2. Submit a copy of site drawing signed by the Land Surveyor, that the elevations and locations of the work are in compliance with Contract Documents.
 - 3. Submit surveys and survey logs for the project record.
- C. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather exposed or moisture resistant element.
 - 3. Efficiency, maintenance, or safety of any operational element.
 - 4. Visual qualities of sight exposed elements.
 - 5. Work of Owner or separate Contractor.
- D. Project Record Documents: Accurately record actual locations of capped and active utilities.

1.05 QUALIFICATIONS

- A. For surveying work, employ a land surveyor registered in the State in which the Project is located and acceptable to Architect. Submit evidence of surveyor's Errors and Omissions insurance coverage in the form of an Insurance Certificate. Employ only individual(s) trained

and experienced in collecting and recording accurate data relevant to ongoing construction activities,

- B. For field engineering, employ a professional engineer of the discipline required for specific service on Project, licensed in the State in which the Project is located. Employ only individual(s) trained and experienced in establishing and maintaining horizontal and vertical control points necessary for laying out construction work on project of similar size, scope and/or complexity.
- C. For design of temporary shoring and bracing, employ a Professional Engineer experienced in design of this type of work and licensed in the State in which the Project is located.

1.06 PROJECT CONDITIONS

- A. Use of explosives is not permitted.
- B. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
- C. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.
- D. Perform dewatering activities, as required, for the duration of the project.
- E. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- F. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere and over adjacent property.
 - 1. Provide dust-proof enclosures to prevent entry of dust generated outdoors.
 - 2. Provide dust-proof barriers between construction areas and areas continuing to be occupied by Owner.
- G. Erosion and Sediment Control: See Section 01 5713 - Temporary Erosion and Sediment Control.
- H. Rodent Control: Provide methods, means, and facilities to prevent rodents from accessing or invading premises.
- I. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations. Comply with federal, state, and local regulations.

1.07 SAFETY

- A. See Section 01 3030 - Worksite Safety for general worksite safety requirements.
- B. Each contractor is responsible for the safety of their own personnel. At a minimum, all contractors shall comply with OSHA 29 CFR 1926 Construction Safety Standards, OSHA 29 CFR 1910 General Industry Standards (as applicable), applicable state safety regulations, Owner safety requirements, project safety rules, and the Site-Specific Safety Policies (SSSP) when establishing safe work practices and protecting all workers.
 - 1. If any of these standards, requirements, or procedures conflict, the more stringent requirement shall prevail.
- C. Each contractor shall submit their Hazard Communication Program and Safety Data Sheets (SDS) to the Construction Manager prior to the start of work. Contractors shall ensure that employees receive proper training and supervision, and that necessary precautions are taken before any hazardous chemicals are brought onto the jobsite. Contractors are also responsible for maintaining accessible SDS files for their employees, subcontractors, sub-subcontractors, and onsite suppliers.
- D. Each contractor shall submit documentation of an Employer Safety Program that complies with current OSHA regulations and requirements prior to beginning any contract work.

- E. The contractor, along with all subcontractors, sub-subcontractors, and suppliers, shall take all necessary precautions to ensure the safety of the public and all workers on the job, and to prevent accidents or injuries to any persons on, about, or adjacent to the worksite. The contractor and all tiers of subcontractors and suppliers shall comply with Federal and State OSHA regulations, as well as all applicable laws, codes, ordinances, and safety regulations relating to accident prevention and worker protection.
- F. Each contractor shall designate a competent person, as defined in OSHA 29 CFR 1926.32(f), meaning an individual who is capable of identifying existing and predictable hazards in the work environment and has the authority to take prompt corrective action to eliminate them, to serve as the contractor's project safety representative.

1.08 COORDINATION

- A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. Notify affected utility companies and comply with their requirements.
- C. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- D. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on drawings. Follow routing indicated for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- E. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- F. Coordinate completion and clean-up of work of separate sections.
- G. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

PART 2 PRODUCTS

2.01 PATCHING MATERIALS

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 01 6000 - Product Requirements.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.

- F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

3.02 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.03 PREINSTALLATION MEETINGS

- A. When required in individual specification sections, convene a preinstallation meeting at the site prior to commencing work of the section.
- B. Require attendance of parties directly affecting, or affected by, work of the specific section.
- C. Notify Architect four days in advance of meeting date.
- D. Prepare agenda and preside at meeting:
 - 1. Review conditions of examination, preparation and installation procedures.
 - 2. Review coordination with related work.
- E. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.04 LAYING OUT THE WORK

- A. Verify locations of survey control points prior to starting work.
- B. Promptly notify Architect of any discrepancies discovered.
- C. Protect survey control points prior to starting site work; preserve permanent reference points during construction.
- D. Promptly report to Architect the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
- E. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Architect.
- F. Utilize recognized engineering survey practices.
- G. Establish elevations, lines and levels. Locate and lay out by instrumentation and similar appropriate means:
 - 1. Site improvements including pavements; stakes for grading, fill and topsoil placement; utility locations, slopes, and invert elevations.
 - 2. Grid or axis for structures.
 - 3. Building foundation, column locations, ground floor elevations.
- H. Periodically verify layouts by same means.
- I. Maintain a complete and accurate log of control and survey work as it progresses.

3.05 GENERAL INSTALLATION REQUIREMENTS

- A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
- B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
- C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- E. Make neat transitions between different surfaces, maintaining texture and appearance.

3.06 ALTERATIONS

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
 - 1. Verify that construction and utility arrangements are as indicated.
 - 2. Report discrepancies to Architect before disturbing existing installation.
 - 3. Beginning of alterations work constitutes acceptance of existing conditions.
- B. Keep areas in which alterations are being conducted separated from other areas that are still occupied.
 - 1. Provide, erect, and maintain temporary dustproof partitions of construction specified in Section 01 5000 in locations indicated on drawings.
- C. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
 - 1. Where openings in exterior enclosure exist, provide construction to make exterior enclosure weatherproof.
 - 2. Insulate existing ducts or pipes that are exposed to outdoor ambient temperatures by alterations work.
- D. Remove existing work as indicated and as required to accomplish new work.
 - 1. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction specified.
 - 2. Remove items indicated on drawings.
 - 3. Relocate items indicated on drawings.
 - 4. Where new surface finishes are to be applied to existing work, perform removals, patch, and prepare existing surfaces as required to receive new finish; remove existing finish if necessary for successful application of new finish.
 - 5. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible.
- E. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove, relocate, and extend existing systems to accommodate new construction.
 - 1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components; if necessary, modify installation to allow access or provide access panel.
 - 2. Where existing systems or equipment are not active and Contract Documents require reactivation, put back into operational condition; repair supply, distribution, and equipment as required.
 - 3. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
 - a. Disable existing systems only to make switchovers and connections; minimize duration of outages.
 - b. Provide temporary connections as required to maintain existing systems in service.
 - 4. Verify that abandoned services serve only abandoned facilities.
 - 5. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification; patch holes left by removal using materials specified for new construction.
- F. Protect existing work to remain.
 - 1. Prevent movement of structure; provide shoring and bracing if necessary.
 - 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
 - 3. Repair adjacent construction and finishes damaged during removal work.
- G. Adapt existing work to fit new work: Make as neat and smooth transition as possible.

1. When existing finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect.
 2. Where removal of partitions or walls results in adjacent spaces becoming one, rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads.
 3. Where a change of plane of 1/4 inch or more occurs in existing work, submit recommendation for providing a smooth transition for Architect review and request instructions.
 4. Trim existing wood doors as necessary to clear new floor finish. Refinish trim as required.
- H. Patching: Where the existing surface is not indicated to be refinished, patch to match the surface finish that existed prior to cutting. Where the surface is indicated to be refinished, patch so that the substrate is ready for the new finish.
- I. Refinish existing surfaces as indicated:
1. Where rooms or spaces are indicated to be refinished, refinish all visible existing surfaces to remain to the specified condition for each material, with a neat transition to adjacent finishes.
 2. If mechanical or electrical work is exposed accidentally during the work, re-cover and refinish to match.
- J. Clean existing systems and equipment.
- K. Remove demolition debris and abandoned items from alterations areas and dispose of off-site; do not burn or bury.
- L. Do not begin new construction in alterations areas before demolition is complete.
- M. Comply with all other applicable requirements of this section.

3.07 CUTTING AND PATCHING

- A. Whenever possible, execute the work by methods that avoid cutting or patching.
- B. See Alterations article above for additional requirements.
- C. Perform whatever cutting and patching is necessary to:
1. Complete the work.
 2. Fit products together to integrate with other work.
 3. Provide openings for penetration of mechanical, electrical, and other services.
 4. Match work that has been cut to adjacent work.
 5. Repair areas adjacent to cuts to required condition.
 6. Repair new work damaged by subsequent work.
 7. Remove samples of installed work for testing when requested.
 8. Remove and replace defective and non-complying work.
- D. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
- E. Employ skilled and experienced installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
- F. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
- G. Restore work with new products in accordance with requirements of Contract Documents.
- H. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- I. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material , to full thickness of the penetrated element.
- J. Patching:

1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
2. Match color, texture, and appearance.
3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

3.08 PROGRESS CLEANING

- A. During construction, each contractor and subcontractor shall be responsible for daily cleanup and removal of boxes, excess materials, and other debris generated by their work that can be clearly attributed to them. Debris shall be removed from the site by each contractor or placed in the designated trash receptacle(s) noted below. The construction site shall be maintained in a clean and orderly condition at all times.
 1. Each trade shall include in its bid 4 man-hours per week for site cleanup. Provide additional manpower as necessary to stay on project schedule and complete contracted clean up.
 2. Mandatory clean up every Thursday from 2-4 pm.
 3. Contractors who do not clean up their own materials will be backcharged by the General Work and Labor Contractor (Bid Package 6A) at a rate of \$100.00 per hour.
- B. The Construction Manager shall provide 1 large trash receptacle (minimum 15-yard capacity) at the site for use by all contractors throughout the construction period. The Construction Manager shall remove and dispose of the trash each time the receptacle is full (except as otherwise noted below). The location of the receptacle shall be as directed by the Construction Manager.
 1. Demolition debris must be sorted by respective trade in proper trash containers provided by the Construction Manager. Contractors will be back-charged accordingly, if waste materials are not stored / disposed off properly.
 2. Contractors performing exterior enclosure or structural work (e.g., footings, foundations, concrete, masonry, steel, and roofing) shall be responsible for removing their own debris from the site.
- C. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- D. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- E. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- F. Collect and remove waste materials, debris, and trash/rubbish from site (as indicated above) and dispose off-site; do not burn or bury.

3.09 PROTECTION OF INSTALLED WORK

- A. Protect installed work from damage by construction operations.
- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- F. Protect work from spilled liquids. If work is exposed to spilled liquids, immediately remove protective coverings, dry out work, and replace protective coverings.

- G. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- H. Prohibit traffic from landscaped areas.
- I. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

3.10 SYSTEM STARTUP

- A. Coordinate with requirements of Section 01 9113 - General Commissioning Requirements.
- B. Coordinate schedule for start-up of various equipment and systems.
- C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions that may cause damage.
- D. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- E. Verify that wiring and support components for equipment are complete and tested.
- F. Execute start-up under supervision of applicable Contractor personnel and manufacturer's representative in accordance with manufacturers' instructions.
- G. Submit a written report that equipment or system has been properly installed and is functioning correctly.

3.11 DEMONSTRATION AND INSTRUCTION

- A. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at scheduled time, at equipment location.
- B. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- C. Provide a qualified person who is knowledgeable about the Project to perform demonstration and instruction of Owner's personnel.
- D. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.
- E. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.

3.12 ADJUSTING

- A. Adjust operating products and equipment to ensure smooth and unhindered operation.
- B. Testing, adjusting, and balancing HVAC systems: See Division 23.

3.13 FINAL CLEANING

- A. Each contractor and subcontractor shall remove all debris generated by their work and clean any soiling that affects the work of others. The Construction Manager will coordinate the final clean-up, unless otherwise noted.
- B. Use experienced personnel or professional cleaners to perform final cleaning. Restore all surfaces and equipment to a condition consistent with standard commercial building cleaning and maintenance requirements. Follow all manufacturer's cleaning instructions.
- C. Use cleaning materials that are nonhazardous.
- D. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- E. Clean exposed exterior and interior hard-surfaced finishes to a dust-free condition, free of stains, films, and similar foreign substances. Restore reflective surfaces to their original condition. Leave concrete floors broom clean.

- F. Resilient floors and tile floors shall have their protection removed and floor wet-mopped. All maintenance type sealers shall be applied by Owner, once the Operation and Maintenance manuals have been submitted, and/or the training of their staff completed.
- G. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.
- H. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned. Remove excess lubrication and other substances. Clean light fixtures and lamps.
- I. Clean filters of operating equipment.
- J. Clean debris from roofs, gutters, downspouts, scuppers, overflow drains, area drains, and drainage systems.
- K. Clean site; sweep paved areas, rake clean landscaped surfaces.
- L. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

3.14 CLOSEOUT PROCEDURES

- A. Make submittals that are required by governing or other authorities.
- B. Accompany Project Coordinator on preliminary inspection to determine items to be listed for completion or correction in the Contractor's Correction Punch List for Contractor's Notice of Substantial Completion.
- C. Notify Architect when work is considered ready for Architect's Substantial Completion inspection.
- D. Submit written certification containing Contractor's Correction Punch List, that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's Substantial Completion inspection.
- E. Conduct Substantial Completion inspection and create Final Correction Punch List containing Architect's and Contractor's comprehensive list of items identified to be completed or corrected and submit to Architect.
- F. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.
- G. Notify Architect when work is considered finally complete and ready for Architect's Substantial Completion final inspection.
- H. Complete items of work determined by Architect listed in executed Certificate of Substantial Completion.

3.15 MAINTENANCE

- A. Provide service and maintenance of components indicated in specification sections.
- B. Maintenance Period: As indicated in specification sections or, if not indicated, not less than one year from the Date of Substantial Completion or the length of the specified warranty, whichever is longer.
- C. Examine system components at a frequency consistent with reliable operation. Clean, adjust, and lubricate as required.
- D. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original component.
- E. Maintenance service shall not be assigned or transferred to any agent or subcontractor without prior written consent of the Owner.

END OF SECTION

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**SECTION 01 7800
CLOSEOUT SUBMITTALS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Project record documents.
- B. Operation and maintenance data.
- C. Warranties and bonds.

1.02 RELATED REQUIREMENTS

- A. Section 00 7200 - General Conditions and 00 7300 - Supplementary Conditions: Performance bond and labor and material payment bonds, warranty, and correction of work.
- B. Section 01 3000 - Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.
- C. Section 01 7000 - Execution and Closeout Requirements: Contract closeout procedures.
- D. Individual Product Sections: Specific requirements for operation and maintenance data.
- E. Individual Product Sections: Warranties required for specific products or Work.

1.03 SUBMITTALS

- A. Project Record Documents: Submit documents to Architect with claim for final Application for Payment.
- B. Operation and Maintenance Data:
 - 1. Submit an electronic (PDF) format document of preliminary draft or proposed formats and outlines of contents before start of Work. Architect will review draft and return with comments.
 - 2. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed electronic documents within ten days after acceptance.
 - 3. Submit an electronic (PDF) format of completed documents 15 days prior to final inspection. This document will be reviewed and returned after final inspection, with Architect comments. Revise content of all document sets as required prior to final submission.
 - 4. Submit two sets of revised final documents in final form within 10 days after final inspection.
 - a. Include an electronic (PDF) format in addition to the hard copies.
- C. Warranties and Bonds:
 - 1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within 10 days after acceptance.
 - 2. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
 - 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance, listing the date of acceptance as the beginning of the warranty period.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.

4. Change Orders and other modifications to the Contract.
 5. Reviewed shop drawings, product data, and samples.
 6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
 - C. Store record documents separate from documents used for construction.
 - D. Record information concurrent with construction progress.
 - E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 1. Manufacturer's name and product model and number.
 2. Product substitutions or alternates utilized.
 3. Changes made by Addenda and modifications.
 - F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
 1. Measured depths of foundations in relation to finish first floor datum.
 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 4. Field changes of dimension and detail.
 5. Details not on original Contract drawings.

3.02 OPERATION AND MAINTENANCE DATA

- A. Source Data: For each product or system, list names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
- B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
- D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

3.03 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES

- A. For Each Product, Applied Material, and Finish:
 1. Product data, with catalog number, size, composition, and color and texture designations.
- B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.
- C. Moisture protection and weather-exposed products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.
- D. Additional information as specified in individual product specification sections.
- E. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.

3.04 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

- A. For Each Item of Equipment and Each System:
 1. Description of unit or system, and component parts.
 2. Identify function, normal operating characteristics, and limiting conditions.
 3. Include performance curves, with engineering data and tests.

4. Complete nomenclature and model number of replaceable parts.
- B. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.
- C. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.
- D. Include color coded wiring diagrams as installed.
- E. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
- F. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
 1. Include HVAC outdoor and exhaust air damper calibration strategy.
 - a. Include provisions which ensure that full closure of dampers can be achieved.
 2. Include Carbon Dioxide Monitoring Protocol.
 3. Include Carbon Monoxide Monitoring Protocol.
 4. Include Frost Mitigation Strategy for ventilation heat-recovery system.
- G. Provide servicing and lubrication schedule, and list of lubricants required.
- H. Include manufacturer's printed operation and maintenance instructions.
- I. Include sequence of operation by controls manufacturer.
- J. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- K. Provide control diagrams by controls manufacturer as installed.
- L. Provide Contractor's coordination drawings, with color coded piping diagrams as installed.
- M. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- N. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- O. Include test and balancing reports.
- P. Additional Requirements: As specified in individual product specification sections.

3.05 ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS

- A. Assemble operation and maintenance data into durable manuals for Owner's personnel use, with data arranged in the same sequence as, and identified by, the specification sections.
- B. Where systems involve more than one specification section, provide separate tabbed divider for each system.
- C. Prepare instructions and data by personnel experienced in maintenance and operation of described products.
- D. Binders: Commercial quality, 8-1/2 by 11 inch three D side ring binders with durable plastic covers; 2 inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
- E. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
- F. Project Directory: Title and address of Project; names, addresses, and telephone numbers of Architect, Consultants, Contractor and subcontractors, with names of responsible parties.

- G. Tables of Contents: List every item separated by a divider, using the same identification as on the divider tab; where multiple volumes are required, include all volumes Tables of Contents in each volume, with the current volume clearly identified.
- H. Dividers: Provide tabbed dividers for each separate product and system; identify the contents on the divider tab; immediately following the divider tab include a description of product and major component parts of equipment.
 - 1. Electronic Document: Provide "bookmarks" for each separate product and system; identify the contents of the "bookmarked" section with "sub-bookmarks" describing the product and major component parts of equipment.
- I. Text: Manufacturer's printed data, or typewritten data on 20 pound paper.
- J. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- K. Arrangement of Contents: Organize each volume in parts as follows:
 - 1. Project Directory.
 - 2. Table of Contents, of all volumes, and of this volume.
 - 3. Operation and Maintenance Data: Arranged by system, then by product category.
 - a. Source data.
 - b. Product data, shop drawings, and other submittals.
 - c. Operation and maintenance data.
 - d. Field quality control data.
 - e. Photocopies of warranties and bonds.
 - 4. Design Data: To allow for addition of design data furnished by Architect or others, provide a tab labeled "Design Data" and provide a binder large enough to allow for insertion of at least 20 pages of typed text.

3.06 WARRANTIES AND BONDS

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.
- E. Manual: Bind in commercial quality 8-1/2 by 11 inch three D side ring binders with durable plastic covers.
- F. Cover: Identify each binder with typed or printed title WARRANTIES AND BONDS, with title of Project; name, address and telephone number of Contractor and equipment supplier; and name of responsible company principal.
- G. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification section in which specified, and the name of product or work item.
- H. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

END OF SECTION

**SECTION 01 78 46
EXTRA STOCK MATERIALS**

PART 1 GENERAL**1.01 SECTION INCLUDES:**

- A. Extra Stock Materials.

1.02 RELATED REQUIREMENTS:

- A. Section 01 33 00 - Submittal Procedures.
 B. Section 01 78 00 - Closeout Submittals.
 C. Other Sections - As noted below.

PART 2 PRODUCTS**2.01 EXTRA STOCK MATERIALS**

- A. Furnish extra stock materials for the following products, in the quantity indicated.

B.

	Section	Product	Quantity
A.	09 30 00	Wall Tile	Min. one percent but not less than one case of each type
B.	09 30 00	Floor Tile	Min. one percent but not less than one case of each type
C.	09 30 00	Tile Grout	Min. one 10 lb. bag
D.	09 51 00	Acoustical Ceiling Board	Min. one case of each type of acoustical board
E.	09 65 00	LVP	Min. one percent but not less than one case of each type
F.	09 65 00	Rubber Base	Min. one percent but not less than one case of each color
G.	09 68 13	Tile Carpeting	Min. one percent but not less than one case of each color
H.	09 72 00	VCW	Min. 15 lin. yards of each type and color
I.	09 90 00	Paint	Min. one gallon of each color and type
J.	09 90 00	Stain	Min. one quart of each color and type incl. polyurethane

- C. See Divisions 21, 22, 23, 26, 27, and 28 for extra stock/maintenance materials required by those Divisions.

PART 3 EXECUTION**3.01 DELIVERY, STORAGE AND HANDLING**

- A. Containers for extra stock materials shall be unopened, and clearly labeled with the specification section, product name including type if more than one provided, manufacturer's name and address, supplier's name and address, and installing Subcontractor's name, address and phone number.
- B. Extra stock materials shall be delivered to the Project site and stored in accordance with the Owner's instructions.

END OF SECTION

**SECTION 02 00 50
HAZARDOUS MATERIAL INFORMATION**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Notification of Demolition and Renovation

1.02 RELATED REQUIREMENTS:

- A. Section 00 72 00 - General Conditions: Hazardous materials.
- B. Section 00 73 00 - Supplementary Conditions: Hazardous materials.
- C. Section 02 40 00 - Demolition.
- D. Section 02 41 00 - Selective Site Demolition.

1.03 SUBMITTALS:

- A. Furnish copy of executed Notification of Demolition and Renovation form to Architect.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 REQUIREMENTS

- A. Prior to commencing any demolition activities, Contractor shall execute Notification of Demolition and Renovation form following this Section and shall submit executed form to the North Dakota Department of Health.

END OF SECTION



ASBESTOS NOTIFICATION OF DEMOLITION AND RENOVATION
 NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY
 DIVISION OF WASTE MANAGEMENT
 SFN 17987 (2/2023)

I. Type of Notification THIS NOTICE MUST BE SUBMITTED 10 WORKING DAYS BEFORE BEGINNING THE ACTIVITY

<input type="checkbox"/> Original <input type="checkbox"/> Revised <input type="checkbox"/> Cancelled <input type="checkbox"/> Courtesy	Date: _____
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II. Type of Operation	III. Is Asbestos Present?
<input type="checkbox"/> Demolition <input type="checkbox"/> Renovation <input type="checkbox"/> Ordered Demolition <input type="checkbox"/> Emergency Renovation	<input type="checkbox"/> Yes <input type="checkbox"/> No

IV. Dates of Asbestos Removal (MM-DD-YY)	V. Dates of Demolition or Renovation (MM-DD-YY)
Start: _____ Stop: _____	Start: _____ Stop: _____

VI. Facility Information (identify owner and operator, if applicable)

Owner Name			
Owner Address	City	State	ZIP Code
Contact Person	Email	Telephone Number	
Operator Name (if different than owner)			
Operator Address	City	State	ZIP Code
Contact Person	Email	Telephone Number	

VII. Facility Description (include building name, number and floor or room number)

Building Name				
Building Address	City	State	Zip Code	County
Site Location (floor or room number(s))				
Building Size (Sq. Ft.)	Number of Floors		Age of Building/Year Built	
Present Use	Prior Use			

VIII. Asbestos Contractor (If applicable, please enter Demolition or Renovation Contractor information on page 2)

Contractor Name	ND License Number
Contractor Address	City State ZIP Code
Contact Person	Telephone Number

IX. Asbestos Inspector

Firm Name	ND License Number
Firm Address	City State ZIP Code
Name of Inspector	Telephone Number

X. Approximate Amount of Asbestos, Including:

	Regulated Asbestos-Containing Material (RACM) to be Removed	Nonfriable Asbestos-Containing Material to be Removed		Nonfriable Asbestos-Containing Material not to be Removed	
		Category I	Category II	Category I	Category II
Pipe (Linear Ft.)					
Surface Area (Sq. Ft.)					
Volume from Facility Component(s) (Cu. Ft.)					

XI. Testing Procedure for Determining Asbestos and Type of Asbestos Material(s)

<input type="checkbox"/> PLM <input type="checkbox"/> TEM <input type="checkbox"/> Other:	Type of Asbestos-Containing Material(s)
---	---

XII. Description of Work Practices and Engineering Controls to Prevent Asbestos Emissions (check all that apply)

<input type="checkbox"/> Adequately Wet Materials	<input type="checkbox"/> Glove Bag	<input type="checkbox"/> Seal in Leak Tight Containers	<input type="checkbox"/> Encapsulate
<input type="checkbox"/> Negative Air Containment	<input type="checkbox"/> Seal in Leak Tight Wrapping	<input type="checkbox"/> Mini-enclosure	<input type="checkbox"/> Other: _____

XIII. Description of Planned Demolition or Renovation Work (backhoe, bulldozer, hand removal, etc.)

<input type="checkbox"/> Backhoe/Trackhoe	<input type="checkbox"/> Bulldozer	<input type="checkbox"/> Hand Removal	<input type="checkbox"/> Other: _____
Will the Facility or Facility Debris be Burned? <input type="checkbox"/> Yes <input type="checkbox"/> No			
If "Yes", you must contact your local Health Unit or the Department at 701.328.5166 to complete an Open Burn Variance Application: SFN 8509.			

XIV. Demolition or Renovation Contractor

Firm Name	Secretary of State License Number
Firm Address	City
Contact Person	Telephone Number
	State ZIP Code

XV. Waste Transporter

Name	Waste Hauler Permit Number
Address	City
Contact Person	Telephone Number
	State ZIP Code

XVI. Waste Disposal Site for Asbestos-Containing Materials

Name	Permit Number	Telephone Number
Address	City	State ZIP Code
Will the waste be disposed of at a site other than a Landfill approved for asbestos? <input type="checkbox"/> Yes <input type="checkbox"/> No		
If yes, you must contact the Waste Management Division at 701.328.5166 to complete an Inert Waste Disposal Variance Application: SFN 50278.		

XVII. Waste Disposal Site for Demolition or Renovation Materials (other than asbestos)

Name	Permit Number	Telephone Number
Address	City	State ZIP Code

XVIII. If Demolition was Ordered by Government Agency, Identify the Agency and Attach a Copy of the Order

Authority/Agency	Date of Order (MM/DD/YY)	Telephone Number
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XIX. Emergency Demolition or Renovation

Is this an emergency demolition or renovation? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, you must contact the Department at 701-328-5166.

XX. Description of Procedures to be Followed in the Event of an Unexpected Asbestos Fiber Release

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XXI. General Comments

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XXII. I certify to the best of my knowledge that the above information is true and correct. I further certify that all asbestos abatement work on this project will be performed by individuals certified in accordance with the North Dakota Air Pollution Control Rules 33.1-15-13.

Signature of Owner/Operator	Print Name	Date
Business/Organization	Telephone Number	

Return form to: North Dakota Department of Environmental Quality
 Division of Waste Management
 4201 Normandy Street, 2nd Floor
 Bismarck, ND 58503-1324
 (701)328-5166
 (701)328-5200 - fax (If faxing, original copy must be mailed with valid signature)

- X. Approximate Amount of Asbestos Including: (1) Regulated ACM to be removed (including nonfriable ACM to be sanded, ground or abraded); (2) Category I and Category II nonfriable asbestos containing material (ACM) to be removed; and (3) Category I and Category II nonfriable asbestos containing material not to be removed. For both renovations and demolitions, enter the amount of RACM to be removed by entering a number in the appropriate box. If applicable, enter the amount of nonfriable ACM to be removed during a demolition or renovation, and/or enter the amount of nonfriable ACM not to be removed during a demolition or renovation.

Category I nonfriable material includes packing, gaskets, resilient floor covering and asphalt roofing materials. Category II nonfriable material includes any material, excluding Category I materials, that when dry, cannot be crumbled, pulverized or reduced to powder by hand pressure, or mechanical forces expected to operate on the material during the demolition or renovation activity. All Category II materials must be removed prior to demolition.

Complete the volume from facility component(s) if asbestos-containing materials have been removed from facility components and the volume is known.

- XI. Asbestos Testing Procedure and Type of Asbestos Materials Present: Check the appropriate box for the procedure that was used to determine asbestos content. Also, describe the kinds of asbestos-containing materials that are present.
- XII. Description of Work Practices and Engineering Controls to Prevent Asbestos Emissions: Check the appropriate box(s) for work practices that will be employed to prevent asbestos emissions.
- XIII. Description of Planned Demolition or Renovation Work: Include a brief description of the renovation/demolition technique(s) to be used. Also, indicate if the facility or facility debris will be burned.
- XIV. Demolition or Renovation Contractor: Name and address of contractor hired to perform demolition or renovation work.
- XV. Waste Transporter(s): Enter the name(s), addresses(s), contact person(s) and telephone number(s) of the person(s) or company(ies) responsible for transporting ACM from the removal site to the waste disposal site. If the removal contractor or owner is the waste transporter, state "same as owner" or "same as removal contractor." If multiple parties are responsible include complete information on an additional sheet and submit with this form.
- XVI. Waste Disposal Site for the Asbestos-Containing Materials: Identify the waste disposal site, including the complete name, location, and telephone number of the facility. If ACM is to be disposed of at more than one site, provide complete information on an additional sheet submitted with the form. Permit number(s) must be included. If the waste will not be disposed of at a landfill approved for asbestos, then an Inert Waste Disposal Variance Application must be completed and approved by the Department.
- XVII. Waste Disposal Site for Demolition or Renovation Materials: Identify the waste disposal site, including the complete name, location, and telephone number of the facility. If the waste will not be disposed of at a landfill approved for waste materials, then an Inert Waste Disposal Variance Application must be completed and approved by the Department.
- XVIII. If Demolition Ordered by a Government Agency, Please Identify the Agency below: Provide the name of the responsible official, title and agency, authority under which the order was issued and the date of the order. A copy of the order from the government agency must be attached to this form.
- XIX. Emergency Demolition or Renovation Information: Please identify if the work is an emergency demolition or renovation. If yes, please immediately contact the Department at 701.328.5166.
- XX. Description of Procedures to be Followed in the Event that Unexpected Asbestos Fiber Release: Provide adequate information to demonstrate that appropriate actions have been considered and can be implemented to control asbestos emissions adequately, including at a minimum, conformance with applicable work practice standards. Attach an additional sheet of paper if needed and submit with this form.
- XXI. General Comments: as necessary. Attach an additional sheet of paper if needed and submit with this form.
- XXII. Verification and Certification: Certify the accuracy and completeness of the information provided and the intent to comply with the North Dakota Air Pollution Control Rules by signing and dating the notification form. Please sign and print the name of the owner or operator and list the business or organization the owner or operator is affiliated with.

SECTION 02 40 00 Demolition

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Continuity of Operations.
- B. Demolition.
- C. Roofing Tear-Off.

1.04 PROTECTION

- A. Prevent movement or settlement of structure. Provide and place bracing or shoring and be responsible for safety and support of structure. Assume liability for such movement, settlement, damage or injury.
- B. Cease operations and notify Architect immediately, if safety of structure appears to be endangered. Take precautions to properly support structure. Do not resume operations until safety is restored.
- C. Provide, erect and maintain barricades, lighting, and guardrails as required by applicable regulatory advisory to protect occupants of building and workers.
- D. Do not close or obstruct building exits.
- E. Protect items not indicated for relocation or to be turned over to Owner, and items not to be demolished or altered, including items to be salvaged by other trades. Soiled items shall be cleaned by Contractor to original appearance. Damaged items shall be replaced by Contractor.
- F. Protect finishes not to be altered or removed. Marred finishes shall be repaired or replaced by Contractor.

1.05 EXISTING SERVICES

- A. Arrange and pay for disconnecting, removing and capping utility services within areas of demolition. Disconnect and stub off. Notify the affected utility company in advance and obtain approval before starting this Work.
- B. Place markers to indicate location of disconnected services. Identify service lines and capping locations on Project Record Documents.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Except for items indicated on Drawings to be turned over to Owner, relocated, or re-installed, maintain possession of materials being demolished and remove from site.

PART 3 EXECUTION

3.01 PREPARATION

- A. Provide weatherproof closures for exterior openings.
- B. Maintain exit requirements. Provide temporary signage for exiting requirements.
- C. Ensure dustproof separations, including sealing off of return air registers, smoke detectors, etc. are completed prior to commencing demolition.
- D. Coordinate with Owner to disable smoke detection system in areas of dust-producing demolition.
- E. Notify local fire department of Work affecting fire alarm system or fire suppression system.
- F. Locate guardrails around open shafts. Post clearly visible warning signs.
- G. Coordinate demolition with other trades to ensure that items that may require salvage by other trades are not demolished. Review all Drawings to determine extent of salvaged items by other trades.

- H. Determine step-by-step demolition procedure and obtain technical expertise as required to ensure safe and controlled demolition operations, and stability of the structure throughout the demolition process.

3.02 CONTINUITY OF OPERATIONS

- A. Provide protection for students and staff in adjacent areas; normal operations of the facility will proceed.
- B. Coordinate demolition activities with Owner to maintain uninterrupted operations.

3.03 DEMOLITION

- A. Demolish in an orderly and careful manner as required to accommodate new Work, including that required for connection to the building.
- B. Protect existing foundations and supporting structural members.
- C. Carry out demolition Work to cause as little inconvenience as possible to adjacent occupied portions of building.
- D. Perform demolition in accordance with applicable authorities having jurisdiction.
- E. Perform demolition as indicated on Drawings and as required to accommodate and allow installation of new finishes and systems. Completely remove items indicated for demolition unless noted otherwise. Not all components of indicated items required to be removed are specifically called out on the Drawings.
- F. Repair all damage as a result of demolition operations, and all demolition performed in excess of that required to match conditions existing before start of the Work, at no cost to Owner.
- G. Burning of materials on site is not permitted.
- H. Remove from site, contaminated, vermin-infested or dangerous materials encountered and disposed of by any means so as not to endanger health of workers and public.
- I. Remove demolished materials, tools and equipment from site promptly. Do not allow demolished materials to accumulate or be stored on-site. Leave site in acceptable condition.
- J. If hazardous materials are encountered, Contractor shall take action in accordance with the General Conditions.

3.04 ROOFING TEAR-OFF

- A. Remove no more existing roofing than can be covered the same day by new roofing.
- B. Protect areas where roofing has been removed to prevent water intrusion into building.
- C. Use chutes to move debris to conveying vehicles.
- D. Perform demolition in accordance with applicable authorities having jurisdiction.
- E. Repair all demolition performed in excess of that required, at no cost to Owner.

END OF SECTION 02 40 00

SECTION 02 41 00 Selective Site Demolition

1.06 PROJECT CONDITIONS

- A. Minimize production of dust due to demolition operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Except for items indicated on Drawings to be turned over to Owner or relocated, maintain possession of materials being demolished and remove from site.
- B. Fill Material: As specified in Section 31 23 00 - Excavation & Fill.

PART 3 EXECUTION

3.01 SCOPE

- A. Remove, salvage, dispose of, or return to owner all items as indicated on plans.
- B. Backfill areas excavated caused as a result of demolition. Use subsoil specified in Section 31 23 00.
- C. Rough grade and compact areas affected by demolition to maintain site grades and contours.
- D. Remove debris and demolished materials as Work progresses. Leave site in clean condition.
- E. Repair all damage as a result of demolition operations, and all demolition performed in excess of that required to match conditions existing before start of the Work, at no cost to Owner.
- F. Repair damage to adjacent structure(s) caused as the result of this Work.

3.02 GENERAL PROCEDURES AND PROJECT CONDITIONS

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
 - a. Obtain required permits.
 - b. Comply with applicable requirements of NFPA 241.
 - c. Use of explosives is not permitted.
 - d. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
 - e. Provide, erect, and maintain temporary barriers and security devices.
 - f. Use physical barriers to prevent access to areas that could be hazardous to workers or the public.
 - g. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
 - h. Do not close or obstruct roadways or sidewalks without permit.\
 - i. Conduct operations to minimize obstruction of exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.
 - j. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon or limit access to their property.
- B. Do not begin removal until receipt of notification to proceed from Owner.
- C. Do not begin removal until built elements to be salvaged or relocated have been removed.
- D. Do not begin removal until vegetation to be relocated has been removed and specified measures have been taken to protect vegetation to remain.
- E. Protect existing structures and other elements that are not to be removed.
 - a. Provide bracing and shoring.
 - b. Prevent movement or settlement of adjacent structures.

SECTION 02 41 00 SELECTIVE SITE DEMOLITION

- c. Stop work immediately if adjacent structures appear to be in danger.
- F. Minimize production of dust due to demolition operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
- G. If hazardous materials are discovered during removal operations, stop work and notify Owner's Representative and Owner; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury.
- H. Hazardous Materials: Comply with 29 CFR 1926 and state and local regulations.

3.03 EXISTING UTILITIES

- A. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.
- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to the Owner and the local governing authority.
- E. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 3 days prior written notification to Utility Companies.
- F. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.

3.05 DEBRIS AND WASTE REMOVAL

- A. Remove debris, junk, and trash from site.
- B. Leave site in clean condition, ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

END OF SECTION 02 41 00

SECTION 03 11 00 Permanent Forms

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Steel Form Deck.

1.02 RELATED WORK

- A. Section 01 45 30 - Special Inspections.
- B. Section 03 30 00 - Cast-In-Place Concrete: Concrete support and shoring, if required.

1.03 REFERENCE STANDARDS (MOST CURRENT EDITIONS)

- A. ACI 301 - Specifications for Concrete Construction.
- B. ACI 318 - Building Code Requirements for Structural Concrete.
- C. ACI 347R - Guide to Formwork for Concrete.
- D. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process. 1.04 SUBMITTALS. Submit in accordance with Section 01 33 00.B. Shop Drawings: Clearly indicate unit, dimensions and sections and typical fastening pattern. Indicate location of temporary shoring.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Vulcraft Division of Nucor Corporation is specified with New Millenium Building Systems also acceptable.

2.02 MATERIALS

- A. ASTM A653/A653M, SS, Grade 33.

2.03 STEEL FORM DECK

- A. See Drawings.

2.04 FINISH

- A. At stoops: Both sides galvanized conforming to ASTM A653/A653M, G90.

PART 3 EXECUTION

3.01 INSTALLATION

1. Install in accordance with reviewed Shop Drawings.
2. Unless otherwise noted on Drawings, sheet length shall satisfy two-span condition. Locate end laps over supports.
3. Install so units have minimum bearing of 4 inches on concrete. Fasten to with 1/4-inch diameter x 2-1/4 inch kwik bolts at four locations per sheet width.
4. Edge lap 1/2 corrugation.

3.02 FIELD CUTTING

- A. Cut units for openings in workmanlike fashion by power shears, gas torch, cold chisel or other means approved by Architect.

END SECTION 03 11 00

SECTION 03 20 00 Concrete Reinforcing

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Reinforcing steel for cast-in-place concrete.
- B. Supports and accessories for steel reinforcement.
- C. Products Furnished but not installed under this section
 - a. Furnish reinforcing bars for masonry cores, lintels and bond beams for installation under Section 04 20 00.

1.02 RELATED REQUIREMENTS

- A. Section 03 11 00 - Permanent Forms.
- B. Section 03 30 00 - Cast-In-Place Concrete.
- C. Section 32 13 13 - Concrete Paving.

1.03 REFERENCE STANDARDS

- A. ACI 117 - Specification for Tolerances for Concrete Construction and Materials.
- B. ACI 301 - Specifications for Concrete Construction.
- C. ACI 318 - Building Code Requirements for Structural Concrete.
- D. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.
- E. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete.
- F. CRSI (DA4) - Manual of Standard Practice.
- G. Portland Cement Association: Specifications for Plain and Reinforced Concrete.

1.04 SUBMITTALS

- A. Submit in accordance with Section 01 33 00 - Submittal Procedures.
- B. Shop Drawings: Include bar schedules (including size, length and bending), shapes of bent bars, spacing of bars, and location of splices. Include layout showing placement and openings.

1.05 QUALITY ASSURANCE

- A. Perform work of this section in accordance with ACI 301.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. See Section 01 60 00.
- B. Bundle and tag for identification in accordance with Shop Drawing marking.

PART 2 PRODUCTS

2.01 MATERIALS

- A. General: ACI 301, Section 3.

2.02 REINFORCEMENT

- A. Reinforcing Bars :
 - a. Non-Welded Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi) deformed billet steel, unless otherwise noted on Drawings.
 - b. Weldable Reinforcing Steel: ASTM A706, Grade 60 (60,000 psi) low alloy steel deformed bars with uncoated finish.
- B. Reinforcement Accessories

- a. Tie Wire: ASTM A1064/A1064M; Annealed, minimum 16 gage, 0.0508 inch (1.29 mm).
- b. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for adequate support of reinforcement during concrete placement.
- c. Provide non-corrosive and nonbleeding accessory components for placement within 1-1/2 inches (38 mm) of weathering surfaces.

2.03 FABRICATION

- A. Fabricate concrete reinforcing in accordance with CRSI (DA4) - Manual of Standard Practice.
- B. Fabricate supports and spacers to maintain proper height of reinforcing in concrete.
- C. All reinforcing bars shall be bent cold unless otherwise permitted by Architect or Structural Engineer.
- D. Locate reinforcing splices not indicated on drawings at point of minimum stress.
- E. Minimum bend diameters shall conform to Chapter 7, ACI 318.
- F. Fabrication tolerances per ACI 117.

PART 3 EXECUTION

3.01 RE-INSTALLATION MEETING

- A. Architect will meet with the Contractor and the Subcontractor providing Work under this Section to:
 - a. Review pre-construction testing status
 - b. Review general requirements of Shop Drawings
 - c. Review proposed Shop Drawing format and presentation (submitted prior to meeting for review by Architect)
 - d. Review Shop Drawing numbering scheme and titling
 - e. Review checking requirements by the Contractor and identify individuals preparing and checking Shop Drawings.
 - f. Establish submittal packages schedule identifying parcels of the Work and schedule. Break submittals into small enough packages to facilitate timely processing. Avoid large submittals.
 - g. Review Architect's and Engineer's scope of review, submittal status and schedule.
 - h. Review the construction inspection and testing requirements.

3.02 PREPARATION

- A. Remove mud, oil and other non-metallic coatings that decrease bond from all reinforcing. Rust, mill scale or a combination of both are allowed per Chapter 7, ACI 318.

3.03 PLACEMENT

- A. General: ACI 301, Section 3.
- B. Tolerances: ACI 117.
- C. Place reinforcing in accordance with reviewed Shop Drawings and reasonably carry out intent of Drawings and Specifications.
- D. Provide additional reinforcing at the corners of square isolation joints that are not rotated to restrain crack development.
- E. Set all reinforcing on raised pins or chairs. Do not allow reinforcing to be at bottom of slab on grade or topping. Hand lifting of reinforcing during placement of concrete is not permitted. Provide chair supports and spacers as necessary to ensure proper and positive location of reinforcing. Bar Support and Spacers: In accordance with Referenced CRSI Standard.
- F. Provide spreaders for footings with two or more layers of reinforcing.
- G. Do not place splices in slab, beams and girders at points of maximum stress.
- H. Lap splices minimum of 38 bar diameters for #6 bar or smaller, and 48 bar diameters for #7 bar and larger, unless otherwise required by Chapter 12, ACI 318. Stagger splicing of adjacent lines.
- I. Lap splices in columns, piers, etc. to sufficiently transfer full stress by bond.

SECTION 03 20 00 CONCRETE REINFORCING

- J. Do not extend reinforcing through expansion and contraction joints. Provide doweled joints through expansion and contraction joints, with one end of dowels allowing free movement.
- K. Beams: Place straight and bent bars, stirrups and accessories as indicated on Shop Drawings.
- L. Ties: Securely tie together bars crossing each other in same plane with annealed wire at each intersection.
- M. Mechanical Connections: When required or permitted, mechanical connections shall be installed in accordance with the splice device manufacturer's recommendations.
- N. Minimum Concrete Coverage (Unless noted otherwise):
 - a. Concrete cast against and permanently exposed to earth: 3 inches
 - b. Concrete exposed to earth or weather
 - i. No. 6 - No. 18 bar 2 inches
 - ii. No. 5 bar and smaller 1-1/2 inches
 - iii. Concrete slab on grade Mid-height or 1-1/2 inches
 - iv. Concrete not exposed to weather or in contact with ground
 - v. Slabs, walls & joists, No. 14 and No. 18 bar 1-1/2 inches, No. 11 bar and smaller 3/4 inches
- O. Place, support and secure reinforcement against displacement. Do not deviate from required position.
- P. Under no circumstances shall concrete be placed or reinforcing otherwise covered until the quantity, size, type and placement of reinforcing has been inspected by the Special Inspector when required by Section 01 45 30, and placement of concrete has been authorized by the Structural Engineer, and Special Inspector, when required. The Structural Engineer and Special Inspector shall be given a minimum of 48 hours notice to review and inspect reinforcement prior to concrete placement.

END OF SECTION 03 20 00

SECTION 03 20 00 CONCRETE REINFORCING

SECTION 03 30 00 Cast-in-Place Concrete

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Concrete formwork.
- B. Concrete floors, slabs on grade, on deck, and topping.
- C. Concrete footings, foundation walls, and piers.
- D. Joint devices associated with concrete work.
- E. Concrete curing.

1.02 RELATED REQUIREMENTS

- A. Section 01 40 00 - Quality Requirements.
- B. Section 01 45 30 - Special Inspections.
- C. Section 03 11 00 - Permanent Forms.
- D. Section 03 20 00 - Concrete Reinforcing.
- E. Section 07 20 00 - Thermal Insulation: Foundation perimeter insulation.
- F. Exterior Improvements: All exterior concrete Work with exception of concrete stoops Provided under this section.

1.03 REFERENCE STANDARDS

- A. ACI 117 - Specification for Tolerances for Concrete Construction and Materials.
- B. ACI 211.1 - Selecting Proportions for Normal-Density and High Density-Concrete -Guide.
- C. ACI 301 - Specifications for Concrete Construction.
- D. ACI 302.1R - Guide to Concrete Floor and Slab Construction.
- E. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete.
- F. ACI 305R - Guide to Hot Weather Concreting.
- G. ACI 306.1 - Standard Specification for Cold Weather Concreting.
- H. ACI 306R - Guide to Cold Weather Concreting.
- I. ACI 308.1 - Specification for Curing concrete.
- J. ACI 318 - Building Code Requirements for Structural Concrete.
- K. ACI 347R - Guide to Formwork for Concrete.
- L. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
- M. ASTM C1193 - Standard Guide for Use of Joint Sealants.
- N. ASTM C143/C143M - Standard Test Method for Slump of Hydraulic-Cement Concrete.
- O. ASTM C31/C31M - Standard Practice for Making and Curing Concrete Test Specimens in the Field.
- P. ASTM C33/C33M - Standard Specification for Concrete Aggregates.
- Q. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
- R. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete.
- S. ASTM C150/C150M - Standard Specification for Portland Cement.
- T. ASTM C172/C172M - Standard Practice for Sampling Freshly Mixed Concrete.
- U. ASTM C260/C260M - Standard Specification for Air-Entraining Admixtures for Concrete.
- V. ASTM C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
- W. ASTM C494/C494M - Standard Specification for Chemical Admixtures for Concrete.
- X. ASTM C618 - Standard Specification for Coal Ash and Raw or Calcined Natural Pozzolan for Use in Concrete.
- Y. ASTM C920 - Standard Specification for Elastomeric Joint Sealants.

- Z. ASTM C1059/C1059M - Standard Specification for Latex Agents for Bonding Fresh to Hardened Concrete.
- AA. ASTM C1077 - Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation.
- BB. ASTM D1752 - Standard Specification for Preformed Sponge Rubber, Cork, and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction.
ASTM D5249 - Standard Specification for Backer Material for Use with Cold- and Hot-Applied Joint Sealants in Portland-Cement Concrete and Asphalt Joints..
- CC. ASTM E96/E96M - Standard Test Methods for Gravimetric Determination of Water Vapor Transmission Rate of Materials.
- DD. ASTM E154/E154M - Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover.
- EE. ASTM E1155/E1155M - Standard Test Method for Determining FF Floor Flatness and FL Floor Levelness Numbers.
- FF. ASTM E1643 - Standard Practice for Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs.
- GG. ASTM E1745 - Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs.
- HH.II. ASTM F1249 - Standard Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor.
- II. ASTM F1554 - Standard Specification for Anchor Bolts, Steel, 36, 55, and 105-ksi Yield Strength.
- JJ. NRMCA - National Ready Mixed Concrete Association.
- KK. PCA - Portland Cement Association.

1.04 SUBMITTALS

- A. Submit in accordance with Section 01 33 00 - Submittal Procedures.
- B. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements and installation instructions.
 - a. Curing, Sealing compounds, admixtures, and vapor retarder.
 - b. Furnish copies of product data for sealing compounds to Sections 09 65 00, 09 68 13, and 09 30 00 for review and approval by those Sections. Furnish written approval of use of compounds from Subcontractor(s) providing finishes on concrete surfaces.
 - c. 3. For curing compounds, provide data on method of removal in the event of incompatibility with floor covering adhesives.
- C. Mix Design(s) and Testing Laboratory Reports: Submit proposed concrete mix design and testing laboratory reports for each herein specified concrete type and strength in accordance with ACI 318 and Section 01 33 00, proposed protection for cold weather concreting, and proposed placement and curing procedures for hot weather concreting. Mix no concrete until approval of report by Architect. Mix designs shall not be approved prior to review of entire Pre-Construction test results.D. Samples: Submit samples of underslab vapor retarder to be used.

1.05 QUALITY ASSURANCE

- A. Special Inspections: See section 01 45 30 - Special Inspections and Structural Drawings.
- B. Testing and reporting by testing laboratory: Section 01 40 00 - Quality Requirements. Field technicians in charge of sampling concrete, testing for slump, unit weight and yield, air content, and temperature, and making and curing test specimens shall be certified in accordance with ACI Concrete Field Testing Technician - Grade 1 Certification Program, ASTM C1077 or equivalent program.
- C. Perform work of this section in accordance with ACI 301 and ACI 318.
- D. Concrete Aggregate Test: ASTM C33/C33M, made not more than 4 months prior to submittal. Mix no concrete until approval of report by Architect.

- E. Concrete Mix Designs: For each herein specified concrete strength. Mix no concrete until approval of report by Architect. Mix design shall be by Testing Laboratory.
- F. Concrete Cylinder Compression Tests:
 - 1. Securing Cylinders: During process of concrete Work per ASTM C31/C31M and ASTM C172/C172M.
 - 2. Quantity of Cylinders: No less than 4 cylinders per test. Additional may be required by Architect if there is possibility of surrounding air temperature falling below 40 degrees F. Protect cylinders from freezing.
 - 3. Size of Cylinders: 4 by 8 inches.
- G. Quantity of Tests: Take one test (4 cylinders) from each part of structure and for each mix design (including exterior paving) placed on any one day. If daily pour exceeds 50 cubic yards, take additional tests for each 50 cubic yards or fraction thereof for each part of structure and each mix design placed. Take one additional cylinder during cold weather concreting, cured on job site under same conditions as concrete it represents.
- H. Curing of Cylinders: ASTM C31/C31M; Laboratory cure cylinders for strength testing unless directed otherwise by Architect or Engineer. Store curing cylinders for determining form removal as near as possible to portion of structure they represent and receive same protection.
- I. Testing of Cylinders: ASTM C39/C39M and ACI 301. Test in accordance with ASTM C39/C39M. Test one specimen at 7 days for information, and three specimens at 28 days for acceptance, and forward test results to Architect. When more than 4 cylinders are taken per sample, reserve those additional cylinders for 30 days for testing only when directed by Architect or Structural Engineer. Owner will not pay for unnecessary tests. Test results for acceptance shall be the average of the three cylinders made from the same sample and tested at 28 days. Strength level of an individual class of concrete
 - 1. The arithmetic average of any three consecutive strength tests (28-day) equals or exceeds the specified compressive strength;
 - 2. No individual strength test (average of three cylinders) falls below the specified compressive strength by more than 500 psi.
- J. Re-testing required because of non-conformance to specified requirements shall be paid for by the Contractor.
- K. Floor Flatness and Levelness Tests: ASTM E1155; Perform tests within 72 hours after placement of floor.
- L. All curing compounds, curing and sealing compounds, form release compounds, and liquid field-applied bond breakers and protective coatings shall not exceed VOC limits as specified in EPA National Volatile Organic Compound Emission Standards for Architectural Coatings.

PART 2 PRODUCTS

2.01 FORMWORK

- A. General: ACI 301 Section 1.
- B. Formwork Design and Construction: Comply with guidelines of ACI 301 Section 2 and ACI 347R to provide formwork that will produce concrete complying with tolerances of ACI 117.
- C. Form Materials: Contractor's choice of standard products with sufficient strength to withstand hydrostatic head without distortion in excess of permitted tolerances.

2.02 REINFORCEMENT

- A. Comply with requirements of Section 03 20 00.

2.03 CONCRETE MATERIALS

- A. General: In Accordance with ACI 301 Sections 4 and 6.
- B. Cement: ASTM C150/C150M, Type I and IA, low-alkali, Portland type.

- C. Fine and Coarse Aggregates: ASTM C33/C33M. Pit run and back run gravel is not permitted. Maximum shale content is 0.3 percent.
 - 1. Nominal maximum size of coarse aggregate shall not be larger than
 - a. 1/5 the narrowest dimension between sides of forms, nor
 - b. 1/3 the depth of slabs, nor
 - c. 3/4 the minimum clear working space between individual reinforcing bars or wires, bundles of bars, individual tendons, bundled tendons, or ducts.
- D. Fly Ash: ASTM C618, Class C. Fly ash shall be from an electrical generating plant using a single coal source. Fly ash produced at plants where the limestone injection process is used for controlling air pollution is not acceptable. Fly ash is not allowed for use any time ambient temperature is less than 45 degrees F for a period of 3 days before or after placement of concrete.
- E. DO NOT USE FLY ASH or OTHER CEMENT SUBSTITUTES.
 - 1. Concrete placed in cold weather.
- F. Water: Fresh, clean and drinkable (potable) and not detrimental to concrete.

2.04 ADMIXTURES

- A. Do not use any products that contain or contribute to chloride salts in the concrete.
- B. Air Entrainment Admixture: ASTM C260/C260M.
- C. Chemical Admixtures: ASTM C494/C494M. Do not use without Architect's written approval.

2.05 ACCESSORIES

- A. Under-Slab Cushion: Unwashed pit run or crushed gravel, crushed stone, or crushed slag, not contaminated with clay, silt or organic material, naturally or artificially graded with maximum aggregate size of 3/4", 10% - 30% passing #100 sieve, and less than 5 percent passing #200 sieve by weight as acceptable to Testing Laboratory.
- B. Underslab Vapor Retarder: Multi-layer, fabric-, cord-, grid-, or aluminum-reinforced polyethylene or equivalent, complying with ASTM E1745, Class A, except maximum permeance of 0.01 perms in accordance with ASTM F1249 or ASTM E154/E154M (based on test methods for ASTM E96/E96M; minimum 15-mil thickness; stated by manufacturer as suitable for installation in contact with soil or granular fill under concrete slabs. The use of single ply polyethylene is prohibited.
 - 1. Installation: Comply with ASTM E1643.
 - 2. Accessory Products: Vapor retarder manufacturer's recommended tape, adhesive,
- C. mastic, prefabricated boots, etc., for sealing seams and penetrations in vapor retarder.
 Non-Shrink Cementitious Grout for Base Plates: Premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents.
 - 1. Products
 - a. BASF; MasterFlow 885: www.master-builders-solutions.basf.us
 - b. Euclid Chemical Co.; NS Grout: www.euclidchemical.com
 - c. Five Star Products, Inc; Five Star Grout: www.fivestarproducts.com.
 - d. L&M Construction Chemicals, Inc, a subsidiary of Laticrete International, Inc. Duragrout: www.lmcc.com.
 - e. Sika Corporation; SikaGrout 212 and/or SikaGrout 428 FS: www.usa.sika.com.
 - 2. Substitutions: See Section 01 60 00 - Product Requirements.
- D. Non-Shrink Grout for Dowels
 - 1. Products
 - a. Dayton Superior; Sure Grip Utility Grout: www.daytonsuperior.com
 - b. Euclid Chemical Co.; NS Grout: www.euclidchemical.com
 - c. Five Star Products, Inc; Five Star Grout: www.fivestarproducts.com.

- d. ITW Polymer Technologies (Philadelphia Resins); Chock-Fast Red.
 - e. W.R. Meadows; 588-10K: www.wrmeadows.com.
 - 2. Substitutions: See Section 01 60 00 - Product Requirements.
- E. Cast-in-place Anchor Bolts: ASTM F1554, Grade 36, right-angle end, size and spacing as indicated on Drawings; galvanized in accordance with ASTM A153/A153M. At Contractor's option, other anchors in accordance with Section 05 40 00 may be used in lieu of cast-in-place anchor bolts provided all structural requirements are met.
- D. 2.06 BONDING AND JOINTING PRODUCTS
- a. See Structural Drawings for key and dowel requirements.
 - b. Bonding Agent: Complying with ASTM C1059/C1059M, type as required for job conditions. Bond Breaker: 15 lb. felt or similar material.
 - c. Slab Isolation Joint Filler (Expansion Joint Material): 1/2 inch (13 mm) thick, height equal to slab thickness, with removable top section that will form 1/2 inch (13 mm) deep sealant pocket after removal.
 - i. Material: ASTM D5249, Type 2, thermosetting, closed cell plastic material; and ASTM D1752 Sections 5.1 through 5.4 with compression requirements modified to 10 psi minimum and 25 psi maximum.
 - ii. Manufacturers:
 - a. W.R. Meadows, Inc; Ceramar Joint Filler with Snap-Cap: www.wrmeadows.com.
 - b. Substitutions: See Section 01 60 00 - Product Requirements.
- F. Sealant: In accordance with Section 07 92 00.
- G. Sealant - Horizontal and Vertical Joints: ASTM C920, Type M, Grade P, Class 25, Use NT, polyurethane base, chemical curing, nonstaining and non-bleeding; or ASTM C920, Type S, Grade P, Class 25, Use NT, polyurethane base, moisture-curing, nonstaining and non-bleeding.

2.07 CURING MATERIALS

- A. Curing compounds are NOT allowed.
- B. Do not use any sealing or hardening compounds on floors to receive other finishes without permission in writing from flooring and adhesive manufacturers.
- C. Sealer: ASTM C309, Type I, Class B, VOC-compliant water-base acrylic compound; .

2.08 CONCRETE MIX DESIGN

- A. General: In accordance with ACI 301, Sections 4 and 6.
- B. Proportioning Normal Weight Concrete: Comply with ACI 211.1 recommendations.
- C. Normal Weight Concrete:
 - 1. Compressive Strength, when tested in accordance with ASTM C39/C39M at 28 days: As scheduled.
 - a. Exterior Flatwork: See Structural Drawings. 4,500 psi.
 - b. Interior Flatwork: See Structural Drawings..
 - c. Footings, Foundation Walls, and Piers: See Structural Drawings..
 - 2. Concrete Exposed to Weather: Use air-entraining admixture based on normal maximum size of aggregate as follows: Nom. Max. Size of Aggregate Total Air Content (percent)
3/8" 7.5 1/2" 7 3/4" 6 1" 6 1-1/2" 5.5
 - 3. Fly Ash Content: (Do not use fly ash in concrete to be placed in cold weather.)
 - a. Interior concrete slab-on-grade and elevated floor slabs: Maximum 15 percent of cementitious materials by weight.
 - b. All other conditions: Maximum 25 percent of cementitious materials by weight.
 - 4. Water-Cement Ratios: General ACI 318, Section 4.1.
 - a. Concrete exposed to freezing and thawing: Maximum 45 percent by weight.

- a. All other conditions: Maximum water-cement ratio shall be selected on the basis of strength and workability requirements, but minimum cement content should not be less than 470 lbs. per cubic yard.
- b. If fly ash is used, the cement portion of the water-cement ratio shall be the total weight of cementitious material.

2.09 MIXING

- A. General: ACI 301 Section 4, Comply with ASTM C94/C94M.
- B. No site mixed concrete will be permitted.
- C. Admixtures: Incorporate into concrete mix in strict accordance with admixture manufacturer's instructions.
- D. The maximum temperature of concrete shall at no time during its production or transportation exceed 90 degrees F.
- E. Cold Weather: ACI 306R; When the average daily temperature falls below 40 degrees F. for more than 3 successive days prior to placing concrete, the minimum temperature of concrete as placed shall be 55 degrees F, except 50 degrees F for section 12 inches to 36 inches. The temperature of concrete as placed shall not exceed this value by more than 20 degrees F. These minimum requirements may be terminated when temperatures above 50 degrees F (28 degrees C) occur during more than half of any 24 hour duration.
- F. Hot Weather: ACI 305R; When hot, dry or windy weather is anticipated, adjust mix design in accordance with testing laboratory recommendations. Concrete shall be delivered at temperatures as low as practicable, subject to approval of the purchaser.

PART 3 EXECUTION

3.01 GENERAL

- A. Comply with requirements of ACI 301, Sections 5 and 6.

3.02 EXAMINATION

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

3.03 PREPARATION

- A. Formwork: Comply with requirements of ACI 301 Section 2. Design and fabricate forms to support all applied loads until concrete is cured, and for easy removal without damage to concrete. Do not use earth cuts as forms for vertical surfaces without Architect's approval.
- B. Prior to placing concrete, ensure reinforcing is free of materials deleterious to bond, forms are properly coated, masonry filler units that will be in contact with concrete have been well drenched, and all debris and ice has been removed from spaces to be occupied by concrete.
- C. Cold Weather Concreting: In accordance with ACI 306.1 except as modified herein. Ensure subgrade is thawed to a depth of 24 inches.
- D. Hot weather: Moisten subgrade, forms and reinforcement prior to placement. Avoid standing water. Avoid excessive water application resulting in water clinging to forms, reinforcing or embedments.
- E. Addition of water during the placement or finishing of concrete is not permitted except with the express written permission of the Testing Laboratory.
- F. In locations where new concrete is doweled to existing work, drill holes in existing concrete, insert steel dowels and pack solid with non-shrink grout.
- G. Interior Slabs on Grade: Install vapor retarder under interior slabs on grade in accordance with ASTM E1643. Lap joints minimum 6 inches (150 mm). Seal joints, seams and penetrations watertight and to foundation with manufacturer's recommended products and follow manufacturer's written instructions. Repair damaged vapor retarder before covering and seal

watertight. 1. Under-Slab Cushion Over Vapor Retarder: Cover vapor retarder with compactible granular fill as acceptable to testing laboratory to minimum 6 inch depth. Alternative placement may be used with written approval of the Architect.

3.04 PLACING CONCRETE

- A. Place concrete in accordance with ACI 301, Section 5 and ACI 304R.
- B. Notify Architect not less than 24 hours prior to commencement of placement operations.
- C. Concrete deliveries shall be scheduled to ensure that the concrete in each load is placed within 90 minutes after water was added for non-air entrained concrete and 60 minutes after water was added for air entrained concrete.
- D. Place concrete continuously between predetermined construction joints.
- E. Concrete shall be deposited as nearly as practical in its final position to avoid segregation.
- F. Concrete shall not free fall more than 4 feet during placement .
- G. Concrete that has partially hardened or been contaminated by foreign materials shall not be deposited in the structure.
- H. Retempered concrete or concrete that has been remixed after initial set shall not be used unless approved by the Engineer.
- I. All concrete shall be thoroughly consolidated by suitable means during placement and shall be thoroughly worked around reinforcement and embedded fixtures and into corners of forms.
- J. Concrete Floor Slabs: Discharge concrete in a manner to prevent segregation. Place concrete in large areas in strips. Deposit concrete as near as possible to its final position, and toward previously placed concrete. Move discharge chute at a rate that will prevent the accumulation of large piles of concrete. Do not place concrete at a rate faster than which it can be spread, bull floated or darbied, and re-straightened.
- K. Ensure inserts, embedded parts, and formed construction joint devices will not be disturbed during concrete placement.

3.05 JOINTING

- A. Expansion and Isolation Joints: At exterior walls separate slabs on grade from vertical surfaces with Expansion Joint Material. Place joint filler in floor slab pattern placement sequence. Set top to required elevations. Secure to resist movement from by wet concrete. Isolate columns from slabs with circular or square openings. Square openings shall be rotated 45 degrees from axis of joints. Where no floor covering is specified, remove top 1/2 inch of joint filler and fill joints with sealant. At interior walls provide bond breaker at all joints between floor slab and walls.
- B. Provide continuous, not staggered or offset, contraction joints at maximum 10-foot intervals in both directions. Saw cut joints as soon as concrete has hardened sufficiently to prevent aggregate from dislodging by saw and prior to shrinkage stress cracking. Joint depth shall be minimum of 1/4 depth of slab but not less than 1 inch. Use a 3/16 inch blade, except use 3/8 blade at joints to receive sealant.
- C. Fill joints with sealant in rooms where no floor covering is specified. Contraction joints should intersect corners of openings at square isolation joints, and bisect circular isolation joints at 90 degree angle to each other.
- D. Form butt-doweled type construction joints with smooth dowels. Immediately before new concrete is placed, all construction joints shall be wetted and standing water removed. Construction joints can coincide with contraction joints. Where possible, construction joints should be min. 5 feet from any other joint to which they are parallel. If contraction joint is to coincide with construction joint, tool both sides of construction joint to properly locate saw cut, and saw cut to min. depth of 1 inch and fill cut joint with sealant in rooms where no floor covering is specified.
- E. Concrete Anchors: Install in strict accordance with manufacturer's recommendations. This includes, but is not limited to, minimum embedment unless otherwise noted and applying proper torque.

3.08 CONCRETE FINISHING

- A. General: ACI 301, Section 6.
- B. Repair surface defects, including tie holes, immediately after removing formwork.
- C. Repair plastic shrinkage cracks in a manner that will firmly close crack for the complete depth of the crack. Re-trowel to level finish.
- D. Avoid working mortar to surface.
- E. Round all edges, including edges of expansion and contraction joints, with 1/2-inch radius edging tool.
- F. Unexposed Form Finish: Rub down or chip off fins or other raised areas 1/4 inch (6 mm) or more in height.
- G. Exposed Form Finish: Give as cast SF-2.0 finish to exposed portions of concrete foundations, edges of slabs, and exposed concrete walls above grade.
- H. Concrete Slabs: Finish to requirements of ACI 301 Section 5, and as follows 1. Slab Classification (ACI 302.1R): Class 4. 2. Provide light broom finish on exterior stoops.

3.09 CURING AND PROTECTION

- A. General: Most stringent requirement of both IBC 1905.11 and ACI 318-5.11.1 shall be used.
- B. Apply all materials in strict accordance with manufacturer's printed instructions.
- C. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- D. Maintain concrete in a moist condition with minimal moisture loss at relatively constant temperature maintained above 50 degrees F for period necessary for hydration of cement and hardening of concrete and as listed below:
 - 1. Normal concrete: Not less than 7 days after placement.
- E. Concrete Slabs Scheduled to Receive Finish Material: Wet cure as specified herein. Do NOT apply sealer at these locations.
- F. Exterior Flatwork (Stoops): Apply curing compound as specified herein, and continuous, uniform coating of Water Repellent in accordance with manufacturer's instructions after final cleaning.
- G. Interior Slabs Scheduled to Not Receive Other Finish Material: Apply curing compound as specified herein, and continuous, uniform coating of sealer in accordance with manufacturer's instructions after final cleaning.
- H. General: Apply curing compound on surfaces per manufacturer's requirements, except as herein specified for cold or hot weather concreting. Do not apply curing compound to concrete that is still bleeding or has a visible water sheen on the surface. Do not apply curing compound if air temperature is less than 40 degrees F (4 degrees C) unless temporary heating measures are provided as specified herein. Apply to form a continuous, uniform film in accordance with manufacturer's instructions. Coverage not to exceed 200 sq. ft. per gallon per coat.
- I. Cold Weather: If temperatures are expected to remain below 40 degrees F (4 degrees C) Provide temporary heat to protect concrete from freezing for a minimum of 48 hours for unexposed concrete and 72 hours for exposed concrete, or until it attains a minimum compressive strength of 500 psi. Temporary heat shall be sufficient to maintain temperature of concrete at 55 degrees F. Vent flue gases from combustion heating units to the outside of the enclosure. Place heaters and ducts to avoid areas of overheating or drying of the concrete surface. During the protection period specified above, do not expose the concrete surface to air having a temperature more than 20 degrees F above the values specified herein.
- J. Hot Weather: Protect newly placed concrete from high temperatures, direct sunlight, low humidity and drying winds. Commence finishing as soon as the sheen has left the surface. Commence curing as soon as finishing is completed. Cover to prevent evaporation or use liquid curing compound in accordance with compound manufacturer's printed instructions, or cure with water. Continue curing for a minimum of 7 days. If curing method is changed, do so only after concrete

SECTION 03 30 00 CAST IN PLACE CONCRETE

is at least 3 days old. Do not allow surface to become dry during transition between curing methods. Protect concrete from air temperature drops of more than 5 degrees F (3 degrees C) per hour, or more than 50 degrees F (28 degrees C) in any 24-hour period, during first 24 hours after placement.

- K. Minimum Waiting Period For Form Removal: Contractors responsibility. Review with Architect prior to stripping. General guideline for wall and vertical forms is 36 hours.
- L. L. Keep non-load-carrying form facing material in place as follows:
 - 1. Walls and Piers: 36 hours.
 - 2. Re-shoring is permitted.

3. 10 MISCELLANEOUS

- A. Bonding Agent: Prior to placement of new topping, base slab shall be thoroughly cleaned and dampened but left free of standing water. Immediately before topping is placed, a coat of bonding agent shall be applied to the surface in accordance with manufacturer's instructions.

END OF SECTION 03 30 00

SECTION 04 05 00 Masonry Mortar and Grout

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Masonry Mortar and Grout.

1.02 RELATED WORK

- A. Section 01 40 00 - Quality Requirements.
- B. Section 01 45 30 - Special Inspections.
- C. Section 04 20 00 - Unit Masonry: Water-repellent treated CMU.

1.03 REFERENCE STANDARDS

- A. ASTM C1019 - Standard Test Method for Sampling and Testing Grout for Masonry.
- B. ASTM C143/C143M - Standard Test Method for Slump of Hydraulic-Cement Concrete.
- C. ASTM C144 - Standard Specification for Aggregate for Masonry Mortar.
- D. ASTM C150/C150M - Standard Specification for Portland Cement.
- E. ASTM C1714 - Standard Specification for Preblended Dry Mortar Mix for Unit Masonry.
- F. ASTM C207 - Standard Specification for Hydrated Lime for Masonry Purposes.
- G. ASTM C260/C260M - Standard Specification for Air-Entraining Admixtures for Concrete.
- H. ASTM C270 - Standard Specification for Mortar for Unit Masonry.
- I. ASTM C305 - Standard Practice for Mechanical Mixing of Hydraulic Cement Pastes and Mortars of Plastic Consistency.
- J. ASTM C387/C387M - Standard Specification for Packaged, Dry, Combined Materials for Concrete and High Strength Mortar.
- K. ASTM C404 - Standard Specification for Aggregates for Masonry Grout.
- L. ASTM C476 - Standard Specification for Grout for Masonry.
- M. ASTM C5 - Standard Specification for Quicklime for Structural Purposes.
- N. ASTM C595 / C595M - Standard Specification for Blended Hydraulic Cements.
- O. ASTM C618 - Standard Specification for Coal Ash and Raw or Calcined Natural Pozzolan for Use in Concrete.
- P. ASTM C780 - Standard Test Methods for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry.
- Q. ASTM C91/C91M - Standard Specification for Masonry Cement.
- R. Brick Institute of America (BIA) - Technical Notes on Brick Construction.
- S. MSJC - Masonry Standards Joint Committee.
- T. National Concrete Masonry Association (NCMA) - TEK Manual for Concrete Masonry Design.
- U. TMS 402/602 - Building Code Requirements and Specification for Masonry Structures.

1.04 SUBMITTALS

- A. Submit in accordance with Section 01 33 00 - Submittal Procedures.
- B. Product Data: Furnish manufacturer's descriptive literature, color samples and mixing instructions for mortar, mortar color, and water repellent.

1.05 QUALITY ASSURANCE

- A. Special Inspections by Section 01 45 30 - Special Inspections.
- B. Contractor: Submit proposed mortar and grout mix design(s) to Architect, Engineer, and Special Inspector for approval prior to commencement of Work.
- C. Testing Laboratory Services by Section 01 40 00 :

1. Perform tests of mortar mixes (ASTM C780) and grout ASTM C1019 to ensure conformance with requirements stated herein and to ensure mortar will not produce efflorescence and mortar and grout will attain required compressive strength.
2. Furnish two cube compression tests of mortar mixes.
3. Furnish one sample of compression tests (three cube specimens) of grout for each pour.
4. Report results of tests.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Store pre-mixed mortar in accordance with manufacturer's instructions.
- B. Protect materials for mortar and grout from precipitation and groundwater. Store materials off the ground and cover with waterproof covering.
- C. Do not use masonry materials that are contaminated.
- D. Store different aggregates separately.

1.07 ENVIRONMENTAL CONDITIONS/REQUIREMENTS

- A. See Section 04 20 00 - Unit Masonry.

PART 2 PRODUCTS

2.01 MATERIALS

- B. General: ASTM C270.
- C. Portland Cement: ASTM C150/C150M, normal, Type I; gray color, except white cement at colored mortar.
- D. Masonry Cement: ASTM C91/C91M, for general use.
- E. Mortar Aggregates: ASTM C144, standard masonry type; clean, dry and protected against dampness, freezing and foreign matter.
- F. Hydrated Lime: ASTM C207, Type S.
- G. Quicklime: ASTM C5, non-hydraulic type.
- H. Preblended Mortar: ASTM C1714; commercially prepared type; using gray cement, except white cement at colored mortar.
- I. Mortar Color: Mineral oxide pigment; True Tone™ Sweet Sixteen™ by Davis Colors, The Euclid Chemical Company, Medusa Cement Company or Tamms Industries, Co.. Color is intended to assist in matching existing mortar and face brick.
- J. Grout: Concrete for Cores, Lintels, and Bond Beams: ASTM C476 Fine (3/8" aggregate) grout, aggregate complying with ASTM C404; min. compressive strength 2,500 psi at 28 days (ASTM C1019); slump between 8 and 11 inches (ASTM C143/C143M); 4-6 percent AEA.
- K. Fly Ash for Grout: ASTM C618, Class C or Class F. Fly ash shall be from an electrical generating plant using a single coal source. Fly ash produced at plants where the limestone injection process is used for controlling air pollution is not acceptable. Fly ash is not allowed for use any time ambient temperature is less than 45 degrees F for a period of 3 days before or after placement of concrete.

2.02 MORTAR MIX

- A. ASTM C270 Proportion Specification and Articles 2.1 and 2.6A or TMS 402/602: Type S below grade or in contact with earth; Type S for engineered masonry, above or below grade, and Type N elsewhere. Fly Ash Content: Maximum 25 (40 percent is max. allowable) percent of total cementitious materials by weight; ASTM C1167

PART 3 EXECUTION

3.01 MIXING

- A. General: ASTM C305.
- B. Control batching procedure to ensure proper proportions by measuring materials by volume.
- C. Volume measurement by shovel count is not permitted.
- D. Hand mixing of mortar is not permitted without written permission of the Architect.
- E. Mix all cementitious materials and aggregate, with the maximum amount of water to produce a workable consistency, in a mechanical batch mixer for not less than 3 minutes and not more than 5 minutes.

3.02 COLORED MORTAR

- A. Add mortar color in accordance with manufacturer's instructions; insure uniformity of mix and coloration.

3.03 ANTIFREEZE COMPOUNDS

- A. Do not use antifreeze compounds to lower the freezing point of mortar.

3.04 PLACEMENT

- A. Use mortar within two hours of mixing at temperatures 80 degrees F and above, and within two and one half hours of mixing at temperatures under 80 degrees F.
- B. If necessary, retemper mortar within two hours of mixing to replace water lost by evaporation. Retemper in accordance with ASTM C270.
- C. Colored mortar shall not be retempered.
- D. Unused mortar shall be discarded within 2-1/2 hours after initial mixing unless the ambient air temperature is above 100 degrees F., or 90 degrees F with a wind velocity greater than 8 mph, in which case the mortar shall be discarded within 2 hours after initial mixing.

END OF SECTION

SECTION 04 20 00 Unit Masonry**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Clay Masonry Units.
- B. Cast Stone Cap
- C. Reinforcement and Anchorage.
- D. Through Wall Flashing.
- E. Accessories.
- F. Fasteners.

1.02 RELATED WORK

- A. Section 01 40 00 - Quality Requirements.
- B. Section 01 45 30 - Special Inspections.
- F. Section 04 05 00 - Masonry Mortar and Grout.
- J. Section 07 20 00 - Thermal Insulation: Cavity wall insulation.
- K. Section 07 25 00 - Weather Barriers: Air and vapor barrier barrier.
- L. Section 07 41 00 - Metal Roof and Wall Panels.
- M. Section 07 60 00 - Flashing and Sheet Metal: Flashing Reglets to be built into masonry.
- O. Section 07 92 00 - Joint Sealants: Sealants for expansion/contraction joints.

1.03 REFERENCE STANDARDS

- A. ICC (IBC) - International Building Code.
- B. TMS 402/602 - Building Code Requirements and Specification for Masonry Structures.
- C. ASTM A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable.
- D. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete.
- E. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
- F. ASTM A36/A36M - Standard Specification for Carbon Structural Steel.
- G. ASTM A641/A641M - Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire.
- H. ASTM A951/A951M - Standard Specification for Steel Wire for Masonry Joint Reinforcement.
- I. ASTM B370 - Standard Specification for Copper Sheet and Strip for Building Construction.
- J. ASTM C216 - Standard Specification for Facing Brick (Solid Masonry Units Made From Clay or Shale).
- K. ASTM C67 - Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile.
- L. ASTM C90 - Standard Specification for Loadbearing Concrete Masonry Units.
- M. ASTM C1019 - Standard Test Method for Sampling and Testing Grout.
- N. ASTM C1314 - Standard Test Method for Compressive Strength of Masonry Prisms.
- O. ASTM D1056 - Standard Specification for Flexible Cellular Materials--Sponge or Expanded Rubber.
- P. ASTM D2000 - Standard Classification System for Rubber Products in Automotive Applications.

- Q. ASTM D2287 - Standard Specification for Nonrigid Vinyl Chloride Polymer and Copolymer Molding and Extrusion Compounds.
- R. Brick Institute of America (BIA) - Technical Notes on Brick Construction.
- S. TMS 402/ACI 530/ASCE 5 - Building Code Requirements and Specification for Masonry Structures.
- T. TMS 602/ACI 530.1/ASCE 6 - Specification for Masonry Structures.

1.04 SUBMITTALS

- A. Submit in accordance with Section 01 33 00.
- B. Product Data: Furnish manufacturer's descriptive literature for reinforcement, through-wall flashing, Mortar Control Device, and control joints including installation instructions.
- C. Certificates:
 - 1. Furnish certificate from face brick manufacturer that face brick has been tested in accordance with ASTM C67 and reported as "not effloresced".

1.05 DELIVERY, STORAGE AND HANDLING

- A. See Section 01 60 00.
- B. Do not use damaged masonry units.
- C. Protect reinforcement, ties, and metal accessories from permanent distortions and store them off the ground.
- D. Store all masonry units off the ground and cover with waterproof covering.

1.06 QUALITY ASSURANCE

- A. Special Inspection: By Section 01 45 30.

1.07 FACE BRICK MOCK-UP

- A. Location: Adjacent to building. When approved by the Architect, mock-up may be constructed as part of the Work with the understanding that if the mock-up is rejected it will be demolished and re-built until approved by the Architect.
- B. Size: 4 feet long by 4 feet high.
- C. Panel to Include: Color range, tooled joints, reinforcing, through-wall flashing, weeps, back-up, quality of workmanship.
- D. After Approved by Architect: Use as standard for all Work.
- E. Removal: Do not move or destroy panel until directed by Architect.

1.08 PRE-INSTALLATION CONFERENCE

- A. Location: On-site location to be determined.
- B. Time: After approved materials have been delivered to the site, but prior to commencing installation.
- C. Attendance: Architect, Construction Manager at Risk(CMaR), masonry Subcontractor, roofing/flashing Subcontractor(s) where masonry affected by their Work, masonry/mortar supplier(s), and all others deemed necessary by Construction Manager at Risk(CMaR).
- D. Topics of Discussion: Scheduling of masonry work; staging of materials; status of submittals; bond and coursing; installation of flashing and weeps; location of expansion/control joints; installation of reinforcing/anchors; tooled joints.
- E. Upon completion of Pre-Installation Conference Architect will prepare and issue Construction Manager at Risk(CMaR) meeting minutes. Construction Manager at Risk(CMaR) shall be responsible for distributing minutes to all other parties.

1.09 PERFORMANCE REQUIREMENTS

- A. Prior to delivering any face brick to the Site, the masonry supplier shall test the face brick in accordance with ASTM C67 to determine the brick's Initial Rate of Absorption (IRA). Test(s)

shall be performed no more than twelve (12) months prior to delivery. If IRA > 30 g/min·30 in² all brick shall be wetted to achieve a saturated surface-dry condition prior to laying.

1.10 ENVIRONMENTAL CONDITIONS

- A. Keep masonry units dry. Do not use wet or frozen masonry units.
- B. The following cold and hot weather requirements may be modified as approved by Architect to suit Project conditions.

1.11 HOT WEATHER REQUIREMENTS

- A. AMBIENT TEMP.
(Degrees F.)

PREPARATION REQUIREMENTS

Above 100, or 90
with a Wind velocity
greater than 8 mph

Provide necessary conditions and equipment to produce mortar having a temperature below 120 degrees F.
Sand piles shall be maintained in a damp, loose condition.

Above 115, or 105
with a Wind velocity
greater than 8 mph

Provide necessary conditions and equipment to produce mortar having a temperature below 120 degrees F.
Sand piles shall be maintained in a damp, loose condition.
Materials and mixing equipment shall be shaded from direct sunlight.

- B. AMBIENT TEMP.
(Degrees F.)

CONSTRUCTION REQUIREMENTS

Above 100, or 90
with a Wind velocity
greater than 8 mph

The temperature of mortar and grout shall be maintained below 120 degrees F.
Flush mixers, mortar transport containers and mortar boards with cool water before they come into contact with mortar ingredients or mortar.
Maintain mortar consistency by retempering with cool water. See Section 04 05 00 Masonry Mortar and Grout for time limits on retempering.
Use mortar within 2 hours of initial mixing.

Above 115, or 105
with a Wind velocity
greater than 8 mph

The temperature of mortar and grout shall be maintained below 120 degrees F.
Use cool mixing water for mortar and grout. The use of ice shall be permitted in the mixing water prior to use. Ice shall not be permitted in the mixing water when added to the other mortar or grout materials.
Flush mixers, mortar transport containers and mortar boards with cool water before they come into contact with mortar ingredients or mortar.
Maintain mortar consistency by retempering with cool water. See Section 04 05 00 Masonry Mortar and Grout for time limits on retempering.
Use mortar shall be used within 2 hours of initial mixing.

C. MEAN DAILY AIR
TEMP. (Degrees F.)

PROTECTION REQUIREMENTS

Above 100, or 90
with a Wind velocity
greater than 8 mph

Fog spray all newly constructed masonry until damp, at least (3) times a day until the masonry is three days old.

PART 2 PRODUCTS

2.02 CLAY MASONRY UNITS

- A. Face Brick: Hollow units of burned clay or shale, ASTM C216 Grade SW, Type FBS (Standard).
1. Manufacturer: Hebron Brick is Specified
 2. Colors: To Match Existing

2.02 CAST STONE SILL/WALL CAP

- A. Cast Stone Cap, 5" H x 5" W with sloped top, anchor as required.
1. Manufacturer: Marcstone is specified with Artstone
 2. Colors: To Match Existing Sills

2.03 REINFORCEMENT AND ANCHORAGE

- A. General: Provide joint reinforcement that conforms to ASTM A951/A951M.
- B. USE WITH CMU WALLS
- a. Maximum spacing of cross wires in ladder-type joint reinforcement and of points of connection of cross wires to longitudinal wires of truss-type joint reinforcement shall be 16 inches.
- C. BRICK VENEER WITH CMU BACKUP
- a. Wall Ties: Ladder type formed from cold-drawn steel wire conforming to ASTM A1064/A1064M, consisting of deformed longitudinal rods with smooth cross rods flush-welded (non-lapped design) thereto at intervals not exceeding 16 inches o.c., projecting eyes flush-welded on the outer longitudinal wire at 16 inches o.c., and adjustable pintles with wire size W2.8 legs, equal to 270 Ladder Lox-All Adjustable Eye-Wire with pintels by Hohmann & Barnard, Inc. Width 2 inches less than nominal wall width, formed from 11-gauge rods at 1/4 inch joints and 9-gauge rods at other width joints.
- D. FINISH
- a. Interior Locations: Mill galvanized; ASTM A641/A641M, standard type, .10 oz per square foot.
 - b. Exterior Locations and Interior Locations exposed to relative humidity exceeding 75 percent: Hot-dipped Galvanized, ASTM A153/A153M, Class B, 1.50 oz. per square foot.

2.04 THROUGH-WALL FLASHING

- A. General: All flashing products and accessories shall be by a single manufacturer.

- B. Acceptable Types:
 1. Copper Sheet: Conforming to ASTM B370; min. 16 oz/ft²; saw-toothed or dovetailed to ensure mechanical bond with mortar.
 2. Composite: 3 oz. copper bonded on both sides to glass fabric with asphaltic coating; or 3 oz. copper bonded on both sides to heavy waterproofed crepe kraft paper.
 3. Asphalt-free Composite: 3 oz. copper sheet bonded with rubber-based adhesive between two layers of polymer fabric.
 4. Membrane: Min. 40-mil polymeric, UV-stable membrane; or min. 45-mil EPDM.
 5. Rubberized Asphalt: Self-sealing, fully adhered rubberized asphalt and cross-laminated polyethylene film, min. 40-mils total thickness.
 6. PVC flashing is not permitted.
- C. Flashing Accessories: Preformed rubber or metal corners and end dams, and compatible tapes, sealants, adhesives and other accessories as recommended by flashing manufacturer.
- D. FLASHING SYSTEM
 1. At Contractor's option, a flashing system equal to TotalFlash® by Mortar Net® may be used in lieu of specified separate through-wall flashing, mortar control device, and weep components. Install system in accordance with manufacturer's instructions.

2.05 ACCESSORIES

- A. Control Joints (concrete masonry): Provide material that conforms to one of the following: ASTM D2000, M2AA-805 Rubber Shear Keys with a minimum durometer hardness of 80; or PVC 654-4 PVC Shear Keys, ASTM D2287 with a minimum durometer hardness of 85; equal to RS Series by Hohmann & Barnard, Inc..
- B. Expansion Joints (clay masonry): Provide material that conforms to ASTM D1056, Type 2, Class A, Grade 1.
- C. Mortar Control Device: High density polyethylene or nylon strands woven into min. 90 percent open mesh, shaped to prevent mortar damming and provide open water flow path to weeps; equal to Mortar Net®; thickness as required to span cavity.
- D. Weeps: 3/8-inch diameter cotton rope, plastic tube weep with integral cotton wicks, or open-weave polyester mesh equal to Weep Vent by Mortar Net Ltd. Plastic tube weeps shall not be permitted except those with integral cotton wicks.
- E. Termination Bar: ASTM A36/A36M; continuous steel bar; for use with membrane and rubberized asphalt flashings.
- F. Cleaning Agent: Type recommended by masonry manufacturer. Cleaning agents containing hydrofluoric acid, hydrochloric (muriatic) acid, or ammonium bifluoride are not permitted.

2.06 FASTENERS

- A. General: Anchor sizes and embedment as indicated on Structural Drawings. Where size and/or embedment is not indicated on Drawings, use 3/4-inch diameter and manufacturer's recommended embedment.
- B. Provide screen tubes by fastener manufacturer at all epoxy and adhesive anchors.
- C. Powder Actuated Fasteners Equal to Hilti DX System by Hilti.
- D. Structural Concrete Wedge Anchors; Strong-Bolt 2 by Simpson Strong-Tie or equal.
- E. Structural Concrete Epoxy Adhesive Anchors; Equal to SET-XP by Simpson Strong-Tie.
- F. Structural Concrete Acrylic Adhesive Anchors; Equal to AT-XP by Simpson Strong-Tie.
- G. Structural Concrete Screw Anchors: Titen-HD by Simpson Strong-Tie or equal; galvanized in accordance with ASTM A153/A153M; sized and spaced as indicated on structural Drawings.
- H. Structural Masonry Screw Anchors: Titen-HD by Simpson Strong-Tie or equal; galvanized in accordance with ASTM A153/A153M; sized and spaced as indicated on structural Drawings. Not for installation in hollow cells of masonry.

PART 3 EXECUTION

3.01 GENERAL

- A. Erect masonry in accordance with Specification for Masonry Structures TMS 602/ACI 530.1/ASCE 6 and as noted below.

3.02 PREPARATION

- A. Supply metal anchors to Section 03 30 00 for placement. Provide sufficient quantity, and direct their correct placement.
- B. Ensure items built-in by other trades for this Work are properly located and sized.
- C. Establish lines, levels and coursing. Protect from disturbances.
- D. Clean all reinforcement to remove mud, oil, or other materials that will adversely affect or reduce bond at the time mortar or grout is placed.
- E. Prior to placing masonry, remove laitance, loose aggregate, and anything else that would prevent mortar from bonding to the foundation.
- F. Unless otherwise required, do not wet concrete masonry units before laying.
- G. Before placing, field test face brick to determine absorption by drawing a 1-inch diameter circle with wax pencil on the bed surface. Apply 20 drops of water with eye dropper inside circle. If water is completely absorbed in 1-1/2 minutes, wet brick to achieve saturated surface-dry condition.
- H. Blend face brick using brick from different cubes as the units are laid.
- I. Protect metal surfaces that could be damaged by mortar, including but not limited to anodized aluminum.
- J. Protect previously laid masonry from mortar splatter.

3.03 PLACING AND BONDING

- A. Place clean units while the mortar is soft and plastic. Remove and relay in fresh mortar any unit disturbed to the extent that initial bond is broken after initial positioning.
- B. Place hollow units so face shells of bed joints are fully mortared; webs are fully mortared in all courses of piers, columns and pilasters, and in the starting course on foundations, and when necessary to confine grout or loose-fill insulation; head joints are mortared a minimum distance from each face equal to the face shell thickness of the unit; and vertical cells to be grouted are aligned and unobstructed openings for grout are provided in accordance with the Drawings. Filling of head joints by slushing mortar is not permitted.
- C. Solidly fill bed and head joints of solid units with mortar. Filling of head joints by slushing mortar is not permitted. Construct head joints by shoving mortar tight against the previously laid unit. Do not deeply furrow bed joints at solid units.
- D. Fully bond external and internal corners and intersections.
- E. Buttering corners of joints is not permitted.
- F. At cavity walls; ensure cavity is kept free of mortar.
- G. Remove excess mortar and projections as masonry is laid. Take care to prevent breaking masonry corners.
- H. Where nonbearing masonry partitions extend to underside of floor, roof deck or structural system, stop masonry short 3/8 inch to 1/2 inch to allow for live load deflection. Fill gap with joint filler. Provide restraining angles (structural anchorage retention) in accordance with ANSI A41.1.
- I. Provide cleanouts in the bottom course of masonry for each grout pour, when the grout pour exceeds 4 feet in height. In solid grouted masonry, space cleanouts horizontally a maximum of 32 inches o.c. per ACI TMS 402/602. Construct cleanouts so that the space to be grouted can be cleaned and inspected, and with an opening of sufficient size to permit removal of debris with a minimum opening dimension of 3 inches. After cleaning, close cleanouts with closures braced to resist grout pressure.

3.04 COURSING AND JOINTING

- A. Place masonry in accordance with lines and levels indicated on Drawings.
- B. Ensure masonry courses are of uniform height. Make vertical and horizontal joints equal and of uniform thickness. Lay in full bed of mortar, properly jointed with other work.
- C. Unless otherwise required, construct 3/8-inch bed and head joints except at foundation. Construct bed joint of the starting course of foundation with a thickness not less than 1/4-inch and not more than 3/4-inch.
- D. Fill holes not specified in exposed and below grade masonry with mortar.

- E. Unless otherwise required, solidly fill collar joints less than 3/4-inch wide with mortar as job progresses.
- F. Lay brick in running bond, except where otherwise indicated. Course three brick units and three mortar joints to equal 8 inches. Form concave mortar joints.
- G. Ensure mortar joints have no voids.
- H. Joints shall be tooled for full height of wall, including above ceilings and other concealed areas.
- I. Tool mortar joints when mortar has become thumbprint hard.
- J. Concave Joints: Finish slightly concave with oversized round rod.

3.05 REINFORCEMENT AND ANCHORAGE

- A. Lateral Support: Ensure that anchorages embedded in concrete for concrete block are properly placed. Embed free end of anchorages in every third concrete block joint.
- B. Foundation dowels that interfere with unit webs are permitted to be bent to a maximum of 1 inch horizontally for every 6 inches of vertical height. Position reinforcing accurately and hold securely in place to prevent displacement.
- C. Masonry Veneer with CMU Backup: Install adjustable wall ties such that there is at least one tie for each 1.77 square feet of wall area. Horizontal and vertical spacing of ties shall not exceed 16 inches o.c.
- D. Wall Ties: Provide wall ties where indicated on Drawings and in accordance with Article 3.4.E of the Reference Standard.
- E. Joint Reinforcement: Provide in bed joints of all masonry walls at every 16 inches in wall height. Provide in first and second bed joints above lintels and below sills of openings, extending 24 inches beyond jamb at second joint and continuous at first. Lap ends 6 inches minimum. Ensure that all ends of longitudinal wires of joint reinforcement are embedded in mortar at laps. Provide prefabricated corner and tee sections at corners and wall intersections. Place joint reinforcement so that longitudinal wires are embedded in mortar with a minimum cover of 1/2 inch when not exposed to weather or earth and min. 5/8 inch when exposed to weather or earth. Tolerances in accordance with Article 3.4.B.8 of Reference Standard.
- F. Grouted Core Reinforcement: Article 3.4 B of Reference Standard per TMS 402/602.

3.07 FLASHINGS

- A. Through-wall Flashing: Provide flashing first masonry course at foundation, head of openings, masonry sills, shelf angles and lintels, above step flashings at roof-wall intersections, parapets and other locations as indicated on Drawings. Place in accordance with manufacturer's recommendations. Extend flashings through brick veneer min. 1/4-inch beyond exterior face and turn down to form drip. Ensure horizontal portions of flexible flashing are properly supported to prevent sagging. Turn vertical leg up to a minimum of 4 inches above mortar control device and bed into mortar joint of concrete block, seal into sheathing over steel-stud framed back-up, and provide termination bar and compatible sealant. Lap end joints minimum 6 inches and seal watertight. Where flashing abuts other construction elements and at terminations on each side of openings, turn up flashing min. 4 inches and seal watertight to form end dam, or provide prefabricated end dams.
- B. Use metal or preformed rubber corners at corners and seal watertight to flashing. Miter cuts at exposed corners of metal flashings are prohibited.
- C. Use flashing manufacturer's recommended adhesive, tape and sealant.
- D. Remove or cover protrusions or sharp edges that could puncture flashings.

3.08 MORTAR CONTROL DEVICE

- A. Provide at first masonry course at foundation and above all thru-wall flashings except at flashing installed directly underneath copings. Install in accordance with manufacturer's recommendations.

3.09 WEEPS

- A. Place in first masonry course at foundation and above all thru-wall flashings except at flashing installed directly underneath copings. Place weeps above moisture protection at max. 16 inches on center.

3.10 CAVITY WALL INSULATION

- A. Install against inner wythe within cavity with long dimension horizontal. Stagger vertical joints. Abut boards tightly together and fit closely around obstructions penetrating cavity. Seal all penetrations. Seal or tape all joints between boards with material recommended by insulation manufacturer. Install insulation as construction of outer wythe of wall progresses. Cover cavity to protect insulation from inclement weather until wall is closed.

3.11 CONTROL AND EXPANSION JOINTS

- A. General: Joint reinforcement shall not extend into or bridge across expansion or control joints.
- B. Exterior Masonry: Provide as indicated on drawing, except vertical expansion joints in clay masonry shall not exceed 24 feet on center.
- C. Interior Masonry: Provide vertical open joint at 30 feet on center maximum.
- D. Keep expansion joint voids clear of mortar.
- E. Isolate masonry partitions from vertical structural framing members with a control joint, with mortar raked back 1/4 inch regardless of joint treatment.

3.12 CUTTING

- A. Cut exposed edges or faces of masonry units smooth, or position such that all exposed faces or edges are unaltered manufactured surfaces.
- B. Cut and fit masonry for chases, pipes, conduit, sleeves, and grounds. Cooperate fully with other Sections of Work to insure correct size, shape and location.
- C. Obtain Architect's approval prior to cutting or fitting any area which is not indicated on Drawings, or which might impair appearance or strength of masonry Work.

3.13 BUILT-IN WORK

- A. As Work progresses, build in items supplied by other trades.
- B. Build in items plumb and true..
- C. Do not build in organic materials that will be subjected to rot or deterioration.

3.14 PROTECTION

- A. Provide waterproof, non-staining covering over top of walls left incomplete at end of day's Work, and over top of completed walls until permanent covering is installed.
- B. Maintain protective board at exposed external corners that may be damaged by construction activities. Provide such protection without damaging completed Work.
- C. Provide temporary bracing during masonry erection. Maintain bracing in place until building structure provides permanent bracing.

3.15 TOLERANCES

- A. General: Specification for Masonry Structures TMS 602/ACI 530.1/ASCE 6 except as noted below:
- B. Dimension of elements:
 1. Cross section or elevation: -1/4 inch, + 1/2 inch
 2. Mortar joint thickness:
 - a. Bed joint: +/- 1/8 inch
 - b. Head joint: -1/4 inch, +3/8 inch
 - c. Collar joint: -1/4 inch, +3/8 inch
 - d. Glass unit masonry: See Article 3.3.B.5.c of reference specification
- B. Grout space or cavity width, except for masonry walls passing framed construction: -1/4 inch, +3/8 inch
- C. Elements:
 1. Variation from level:
 - a. Bed joints: +/- 1/4 inch in 10 feet; +/- 1/2 inch maximum
 - b. Top surface of bearing walls: +/- 1/4 inch in 10 feet; +/- 1/2 inch maximum
 2. Variation from plumb: +/- 1/4 inch in 10 feet; +/- 3/8 inch in 20 feet; +/- 1/2 inch maximum
 3. True to a line: +/- 1/4 inch in 10 feet; +/- 3/8 inch in 20 feet; +/- 1/2 inch maximum
 4. Alignment of columns and walls (bottom versus top):
 - a. Bearing walls and columns: +/- 1/2 inch

- b. Nonbearing walls: +/- 3/4 inch
- D. Location of elements:
 - 1. Indicated in plan: +/- 1/2 inch in 20 feet; +/- 3/4 inch maximum
 - 2. Indicated in elevation: +/- 1/4 inch in story height; +/- 3/4 inch maximum

3.16 CLEANING

- A. Remove excess mortar smears upon completion of masonry Work with non-metal tools prior to application of cleaning agent.
- B. Clean soiled surfaces using a non-acidic solution that will not harm masonry or adjacent materials. Consult masonry manufacturer for acceptable cleaners and cleaning methods. Use nonmetallic tools in cleaning operations.
- C. Any metal damaged by mortar shall be repaired or replaced. The cost for repair or replacement shall be the responsibility of this Section. The Architect shall determine whether any metal so damaged will be repaired or replaced.
- D. Point or replace defective mortar. Match adjacent Work.
- E. Sack and rub surfaces to fill pockmarks, holes and other surface imperfections.

END OF SECTION 04 20 00

SECTION 05 50 00 Metal Fabrications**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Materials.
- B. Prefabricated Items.
- C. Fasteners.

1.02 RELATED WORK

- A. Section 01 45 30 - Special Inspections.
- B. Section 09 90 00 - Painting and Coating.

1.03 REFERENCE STANDARDS

- A. AISC 303 - Code of Standard Practice for Steel Buildings and Bridges.
- B. AISC 326 - Detailing for Steel Construction.
- C. AISC 360 - Specification for Structural Steel Buildings.
- D. AISI S100-12 - North American Specification for the Design of Cold-Formed Steel Structural Members; American Iron and Steel Institute.
- E. ASME B18.21.1 - Washers: Helical Spring-Lock, Tooth Lock, and Plain Washer (Inch Series).
- F. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
- G. ASTM A269/A269M - Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service.
- H. ASTM A276/A276M - Standard Specification for Stainless Steel Bars and Shapes.
- I. ASTM A283/A283M - Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates.
- J. ASTM A307 - Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength.
- K. ASTM A325 - Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength.
- L. ASTM A36/A36M - Standard Specification for Carbon Structural Steel.
- M. ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
- N. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
- O. AWS - American Welding Society.
- P. AWS D1.1/D1.1M - Structural Welding Code - Steel.
- Q. MPI (APL) - Master Painters Institute Approved Products List; Master Painters and Decorators Association.
- R. SSPC - Society for Protective Coatings Standards.
- S. SSPC-Paint 23 - Latex Primer for Steel Surfaces.
- T. SSPC-Paint 25 - Zinc Oxide, Alkyd, Linseed Oil Primer for Use Over Hand Cleaned Steel.
- U. SSPC-SP 2 - Hand Tool Cleaning.
- V. SSPC-SP 3 - Power Tool Cleaning.
- W. SSPC-SP 6 - Commercial Blast Cleaning.

1.04 SUBMITALS

- A. Submit in accordance with Section 01 33 00.
- B. Shop Drawings: Prepare in accordance with AISC 326 Detailing for Steel Construction. Clearly indicate layout, member designations, connections and pertinent dimensions. Connections not detailed on the Construction Documents shall be designed by the Fabricator.
- C. Include erection Drawings, elevations and details where applicable.
- D. Indicate welded connections using standard AWS welding symbols. Indicate net weld lengths.
- E. Engineering Calculations: Submit engineering calculations for stair members signed by an engineer registered to practice in the state in which the Project is located.
- F. Product Data: Furnish data on primer(s) to be used and steel preparation procedures.

1.05 QUALITY ASSURANCE

- A. Inspection of Shop Welds: By independent testing laboratory in accordance with AWS D1.1/D1.1M, Section 6 as follows: Visual inspection of 10 percent of all shop welds. Paid by Fabricator.
- B. The design, installation and construction of cold-formed carbon or low-alloy steel, structural and non-structural steel framing shall be in accordance with AISI S100-12, except as otherwise noted.
- C. Fabricator Qualifications: Firm experienced in fabricating AESS similar to that required for this Project with a record of successful in-service performance, as well as sufficient production capacity to fabricate AESS without delaying the Work.
- D. Erector Qualifications: Firm experienced in erecting AESS work similar in material, design and extent to that required for this Project, and with a record of successful in-service performance.
- E. All structural steel which will remain exposed and subject to normal view shall comply with AISC 303 Code of Standard Practice, Section 10 - Architecturally Exposed Structural Steel (AESS) except as modified herein. AESS steel includes all exposed structural steel members 10 feet or less above finished floor elevation. Structural steel members shall be AESS in their entirety if a portion of the member is located 10 feet or less above the finished floor elevation.

1.06 FIELD QUALITY CONTROL

- A. Special Inspections: By Section 01 45 30.
- B. Qualifications for welding procedures, welders, welding operators and tackers: AWS D1.1/D1.1M.
- C. Pre-Installation Conference: The Construction Manager at Risk(CMaR) shall schedule and conduct conference at the Project site with the fabricator, erector, finish painting Subcontractor, and Architect. Coordinate the requirements for shipping, special handling, attachment of safety cables and temporary erection bracing, touch-up painting and other requirements for AESS.
- D. Field Measurements: Where AESS is indicated to fit against wall and other construction, verify dimensions by field measurements before fabrication and indicated measurements on Shop Drawings.
- E. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

PART 2 PRODUCTS**2.01 MATERIALS**

- A. Shop Fabricated Steel
 - 1. Steel Channels and Angles: Fy 36KSI, ASTM A36/A36M.
 - 2. Steel Bars and Plates: ASTM A36/A36M and ASTM A283/A283M.
 - 3. Steel Tubing: ASTM A500/A500M, Grade B
 - 4. Steel Pipe: ASTM A53/A53M, Grade B, Schedule 40.
- B. Bolts, Nuts and Washers: Recommended for structural steel joints; ASTM A325 or ASTM A307 and ASME B18.21.1.

- C. Welding Materials
 - 1. Applicable AWS D1.1/D1.1M, type required for materials being welded.
- D. Shop Paint Primer
 - 1. Exterior Steel: SSPC-Paint 25 Zinc Oxide, alkyd, linseed oil primer, lead and chromate-free, #4080 Red Zinc Oxide by Hentzen Coatings, #1009 or #1099 by Tnemec, or Kem Bond HS Universal Metal Primer by Sherwin Williams.
 - 2. Interior Steel: SSPC-Paint 23 Latex Primer for Steel Surfaces, Pro-Cryl Universal Primer (gray or red oxide) by Sherwin Williams, or equal.
 - 3. Interior AESS: Quick dry alkyd primer, MPI (APL) #76; Sherwin Williams Kem Bond HS Universal Alkyd Primer or equal.

2.02 PREFABRICATED ITEMS

- A. Steel Handrails (Typical, except as otherwise noted): 1-1/2 inch O.D. steel pipe, Galvanized
- B. Prefabricated Steel Treads: McNichols Co, GW Series, Galvanized Steel 1 1/2" bar, Serrated Width see drawings, Length see drawings.
- C. Accessories: As required for a complete installation.

2.03 FASTENERS

- A. General: Anchor sizes and embedment as indicated on Structural Drawings. Where size and/or embedment is not indicated on Drawings, use 3/4-inch diameter and manufacturer's recommended embedment.
- B. Powder Actuated Fasteners Equal to Hilti DX System by Hilti.
- C. Structural Concrete Wedge Anchors; Strong-Bolt by Simpson Strong-Tie or equal.
- D. Structural Concrete Epoxy Adhesive Anchors; Equal to SET-XP by Simpson Strong-Tie.
- E. Structural Concrete Acrylic Adhesive Anchors; Equal to AT-XP by Simpson Strong-Tie.
- F. Structural Concrete Screw Anchors: Titen-HD by Simpson Strong-Tie or equal; galvanized in accordance with ASTM A153/A153M; sized and spaced as indicated on structural Drawings.
- G. Structural Masonry Screw Anchors: Titen-HD by Simpson Strong-Tie or equal; galvanized in accordance with ASTM A153/A153M; sized and spaced as indicated on structural Drawings. Not for installation in hollow cells of masonry.

2.04 FABRICATION

- A. Verify dimensions on site prior to shop fabrication.
- B. Fabricate items with joints neatly fitted and properly secured.
- C. Fit and shop assemble in largest practical sections, for delivery to site.
- D. Grind exposed welds smooth and flush with adjacent finished surfaces.
- E. Exposed Mechanical Fastenings: Flush countersunk screws or bolts unobtrusively located consistent with design of structure, except where specifically noted otherwise.
- F. Make mechanically fastened, exposed joints butt tight and hairline. Where welded, make welds continuous or fill between welds with body putty and grind entire joint smooth.
- G. Fabricate anchorage and related components of same material and finish as metal fabrication, unless otherwise specified herein.

2.06 FINISH

- A. Exterior steel except lintels: Prepare all steel in accordance with SSPC-SP 6 (Commercial Blast Cleaning).
- B. Lintels and interior steel: Prepare all steel in accordance with SSPC-SP 2 (hand tool cleaning).
- C. Unless otherwise noted, prime paint one coat all steel surfaces. Apply one coat of shop paint in accordance with Section M3 of AISC 360.
- E. DO NOT PAINT SURFACES TO BE FIELD WELDED OR FIREPROOFED.

PART 3 EXECUTION

3.01 GENERAL

- A. Furnish components required for proper anchorage of metal fabrications.

3.03 PREPARATION

- A. Provide connections for temporary shoring, bracing and supports only where noted on the approved Shop Drawings. Temporary connections not shown shall be made at locations not exposed to view in the final structure or as approved by the Architect. Handle, lift and align AESS pieces using padded slings and/or other protection required to maintain the appearance of the AESS through the process of erection.

3.04 ERECTION

- A. In accordance with reviewed Shop Drawings.
- B. Obtain Architect's review prior to site cutting or making adjustments that are not part of scheduled Work.
- C. Install items square and level, accurately fitted and free from distortion or defects.
- D. Make provision for erection stresses by temporary bracing. Keep Work in alignment.
- E. Replace items damaged in course of installation.
- F. Perform field welding in accordance with AWS D1.1/D1.1M.
- G. After installation, touch up field welds and scratched and damaged prime- painted surfaces. Use a primer consistent with shop coat.
- H. Supply, to appropriate Sections, items requiring to be cast into concrete, complete with necessary setting templates.

END OF SECTION 05 50 00

SECTION 06 10 00 Rough Carpentry**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Dimension Lumber.
- B. Construction Panels.
- C. Fire-Retardant Treated Wood.
- D. Preservative Treated Wood.
- E. Accessories.
- F. Fasteners.

1.02 RELATED WORK

- A. Section 04 20 00 - Unit Masonry.
- B. Section 07 20 00 - Thermal Insulation.
- C. Section 07 53 00 - Elastomeric Membrane Roofing: Wood nailers at vertical flashings for roofing.
- D. Section 07 60 00 - Flashing and Sheet Metal.
- E. Section 09 21 16 - Gypsum Board Assemblies: Interior Gypsum Wallboard Partitions.

1.03 REFERENCE STANDARDS

- A. APA PRP-108 - Performance Standards and Qualification Policy for Structural-Use Panels (Form E445).
- B. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
- C. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- D. ASTM B695 - Standard Specification for Coatings of Zinc Mechanically Deposited on Iron and Steel.
- E. ASTM D3201 - Standard Test Method for Hygroscopic Properties of Fire-Retardant Wood and Wood-Based Products.
- F. ASTM D3498 - Standard Specification for Adhesives for Field-Gluing Plywood to Lumber Framing for Floor Systems.
- G. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- H. ASTM F1667 - Standard Specification for Driven Fasteners: Nails, Spikes, and Staples.
- I. AWPA M4 - Standard for the Care of Preservative-Treated Wood Products.
- J. AWPA P5 - Standard for Waterborne Preservatives.
- K. AWPA T1 - Processing and Treatment Standard.
- L. AWPA U1 - Use Category System: User Specification for Treated Wood.
- M. ICC (IBC) - International Building Code.
- N. PS 20 - American Softwood Lumber Standard.
- O. WWPA G-5 - Western Lumber Grading Rules.

1.04 SUBMITTALS

- A. Submit in accordance with Section 01 33 00.
- B. Certifications: Furnish written certification from fire-retardant and preservative treatment applicator that products conform to specifications.

1.05 QUALITY ASSURANCE

- A. Lumber: Identify with grade stamp of an agency of WWPA G-5.
- B. Plywood: Identify with grade stamp of APA PRP-108.
- C. Fire-retardant Treatment: Comply with ICC (IBC) Section 2303.2. Treat in compliance with reference standards. Label all treated products with identity of treating manufacturer, name of fire-retardant treatment, species of wood treated, flame spread and smoke-developed index when tested in accordance with ASTM E84, method of drying after treatment, conformance with Code-required standards and the identification mark of an approved agency in accordance with ICC (IBC) Section 1703.5. Interior fire-retardant-treated wood (decorative) shall have moisture content of not over 28 percent per ASTM D3201 at 92 percent relative humidity. Interior fire-retardant-treated lumber shall be dried to a moisture content of not more than 19 percent, and not more than 15 percent for wood structural panels.
- D. Preservative Treatment: Label all treated products with identity of treating manufacturer, type of preservative used, minimum preservative retention (pcf), end use for which product was treated, AWWPA Standard to which the product was treated, and identity of accredited inspection agency.

PART 2 PRODUCTS**2.01 DIMENSION LUMBER**

- A. Grading: PS 20, graded in accordance with WWPA G-5 Standard Rules for Western Lumber.
- B. Dimensions: Specified lumber dimensions are nominal. Actual dimensions conform to industry standards established by the American Lumber Standards Committee and the rules writing agencies.
- C. Moisture Content: 19 percent maximum.
- D. Blocking, Bucks & Nailers: No. 3 or better, Spruce-Pine-Fir.

2.02 CONSTRUCTION PANELS

- A. Standards: PS 1 Plywood and PS 2 Oriented Strand Board: Graded in accordance with Engineered Grades of Plywood by APA.
- B. Sheathing Panels: Conventional plywood or Oriented Strand Board (OSB) of equal thickness, span rating and exposure classification, and formaldehyde free, except that OSB shall not be substituted for plywood roof sheathing.
 - 1. Roof Sheathing: APA Rated Sheathing, C-D Grade, 32/16 span rating; exposure classification: Exposure 1; thickness as indicated on Drawings.
 - 2. Wall Sheathing: APA Rated Sheathing; C-D Grade, 16/0 span rating; exposure classification: Exposure 1; thickness as indicated on Drawings.

2.03 FIRE-RETARDANT TREATED WOOD

- A. Pressure treated in accordance with AWWPA give flame spread rating of 25 or less per ASTM E84.

2.04 PRESERVATIVE TREATED WOOD

- A. Material: AWWPA U1 and AWWPA P5; copper azole, ACQ or other preservative that does not contain arsenic, chromium or other EPA-classified hazardous preservatives. Heartwood grades of cedar or redwood lumber may be used without preservative treatment.
- B. Preservative Treatment
 - 1. Interior construction, above ground, in contact with waterproofing, masonry or concrete, within 18 inches of grade, not exposed to weather, and concealed exterior applications: Min. 0.25 lb/cu ft retention, AWWPA U1 use category UC2; kiln dry after treatment to 19 percent maximum moisture content for lumber and 18 percent maximum moisture content for plywood.
 - 2. Exterior construction, above ground, in contact with waterproofing, masonry or concrete, within 18 inches of grade: Min. 0.25 lb/cu ft retention; AWWPA U1 use

category UC3B; kiln dry after treatment to 19 percent maximum moisture content for lumber and 18 percent maximum moisture content for plywood.

3. Exterior construction, in contact with ground or fresh water: Min. 0.40 lb/cu ft retention; AWPA U1 use category UC4B; kiln dry after treatment to 19 percent maximum moisture content for lumber and 18 percent maximum moisture content for plywood.

2.05 ACCESSORIES

- A. Adhesives: ASTM D3498.

2.06 FASTENERS

- A. General: Anchor sizes and embedment as indicated on Structural Drawings. Where size and/or embedment is not indicated on Drawings, use 3/4-inch diameter and manufacturer's recommended embedment.
- B. Rough Hardware: ASTM F1667; Nails, spikes, staples, bolts, screws and similar items; hot-dipped galvanized conforming to ASTM A153/A153M or stainless steel for exterior and high humidity locations, and with preservative-treated wood; plain finish for other interior locations; size and type to suit application for secure anchorage.
- C. Powder Actuated Fasteners Equal to Hilti DX System by Hilti.
- D. Structural Concrete Wedge Anchors; Strong-Bolt by Simpson Strong-Tie or equal.
- E. Structural Concrete Epoxy Adhesive Anchors; Equal to SET-XP by Simpson Strong-Tie.
- F. Structural Concrete Acrylic Adhesive Anchors; Equal to AT-XP by Simpson Strong-Tie.
- G. Structural Concrete Screw Anchors: Titen-HD by Simpson Strong-Tie or equal; galvanized in accordance with ASTM A153/A153M; sized and spaced as indicated on structural Drawings.
- H. Structural Masonry Screw Anchors: Titen-HD by Simpson Strong-Tie or equal; galvanized in accordance with ASTM A153/A153M; sized and spaced as indicated on structural Drawings. Not for installation in hollow cells of masonry.
- I. Wood to Steel Fasteners: Equal to Rawl Tapcon Screws by The Rawlplug Company, Inc.
- J. Fasteners and Connectors for Preservative-Treated Wood: Fasteners, including nuts and washers, in contact with preservative treated wood shall be of hot-dipped zinc-coated galvanized steel, stainless steel, silicon bronze or copper. Fasteners other than nails, timber rivets, wood screws and lag screws shall be permitted to be of mechanically-deposited zinc-coated steel with coating weights in accordance with ASTM B695, Class 55 minimum. Connectors that are used in exterior applications and in contact with preservative-treated wood shall have coating types and weights in accordance with the treated wood or connector manufacturer's recommendations. In the absence of manufacturer's recommendations a minimum of ASTM A653/A653M, Type G185 zinc-coated galvanized steel or equal shall be used.
- K. Fasteners for Fire-Retardant Treated Wood Used in Exterior Applications or Wet or Damp Locations: Fasteners, including nuts and washers, shall be of hot-dipped zinc-coated galvanized steel, stainless steel, silicon bronze or copper. Fasteners other than nails, timber rivets, wood screws and lag screws shall be permitted to be of mechanically-deposited zinc-coated steel with coating weights in accordance with ASTM B695, Class 55 minimum.
- L. Fasteners for Fire-Retardant Treated Wood Used in Interior Applications: Fasteners shall be in accordance with the fire-retardant treatment manufacturer's recommendations. In the absence of manufacturer's recommendations, fasteners shall be of hot-dipped zinc-coated galvanized steel, stainless steel, silicon bronze or copper. Fasteners other than nails, timber rivets, wood screws and lag screws shall be permitted to be of mechanically-deposited zinc-coated steel with coating weights in accordance with ASTM B695, Class 55 minimum.

PART 3 EXECUTION

3.01 CONDITION OF SURFACES

- A. Verify that surfaces to receive carpentry materials are prepared to exact grades and dimensions.

- B. Do not proceed with Work until conditions are satisfactory.

3.02 INSTALLATION

- A. General: Install items closely fitted, accurately set to required lines and levels, rigidly secured. Use longest pieces possible. Provide adequate fasteners to achieve substantial and positive anchorage.
- B. Preservative Treated Wood
 - 1. Use at wood in contact with fresh water or ground (exposed earth); at wood sleepers and sills on a concrete or masonry slab that is in direct contact with earth; at posts or columns supported by a concrete or masonry slab or footing that is in direct contact with earth; at joists or subflooring within 18 inches or girders within 12 inches of exposed ground in crawl spaces or unexcavated areas located within the perimeter of the building foundation; at wood framing members which rest on exterior foundation walls and are less than 8 inches from exposed earth; at wood framing members and furring strips attached directly to the inside of exterior masonry or concrete walls below grade; where exposed to weather; and where otherwise indicated on the Drawings.
 - 2. At field-cut surfaces and bolt holes, brush apply preservative in accordance with AWPA M4.
 - 3. Use only galvanized fasteners with preservative treated wood.
- C. Fire-Retardant Treated Wood
 - 1. Use at all concealed interior locations, at parapet side adjacent to roof surface for uppermost 18-inches, exterior wall sheathing, and where indicated on Drawings..
- D. Install screw anchors in accordance with manufacturer's instructions.
- E. Provide min. 1/2-inch space around all exterior windows and doors to allow for installation of foam air barrier by Section 07 20 00.
- F. Nailing Requirements: ICC (IBC) Table 2304.9.1.
- A. Wall Sheathing
 - 1. Fasten at 6 inches o.c. at panel edges and 12 inches o.c. at intermediate supports with #8 x 1" corrosion resistant screws unless noted otherwise on Drawings.

END OF SECTION 06 11 00

SECTION 07 20 00 Thermal Insulation**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Loose Insulation.
- B. Rigid Insulation.
- C. Foam Air Barrier.

1.02 RELATED WORK

- A. Section 03 30 00 - Cast-In-Place Concrete: Concrete Foundations.
- B. Section 04 20 00 - Unit Masonry: Cavity walls.
- C. Section 05 31 00 - Steel Deck: Roof Deck.
- E. Section 06 10 00 - Rough Carpentry: Exterior parapet wood sheathing.
- H. Section 07 25 00 - Weather Barriers: Building paper and vapor barrier.
- I. Section 07 41 00 - Metal Roof and Wall Panels.
- J. Section 07 53 00 - Elastomeric Membrane Roofing: Roof insulation.
- K. Section 09 21 16 - Gypsum Board Assemblies: Metal Framing and Sound Insulation Within Interior Partitions.
- L. Section 31 23 00 - Excavation & Fill.

1.03 REFERENCE STANDARDS

- A. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.
- B. ASTM C1363 - Standard Test Method for Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus.
- C. ASTM C518 - Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
- D. ASTM C552 - Standard Specification for Cellular Glass Thermal Insulation.
- E. ASTM C578 - Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
- F. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing.
- G. ASTM D1621 - Standard Test Method for Compressive Properties Of Rigid Cellular Plastics.
- H. ASTM D1622/D1622M - Standard Test Method for Apparent Density of Rigid Cellular Plastics.
- I. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- J. ASTM E96/E96M - Standard Test Methods for Water Vapor Transmission of Materials.
- K. ICC (IECC) - International Energy Conservation Code.
- L. NFPA 285 - Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components.
- M. UL 723 - Standard for Test for Surface Burning Characteristics of Building Materials.

1.04 QUALITY ASSURANCE

- A. Furnishing and installing any products which are not "asbestos-free" is strictly prohibited. "Asbestos-free" is defined under current EPA Guidelines as a material containing not more than 1% asbestos.
- B. An R-value identification mark shall be applied by the manufacturer to each piece of building thermal envelope insulation 12 inches or greater in width.

1.05 SUBMITTALS

- A. Submit in accordance with Section 01 30 00.
- B. Product Data: Submit manufacturer's descriptive literature, and recommendations and instructions for installation.

1.06 PERFORMANCE REQUIREMENTS (LOOSE INSULATION ONLY)

- A. Flame Spread: < 25 per ASTM E84 or UL 723.
- B. Smoke Development: <450 per ASTM E84 or UL 723.

PART 2 PRODUCTS**2.01 MATERIALS**

- A. Loose Insulation
 - 1. Batt Insulation: ASTM C665, Type I. Minimum 25 percent recycled content; formaldehyde free.
- B. Rigid Insulation
 - 1. Foundation Perimeter Insulation: ASTM C578, Type IV.
 - 2. Cavity Wall Insulation: ASTM C1289, Type I, Class 1 or 2; Zero ODP, HCFC free. (foil-faced polyiso)
 - 3. Wall Nail-Base Insulation Panels: NFPA 285; ASTM C1289, Type V, Grade 2 (20psi); Zero ODP, HCFC free; closed cell polyisocyanurate foam core with min. 5/8-inch, fire-retardant treated APA rated plywood on one face, and coated glass facer on other face; 2.5-inches thick insulation board; Xci Ply panels by Hunter Panels is specified with Atlas Roofing or approved equal also acceptable.
- C. Foam Air Barrier
 - 1. Min. 1.4 density polyurethane foamed insulation, one or two component, conforming to ASTM E84 with flame spread of 15 or less and smoke development of 60 or less; provide in low expansion or double expansion formula as required for project conditions, and container size appropriate for project scope; Polytech PT Series by FAI International, Touch-n-Seal by Convenience Products or equal.

2.02 ACCESSORIES

- A. Adhesive: As recommended by manufacturer; capable of adhering insulation to applicable surfaces.
- B. Mechanical Fasteners: As recommended by manufacturer.
- C. Caulking Sealant: As recommended by manufacturer.
- D. Foam Sealant: As recommended by manufacturer.
- E. Insulation Securing Tape: Equal to Duck@Kraft Paper Tape, not gummed.

PART 3 EXECUTION**3.01 INSPECTION**

- A. Examine areas to receive rigid insulation to insure Work of preceding trades is completed.
- B. Check surfaces to receive rigid insulation to assure they are in uniform plane, and free of mortar chips, debris, grease, oil, or other items detrimental to installation.
- C. Proceed with application of insulation only when conditions are satisfactory.

3.02 INSTALLATION

- A. Insulating materials shall be installed such that the manufacturer's R-value mark is readily observable upon inspection.
- B. Foundation Perimeter Insulation: Adhere insulation with long edges horizontal, edges tightly butted and vertical joints staggered. Secure insulation with adhesive applied to back of panels in accordance with recommendations by adhesive and insulation manufacturers.

- C. Loose Insulation: Tightly pack within all voids in construction where air can pass from unheated into heated areas. Tightly pack around pipes and other items that penetrate firewalls and floors.
- D. Batt Insulation: Install to give continuous insulation barrier.
- E. Cavity Wall Insulation
 - 1. Furnish to Section 04 20 00.
- F. Wall Nail-Base Insulation Panels: Install in accordance with manufacturer's recommendations. Begin at base of wall. Apply panels in running bond pattern, except they may be applied vertically as required, using maximum board lengths to minimize number of joints. Offset board joints minimum of 6-inches. Pre-cut (using a table saw) panels to fit openings and projections. Stagger vertical joints and corners. Stagger joints minimum of 6-inches. Abut all joints tightly and ensure overall flush, level surface. Fill gaps greater than 1/8-inch between insulation boards with expanding spray foam (foam sealant) or butter edge of the board with approved sealant (caulking sealant) and strike flush. Expanding spray foam may also be applied to insulation board edges during installation. Do not span expansion joints indicated on drawings. Install with FM approved fasteners minimum 1-inch longer than panel thickness. Screw fastening patterns shall follow manufacturer's recommended installation instructions to support weight of cladding materials from the surface of panels, but no less than required by the building code.
- G. Foam Air Barrier: Provide foam air barrier where indicated on Drawings and at all other openings and penetrations of the building thermal envelope as required to provide sealing of the envelope in accordance with ICC (IECC) Section 502.4.3.
- H. Provide Insulation Securing Tape at 24 inches on center where exposed, flexible batt insulation is not contained within a wall assembly by continuous sheathing, gypsum board or similar product. Fasten tape securely at each stud with nails, screws or staples.

END OF SECTION 07 20 00

SECTION 07 25 00 Weather Barriers**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Vapor Barrier.
- B. Air Barrier.
- C. Accessories.

1.02 RELATED WORK

- A. Section 04 20 00 - Unit Masonry: Concrete masonry units.
- B. Section 06 10 00 - Rough Carpentry: Wall sheathing.
- C. Section 07 20 00 - Thermal Insulation: Cavity Wall Insulation and Nail-Base Insulation.
- D. Section 07 41 00 - Metal Roof and Wall Panels.
- E. Section 07 53 00 - Elastomeric Membrane Roofing.
- F. Section 07 60 00 - Flashing and Sheet Metal.
- G. Section 07 92 00 - Joint Sealants.
- H. Section 09 21 16 - Gypsum Board Assemblies: Gypsum board.

1.03 REFERENCE STANDARDS

- A. AATCC Test Method 127 - Water Resistance: Hydrostatic Pressure Test.
- B. ASTM C518 - Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
- C. ASTM D412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers--Tension.
- D. ASTM E1677 - Standard Specification for an Air Barrier (AB) Material or System for Low-Rise Framed Building Walls.
- E. ASTM E2178 - Standard Test Method for Air Permeance of Building Materials.
- F. ASTM E2357 - Standard Test Method for Determining Air Leakage of Air Barrier Assemblies.
- G. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- H. ASTM E96/E96M - Standard Test Methods for Water Vapor Transmission of Materials.
- I. ICC (IBC) - International Building Code.
- J. ICC (IECC) - International Energy Conservation Code.
- K. TAPPI Test Method T-460 - Air Resistance of Paper (Gurley Hill Method).

1.04 SUBMITTALS

- A. Submit in accordance with Section 01 33 00.
- B. Air Barrier
 - 1. Product Data: Submit manufacturer's installation instructions, including substrate preparation, and current technical literature for each product, including design data, compatibility with adjacent materials, and test reports.
 - 2. Field Service Reports: Submit site reports from manufacturer's authorized field service representative, including observation of building paper assembly instruction.

1.05 QUALITY ASSURANCE

- A. Obtain primary materials from a single manufacturer. Obtain secondary materials from a source acceptable to primary materials manufacturer.
- B. Installation Subcontractor shall verify compatibility of products provided by this Section with products provided by other related sections.
- C. Air Barrier

1. Building Paper installer shall have experience with installation of specified assemblies under similar conditions.
2. Installation shall be in accordance with weather barrier manufacturer's installation guidelines and recommendations and Code requirements.
3. Provide weather barrier and accessory materials produced by single manufacturer.
4. Pre-Installation Conference: Subcontractor performing Work under this Section, along with Construction Manager at Risk(CMaR) and Manufacturer's Authorized Field Service Representative, Architect and Owner's Representative, shall attend a Pre-Installation Conference to be held at least two weeks prior to start of building paper installation to review all related project requirements and submittals, status of substrate work and preparation, areas of potential conflict and interface, availability of building paper assembly materials and components, installer's training requirements, equipment, facilities and scaffolding, and to coordinate methods, procedures and sequencing requirements for full and proper installation, integration and protection.
5. Mock-Up: Install a minimum 10-foot by 10-foot mock-up using approved materials, fasteners, flashings, tape and related accessories on substrate matching wall assembly construction, including window openings. Mock-up may be constructed on actual wall assembly, and after approval by Manufacturer's Authorized Field Service Representative and Architect, may remain as part of the Work.

1.07 WARRANTY:

- A. Air Barrier
 1. Provide DuPont Weatherization Products 10 Year Limited Product and Labor Warranty.

1.08 OPERATION AND MAINTENANCE DATA:

- A. Furnish in accordance with Section 01 78 00.
- B. Make copies of approved submittals for inclusion in maintenance manual.

1.09 DELIVERY, STORAGE AND HANDLING:

- A. Deliver materials to Project site in original packages with seals unbroken, labeled with manufacturer's name, product, date of manufacture, and directions for storage.
- B. Store materials in their original undamaged packages in a clean, dry, protected location and within temperature range required by manufacturer. Protect stored materials from direct sunlight.
- C. Handle materials in accordance with manufacturer's recommendations.

PART 2 PRODUCTS**2.01 VAPOR BARRIER**

- A. 10-mil thickness polyethylene film; FS L-P-375; Class 1 per ICC (IBC) Section 1405.3.2.

2.02 AIR BARRIER

- A. Vapor permeable weather-resistive barrier, with a textured surface to facilitate water drainage; air penetration not more than .04 cfm/ft² at 1.57 psf per ASTM E1677 (Type 1); not less than 30 perms water vapor transmission per ASTM E96/E96M Method B; water penetration resistance not more than 235 cm per AATCC Test Method 127; air infiltration resistance >750 sec/100cc per TAPPI Test Method T-460; Class A rating per ASTM E84; equal to Tyvek Commercial Wrap D by DuPont.
- B. Contractor's Option: Contractor may use Fluid-Applied Air Barrier as specified below in lieu of Air Barrier.

2.05 ACCESSORIES

- A. Window Flashing: Type recommended by air barrier manufacturer.
- B. Primers and Adhesives: Type recommended by barrier manufacturer; capable of adhering barrier to applicable surfaces.
- C. Mechanical Fasteners: As recommended by barrier manufacturer.
- D. Joint Tape: As recommended by barrier manufacturer.
- E. Sealants and Membrane Terminations: As recommended by barrier manufacturer. Sealants shall be compatible with products by other Sections with which they contact.

PART 3 EXECUTION

3.01 GENERAL

- A. Do not start Work until surface preparation necessary for proper installation is completed or when freezing or moisture will adversely affect installation.
- B. Ensure sharp protrusions that may damage waterproofing are removed. Clean surfaces of all water and other foreign materials.

3.02 EXAMINATION

- A. Examine substrates, areas and conditions under which air and vapor barrier assemblies will be applied, with installing Subcontractor present, for compliance with barrier manufacturer's requirements.

3.03 PROJECT CONDITIONS

- A. Temperature: Install materials only when ambient and substrate temperatures are within range recommended by manufacturer.
- B. Field Conditions: Do not install products in snow, rain, fog or mist without temporary protection and supplemental heat as required.
- C. Notify Manufacturer's Authorized Field Service Representative to obtain required observations of building paper assembly installation.

3.04 INSTALLATION

- A. Vapor Barrier
 - 1. Provide vapor barrier at warm side of exterior frame walls to give continuous vapor barrier. Lap all seams 3 inches minimum and seal with tape recommended by barrier manufacturer. Seal all penetrations with tape.
- B. Air Barrier
 - 1. Provide one layer as indicated on drawings. Install from bottom to top to ensure proper lapping of sheets. Lap edges and ends 12 inches minimum. Secure to building and tape joints and seal penetrations in accordance with manufacturer's instructions.
 - 2. Protect installed products from damage. Repair all damage to weather barrier assemblies immediately. Do not allow damaged products to be covered sight-exposed surfaces. Use cleaning agents as recommended by the manufacturer.
- C. Window Flashing: Provide window flashing around all window openings and at head and jambs of door openings. Install in accordance with manufacturer's instructions.
- D. After installation no air and vapor barrier product shall be exposed to weather or sunlight for a period longer than that allowed by the manufacturer.

END OF SECTION 07 25 00

SECTION 07 41 00 Metal Roof & Wall Panels

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Preformed, prefinished Wall Panel.
- B. Trim and Flashings.

1.02 RELATED WORK

- A. Section 06 10 00 - Rough Carpentry: Wood blocking.
- B. Section 07 20 00 - Thermal Insulation: Wall Insulation and Wall Nail-Base Insulation Panels.
- C. Section 07 25 00 - Weather Barriers: Air barrier.
- D. Section 07 60 00 - Flashing and Sheet Metal.
- E. Section 08 11 16 - Aluminum Doors and Frames.

1.03 REFERENCE STANDARDS

- A. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix).
- B. AISC (MAN) - Steel Construction Manual.
- C. AISI D100 - Cold-Formed Steel Design Manual.
- D. ASCE 7 - Minimum Design Loads and Associated Criteria for Buildings and Other Structures.
- E. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- F. ASTM A755 - Standard Specification for Steel Sheet, Metallic Coated by the Hot-Dip Process and Prepainted by the Coil-Coating Process for Exterior Exposed Building Products.
- G. ASTM A792/A792M - Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
- H. ASTM C920 - Standard Specification for Elastomeric Joint Sealants.

1.04 SUBMITTALS

- A. Submit in accordance with Section 01 33 00.
- B. Shop Drawings: Clearly indicate general construction, dimensions, layout, jointing details, reinforcements, methods of anchorage and hardware locations and installation details.
- C. Product Data: Submit manufacturer's descriptive data and installation instructions.
- D. Samples: Furnish sample of color on actual metal.

1.05 OPERATION AND MAINTENANCE DATA

- A. Furnish in accordance with Section 01 78 00.
- B. Make copies of approved submittals for inclusion in maintenance manual.

1.06 WARRANTY

- A. Submit in accordance with Section 01 78 00.
- B. Provide manufacturer's standard warranty on finishes.

1.07 QUALITY ASSURANCE

- A. Installer: Approved by Panel Manufacturer, five years of installation experience.

1.08 PERFORMANCE REQUIREMENTS

- A. Design panels to withstand wind pressures as determined in accordance with ASCE 7.

- B. Design system to provide movement of components without causing buckling, failure of joint seals, undue stress on fasteners or detrimental effects, including oil canning, when subject to seasonal change.
- C. Design system to accommodate tolerances of structure, provided irregularities do not exceed them and clearances are maintained.
- D. Provide for positive drainage to exterior, any water entering or condensation occurring within the preformed metal panel system.

PART 2 PRODUCTS

2.01 PREFORMED, PREFINISHED WALL PANEL - TYPE #1

- A. Elevate/UNA-CLAD is specified or approved equal pending prior approval of profile, material
- B. Profile: UC-7 Standing Seam Panel
- C. Style: Concealed fastener, interlocking joint design, vertical application.
- D. Gauge and Material: 24 gauge, G90 galvanized steel.
- E. Panel Size: 20" wide
- F. Finish: Prime painted concealed side(s), Kynar 500/Hylar 5000 baked enamel fluoropolymer paint finish on exposed surfaces.
- G. Color: Medium Bronze

2.04 TRIM AND FLASHINGS

- A. Provide all that are necessary to complete installation including perimeter trim, flashings, concealed fasteners, hold-down clips, wall panel caps, base drip flashing, soffit drips, J-returns at openings and inside and outside corners, and other trim as required. Any exposed fasteners (must obtain prior approval from Architect) must have non-rusting finish and match panel colors.

2.05 ACCESSORIES

- A. Manufacturer's standard accessories as required by manufacturer for a complete system.
- B. Foam Adhesive Tape: Acrylic foam adhesive tape for temporary adhesion of panels to framing prior to top cap installation.
- C. Fasteners: Manufacturer's recommended fasteners for application.
- D. Sealant: ASTM C920, Type M, Grade NS, Class 50, polysulphide base, chemical curing, or ASTM C920, Type M, Grade NS, Class 50 polyurethane base, chemical curing, non-staining and non-bleeding. Color to match panels.
- E. Caulking: ASTM C920, Type S, Grade NS, Class 25; one part polysulfide, acrylic or urethane base.

PART 3 EXECUTION

3.01 GENERAL

- A. Wall Panels
 - 1. Coordinate with Section 07 20 00 for wall nail-base insulation installation.

3.02 EXAMINATION

- A. Determine that construction of backup has been completed.
- B. Ensure that surfaces to receive panels are free of debris.
- C. Do not proceed with installation until conditions are satisfactory.

3.03 INSTALLATION

- A. Comply with reviewed shop drawings and product data.
- B. Set panels plumb, level and true to line without warp or rack.

SECTION 07 41 00 METAL ROOF and WALL PANELS

- C. Anchor units with the specified fasteners (welding not allowed).
- D. Install sealant at joints between panels and other materials.
- E. Weathertight installation of system, including items specified above shall be responsibility of this supplier and erector.
- F. No fasteners shall be visible on exterior of wall and soffit.
- G. Damaged panels shall be replaced, not touched up.
- H. Coordinate respective installations with Division(s) 22, 23, and 26.
- I. After installation, leave entire system in clean condition free of foreign materials and marks.

END OF SECTION 07 41 00

SECTION 07 41 00 Metal Roof & Wall Panels

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Preformed, prefinished Wall Panel.
- B. Trim and Flashings.

1.02 RELATED WORK

- A. Section 06 10 00 - Rough Carpentry: Wood blocking.
- B. Section 07 20 00 - Thermal Insulation: Wall Insulation and Wall Nail-Base Insulation Panels.
- C. Section 07 25 00 - Weather Barriers: Air barrier.
- D. Section 07 60 00 - Flashing and Sheet Metal.
- E. Section 08 11 16 - Aluminum Doors and Frames.

1.03 REFERENCE STANDARDS

- A. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix).
- B. AISC (MAN) - Steel Construction Manual.
- C. AISI D100 - Cold-Formed Steel Design Manual.
- D. ASCE 7 - Minimum Design Loads and Associated Criteria for Buildings and Other Structures.
- E. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- F. ASTM A755 - Standard Specification for Steel Sheet, Metallic Coated by the Hot-Dip Process and Prepainted by the Coil-Coating Process for Exterior Exposed Building Products.
- G. ASTM A792/A792M - Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
- H. ASTM C920 - Standard Specification for Elastomeric Joint Sealants.

1.04 SUBMITTALS

- A. Submit in accordance with Section 01 33 00.
- B. Shop Drawings: Clearly indicate general construction, dimensions, layout, jointing details, reinforcements, methods of anchorage and hardware locations and installation details.
- C. Product Data: Submit manufacturer's descriptive data and installation instructions.
- D. Samples: Furnish sample of color on actual metal.

1.05 OPERATION AND MAINTENANCE DATA

- A. Furnish in accordance with Section 01 78 00.
- B. Make copies of approved submittals for inclusion in maintenance manual.

1.06 WARRANTY

- A. Submit in accordance with Section 01 78 00.
- B. Provide manufacturer's standard warranty on finishes.

1.07 QUALITY ASSURANCE

- A. Installer: Approved by Panel Manufacturer, five years of installation experience.

1.08 PERFORMANCE REQUIREMENTS

- A. Design panels to withstand wind pressures as determined in accordance with ASCE 7.

- B. Design system to provide movement of components without causing buckling, failure of joint seals, undue stress on fasteners or detrimental effects, including oil canning, when subject to seasonal change.
- C. Design system to accommodate tolerances of structure, provided irregularities do not exceed them and clearances are maintained.
- D. Provide for positive drainage to exterior, any water entering or condensation occurring within the preformed metal panel system.

PART 2 PRODUCTS

2.01 PREFORMED, PREFINISHED WALL PANEL - TYPE #1

- A. Elevate/UNA-CLAD is specified or approved equal pending prior approval of profile, material
- B. Profile: UC-7 Standing Seam Panel
- C. Style: Concealed fastener, interlocking joint design, vertical application.
- D. Gauge and Material: 24 gauge, G90 galvanized steel.
- E. Panel Size: 20" wide
- F. Finish: Prime painted concealed side(s), Kynar 500/Hylar 5000 baked enamel fluoropolymer paint finish on exposed surfaces.
- G. Color: Medium Bronze

2.04 TRIM AND FLASHINGS

- A. Provide all that are necessary to complete installation including perimeter trim, flashings, concealed fasteners, hold-down clips, wall panel caps, base drip flashing, soffit drips, J-returns at openings and inside and outside corners, and other trim as required. Any exposed fasteners (must obtain prior approval from Architect) must have non-rusting finish and match panel colors.

2.05 ACCESSORIES

- A. Manufacturer's standard accessories as required by manufacturer for a complete system.
- B. Foam Adhesive Tape: Acrylic foam adhesive tape for temporary adhesion of panels to framing prior to top cap installation.
- C. Fasteners: Manufacturer's recommended fasteners for application.
- D. Sealant: ASTM C920, Type M, Grade NS, Class 50, polysulphide base, chemical curing, or ASTM C920, Type M, Grade NS, Class 50 polyurethane base, chemical curing, non-staining and non-bleeding. Color to match panels.
- E. Caulking: ASTM C920, Type S, Grade NS, Class 25; one part polysulfide, acrylic or urethane base.

PART 3 EXECUTION

3.01 GENERAL

- A. Wall Panels
 - 1. Coordinate with Section 07 20 00 for wall nail-base insulation installation.

3.02 EXAMINATION

- A. Determine that construction of backup has been completed.
- B. Ensure that surfaces to receive panels are free of debris.
- C. Do not proceed with installation until conditions are satisfactory.

3.03 INSTALLATION

- A. Comply with reviewed shop drawings and product data.
- B. Set panels plumb, level and true to line without warp or rack.

- C. Anchor units with the specified fasteners (welding not allowed).
- D. Install sealant at joints between panels and other materials.
- E. Weathertight installation of system, including items specified above shall be responsibility of this supplier and erector.
- F. No fasteners shall be visible on exterior of wall and soffit.
- G. Damaged panels shall be replaced, not touched up.
- H. Coordinate respective installations with Division(s) 22, 23, and 26.
- I. After installation, leave entire system in clean condition free of foreign materials and marks.

END OF SECTION

SECTION 07 53 00 Elastomeric Membrane Roofing

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Sheet Roofing System.
- B. Tapered Rigid Insulation.
- C. Insulation Securement Products.
- D. Walkway Pads.
- E. Sheet Metal and Miscellaneous Steel Items.
- F. Wood Blocking and Plywood.
- G. Rough Hardware.
- H. Adhesives.

1.02 RELATED WORK

- A. Appropriate Deck Section: Surface preparation of deck.
- C. Section 06 10 00 - Rough Carpentry: Wood blocking at roof openings and roof perimeter and plywood sheathing at roof parapet.
- D. Section 07 20 00 - Thermal Insulation: Wall insulation.
- E. Section 07 60 00 - Flashing and Sheet Metal.
- F. Section 07 92 00 - Joint Sealants: Joint sealing at metal terminations.
- G. Division 22 - Plumbing: Work associated with vent stacks and roof drains.
- H. Division 23 - Heating, Ventilating, and Air Conditioning: Work associated with mechanical rooftop units.
- I. Division 26 - Electrical: Electrical Work associated with mechanical units.

1.03 REFERENCE STANDARDS

- A. ASCE 7 - Minimum Design Loads and Associated Criteria for Buildings and Other Structures.
- B. ASTM A36/A36M - Standard Specification for Carbon Structural Steel.
- C. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
- D. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.
- E. ASTM D412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers--Tension.
- F. ASTM D4637/D4637M - Standard Specification for EPDM Sheet Used in Single-Ply Roof Membrane.

- G. NRCA ML104 - The NRCA Roofing and Waterproofing Manual.
- H. SPRI ES-1 - Wind Design Standard for Edge Systems Used with Low Slope Roofing Systems.
- I. UL (FRD) - Fire Resistance Directory.
- J. UL (RMSD) - Roofing Materials and Systems Directory.

1.04 SUBMITTALS

- A. Submit in accordance with Section 01 33 00.
- B. Shop Drawings
 - 1. Clearly indicate layout of tapered insulation, including description of any special conditions.
 - 2. Clearly indicate anchorage layout and devices for installation, and wind loads and data used to calculate fastener size and spacing.
 - 3. Clearly indicate roof plan, layout of roofing sheets, deck construction, location and type of penetrations and flashing details of perimeter and penetrations.
- C. Product Data: Furnish manufacturer's descriptive literature of insulation to clearly indicate it meets specifications. Furnish manufacturer's descriptive literature of all roofing products and complete installation instructions, including daily seal procedures.

1.05 OPERATION AND MAINTENANCE DATA

- A. Furnish in accordance with Section 01 77 00.
- B. Make copies of approved Product Data for inclusion in maintenance manual.

1.06 CERTIFICATES

- A. Submit with Subcontractor, Supplier and Manufacturers List.
- B. Furnish copy of certificate from sheet roofing manufacturer indicating Roofing Subcontractor is member of manufacturer's annual quality recognition program.
- C. Furnish copy of certificate from sheet roofing manufacturer indicating acceptance of roof insulation products to be used.

1.07 QUALITY ASSURANCE OF ROOFING SYSTEM

- A. Upon completion of installation, have manufacturer's technical representative make inspection and give approval of installation. Inspection shall be made in presence of Architect. Submit to Architect two copies of resulting inspection report.

1.08 PERFORMANCE REQUIREMENTS

- A. Adhered roofs shall be designed to resist wind pressures as determined in accordance with ASCE 7, and in accordance with ANSI/SPRI ES-1 Wind Design Standard for Edge Systems Used with Low Slope Roofing Systems.
- B. Ultimate Design Wind Speed, Vult: 120 mph
- C. Exposure: C
- D. Nature of Occupancy: Category III; Importance Factor - 1.0.
- E. Roof Deck: Pervious (steel deck) and Concrete Deck (South HS).

1.09 ENVIRONMENTAL CONDITIONS

- A. Perform no membrane seaming in adverse weather conditions, which is defined as times when there is moisture, frost or snow present and when temperature and/or wind chill factor is less than minus 20 degrees F. without prior approval by Architect.

1.10 PRODUCT STORAGE AND HANDLING

- A. See Section 01 60 00.
- B. Store materials, except membrane and insulation, between 60 degrees F. and 80 degrees F. If exposed to lower temperature, restore to proper temperature before using.

- C. Remove insulation from site that becomes wet and damaged and replace at no cost to Owner. Protect insulation from direct exposure to sunlight.

1.11 WARRANTIES

- A. Furnish in accordance with Section 01 78 00.
- B. Furnish written warranty from Contractor, for Work under this Section and Sheetmetal Work under Section 07 60 00, stating that for 5 years from Date of Substantial Completion, Contractor will, at Contractor's own expense, make or cause to be made repairs made necessary due to defects in workmanship or materials and/or normal wear and tear by elements, and will maintain roof in watertight condition, free of leaks arising from such causes. (Lightning, hailstorms, or tornadoes are not considered normal wear and tear by elements). This warranty will not cover damage to interiors nor contents.
- C. Provide manufacturer's standard 20-year warranty (55 mph ground wind speed) to run from Date of Substantial Completion.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Sheet Roofing System Manufacturers: Rubbergard System by Firestone Industrial Products Company is specified with GenFlex EPDM System by GenFlex Corp., Versigard by Versico, Inc., Sure-Seal by Carlisle-Syntec and JM EPDM System by Johns Manville also acceptable.

2.02 SHEET ROOFING SYSTEM

- A. Design: Adhered EPDM System.
- B. Sheet: ASTM D4637/D4637M, Type I non-reinforced, EPDM compounded elastomer, minimum 60-mil thickness and manufacturer's standard widths and lengths to give installation minimum possible number of seams.
- C. Flashing: Continuous cured EPDM over RPF Strip (Reinforced Perimeter Fastening Strip) and Seam Fastening Plates, or as otherwise recommended by membrane manufacturer to satisfy warranty requirements.
- D. Flashing at Plumbing Vents: Rubbergard EPDM Pre-molded pipe Boot.
- E. Nailers at Vertical Flashings: Stainless steel or rubber strips; if required. No plastic expansion fasteners of nailers are allowed.
- F. Accessories: Manufacturer's standard.

2.03 VAPOR BARRIER (At North High School Pool)

- A. Firestone V-Force Vapor Barrier Membrane or approved equal, with primer as recommended by barrier manufacturer. Field verify that existing deck and vapor barrier are compatible with new vapor barrier and primer.

2.03 TAPERED RIGID INSULATION

- A. ASTM C1289, Type II, Class 1, Grade 2; Zero ODP, HCFC free; 1/4-inch-per-foot slope.

2.04 INSULATION SECUREMENT PRODUCTS

- A. Type approved by roofing manufacturer.
 - 1. Insulation may be glued, mechanically fastened, or a combination of each, to the substrate where acceptable to both insulation and roofing system manufacturers, and where uplift requirements can be achieved. Use adhesive and/ or mechanical fasteners as recommended by roofing system manufacturer.

2.05 WALKWAY PADS

- A. Firestone X-Tred Walkway Pad or equal.

2.06 SHEETMETAL

- A. Coordinate with Section 07 60 00 to Provide and schedule delivery of metal components incidental to the roofing system.

2.07 MISCELLANEOUS STEEL ITEMS

- A. ASTM A36/A36M or ASTM A53/A53M; noncorrosive finish where exposed.

2.08 WOOD BLOCKING

- A. Type: No. 2 and better, SPF; max. 19 percent moisture content.

2.09 PLYWOOD

- A. Type: APA rated sheathing; C-D grade, 32/16 span rating, exposure classification Exposure 1; thickness as indicated on Drawings.

2.10 ROUGH HARDWARE

- A. Nails, spikes, screws, bolts and similar items of size and types required to rigidly secure wood members. Nails shall not be used to secure roof edge attachment, or other wood components subjected to wind uplift or other dynamic loads.

2.11 ADHESIVES

- A. Type(s) recommended by roofing and insulation manufacturers.

PART 3 EXECUTION

3.01 GENERAL

- A. Modify Specifications for Section 07 53 00 to extent recommended by sheet roofing manufacturer.

3.02 WOOD BLOCKING & PLYWOOD

- A. Install items closely fitted, accurately set to required lines and levels, rigidly secured. Provide adequate rough hardware to achieve substantial and positive anchorage.

3.03 INSULATION PLACEMENT

- A. Lay insulation boardstock over the roof deck in two layers minimum with staggered joints. Neatly cut to fit insulation around roof openings and projections. Lay no more insulation than can be covered by roofing membrane. Leave surface clear of debris, ready to receive roofing.
- B. On metal decks, install insulation so that no edge is left unsupported along fluting.
- C. Tapered System: Lay with minimum thickness at drains as indicated on Drawings and reviewed Shop Drawings.
- D. Mechanically fasten insulation using fasteners in pattern and spacing approved by roofing manufacturer and/ or adhesively secure insulation in a full bed of adhesive in accordance with insulation manufacture
- E. r's instructions, unless insulation must be mechanically fastened in lieu of adhesively secured to comply with roofing manufacturer's requirements or uplift requirements.

3.04 ROOFING SYSTEM INSTALLATION

- A. General: Install in strict accordance with reviewed Shop Drawings and Product Data.

3.05 ROOF WALKWAYS

- A. Adhesively install walkway pads with materials proven to be compatible with membrane roofing system.

END OF SECTION 07 53 00

SECTION 07 60 00 Flashing and Sheet Metal

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Prefinished Metal.
- B. Gutters and Downspouts.
- C. Scuppers.
- D. Fastenings.
- E. Accessories.

1.02 RELATED WORK

- A. Section 04 20 00 - Unit Masonry.
- B. Section 06 10 00 - Rough Carpentry: Wood blocking, nailers, and sheathing at parapets.
- C. Section 07 41 00 - Metal Roof and Wall Panels.
- D. Section 07 53 00 - Elastomeric Membrane Roofing.
- E. Section 07 92 00 - Joint Sealants: Sealing of other than lapped joints.

1.03 REFERENCE STANDARDS

- A. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
- B. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- C. ASTM B32 - Standard Specification for Solder Metal.
- D. ASTM C920 - Standard Specification for Elastomeric Joint Sealants.
- E. ASTM D226/D226M - Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
- F. ASTM F1667 - Standard Specification for Driven Fasteners: Nails, Spikes, and Staples.
- G. SMACNA (ASMM) - Architectural Sheet Metal Manual.
- H. SPRI ES-1 - Wind Design Standard for Edge Systems Used with Low Slope Roofing Systems.

1.04 SUBMITTALS

- A. Submit in accordance with Section 01 33 00.
- B. Shop Drawings: Clearly indicate general construction and layout, configurations, jointing methods, anchorage methods and installation details of roof edge metal and associated flashings. For roof edges and parapet copings, indicate uplift and horizontal loads used to calculate size and spacing of fasteners and gauge(s) of metal required to comply with ANSI/SPRI ES-1.
- C. Product Data:
 - 1. Furnish manufacturer's descriptive literature for prefinished metal, including installation instructions. Furnish evidence that parapet copings and metal roof edge assemblies conform to the requirements of ANSI/SPRI ES-1.
- D. Sample: Submit sample of prefinished metal color on actual metal.

1.05 OPERATION AND MAINTENANCE DATA

- A. Furnish in accordance with Section 01 78 00.
- B. Make copies of approved Product Data for inclusion in maintenance manual.

1.06 WARRANTY

- A. Furnish in accordance with Section 01 78 00.
- B. Workmanship: See Section 07 53 00.

- C. Prefinished Metal: Furnish manufacturer's written 20-year finish warranty providing for non-prorated material and replacement cost against checking, cracking, flaking and excessive fading and chalking in accordance with published information from specified manufacturer.

1.07 PERFORMANCE REQUIREMENTS

- A. Copings, cleats and other metal roof edge devices shall be designed, fabricated and installed in accordance with ANSI/SPRI ES-1, Test RE-3, where required by IBC.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Galvanized Steel: ASTM A653/A653M, commercial quality, G90 coating designation.

2.02 PREFINISHED METAL

- A. Manufacturers: Firestone Metal Products/UNA-CLAD is specified; with Foremost Manufacturing Company, Peterson Aluminum Corp. and Vincent Metals, A Division of Rio Algom, Inc. also acceptable.
- B. Type: UNA-CLAD; hot-dipped galvanized (G-90) steel, commercial quality (ASTM A653/A653M), primed and finished one side with full-strength Kynar 500 or Hylar 5000-based fluoropolymer coating, 1.0 mil total dry film thickness, and minimum .3 mil dry film thickness washcoat applied to reverse side.
- C. Color: Match existing.

2.03 GUTTERS AND DOWNSPOUTS

- A. Fabricated from prefinished metal.

2.04 SCUPPERS

- A. Fabricated from prefinished metal.

2.05 FASTENINGS

- A. General: Same metal as material on which they are used or stainless steel. No plastic expansion fasteners are allowed on exterior flashing applications.

2.06 MATERIALS

- A. Nails; ASTM F1667; flathead, wire barbed, annular threaded or slating type as required, hot-dipped galvanized steel in accordance with ASTM A153/A153M.
- B. Screws: Hex head, hot-dipped galvanized steel in accordance with ASTM A153/A153M, with neoprene washers.
- C. Stainless Steel Fasteners: ASTM F1667; flathead, wire barbed, annular threaded or slating type as required.

2.07 ACCESSORIES

- A. Solder: ASTM B32, best commercial quality most suitable for metal to be soldered.
- B. Plastic Roof Cement: FS SS-C-153C, Type I for asphalt base.
- C. Sealants: ASTM C920, Type S, Grade NS, Class 50; one part polysulfide, silicone or polyurethane.

2.08 FABRICATION

- A. Fabricate sheet metal in accordance with Reference Standard except as otherwise indicated on Drawings.
- B. Copings: Min. 24 gauge prefinished metal, unless heavier gauge required by ANSI/SPRI ES-1.
- C. Cleats: Min. 22 gauge galvanized metal, unless heavier gauge required by ANSI/SPRI ES-1.
- D. Metal Roof Edge: Fabricate from min. 24 gauge prefinished metal, unless heavier gauge required by ANSI/SPRI ES-1.
- E. Miscellaneous Metal Flashing: Fabricate from min. 24 gauge prefinished metal.

F. Scuppers: Fabricate from min. 24 gauge prefinished metal.

G. Downspouts: Fabricate from min. 26 gauge prefinished metal; 4 inch wide, braced, open style.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Determine that surfaces are smooth and clean to extent required for proper installation of sheet metal. Correct defective surfaces or report them to Contractor for correction prior to starting installation.
- B. Before commencing Work, verify shapes and dimensions of surfaces to be covered.

3.02 INSTALLATION

- A. Install in accordance with reviewed Shop Drawings, Product Data and Reference Standard, except as otherwise indicated on Drawings or herein specified.
- B. Provide all items and accessories essential for complete installation, although not specifically shown or specified.
- C. Where flashing under windowsills and other similar penetrations terminates, turn up ends of flashing to form end dam, install sealant at all seams, and turn up back edge to form hook.
- D. Paint surfaces of dissimilar metals, which come into contact, with asphaltic paint. Install all sheet metal as indicated on Drawings and in accordance with manufacturer's printed instructions.
- E. Set flashings and gravel stops in full bed of plastic roof cement.
- F. Anchor flashings securely by nailing and by installing continuous cleats where required for proper installation. Parapet copings shall be installed with continuous cleats on the visible side, except use continuous cleats on both sides where parapet is more than 12 inches wide. Fasten cleats with 1-1/4-inch long annular (ring-shank) roofing nails at not more than 6" o.c. unless otherwise required by ANSI/SPRI ES-1. Fasten concealed side of flashing with 1-1/2-inch long hex head screws spaced at not more than 18 inches o.c. with continuous cleats fastened with 1-1/4-inch long annular (ring-shank) roofing nails at not more than 6" o.c. unless otherwise required by ANSI/SPRI ES-1. Overlap flashing edge joints 3 inches minimum and seal between with sealant.
- G. Verify coping and roof edge flashing attachments conform to ANSI/SPRI ES-1 requirements.
- H. Ensure that all Work is precisely done, true to line, and free from overbending, burning, deforming, stretching, distortion, waves and buckles.
- I. Provide gutters and downspouts at locations indicated on drawings.
- J. Provide scuppers at locations indicated on drawings.
- K. Leave installation complete and watertight.

END OF SECTION 07 60 00

SECTION 07 92 00 Joint Sealants**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Joint Sealants.
- B. Joint Backup.
- C. Joint Primer.
- D. Bond Breaker and Cleaning Agent.

1.02 RELATED WORK.

- D. Section 04 20 00 - Unit Masonry: Sealant for Expansion and Control Joints.
- E. Section 05 50 00 - Metal Fabrications.
- G. Section 06 60 00 - Plastic Fabrications.
- H. Section 07 25 00 - Weather Barriers.
- I. Section 07 41 00 - Metal Roof and Wall Panels: Sealants used in conjunction with installation of metal panels.
- J. Section 07 60 00 - Flashing and Sheet Metal: Sealing other than lap joints.
- K. Section 08 11 16 - Aluminum Doors and Frames: Sealing at perimeter joints.
- O. Section 09 21 16 - Gypsum Board Assemblies: Caulking at perimeter of interior gypsum board walls, control joints and expansion joints.
- S. Section 09 90 00 - Painting and Coating.
- W. Section 32 13 13 - Concrete Paving: Sealant at exterior paving and between paving and adjacent work.

1.03 REFERENCE STANDARDS

- A. ASTM C1193 - Standard Guide for Use of Joint Sealants.
- B. ASTM C834 - Standard Specification for Latex Sealants.
- D. ASTM C920 - Standard Specification for Elastomeric Joint Sealants.
- E. ASTM D1056 - Standard Specification for Flexible Cellular Materials--Sponge or Expanded Rubber.
- F. ASTM D1667 - Standard Specification for Flexible Cellular Materials--Poly(Vinyl Chloride) Foam (Closed-Cell).
- G. ASTM D2628 - Standard Specification for Preformed Polychloroprene Elastomeric Joint Seals for Concrete Pavements.
- H. FS A-A-1556A - Sealing Compound

1.04 SUBMITTALS

- A. Submit samples of colors in accordance with Section 01 33 00.
- B. Product Data: Furnish manufacturer's descriptive literature for each type of joint sealant provided, including installation instructions and color charts.

1.05 QUALITY ASSURANCE

- A. Use only qualified workmen thoroughly skilled and specifically trained in techniques of caulking, who can demonstrate to satisfaction of Architect their ability to fill joints solidly and neatly.
- B. Provide all labor material, equipment, and related services necessary to furnish and install sealants and or caulking as indicated or specified.
- C. Mix and apply sealing compound in strict accordance with manufacturer's printed directions.
- D. Verify sealants are compatible with through-wall flashings in Section 04 20 00 and weather barriers in Section 07 25 00.

1.06 ENVIRONMENTAL CONDITIONS

- A. Do not install sealing compounds under adverse weather conditions when joint to be sealed is damp, wet or frozen, or when temperatures are below or above manufacturer's recommended limitations for installation. Consult manufacturer for specific instructions before proceeding.

PART 2 PRODUCTS**2.01 MANUFACTURERS**

- A. Sonneborn-ChemRex, Bostik, The Dow Chemical Company, GE Silicones, Pecora Corporation, Sika Corporation, Tremco, and Vulkem are approved manufacturers.

2.02 EXTERIOR VERTICAL APPLICATIONS, JOINTS > 1/2-INCH

- A. ASTM C920, Type S, Grade NS, Class 50, Use NT, M, G, O as applicable, polyurethane base, non-staining and non-bleeding.
- B. Color: To match as close as possible adjacent material.

2.03 EXTERIOR VERTICAL APPLICATIONS, JOINTS \leq 1/2-INCH

- A. ASTM C920, Type S, Grade NS, Class 35, Use NT, M, G, O, as applicable, polyurethane base, non-staining and non-bleeding, or ASTM C920, Type M, Grade NS, Class 25, Use NT, M, G, O as applicable, polyurethane base, non-staining and non-bleeding.
- B. Color: To match as close as possible adjacent material.

2.04 EXTERIOR HORIZONTAL APPLICATIONS, NOT EXPOSED TO TRAFFIC

- A. ASTM C920, Type M, Grade NS, Class 25, Use NT, M, G, O as applicable, polyurethane base, nonstaining and non-sagging.
- B. Color: To match as close as possible adjacent material.

2.05 TRAFFIC-BEARING APPLICATIONS, EXTERIOR AND INTERIOR

- A. ASTM C920, Type M, Grade P, Class 25, Use T, polyurethane base, or ASTM C920, Type S, Grade P, Class 25, Use T, polyurethane base, non-staining and non-bleeding.
- B. Color: To match as close as possible adjacent material.

2.06 GENERAL INTERIOR APPLICATIONS, INCLUDING APPLICATIONS TO BE PAINTED

- A. ASTM C834, Type C, Grade NF, solvent curing, nonstaining and non-bleeding, or ASTM C920, Type S, Grade NS, Class 25, Use NT, M, G, O as applicable, polyurethane base, non-staining and non-bleeding; compatible with paints specified in Section 09 90 00.

2.07 JOINT BACKUP

- A. Non-absorbent closed cell foam polyethylene such as Dow Ethafoam; 1 size larger than joint width.

2.10 JOINT PRIMER

- A. Suitable to substrate surfaces as recommended by compound manufacturer.

2.11 BOND BREAKER & CLEANING AGENT

- A. As recommended by compound manufacturer.

PART 3 EXECUTION**3.01 EXAMINATION**

- A. Determine that installed Work of other Sections is satisfactory to receive joint sealers. Do not proceed with application until conditions are satisfactory.

3.02 PREPARATION OF SURFACES

- A. Remove loose material and foreign matter that might impair adhesion.
- B. Protect elements surrounding the work of this section from damage or disfiguration.

- C. Joint Primer: Thoroughly clean joints and apply primer, if recommended by compound manufacturer, to dry surfaces. Apply primer prior to application of joint backup, bond breaker or compound.
- D. Joint Backup: In joints where depth exceeds required depth of compound, install joint backup to provide backing and uniform depth of compound. Install with approximately 30% compression. Do not stretch, twist, puncture or tear backup. Butt at intersections.
- E. Bond Breaker Tape: Install smoothly at back of joint where joint backup is not required or cannot be installed and to insure compound adheres only to sides of joint.

3.03 INSTALLATION

- A. Compound Application: Apply in accordance with manufacturer's application manual and instructions, using hand gun or pressure equipment, with proper size nozzle, on clean, dry, properly prepared substrates. Force compound into joint and against sides of joint to make uniform. Avoid pulling of compound from sides. Fill joint completely with compound.
- B. Install sealant free of air pockets, foreign embedded matter, ridges and sags.
- C. Tooling: Tool joints to form smooth, uniform beads with slightly concave surfaces. Remove excess material. Leave clean, smooth surface free from air pockets, wrinkles, ragged edges and other defects.
 - A. D. At Irregular Surface or Sensitive Joint Border: Apply masking tape at edge of joint to insure joint neatness and protection. Remove after compound is applied.
- D. Joints in painted gypsum board walls and ceilings are to be filled prior to painting. Joints in walls to receive vinyl wall covering are to be filled after installation of vinyl wall covering but prior to flooring installation.

3.04 SCHEDULE OF WORK

- A. EXTERIOR
 1. Exterior Wall expansion joints
 2. Control and Expansion joints in masonry walls
 3. Joints between masonry and adjacent Work
 4. Perimeter joints around metal doorframes
 5. Joints between metal flashings and adjacent Work
 6. Perimeter joints between louvers and vents and adjacent Work
- B. INTERIOR
 1. Control and Expansion joints in masonry walls
 2. Perimeter joints around countertop backsplash
 3. Perimeter joints around metal doorframes
 4. Control joints in gypsum board walls and ceilings
 5. Expansion joints in gypsum board walls and ceilings
 6. Perimeter joints in gypsum board walls and ceilings
 7. Perimeter joints around louvers and vents

END OF SECTION 07 92 00

SECTION 08 11 16 Aluminum Doors and Frames

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Aluminum Framing.
- B. Aluminum Door(s).
- C. Hardware.
- D. Accessories.

1.02 RELATED WORK

- A. Section 04 20 00 - Unit Masonry.
- B. Section 06 10 00 - Rough Carpentry: Wood blocking.
- C. Section 07 20 00 - Thermal Insulation: Foam air barrier.
- D. Section 07 25 00 - Weather Barriers: Window flashing.
- E. Section 08 71 00 - Door Hardware.
- F. Section 08 80 00 - Glass and Glazing: Glass.
- G. Section 09 21 16 - Gypsum Board Assemblies: Metal studs and blocking.
- H. Division 26 - Electrical: Wiring for automatic operators and electric hardware.
- I. Division 28 - Electronic Safety and Security: Access Control System.

1.03 REFERENCE STANDARDS

- A. AA DAF-45 - Designation System for Aluminum Finishes.
- B. AAMA 1503 - Voluntary Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors and Glazed Wall Sections.
- C. AAMA 1504 - Voluntary Standard for Thermal Performance of Windows, Doors and Glazed Wall Sections.
- D. AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum.
- E. AAMA/WDMA/CSA 101/I.S.2/A440 - North American Fenestration Standard/Specification for windows, doors, and skylights.
- F. ASTM C920 - Standard Specification for Elastomeric Joint Sealants.
- G. ASTM E283 - Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
- H. ASTM E330/E330M - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
- I. ASTM E331 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
- J. BHMA A156.19 - American National Standard for Power Assist and Low Energy Power Operated Doors.
- K. ICC A117.1 - Accessible and Usable Buildings and Facilities.
- L. NEMA MG 1 - Motors and Generators.
- M. NFRC 100 - Procedure for Determining Fenestration Product U-factors.
- N. NFRC 400 - Procedure for Determining Fenestration Product Air Leakage.
- O. UL 325 - Standard for Door, Drapery, Gate, Louver, and Window Operators and Systems.

1.04 SUBMITTALS

- A. Submit in accordance with Section 01 33 00.
- B. Shop Drawings: Clearly indicate pertinent dimensioning, general construction, component connections and locations, anchorage methods and locations, hardware locations and installation details. Submit shop drawings for automatic operator(s) for the fabrication and installation of operator(s), and associated components; include anchors, hardware and other components not included in manufacturer's standard data. Submit elevation drawings, wiring diagrams and written descriptions of functions and sequence of operation for electric hardware.
- C. Product Data: Furnish manufacturer's descriptive literature, NFRC CMAST Bid Report, installation and cleaning instructions.
- D. Samples: Furnish color sample of aluminum finish on actual metal.

1.05 QUALITY ASSURANCE

- A. Electronic hardware shall be installed by factory authorized personnel.
- B. Pre-Installation: Prior to commencing installation of any hardware, manufacturer's representative or hardware supplier shall conduct pre-installation meeting at the project site with all personnel who will be installing hardware. The agenda shall include proper installation sequences, techniques and materials, coordination of Work by Div. 26, 27, and 28 and methods of adjusting hardware, along with other instructional information deemed necessary by manufacturer's representative or supplier.
- C. Post-Installation: Manufacturer's representative or hardware supplier, after installation and adjusting has been completed, shall visit the site to inspect all hardware installed under this Section, and verify in writing that all hardware has been properly installed and adjusted, and that automatic operator(s) and electronic hardware operate(s) as specified. Submit two copies of this inspection report to Architect.

1.06 OPERATION AND MAINTENANCE DATA

- A. Furnish in accordance with Section 01 78 00.
- B. Make copies of approved Shop Drawings, including wiring diagrams, and Product Data for inclusion in maintenance manual.
- C. Furnish manufacturer's parts list and maintenance instructions for each type of hardware and automatic operators and necessary wrenches and tools required for proper maintenance.

1.07 WARRANTY

- A. Furnish in accordance with Section 01 78 00.
- B. Furnish manufacturer's standard 5-year warranty for anodized finish components providing for replacement or refinishing of any anodized aluminum member that exhibits cracking, blistering, chipping, peeling, or color change in excess of five (5) DE (CMC) as determined by AAMA 611. All costs for warranty work shall be the manufacturer's responsibility.
- C. Provide for removing insulating glass unit(s) that exhibit interpane dusting or misting and installing in place replacement unit(s), furnished by Section 08 80 00, at no cost to Owner within ten years from date of Substantial Completion.

1.08 DELIVERY, STORAGE AND HANDLING

- A. Ship hardware template information and/or hardware, prepaid, as required, to door and frame manufacturer.

1.09 PERFORMANCE REQUIREMENTS

- A. Coordinate with Section 08 80 00 to ensure assemblies comply with System U-factors.
- B. Exterior Doors (single leaf):
 - 1. Air Infiltration: NFRC 400; Less than 0.50 cfm/ft² at 1.57 psf when tested in accordance with ASTM E283.
 - 2. System U-Value: NFRC 100; 0.77 max.

3. CRF (door): AAMA 1503; Condensation resistance factor shall not be less than 57.
- C. Exterior Frames:
 1. Air Infiltration: NFRC 400; Not more than 0.06 cfm/ft² at 1.57 psf when tested in accordance with ASTM E283.
 2. Water Resistance: No leakage at 12 psf when tested in accordance with ASTM E331.
 3. Uniform Load Deflection Test: ASTM E330/E330M; Deflection under design load shall not exceed $l/175$ or $3/4$ inch, whichever is less. Ultimate Design Wind Speed, Vult: 120 mph, exposure C.
 4. Uniform Load Structural Test: ASTM E330/E330M; No glass breakage, permanent damage to any component of fastener, or other damage which would cause wall to be defective at 1.5 times the design wind pressure.
 5. CRF (frame): AAMA 1503; Condensation resistance factor shall not be less than 60.
 6. System U-value = NFRC 100; 0.29 maximum for fixed fenestration.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Tubelite Architectural Products is specified. United States Aluminum Corporation, Oldcastle also acceptable provided they meet the specifications.
- B. Except manufacturer and installer shall be the same as that providing Storefront under Section 08 43 00 and Curtain wall under Section 08 44 00.

2.02 ALUMINUM FRAMING

- A. Interior Location(s) Typical: E4500 Series, 1-3/4" x 4-1/2".
- B. Exterior Location(s) Typical, except where otherwise noted: TU24000 Series, High Thermal Performance Dual Pour and Debridged Storefront, 2" x 4-1/2".
- C. Provide all components and accessories as required for built up bottom rail at locations as shown on Drawings.

2.03 ALUMINUM DOOR(S)

- A. Exterior Location(s): Thermal=Block.
- B. Hinge and lock stile: 5 inch (wide stile).
- C. Top Rail: 5 inch (wide stile).
- D. Bottom Rail: 10 inch.

2.04 FINISH

- A. All exposed areas of aluminum; AA DAF-45 Aluminum Association Designation AA-M10 C22 A41, Class I, Champagne (CH)

2.05 HARDWARE

- A. General: Provide scheduled item(s) on each leaf except where operation otherwise indicates. Provide necessary accessories for complete installation of all items.
- B. Finish, BHMA (ANSI): 626 (US26D) or 630 (US32D) except as otherwise specified.
- C. Hanging
 1. Geared Continuous Hinge; extruded aluminum alloy, pinless assembly; MCK-12 Series Heavy Duty by McKinney, or equal by door manufacturer, Ives, Pemko, or Stanley.
- D. Exit Devices
- E. Cylinders
- F. Pulls
- G. Push/Pull Sets

- H. Closers
- I. Weatherseals: Wool-pile type at head and jambs and sweep at sill equal to Reese #323.
- J. Thresholds: Equal to Reese S405.
- K. Electric Hardware

2.06 ACCESSORIES

- A. Sill Flashing: Extruded aluminum with full-height interior leg with 'C' shaped receiver slot designed to accept full bead of sealant.
- B. Water Deflectors: Aluminum sections fabricated to interface with heads and jambs so as to channel water down vertical mullions.
- C. Sealant Backup: Nonabsorbent closed cell foam polyethylene such as Dow Ethafoam, 1 size larger than the joint width.
- D. Sealant: ASTM C920, Type S, Grade NS, Class 25, moisture curing, modified polyurethane.

2.08 FABRICATION

- A. Fabricate and assemble in shop not field.
- B. Fabricate aluminum doors and frames to allow for clearances and shim spacing around perimeter of assemblies to enable installation. Provide for thermal movement.
- C. Provide anchorage devices to securely and rigidly fit door and frame assemblies in place.
- D. Accurately and rigidly fit together joints and corners. Match components insuring continuity of line and design. Insure joints and connections are flush, hairline and weatherproof.
- E. Provide for moisture entering joints and condensation occurring within frame construction to drain to exterior.
- F. Hinge Reinforcement at Frame (excludes door): Internally reinforce door hinge jamb with a continuous 1-1/4 inch by 1-1/4 inch by 3/16 inch steel angle running the full height of frame. Anchor hinges directly to steel angle.
- G. Hinge Reinforcement at Door: 1-1/4 inch (verify width to ensure it doesn't circumvent the thermal break) by 1/8 inch thick continuous steel bar extending full height of hinge stile. Anchor hinges directly into steel reinforcing.
- H. Head Reinforcement at Door and Frame: Internally reinforce door head and frame head with a continuous 3/16-inch thick by width as required steel bar. Anchor closers and associated door hardware into steel bar.
- I. Provide additional structural reinforcing if required to meet specified structural performance requirements.
- J. Make provisions for hardware and provide required internal reinforcing.
- K. Apply coat of bituminous paint on concealed aluminum surfaces in contact with cementitious or dissimilar materials.
- L. Ensure bottom rail of door engages threshold weatherseal. Do not undercut excessively.

PART 3 EXECUTION

3.01 INSTALLATION OF ALUMINUM DOORS AND FRAMES

- A. Install in accordance with reviewed Shop Drawings and Product Data.
- B. Insure assemblies are plumb, level and free of warp or twist. Maintain dimensional tolerances and alignment with adjacent Work.
- C. Provide full-height end dams and each end of sill flashing. Provide water-tight seal between end dams and sill flashing.

- D. Do not penetrate interior leg of sill flashing with fasteners.
- E. Provide sealant in sill flashing anchor holes prior to fastening.
- F. Cap seal all sill flashing fasteners. If sill section is not directly attached to the substrate, blind seal fastener heads.
- G. Provide water deflectors at each intersection of vertical and horizontal framing members, except for sill.
- H. Use sufficient anchorage devices to securely and rigidly fasten door and frame assemblies to building.
- I. Install glazing in accordance with workmanship and installation technique described in Section 08 80 00.
- J. Install door such that bottom rail forms a tight seal with threshold gasket.
- L. Coordinate with Division 26 for installation of conduit through framing for wiring of electric hardware.

3.02 INSTALLATION OF SEALANT

- A. Backup: Install to give compound depth and width recommended by manufacturers.
- B. Sealant: Install with tube gun with proper size nozzle for joint. Use beading tool to remove excess material, leaving clean surface free from wrinkles, ragged edges and other defects.

3.03 INSTALLATION OF HARDWARE

- A. Install in accordance with manufacturer's recommendations using proper templates.
- B. Accurately set, securely apply and carefully adjust for proper operation and performance.
- C. Adjust closers, on doors without automatic operators, to have no more than five pounds tension for handicap accessibility.
- D. Install automatic operator(s) in accordance with manufacturer's written instructions. Test to ensure proper operation.
- E. Mount pull bar above push bar, with centerline of push bar at 36-inches above the finished floor.
- F. Coordinate installation of electronic hardware with Division 26, 27, and 28.
- G. Mount thresholds at exterior doors such that slope breakpoint on threshold is at leading edge of door. Set in full bed of caulking.

END OF SECTION 08 11 16

SECTION 08 70 00 Door Hardware

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Exit Devices.
- B. Lock/ Latchsets.
- C. Pulls.
- D. Mullions
- E. Flush Bolts.
- F. Electric Hardware..
- G. Anchorage Devices.
- H. Caulking.

1.02 RELATED WORK

- A. Section 08 11 16 - Aluminum Doors and Frames...
- B. Division 26 - Electrical: Conduit, boxes and wiring of electric hardware.
- C. Division 28 - Electronic Safety and Security: Credential readers, keyed switches, exit alarms, and controllers.

1.03 REFERENCE STANDARDS

- A. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design.
- B. ANSI/BHMA A156 - American National Standard for Materials and Finishes.
- C. BHMA (CPD) - Certified Products Directory.
- D. BHMA A156.1 - American National Standard for Butts and Hinges.
- E. BHMA A156.2 - American National Standard for Bored and Preassembled Locks & Latches.
- F. BHMA A156.26 - American National Standard for Continuous Hinges.
- G. BHMA A156.3 - American National Standard for Exit Devices.
- H. BHMA A156.4 - American National Standard for Door Controls - Closers..
- I. ICC A117.1 - Accessible and Usable Buildings and Facilities.
- J. NFPA 101 - Life Safety Code.
- K. UL (DIR) - Online Certifications Directory.
- L. UL 10C - Standard for Positive Pressure Fire Tests of Door Assemblies.
- M. UL 305 - Standard for Panic Hardware.

1.04 SUBMITTALS

- A. Submit in accordance with Section 01 33 00.
- B. Shop Drawings: Submit complete, detailed, typewritten, vertical-type hardware and keying schedule, listing each door in individual headings. Prepare schedule under the direct supervision of a regular member of Society of Hardware Consultants (AHC) of Door Hardware Institute (DHI (LOCS)). List groups and suffixes in proper sequence. Include in each group door number and complete description, hardware requirements and product manufacturer's name or symbol. Comply with following example for schedule/group format:
HEADING 43:

1 PAIR DOORS 101 CORRIDOR 100 TO MECHANICAL 101 RH ACTIVE 2/36" x 84" x 1-3/4" 1-1/2 - HOUR 'B' LABEL HMDXHMF.

- C. Submit elevation drawings, wiring diagrams and written descriptions of functions and sequence for electric hardware.
- D. Product Data: Furnish manufacturer's descriptive literature of each scheduled hardware item complete with mounting height and other installation instructions.
- E. Keying Schedule: Furnish copy of keying schedule with Owner's signature indicating acceptance.

1.05 QUALITY ASSURANCE

- A. All panic hardware shall be listed in accordance with UL 305.
- B. Where items of hardware are not definitely or correctly specified and are required for the intended service, such omission, error or other discrepancy shall be directed to the Architect not less than 7 days prior to the bid opening date for clarification by addendum.
- C. Electronic hardware shall be installed by factory authorized personnel.
- D. Pre-Installation: Prior to commencing installation of any hardware, manufacturer's representative or hardware supplier shall conduct pre-installation meeting at the project site with Architect and all personnel who will be installing hardware. The agenda shall include proper installation sequences, techniques and materials, coordination of Work by Divisions 26, 27 and 28, and methods of adjusting hardware, along with other instructional information deemed necessary by manufacturer's representative or supplier. Hardware manufacturer's representative or supplier shall furnish a copy of the Pre-Installation Conference meeting minutes to the Architect within seven (7) days of conference.
- E. Post-Installation: Manufacturer's representative or hardware supplier, after installation and adjusting has been completed, shall visit the site with the Owner's representative, Architect and all personnel who installed hardware and components to inspect all hardware installed under this Section, Divisions 26, 27 and 28, and verify in writing that all hardware has been properly installed and adjusted, and that electronic hardware operates as specified. Submit two copies of this inspection report to Architect.

1.06 KEYING/KEY CONTROL

- A. Key locks to the school districts existing Schlage master key system. FSIC Interchangeable core C145 keyway. No Substitutions
- B. A representative of the hardware supplier shall schedule a meeting with the Owner to set up and verify keying schedule. Hardware supplier shall notify Architect of the date, time and location of said meeting. Review all keying options for each door and the entire building with the Owner and obtain Owner's signature signifying Owner's approval and acceptance of keying schedule. Furnish approved copy of schedule to Architect before ordering of material.
- C. Quantity of cut keys per key change shall be derived by Owner requirements with the accumulative total of cut keys equal to two cut keys per change, three cut master and grand master keys, with ten (10) blank keys to be supplied if Owner requests.
- D. Keys shall be tagged, indexed, filed and turned over to Owner prior to Substantial Completion.

1.07 DELIVERY, STORAGE AND HANDLING

- A. Ship hardware template information and/or hardware and associated fasteners and accessories, prepaid, as required, to door and/or frame manufacturer.

1.08 OPERATION AND MAINTENANCE DATA:

- A. Furnish in accordance with Section 01 78 00.
- B. Furnish manufacturer's parts list and maintenance instructions for each type of hardware and necessary wrenches and tools required for proper maintenance.
- C. Make copies of approved Shop Drawings, including wiring diagrams, and Product Data for inclusion in maintenance manual.

PART 2 PRODUCTS**2.01 GENERAL**

- A. Numbers in parentheses indicated product numbers of accepted manufacturers.
- B. Items: Provide scheduled item on each leaf except where operation otherwise indicates. Provide necessary accessories for complete installation of all items.
- C. Fire Rating: All hardware on fire rated doors is to be rated as required to meet door assembly requirements. Provide label on hardware where required.
- D. Metal Finishes: Sprayed paint on closers and brackets of color to match adjacent hardware; 626 (US26D) or 630 (US32D) on other hardware, unless otherwise indicated .

2.02 HANGING

- A. By 08 16 00 Aluminum Doors and Frames

2.03 EXIT DEVICES

- A. General: ANSI/BHMA A156.3, Grade 1. All exit devices shall be by the same manufacturer. Provide fire exit devices at rated locations indicated on the Drawings.
- B. Manufacturer: VON DUPRIN is specified to match school districts standards. No substitutions.
- C. Style: Series 98.
- E. Types
 - 1. Rim-1: SDRXQEL98-EO; see below for pull. Electrified latch retraction on north leaf of door, RX switch on south leaf

(BE - Blank Escutcheon, CD - Cylinder Dogging, DT - Dummy Trim, EL - Electric Latch, EO - Exit Only, K - Knob, L - Lever, NL - Night Latch, LD - Less Dogging, NL-OP - Night Latch Cylinder Assembly, TL - Turn Lever, TP - Thumb piece, RX - Request to Exit switch).

- F. Reinforce crossbars on doors over 36" wide. Throughbolt devices anchorage, as necessary.

2.04 PULLS

- A. Manufacturer: Burns is specified with Ives also acceptable.
- C. Type: 39C

2.05 CLOSERS

- A. General: ANSI/BHMA A156.4.
- B. Manufacturer: LCN is specified to match school districts standards. No substitutions.
- C. Types
 - Type 1 - 4040XP-P-SHCUSH with #30 Cush Shoe Support and #61 Blade Stop Spacer.
 - (R - Regular Arm; P - Parallel Arm; H - Hold; CUSH - Cushion-n-Stop; HCUSH - Hold Open/Cushion Stop; SCUSH - Spring Cushion Stop; SHCUSH - Spring Cushion/Hold Open; DEL - Delayed Action)
- D. Size for conditions and code requirements.
- E. Labeled indicating compliance with applicable codes at rated openings..

2.06 MULLIONS

- A. Manufacturer: VON DUPRIN is specified. No substitutions..
- B. Type: RM (keyed removeable mullion) KR4954 STAB or equal.
- C. Accessories:

2.07 ELECTRIC HARDWARE

- A. General: Products shall be ANSI/BHMA (CPD) certified and UL (DIR) approved. Supplier of electric hardware shall be responsible for providing factory-authorized installation personnel, either an employee of the supplier or manufacturer, or a subcontractor.

- B. Manufacturer: VON DUPRIN is specified to match school districts standards, except as noted. No substitutions. All hardware components and required accessories shall be by the same manufacturer.
- C. Voltage: 24 volt DC.
- G. Hardware Group 1
 - 1. Power Supply: PS902 x 900-2RS.
 - 2. Interface Box: JB7-R2.
 - 3. Power Transfer: EPT-10.
 - 4. Door Position Indicator: Relocated Existing

2.08 ANCHORAGE DEVICES

- A. Thru-bolt surface-mounted hardware on mineral core labeled doors with sex bolts. Grommet nuts, where used, without protruding screw shanks or burrs.
- B. Phillips head for exposed screws. Do not use aluminum screws to attach hardware.

2.10 CAULKING

- A. Type: Polysulphide base single component, chemical curing conforming to FS TT-S-00230C, Type II, Class A.

PART 3 EXECUTION

3.01 GENERAL

- A. Furnish mounting information requiring blocking in walls by Section 05 40 00, 06 10 00, and 09 21 16.

3.02 INSTALLATION

- A. Install in accordance with manufacturer's recommendations using proper templates.
- B. Accurately set, securely apply and carefully adjust for proper operation and performance. Coordinate installation with hardware supplier.
- C. Remove and reinstall as required, finish hardware installed prior to the start of painting and finish Work.
- D. Closers: Mount regular arm closers on corridor side of lobby doors, room side of corridor doors, and stair side of stairway doors. Mount for maximum degree of opening obtainable considering other hardware provided and opening conditions. Job site adjust spring power, back check, closing and latching speeds allowing for drafts, wind and handicap requirements.
- E. Push/Pull Set: Mount with pull bar below push bar.
- F. Mounting: Maintain following mounting locations for doors from finished floor:
 - 1. Hinges: BHMA/SDI standards.
 - 2. Lock/Latch: 40-5/16" centerline of strike.
 - 3. Push/Pull: 36" to centerline of push bar.
 - 4. Wall Stops: Centerline of knob or point of first contact.
 - 5. Thresholds: Mount at exterior doors and interior sound doors such that slope breakpoint on threshold is at lead edge of door. Set in full bed of caulking.

3.03 HARDWARE SCHEDULE

- A. See Opening - Frame - Notes on Drawings.

END OF SECTION 08 71 00

SECTION 08 80 00 Glass and Glazing

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Annealed Glass.
- B. Safety Glass.
- C. Insulating Glass Units.

1.02 RELATED WORK

- B. Section 08 11 16 - Aluminum Doors and Frames..

1.03 REFERENCE STANDARDS

- A. ANSI Z97.1 - American National Standard for Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test.
- B. ASTM C1036 - Standard Specification for Flat Glass.
- C. ASTM C1048 - Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass.
- D. ASTM C1172 - Standard Specification for Laminated Architectural Flat Glass.
- E. ASTM C1193 - Standard Guide for Use of Joint Sealants.
- F. ASTM C1376 - Standard Specification for Pyrolytic and Vacuum Deposition Coatings on Flat Glass.
- G. ASTM C864 - Standard Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers.
- H. ASTM C920 - Standard Specification for Elastomeric Joint Sealants.
- I. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
- J. ASTM E1300 - Standard Practice for Determining Load Resistance of Glass in Buildings.
- K. ASTM E2188 - Standard Test Method for Insulating Glass Unit Performance.
- L. ASTM E2189 - Standard Test Method for Testing Resistance to Fogging in Insulating Glass Units.
- M. ASTM E2190 - Standard Specification for Insulating Glass Unit Performance and Evaluation.
- N. FM (AG) - FM Approval Guide.
- O. GANA (GM) - GANA Glazing Manual.
- P. ICC (IBC) - International Building Code.
- Q. NFPA 251 - Standard Methods of Tests of Fire REsistance of Building Construction and Materials.
- R. NFPA 252 - Standard Methods of Fire Tests of Door Assemblies.
- S. NFPA 257 - Standard on Fire Test for Window and Glass Block Assemblies.
- T. NFPA 80 - Standard for Fire Doors and Other Opening Protectives.
- U. NFRC 100 - Procedure for Determining Fenestration Product U-factors.
- V. NFRC 200 - Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence.
- W. UL 10C - Standard for Positive Pressure Fire Tests of Door Assemblies.
- X. UL 263 - Standard for Fire Tests of Building Construction and Materials.
- Y. UL 9 - Standard for Fire Tests of Window Assemblies.
- Z. ASTM C669 - Glazing Compounds for Back Bedding and Face Glazing of Metal Sash.
- AA. ASTM E2010 - Methods for Fire Tests of Window Assemblies.
- AB. ASTM E2074 - Methods for Fire Tests of Door Assemblies.

- AC. CPSC 16CFR 1201: Safety Standard for Architectural Glazing Materials.
- AD. FS A-A-1556A Sealing Compound.
- AE. NAAMM #SS-1B-68 - Non-skinning Resilient Preformed Compounds -Tapes, Ribbons, Beads with Release Paper.
- AF. WH - Warnock Hersey

1.04 SUBMITTALS

- A. Samples: Furnish sample of spandrel and insulating glass.
- B. Shop Drawings for Fire-Rated Glazing: Clearly indicate pertinent dimensions, general construction, component connections and locations, and installation details.
- C. Product Data: Furnish manufacturer's literature for fire-rated glazing, including code compliance's and installation instructions.
- D. Samples: Furnish sample of each type of fire-rated glass.

1.05 WARRANTIES

- A. Furnish in accordance with Section 01 78 00.
- B. Related Requirements: Articles 3.5 and 12.2 of General Conditions.
- C. Insulating Glass Warranty Requirements: During period of ten years after Date of Substantial Completion, manufacturer shall deliver to jobsite, without charge to Owner, replacement of any insulating glass unit that develops obstruction of vision through unit due to accumulation of dust, moisture or film on internal surfaces of glass caused by failure of hermetic seal because of defective materials or workmanship.
- D. Fire-Rated Glazing Warranty Requirements: Limited 5-year warranty.

1.06 QUALITY ASSURANCE

- A. Each pane of glass shall bear the manufacturer's label designating the type and thickness of the glass.
- B. Each pane of safety glazing except for tempered spandrel glass shall be identified by a label specifying the manufacturer's or importer's name and contact information including contact name, e-mail, mailing address and telephone number, date and place of compliance testing, identity of any third party testing lab with contact information (mailing address and telephone number), at a minimum the month and year of manufacture, and the safety glazing standard with which it complies. Such label shall be acid etched, sand blasted, ceramic fired, or an embossed mark, or shall be of a type that once applied cannot be removed without being destroyed. For other than tempered glass, labels are not required provided the Authority Having Jurisdiction approves the use of a certificate, affidavit or other evidence of compliance with required codes.
- C. Each pane of tempered spandrel glass shall be provided with a removable paper marking by the manufacturer specifying the manufacturer and the safety glazing standard with which it complies.
- D. Fire-Rated Glazing shall be labeled by an approved agency specified in this Section in accordance with applicable ICC (IBC). See Chapter 7.
- E. Glazing not in doors or enclosures for hot tubs, whirlpools, saunas, steam rooms, bathtubs and showers may be tested in accordance with ANSI Z97.1. Glazing shall comply with the test criteria for Class A or B as indicated in ICC (IBC) Table 2406.2(2).

1.07 PERFORMANCE REQUIREMENTS FOR INSULATING GLASS:

- A. **Coordinate with Section(s) 08 11 16 to ensure assemblies comply with System U-factors.**
- B. TYPICAL
 - 1. SHGC: NFRC 200; Max. 0.45 (climate zone 7).
 - a. Type-1 (Typical): 0.39, except this is not accounting for coating on #4 surface; final complete assembly value will be less than this.

- b. Type-2 (At Media Center, and Commons Clearstory): 0.29, except this is not accounting for coating on #4 surface; final complete assembly value will be less than this.
- 2. System U-Value Winter: NFRC 100; 0.29 maximum for fixed fenestration and 0.77 maximum for entrance doors.
- 3. Center of Glass (COG) U-Value Winter (insulating glass): NFRC 100; 0.20 maximum for fixed fenestration.
- 4. Visible Light Transmittance:
 - a. Type-1 (Typical): 58%, except this is not accounting for coating on #4 surface; final assembly value will be less than this.
 - b. Type-2 (At Media Center, and Commons Clearstory): 54%, except this is not accounting for coating on #4 surface; final assembly value will be less than this.
- 5. Low 'e' Coatings: ASTM C1376.

PART 2 PRODUCTS

2.01 ACCEPTABLE GLASS MANUFACTURERS

- A. AFGD, Cardinal Insulating Glass Company, Falconer Glass Industries, Guardian Industries Corporation, Oldcastle Building Envelope, Pilkington, PPG Industries, Inc., Visteon and Viracon, Inc..

2.04 INSULATING GLASS UNITS

- A. Type-1 (Typical): ASTM E2190; hermetically sealed, double-glazed units with outer and inner panes of 1/4" fully tempered clear glass; Argon-filled; Category: II; 1" thick; low-e coating on surface #2 and #4. Low-e coating on #2 surface shall be equal to PPG Solarban 60 and Low-e coating on #4 surface shall be equal to Pilkington Energy Advantage. Factory assembled.
- B. Glass Spacers: Warm edge type.

2.07 GLAZING MATERIALS

- A. Glazing Compounds: Modified oil type; non-hardening, knife grade for wood or metal frames, equal to that by Tremco.
- B. Glazing Compound for Fire-Rated Glazing: Type recommended by glazing manufacturer to comply with listing.
- C. Preformed Glazing Gasket: Neoprene or EPDM rubber, ASTM C864,
- D. Glazing Tape
 - 1. Compression Glazing: Macro-polyisobutylene, preformed butyl type; AAMA 804.3/806.3/807.3, with integral synthetic rubber spacing device; Shore "OO" hardness value of 70; paper release; color selected by Architect; equal to Polyshim II by Tremco.
 - 2. Non-compression Glazing: Cross-linked, butyl rubber, preformed type; AAMA 804.3/807.3, paper release; color selected by Architect; equal to 440 Tape by Tremco.
 - 3. Fire-Rated Glazing: Type recommended by glazing manufacturer to comply with listing.
- E. Sealant: One component sulfide, FS AA-1556A; single component acrylic, FS AA-1556A; or single component silicone, [ASTM C920](#); color selected by Architect; shore 'A' hardness of 15-25.
- F. Setting Blocks: Neoprene; 50-durometer hardness, except at fire rated locations use type recommended by glazing manufacturer to comply with listing.

PART 3 EXECUTION

3.01 INSPECTION

- A. Verify surfaces of glazing channels or recesses are clean, free of obstructions and ready for Work of this Section.
- B. Beginning of installation means acceptance of substrate.

3.02 PREPARATION

- A. Clean contact surfaces with solvent and wipe dry.

- B. Seal porous glazing channels or recesses.
- C. Prime surfaces scheduled to receive sealant.

3.03 INSTALLATION

- A. General: Install in accordance with Reference Standards and herein specified procedures.
- B. At Aluminum Doors and Frames, Storefronts, and Curtain Walls: Install glass with exterior dry method (preformed glazing gasket).
- C. At Interior Aluminum Doors and Frames: Install glass with interior dry method (preformed glazing gasket).
- D. At Panel Doors: Install with interior dry method (preformed glazing gasket).
- E. At Metal Frames: Install glass with interior wet method (tape and tape).

3.04 EXTERIOR DRY METHOD (PREFORMED GLAZING GASKET)

- A. Ensure glazing gaskets are cut to proper length. Weld joints by butting gasket and dabbing with sealant.
- B. Locate setting blocks at 1/4 points maximum.
- C. Ensure full contact and adhesion between glass and gasket at perimeter.
- D. Avoid displacement of glazing gasket during installation of removable stops.
- E. Install removable stops to ensure full continuous contact.

3.05 INTERIOR DRY METHOD (PREFORMED GLAZING GASKET)

- A. Ensure glazing gaskets are cut to proper length. Weld joints by butting gasket and dabbing with sealant.
- B. Locate setting blocks at 1/4 points maximum.
- C. Ensure full contact and adhesion between glass and gasket at perimeter.
- D. Avoid displacement of glazing gasket during installation of removable stops.
- E. Install removable stops to ensure full continuous contact.

3.06 INTERIOR WET METHOD (TAPE AND TAPE)

- A. Ensure glazing tape is cut to proper length, and after installed against permanent stop projects maximum 1/16 inch above sightline. Tape shall be installed to a properly prepared, clean dry surface not more than 24 hours prior to glazing.
- B. All tape corners shall be squared and tightly, neatly butted. Overlapping of tape is not permitted.
- C. Joints in tape are permitted at corners only. Lightly daub joints with compatible gunnable sealant to ensure a positive seal.
- D. Locate setting blocks at 1/4 points maximum.
- E. Ensure glass is resting on setting blocks and is in full contact and adhesion at perimeter.
- F. Glazing tape on free perimeter of glass shall be cut to proper length, and shall project maximum 1/16 inch above sightline.
- G. Avoid displacement of tape during installation of removable stop. Ensure full continuous contact between glass and tape.
- H. Neatly trim protruding tape.

3.08 CLEANING

- A. After installation mark glass with X by using tape or removable paste.
- B. Immediately remove droppings from finished surfaces.
- C. Remove labels after Work is completed.

END OF SECTION 08 80 00

SECTION 09 21 16 Gypsum Board Assemblies**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Gypsum Board.
- B. Metal Components.
- C. Trims, Corner Beads, Control Joints, and Reveals.
- D. Sound Insulation.
- E. Acoustical Sealant.
- F. Tape and Joint System.
- G. Finish.
- H. Adhesive.
- I. Fasteners.

1.02 RELATED WORK

- D. Section 06 10 00 - Rough Carpentry: wood blocking in lieu of metal blocking for non-load bearing framing.
- E. Section 07 25 00 - Weather Barriers: Vapor barrier..
- G. Section 07 92 00 - Joint Sealants: Sealant at expansion joints.
- K. Section 09 90 00 - Painting and Coating.
- N. Division 22 - Plumbing: Piping and wall-mounted fixtures.
- O. Division 23 - Heating, Ventilating and Air Conditioning: Ductwork and air outlets and inlets.
- P. Division 26 - Electrical: Conduit, wiring devices and light fixtures.
- Q. Division 28 - Electronic Safety and Security: Safety and security equipment.

1.03 REFERENCE STANDARDS

- A. AISI S200 - North American Standard for Cold-Formed Steel Framing - General Provisions.
- B. ASTM A1003 - Standard Specification for Steel Sheet, Carbon, Metallic and Non-metallic-coated for Cold-formed Framing Members.
- C. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
- D. ASTM A568/A568M - Standard Specification for Steel, Sheet, Carbon, Structural, and High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled, General Requirements For.
- E. ASTM A641/A641M - Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire.
- F. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- G. ASTM C1278/C1278M - Standard Specification for Fiber-Reinforced Gypsum Panel.
- H. ASTM C1396/C1396M - Standard Specification for Gypsum Board.
- I. ASTM C1629/C1629M - Standard Classification for Abuse-Resistant Nondecorated Interior Gypsum Panel Products and Fiber-Reinforced Cement Panels.
- J. ASTM C475/C475M - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board.
- K. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing.
- L. ASTM C754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products.

- M. ASTM C834 - Standard Specification for Latex Sealants.
- N. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board.
- O. ASTM C919 - Standard Practice for Use of Sealants in Acoustical Applications.
- P. ASTM D3273 - Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.
- Q. ASTM D3274 - Standard Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Microbial (Fungal or Algal) Growth or Soil and Dirt Accumulation.
- R. ASTM E413 - Classification for Rating Sound Insulation.
- S. GA-214 - Recommended Levels of Finish - Gypsum Board, Glass Mat and Fiber-Reinforced Gypsum Panels.
- T. GA-216 - Application and Finishing of Gypsum Panel Products.
- U. GA-223 - Gypsum Panel Product Types, Uses, Sizes and Standards.
- V. GA-234 - Control Joints for Fire-Resistance Rated Systems.
- W. GA-600 - Fire Resistance Design Manual.
- X. ICC (IBC) - International Building Code.
- Y. UL (DIR) - Online Certifications Directory.

1.04 SUBMITTALS

- A. Submit in accordance with Section 01 33 00.
- B. Product Data: Furnish manufacturer's descriptive literature for all gypsum wall board products, joint treatment materials, reveals, and for head deflection runner system, including UL Design listing.
- C. UL (DIR) Design Listings: If wall board products provided under this Section are manufactured by a company other than USG, or if fire-rated assemblies other than those specified below are intended to be used by this Section, furnish UL (DIR) Design Listings for each fire-rated assembly in which gypsum board is a component. Coordinate UL (DIR) Design selected with Section(s) 07 84 00 to ensure all proposed products are compatible and will not negate UL (DIR) listing.

1.05 PERFORMANCE REQUIREMENTS

- A. Sound Walls: STC min. 49; See key plan on Drawings which differentiates sound wall locations from interior partition walls (not classified as sound rated walls).

1.06 ENVIRONMENTAL CONDITIONS

- A. Ensure minimum of 55 degrees F. 24 hours before and during installation and thereafter.

1.07 QUALITY ASSURANCE

- A. Mock-Up: Before proceeding with textured finish, Provide 48 inch by 48 inch minimum sample or mockup clearly indicating texture, materials and workmanship. When approved by Architect, it will serve as minimum standard for all Work.
- B. Furnishing and installing any products which are not "asbestos-free" is strictly prohibited. "Asbestos-free" is defined under current EPA Guidelines as a material containing not more than 1% asbestos.

1.08 REGULATORY REQUIREMENTS

- A. Conform to applicable codes for fire rated assemblies as indicated on the drawings.

1.09 DELIVERY, STORAGE AND HANDLING

- A. Deliver material to site in manufacturer's unopened containers or bundles, fully identified with name, brand, type and grade, and without undue exposure to weather.
- B. Store material in dry, well-ventilated space, protected from moisture, soiling and damage.

- C. Store board to be directly applied to masonry walls at 70 degrees F for at least 24 hours prior to installation.

PART 2 PRODUCTS

2.01 GENERAL

- A. Products manufactured, fabricated, or assembled in China are prohibited.

2.02 MANUFACTURERS

- A. Unless otherwise indicated, standard items by United States Gypsum Company, USG Corporation are specified with equal products by Gold Bond Building Products Division of National Gypsum Company; Georgia Pacific Corporation, and Certainteed acceptable.

2.03 GYPSUM BOARD

- A. General: GA-223; In lengths as long as practical to minimize number of joints. ASTM C1396/C1396M, except as otherwise noted.
- B. Type X: Sheetrock brand Gypsum Panel with Firecode Core.
- C. Type C: Sheetrock brand Gypsum Panel with Firecode C Core.
- D. Type X/M-R: Sheetrock brand Mold Tough Firecode Core Gypsum Panel.

2.04 METAL COMPONENTS

- A. Metal Studs & Runners
 1. Manufacturer: Member of Steel Stud Manufacturer's Association or the Steel Framing Industry Association, and UL (DIR) listed for use in fire-resistance-rated assemblies.
 2. Types
 - a. Walls to receive gypsum wallboard: AISI S200 and ASTM C645; light load-bearing; G40 hot-dipped galvanized per ASTM A653/A653M.
 - b. Walls to receive Tile Backer Board: AISI S200 and ASTM C645, light load bearing; G60 hot-dipped galvanized per ASTM A653/A653M.
 3. Gauge: 25-gauge except 20-gauge at door frames, at walls scheduled to receive Tile Backer Board and/or ceramic tile, and at fire-rated walls; depth as indicated on Drawings.
 4. Head Deflection Runner System: UL (DIR) listed; Max Trak or BlazeFrame by ClarkDietrich Building Systems, Fire Trak by Fire Trak Corp., or equal, complete with all fasteners and accessories required by UL (DIR) listing. At Contractor's option, metal angles as required by UL (DIR) listing for dynamic head-of-wall joint may be used.
 5. Dynamic/Static Head Joint Protection: UL (DIR) listed; BlazeFrame by ClarkDietrich or equal, complete with all fasteners and accessories required by UL (DIR) listing. Coordinate with Section 07 84 00 to ensure compatibility with firestopping products.
- B. Ceiling/ Soffit Framing Channels: ASTM C754; ClarkDietrich Cold-Rolled Channels; min 16-gauge galvanized steel; hanger wires shall be ASTM A641/A641M, soft, Class 1 galvanized; rods and flats shall be mild steel, galvanized; furring anchorages shall be min. 16-gauge galvanized wire ties, manufacturer's standard wire-type clips, or screws recommended by manufacturer and complying with ASTM C754.
- C. Metal Furring Channels (Hat Channels): ClarkDietrich 25-gauge roll-formed, hat-shaped, G40 hot-dipped galvanized steel per ASTM A653/A653M. 20-gauge where furring is scheduled to receive Tile Backer Board and as required for longer spans and ceiling suspension.
- D. Resilient Channel Furring: ClarkDietrich RC Deluxe (RCSD) Resilient Channel; G40 hot-dipped galvanized steel per ASTM A653/A653M.
- E. Ceiling Suspension System (Fire-Resistance Rated Gypsum Board Ceilings): Equal to DGL Drywall Suspension System by USG.
- G. Blocking: Min. 6 inches wide, 16 gauge flat metal strap or fire retardant treated lumber; pressure treated in accordance with AWPA give flame spread rating of 25 or less per ASTM E84 as Provided in Section 06 10 00, except fire retardant treated lumber is not permitted in bearing walls.

2.05 TRIMS, CORNER BEADS, CONTROL JOINTS, AND REVEALS

- A. Metal Trim: Sheetrock 200 Series and other types as indicated or required.
- B. Metal Corner Beads: Sheetrock Brand Dur-A-Bead or No. 800 Corner Bead or equal.
- C. Metal Control Joints: Sheetrock brand Zinc Control Joint No. 093.

2.06 TAPE AND JOINT SYSTEM

- A. ASTM C475/C475M; Sheetrock Brand Tape and Ready-Mixed Joint Compound, except Durabond at tile backer board. Fiberglass tape and setting-type joint compound as recommended by Perimeter and Abuse Resistant Wallboard manufacturer. Ensure joint compound will not require primer or filler coats in addition to those specified in Section 09 90 00.

2.07 FINISH

- A. Textured Finish
 - 1. Walls: Sheetrock brand Wall & Ceiling Spray Texture.
- B. Smooth Finish (Ceilings and Soffits)
 - 1. Primer-Surfacer: Sheetrock brand Tuff-Hide Primer-Surfacer or Sherwin Williams Builders Solution System Interior Latex Primer/Surfacer. At Contractor's option, level 5 finish may be provided in accordance with GA-214 Recommended Specification - Levels of Gypsum Board Finish and GA-216 Recommended Specification for Application and Finishing of Gypsum Board.

2.08 ADHESIVE

- A. Type: Sheetrock brand Setting Type Durabond Adhesive.

2.09 FASTENERS

- A. General: Anchor sizes and embedment as indicated on Structural Drawings. Where size and/or embedment is not indicated on Drawings, use 3/4-inch diameter and manufacturer's recommended embedment.
- B. Powder Actuated Fasteners Equal to Hilti DX System by Hilti.
- C. Structural Concrete Wedge Anchors; Strong-Bolt by Simpson Strong-Tie or equal.
- D. Structural Concrete Epoxy Adhesive Anchors; Equal to SET-XP by Simpson Strong-Tie.
- E. Structural Concrete Acrylic Adhesive Anchors; Equal to AT-XP by Simpson Strong-Tie.
- F. Structural Concrete Screw Anchors: Titen-HD by Simpson Strong-Tie or equal; galvanized in accordance with ASTM A153/A153M; sized and spaced as indicated on structural Drawings.
- G. Structural Masonry Screw Anchors: Titen-HD by Simpson Strong-Tie or equal; galvanized in accordance with ASTM A153/A153M; sized and spaced as indicated on structural Drawings. Not for installation in hollow cells of masonry.

PART 3 EXECUTION**3.01 GENERAL**

- A. Comply with ASTM C754 and ASTM C840.

3.02 TOLERANCES

- A. Do not exceed 1/8-inch variation in 8 feet from plumb or leveling exposed lines of surface, except at joints between gypsum board units.
- B. Do not exceed 1/16-inch variation between planes of abutting edges or ends.
- C. Shim as required to comply with specified tolerances.

3.03 METAL STUD WALLS

- A. Align and secure runner tracks accurately at both floor and ceiling.
- B. Provide fasteners for runners appropriate to substrate construction as recommended by runner manufacturer.

- C. Space studs at 16" o.c. with flanges facing in same direction. Align and plumb framing accurately.
- D. Provide horizontal bracing where necessary for lateral support.

3.04 BLOCKING

- A. Provide blocking in stud walls for all wall-mounted accessories, products and equipment.

3.05 INTERIOR PARTIONS (NOT CLASSIFIED AS SOUND RATED WALLS)

- A. The requirements noted above for sound rated walls shall apply to interior partitions (not classified as sound rated walls), except acoustical sealant is only required on one side of the wall assembly.

3.06 HEAD DEFLECTION RUNNER

- A. Install where non-load-bearing, fire rated metal stud partitions meet roof or floor above. Install in accordance with manufacturer's instructions and UL listing for required fire-resistance rating.

3.07 CEILING FRAMING

- A. Coordinate location of hangers with other Work. Install ceiling framing independent of walls, columns, and above ceiling Work. Attach directly to structural elements only, do not attach to metal deck. Loop hangers and wire-tie directly or provide anchors and inserts.
- B. Space main carrying channels at maximum 4 feet on center, not more than 6 inches from perimeter walls.
- C. Place furring channels perpendicular to carrying channels at 16 inches on center, not more than 2 inches from perimeter walls.
- D. Reinforce openings in ceiling suspension system that interrupt main channels or furring channels with lateral channel bracing. Extend bracing minimum 24 inches past each end of openings.
- E. Provide 1-inch minimum clearance between furring or runners and abutting walls and partitions. Do not permit furring or runners to contact masonry or concrete walls.

3.08 GYPSUM BOARD INSTALLATION

- A. General: Use Type X board on all interior walls and ceilings, except where otherwise required, except use Perimeter Wallboard on the inside surface of all exterior wall framing and abuse-resistant wallboard on ID S121 alcoves, Sensory Room S123, ID S125 alcove, ED S129 alcoves, Sensory Room S135, and ED S136 alcoves. Use Type C board on all fire resistance rated ceilings. Use power-driven screw attachment method. Use fastener size, type and spacing as recommended by gypsum board manufacturer, except fastener spacing shall not exceed limits in ASTM C840.
- B. Toilets, Janitor Closets, Kitchen, behind interior masonry veneer, and on walls behind countertop or wall-mounted lavatories: Use Type X/M-R board.
- C. Over Concrete/ Masonry: Install direct with adhesive using Ames laminating spreader or notched metal spreader.
- D. Loosely butt joints together and neatly fit. Maximum allowable gap at end joints: 1/8-inch. Stagger joints on opposite sides of partitions.
- E. Apply ceiling boards first where gypsum board ceilings and walls occur.
- F. Cut openings to fit mechanical and electrical equipment snugly and small enough to be covered by standard plates and escutcheons. Cut both face and back paper.

3.09 CORNER BEADS

- A. Attach and secure in accordance with manufacturer's instructions.

3.10 METAL TRIM

- A. Provide Trim at all exposed ends and edges of gypsum board panels not concealed from view, and where gypsum board panels abut a dissimilar material. Secure in accordance with manufacturer's instructions.

3.11 FINISHING

- A. Level of Finish: Gypsum Association GA-214:
- B. Surfaces Concealed From View: Level 1 (fire taping), except provide higher level of finish as required to comply with fire resistance ratings and acoustical ratings.
- C. Water-resistant gypsum board substrate for tile: Level 2 with tool marks and ridges removed.
- D. Surfaces scheduled to receive no texture with paint at mechanical and electrical rooms, texture and paint, or wall covering: Level 4.
- E. Surfaces scheduled to receive paint: Level 4; Primer-Surfacer by this Section.
- F. Ensure wall-surface flatness tolerances do not vary more than 1/8 inch in 10 feet, nor vary at rate greater than 1/16 inch per running foot.
- G. Tape and grout joints at sound barriers above ceilings.
- H. Repair all defects visible before and after Section 09 90 00 applies primer and first coat of paint.

3.12 TEXTURED FINISH

- A. Spray apply to exposed surfaces not scheduled to receive vinyl wall fabric in accordance with manufacturer's instructions to give appearance of approved sample.
- B. Walls: Fine Orange Peel, except no texture on walls of mechanical and electrical rooms.

3.13 SMOOTH FINISH (CEILINGS AND SOFFITS)

- A. Apply Primer-Surfacer over Level 4 finish to scheduled surfaces in accordance with Primer-Surfacer manufacturer's instructions.

3.14 CONTROL JOINTS

- A. Provide control joints so no wall or ceiling length is continuous more than 30 feet in either direction.
- B. On ceilings and soffits, provide control joints at each location where underlying framing changes direction, and at the intersection of segments of 'L', 'T' or 'U'-shaped ceilings and soffits.
- C. Where control joints in walls fall over a less-than-ceiling height frame, the control joint shall be located at the corner of the frame that is not more than 30 feet from the adjacent control joints.
- D. Where possible, control joints in walls and ceilings should align.
- E. Where gypsum board is vertically continuous, such as at stairwells, provide horizontal control joints at each floor level.
- F. Secure control joints with screws to back-up both sides of joint.
- G. Tape joint into place, feathering as necessary to make joint flush with surface.
- H. Control joints in fire-resistance rated wall assemblies, floor/ceiling assemblies, and roof/ceiling assemblies shall be installed in accordance with Gypsum Association GA-234 Control Joints for Fire-Resistance Rated Systems.
- I. At surfaces to be painted, remove paper or vinyl strip, allow joint to be filled with sealant by Section 07 92 00, and paint entire assembly.
- J. At joints in surfaces to receive vinyl wall covering, finish same as painted surfaces.
- K. Apply vinyl wall covering over joint and tuck edges of vinyl wall covering into back of joint, adhering wall covering to sides of joint.
- L. After completion of vinyl wall covering, Section 07 92 00 will seal joint with sealant colored to match wall covering as well as possible.

3.15 CLEANING

- A. At completion of construction activities of other trades, touch up and restore damaged or defaced surfaces.

SECTION 09 21 16 GYPSUM BOARD ASSEMBLIES

- B. Remove spills, splatters, and stains from all surfaces.
- C. Repair and refinish entire wall or surface where portion of finish has been damaged or is otherwise unacceptable.
- D. Remove debris from Project site upon Work completion or sooner, as directed.
- E. Including Work of other trades, clean, repair and touch-up or replace when directed, products which have been soiled, discolored, or damaged by Work of this Section.

END OF SECTION 09 21 16

SECTION 09 51 00 Acoustical Ceilings**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Acoustical Material.
- B. Suspension Systems.

1.02 RELATED WORK

- C. Section 09 21 16 - Gypsum Board Assemblies: Metal studs, ceiling framing and gypsum board.
- F. Division 23 - Heating, Ventilating and Air Conditioning: Mechanical equipment set in ceiling.
- G. Division 26 - Electrical: Electrical equipment set in ceiling.
- H. Division 27 - Communications: Communications equipment set in ceiling.
- I. Division 28 - Electronic Safety and Security: Safety and security equipment set in ceiling.

1.03 REFERENCE STANDARDS

- A. ASTM C635/C635M - Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings.
- B. ASTM C636/C636M - Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels.
- C. ASTM E1264 - Standard Classification for Acoustical Ceiling Products.

1.04 SUBMITTALS

- A. Submit in accordance with Section 01 33 00.
- B. Product Data: Furnish manufacturer's descriptive literature of ceiling board(s) and grid system(s).

1.05 QUALITY ASSURANCE

- A. Furnishing and installing any products which are not "asbestos-free" is strictly prohibited. "Asbestos-free" is defined under current EPA Guidelines as a material containing not more than 1% asbestos.

1.06 OPERATION AND MAINTENANCE DATA

- A. Furnish in accordance with Section 01 78 00.
- B. Make copies of approved submittals for inclusion in maintenance manual.
- C. Furnish description of types and quantities furnished for inclusion in maintenance manual in accordance with Section 01 78 00.

1.07 EXTRA STOCK MATERIALS

- A. Furnish in accordance with Section 01 78 46.

PART 2 PRODUCTS**2.01 ACOUSTICAL MATERIAL**

- A. General: ASTM E1264.
- B. Acoustical Board: 24" x 24" x 3/4", angled tegular lay-in panels, Fine Fissured #1756 by Armstrong, Color - white.

2.02 SUSPENSION SYSTEMS

- A. General: ASTM C635/C635M. Designed and suspended to prevent deflection in excess of 1/360 of span of any member under weight of system, acoustical material, light fixtures, mechanical items and all other items attached to and suspended from system, in accordance with recommendations published by Acoustical and Insulating Materials Associations.
- B. Galvanized Wire: Fed. QQ-W-461: pre-stretched, annealed steel with Class 1 zinc coating.
- C. Stainless Steel and Nickel-Copper-Alloy Wire

1. FS QQ-W-4236 composition FS 302 and FS 304, condition A (annealed) for stainless steel and FS QQ-N-281b, Class A (annealed for nickel-copper-alloy). Use gauge size less than specified for galvanized wire in recommendations published by Acoustical and Insulating Materials Association.
- D. Furring Channels: 1-1/2 inch cold-roll formed from 16-gauge steel with protective coating of paint
- E. Grid System for Acoustical Board Types 1 and 3: Equal to Prelude ML 15/16" Exposed Tee System by Armstrong complete with heavy duty main runners, structural weight cross tees and factory-formed inside and outside corner caps. Standard white finish.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install in accordance with manufacturer's recommendations and ASTM C636/C636M to produce finished ceiling true to lines and levels and free from warped, soiled or damaged grid or acoustical material.
- B. Install ceiling system in manner capable of supporting all superimposed loads, with maximum deflection of 1/360 of span and maximum deviation of 1/8 inch in 10 feet in any direction.
- C. Install after major above-ceiling Work is complete. Coordinate location of hanger wires with other Work.
- D. Provide stainless steel or nickel-copper-alloy hanger wires at aluminum exposed grid system and galvanized elsewhere.
- E. Provide trapeze support arrangement of hanger wires and furring channels if large obstacles interrupt normal spacing.
- F. Hang independently of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of longitudinal axis of face plane of adjacent members.
- G. Do not support fixtures from or on main runners or cross runners if weight of fixture causes total dead load to exceed deflection capability. In such cases, support fixture loads by supplementary hangers located within 6 inches of each corner, or support fixtures independently.
- H. Do not install so fixtures will eccentrically load runners.
- I. Install edge moldings at intersection of ceiling and vertical surfaces using maximum lengths, straight, true to line and level. Miter corners. Provide edge moldings at junctions with other ceiling finishes. Where bullnose corners occur provide closers to match edge molding.
- J. Fit acoustical materials in place free from damaged edges or other defects detrimental to appearance and function. Install level, in uniform plane and free from twist, warp and dents.
- K. Bridging Tees: Anchor securely to grid.

END OF SECTION 09 51 00

SECTION 09 68 13 Tile Carpeting**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Floor Leveling Underlayment.
- B. Carpet Adhesive.
- C. Carpet Tiles.

1.02 RELATED WORK

- A. Section 03 30 00 - Cast-In-Place Concrete: Concrete floor slabs, and curing and sealing compounds.

1.03 REFERENCE STANDARDS

- A. AATCC - American Association of Text Broadloom Chemists and Colorists (AATCC).
- B. AATCC Test Method 23 - Colorfastness to Burnt Gas Fumes.
- C. AATCC Test Method 107 - Colorfastness to Water.
- D. AATCC Test Method 109 - Colorfastness to Ozone in the Atmosphere Under Low Humidities.
- E. AATCC Test Method 117 - Colorfastness to Ozone in the Atmosphere Under Low Humidities.
- F. AATCC Test Method 134 - Electrostatic Propensity of Carpets.
- G. AATCC Test Method 16 - Test Method for Colorfastness to Light.
- H. AATCC Test Method 165 - Colorfastness to Head: Dry (excluding pressing).
- I. AATCC Test Method 174 - Antimicrobial Activity Assessment of Carpets.
- J. AATCC Test Method 175 - Stain Resistance: Pile Floor Coverings.
- K. ASTM D5116 - Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Materials/ Products.
- L. ASTM E648 - Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source.
- M. ASTM E662 - Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials.
- N. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- O. ASTM F1869 - Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.
- P. ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes.
- Q. ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.
- R. CRI 104 - Standard for Installation of Commercial Carpet.
- S. FCAMC - Floor Covering Adhesive Manufacturers Committee of the National Association of Floor Covering Distributors.
- T. ICC A117.1 - Accessible and Usable Buildings and Facilities.
- U. Resilient Floor Covering Institute - Recommended Installation Practices.

1.04 SUBMITTALS

- A. Submit in accordance with Section 01 33 00.
- B. Shop Drawings: Clearly indicate the location of all seams, method of joining seams, direction of carpet, type of adhesive to be used, method of integrating edge strips with carpet and installation procedures. Lay out in largest possible pieces. Locate seams in areas of least amount of traffic. Keep cross joints to absolute minimum.

- C. Product Data: Furnish manufacturer's descriptive literature, including pattern name(s) and color(s), and installation instructions.
- D. Certificate: Prior to installing carpet, furnish to Architect letter from carpet manufacturer stating Project Name, Project Specification and that carpet furnished does meet Project Specifications.

1.05 ENVIRONMENTAL REQUIREMENTS

- A. Ensure building is enclosed and room temperature is between 68 and 95 degrees F. and relative humidity is at approximately that at which the area is to be maintained, for at least 72 hours prior to installation, during installation and at least 72 hours after completion. Ensure carpet has reached ambient room temperature prior to commencing installation.
- B. Perform Work under sufficient lighting.

1.06 CARE AND MAINTENANCE DATA

- A. Furnish carpet manufacturer's recommendations for care and maintenance of carpet, including cleaning and stain-removal materials and recommended cleaning schedule in accordance with Section 01 78 00. Include product data and MSDS for cleaning and stain-removal materials.

1.07 QUALITY ASSURANCE

- A. Review product data for curing and sealing compounds furnished by Section 03 30 00 to ensure compatibility with adhesives, primers and floor leveling underlayments. Furnish to Section 03 30 00 written approval of curing and sealing compounds proposed. Furnish copy of approval to Architect.
- B. Furnishing and installing any products which are not "asbestos-free" is strictly prohibited. "Asbestos-free" is defined under current EPA Guidelines as a material containing not more than 1% asbestos.

1.08 DELIVERY, STORAGE AND HANDLING

- A. Deliver and store carpet tiles in undamaged manufacturer's mill wrappings with each carton clearly marked as to type, dye lot and materials with registered tags.
- B. Deliver and store adhesive in undamaged manufacturer's containers with labels intact.

1.09 MAINTENANCE MATERIALS

- A. Furnish description of types, color and quantities furnished for inclusion in maintenance manual in accordance with Section 01 78 00.

1.10 EXTRA STOCK MATERIALS

- A. Furnish in accordance with Section 01 78 46.

PART 2 PRODUCTS

2.01 FLOOR LEVELING UNDERLAYMENT

- A. Type and brand recommended by carpet and adhesive manufacturers. Underlayment shall be low-VOC formulations as determined by FCAMC.

2.02 CARPET ADHESIVE

- A. Type and brand recommended by carpet tile manufacturer. Adhesives shall be low-VOC formulations as determined by FCAMC.

2.03 CARPET TILES

- A. Size: 24-inches by 24-inches, modular.
- B. CPT-1
 1. Manufacturer: J&J Flooring is specified .
 2. Name: Conundrum Modular Evolve Modular .
 3. Style: 7891 .
 4. Color: Amalgam 1477
 5. Specifications
 - a. Face Yarn: EcoSolution Q® Nylon Encore® 100 .
 - b. Construction: Patterned Loop .

- c. Gauge: 1/10.
- d. Yarn Weight: 20 oz/yd².
- e. Backing Material: Nexus® Modular .
- f. Density: 7,129 oz/y³
- g. Radiant Panel Test: ASTM E648, Class I; Radiant flux in excess of .45 watts/cm².

PART 3 EXECUTION

3.01 INSPECTION

- A. Do not start installation until other Work has been Substantially Completed.

3.02 PREPARATION OF SUBSTRATE

- A. Prepare concrete slab-on-grade in accordance with ASTM F710.
- B. Remove dust, dirt, solvents, oil, grease, paint, plaster and other substances detrimental to proper performance of adhesive and carpet. Allow floors to thoroughly dry before beginning installation.
- C. Perform necessary Work to put existing substrate in acceptable conditions for installation of carpet.

3.03 CARPET TILE INSTALLATION

- A. Install in strict accordance with reviewed Shop Drawings and manufacturer's recommended procedures.
- B. Install using total glue-down method.
- C. Brush face pile back from joint area when joining tiles; avoid any pile material being caught in joint.
- D. Cut tiles from face using template and carpet knife when fitting; adhere small cut pieces.
- E. Join seams in accordance with Carpet and Rug Institute recommendations so as not to detract from appearance of carpet installation and decrease life expectancy. Ensure seams are straight, not overlapped or peaked and free of gaps.
- F. Vacuum clean substrate. Spread adhesive in quantity recommended by manufacturer to ensure proper adhesion over full area of installation. Apply only enough adhesive to permit proper adhesion of carpet before initial set.

3.04 SETTLING IN

- A. Maintain normal room temperatures for minimum three days to allow tiles to conform to flooring and settle in.
- B. After settling period, clean with industrial size powered vacuum cleaner.

3.05 CLEANING

- A. Remove immediately adhesive spots and smears from carpet with solvent.
- B. Owner may retain any or all carpet scraps he chooses before they are removed from job site.
- C. Clean dirt, debris and stain and remove loose threads, etc.

END OF SECTION 09 68 13

SECTION 09 90 00 Painting and Coatings**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Paint.
- B. Paint Accessory Materials.

1.02 RELATED WORK

- A. Section 09 21 16 - Gypsum Board Assemblies.
- B. Division 22 - Plumbing: Exposed piping.
- C. Division 23 - Heating, Ventilating, and Air Conditioning: Exposed ductwork.
- D. Division 26 - Electrical: Exposed conduit.

1.03 REFERENCE STANDARD

- A. ASTM D6386 - Standard Practice for Preparation of Zinc (Hot-Dip Galvanized) Coated Iron and Steel Product and hardware Surfaces for Painting.
- B. MPI (APL) - Master Painters Institute Approved Products List; Master Painters and Decorators Association.
- C. MPI (APSM) - Master Painters Institute Architectural Painting Specification Manual.

1.04 SUBMITTALS

- A. Submit in accordance with Section 01 33 00.
- B. Samples: Submit two properly labeled samples of each required finish, color and sheen. Provide paint samples on properly prepared paint-out cards or hardboard. Size not less than 8 inches by 10 inches. Provide stained wood samples on type and quality of wood specified for use on project. Size not less than 8 inches by 10 inches.
- C. Materials and Products List: Before ordering or submitting samples, submit for Architects approval, (typewritten) complete lists of proposed products arranged in same format as schedule this Section and including applicable manufacturer's data and recommendations.

1.05 QUALITY ASSURANCE

- A. Contractor performing Work under this Section shall have at least five (5) years proven satisfactory experience on projects of similar scope.
- B. Conform to the standards contained in the Master Painters Institute Architectural Painting Specification Manual, MPI (APSM) and MPI (APL), latest edition, for all Work under this Section.
- C. Mock-up
 - 1. Before proceeding with coating application, finish one complete surface of each color scheme required, clearly indicating selected colors, finish texture, materials and workmanship; for approval by Architect.
 - 2. Approved surfaces will serve as standard for similar Work throughout Project.
 - 3. For spray application, coat surface not smaller than 100 square feet.
 - 4. Conform to all State and local regulations regarding disposal of products and accessory materials.

1.06 CARE AND MAINTENANCE DATA

- A. Furnish in accordance with Section 01 78 00.
- B. Furnish list of manufacturers, types, colors, color coding and quantities furnished for inclusion in maintenance manual.
- C. Furnish manufacturer's recommendations for cleaning coated surfaces.
- D. Furnish Material Safety Data Sheets for each paint and coating product.

1.07 EXTRA STOCK MATERIALS

- A. Furnish in accordance with Section 01 78 46.

1.08 DELIVERY, STORAGE AND HANDLING

- A. General: Deliver materials to site in original undamaged containers with seals unbroken and containing manufacturer's original labels showing
 1. Manufacturer's name.
 2. Product type.
 3. Brand name.
 4. Color designation.
 5. Instructions for mixing and reducing, where applicable.
- B. Storage of Materials
 1. In accordance with Section 01 60 00.
 2. Store only acceptable project materials on Project site.
 3. Store and mix materials in suitable location within building on galvanized pans, waterproof paper or tarpaulins.
 4. Do not allow materials to freeze.
 5. Comply with health and fire regulations.

1.09 ENVIRONMENTAL CONDITIONS

- A. Follow manufacturer's printed directions as to environmental conditions under which coatings and coating systems can be applied.
- B. Apply products in dust-free areas.
- C. Ensure minimum ambient air and surface temperature is 50 degrees F. for 24 hours before, during and 24 hours after application or above minimum temperatures recommended by manufacturer for conditions.
- D. Perform no work when the relative humidity is above 85 percent or when the dew point is less than 5 degrees F. variance between the air/surface temperature.
- E. Do not work where inclement weather may damage surface or prevent finish to dry or attain proper cure.
- F. Perform no Work under less than 30 foot-candles foot of lighting on surfaces to be finished.

1.10 PROTECTION

- A. Adequately protect surrounding areas and surfaces from coatings and damage. Repair damage as a result of inadequate or unsuitable protection.
- B. Furnish sufficient drop cloths, shields and protective equipment to prevent spray or droppings from fouling surfaces not being coated and, in particular, surfaces within storage and preparation area.
- C. Place cotton waste, cloths and material that may constitute a fire hazard in closed metal containers and remove daily from site.
- D. Remove electrical plates, surface hardware, fittings and fastenings, prior to painting or finishing operations. Carefully store, clean and replace these items upon completion of Work in each area. Do not use solvent to clean hardware that may remove permanent lacquer finish.

PART 2 PRODUCTS

2.01 GENERAL

- A. Products for each general purpose must be of same manufacturer. Do not use products of different manufacturers over one another, except for shop prime coats specified in other Sections.

2.02 PAINT, STAIN, OILS, AND VARNISHES

- A. Acceptable Manufacturers

1. Sherwin Williams, Benjamin Moore, Diamond Vogel, Hirshfield's, and PPG's Architectural Division, which includes Devoe, ICI, and Pittsburg PPG.
- B. Acceptable Products
 1. Provide Manufacturer's **MPI approved, VOC compliant products, using best in category**, for all scheduled Work as approved for MPI (APSM) system(s) referenced, as applicable to gloss level(s) referenced and as specified below. A current listing of approved MPI (APL) products can be found at www.paintinfo.com.
- C. Product Standards
 1. In accordance with MPI (APL) Approved Product List, latest edition, of Reference Standard. Consult Painting Schedule for required materials.
- D. Product numbers, where indicated herein, are given to establish desired quality, and are not intended to indicate color except as specifically noted.
- E. Perform all color tinting operations prior to delivery of paint to site.
- F. Provide ready-mixed products except as otherwise specified. Re-mix prior to application to ensure color and gloss uniformity.

2.03 PAINT ACCESSORY MATERIALS

- A. Secondary products not specified by name and required to achieve specified finishes such as oils, thinners, patching compounds, and putty shall be top painter craft products by reputable manufacturer.
- B. Floor Protection: Self adhesive polyethylene equal to Premium Film by FilmTech, phone 877-345-6832; or Velcro® Brand Carpet Protection.

PART 3 EXECUTION

3.01 INSPECTION

- A. Examine surfaces to receive coatings to ensure that they are dry, clean, of uniform texture, free of bond inhibiting foreign substances, or other conditions that would adversely affect adhesion, protective properties, or coating appearance. Give particular attention to prime coatings provided by other contractors.
- B. Verify proper lighting, temporary heat and ventilation is provided as specified in Section 01 50 00.
- C. Conduct substrate-moisture tests using approved electronic moisture meter in accordance with Surface Preparation requirements of Reference Standard. Ensure substrate moisture does not exceed that specified in this Section.
- D. Test cementitious surfaces for laitance/alkali in conformance with Surface Preparation requirements of Reference Standard.
- E. Do not proceed with surface preparation or coating application until conditions are suitable.

3.02 PREPARATION OF NEW SURFACES

- A. General
 1. Prepare surfaces in accordance with Master Painters Institute (MPI (APSM)) "Interior Surface Preparation" and "Exterior Surfaces Preparation" and as stipulated below.
 2. All surfaces shall be in sound condition, clean, dry and dull.
 3. Thoroughly clean surfaces free of loose, rough and foreign substances that affect adhesion or appearance of applied coats.
- B. Gypsum Board
 1. Remove sand, dust, dirt, oil, grease, wax, silicone, glue and all other foreign matter. Take care not to raise surface nap.
 2. Conduct substrate moisture content test. Maximum moisture content 12 percent.
 3. If surface defects appear before or after prime coating and/or first coat of paint, Section 09 21 16 will make repairs. Re-prime repaired areas.
 4. Commencement of painting indicates acceptance of substrate.

5. Notify Architect immediately if joint filler used by Section 09 21 16 will require special attention.

3.03 PREPARATION OF EXISTING SURFACES

A. General

1. Clean thoroughly, remove loose, scaly, and other defective film; fill holes and cracks and other defects; both currently existing and any reasonably anticipated to occur during this renovation and remodeling.
2. Remove mildew by scrubbing with approved cleaning/bleaching solution, then rinse with potable water; let thoroughly dry.

3.04 APPLICATIONS

A. General

1. Prime coats specified below may be omitted where factory-applied shop coats are specified in other sections and shop coat is sound.
2. Verify shop coat or prime coat has not exceeded manufacturer's specified re-coat time.
3. Prime coats specified below may be omitted from gypsum board surfaces with Primer-Surfacer by Section 09 21 16 (Level 5 finish - smooth).
4. Number of coats specified below is minimum.
5. Test with Moisture Meter. Do not apply initial coating until moisture content of surface to be finished is within limitations specified above.
6. Apply coating with suitable brushes, rollers, or spraying equipment as recommended by coating manufacturer.
7. Back-roll all surfaces where paint has been applied with spray equipment.
8. Do not exceed coating manufacturer's application rate. Ensure each coat meets or exceeds manufacturer's recommended dry film thickness.
9. Apply each coat at proper consistency.
10. Each coat of paint is to be slightly darker than preceding coat unless otherwise approved by Architect
11. Sand and dust between each coat to remove defects visible from distance of five feet.
12. Comply with product manufacturer's recommended drying time between succeeding coats.
13. Apply finish coats smooth, free of brush marks, streaks, laps, pile up, and skipped or missed area.
14. Provide final coat that is solid and even in color and free from cloudy and mottled surfaces, free of runs, laps, sags, brush marks, air bubbles and excessive roller stipple, and thoroughly worked into crevices, joint and similar areas.
15. Where paint abuts other materials or colors, cut paint edges clean and sharp and with no overlap.
16. Paint systems are based on Master Painters Institute exterior and interior systems MPI (APSM). System numbers are listed where applicable.

3.05 SCHEDULE OF INTERIOR WORK

A. General

1. In addition to obvious surfaces that do not require painting or finishing, do not paint over fire rating labels on doors or frames.

B. Walls

1. Paint scheduled rooms as indicated on Room Finish Schedule. See MPI numbers below.

C. Ceilings

1. Paint all new gypsum board ceilings. See MPI numbers below.

D. Metal Handrails and Brackets (excluding stainless steel)

1. Paint all metal handrails and brackets; See MPI's numbers below.

E. Other New Unfinished & Primed Surfaces

1. Provide specified finish on exposed surfaces. This includes prime-coated mechanical units, piping, pipe covering, conduit, ducts and interior duct surfaces visible behind grilles.
- F. Galvanized Metal (including but not limited to exposed metal deck when dryfall paint can't be used, exposed electrical conduit)
 1. One coat rust-inhibitive primer followed two coats eggshell water-based light industrial coating; MPI INT 5.3K.
- G. Galvanized Metal (including but not limited to metal doors and metal frames)
 1. One coat rust-inhibitive primer followed two coats semi-gloss water-based light industrial coating; MPI INT 5.3K.
- H. Gypsum Board, Other Than Ceilings
 1. At Other Rooms: One coat latex primer sealer followed by two coats eggshell, latex paint; MPI INT 9.2A. Primer coat shall be rolled.
- I. Gypsum Board Ceilings (All Rooms)
 1. One coat latex primer sealer followed by two coats flat latex paint MPI INT 9.2A. Primer coat shall be rolled. Standard ceiling white color unless otherwise noted.

3.07 CLEANING

- A. At completion of construction activities of other trades, touch up and restore damaged or defaced surfaces.
- B. Remove spills, splatters, and stains from all surfaces, including those in paint storage and mixing rooms.
- C. Repair and refinish entire wall or surface where portion of finish has been damaged or is otherwise unacceptable.
- D. Remove debris from Project site upon Work completion or sooner, as directed.
- E. Including Work of other trades, clean, repair and touch-up or replace when directed, products which have been soiled, discolored, or damaged by Work of this Section.

3.08 FINISH SCHEDULE

- A. Match existing adjacent surfaces

SECTION 10 15 00 Video Display Systems

PART 1 GENERAL

PART 2 PRODUCTS

2.01 PANELIZED LED VIDEO DISPLAY

A. Performance Requirements:

1. Comply with performance standards based on tests conducted in accordance with ANSI/Infocomm 10.

B. System Type: Flat.

1. Pixel Pitch: 8 mm
2. Horizontal Viewing Angle: 160 degrees (plus/minus 80 degrees off center).
3. Vertical Viewing Angle: 90 degrees (plus 40 degrees / minus 50 degrees).
4. Brightness: adjustable
5. Mount Type: mounted to cabinet sign unit.
6. Location: Outdoor.
7. Panel Height: 44 inches (1,118 mm).
8. Panel Length: 72 inches (1,829 mm).

2.02 CONTROLS

A. Interface Unit:

1. With the following abilities; scale media, rotate media, adjust brightness, loop output, and input selection. Basis of Design: Venus Control Suite.
2. Working Voltage: 120 VAC / 240 VAC at 60Hz.

PART 3 EXECUTION

END OF SECTION 101500



Gehrtz Construction Services

Specifications Included In FPS Multi-Facility Maintenance Projects, Fargo, ND

Number	Description	Revision	Issued Date	Received Date	Set
00 - Procurement and Contracting Requirements					
00 01 01	Project Title Page	0	02/18/2026	02/18/2026	Bid Set 02/18/26
00 01 05	Certifications Page	0	02/18/2026	02/18/2026	Bid Set 02/18/26
00 01 08	Bid Packages Scope of Work (SOW)	0	02/18/2026	02/18/2026	Bid Set 02/18/26
00 01 10	Table of Contents	0	02/18/2026	02/18/2026	Bid Set 02/18/26
00 11 00	Advertisement for Bids	0	02/18/2026	02/18/2026	Bid Set 02/18/26
00 21 00	Information to Bidders	0	02/18/2026	02/18/2026	Bid Set 02/18/26
00 22 00	See specifications on plumbing & mechanical plans	0	02/18/2026	02/18/2026	Bid Set 02/18/26
00 26 00	See specifications on electrical plans	0	02/18/2026	02/18/2026	Bid Set 02/18/26
00 31 00	See specifications on civil plans	0	02/18/2026	02/18/2026	Bid Set 02/18/26
00 41 00	Proposal Form	0	02/18/2026	02/18/2026	Bid Set 02/18/26
00 42 00	Bid Bond	0	02/18/2026	02/18/2026	Bid Set 02/18/26
00 43 25	Substitution Request Form	0	02/18/2026	02/18/2026	Bid Set 02/18/26
00 52 00	Agreement Forms	0	02/18/2026	02/18/2026	Bid Set 02/18/26
00 54 00	Agreement for Storing Materials or Equipment Off-Site	0	02/18/2026	02/18/2026	Bid Set 02/18/26
00 61 00	Performance and Payment Bond	0	02/18/2026	02/18/2026	Bid Set 02/18/26
00 65 00	Affidavit of Contractor	0	02/18/2026	02/18/2026	Bid Set 02/18/26
00 72 00	General Conditions	0	02/18/2026	02/18/2026	Bid Set 02/18/26
00 73 00	Supplementary Conditions	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 - General Requirements					
01 14 00	Work Restrictions	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 15 00	Electronic Documents	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 20 00	Price and Payment Procedures	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 20 10	Change Order Procedures	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 21 00	Allowances	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 22 00	Unit Prices	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 23 00	Alternates	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 30 00	Administrative Requirements	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 30 30	Worksite Safety	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 32 16	Construction Progress Schedule	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 33 10	Submittals	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 35 00	Special Procedures	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 40 00	Quality Requirements	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 42 13	Abbreviations and Acronyms	0	02/18/2026	02/18/2026	Bid Set 02/18/26



Gehrtz Construction Services

Number	Description	Revision	Issued Date	Received Date	Set
01 42 16	Definitions	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 42 19	Reference Standards	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 45 30	Special Inspections	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 50 00	Temporary Facilities and Controls	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 57 13	Temporary Erosion and Sediment Control	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 60 00	Product Requirements	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 61 50	Hazardous Materials Prohibition	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 70 00	Execution and Closeout Requirements	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 78 00	Closeout Submittals	0	02/18/2026	02/18/2026	Bid Set 02/18/26
01 78 46	Extra Stock Materials	0	02/18/2026	02/18/2026	Bid Set 02/18/26
02 - Existing Conditions					
02 40 00	Demolition	0	02/18/2026	02/18/2026	Bid Set 02/18/26
02 41 00	Selective Site Demolition	0	02/18/2026	02/18/2026	Bid Set 02/18/26
03 - Concrete					
03 11 00	Permanent Forms	0	02/18/2026	02/18/2026	Bid Set 02/18/26
03 20 00	Concrete Reinforcing	0	02/18/2026	02/18/2026	Bid Set 02/18/26
03 30 00	Cast-in-Place Concrete	0	02/18/2026	02/18/2026	Bid Set 02/18/26
04 - Masonry					
04 05 00	Masonry Mortar and Grout	0	02/18/2026	02/18/2026	Bid Set 02/18/26
04 20 00	Unit Masonry	0	02/18/2026	02/18/2026	Bid Set 02/18/26
05 - Metals					
05 50 00	Metal Fabrications	0	02/18/2026	02/18/2026	Bid Set 02/18/26
06 - Wood, Plastics, and Composites					
06 10 00	Rough Carpentry	0	02/18/2026	02/18/2026	Bid Set 02/18/26
07 - Thermal and Moisture Protection					
07 20 00	Thermal Protection	0	02/18/2026	02/18/2026	Bid Set 02/18/26
07 25 00	Weather Barriers	0	02/18/2026	02/18/2026	Bid Set 02/18/26
07 41 00	Metal Roof and Wall Panels	0	02/18/2026	02/18/2026	Bid Set 02/18/26
07 53 00	Elastomeric Membrane Roofing	0	02/18/2026	02/18/2026	Bid Set 02/18/26
07 60 00	Flashing and Sheet Metal	0	02/18/2026	02/18/2026	Bid Set 02/18/26
07 92 00	Joint Sealants	0	02/18/2026	02/18/2026	Bid Set 02/18/26
08 - Openings					
08 11 16	Aluminum Doors and Frames	0	02/18/2026	02/18/2026	Bid Set 02/18/26
08 70 00	Door Hardware	0	02/18/2026	02/18/2026	Bid Set 02/18/26
08 80 00	Glass and Glazing	0	02/18/2026	02/18/2026	Bid Set 02/18/26
09 - Finishes					
09 21 16	Gypsum Board Assemblies	0	02/18/2026	02/18/2026	Bid Set 02/18/26
09 51 00	Acoustical Ceilings	0	02/18/2026	02/18/2026	Bid Set 02/18/26



Gehertz Construction Services

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Job #: 25-028 FPS 2026 Multi-Facility Maintenance Project

Fargo, North Dakota

Number	Description	Revision	Issued Date	Received Date	Set
09 68 13	Tile Carpeting	0	02/18/2026	02/18/2026	Bid Set 02/18/26
09 90 00	Painting and Coatings	0	02/18/2026	02/18/2026	Bid Set 02/18/26
10 - Specialties					
10 15 00	Video Display Systems	0	02/18/2026	02/18/2026	Bid Set 02/18/26