
ADDENDUM NO. 1

PROJECT NAME: Nebraska College of Technical Agriculture Vet Tech Mechanical and Electrical Renovation
UNL PROJECT NUMBER: CU33P009
CONSULTANT: The Clark Enersen Partners
ADDRESS: 1251 NW Briarcliff Parkway, Suite 400, Kansas City, MO 64116
(816) 474-8237
DATE OF ISSUANCE: June 13, 2012
DATE OF BID OPENING: June 21, 2012

The bid documents dated May 15, 2012 for the above referenced project are amended by this addendum.

NOTICE: This Addendum is issued to all interested prospective bidders as an amendment to the project manual or other parts of the bidding (contract) documents for the above named project. Reference to this Addendum must be included in the Bid proposal. The information contained herein shall be fully incorporated into the contract documents as though originally included therein.

GENERAL:

Item 1-1: A pre-bid conference was held in Curtis, NE on Tuesday, June 5, 2012. A list of attendees is attached.

Item 1-2: Note roof replacement as indicated on sheet A1.5, including associated removal of existing system, and parapet modifications are now included in the revised Alternate Bid #1. All Mechanical Unit curbs shall be installed at heights indicated to accommodate future 4" base insulation. Contractor shall include repairs, flashing, and patching necessary to accommodate installation and modification of mechanical systems and overflow roof drains in the base bid.

SPECIFICATION CHANGES:

Item 1-3: Section 00 41 13 BID PROPOSAL FORM

Replace bid form with attached 00 41 13 BID PROPOSAL FORM.

Item 1-4: Section 01 23 00 ALTERNATES

Refer to paragraph 3.1 SCHEDULE OF ALTERNATES. Replace schedule of alternates with the following:

ALTERNATE NO.1 – Roof Replacement. Refer to Sheet A1.4. Existing roof demolition except as required to accommodate new mechanical equipment and roof drains shall be included in Alternate Bid #1. Refer to Sheet A1.5. New roof membrane, insulation, parapet modification shall be included in Alternate Bid #1.

ALTERNATE NO. 2 – Refer to Section 07 53 23 SINGLE PLY MEMBRANE ROOFING. In lieu of 20 year warranty indicated, provide 30 year NDL warranty. Contractor shall provide roofing system modifications necessary to obtain 30 year warranty.

- Item 1-5: Section 01 25 00 SUBSTITUTION PROCEDURES**
Add new section 01 25 00 SUBSTITUTION PROCEDURES.
- Item 1-6: Section 01 26 00 CONTRACT MODIFICATION PROCEDURES**
Add new section 01 26 00 CONTRACT MODIFICATION PROCEDURES.
- Item 1-7: Section 01 29 00 PAYMENT PROCEDURES**
Add new section 01 29 00 PAYMENT PROCEDURES.
- Item 1-8: Section 01 31 13 PROJECT COORDINATION**
Add new section 01 31 13 PROJECT COORDINATION.
- Item 1-9: Section 01 31 19 PROJECT MEETINGS**
Add new section 01 31 19 PROJECT MEETINGS.
- Item 1-10: Section 01 40 00 QUALITY REQUIREMENTS**
Add new section 01 40 00 QUALITY REQUIREMENTS.
- Item 1-11: Section 01 42 00 REFERENCE STANDARDS**
Add new section 01 42 00 REFERENCE STANDARDS.
- Item 1-12: Section 01 60 00 PRODUCT REQUIREMENTS**
Add new section 01 60 00 PRODUCT REQUIREMENTS.
- Item 1-13: Section 01 71 23 - FIELD ENGINEERING**
Add new section 01 71 23 FIELD ENGINEERING
- Item 1-14: Section 01 77 00 - CLOSEOUT PROCEDURES**
Add new section 01 77 00 CLOSEOUT PROCEDURES
- Item 1-15: Section 06 10 00 - ROUGH CARPENTRY**
Refer to paragraph 2.2 LUMBER GENERAL. Delete subparagraph 2.2.A in its entirety.
- Item 1-16: Section 22 10 00 – PLUMBING PIPING**
Refer to section 2.5 – STORM WATER PIPING, ABOVE GRADE

Delete 2.5.A and replace with the following:

A. PVC Pipe: ASTM D3003 or D3034, SDR 26 or Schedule 40.

 1. Fittings: PVC.
 2. Joints: ASTM F477, elastometric gaskets.
- Item 1-17: Section 23 09 00 – DIGITAL CONTROL EQUIPMENT**
Refer to section 2.1 – MANUFACTURERS

Delete paragraph 2.1.B. Johnson Controls and paragraph 2.1.C. Siemens.
- Item 1-18: Section 23 21 13 – HYDRONIC PIPING**
Refer to section 2.1 – HEATING WATER ABOVE GROUND

Add subparagraph "4. Grooved Mechanical Fittings: ASTM A 536, Grade 65-45-12 Ductile Iron; ASTM A 47 Grade 32510 Malleable Iron; ASTM A 53, Type F, or Types E or S, Grade B

fabricated steel; or ASTM A 106, Grade B steel fittings with grooves or shoulders designed to accept grooved end couplings." under paragraph 2.1.A - Steel Pipe: ASTM A53, Schedule 40, black.

Item 1-19: Section 26 27 26 – WIRING DEVICES

Refer to Section 2.2.2.B.8 – Change the power pack from 'B120/277' to read 'BZ-150' instead.

Sensor Switch WV-PDT-16 is approved as an equivalent device.

DRAWING CHANGES:

Item 1-20: A1.0 – ABBREVIATIONS, SYMBOLS, AND PROJECT PHASING PLANS

Add EXISTING PARTITION ORIENTATION PLAN and associated notes per attached Supplemental Drawings SDA-1 dated June 13, 2012.

Item 1-21: A1.0 – ABBREVIATIONS, SYMBOLS, AND PROJECT PHASING PLANS

Refer to PROJECT PHASING, PHASE IA description. Add note "ACCESS TO PHASE IA SHALL BE THROUGH ROOM 133 OR CORRIDOR 137 THROUGH THE EXPANSION AND TO THE NORTH."

Refer to PROJECT PHASING, PHASE IB description. Add note" ACCESS TO PHASE IB SHALL BE THROUGH CORRIDOR 127, CORRIDOR 115 OR DIRECTLY TO THE BUILDING EXTERIOR THROUGH DEMONSTRATION 119."

Refer to PROJECT PHASING, PHASE II description. Add note "ACCESS TO PHASE II SHALL BE THROUGH ROOM 133 OR CORRIDOR 137 THRU THE EXPANSION AND TO THE NORTH."

Refer to PROJECT PHASING, PHASE III description. Add note" ACCESS TO PHASE III SHALL BE THROUGH CORRIDOR 127, OR DIRECTLY TO THE EXTERIOR THROUGH NECROPSY 130."

Refer to PROJECT PHASING, PHASE IV description. Add note" ACCESS TO PHASE IV SHALL BE THROUGH CORRIDOR 127, OR DIRECTLY TO THE EXTERIOR."

Refer to GENERAL PHASING NOTES. Add the following:

3. WHERE ACCESS TO AREAS BEING RENOVATED IS ONLY THROUGH OTHER AREAS NOT CURRENTLY UNDER RENOVATION, CONTRACTOR SHALL COORDINATE AND SCHEDULE ACCESS WITH OWNERS REPRESENTATIVE AS TO LIMIT DISTURBANCE.
4. DURING PHASE II, CONTRACTOR SHALL MAINTAIN OWNER ACCESS TO THE SURGICAL THEATER SUITE (PHASE IA) THROUGH PREPERATION 133. COORDINATE PERIODS OF LIMITED OR ZERO ACCESS WITH THE OWNER.
5. CHEM STORAGE 121 AND CLIMATARIUM 122 SUPPORT CLIN PATH LAB 123. LIMITED OWNER ACCESS TO THE SUPPORT SPACES DURING PHASE IV SHALL BE COORDINATED WITH THE CONTRACTOR BY THE OWNERS REPRESENTATIVE.
6. EGRESS FROM OCCUPIED SPACES MUST BE MAINTAINED AT ALL TIMES DURING THE RENOVATION. RENOVATION OF THE CORRIDORS SHALL BE SEQUENCED TO ACCOMMODATE EGRESS. CONTRACTOR SHALL CONSTRUCT TEMPORARY PARTITIONS AS NECESSARY.

Item 1-22: A1.0 – ABBREVIATIONS, SYMBOLS, AND PROJECT PHASING PLANS

Refer to PHASING PLANS. Delete "Circle J" annotations.

Item 1-23: A1.3 – PARTIAL FIRST FLOOR REFLECTED CEILING PLAN AND CEILING DETAILS

Add Detail 5 GPDW CEILING DETAIL AT WALL COVERING per attached Supplemental Drawing SDA-2 dated June 13, 2012.

Add Detail 6 GPDW CEILING DETAIL – TYP. per attached Supplemental Drawing SDA-2 dated June 13, 2012.

Item 1-24: A1.5 – ROOF PLAN AND ROOF DETAILS

Refer to detail 3 ROOF DRAIN DETAIL. Replace with ROOF DRAIN DETAIL REVISED on attached Supplemental Drawing SDA-3, dated June 13, 2012.

Item 1-25: PM0.1 – MECHANICAL ROOF DEMOLITION PLAN

Note the manufacturer and model numbers of the (3) multizone roof top units.

Manufacturer	Model Number	Replacement Unit Equipment Mark
Lennox	DMS4275HW750	RTU-1
Lennox	DMS4185HW750	RTU-2
Lennox	BMS4415HW1000	RTU-3

Contractor shall obtain exact measurements, at the site to satisfactorily adapt replacement units to existing unit footprint as required.

Item 1-26: M0.1 – FIRST FLOOR DEMOLITION PLAN

The louver shown to be demolished and wall to be patch in Elec. Vault 112 is to remain and be operational. The louver shown to be demolished and wall to be patched in Elec. Vault 149 is to remain and the backside is to be blanked off to prevent air flow through louver.

Item 1-27: M1.1 – FIRST FLOOR HVAC PLAN

Demolish RA duct returning air from Women’s Lockers 148, and cap existing RA main. Adjust airflows of D-1 diffusers serving Corridor 146 and Women’s Locker 148 to match the zone CFM. Refer the attached supplemental drawing SDM001 for updated supply CFMs.

Demolish RA duct returning air from Men’s Lockers 113, and cap existing RA main. Adjust airflows of D-1 diffusers serving Corridor 115 and Men’s Locker 113 to match the zone CFM. Refer the attached supplemental drawing SDM002 for updated supply CFMs.

Item 1-28: M5.1 – MECHANICAL SCHEDULES

Refer to the HYDRONIC SPECIALTIES SCHEDULE. Note that subject to compliance with all specified requirements and equivalent features and performance as specified manufacturer, the following are approved manufacturers of coil pipe kits: Nexus Valve.

Item 1-29: M5.1 – MECHANICAL SCHEDULES

Refer to the HYDRONIC SPECIALTIES SCHEDULE. Note that subject to compliance with all specified requirements and equivalent features and performance as specified manufacturer, the following are approved manufacturers of coil pipe kits: Pro Hydronic Specialties.

Item 1-30: M5.1 – MECHANICAL SCHEDULES

Refer to the HYDRONIC SPECIALTIES SCHEDULE. Change the responsibility of the provision of the control valves for Remark 1 from “UNL BSM” to “CONTRACTOR”.

Item 1-31: M5.1 – MECHANICAL SCHEDULES

Refer to the PACKAGED ROOFTOP UNITS SCHEDULE. Note that subject to compliance with all specified requirements and equivalent features and performance as specified manufacturer, the following are approved manufacturers of packaged multi-zone rooftop units: Seasons4 6M Series.

Item 1-32: M5.1 – MECHANICAL SCHEDULES

Refer to the PACKAGED ROOFTOP UNITS SCHEDULE. Note that subject to compliance with all specified requirements and equivalent features and performance as specified manufacturer, the following are approved manufacturers of packaged multi-zone rooftop units: Johnson Controls Series 40 Units for RTU 1& RTU-3, Johnson Controls Series 20 for RTU-2.

Item 1-33: E0.0 – ELECTRICAL ABBREVIATIONS & SYMBOLS LEGEND

Under the 'Electrical Distribution' list, the ceiling mounted Wattstopper WT-2250 occupancy sensor calls for a "DUAL TECHNOLOGY" sensor. This needs to be updated to read "ULTRASONIC". The part number is correct and should remain.

Item 1-34: E1.1 – FIRST FLOOR LIGHTING PLAN

Refer to attached sheet E1.1. Sheet has been reissued in its entirety. Tick marks were added to aid in circuiting lighting fixtures. Notes were added to indicate installation and routing of panel '1H1' feeders in addition, information about emergency battery back-up for exterior wall mounted fixtures has been clarified.

Item 1-35: E4.1 – ELECTRICAL SCHEDULES

The following fixtures are approved as equivalents to those already listed on the fixture schedule on E4.1:

Exit Fixture (Dry)

- Dual Lite LXURWE
- Lithonia LQM-S-W-3-R-120/277-EL-N

Exit Fixture (Wet)

- Dual Lite LN4XRWE
- Evenlite CDW-EM-R-1-WW-XX

Fixture Type 'F'

- Lithonia AF-2-32-MVOLT-GEB10WG

Fixture Type 'G'

- Cooper C6042E-6001HWF-HB26
- Prescolite LF6CFV32EB-6CFV-B24

Fixture Type 'N'

- Cooper DRS-1/15I-200I-277-1-93
- Kenall MDRMS-2-120-GBX2

Fixture Type 'P'

- Exitronix VEX-1-BP-WB-WH-SS(IN USE)

Fixture Type 'S'

- Cooper VWS-100-MP-277-3S-BZ-PC-2EM/SC/12V
- Hubbell LMC-100P8-1-PC277-2EM12-LP

Fixture Type 'T'

- Cooper C6142E-6181H1G-HB26
- Prescolite LF6CFH132EB-6CFH1PL-B6

Fixture Type 'T1'

- Prescolite LF6CFH132EBEM(COLD)-6CFH1PLEM-B6

Fixture Type 'U'

- Prescolite TBXEB-TL1
- Elite B6PL26-42-E-MVOLT-B751-WH

Emergency Wall Pack

- Exitronix LRP6-50-LC
- Dual Lite CVEC50
- Lithonia ELM654

SECTION 00 41 13 - BID PROPOSAL FORM

B I D P R O P O S A L

TO: THE BOARD OF REGENTS OF THE UNIVERSITY OF NEBRASKA
c/o University of Nebraska-Lincoln
Business Services
Procurement Services Dept.
1700 Y Street
Lincoln, NE 68588-0645

BID PROPOSAL FOR: General Contractor

PROJECT: CU33P009-NCTA Vet Tech HVAC Upgrade & Re-Roof

INVITATION NO.: 909375-12

COMPLETE THE FOLLOWING INFORMATION – BIDDERS NAME AND TYPE OF BUSINESS:

This Bid is offered by _____, hereinafter referred to as the Bidder,
 a corporation organized and existing under the laws of the State of _____.
 a partnership doing business as _____.
 an individual doing business as _____.

In response to the Bidding Requirements for the construction of the project identified above by name, quotation number, and project number, the Bidder hereby makes the following representations:

Bidder has received the drawings and specifications for the project prepared by The Clark Enersen Partners.

Bidder has examined the Bidding Documents, visited the site, and otherwise familiarized itself with the local conditions affecting the construction of the project.

COMPLETE THE FOLLOWING INFORMATION – BASE BID:

Bidder agrees to furnish all labor, materials, tools, equipment, services, transportation, and supervision required to complete the work indicated in the Bidding Documents within the time set forth herein for the lump sum Base Bid amount of _____ dollars (\$_____).

COMPLETE THE FOLLOWING INFORMATION – ALTERNATE PROPOSALS:

The Base Bid amount given above may be increased or decreased by the acceptance of any of the Alternate Proposals listed below. The full and complete description of the work to be added to or deleted from the scope of the project by each of the Alternate Proposals is that found in Division 01, Section 01 23 00 - Alternates.

ALTERNATE NO.1 – Roof Replacement. Alternate Bid #1. Refer to Sheet A1.5. New roof membrane, insulation, parapet modification shall be included in Alternate Bid #1.

ADD the sum of _____ dollars (\$_____)

ALTERNATE NO. 2: In lieu of 20 year warranty indicated, provide 30 year NDL warranty.

ADD the sum of _____ dollars (\$_____)

SECTION 00 41 13 - BID PROPOSAL FORM

PROVIDE THE FOLLOWING INFORMATION – BID SECURITY:

Included with this Proposal is Bid Security of the type and in the amount required by the Bidding Instructions.

COMPLETE THE FOLLOWING INFORMATION – NUMBER OF ADDENDA RECEIVED:

Bidder has received Addenda Nos. _____, and has included their provisions in this Bid.

COMPLETE THE FOLLOWING INFORMATION – #4 CALENDAR DAYS TO COMPLETE THE WORK:

In submitting this Bid, Bidder agrees to the following:

1. To hold this Bid open for 60 days following the bid date.
2. To enter into and execute the "University of Nebraska Standard Form Construction Agreement" based upon this Bid, if accepted by Owner.
3. To perform all work required by the Contract Documents.
4. To substantially complete the work not later than _____ calendar days from the start of construction given in the Notice to Proceed. (Bidder to enter number of days.) Time is of the essence and may be a factor in the award of this Contract.
5. That this Bid has been arrived at without collusion with other Bidders and without any effort or activity which might prevent the University of Nebraska from receiving the lowest possible competitive Bid.
6. To comply with Nebraska Fair Employment Practice Act, understanding that a breach of this provision will be regarded as a material breach of contract.

COMPLETE THE FOLLOWING INFORMATION – SIGNATURE AND CONTACT INFORMATION:

Address:

Signature:

Printed Name:

Tele. No.:

Title:

Fax. No.:

Dated this _____ day of _____, 20____

Email Address: _____

SECTION 01 25 00 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for handling requests for substitutions made after award of the Contract.
- B. Standards: Refer to Section "Reference Standards" for applicability of industry standards to products specified.
- C. Procedural requirement governing the Contractor's selection of products and product options are included under Section "Product Requirement."

1.3 DEFINITIONS

- A. Definitions used in this Article are not intended to change or modify the meaning of other terms used in the Contract Documents.
- B. Substitutions: Requests for changes in products, materials, equipment, and methods of construction required by Contract Documents proposed by the Contractor after award of the Contract are considered requests for "substitutions." The following are not considered substitutions:
 - 1. Substitutions requested by Bidders during the bidding period, and accepted prior to award of Contract, are considered as included in the Contract Documents and are not subject to requirements specified in this Section for substitutions.
 - 2. Revisions to Contract Documents requested by the Owner or Architect.
 - 3. Specified options of products and construction methods included in Contract Documents.
 - 4. The Contractor's determination of and compliance with governing regulations and orders issued by governing authorities.

1.4 SUBMITTALS

- A. Substitution Request Submittal: Requests for substitution will be considered if received within 60 days after commencement of the Work. Requests received more than 60 days after commencement of the Work may be considered or rejected at the discretion of the Architect.
 - 1. Submit 3 copies of each request for substitution for consideration. Submit requests in the form and in accordance with procedures required for Change Order proposals.
 - 2. Identify the product, or the fabrication or installation method to be replaced in each request. Include related Specification Section and Drawings numbers. Provide complete documentation showing compliance with the requirements for substitutions, and the following information, as appropriate:
 - a. Product Data, including Drawings and descriptions of products, fabrication and installation procedures.

SECTION 01 25 00 - SUBSTITUTION PROCEDURES

- b. Samples, where applicable or requested.
 - c. A detailed comparison of significant qualities of the proposed substitution with those of the Work specified. Significant qualities may include elements such as size, weight, durability, performance and visual effect.
 - d. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by the Owner and separate Contractors, that will become necessary to accommodate the proposed substitution.
 - e. A statement indicating the substitution's effect on the Contractor's Construction Schedule compared to the schedule without approval of the substitution. Indicate the effect of the proposed substitution on overall Contract Time.
 - f. Cost information, including a proposal of the net change, if any in the Contract Sum.
 - g. Certification by the Contractor that the substitution proposed is equal-to or better in every significant respect to that required by the Contract Documents, and that it will perform adequately in the application indicated. Include the Contractor's waiver of rights to additional payment or time, that may subsequently become necessary because of the failure of the substitution to perform adequately.
3. Architect's Action: Within one week of receipt of the request for substitution, the Architect will request additional information or documentation necessary for evaluation of the request. Within 2 weeks of receipt of the request, or one week of receipt of the additional information or documentation, whichever is later, the Architect will notify the contractor of acceptance or rejection of the proposed substitution. If a decision on use of a proposed substitute cannot be made or obtained within the time allocated, use the product specified by name. Acceptance will be in the form of a Change Order.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

- A. Conditions: The Contractor's substitution request will be received and considered by the Architect when one or more of the following conditions are satisfied, as determined by the Architect; otherwise requests will be returned without action except to record noncompliance with these requirements.
1. Extensive revisions to Contract Documents are not required.
 2. Proposed changes are in keeping with general intent of Contract Documents.
 3. The request is timely, fully documented and properly submitted.
 4. The request is directly related to an "or equal" clause or similar language in the Contract Documents.
 5. The specified product or method of construction cannot be provided within the Contract Time. The request will not be considered if the product or method cannot be provided as a result of failure to pursue the Work promptly or coordinate activities properly.
 6. The specified product or method of construction cannot receive necessary approval by a governing authority, and the requested substitution can be approved.

SECTION 01 25 00 - SUBSTITUTION PROCEDURES

7. A substantial advantage is offered the Owner, in terms of cost, time, energy conservation or other considerations of merit, after deducting offsetting responsibilities the Owner may be required to bear. Additional responsibilities for the Owner may include additional compensation to the Architect for redesign and evaluation services, increased cost of other construction by the Owner or separate Contractors, and similar considerations.
 8. The specified product or method of construction cannot be provided in a manner that is compatible with other materials, and where the Contractor Certifies that the substitution will overcome the incompatibility.
 9. The specified product or method of construction cannot be coordinated with other materials, and where the Contractor certifies that the proposed substitution an be coordinated.
 10. The specified product or method of construction cannot provide a warranty required by the Contract Documents and where the Contractor certifies that the proposed substitution provide the required warranty.
- B. The Contractor's submittal and Architect's acceptance of Shop Drawings, Product Data or Samples that relate to construction activities, not complying with the Contract Documents, does not constitute an acceptable or valid request for substitution, nor does it constitute approval.

PART 3 - EXECUTION (Not Applicable)

END OF SECTION

SECTION 01 26 00 – CONTRACT MODIFICATION PROCEDURES

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions and other Division 01 Specifications sections, apply to this section.

1.2 SUMMARY

- A. This section specifies administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Sections: The following sections contain requirements that relate to this section:
 - 1. Division 01 Section “Submittal Procedures” for requirements for the Contractor’s Construction schedule.
 - 2. Division 01 Section “Payment Procedures” for administrative procedures governing applications for payment.
 - 3. Division 01 Section “Substitution Procedures” for administrative procedures for handling requests for substitutions made after award of the Contract.

1.3 REQUEST FOR INFORMATION / CLARIFICATIONS (RFI)

- A. The Request for Information/Clarification (RFI) form may be used by the Contractor to clarify areas of confusion and/or conflict in the Contract Documents. The Contractor or a prime subcontractor has the right to request information from the Architect/Engineer and this form is used to document such a request and the response thereto.
- B. The top half of the form shall be completed by the Contractor. Each form shall have its own unique consecutive number; i.e., G-1, G-2 ... for General Contractor, E-1, E-2 ... for Electrical, etc. If a series of RFI’s are generated on the same problem, the subsequent RFI’s may be numbered as a decimal of the original; i.e., G-8, G-8.1, G-8.2 ... etc. The top portion of the RFI should make specific reference to the Contract Document, Specification, Addendum or plan in question and the problem should be described as clearly as possible. The RFI is transmitted to the Architect/Engineer with a copy to the Owner’s Representative and others as specified in the Submittal Distribution List.
- C. The Architect/Engineer will respond to the issue on the lower half of the form and will return it to the Contractor with a copy to the Owner and to other parties when appropriate. This completed form will become an official interpretation of the Contract Documents and it will be the Contractor’s responsibility to execute the work in accordance therewith, not involving an adjustment to the Contract Sum or Contract Time.

1.4 MINOR CHANGES IN THE WORK – ARCHITECT’S SUPPLEMENTAL INSTRUCTIONS (ASI) OR FIELD ORDER

- A. Supplemental instructions authorizing minor changes in the Work, not involving an adjustment to the Contract Sum or Contract Time, will be issued by the Owner’s Project Manager (Field Order) or the Architect (ASI), with Owner consent, with copies being sent to the non-initiating party. See General Conditions 7.4.1.

1.5 CHANGE PROPOSAL REQUEST (CPR)

- A. Owner-Initiated Proposal Requests: If during the course of the project it becomes necessary or is desired by the Architect or Owner to make changes in the Work, that will require adjustment to the Contract Sum or Contract Time, a Change Proposal Request (CPR) will be issued. Only

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the Architect/Engineer and Owner's Representative, jointly, may issue a CPR and it must be signed by both before the Contractor takes any action.

- B. The CPR will clearly state the changes contemplated in the Work and will reference the Contract Documents, Specifications and Drawings involved and will include such additional drawings and specifications necessary to describe the changes. A copy of the Owner's "CPR" form is included Form # 00 63 57.
 - 1. The CPR will be forwarded to the Contractor for review and preparation of a price proposal. The price proposal will be made using the bottom portion of the CPR form.
 - 2. Proposal requests issued by the Owner are for information only. Do not consider them instruction either to stop work in progress, or to execute the proposed change.

1.6 CONTRACTOR'S PRICE PROPOSAL

- A. Unless otherwise indicated in the change proposal request (CPR), within 20 days of receipt of the CPR, submit to the Owner for review the completed CPR with a price proposal, sample included Form # 00 63 57.
- B. The price proposal must be accompanied by a line item cost summary and all necessary back-up documentation to allow the Architect/Engineer and the Owner to evaluate the proposal. Format and organization of the documentation should correlate with the Schedule of Values. The documentation should include quantity takeoff on all materials and material costs, estimated labor hours and rates, labor burden, insurance, bond, overhead and profit. Costs from subcontractors shall be itemized in the same manner.
 - 1. Include a list of quantities of products to be purchase and unit costs, along with the total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities.
 - 2. Indicate delivery charges, equipment rental, and amounts of trade discounts.
 - 3. Include a statement indicating the effect the proposed change in the Work will have on the Contract Time.
- C. The complete CPR price proposal and supporting documentation shall be transmitted electronically to the Architect/Engineer and Owner's Representative for review. The Architect/Engineer shall then forward the price proposal, along with recommendations, to the Owner's Representative. Accepted CPR price proposals will be used as a basis for the preparation of Change Orders. Do not consider an accepted price proposal as instruction either to stop work in progress, or to execute the proposed change. The proposed change will become effective only when a change order has been fully executed.
- D. Contractor-Initiated Price Quotes: When latent or other unforeseen conditions required modifications to the Contract, the Contractor may propose changes by submitting a CPR price proposal to the Owner.
 - 1. Include a statement outlining the reasons for the change and the effect of the change on the Work; provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and Contract Time.
 - 2. Include a list of quantities of products to be purchased and unit costs along with the total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities.
 - 3. Indicate delivery charges, equipment rental, and amounts of trade discounts.

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4. Comply with requirements in section “Substitution Procedures” if the proposed change in the Work requires the substitution of one product or system for a product or system specified.

E. Proposal Request Form: Use forms provided by the Owner for CPR Form # 00 63 57.

1.7 CONSTRUCTION CHANGE DIRECTIVE (CCD)

- A. The Construction Change Directive (CCD) is used by the Architect/Engineer and/or Owner's Representative to order changes in the Work when:
 1. Emergencies or time constraints will not allow the normal CPR/PDQ method of obtaining price quotations and preparation of a Change Order, or
 2. When the Owner and Contractor are unable to agree on the terms for the necessary change in the Work, the Architect or Owner may, jointly, issue a Construction Change Directive (CCD), instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
 3. The Construction Change Directive (CCD) will contain a complete description of the change in the Work and designate the method to be followed to determine change in the Contract Sum or Contract Time.
- B. This form may be prepared by either the Architect/Engineer or the Owner, but it must always be signed by the Owner's Representative before it becomes effective.
- C. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive (CCD). The costs involved with the changes in the Work order using the CCD form are determined in accordance with Article 7.3 of the General Conditions. The Contractor shall submit an itemized accounting together with documentation necessary to substantiate the costs involved including itemized material invoices, labor time records, equipment rental records, and such other documentation as may be prescribed. The adjustment to the Contract Cost will be made by Change Order.

1.8 CHANGE ORDER PROCEDURES

- A. Upon the Owner's review and acceptance of a proposal, the Owner will issue a Change Order for signatures of the Owner, the Architect, and Contractor on the UNL Change Order Form, as provided in the Conditions of the Contract.
- B. Maximum amounts of overhead and profit, which can be added for Change Orders involving addition Work are as follows:
 1. **Subcontractor's Own Work:** 15 percent overhead and profit on subcontractor's own work and 5 percent overhead and profit on sub-subcontractor's work.
 2. **Contractor's Own Work:** 15 percent overhead and profit on contractor's own work and 5 percent overhead and profit on subcontractor's work.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION

SECTION 01 29 00 – PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of Contract, including General Conditions and other Division-01 Specifications Sections, apply to this Section.

1.2 SUMMARY

This Section specifies administrative and procedural requirements governing the Contractor's Applications for payment.

1.3 SCHEDULE OF VALUES

- A. Coordinate preparation of the Schedule of Values with preparation of the Contractor's Construction Schedule.
1. Correlate line items in the Schedule of Values with other required administrative schedules and forms, including:
 - a. Project Manual Table of Contents: Section 00 01 10
 - b. Statement of Costs: Section 00 21 13
 - c. Contractor's Construction Schedule: Section 01 32 00
 - d. Application for Payment Form: Section 01 29 00
 - e. List of Subcontractors: Section 00 21 13
 - f. Schedule of Alternates: Section 01 23 00
 - g. Schedule of Allowances: Section 01 21 00
 - h. List of Principal Suppliers and Fabricators: Section 00 21 13
 2. Submit the Schedule of Values to the Owner for review at the earliest feasible date, but in no case later than 14 days before the date scheduled for submittal of the initial Application for Payment.
- B. Format and Content:
1. Identification: Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. Name of the Architect.
 - c. Project Number.
 - d. Contractor's name and address.
 - e. Date of submittal.
 2. Arrange the Schedule of Values in a tabular form with separate columns to indicate the following for each item listed:
 - a. Generic name or description.
 - b. Name of Subcontractor, Supplier, Fabricator or self performed.
 - c. Dollar value, by phase or stage if applicable.
 3. Provide a breakdown of the Contract Sum in sufficient detail to facilitate continued evaluation of Applications for Payment and progress reports. Break principal subcontract amounts down into several line items.
 4. Round amounts off to the nearest whole dollar, the total shall equal the Contract Sum.
 5. For each part of the Work where an Application of Payment may include materials or equipment, purchased or fabricated and stored, but not yet installed, provide separate line items on the Schedule of Values for initial cost of the materials and for each subsequent stage of the work.
 6. Show line items for indirect costs, only to the extent that such items will be listed individually in Applications for Payment. At the Contractor's option other major cost items that are not direct cost of actual work-in-place may be shown as separate line items in the

SECTION 01 29 00 – PAYMENT PROCEDURES

Schedule of Values or distributed as general overhead expense. Each item in the Schedule of Values and Application for Payment shall otherwise be complete including its total cost and proportionate share of general overhead and profit margin.

7. Update the Schedule of Values, with Owner review, and resubmit before the next Application for Payment, when Change Orders result in a change in the Contract Sum.

1.4 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified and paid for by the Owner.
- B. Payment Application Times: See Article 4 Payments, of the Standard Form Construction Agreement.
- C. Payment Application Forms: Use AIA Document G702 and Continuation Sheets G703 as the form for Application for Payment, or similar form containing information consistent with and as approved by Owner.
- D. Application Preparation: Complete every entry on the form. Notarize and execute by a person authorized to sign legal documents on behalf of the Contractor. Incomplete applications will be returned without action.
 1. Entries shall correlate with the Schedule of Values and Contractor's Construction Schedule.
 2. Include amounts of Change Orders issued and approved prior to the last day of the construction period covered by the application.
 3. An updated construction schedule shall be provided which reflects work performed since the previous application, changes in the construction sequence, and changes in the duration of tasks, and as required for construction schedules in Section 01 32 00.
- E. Transmittal: Submit an original of each Application for Payment to the Owner at UNL Facilities Management 1901 Y Street Lincoln NE 68588 , Attn: Accounts Payable.
- F. Initial Application for Payment: Submittals that must precede submittal of the first Application for Payment include the following:
 1. List of Subcontractors. Section 00 21 13
 2. List of principal suppliers and fabricators. Section 00 21 13
 3. Schedule of Values. 1.3 A 2, 14 days prior
 4. Contractor's Construction Schedule (preliminary if not final). Section 01 32 00
 5. Schedule of principal products. Section 00 21 13
 6. Report of pre-construction meeting. Section 01 31 19
- G. Application for Payment following Substantial Completion: Substantial completion administrative actions and submittals, when applicable, that shall proceed or coincide with the Application for Payment following substantial completion include:
 1. Warranties (guarantees) and maintenance agreements.
 2. Maintenance instructions. Section 01 77 00
 3. Meter readings. Section 01 77 00
 4. Start-up performance reports. Section 01 77 00
 5. Change-over information related to Owner's occupancy, use, operation and maintenance.
 6. Removal of surplus materials, rubbish & similar elements, & final cleaning. Section 01 77 00
 7. Application for reduction of retainage, and consent of surety.
 8. Advice on shifting insurance coverage. Section 01 77 00
 9. Change of door locks to Owner's access. Section 01 77 00

SECTION 01 29 00 – PAYMENT PROCEDURES

10. Contribution Status when retainage reduced below 3% Section 00 45 26
11. Consent of Surety to retainage reduction.

H. Final Payment Application: Administrative actions and submittals which must precede or coincide with submittal of the final Application for Payment include the following:

1. Completion of project close out requirements. Section 01 77 00
2. Completion of items specified for Completion after Substantial Completion.
3. Transmittal of required Project construction records to Owner.
4. Proof that fees and similar obligations have been paid.
5. Removal of temporary facilities and services.
6. Consent of Surety to final payment.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION

SECTION 01 31 13 – PROJECT COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section specifies administrative and supervisory requirements necessary for Project coordination including, but not necessarily limited to:
 - 1. Coordination.
 - 2. Administrative and supervisory personnel.
 - 3. General installation provisions.
 - 4. Cleaning and protection.
 - 5. Field engineering is included in Section "Field Engineering".
 - 6. Progress meetings, coordination meetings and pre-installation conferences are included in Section "Project Meetings".
 - 7. Requirements for the Contractor's Construction Schedule are included in Section "Schedule Procedures".

1.2 COORDINATION

- A. Coordinate construction activities included under various Sections of these Specifications to assure efficient and orderly installation of each part of the Work. Coordinate construction operations included under different Sections of the Specifications that are dependent upon each other for proper installation, connection, and operation.
- B. Where installation of one part of the Work is dependent on installation of other components, either before or after its own installation, schedule construction activities in the sequence required to obtain the best results.
- C. Where availability of space is limited, coordinate installation of different components to assure maximum accessibility for required maintenance, service and repair.
- D. Make adequate provisions to accommodate items scheduled for later installation.
- E. Where necessary, prepare memoranda for distribution to each party involved outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.
- F. Prepare similar memoranda for the Owner and separate Contractors where coordination of their Work is required.
- G. **ADMINISTRATIVE PROCEDURES:** Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of schedules.
 - 2. Installation and removal of temporary facilities.
 - 3. Delivery and processing of submittals.
 - 4. Progress meetings.
 - 5. Project Close-out activities.
- H. **CONSERVATION:** Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.

1.4 SUBMITTALS

- A. **COORDINATION DRAWINGS:** Prepare and submit coordination Drawings where close and careful coordination is required for installation of products and materials fabricated off-site by separate entities, and

SECTION 01 31 13 – PROJECT COORDINATION

where limited space availability necessitates maximum utilization of space for efficient installation of different components.

- B. Show the interrelationship of components shown on separate Shop Drawings.
- C. Indicate required installation sequences.
- D. Comply with requirements contained in Section "Submittal Procedures."
- E. Refer to other Specification Sections for specific coordination drawing requirements for mechanical and electrical installations.
- F. Post copies of the list in the Project meeting room, the temporary field office, and each temporary telephone.

PART 2 – PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 INSTALLATION PROVISIONS

- A. **INSPECTION OF CONDITIONS:** Require the Installer of each major component to inspect both the substrate and conditions under which Work is to be performed. Do not proceed until unsatisfactory conditions have been corrected in an acceptable manner.
- B. **MANUFACTURER'S INSTRUCTIONS:** Comply with manufacturer's installation instructions and recommendations, to the extent that those instructions and recommendations are more explicit or stringent than requirements contained in Contract Documents.
- C. Inspect materials or equipment immediately upon delivery and again prior to installation. Reject damaged and defective items.
- D. Provide attachment and connection devices and methods necessary for securing Work. Secure Work true to line and level. Allow for expansion and building movement.
- E. **Visual Effects:** Provide uniform joint widths in exposed Work. Arrange joints in exposed Work to obtain the best visual effect. Refer questionable choices to the Architect for final decision.
- F. Recheck measurements and dimensions, before starting each installation.
- G. Install each component during weather conditions and Project status that will ensure the best possible results. Isolate each part of the completed construction from incompatible material as necessary to prevent deterioration.
- H. Coordinate temporary enclosures with required inspections and tests, to minimize the necessity of uncovering completed construction for that purpose.

3.2 CLEANING AND PROTECTION

- A. During handling and installation, clean and protect construction in progress and adjoining materials in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- B. Clean and maintain completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- C. **Limiting Exposures:** Supervise construction activities to ensure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

END OF SECTION

SECTION 01 31 19 – PROJECT MEETINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for project meetings including but not limited to:

Pre-Construction Conference.
Pre-Installation Conferences.
Coordination Meetings.
Progress Meetings.

- B. Construction schedules are specified in Section "Schedule Procedures."

1.2 PRE-CONSTRUCTION CONFERENCE

- A. Schedule a pre-construction conference and organizational meeting at the Project site or other convenient location no later than 10 days after execution of the Agreement and prior to commencement of construction activities. Conduct the meeting to review responsibilities and personnel assignments. The timing of this conference shall in no way effect the required completion date. Subsequent conferences may be arranged by the Architect or Owner as conditions may dictate.

1. Attendees: The Owner, Architect and their consultants, the Contractor and its superintendent, major subcontractors, manufacturers, suppliers and other concerned parties shall each be represented at the conference by persons familiar with and authorized to conclude matters relating to the Work.
2. Agenda: Discuss items of significance that could affect progress including such topics as:

Tentative construction schedule.
Critical Work sequencing.
Designation of responsible personnel.
Procedures for processing field decisions and Change Orders.
Procedures for processing Applications for Payment.
Distribution of Contract Documents.
Submittal of Shop Drawings, Product Data and Samples.
Preparation of record documents.
Use of the premises.
Office, Work and storage areas.
Equipment deliveries and priorities.
Safety procedures.
First aid.
Security.
Housekeeping.
Working hours.
Solid and hazardous waste management.

1.3 PRE-INSTALLATION CONFERENCES

- A. Conduct a pre-installation conference at the site before each construction activity that requires coordination with other construction. The Installer and representatives of manufacturers and fabricators involved in or affected by the installation, and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise the Owner and the Architect of scheduled meeting dates.
- B. Review the progress of other construction activities and preparations for the particular activity under consideration at each pre-installation conference, including requirements for:

SECTION 01 31 19 – PROJECT MEETINGS

Contract Documents.
Options.
Related Change Orders.
Purchases
Deliveries.
Shop Drawings, Product Data and quality control Samples.
Possible conflicts.
Compatibility problems.
Time schedules.
Weather limitations.
Manufacturer's recommendations.
Compatibility of materials.
Acceptability of substrates.
Temporary facilities.
Space and access limitations.
Governing regulations.
Safety.
Inspection and testing requirements.
Required performance results.
Recording requirements.
Protection.

- C. Record significant discussions and agreements and disagreements of each conference, along with the approved schedule. Distribute the record of the meeting to everyone concerned, promptly, including the Owner and Architect.
- D. Do not proceed if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of Work and reconvene the conference at the earliest feasible date.

1.4 COORDINATION MEETINGS

- A. Conduct Project coordination meetings at regularly scheduled times convenient for all parties involved. Project coordination meetings are in addition to specific meetings held for other purposes, such as regular progress meetings and special pre-installation meetings.
- B. Request representation at each meeting by every party currently involved in coordination or planning for the construction activities involved.
- C. Record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

1.5 PROGRESS MEETINGS

- A. Conduct progress meetings at the Project site at intervals and times mutually agreeable to Contractor, Owner and Architect . Coordinate dates of meetings with preparation of the payment request.
- B. Attendees: In addition to representatives of the Owner and Architect, each subcontractor, supplier or other entity concerned with current progress or involved in planning, coordination or performance of future activities shall be represented at these meetings by persons familiar with the Project and authorized to conclude matters relating to progress.
- C. Agenda: Review and correct or approve minutes of the previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the current status of the Project.
- D. Contractor's Construction Schedule: Review progress since the last meeting. Determine where each activity is in relation to the Contractor's Construction Schedule, whether on time or ahead or behind schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

SECTION 01 31 19 – PROJECT MEETINGS

E. Review the present and future needs of each entity present, including such items as:

- Interface requirements.
- Time.
- Sequences.
- Deliveries.
- Off-site fabrication problems.
- Access.
- Site utilization.
- Temporary facilities and services.
- Hours of Work.
- Hazards and risks.
- Housekeeping.
- Quality and Work standards.
- Change Orders.
- Documentation of information for payment requests.

F. Reporting: No later than 3 days after each progress meeting date, distribute copies of minutes of the meeting to each party present and to other parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and report.

G. Schedule Updating: Revise the construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue the revised schedule concurrently with the report of each meeting.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01 40 00 – QUALITY REQUIREMENTS

1.0 GENERAL

- A. RELATED DOCUMENTS: Drawings and general provisions of Contract, including General Conditions and other Division-01 Specification Sections, apply to this Section.
- B. SUMMARY: This Section specifies administrative and procedural requirements for quality control services.
 - 1. Quality control services include inspections and tests and related actions including reports, performed by independent agencies, governing authorities, and the Contractor. They do not include Contract enforcement activities performed by the Architect.
 - 2. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve the Contractor of responsibility for compliance with Contract Document requirements.
 - 3. Requirements of this Section relate to customized fabrication and installation procedures, not production of standard products.
 - 4. Specific quality control requirements for individual construction activities are specified in the Sections that specify those activities. Those requirements, including inspections and tests, cover production of standard products as well as customized fabrication and installation procedures.
 - 5. Inspections, test and related actions specified are not intended to limit the Contractor's quality control procedures that facilitate compliance with Contract Document requirements.
 - 6. Requirements for the Contractor to provide quality control services required by the Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
- C. RESPONSIBILITIES
 - 1. Contractor Responsibilities: The Contractor shall provide inspections, tests and similar quality control services, specified in individual Specification Sections and required by governing authorities, except where they are explicitly assigned to the Owner, or are provided by another identified entity; these services include those specified to be performed by an independent agency and not by the Contractor. Costs for these services shall be included in the Contract Sum.
 - 2. The Contractor shall employ and pay an independent agency, to perform specified quality control services.
 - 3. The Owner will engage and pay for the services of an independent agency to perform inspections and tests specified as the Owner's responsibility.
 - 4. Where the Owner has engaged a testing agency or other entity for testing and inspection of a part of the Work, and the Contractor is also required to engage an entity for the same or related element, the Contractor shall not employ the entity engaged by the Owner, unless otherwise agreed in writing with the Owner.
 - 5. Retesting: The Contractor is responsible for retesting where results of required inspections, tests or similar services prove unsatisfactory and do not indicate compliance with Contract Document requirements, regardless of whether the original test was the Contractor's responsibility.

For all required and scheduled inspections the contractor shall have the subject work completely ready and accessible so a complete inspection can be made at the time of the scheduled inspection. The Contractor shall reimburse the Owner, through a deduct Change Order, for time and expenses incurred due to all required re-inspections.

Schedule inspections as specified in the Contract Documents.

SECTION 01 40 00 – QUALITY REQUIREMENTS

6. Cost of retesting construction revised or replaced by the Contractor is the Contractor's responsibility, where required tests were performed on original construction.
7. Associated Services: The Contractor shall cooperate with agencies performing required inspections, tests and similar services and provide reasonable auxiliary services as requested. Notify the agency at least 24 hours in advance of operations to permit assignment of personnel. Provide the following:
 - a. Access to the Work
 - b. Incidental labor and facilities necessary to facilitate tests and inspections.
 - c. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
 - d. Facilities for storage and field curing of test samples.
 - e. Delivery of samples to testing agencies.
 - f. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 - g. Security and protection for samples and for testing and inspecting equipment at Project site.
8. Duties of the Testing Agency: The independent testing agency engaged to perform inspections, sampling and testing of materials and construction specified in individual Specification Sections shall cooperate with the Owner, Architect and Contractor in performance of its duties, and shall provide qualified personnel to perform required inspections and tests.
 - a. The agency shall notify the Owner, Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 - b. The agency is not authorized to release, revoke, alter or enlarge requirements of the Contract Documents, or approve or accept any portion of the Work.
 - c. The agency shall not perform any duties of the Contractor.
 - d. Coordination: The Contractor and each agency engaged to perform inspections, tests and similar services shall coordinate the sequence of activities to accommodate required services with a minimum of delay. In addition the Contractor and each agency shall coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.
 - e. The Contractor is responsible for scheduling times for inspections, tests, taking samples and similar activities.

1.1 SUBMITTALS

- A. The independent testing agency shall submit a certified written report of each inspection, test or similar service, to the Owner and Architect, in duplicate, unless the Contractor is responsible for the service. If the Contractor is responsible for the service, submit a certified written report of each inspection, test or similar service through the Contractor, in duplicate.
- B. Submit additional copies of each written report directly to the governing authority, when the authority so directs.
- C. Report Data: Written reports of each inspection, test or similar service shall include, but not be limited to:

Date of issue.
Project title and number.
Name, address and telephone number of testing agency.
Dates and locations of samples and tests or inspections.
Names of individuals making the inspection or test.
Designation of the Work and test method.
Identification of product and Specification Section.

SECTION 01 40 00 – QUALITY REQUIREMENTS

Complete inspection or test data.
Test results and an interpretations of test results.
Ambient conditions at the time of sample-taking and testing.
Comments or professional opinion as to whether inspected or tested Work complies with Contract Document requirements.
Name and signature of laboratory inspector.
Recommendations on retesting.

1.2 QUALITY ASSURANCE

- A. Qualification for Service Agencies: Engage inspection and testing service agencies, including independent testing laboratories, which are prequalified as complying with "Recommended Requirements for Independent Laboratory Qualification" by the American Council of Independent Laboratories, and which specialize in the types of inspections and tests to be performed.
- B. Each independent inspection and testing agency engaged on the Project shall be authorized by authorities having jurisdiction to operate in the State in which the Project is located.

2.0 PRODUCTS (NOT USED)

3.0 EXECUTION

3.1 REPAIR AND PROTECTION

- A. Upon completion of inspection, testing, sample-taking and similar services, repair damaged construction and restore substrates and finishes to eliminate deficiencies, including deficiencies in visual qualities of exposed finishes. Comply with Contract Document requirements for "Cutting and Patching."
- B. Protect construction exposed by or for quality control service activities, and protect repaired construction.
- C. Repair and protection is the Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing or similar services.

END OF SECTION

SECTION 01 42 00 – REFERENCE STANDARDS AND DEFINITIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. Indicated: The term “indicated” refers to graphic representations, notes or Schedules in the Specifications, and similar requirements in the Contract documents. Where terms such as “shown,” “noted,” “scheduled,” and “specified” are used, it is to help the reader locate the reference; no limitation on location is intended.
- C. Directed: Terms such as “directed,” “requested,” “authorized,” “selected,” “approved,” “required,” and “permitted” mean “directed by the Architect,” “requested by the Architect,” and similar phrases.
- D. Approve: The term “approved,” where used in conjunction with the Architect’s action on the Contractor’s submittals, applications, and requests, is limited to the Architect’s duties and responsibilities as stated in the Conditions of the Contract.
- E. Regulations: The term “regulations” includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. Furnish: The term “furnish” is used to mean “supply and deliver to the Project site, ready for unloading, unpacking, assembly, installation, and similar operations”.
- G. Install: The term “install” is used to describe operations at project site including the actual “unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations”.
- H. Provide: The term “provide” means “to furnish and install, complete and ready for the intended use”.
- I. Installer: An “Installer” is the Contractor or an entity engaged by the Contractor, either as an employee, subcontractor, contractor of lower tier for performance of a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged to perform.
 - 1. The term “experienced”, when used with the term “Installer”, means having a minimum of five previous projects similar in size and scope to this Project, being familiar with the special requirements of the authority having jurisdiction.
 - 2. Trades: Use of titles such as “carpentry” is not intended to imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as “carpenter”. It also does not imply that requirements specified apply exclusively to tradespersons of the corresponding generic name.
- J. Project Site is the space available to the Contractor for performance of construction activities, either exclusively or in conjunction with others performing other parts of the Project. The extent of the Project Site is shown on the Drawings and may or may not be identical with the description of the land on which the Project is to be built.

SECTION 01 42 00 – REFERENCE STANDARDS AND DEFINITIONS

- K. Testing Laboratories: A “testing laboratory” is an independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.

1.3 SPECIFICATION FORMAT AND CONTENT EXPLANATION

- A. Specification Format: These Specifications are organized into Divisions and Sections based on the Construction Specifications Institute’s 50-Division format and MASTERFORMAT (MF-04) six digit numbering system.

1.4 INDUSTRY STANDARDS

- A. Applicability of Standards: Except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extend referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with the standard in effect as of the date of the Contract Documents.
- C. Conflicting Requirements: Where compliance with two or more standards is specified, and the standards may establish different or conflicting requirements for minimum quantities or quality levels. Refer requirements that are different, but apparently equal, and uncertainties to the Architect for a decision before proceeding.
 - 1. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. In complying with these requirements, indicated values are minimum or maximum, as appropriate for the context of the requirements. Refer uncertainties to the architect for a decision before proceeding.
- D. Copies of Standards: Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to that entity’s construction activity. Copies of applicable standards are not bound with the Contract Documents.
 - 1. Where copies of standards are needed for performance of a required construction activity, the Contractor shall obtain copies directly from the publication source.
- E. Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. Where such acronyms or abbreviations re used in the Specifications or other Contract Documents, they mean the recognized name of the trade association, standards generating organization, authority having jurisdiction, or other entity applicable to the context of the text provision. Refer to the “Encyclopedia of Associates,” published by Gale Research Co., available in most libraries.
- F. Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. The following acronyms or abbreviations, as referenced in Contract Documents, are defined to mean the associated names. Names and addresses are subject to change and are believed to be, but are not assured to be, accurate and up to date as of date of Contract Documents.

AABC Associated Air Balance Council
1518 K St., NW, Suite 503
Washington, DC 20005

(202) 737-0202

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ACI	American Concrete Institute P. O. Box 19150 Detroit, MI 48219	(313) 532-2600
ACIL	American Council of Independent Laboratories 1725 K St., NW Washington, DC 20006	(202) 887-5872
ADC	Air Diffusion Council 230 N. Michigan Ave., Suite 1200 Chicago, IL 60601	(312) 372-9800
AFBMA	Anti-Friction Bearing Manufacturers Assoc. 1101 Connecticut Ave., N.W., Suite 700 Washington, DC 20036	(202) 429-5155
AIA	American Institute of Architects 1735 New York Ave., NW Washington, DC 20006	(202) 626-7300
A.I.A.	American Insurance Association 1130 Connecticut Ave., NW Washington, DC 20036	(202) 828-7100
AIHA	American Industrial Hygiene Association 345 White Pond Dr. P. O. Box 8390 Akron, OH 44320	(216) 762-7294
AITC	American Institute of Timber Construction 11818 E. Mill Plain Blvd. Vancouver, WA 98684	(206) 254-9132
ALI	Associated Laboratories 500 S. Vermont St. Palatine, IL 60067	(708) 358-7400
AMCA	Air Movement and Control Association 30 W. University Drive Arlington Heights, IL 60004	(312) 394-0150
ANSI	American National Standards Institute 1430 Broadway New York, NY 10018	(212) 354-3300
ARI	Air Conditioning and Refrigeration Institute 1501 Wilson Blvd., 6th Floor Arlington, VA 22209	(703) 524-8800
ASHRAE	American Society of Heating Refrigeration and Air-Conditioning Engineers 1791 Tullie Circle, NE Atlanta, GA 30329	(404) 636-8400

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ASME	American Society of Mechanical Engineers 345 East 47th St. New York, NY 10017	(212) 705-7722
ASPE	American Society of Plumbing Engineers 3617 Thousand Oaks Blvd., Suite 210 Westlake, CA 91362	(805) 495-7120
ASSE	American Society of Sanitary Engineering P. O. Box 40362 Bay Village, OH 44140	(216) 835-3040
ASTM	American Society for Testing and Materials 1916 Race St. Philadelphia, PA 19103	(215) 299-5400
EIA	Electronic Industries Association 1722 Eye Street, NW, Suite 300 Washington, DC 20006	(202) 457-4900
ETL	ETL Testing Laboratories, Inc. P. O. Box 2040 Route 11, Industrial Park Cortland, NY 13045	(607) 753-6711
HEI	Heat Exchange Institute Thomas Associates, Inc. 1230 Keith Building Cleveland, OH 44115	(216) 241-7333
HI	Hydronics Institute P. O. Box 218, 35 Russo Place Berkeley Heights, NJ 07922	(201) 353-8200
ICEA	Insulated Cable Engineers Association, Inc. P. O. Box 440 South Yarmouth, MA 02664	(508) 394-4424
IEC	International Electrotechnical Commission (Available from ANSI) 1430 Broadway New York, NY 10018	(212) 354-3300
IEEE	Institute of Electrical and Electronic Engineers 345 E. 47th St. New York, NY 10017	(212) 705-7900
IESNA	Illuminating Engineering Society of North America 345 E. 47th St. New York, NY 10017	(212) 705-7926
MCAA	Mechanical Contractors Association of America 1385 Piccard Dr. Rockville, MD 20832	(301) 869-5800

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ML/SFA	Metal Lath/Steel Framing Association (a division of the National Association of Architectural Metal Manufacturers) 600 S. Federal St., Suite 400 Chicago, IL 60605	(312) 912-6222
NEC	National Electric Code (from NFPA)	
NECA	National Electrical Contractors Association 7315 Wisconsin Ave. Bethesda, MD 20814	(301) 657-3110
NEMA	National Electrical Manufacturers Association 2101 L. St., NW, Suite 300 Washington, DC 20037	(202) 457-8400
NFPA	National Fire Protection Association One Batterymarch Park P. O. Box 9101 Quincy, MA 02269-9101	(617) 770-3000
NLGA	National Lumber Grades Authority 1055 W. Hastings St., Suite 260 Vancouver, British Columbia Canada V6E 2E9	(604) 687-2171
NRCA	National Roofing Contractors Association One O'Hare Center 6250 River Road, Suite 8030 Rosemont, IL 60018	(708) 318-6722
NSF	National Sanitation Foundation 3475 Plymouth Rd. P. O. Box 11468 Ann Arbor, MI 48106	(313) 769-8010
PCA	Portland Cement Association 5420 Old Orchard Road Skokie, IL 60077	(312) 966-6200
PDI	Plumbing and Drainage Institute 1106 W. 77th St., South Dr. Indianapolis, IN 46260	(317) 251-6970
SMACNA	Sheet Metal and Air Conditioning Contractors National Association P. O. Box 70 Merrifield, VA 22116	(703) 790-9890
TIMA	Thermal Insulation Manufacturers Association 29 Bank Street Stamford, CT 06901	(203) 324-7533
UL	Underwriters Laboratories 333 Pfingsten Rd. Northbrook IL 60062	(708) 272-8800

SECTION 01 42 00 – REFERENCE STANDARDS AND DEFINITIONS

WIC	Woodwork Institute of California P. O. Box 11428 Fresno, CA 93773	(209) 233-9035
WRI	Wire Reinforcement Institute 1760 Reston Parkway, Suite 403 Reston, VA 22090	(703) 790-9790
WSC	Water Systems Council 600 S. Federal St., Suite 400 Chicago, IL 60605	(312) 922-6222
W.W.P.A.	Woven Wire Products Association 2515 N. Nordica Ave. Chicago, IL 60635	(312) 637-1359
G.	Federal Government Agencies: Names and titles of federal government standard or Specification producing agencies are often abbreviated. The following acronyms or abbreviations referenced in the Contract Documents indicate names of standard or Specification producing agencies of the federal government. Names and addresses are subject to change, but are believed to be, but are not assured to be, accurate and up to date as of the date of the Contract Documents.	
CS	Commercial Standard (U. S. Department of Commerce) Government Printing Office Washington, DC 20402	(202) 377-2000
DOT	Department of Transportation 400 Seventh St., SW Washington, DC 20590	(202) 366-4000
EPA	Environmental Protection Agency 401 M St., SW Washington, DC 20460	(202) 382-2090
FCC	Federal Communications Commission 1919 M St., NW Washington, DC 20554	(202) 632-7000
FS	Federal Specification (from GSA) Specifications Unit (WFSIS) 7th and D St., SW Washington, DC 20406	(202) 472-2205 or 472-2140
NIST	National Institute of Standards and Technology (U. S. Department of Commerce) Gaithersburg, MD 20899	(301) 975-20000
OSHA	Occupational Safety and Health Administration (U. S. Department of Labor) Government Printing Office Washington, DC 20402	(202) 523-6091

SECTION 01 60 00 PRODUCT REQUIREMENTS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements governing the Contractor's selection of products for use in the Project.
- B. The Contractor's Construction Schedule and the Schedule of Submittals are included under Section "Submittal Procedures."
- C. Standards: Refer to Section "Reference Standards" for applicability of industry standards to products specified.
- D. Administrative procedures for handling requests for substitutions made after award of the Contract are included under Section "Substitution Procedures"

1.3 DEFINITIONS

- A. Definitions used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms such are self-explanatory and have well recognized meanings in the construction industry.
- B. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
- C. "Named Products" are items identified by manufacturer's product name, including make or model designation, indicated in the manufacturer's published product literature, that is current as of the date of the Contract Documents.
- D. "Foreign Products", as distinguished from "domestic products," are items substantially manufactured (50 percent or more of value) outside of the United States and its possessions; or produced or supplied by entities substantially owned (more than 50 percent) by persons who are not citizens of nor living within the United States and its possessions.
- E. "Materials" are products that are substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.
- F. "Equipment" is a product with operational parts, whether motorized or manually operated, that requires service connections such as wiring or piping.

1.4 SUBMITTALS

- A. Product List Schedule: Prepare a schedule showing products specified in a tabular form acceptable to the Architect. Include generic names of products required. Include the manufacturer's name and proprietary product names for each item listed. Coordinate the product list schedule with the Contractor's Construction Schedule and the Schedule of Submittals.
- B. Form: Prepare the product listing schedule with information on each item tabulated under the following column headings:

Related Specification Section number
Generic name used in Contract Documents
Proprietary name, model number and similar designations
Manufacturer's name and address
Supplier's name and address

SECTION 01 60 00 PRODUCT REQUIREMENTS

Installer's name and address
Projected delivery date, or time span of delivery period

- C. Initial Submittal: Within 30 days after date of commencement of the Work, submit 3 copies of an initial product list schedule. Provide a written explanation for omissions of data, and for known variations from Contract requirements.
- D. At the Contractor's option, the initial submittal may be limited to product selections and designations that must be established early in the Contract period.
- E. Completed Schedule: Within 60 days after date of commencement of the Work, submit 3 copies of the completed product list schedule. Provide a written explanation for omissions of data, and for known variations from Contract requirements.
- F. Architect's Action: The Architect will respond in writing to the Contractor within 2 weeks of receipt of the completed product list schedule. No response within this time period constitutes no objection to listed manufacturers or products, but does not constitute a waiver of the requirement that products comply with Contract Documents. The Architect's response will include a list of unacceptable product selections, containing a brief explanation of reasons for this action.

1.5 QUALITY ASSURANCE

- A. Source Limitations: To the fullest extent possible, provide products of the same kind, from a single source. When specified products are available only from sources that do not or cannot produce a quantity adequate to complete project requirements in a timely manner, consult with the Architect for a determination of the most important product qualities before proceeding. Qualities may include attributes relating to visual appearance, strength, durability, or compatibility. When a determination has been made, select products from sources that produce products that possess these qualities, to the fullest extent possible.
- B. Compatibility of Options: When the Contractor is given the option of selecting between two or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.
- C. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products which will be exposed to view in occupied spaces or on the exterior.
- D. Labels: Locate required product labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface that is not conspicuous.
- E. Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface which is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:

Name of product and manufacturer.
Model and serial number.
Capacity.
Speed.
Ratings.

1.6 PRODUCT DELIVERY, STORAGE, HANDLING, AND PAYMENT

- A. Deliver, store and handle products in accordance with the manufacturer's recommendations, using means and methods that will prevent damage, deterioration and loss, including theft.
- B. Schedule delivery to minimize long-term storage at the site and to prevent overcrowding of construction spaces.
- C. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other losses.

SECTION 01 60 00 PRODUCT REQUIREMENTS

- D. Deliver products to the site in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting and installing.
- E. Inspect products upon delivery to ensure compliance with the Contract Documents, and to ensure that products are undamaged and properly protected.
- F. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.
- G. Store heavy materials away from the Project structure in a manner that will not endanger the supporting construction.
- H. Store products subject to damage by the elements above ground, under cover in a weathertight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.
- I. Agreement form included herein and the requirements therein specified shall be submitted and complied with for Contractor to receive payment for materials or equipment stored off-site.
- J. AVAILABILITY OF MATERIALS - If requested in writing by the Owner the Contractor shall, within 10 days, furnish written proof to the Architect and the Owner that needed materials are indeed on order, and thus will not delay completion of the work as set forth in the Contract.

PART 2 – PRODUCTS

2.1 PRODUCT SELECTION

- A. Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, unused at the time of installation.
- B. Provide products complete with all accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.
- C. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.
- D. Where products or manufacturers are specified by name, accompanied by the term "or equal," or "or approved equal" comply with the Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.
- E. Non-Proprietary Specifications: When the Specifications list products or manufacturers that are available and may be incorporated in the Work, but do not restrict the Contractor to use of these products only, the Contractor may propose any available product that complies with Contract requirements. Comply with Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.
- F. Descriptive Specification Requirements: Where Specifications describe a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with Contract requirements.
- G. Performance Specification Requirements: Where Specifications require compliance with performance requirements, provide products that comply with these requirements, and are recommended by the manufacturer for the application indicated. General overall performance of a product is implied where the product is specified for a specific application.
- H. Manufacturer's recommendations may be contained in published product literature, or by the manufacturer's certification of performance.

SECTION 01 60 00 PRODUCT REQUIREMENTS

- I. Compliance with Standards, Codes and Regulations: Where the Specifications only require compliance with an imposed code, standard or regulation, select a product that complies with the standards, codes or regulations specified.
- J. Visual Matching: Where Specifications require matching an established Sample, the Architect's decision will be final on whether a proposed product matches satisfactorily.
- K. Where no product available within the specified category matches satisfactorily and also complies with other specified requirements, comply with provisions of the Contract Documents concerning "substitutions" for selection of a matching product in another product category, or for noncompliance with specified requirements.
- L. Visual Selection: Where specified product requirements include the phrase "...as selected from manufacturer's standard colors, patterns, textures..." or a similar phrase, select a product and manufacturer that complies with other specified requirements. The Architect will select the color, pattern and texture from the product line selected.
- M. Allowances: Refer to individual Specification Sections and "Allowance" provisions in Division-01 for allowances that control product selection, and for procedures required for processing such selections.

PART 3 – EXECUTION

3.1 INSTALLATION OF PRODUCTS

- A. Comply with manufacturer's instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other Work.
- B. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

END OF SECTION

SECTION 01 71 23 - FIELD ENGINEERING

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.2 SUMMARY (Not Applicable)

1.3 SUBMITTALS

- A. **CERTIFICATES:** Submit a certificate signed by the Land Surveyor or Professional Engineer certifying that the location and elevation of improvements comply with the Contract Documents.
- B. **Final Property Survey:** Submit 10 copies of the final property survey.
- C. **Project Record Documents:** Submit a record of Work performed and record survey data as required under provisions of Sections "Submittals" and "Project Closeout".

1.4 QUALITY ASSURANCE

- A. **Surveyor:** Engage a Registered Land Surveyor registered in the State where the project is located, to perform land surveying services required.
- B. **Engineer:** Engage a Professional Engineer of the discipline required, registered in the state in which the Project is located, to perform required engineering services.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 EXAMINATION

- A. The Owner will identify existing control points and property line corner stakes.
- B. Verify layout information shown on the Drawings, in relation to the property survey and existing benchmarks before proceeding to layout the Work. Locate and protect existing benchmarks and control points. Preserve permanent reference points during construction.
- C. Do not change or relocate benchmarks or control points without prior written approval. Promptly report lost or destroyed reference points, or requirements to relocate reference points because of necessary changes in grades or locations.
- D. Promptly replace lost or destroyed project control points. Base replacements on the original survey control points.
- E. Establish and maintain a minimum of two permanent benchmarks on the site, referenced to data established by survey control points.
- F. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
- G. **Existing utilities and equipment:** The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction.
- H. Prior to construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer and water service piping.

3.2 PERFORMANCE

SECTION 01 71 23 - FIELD ENGINEERING

- A. Working from lines and levels established by the property survey, establish benchmarks and markers to set lines and levels at each story of construction and elsewhere as needed to properly locate each element of the Project. Calculate and measure required dimensions within indicated or recognized tolerances. Do not scale Drawings to determine dimensions.
- B. Advise entities engaged in construction activities, of marked lines and levels provided for their use.
- C. As construction proceeds, check every major element for line, level and plumb.
- D. Surveyor's Log: Maintain a surveyor's log of control and other survey Work. Make this log available for reference.
- E. Record deviations from required lines and levels, and advise the Architect when deviations that exceed indicated or recognized tolerances are detected. On Project Record Drawings, record deviations that are accepted and not corrected.
- F. On completion of foundation walls, major site improvements, and other Work requiring field engineering services, prepare a certified survey showing dimensions, locations, angles and elevations of construction and sitework.
- G. Site Improvements: Locate and lay out site improvements, including pavements, stakes for grading, fill and topsoil placement, utility slopes and invert elevations by instrumentation and similar appropriate means.
- H. BUILDING LINES AND LEVELS: Locate and lay out batter boards for structures, building foundations, column grids and locations, floor levels and control lines and levels required for mechanical and electrical Work.
- I. EXISTING UTILITIES: Furnish information necessary to adjust, move or relocate existing structures, utility poles, lines, services or other appurtenances located in, or affected by construction. Coordinate with local authorities having jurisdiction.
- J. FINAL PROPERTY SURVEY: Before Substantial Completion, prepare a final property survey showing significant features (real property) for the Project. Include on the survey a certification, signed by the Surveyor, to the effect that principal metes, bounds, lines and levels of the Project are accurately positioned as shown on the survey.
- K. RECORDING: At Substantial Completion, have the final property survey recorded by or with local governing authorities as the official "property survey".

END OF SECTION

SECTION 01 77 00 – CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for project closeout, including but not limited to:
 - 1. Inspection procedures.
 - 2. Project record document submittal.
 - 3. Operating and maintenance manual submittal.
 - 4. Submittal of warranties.
 - 5. Final cleaning.
- B. Closeout requirements are also included in Section 01 29 00 Payment Procedure and for specific construction activities are included in the appropriate Section in Divisions-2 through 48.

1.3 SUBSTANTIAL COMPLETION See also Section 00 72 13 -9.8 and Section 01 29 00

- A. Preliminary Procedures: Before requesting in writing an inspection for certification of Substantial Completion, complete the following. List any exceptions in the written request.
 - 1. In the Application for Payment that coincides with, the date Substantial Completion is claimed, show 100 percent completion for the items of the Work claimed as substantially complete. If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the Work is not complete.
 - 2. Obtain and submit releases enabling the Owner unrestricted use of the Work and access to services and utilities: include occupancy permits; operating certificates and similar releases.
 - 3. Deliver tools, spare parts, extra stock, and similar items.
 - 4. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 - 5. Submit final meter readings for utilities, a measured record of stored fuel, and similar data as of the date of Substantial Completion, or when the Owner took possession of and responsibility for corresponding elements of the Work.
 - 6. Make final change-over of permanent locks and transmit keys to the Owner. Advise the Owner's personnel of change-over in security provisions. Return all keys to the owner.
 - 7. Complete start-up testing of systems, and instruction of the Owner's operating and maintenance personnel. Discontinue or change over and remove temporary facilities from the site, along with construction tools, mock-ups, and similar elements. Section 01 29 00
 - 8. Complete final clean-up requirements, including touch-up painting. Touch-up and otherwise repair and restore marred exposed finishes. Section 01 29 00
- B. Inspection Procedures: On receipt of a written request for inspection, the Architect and Owner will either proceed with inspection or advise the contractor of unfilled requirements. The Architect and

SECTION 01 77 00 – CLOSEOUT PROCEDURES

Owner will prepare the Certificate of Substantial Completion following inspection, or advise the Contractor of construction that must be completed or corrected before the certificate will be issued.

1. The Architect and Owner will repeat inspection when requested and assured that the Work has been substantially completed.
2. Results of the completed inspection will form the basis of requirements for final acceptance.

1.4 FINAL ACCEPTANCE See also Section 00 72 13 - 9.10 and Section 01 29 00

- A. Preliminary Procedures: Before requesting in writing a final inspection for certification of final acceptance and final payment, complete the following. List exceptions in the request.
1. Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
 2. Submit an updated final statement, accounting for any requested final additional changes to the Contract Sum.
 3. Submit a certified copy of the Architect and Owner's final inspection list of items to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance and the list has been endorsed and dated by the Architect and Owner.

1.5 RECORD DOCUMENT SUBMITTALS

- A. General: Do not use record documents for construction purposes; protect from deterioration and loss in a secure, fire-resistive location; provide access to record documents for the Architect's reference during normal working hours.
- B. Record Drawings: Maintain a clean, undamaged set of blue or black line white-prints of Contract Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Mark whichever drawing is most capable of showing conditions fully and accurately; where Shop Drawings are used, record a cross-reference at the particular attention to concealed elements that would be difficult to measure and record at a later date.
1. Mark record sets with red erasable pencil; use other colors to distinguish between variations in separate categories of the Work.
 2. Mark new information that is important to the Owner, but was not shown on Contract Drawings or Shop Drawings.
 3. Note related Change Order numbers where applicable.
 4. Organize record drawings sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover of each set.
 5. Upon completion of the Work, submit record Drawings to the Architect for the Owner's records.
- C. Record Specifications: Maintain one complete copy of the Project Manual, including addenda, and one copy of other written construction documents such as Change Orders and modifications issued in printed form during construction. Mark these documents to show substantial variations in actual Work performed in comparison with the test of the Specifications and modifications. Give particular attention to substitutions, selection of options and similar information on elements that

SECTION 01 77 00 – CLOSEOUT PROCEDURES

are concealed or cannot otherwise be readily discerned later by direct observation. Note related record drawing information and Product Data.

1. Upon completion of the Work, submit record Specifications to the Architect for the Owner's records.
- D. Miscellaneous Record Submittals: Refer to other Specifications Sections for requirements of miscellaneous record-keeping and submittals in connection with actual performance of the Work. Immediately prior to the date or dates of Substantial Completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for continued use and reference. Submit to the Architect for the Owner's records.
- E. Maintenance Manuals: Organize operating and maintenance data into suitable sets of manageable size. **Provide three (3) hard copies and one (1) electronic disc containing pdf format documents to the Owner.**
1. Bind properly indexed data in individual heavy-duty vinyl-covered binders, with pocket folders for folded sheet information. Mark appropriate identification on front and spine of each binder. Include the following types of information:
 - a. Emergency instructions.
 - b. Spare parts list.
 - c. Copies of warranties.
 - d. Wiring diagrams.
 - e. Recommended "turn around" cycles.
 - f. Inspection procedures.
 - g. Shop Drawings and Product Data.
 - h. Fixture lamping schedule.
 - i. Manufacturer's Preventative Maintenance Schedule and list of local servicing companies.
 - j. Vendors List and Parts List for unusual, unique, or foreign manufactured items.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 CLOSEOUT PROCEDURES

- A. Operating and Maintenance Instructions: Arrange for each installer of equipment that requires regular maintenance to meet with Owner's personnel to provide instruction in proper operation and maintenance. If installers are not experienced in procedures, provide instruction by manufacturer's representative. Include a detailed review of the following items:
1. Maintenance manuals (including Preventative Maintenance Schedules).
 2. Record Documents (including updated Riser Diagrams).
 3. Spare parts and materials (including list of local or original vendors).
 4. Control sequences.
 5. Cleaning.
 6. Warranties and bonds.
 7. Maintenance agreements and similar continuing commitments (including list of local or regional service companies).
- B. As part of instruction for operating equipment, demonstrate the following procedures:
1. Start-up.
 2. Shut down.
 3. Emergency operations.
 4. Noise and vibration adjustments.

SECTION 01 77 00 – CLOSEOUT PROCEDURES

5. Safety procedures.
6. Economy and efficiency adjustments.
7. Effective energy utilization.

3.2 FINAL CLEANING

- A. General: General cleaning during construction is required by the General Conditions and included in Section “Temporary Facilities and Controls”. Section 01 50 00.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with manufacturer’s instructions.
 1. Complete the following cleaning operation before requesting inspection for Certification of Substantial Completion.
 - a. Remove labels that are not permanent labels.
 - b. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compound and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials.
 - c. 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 reflective condition. Leave concrete floors broom clean. Vacuum carpeted surfaces.
 - d. Wipe surface of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.
 - e. Clean the site, including landscape development areas, of rubbish, litter and foreign substances. Sweep paved areas broom clean; remove stains, spills and other foreign deposits. Rake grounds that are neither paved nor planted, to a smooth even-textured surface.
- C. Compliance: Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the Owner’s property. Do not discharge volatile, harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of in a lawful manner.
 1. Where extra materials of value are remaining, after completion of associated Work and have become the Owner’s property, arrange for disposition of these materials as directed.

3.3 ACCESS TO SITE AFTER OWNER OCCUPANCY

- A. If, after substantial completion and occupancy of the facility by the Owner, the Contractor needs access to the facility, prior arrangements must be made with the Owner. This procedure is required for safety and security of building occupants and equipment during all punch list and warranty repair operations. Provide a written report of the activity performed to the Owner representative.

END OF SECTION

Purpose: Pre Bid Meeting

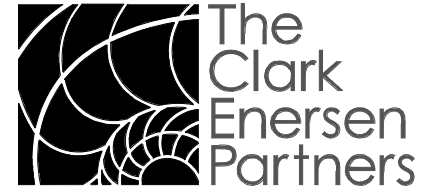
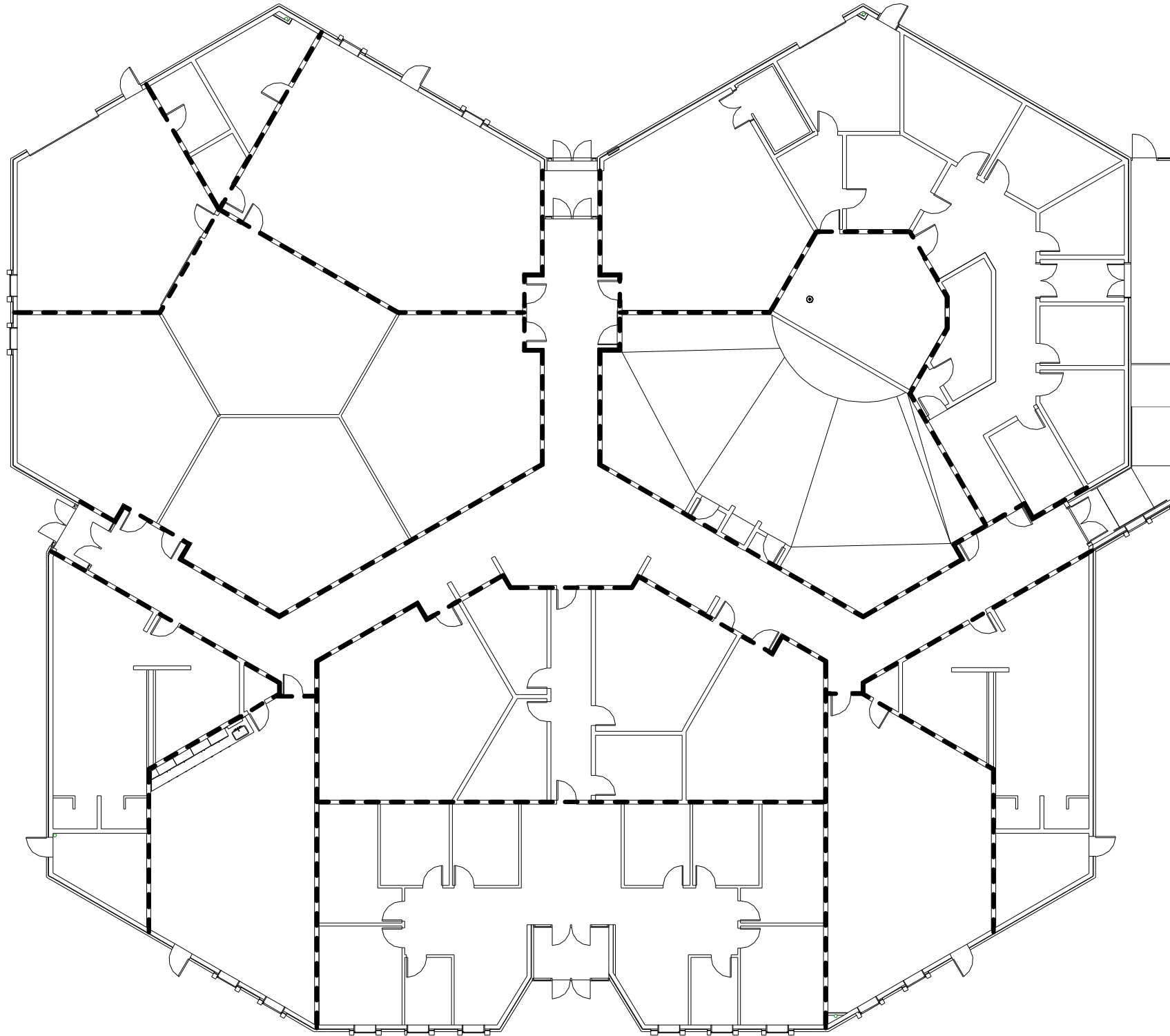
Project Name: NCTA Vet Park Remodel Project No. CU033P009

Date: 6/5/2010 Time: 10:00 A.M. Location: NCTA

Name	Organization	Phone	Fax	E-Mail
<u>Joe Goodwater</u>	<u>UNL</u>	<u>402-472-4825</u>		<u>jgoodwater1@unl.edu</u>
<u>MICHELLE BLUSH</u>	<u>TCEP</u>	<u>816-474-8237</u>		<u>mbell@clarkenersen.com</u>
<u>JARED PALAN</u>	<u>TCEP</u>	<u>816-474-8237</u>		<u>jpalan@clarkenersen.com</u>
<u>JEFF DAVIS</u>	<u>TCEP</u>	<u>816-474-8237</u>		<u>jdavis@clarkenersen.com</u>
<u>JEFF SNEIDER</u>	<u>DuetMedic</u>	<u>402-499-4100</u>		<u>JSneider@DuetMedic.com</u>
<u>Steve Lewtell</u>	<u>Central Contracting</u>	<u>308-234-2421</u>	<u>308-237-4767</u>	<u>stlewtell@central-contracting.net</u>
<u>Mike Evers</u>	<u>Nebraska Fire</u>	<u>308-381-2033</u>	<u>381-2605</u>	<u>mike@nebraskafire.com</u>
<u>Darryl Shull</u>	<u>UNL-IBANK</u>	<u>402-472-2416</u>		<u>dshull2@unl.edu</u>
<u>Jan Gillosett</u>	<u>NCTA</u>	<u>308-367-5252</u>		<u>jjillosett@unl.edu</u>
<u>Kew Russell</u>	<u>NCTA</u>	<u>308-367-6447</u>		<u>Krussell1@UNL.EDU</u>
<u>CHARLIE HIPWELL</u>	<u>SNELL SERVICES</u>	<u>308-532-6870-6874</u>		<u>chipwell2@WINDSTREET.NET</u>

EXISTING PARTITION ORIENTATION PLAN NOTES

- 1) ALL EXISTING WALLS INDICATED ARE CMU.
- 2) EXISTING WALLS, ON THIS PLAN, INDICATED BY HEAVY DASHED LINE EXTEND TO BOTTOM OF ROOF DECK.
- 3) CORRIDOR WALLS SHALL WITHSTAND THE PASSAGE OF SMOKE. ALL PENETRATIONS THROUGH CORRIDOR WALLS SHALL BE SEALED TO RESIST THE PASSAGE OF SMOKE.



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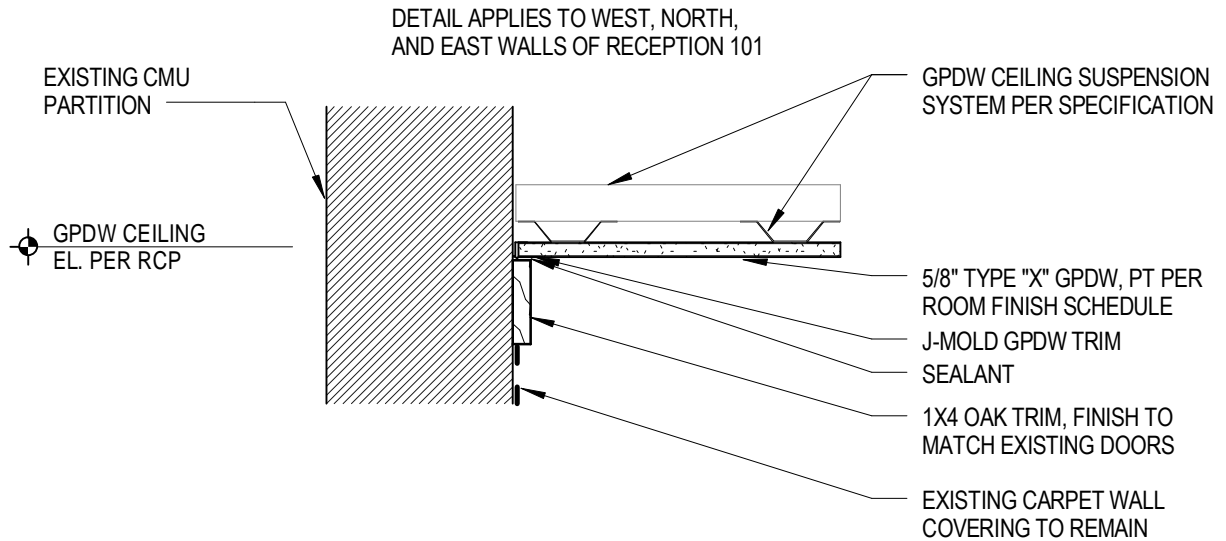
Nebraska College of Technical
Agriculture Veterinary
Technology Renovation
Curtis, NE

Addendum #1
Supplemental Drawing: SDA-1
Revision of Sheet: A1.0
Date: 06/13/2012



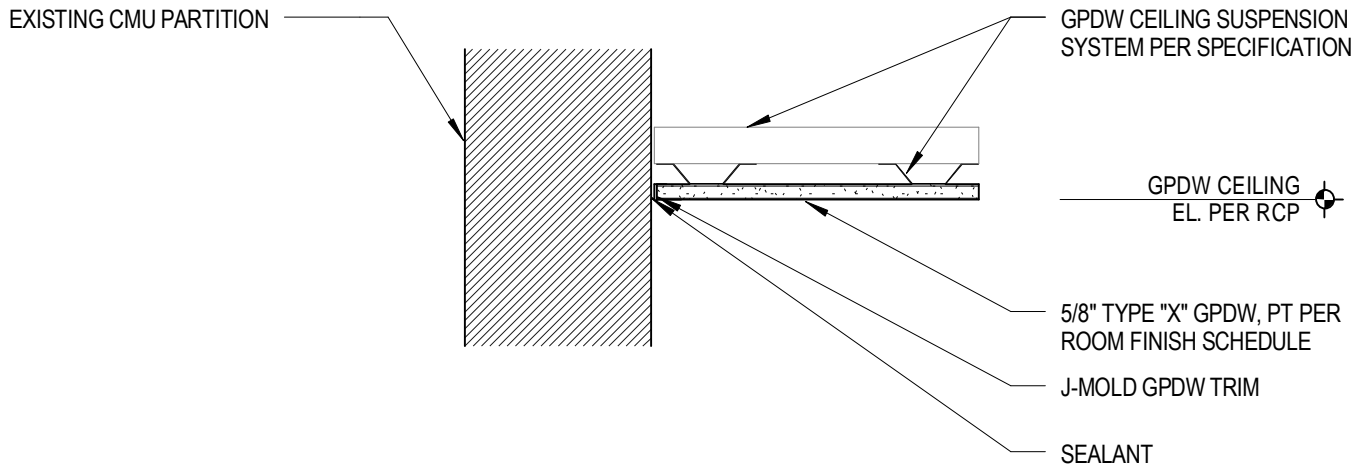
EXISTING PARTITION ORIENTATION PLAN

SCALE: 1" = 20'-0"



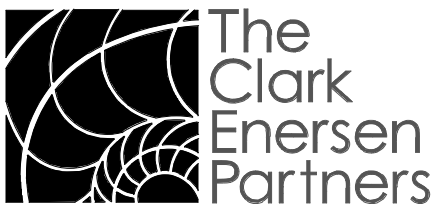
5 GPDW CEILING DETAIL AT WALL COVERING

SCALE: 1 1/2" = 1'-0"



6 GPDW CEILING DETAIL - TYP.

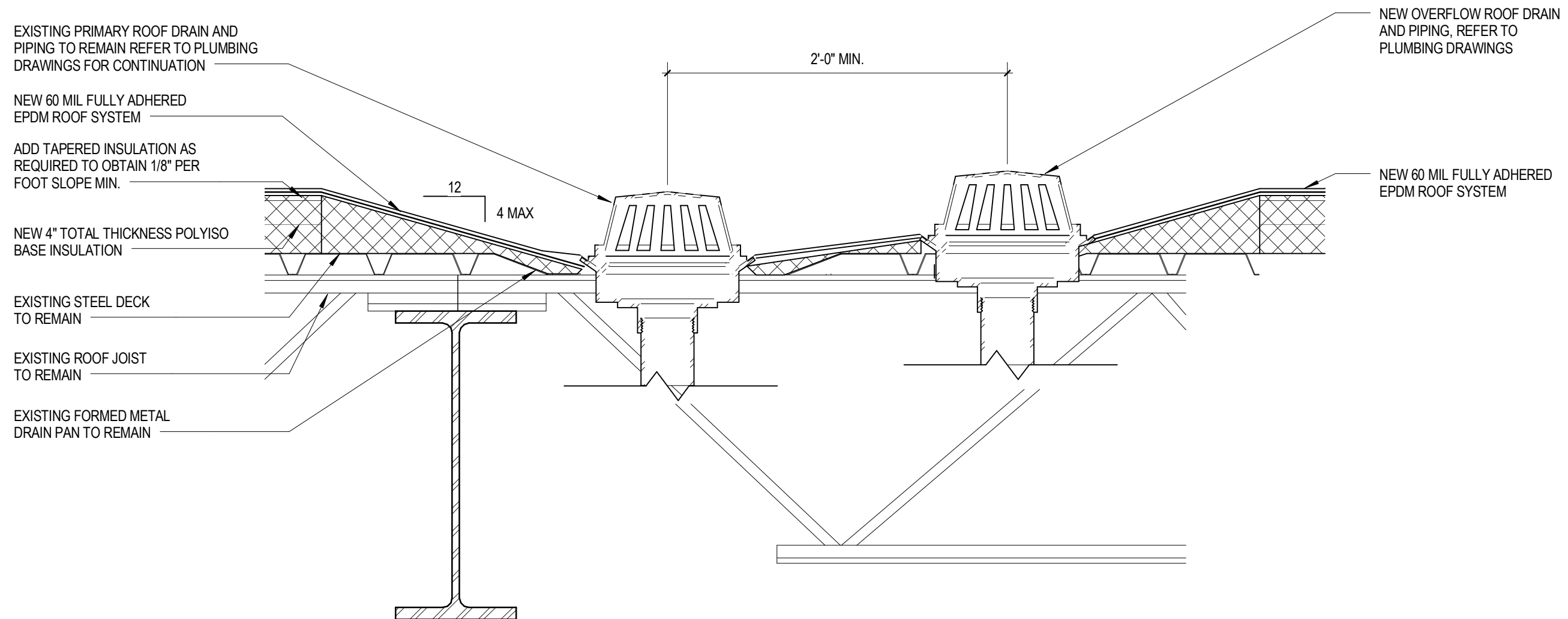
SCALE: 1 1/2" = 1'-0"



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Addendum #1
 Supplemental Drawing: SDA-2
 Revision of Sheet: A1.3
 Date: 06/13/12

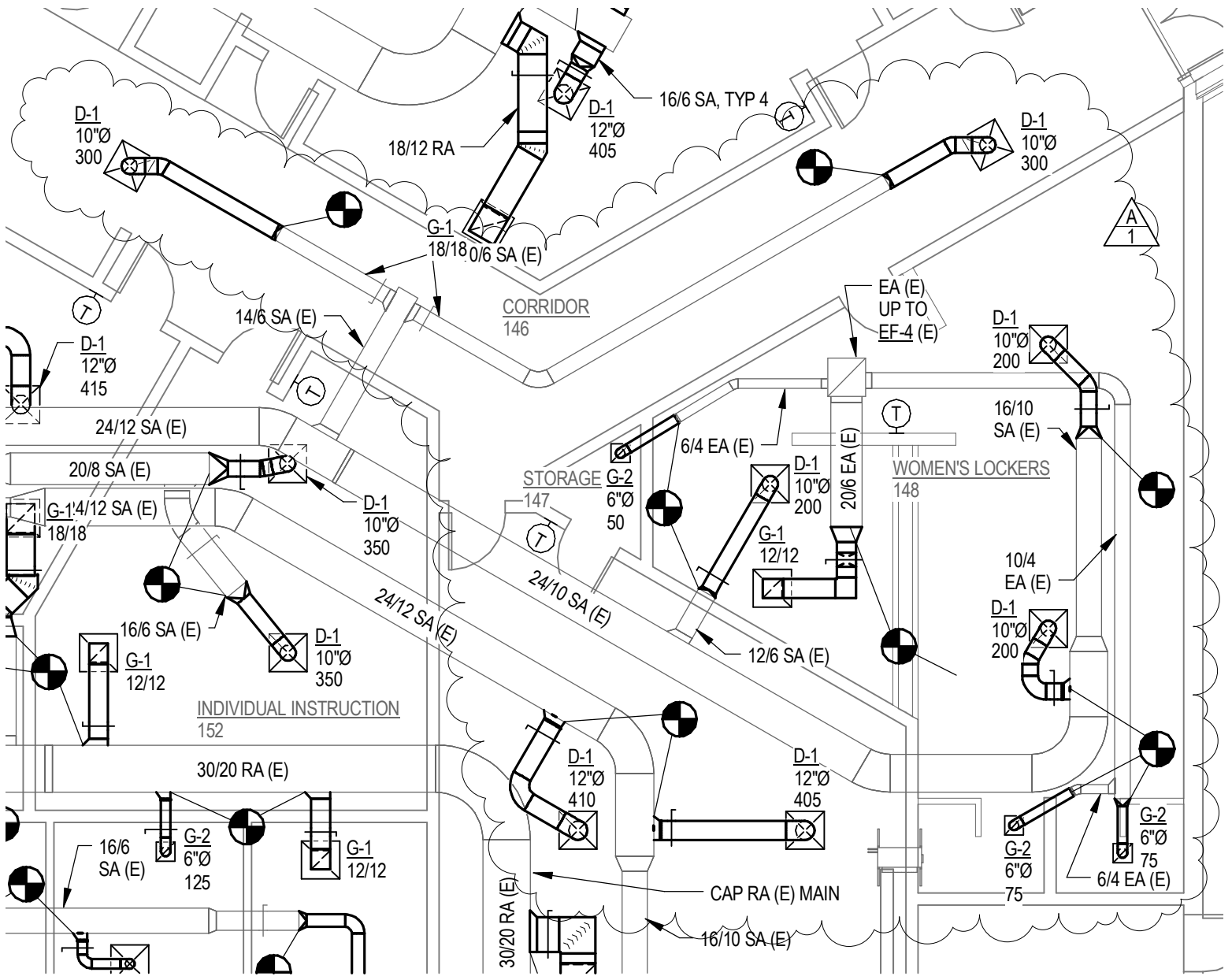


3 ROOF DRAIN DETAIL REVISED

SCALE: 1 1/2" = 1'-0"

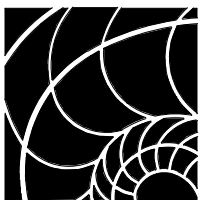
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Addendum #1
Supplemental Drawing: SDA-3
Revision of Sheet: A1.5
Date: 06/13/12



FIRST FLOOR HVAC PLAN

SCALE: 1/8" = 1'-0"

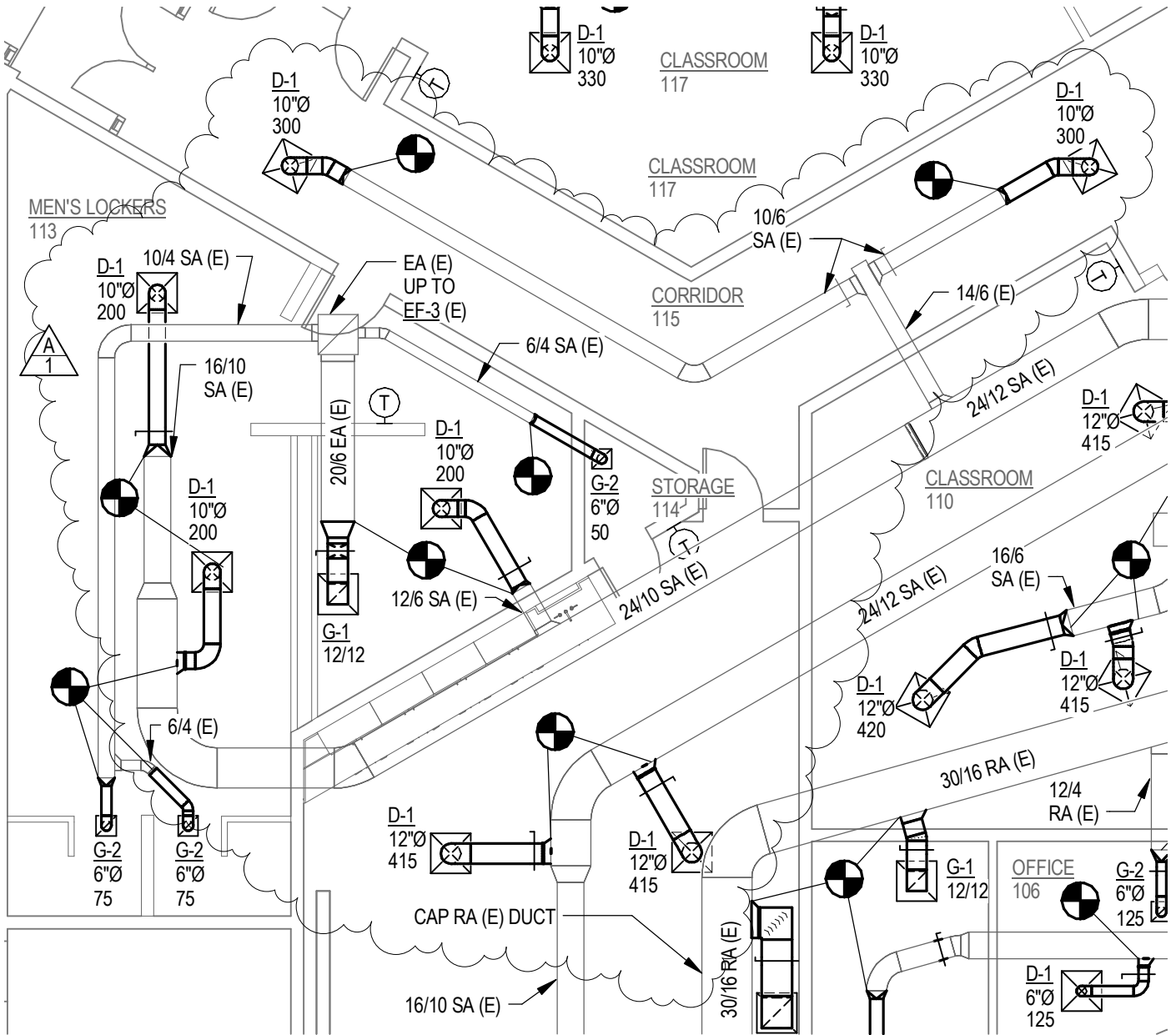


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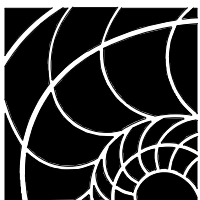
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Addendum 1
 Supplemental Drawing: SDM001
 Revision of Sheet: M1.1
 Date: 06/14/12



FIRST FLOOR HVAC PLAN

SCALE: 1/8" = 1'-0"

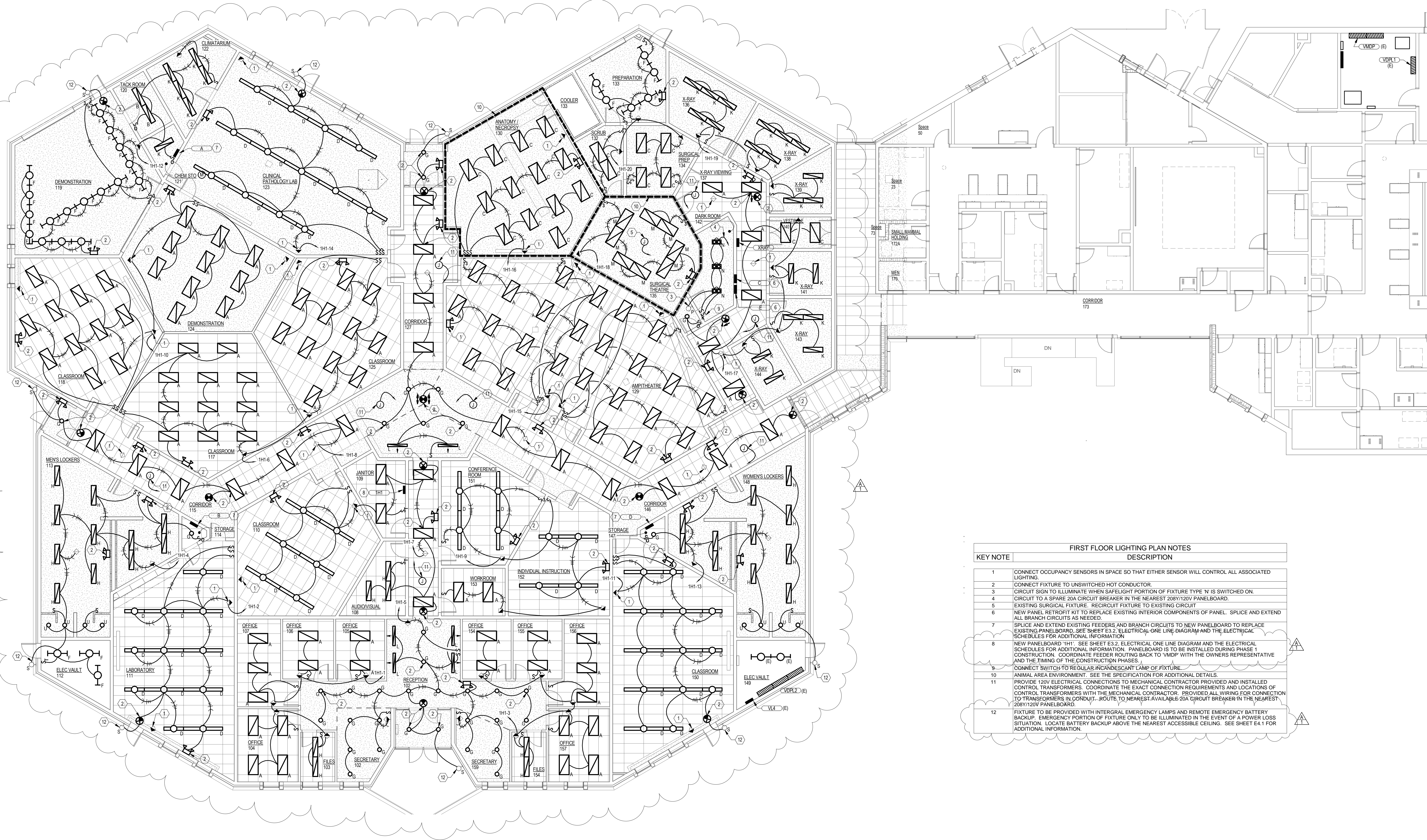


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Addendum 1
 Supplemental Drawing: SDM002
 Revision of Sheet: M1.1
 Date: 06/14/12



FIRST FLOOR LIGHTING PLAN NOTES	
KEY NOTE	DESCRIPTION
1	CONNECT OCCUPANCY SENSORS IN SPACE SO THAT EITHER SENSOR WILL CONTROL ALL ASSOCIATED LIGHTING.
2	CONNECT FIXTURE TO UNSWITCHED HOT CONDUCTOR.
3	CIRCUIT SIGN TO ILLUMINATE WHEN SAFELIGHT PORTION OF FIXTURE TYPE 'N' IS SWITCHED ON.
4	CIRCUIT TO A SPARE 20A CIRCUIT BREAKER IN THE NEAREST 208Y/120V PANELBOARD.
5	EXISTING SURGICAL FIXTURE. RE-CIRCUIT FIXTURE TO EXISTING CIRCUIT.
6	NEW PANEL RETROFIT KIT TO REPLACE EXISTING INTERIOR COMPONENTS OF PANEL. SPLICE AND EXTEND ALL BRANCH CIRCUITS AS NEEDED.
7	SPLICE AND EXTEND EXISTING FEEDERS AND BRANCH CIRCUITS TO NEW PANELBOARD TO REPLACE EXISTING PANELBOARD. SEE SHEET E3.2, ELECTRICAL ONE LINE DIAGRAM AND THE ELECTRICAL SCHEDULES FOR ADDITIONAL INFORMATION.
8	NEW PANELBOARD '1H1'. SEE SHEET E3.2, ELECTRICAL ONE LINE DIAGRAM AND THE ELECTRICAL SCHEDULES FOR ADDITIONAL INFORMATION. PANELBOARD IS TO BE INSTALLED DURING PHASE 1 CONSTRUCTION. COORDINATE FEEDER ROUTING BACK TO VMDP WITH THE OWNERS REPRESENTATIVE AND THE TIMING OF THE CONSTRUCTION PHASES.
9	CONNECT SWITCH TO REGULAR INCANDESCENT LAMP OF FIXTURE.
10	ANIMAL AREA ENVIRONMENT. SEE THE SPECIFICATION FOR ADDITIONAL DETAILS.
11	PROVIDE 120V ELECTRICAL CONNECTIONS TO MECHANICAL CONTRACTOR PROVIDED AND INSTALLED CONTROL TRANSFORMERS. COORDINATE THE EXACT CONNECTION REQUIREMENTS AND LOCATIONS OF CONTROL TRANSFORMERS WITH THE MECHANICAL CONTRACTOR. PROVIDED ALL WIRING FOR CONNECTION TO TRANSFORMERS IN CONDUIT. ROUTE TO NEAREST AVAILABLE 20A CIRCUIT BREAKER IN THE NEAREST 208Y/120V PANELBOARD.
12	FIXTURE TO BE PROVIDED WITH INTERGRAL EMERGENCY LAMPS AND REMOTE EMERGENCY BATTERY BACKUP. EMERGENCY PORTION OF FIXTURE ONLY TO BE ILLUMINATED IN THE EVENT OF A POWER LOSS SITUATION. LOCATE BATTERY BACKUP ABOVE THE NEAREST ACCESSIBLE CEILING. SEE SHEET E4.1 FOR ADDITIONAL INFORMATION.

FIRST FLOOR LIGHTING PLAN
 SCALE: 1/8" = 1'-0"

ADDENDUM #1 - JUNE 13, 2012

Nebraska College of Technical Agriculture Veterinary Technology Renovation

Curtis, Nebraska
 UNL Proj. No.: CU33P009
 TCEP No.: 018-189-11
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