ADDENDUM NO. 4

PROJECT NAME:	**East Campus Recreation Center Renovation and Addition**
UNL PROJECT NUMBER:	**A016P039**
BID INVITATION NUMBER:	**2237-13-7200**
CONSULTANT:	Sinclair Hille & Associates, Inc.
ADDRESS:	700 Q Street Lincoln, NE 68508
SUB-CONSULTANTS:	360 Architecture – Sports Architecture Consultant Engineering Technologies, Inc. – Mechanical / Electrical Engineers Nielsen-Baumert Engineering – Structural Engineers Olsson Associates – Civil Engineering Vireo – Landscape Architecture Foodlines – Kitchen Consultant FP& C – Code Consultant
DATE OF ISSUANCE:	**Wednesday October 2, 2013**
DATE OF BID OPENING:	**Tuesday October 8, 2013, 4:00 PM CT**

The bid documents, plans dated 8/21/13 and project manual dated 8/25/13, for the above referenced project are amended by this addendum. The bid date is UNCHANGED 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 CLARIFICATIONS

ADD 4-1. Standard Form Construction Agreement

In Addendum #3, Allowances and Unit Prices were modified. Please note that the Construction Agreement in the project manual is a draft only. The final Contract will include requirements in addendum issued and any accepted alternates.

ADD 4-2. ALTERNATES

As part of Addendum #3, Alternate No.'s 3, 4 and 5 were modified so they read as ADD alternates rather than Deduct alternates. Descriptions of alternates on the

Bid Proposal Form are summary descriptions of the bid alternates. Please see Section 012300 “Alternates” for a more complete description of the alternates.

ADD 4-3. Addendum #3, Line Item ADD 3-46

The Section number listed as 012300 “Unit Prices” should have said 012200 “Unit Prices”.

ADD 4-4. ACCESS CONTROLS – Preparation and Coordination

Refer to **Attachment 1 to DG 087400** included at the end of this addendum for requirements associated with rough-ins for doors scheduled to receive access controls now and those scheduled to be prepped for future installation. Doors that are impacted by these requirements are: 100.1, 100AA.2, 109.1, 110.1, 114.1, 123.1, 129.1, 129A.1, 130.1, 136.1, 137.1, 138.1, 139.1, 141.2, 150A.1, 153.1, 207.1, 229.1, 249.1, 349.1, 350.1 and 351.1.

ADD 4-5. ACCESS CONTROLS – Contractor Requirements

The following items associated with the access control system should be furnished and installed by the appropriate contractor per UNL Design Guidelines, DG 087400, 2.1:

a. Finish hardware items, including electrified locksets and exit devices with electric latch retraction, electric strikes (if used), electric power transfer devices, door actuating devices for powered door operators.

b. Non-factory provided frame preparations (provided with cover plate, if appropriate) and mortar boxes for associated door hardware: Sentrol flush-mount position switches; Von Duprin latch bolt monitor switches; Von Duprin electric power transfers (EPT-10), Marray electrified hinges (TEF 2+4), Von Duprin strike monitor switches; and Locknetics electric strikes.

c. Electric conduit runs from mortar boxes on door frames to accessible ceiling space common junction box.

d. Flush-mounted foursquare box and single gang mud ring with conduit to accessible ceiling space common junction box for UNL-provided card/prox access reader.

e. 120VAC/20amp building emergency power circuit, (if available) or separate 120VAC/20A circuit if there is no building emergency power circuit, run to centrally-located support panels for doors designated for card access, rough-in (future card access) and central building access net controller panel (location to be coordinated with UNL Building Systems Maintenance).

GENERAL QUESTIONS AND CLARIFICATIONS

ADD 4-6. Existing Chilled Water Supply and Return.

Question: *On the demolition plan C001, the existing chilled water supply and return lines are to be abandoned at the main. What is the expectation of this work. Will UNL assist in draining the main and refilling?*

Response: Remove and dispose of chilled water pipes to the nearest valves indicated on the plan sheet. Build permanent plugs on the chilled water lines.

ADD 4-7. Existing Storm Sewer Abandonment.

Question: *On the demolition plan page C001 is the storm sewer to be abandoned at the limits of construction or is there an identifiable location of where it is to be abandoned?*

Response: Abandon storm sewer at limits of construction with a permanent plug.

ADD 4-8. Existing Primary Electrical Line.

Question: *When overlaying C001 with C302, there is an existing primary electrical line that will be in the heart of the excavation for the new tap's and bore pit. Are there any other options?*

Response: Contractor shall perform field verification of electrical line. If there is not enough room for the tap and bore for the chilled water lines, an alternate route will need to be identified.

ADD 4-9. Specifications for Buried Steam and Condensate.

Question: *Can you direct me to the spec section for the buried steam and condensate piping?*

Response: The specification for the piping is called out on the plans. Thermacor's Duo-Therm 505 pipe to be used.

ADD 4-10. AISC Certification for Structural Steel Framing.

Question: *Spec Section 051200 "Structural Steel Framing", Paragraphs 1.8A and 1.8B require the fabricator and installer to be AISC certified. Would you consider changing this requirement, which effectively eliminates many of the local fabricators and installers?*

Response: Yes. The steel fabricator and installer do not need to be participants in the AISC Quality Certification Program as referenced in paragraphs 1.8A and 1.8B. Structural steel fabrication and installation shall be performed in conformance with the AISC quality requirements.

ADD 4-11. Gypcrete Underlayment.

Question: *Do you happen to know what thickness is going to be required for the underlayment (gypcrete) in the Multi-Athletic Court Room 210?*

Response: We are uncertain of the actual depth of the existing slab depression. Contractor should assume a 3" total thickness of gypcrete required to fill the existing depression. As part of Addendum #3, a Unit Price was added to the project to identify the cost associated with increasing or decreasing that overall thickness by 1/2-inch lifts.

ADD 4-12. Volleyball and Badminton Sleeves.

Statement: *Section 096466 calls out for the wood floor company to provide and install the sleeves and cover plates for volleyball and badminton on this project. These items are typically supplied and installed by the athletic equipment company on the project. Special equipment and training is required for the installation of these items. Please consider removing this from the wood spec to allow for more competitive bids for the wood flooring.*

Response: The installation of the in-floor sleeves needs to be closely coordinated with the installation of the wood flooring assembly. On many projects, the sleeves are specified along with the wood flooring for such coordination purposes. General Contractors submitting a bid should be clear who will or will not have these sleeves in their bid and be certain that the costs are included one way or another. We have no preference on who provides and installs these items, only that it is coordinated closely with the wood flooring installer. Actual selection of final sleeve will also need to be closely coordinated with the Owner provided stanchions.

ADD 4-13. Removable Bollards.

Question: *Sheet L100. Can you furnish the detail for the removable bollards indicated at the southeast corner of the lot?*

Response: No. UNL Design Guidelines dated January 2011, in section 320000.10 on Page 230 simply states that we are to follow UNL standards which is a bollard custom manufactured by Sourceone Machine Shop (or pre-approved equal prior to bids), phone 402.474.6603. No other information to our knowledge is found within the UNL Guidelines with regard to these bollards. Contractor is encouraged to contact the number indicated for additional information that might be necessary.

ADD 4-14. Existing Wood Windows – Frame Type WD-1

Question: *Could you provide more of a description/specification regarding the work required at the existing wood windows?*

Response: The description is provided on Detail L11/A503. We do not anticipate any major reconstruction of the overall window frame assembly. The end product in all three (3) locations will be in an interior environment when the project is completed. If there are locations where the existing wood is soft or in obvious need of repair in order to maintain the integrity of the frame and glazing assembly, then the deteriorated wood should be removed and replaced as necessary to match the surrounding conditions. The side of the window that faces south will be painted white. The side facing the north will be stained to match the color and sheen of the existing woodwork.

ADD 4-15. Submittal Exchange.

Question: *Do you plan to utilize Submittal Exchange on this project and if so are the fees to be paid by UNL or the contractor?*

Response: Yes, Submittal Exchange will be used and the fees have already been paid for by UNL.

ADD 4-16. Notice to Proceed Date.

Question: *What is the anticipated notice to proceed date?*

Response: The anticipated date to proceed is 10 days following the receipt of the appropriate paperwork from the successful Bidder, assuming submitted paperwork is in good order.

ADD 4-17. Section 011000, Parking Permits.

Question: *Are parking permits required for vehicles parked within the construction fence?*

Response: No.

ADD 4-18. Section 011000, UNL Building Permit.

Statement: *Item 1.54 states that the Contractor shall be responsible for permits, fees and notices…. Including UNL Building Permit. Please provide information as to procedure and costs for the UNL Building Permit.*

Response: Contractor will NOT be required to pay for any expense associated with a UNL Building Permit.

ADD 4-19. Section 015000 Temporary Utilities.

Question: *Will UNL provide the water and electrical free of charge on this project for use during the construction period? Section 015000, paragraph 3.2.A notes the contractor will be required to pay for the utilities at the standard billing rates, however, recent UNL projects have been providing the electrical and water at no cost to the project.*

Response: Contractor is required to pay for utilities as indicated in the specifications. Refer to the **attached schedule** for current rates.

ADD 4-20. Steam Availability.

Question: *Will steam be available for temp heating use during the construction period?*

Response: Yes. As long as the Contractor provides their own tap, UNL will provide a temporary meter for Contractor's use.

ADD 4-21. Lead Paint.

Question: *Has there been any testing for Lead Paint?*

Response: Yes, please see the Pre-Renovation Environment Survey Report by APEX issued in addendum 2. The Owner will not abate the lead paint. The contractors shall take precautions required for working with lead painted surface. Material with Lead paint shall be properly disposed of in accordance with all applicable codes and legal requirements.

MODIFICATIONS TO THE DRAWINGS

ADD 4-22. Refer to the Master Keynote Legend on the Cover Sheet; With the addition of Alternate No. 07 issued as part of Addendum #3, the keynote descriptions listed under Section 105123 need to be changed as follows:

105123.A PHENOLIC LOCKERS – 12" WIDE x 18" DEEP x 72" TALL – SINGLE TIER, IDENTIFIED AS (1) – PROVIDED AND INSTALLED BY OWNER AS FFE UNDER SEPARATE CONTRACT UNDER BASE BID – PROVIDED AND INSTALLED BY CONTRACTOR UNDER ADD ALTERNATE NO. 07.

105123.B PHENOLIC LOCKERS – 12" WIDE x 18" DEEP x 72" TALL – DOUBLE TIER, IDENTIFIED AS (2) - PROVIDED AND INSTALLED BY OWNER AS FFE UNDER SEPARATE CONTRACT UNDER BASE BID – PROVIDED AND INSTALLED BY CONTRACTOR UNDER ADD ALTERNATE NO. 07.

105123.C PHENOLIC DAYLOCKERS WITH TRANSLUCENT FRONT – 12" WIDE x 18" DEEP x 72" TALL – TRIPLE TIER, IDENTIFIED AS (3a) - PROVIDED AND INSTALLED BY OWNER AS FFE UNDER SEPARATE CONTRACT UNDER BASE BID – PROVIDED AND INSTALLED BY CONTRACTOR UNDER ADD ALTERNATE NO. 07.

105123.D PHENOLIC DAYLOCKERS WITH TRANSLUCENT FRONT – 15" WIDE x 18" DEEP x 72" TALL – TRIPLE TIER, IDENTIFIED AS (3b) - PROVIDED AND INSTALLED BY OWNER AS FFE UNDER SEPARATE CONTRACT UNDER BASE BID – PROVIDED AND INSTALLED BY CONTRACTOR UNDER ADD ALTERNATE NO. 07.

105123.E PHENOLIC FILLER PANEL AS TYPICAL FROM MANUFACTURER – WDTH AS REQUIRED x 72" TALL - PROVIDED AND INSTALLED BY OWNER AS FFE UNDER SEPARATE CONTRACT UNDER BASE BID – PROVIDED AND INSTALLED BY CONTRACTOR UNDER ADD ALTERNATE NO. 07

ADD 4-23. Refer to Sheet C100, Site Legend Note K; The reference to Sheet C500 should be changed to C501.

ADD 4-24. Refer to Sheet C100, Site Legend Note M; Replace Note M with the following:

M HANDICAPPED SIGN AND PIPE BOLLARD ASSEMBLY AS SHOWN ON SHEET C501.

ADD 4-25. Refer to Sheet C100, Site Legend Note U; Change the note to the following:

U 6" DIAMETER PAINTED GALVANIZED STEEL PIPE BOLLARD – REFER TO POST MOUNTED ACCESSIBLITY SIGN DETAIL ON SHEET C501 FOR REQUIREMENTS OF BOLLARD AND ASSOCIATED FOOTING. SIGN AND POST ONLY APPLICABLE AT ADA STALLS.

ADD 4-26. Refer to Sheet A103, Sheet A103 Sheet Specific Notes; Add the following notes:

NOTE 3 CENTERLINE LOCATION FOR FUTURE SCOREBOARD AT TRACK FASCIA. LOCATION FOR ELECTRICAL JUNCTION BOX.

NOTE 4 CENTERLINE LOCATIO FOR FUTURE SCOREBOARD TO BE CENTERED BENEATH NEW MECHANICAL GRILLE. PROVIDE JUNCTION BOX FOR ELECTRICAL. VERTICAL HEIGHT TO ALIGN

WITH ELEVATIONS OF SCOREBOARDS IN GYMNASIUM 250 WHERE THE TOP OF THE SCOREBOARD SHOULD BE APPROXIMATLY EVEN WITH THE BOTTOM OF THE PERIMETER CHANNEL.

ADD 4-27. Refer to Sheet A103, Gridline 3; At the north and south ends of the gymnasium space along the edge of the running track, provide a 5'-6" dimension and add sheet note NOTE 4.

ADD 4-28. Refer to Sheet A103, area "open to below" of the Multi-Athletic Court 210; The purpose of this item is to locate expected position of electrical junction boxes added in line item ADD 2-88 of Addendum #2.

Add a horizontal centerline across the gymnasium centered between the south face of Track 300B and north face of Cardio Loft 305. Note this as the "Centerline of Court Below".

Along the west wall of this space provide a dimension of 11'-8" +/- that extends north of the centerline along with sheet note NOTE 5. Also include the text "To Centerline of Future Scoreboard".

Along the east edge of the space (west face of Track 300A), provide a dimension of 11'-8" +/- that extends south of the centerline along with sheet note NOTE 5. Also include the text "Match West End".

ADD 4-29. Refer to Sheet A151, Sheet A151 Sheet Specific Notes; Add Note 12

NOTE 12 PROVIDE A 1'-0" DEEP, SOLID SURFACE COUNTER (SS-3). FACE OF COUNTER TO BE 1 1/4" THICK. SUPPORT COUNTER WITH CLEATS AT WALL SURFACE. MOUNT COUNTER AT 2'-10" AFF.

ADD 4-30. Refer to Detail A11/A151; Add keynote 102800.E3, Sheet Specific Note NOTE 12, dimensions and linework in the northeast corner of Privacy Locker 125 for a new shelf and mirror as shown on **Attachment A1**.

ADD 4-31. Refer to Sheet A152 Sheet Specific Notes; Add Note 9

NOTE 9 EXISTING WINDOW TO REMAIN IN PLACE WITH NO WORK PERFORMED TO IS AS INDICATED ON DEMOLITION NOTE 5 ON SHEETS A002 AND A003.

ADD 4-32. Refer to Detail H1/A152; Add Sheet A152 Sheet Specific Note NOTE 9, pointing at the center or the south wall at Chase 216A.

ADD 4-33. Refer to Detail M1/A152; Add Sheet A152 Sheet Specific Note NOTE 9, pointing at the center of the south wall at Chase 316A

ADD 4-34. Refer to A1/A502, Frame Type CW-1; Add a horizontal SSG mullion (084113.B) at EL. = 112'7 1/4" to bottom of mullion as shown on **Attachment A2**.

ADD 4-35. Refer to Detail D16/A551; The electrical receptacle shown below the counter should be placed at 42" AFF as indicated on the electrical plans. As part of this addendum, the location of this device will also be shifted to the sidewall under comments made for Sheet E201.

ADD 4-36. Refer to Smoothie Bar and Demo Kitchen Equipment Schedule Items 102 and 103 as shown on Sheet FS100; Eliminate Items 102, tea/coffee brewer and 103, coffee brewer from the schedule. These items will be provided by the Operator.

ADD 4-37. Refer to Sheet S001, Structural General Notes; Reference Note 'SP2' under 'Special Inspections'. In the second sentence, the text "paid for by the testing allowance" shall be revised to say "paid for by the Owner".

ADD 4-38. Refer to Sheet S101, Foundation Plan; At the bottom of the plan, add note "SCALE 1/8 = 1'-0"".

ADD 4-39. Refer to Sheet S101, Footing Schedule; Add Mark F20. Size = 1'-0"xCONTx3'-0". Reinforcing = 2#5 TOP & BOT CONT, W/ #4 'U' STIRRUPS AT 16" O.C.

ADD 4-40. Refer to Sheet S102, Second Level Framing Plan; At the bottom of the plan, add note "SCALE 1/8 = 1'-0"".

ADD 4-41. Refer to Sheet S103, Mezzanine Level Framing Plan; At the bottom of the plan, add note "SCALE 1/8 = 1'-0"".

ADD 4-42. Refer to Sheet S104, Roof Framing Plan; At the bottom of the plan, add note "SCALE 1/8 = 1'-0"".

ADD 4-43. Refer to A1/E201, Men's Locker 132B; The GFCI receptacles located at 42" AFF at each of the counter niches at the locker island are to be moved to the west wall of each island.

ADD 4-44. Refer to A1/E201, Privacy Locker 125; Add a dedicated receptacle for hair dryer on the east wall, northeast corner at 42" AFF, just north of door 125A.1. Provide additional 20A, 1-pole breaker in Panel L1A2.

ADD 4-45. Refer to Sheet E301, Telecom 129A; Add card reader rough-in for Door 129A.1.

ADD 4-46. Refer to Sheet E301, Stair 2 141; Add card reader rough-in for Door 141.2.

ADD 4-47. Refer to Sheet E401, Telecom 129A; Add a dedicated circuit for access control cabinet on the south wall adjacent to the fire alarm voice evac. panel. Provide a new 20A, 1-pole circuit breaker in Panel OLT. Coordinate with Owner.

ADD 4-48. Refer to Sheet E401, Mechanical 150A; Add a dedicated circuit for access control cabinet, exact location to be determined. Provide a new 20A, 1-pole circuit breaker in Panel EL1A. Coordinate with Owner.

ADD 4-49. Refer to Sheet G100, Wall Types 4d and 4e; There are two 4d wall type designators shown. Eliminate the bottom one. Change the text after type 4d to read "thermal insulation" and the text after 4e to read "non-insulated". After keynote 072700.A2, change the wall type tag from 4e to 4d. Refer to **Attachment A3**.

MODIFICATIONS TO THE SPECIFICATIONS

ADD 4-50. Section 064116 "Plastic-Laminate-Faced Architectural Cabinets", Article 2.1, Paragraph J.1 (PLAM-1); Modify as follows to match the finish schedule shown on Sheet A804:

a. Manufacturer Basis-of-Design: Formica
b. Color: #8849-58 “Natural Teak”
c. Finish: Matte
d. Location: Break 109A, Massage Office 115, Physical Assessment 131

ADD 4-51. Section 072700 “Spray Polyurethane Foam Air and Vapor Barrier”; Under Article 1.7 “Quality Assurance”, Paragraph D, Add the following language directly after the first word “Mockups:

D. *Mockups:* **General Contractor is responsible for coordinating the construction and testing of the mock-up per Division 1 requirements**. *Mock-up shall…*

ADD 4-52. Section 072700 “Spray Polyurethane Foam Air and Vapor Barrier”; Under Article 3.4 “Field Quality Control”, Delete Paragraph B and replace with the following:

B. Mock-Up Tests for Air and Water Infiltration shall take place as installation proceeds to determine compliance of the installed assembly. Use smoke tracer to locate sources of air leakage. If deficiencies are found, reconstruct assembly and retest until satisfactory results are obtained. Deficiencies include air leakage beyond values specified, uncontrolled water leakage, unsatisfactory workmanship. Test shall occur prior to installation of cladding and trim but after installation of all fasteners for cladding and trim and after installation of other penetrating elements. Comply with the following requirements.

1. ASTM E 783, Static Air Infiltration at 6.24 PSF. Allowable infiltration shall not exceed 0.06 CFM per square foot.
2. ASTM E 1105 Static Water Infiltration at 10 PSF with a water spray rate of five gallons per hour per square foot for 15 minutes

ADD 4-53. Section 072726 “Fluid-Applied Membrane Air Barriers”; Under Article 3.6, Field Quality Control, add Paragraphs B, C and D as follows:

C. Testing of the fluid-applied membrane air barrier assembly shall take place as installation proceeds to determine compliance of the installed assembly with the following requirements:

1. ASTM E 783, Static Air Infiltration at 6.24 PSF. Allowable infiltration shall not exceed 0.06 CFM per square foot.
2. ASTM E 1105 Static Water Infiltration at 10 PSF with a water spray rate of five gallons per hour per square foot for 15 minutes.

D. Air barriers will be considered defective if they do not pass tests and inspections.

1. Apply additional air-barrier material, according to manufacturer’s written instructions, where inspection results indicate insufficient thickness.
2. Remove and replace deficient air-barrier components for retesting as specified above.

E. Repair damage to air barriers caused by testing; follow manufacturer’s written instructions.

ADD 4-54. Section 074219 “Metal Plate Wall Panels”, Article 1.4 Performance Requirements; Replace Paragraph B with the following:

B. Air Infiltration and Water Penetration: System to have been tested per AAMA 508-7 without use of sealants or gaskets in panel joints.

ADD 4-55. Section 074219 “Metal Plate Wall Panels”, Article 1.4 Performance Requirements; Delete Paragraphs C and D, and re-assign Paragraphs E and F to C and D respectively.

ADD 4-56. Section 074219 “Metal Plate Wall Panels”, Article 3.6 Cleaning; Re-number this article to Article 3.7.

ADD 4-57. Section 074219 “Metal Plate Wall Panels”; Add Article 3.6 Field Quality Control as follows:

3.6 FIELD QUALITY CONTROL

A. Testing Services: Testing and inspecting of representative areas of the metal panel wall assembly shall take place as installation proceeds to determine compliance of installed assemblies with the specified requirements:

1. As coordinated with the fluid applied air barrier and spray applied air barrier assembly, test the wall assembly for air and water leakage through fastener penetrations.

a. Successfully tested fluid applied air barrier and spray foam air barrier is a precedent prior to metal panel installation and testing

2. ASTM E 783 Static Air Infiltration at 6.24 PSF. Allowable infiltration shall not exceed 0.06 CFM per square foot.
3. ASTM E 1105 Static Water Infiltration at 10 PSF with a water spray rate of five gallons per hour per square foot for 15 minutes.

ADD 4-58. Section 081113 “Hollow Metal Doors and Frames”, Article 1.2, Paragraph B.1; Add the following sentence to this text:

1. ...Prepare doors for requirements associated with electrolynx connectors where required by hardware sets.

ADD 4-59. Section 081416 “Flush Wood Doors”, Article 1.2, Paragraph B; Add the following:

3. Section 087100 “Door Hardware” for preparation of doors for requirements associated with electrolynx connectors where required by hardware sets.

ADD 4-60. Section 087000 “Door Hardware”; The following global modifications should be made to the products specified:

Electrified Hinges:	The “TEF 2” designation should be changed to read as “**TEF 2+4C**” at all locations.
Fail Secure Electric Locks:	The “LX” designation should be **REMOVED** from all Sargent 8271 locations.

ADD 4-61. Section 087000 “Door Hardware”; Add the following note to hardware sets 1.1, 4.0, 10.0, 16.0, 20.0, 21.0, 22.0, 25.0, 28.0, 29.0 and 30.0,

Door frames shall be prepped to have door position switches as shown in standard UNL Design Guide Detail “Access Control – Generic Rough-In Details” found on page 11 of Specification Section 081113 “Hollow Metal Doors and Frames”. When two leaves occur in a door set, both leaves shall be appropriately prepped for a door position switch as indicated in said detail.

ADD 4-62. Section 087000 “Door Hardware”; At Hardware Set 21.0, add the following note:

Notes: Door to be prepared for future access control.

ADD 4-63. Section 092216 “Non-Structural Metal Framing”, Article 2.2, Paragraph C; Replace this paragraph with the following:

C. Studs and Runners: ASTM C 645. Use either steel studs and runners or dimpled steel studs and runners.

1. Steel Studs and Runners:

a. Minimum Base-Metal Thickness variance of 0.0296 inch min. to 0.312 inch max.
b. Depth: As indicated on Drawings.

2. Dimpled Steel Studs and Runners:

a. Minimum Base-Metal Thickness: 30 MIL stud
b. Depth: As indicated on Drawings.

ADD 4-64. Section 114000 “Food Service Equipment”; Eliminate Item 102 – Tea/Coffee Brewer and Item 103 – Coffee Brewer from the list of equipment. These items will be provided by the Operator.

ADD 4-65. Add Section 26 22 00-Low Voltage Transformers attached to this Addendum.

ARCHITECTURAL PRIOR APPROVALS / SUBSTITUTIONS

ADD 4-66. The following manufacturers have received prior approval for bidding purposes subject to shop drawing review:

Specification Section	**Manufacturer / Product**
a. 096566 – Resilient Flooring (RAF-9)	Multi-Lino FM 10mm

ADD 4-67. The following Architectural substitutions have **NOT** been approved for use on this Project:

Specification Section	**Manufacturer / Product**
b. 084229.23 – Sliding Automatic Entrances	Record-USA 5100

Reason: Product not submitted by required deadline.

c. 087000 – Door Hardware — Record-USA 8100 Auto Operator

Reason: Product not submitted by required deadline.

d. 096466 – Wood Athletic Flooring — WF-1 Connor Alliance Panel

Reason: Operator specifically identified Connor Focus as the selection of Connor Flooring for this project. If desiring to provide a bid for product other than Connor Focus, select from the Horner or Robbins products listed as approved equivalents.

e. 096566 – Resilient Flooring (RAF-7, 8) — Tarkett Sports Resicore Rubber MP 10mm

Reason: Initial request withdrawn by supplier

f. 096566 – Resilient Flooring (RAF-7, 8) — Mats Inc. ProTrack 3/8”

Reason: Insufficient information for evaluation.

g. 123661 – Simulated Stone Countertops — Hanex Solid Surface, Silverstone

Reason: Product not submitted by required deadline.

ATTACHMENTS

ADD 4-68. The following attachments are included as part of this addendum:

- Attachment Section 262200 - Low-Voltage Transformers
- Attachment 1 to DG 087400
- Exhibit A, Nebraska Utility Corporation Thermal and Other Services –Rate Schedule Effective date: January 1, 2013
- Attachment A1 - Added Shelf
- Attachment A2 – Revised Frame Type
- Attachment A3 – Revised Wall Type

END OF ADDENDUM NO. 4

Engineering Technologies Inc. Project No. 2011-131
Sinclair Hille Architects' Project No. 11058

SECTION 262200 - LOW-VOLTAGE TRANSFORMERS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. General purpose transformers.

1.2 RELATED REQUIREMENTS

A. Section 260526 - Grounding and Bonding for Electrical Systems.

B. Section 260534 - Conduit: Flexible conduit connections.

1.3 REFERENCE STANDARDS

A. IEEE C57.94 - Recommended Practice for Installation, Application, Operation, and Maintenance of Dry-Type General Purpose Distribution and Power Transformers.

B. IEEE C57.96 - Guide for Loading Dry-Type Distribution and Power Transformers.

C. NEMA ST 20 - Dry-Type Transformers for General Applications; National Electrical Manufacturers Association.

D. NEMA TP 1 - Guide for Determining Energy Efficiency for Distribution Transformers.

E. NEMA TP 2 - Standard Test Method for Measuring the Energy Consumption of Distribution Transformers.

F. NEMA TP 3 - Standard for the Labeling of Distribution Transformer Efficiency.

G. NFPA 70 - National Electrical Code; National Fire Protection Association.

H. UL 506 - Standard for Specialty Transformers.

I. UL 1561 - Standard for Dry-Type General Purpose and Power Transformers.

1.4 SUBMITTALS

A. Product Data: Include voltage, kVA, impedance, tap configurations, insulation system class and rated temperature rise, efficiency, sound level, enclosure ratings, outline and support point dimensions, weight, required clearances, service condition requirements, and installed features.
   1. Vibration Isolators: Include attachment method and rated load and deflection.

B. Shop Drawings: Provide dimensioned plan and elevation views of transformers and adjacent equipment with all required clearances indicated.

C. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of product.

D. Maintenance Data: Include recommended maintenance procedures and intervals.

E. Project Record Documents: Record actual locations of transformers.

1.5 QUALITY ASSURANCE

A. Conform to requirements of NFPA 70.

B. Products: Listed and classified by Underwriters Laboratories Inc. as suitable for the purpose

specified and indicated.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Store in a clean, dry space. Maintain factory wrapping or provide an additional heavy canvas or heavy plastic cover to protect units from dirt, water, construction debris, and traffic.

B. Handle in accordance with manufacturer's written instructions. Lift only with lugs provided for the purpose. Handle carefully to avoid damage to transformer internal components, enclosure, and finish.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Siemens Industry, Inc: www.sea.siemens.com.

B. Eaton Corporation; Cutler-Hammer Products; : www.eaton.com.

C. General Electric Company; : www.geindustrial.com.

D. Schneider Electric; Square D Products; : www.schneider-electric.us.

2.2 ALL TRANSFORMERS

A. Description: Factory-assembled, dry type transformers for 60 Hz operation designed and manufactured in accordance with NEMA ST 20 and listed and labeled by Underwriters Laboratories Inc. as suitable for the purpose specified and indicated.

B. Unless noted otherwise, transformer ratings indicated are for continuous loading according to IEEE C57.96 under the following service conditions:
   1. Altitude: Less than 3,300 feet.
   2. Ambient Temperature: Not exceeding 86 degrees F average or 104 degrees F maximum measured during any 24 hour period.

C. Core: High grade, non-aging silicon steel with high magnetic permeability and low hysteresis and eddy current losses. Keep magnetic flux densities substantially below saturation point, even at 10 percent primary overvoltage. Tightly clamp core laminations to prevent plate movement and maintain consistent pressure throughout core length.

D. Impregnate core and coil assembly with non-hydroscopic thermo-setting varnish to effectively seal out moisture and other contaminants.

E. Basic Impulse Level: 10 kV.

F. Ground core and coil assembly to enclosure by means of a visible flexible copper grounding strap.

G. Isolate core and coil from enclosure using vibration-absorbing mounts.

H. Nameplate: Include transformer connection data, ratings, wiring diagrams, and overload capacity based on rated winding temperature rise.

2.3 GENERAL PURPOSE TRANSFORMERS

A. Description: Self-cooled, two winding transformers listed and labeled as complying with UL 506 or UL 1561; ratings as indicated on the drawings.

B. Primary Voltage: 480 volts delta, 3 phase.

C. Secondary Voltage: 208Y/120 volts, 3 phase.

D. Insulation System and Allowable Average Winding Temperature Rise:
   1. Less than 15 kVA: Class 185 degrees C insulation system with 115 degrees C average winding temperature rise.
   2. 15 kVA and Larger: Class 220 degrees C insulation system with 80 degrees C average winding temperature rise.

E. Coil Conductors: Continuous aluminum windings with terminations brazed or welded.

F. Winding Taps:
   1. Less than 3 kVA: None.
   2. 3 kVA through 15 kVA: Two 5 percent full capacity primary taps below rated voltage.
   3. 15 kVA through 300 kVA: Two 2.5 percent full capacity primary taps above and four 2.5 percent full capacity primary taps below rated voltage.
   4. 500 kVA and Larger: Two 2.5 percent full capacity primary taps above and two 2.5 percent full capacity primary taps below rated voltage.

G. Energy Efficiency: Standard efficiency complying with NEMA TP 1.
   1. Test efficiency according to NEMA TP 2.
   2. Label transformer according to NEMA TP 3.

H. Sound Levels: Standard sound levels complying with NEMA ST 20.

I. Mounting Provisions:
   1. Less than 15 kVA: Suitable for wall mounting.
   2. 15 kVA through 75 kVA: Suitable for wall, floor, or trapeze mounting.
   3. Larger than 75 kVA: Suitable for floor mounting.

J. Transformer Enclosure: Comply with NEMA ST 20.
   1. Construction: Heavy gage steel.
      a. Less than 15 kVA: Totally enclosed, non-ventilated.
      b. 15 kVA and Larger: Ventilated.
   2. Finish: Manufacturer's standard grey, suitable for outdoor installations.
   3. Provide lifting eyes or brackets.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that suitable support frames and anchors are installed where required and that mounting surfaces are ready to receive transformers.

B. Perform pre-installation tests and inspections on transformers per manufacturer's instructions and as specified in NECA 409. Correct deficiencies prior to installation.

C. Verify that conditions are satisfactory for installation prior to starting work.

3.2 INSTALLATION

A. Perform work in a neat and workmanlike manner in accordance with NECA 1.

B. Install transformers in accordance with manufacturer's instructions.

C. Install transformers in accordance with NECA 409 and IEEE C57.94.

D. Use flexible conduit, under the provisions of Section 260534, 2 feet minimum length, for connections to transformer case. Make conduit connections to side panel of enclosure.

E. Arrange equipment to provide minimum clearances as specified on transformer nameplate and in accordance with manufacturer's instructions and NFPA 70.

F. Provide grounding and bonding in accordance with Section 260526.

G. Remove shipping braces and adjust bolts that attach the core and coil mounting bracket to the enclosure according to manufacturer's recommendations in order to reduce audible noise transmission.

H. Where not factory-installed, install lugs sized as required for termination of conductors as shown on the drawings.

3.3 ADJUSTING

A. Measure primary and secondary voltages and make appropriate tap adjustments.

B. Adjust tightness of mechanical and electrical connections to manufacturer's recommended torque settings.

3.4 CLEANING

A. Clean dirt and debris from transformer components according to manufacturer's instructions.

B. Repair scratched or marred exterior surfaces to match original factory finish.

END OF SECTION

Attachment 1 to DG 087400: Summary of Requirements for Access Control Systems

SUMMARY OF REQUIREMENTS FOR ACCESS CONTROL SYSTEMS							
PROJECT TYPE		A CATEGORY OF ACCESS POINT	B ACCESS CONTROL-RELATED HARDWARE ITEMS	C ACCESS CONTROL SYSTEM DEVICES AT DOOR	D PRE-INSTALLATION DOOR AND FRAME PREPARATIONS	E ELECTRICAL ROUGH-INS	F COMMUNICATION INTERFACE
New buildings, major renovations, and building additions	1.1	Exterior swing doors, ADA accessible, in exit pathway	•Panic exit device with electric latch retraction or lever-handled mortise lockset with electric latch retraction, depending upon exiting requirements •Electric power transfer for panic exit device; electrified hinge for electrified mortise lockset •Powered closer/operator systems	•Door position switch. •Access reader •Latch bolt reader for electrified mortise lockset	•Frame cutout and back box for electric power transfer. •Frame opening and back box for door position switch. •Mortise in door for electric power transfer •Mortise in door for door position switch component. •Frame back box for latch bolt monitor •Door prep for electrified mortise lockset •Wire run to center electrified hinge •Back box in frame for electrified hinge	•Conduit from back boxes on frame for electric power transfer and door position switch to accessible ceiling space. •4x4 box with conduit to accessible ceiling space for exterior access reader. •Box with conduit to accessible ceiling space for electric or pneumatic service to power closer/operator. •Boxes with conduit to accessible ceiling space for interior and exterior actuator switches for power closer/operator.	•For each door or group of doors in close proximity to one another, provide a recessed steel control panel box not less than 12”x12”x3”, with lockable door; connect to accessible ceiling space with one 1½” conduit. •For each building, provide a central control panel box located near the building telephone entrance point.
	1.2	Exterior swing doors, not in exit pathway	•Panic exit device with electric latch retraction •Electric power transfer •Power closer/operator systems, if used, OR •Lever-handle mortise or cylindrical lockset with electric operation •Electric power transfer •Power closer/operator systems, if used	•Same as Box C-1.1	•Same as Box D-1.1	•Same as Box E-1.1, except that boxes and conduit for power closer/operator not required if power closer/operator not used.	
	2.0	Exterior overhead doors, rolling shutters or other large-opening closures	•Standard electric-operating mechanisms and control devices including keyed switches and RF actuators, or •Operating mechanism activated by access reader	•Access reader interconnected to door control devices, or •Access reader directly activating door operating mechanism.	•Surface-mounted boxes on door and track or frame for door position switch.	•4x4 box with conduit for access reader located adjacent to door control device.	
	3.1	Interior doors to rooms designated in design phase as security-sensitive.	•Panic exit device with electric latch retraction or lever-handled mortise lockset with electric unlocking, depending upon exiting requirements. •Electric power transfer or electrified hinge •Powered closer/operator systems, where used to make doors ADA accessible, OR	•Same as Box C-1.1	•Same as Box D-1.1	•Same as Box E-1.1, except that boxes and conduit for power closer/operator not required if power closer/operator not used.	
			•Electric strike, with standard locksets, where permitted by exiting requirements •Powered closer/operator systems, where used to make doors ADA accessible		•Frame cutout and back box for electric strike •Frame opening and back box for door position switch •Mortise in door for door position switch component	•Conduit from back boxes on frame for electric strike and door position switch to accessible ceiling space •4x4 box with conduit to accessible ceiling space for exterior access reader •Conduit and boxes for power closer/operator, if used	
	3.2	All other doors opening onto primary and secondary corridors and other doors which could be designated as security-sensitive in the future.	•Standard locksets or panic exit devices as prescribed in DG 087100	•None during initial installation.	•Frame cutout with cover plate and back box for electric power transfer. •Back box for door position switch, with location marked by 1/8” diameter hole in frame	•Conduit from back boxes on frame for electric power transfer and door position switch to accessible ceiling space	

EXHIBIT A

NEBRASKA UTILITY CORPORATION
THERMAL & OTHER SERVICES - RATE SCHEDULE
EFFECTIVE DATE: January 1, 2013

APPLICABLE: The University of Nebraska-Lincoln (Customer) will be placed on this rate upon the effective date.

CHARACTER OF SERVICE: The character of Energy Services and Utility Services shall be as defined in ARTICLE 3 of the Energy Service Agreement.

PRODUCTION AND DISTRIBUTION (P&D) CHARGE: A Charge to recover the debt service, debt service coverage associated with facilities and conservation measures constructed with NUCorp borrowed funds, and the operating and maintenance costs associated with the total central production plant and distribution facilities. These costs shall be billed based on Gross Square Footage of buildings serviced adjusted for spaces, therein, taking utility services from NUCorp.

COMMODITY CHARGES: Charges to recover purchased fuel, electricity, water and other service costs consumed in the central plant or delivered directly. The consumption of the service commodity being provided is billed on the amounts delivered, either on a metered or estimated basis to the buildings serviced through the campus distribution systems.

MONTHLY BILL: P&D Charge + Commodity Charge for Steam + Commodity Charge for Chilled Water + Commodity Charge for Electricity + Commodity Charge for Cooling Tower Water Loop + Annual Facilities Charge + Municipal Service + All Surcharges (if applicable); based on the rate in effect.

MONTHLY BILLING PERIOD: BILLS are rendered on the basis of the scheduled meter reading dates or a date agreeable with NUCorp for final readings. Under normal conditions, BILLING PERIODS typically range from 27 to 35 days. There will be twelve billing periods per year.

RATE:

P & D Charges	**$0.3049** per adjusted square foot of all buildings delineated on Exhibit C to be served with **steam** per Annum, or **$0.000835** per sf per day. **$0.3772** per adjusted square foot of all buildings delineated on Exhibit C to be served with **chilled water** per Annum, or **$0.001033** per sf per day. **$0.1899** per adjusted square foot of buildings delineated on Exhibit C to be served with **electricity** per Annum, or **$0.000520** per sf per day.
Commodity Charge for Steam	**$9.50** per K-LBs for all K-LBs delivered through NUCorp per Billing Period.

Commodity Charge for Chilled Water	**$0.0510** per ton hours for all ton hours of chilled water delivered through NUCorp per Billing Period.
Commodity Charge for Electricity	**$0.0540** per kWh for all kWhs delivered through NUCorp per Billing Period.
Commodity Charge for Cooling Tower Water Loop	**$1,950** per month for all cooling tower water delivered through NU Corp per Billing Period.
Annual Facilities Charge	**$3,935,000** per year for construction of facilities.
Municipal Service for all Directly Metered Services received	An exact dollar amount billed by natural gas, electric, water and sewer service utilities for all services directly to buildings and billed to NUCorp. Certain water and sewer bills are adjusted to transfer billed amounts for service used within NUCorp central plants.

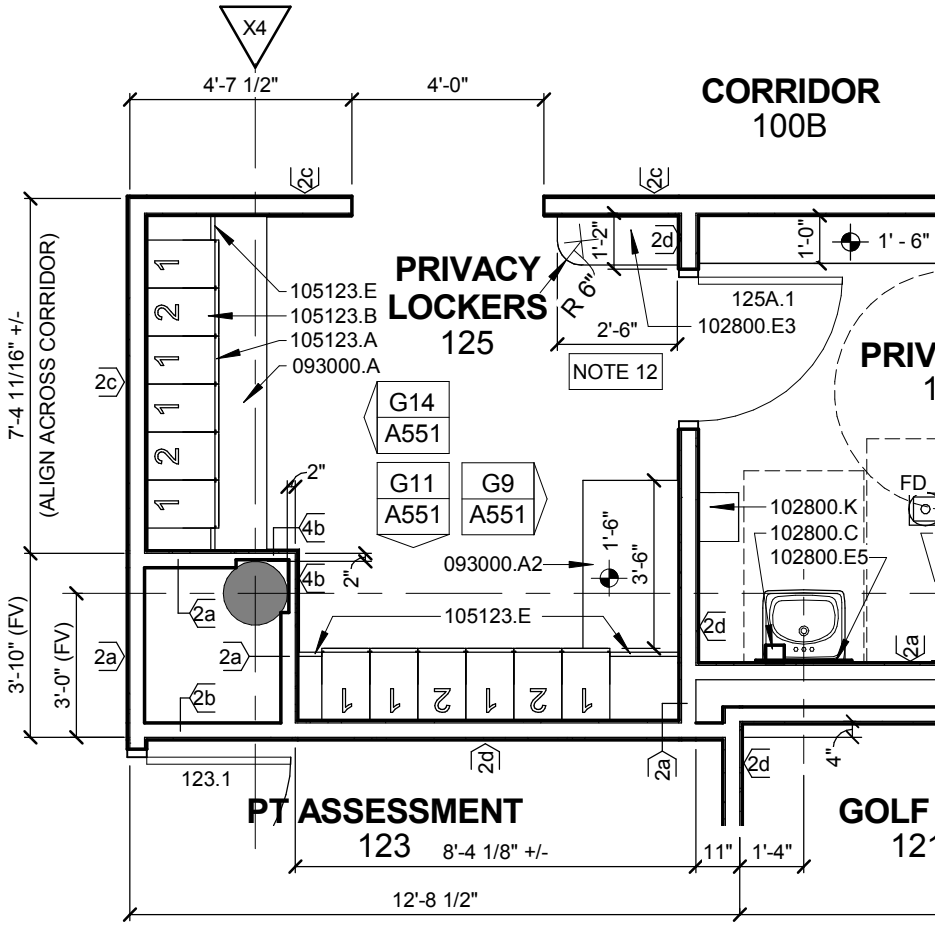
Upon request, the Customer will, if practical, provide recorded consumption readings for the purpose of allocating P&D and commodity charges.

MINIMUM BILL: P&D Charges

TERMS AND CONDITIONS:

1. Services will be furnished subject to the NUCorp's Thermal Service Agreement.

2. TERMS OF PAYMENT - BILLS are due and payable upon receipt and delinquent if not paid within 45 days of date of billing.



NOTE 12 PROVIDE A 1'-0" DEEP, SOLID SURFACE COUNTER (SS-3). FACE OF COUNTER TO BE 1 1/4" THICK. SUPPORT COUNTER WITH CLEATS AT WALL SURFACE. MOUNT COUNTER AT 2'-10" AFF

Enlarged Floor Plan

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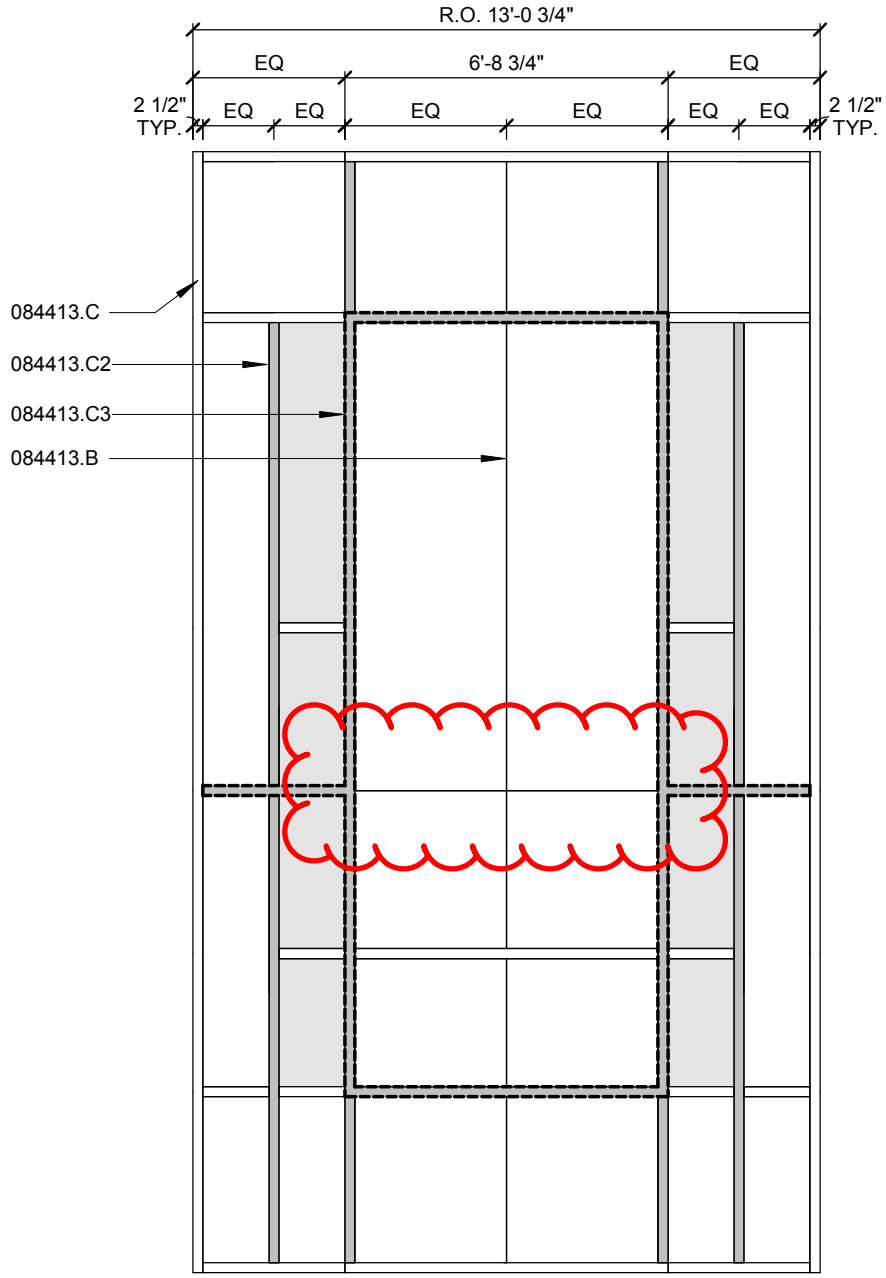
Revision to Detail: **A11/A151**

UNL East Campus Recreation Center

Attachment: A1

Scale: 1/4" = 1'-0"	Project Number: A016P039	Date: September 30, 2013	Attachment to: **Addendum 04**



CW 1

084113.A
088000.A TYP.
088000.B TYP. WHERE SHADED
084413.C

Aluminum Frame Types

Revision to Detail: **A1/A502**

UNL East Campus Recreation Center

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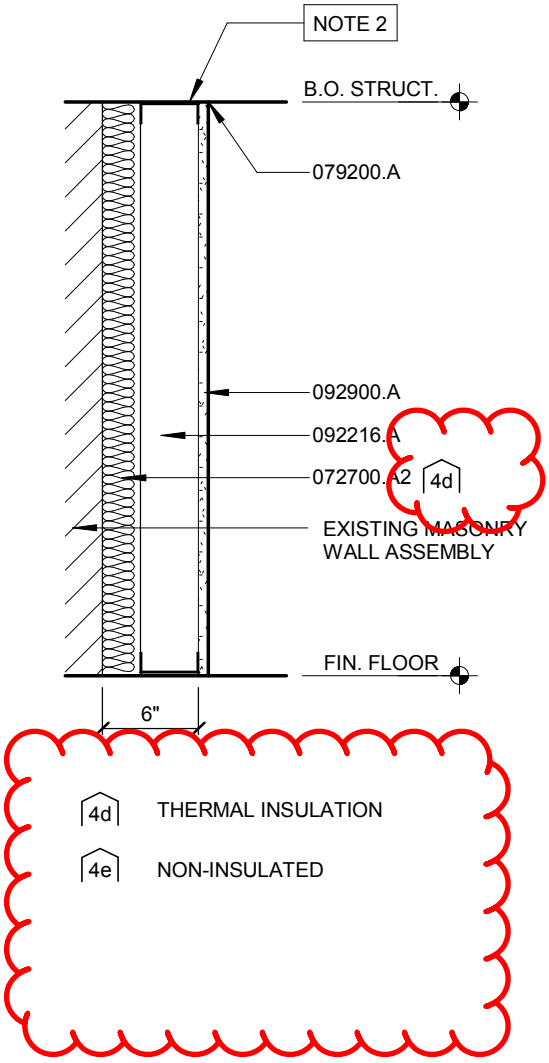
Attachment: A2

Scale: 1/4" = 1'-0"	Project Number: A016P039	Date: September 30, 2013	Attachment to: **Addendum 04**



Wall Types

Revision to Detail: **A7/G100**

UNL East Campus Recreation Center

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Attachment: A3

Scale: 1" = 1'-0"	Project Number: A016P039	Date: September 30, 2013	Attachment to: **Addendum 04**