

Addendum #2 – Final Core & Shell Package

Project Name: Hudl HQ – New Office / Mixed Use Building
Lincoln, NE
Project No.: 15024
Issued: January 26, 2016
Bid Date: 2:00 PM CST, Tuesday, February 2, 2016
Bid Opening: Sampson Construction
Location: 3730 South 14th Street
Lincoln, NE 68502

This Addendum is issued to Chief / Sampson Construction for distribution to all sub-Contractors and suppliers before receipt of proposals. This Addendum is to authorize the use of the following information in preparing proposals for the above named project. The bidder **must** enter the number of this Addendum on the **Proposal Sheet**.

GENERAL QUESTIONS AND CLARIFICATIONS

ADD 2-1. Insulating concrete roof decks.

Question: *for the 7th floor roof, could an insulating concrete roof deck be used in lieu of tapered insulation and spray fireproofing.*

Response: Providing the insulating concrete roof deck can provide 1) the same or greater insulating value as the traditional insulation, 2) the system shall have a UL listing for 1-hr rating minimum and 3) the entire system is 27 pcf dry weight or less.

ADD 2-2. Metal Fins.

Question: *Regarding a connection for the metal fins on the outside of the building. Is the edge of the slab exposed at each level? Are the fins to attach back to the curtain wall?*

Response: The edge of the slab is covered by a slab edge cover that is part of the window system. See Detail J13 / A401. The fins may NOT attach back to the window system unless explicit permission is obtained from the window manufacturer the windows may accept those loads.

ADD 2-3. Metal siding products.

Question: *Metal Roof Panels, Metal Wall Panels and Metal Soffit Panels (074113, 074213 and 074213.53) have different material thickness called out. Can they all be made out of the same material?*

Response: Provided the metal is not less than what is specified, all these panels can be fabricated from the same stock.

ADD 2-4. Alternate S1.

Question: *It appears that the metal pan fill treads between floors 4 and 5 are 8 treads @ 3'-0" x 24'-0". Is that correct?*

Response: 8 treads @ 3'-0" x 24'-8".

ADD 2-5. Generator Remote Annunciator Location

Question: *Where is the location of the Remote Generator Annunciator Panel?*

Response: The remote annunciator panel should be located in the fire command center.

ADD 2-6. EMS Panel

Question: *On sheet E405 Detail A1 in mechanical room 505 we see an EMS Panel. Who is to supply this panel and do we need to figure power for this panel?*

Response: This is reserved space for a future EMS panel. This EMS panel was removed from E405, refer to attachment E2-7.

ADD 2-7. Access Control Wiring

Question: *On Sheet E501 Detail #10 states for us to figure access control system wiring from device rough-in to the Control Panel Box in accessible ceiling space above the door, and then figure ACS Cable to ACS Building Panel. Where is the ACS Building Panel Located on the plans? Also is the Electrical contractor supposed to provide ACS cable to the ACS Panel or will the owner have another contractor install this since there is not an Access Control Spec in Division 28000?*

Response: Access control system low voltage wiring will be provided by others.

ADD 2-8. Bodine Transfer Device

Question: *On Sheet E131 in Lobby 103 we see note #1 pointing to a (J) symbol. Note #1 states to provide a Bodine GTD-20A Device refer to detail 3/E504. Is this location we have described the only location we are to include a GTD-20A Device on this project?*

Response: This is the only location with a GTD-20 device.

ADD 2-9. Fire Pump Feeders

Question: *On Sheet E401. What is the size of the feeder to the Fire Pump (FP-1) and does this feeder need to be concrete encased?*

Response: The feeder size to the fire pump is 2 sets of 4-350kcmil, concrete encased, as indicated on the oneline diagram.

ADD 2-10. Service Conduit Quantity

Question: *On Sheet E611. Does the number of conduits (11) shown to be supplied for the feeders to Switchboard 'MSB' include the (One Spare Conduit)?*

Response: The eleven conduits shown includes the one spare conduit.

ADD 2-11. Submeter Cabinet Information

Question: *Can you please expand on the Submeter Cabinets that are shown on the drawings? I'm not finding any information on this item in the bidding documents.*

Response: The submeter cabinets should be Emon Dmon MMU8 cabinets with space for eight submeters. This is now noted on sheet E611, refer to attachment E2-12.

ADD 2-12. Generator Fuel Purchase

Question: *Who is responsible for the initial fuel fill and then the final fuel fill after testing for the Generator?*

Response: Per specification section 260000 1.08(F) the Contractor is responsible for all accessories and components reasonably inferred to as necessary although they may or may not be specifically indicated in the Contract Documents. The Contractor is responsible for the initial fuel fill and the fuel fill after testing.

ADD 2-13. Generator Fuel Tank Size

Question: *The oneline diagram indicates a 660 gallon fuel tank, however the specifications indicate a fuel tank sized for 24 hours at full load, which I believe comes out to 750 gallons.*

Response: Specifications section 263213 2.05(B) requires the fuel tank to be sized "to provide minimum 24 hours run at full load, unless indicated otherwise...". Provide minimum 660 gallon fuel tank as indicated on the oneline diagram.

ADD 2-14. Generator Day Tank

Question: *The specifications list a 25 gallon day tank, is a day tank required for this generator?*

Response: A day tank is not required for this generator, however if one is provided it must meet the requirements listed in specification section 263213.

ADD 2-15. Power Management Communications Scope

Question: *Specification section 260913 is included for the Power Management Communication System, what is the scope of the PMCS?*

Response: The PMCS specification is included for the Emon Dmon submeter cabinets.

ADD 2-16. Shrinkwrapped Fire Sprinkler Piping

Question: *210000 1.09 C – Requests all piping to be shipped to site with caps and plugs on ends of pipe and fittings. Typical fabrication comes shrinkwrapped on the ends.*

Response: No exception taken to shrink-wrapped pipe ends. Specifications call for temporary end caps and closures on piping. Wrapping the pipe ends meets the intent of the caps which is to prevent foreign debris from entering the pipes.

ADD 2-17. Microbial Induced Corrosion Test

Question: *210500 2.01D – Requests a water supply test for MIC. This was big a few years ago. A test that costs money (1K).*

Response: Microbial Induced Corrosion tests are typically only required in areas where MIC is a known problem and is not anticipated to be an issue with this project. This should be included in the bid as an add alternate in the bid.

ADD 2-18. Swivel Pipe Hangers

Question: *210500 2.04B – Requests clevis hangers on all piping 2” and larger. Typical installation is to use a swivel hanger on all size piping.*

Response: No exception FM/UL listed hanger materials so long as it is NFPA 13 approved and installed in accordance with the manufacturer’s recommendations.

ADD 2-19. Air Venting and Corrosion Monitoring Stations

Question: *210500 2.11/2.12 – Air Venting and Corrosion Monitoring Stations. This is not a typical requirement. To have this equipment on each system will be costly. I am awaiting costs...but typically will be in the 10K range.*

Response: Air venting & corrosion monitoring stations are typically only required in areas where MIC is a known problem and is not anticipated to be an issue with this project. These should be included in the bid as an add alternate in the bid.

ADD 2-20. Sprinkler Head Type

Question: *The type of heads to be used in the few ceilings were not specified. Assume a semi-recessed is adequate?*

With the occupancy being mixed use/office. Please confirm that all tenant areas are to be treated as Light Hazard.

Response: Refer to specification section 211300, 2.03. Revise suspended grid ceiling head types to concealed with white finish. Concealed heads in gyp ceilings with finishes to match adjacent surfaces to remain as is.

MODIFICATIONS TO THE DRAWINGS

ADD 2-21. Refer to Sheet C500, Delete Detail 4/C500.

ADD 2-22. Refer to Sheet C500, Revise Detail 5/C500, install 1” PVC weep, 8’ OC, typical Minimum 18” from edge of paving, 8’ OC, typical. Subbase to drain to weep areas.

ADD 2-23. Refer to Sheet C500, Delete Detail 8/C500.

ADD 2-24. Refer to Sheet C500, Delete Detail 9/C500.

- ADD 2-25.** Refer to Sheet C400, Revise detail cut through silva cell to North/South instead of East/West as shown on C400.
- ADD 2-26.** Refer to Sheet C500, Detail 11/C500. Eliminate 4'-6" dimension. Planter to align with jointing plan, see sheet C400 for dimensioning.
- ADD 2-27.** Refer to Sheet C500, Detail 12/C500. Benches to anchor to concrete base. No footing required.
- ADD 2-28.** Refer to Sheet C100, Limits of alley tie in are between building and alley along the west side. See **Attachment C2-1.**
- ADD 2-29.** Refer to Sheet C002, Existing Transformer to remain and be protected, and In Place.
- ADD 2-30.** Refer to Sheet C400, Refer to **Attachment C2-2** for limits of Alternate C1.
- ADD 2-31.** Refer to Sheet C300, Existing Domestic Water Service to be C-900 Pipe Material.
- ADD 2-32.** Refer to Sheet C400, Existing Light pole bases and fixtures are a part of the streetscape package. The light poles in the streetscape do not connect to the building panels.
- A. The poles along Canopy Street tie into the existing conduit for the street lights on this side of the street.
 - B. The poles along P Street will need to have new conduit installed. Conduit shall be extended from existing pull box at the corner of P Street and Canopy Street to the 3 new poles.
- ADD 2-33.** Refer to Sheet C700, Delete all Greenroof Vegetation. Pavers will remain.
- ADD 2-34.** Refer to Sheet L700, Delete Sheet L700 from this bid package.
- ADD 2-35.** Refer to Sheet IR700, Delete Sheet IR700 from this bid package.
- ADD 2-36.** Revision to E112. Revised Note 1 to clarify intent for junction box. Refer to **Attachment E2-1.**
- ADD 2-37.** Revision to E113. Revised Note 3 to clarify intent for junction box. Refer to **Attachment E2-2.**
- ADD 2-38.** Revision to E401. Revised Note 4 to clarify that relay panel should be 32 circuit as indicated on 1/E504. Refer to **Attachment E2-3.**
- ADD 2-39.** Revision to E402. Added Note 6 to clarify intent of junction boxes added in Addendum 1. Added duct smoke detector for AHU as shown previously on mechanical drawings. Refer to **Attachment E2-4.**
- ADD 2-40.** Revision to E403. Added Note 6 to clarify intent of junction boxes added in Addendum 1. Added duct smoke detector for AHU as shown previously on mechanical drawings. Added location for LCP-2 indicated on E504. Refer to **Attachment E2-5.**
- ADD 2-41.** Revision to E404. Added Note 6 to clarify intent of junction boxes added in Addendum 1. Added duct smoke detector for AHU as shown previously on mechanical drawings. Refer to **Attachment E2-6.**

- ADD 2-42.** Revision to E405. Added Note 6 to clarify intent of junction boxes added in Addendum 1. Added duct smoke detector for AHU as shown previously on mechanical drawings. Removed reserved space for EMS panel from the plan, this space is still shown on the mechanical drawings. Refer to **Attachment E2-7.**
- ADD 2-43.** Revision to E406. Added Note 6 to clarify intent of junction boxes added in Addendum 1. Added duct smoke detector for AHU as shown previously on mechanical drawings. Added location for LCP-3 indicated on E504. Refer to **Attachment E2-8.**
- ADD 2-44.** Revision to E407. Added Note 6 to clarify intent of junction boxes added in Addendum 1. Added duct smoke detector for AHU as shown previously on mechanical drawings. Refer to **Attachment E2-9.**
- ADD 2-45.** Revision to E603. Added panel schedule for Panel H2A serving electric heaters on ground level. Refer to **Attachment E2-10.**
- ADD 2-46.** Revision to E611. Noted primary and secondary feeders for panels ELEV1 and ELEV2. Refer to **Attachment E2-11.**
- ADD 2-47.** Added panel H2A and associated feeders to one-line diagram. Added boxed note clarifying the submeter cabinet for each electrical room. Refer to **Attachment E2-12.**

MODIFICATIONS TO THE SPECIFICATIONS

- ADD 2-48.** Refer to Section 002400. Make the following modifications to the scope of work:
1. Scope of Work #5 – Concrete SOG, SOMD, and Paving: Scope of work is to include concrete replacement at alley and construction entrance. Include 700 SF at alley and 1,300 SF at construction entrance. Provide the following Unit Prices:

Concrete Replacement Add \$_____/SF Deduct
\$_____/SF
 2. Scope of Work #9 – Finish Carpentry: Scope of work is to include providing and installing all 1 ½” furring channels for tongue and groove cedar soffits and reclaimed timber ceiling.
 3. Scope of Work #19 – Frames, Doors, and Hardware Materials: This scope of work is to be material only. All doors, frames, and hardware are to be installed by others.
 4. Scope of Work #35 – Site Clearing – Scope of Work is to include import of Engineered Fill for backfill material per specifications. Include 600 CY. Provide the following Unit Prices:

Import Engineered Fill Add \$_____/CY Deduct \$_____/CY
- ADD 2-49.** Refer to Section 061600, Paragraph 2.5.A. Add sub-paragraph c. as follows:
- c. All plywood sheathing shall be fire-retardant-treated.
- ADD 2-50.** Refer to Section 084113, Paragraph 2.9.A. Change finish to a standard two-coat system. Delete reference to a clear top-coat.

- ADD 2-51.** Refer to Section 211300, Paragraph 2.03.A. Modify head type to be Recessed pendant type with flush cover plate and color to be white.
- ADD 2-52.** Added section 260529. Refer to **Attachment E2-13.**
- ADD 2-53.** Added section 262818. Refer to **Attachment E2-14.**
- ADD 2-54.** Added section 263600. Refer to **Attachment E2-15.**

ARCHITECTURAL PRIOR APPROVALS / SUBSTITUTIONS

ADD 2-55. The manufacturers listed herein will be considered approved for bidding. However, the proposed substitution must meet the intent of the specifications and will be subject to shop submittal approval during construction. Burden of Proof is on Proposer. Bidders shall bear all responsibility for coordinating and performing related changes in the Work necessitated by such substitution and include such costs in the Bid:

Specification Section			Manufacturer/Proposed Product
A	042000	Unit Masonry – Brick	Endicott Clay Products, Yankee Hill Brick and Tile (subject to color / texture approval by mock-up)
B	061600	Sheathing	LP, Flame Block 2 sided – for Fire-Retardant Treated plywood only
C	072100	Thermal Insulation	Atlas, EnergyShield PRO (subject to NFPA 285 Compliance)
D	072726	Fluid-Applied Membrane Air Barriers	W.R. Meadows, Inc, Air-Shield LSR (subject to NFPA 285 Compliance)
E	074113	Metal Roof Panels	
F	074213	Metal Wall Panels	MBCI, Masterline 16 MetalTech-USA, HV90 Panel system
G	074213.53	Metal Soffit Panels	MBCI, Designer Series Flat Soffit MetalTech-USA, Reveal Panel System (must be 0” reveal)
H	087100	Door Hardware	Ives, Stanley (hinges, continuous hinges, flush bolts, dust proof strikes, coordinators, architectural trim) Allegion (power transfer devices) LCN (closers and automatic operators)
I	096513	Resilient Base & Accessories	Burke, Endura Floor Tile / Stair treads
J	101423	Signage	GSI

ADD 2-56. The following substitutions have NOT been approved for use on this Project:

- a. 072726 TK-AirMax air / weather barriers.

Reason: Not approved for NFPA 285 Assemblies.

- b. 074113 MetalTech_USA Flat Lock Panel in lieu of Bermuda Shake.

Reason: Not water tight in the application used.

- c. 087100 Stanley closers and exit devises.

Reason: dependability and service issues.

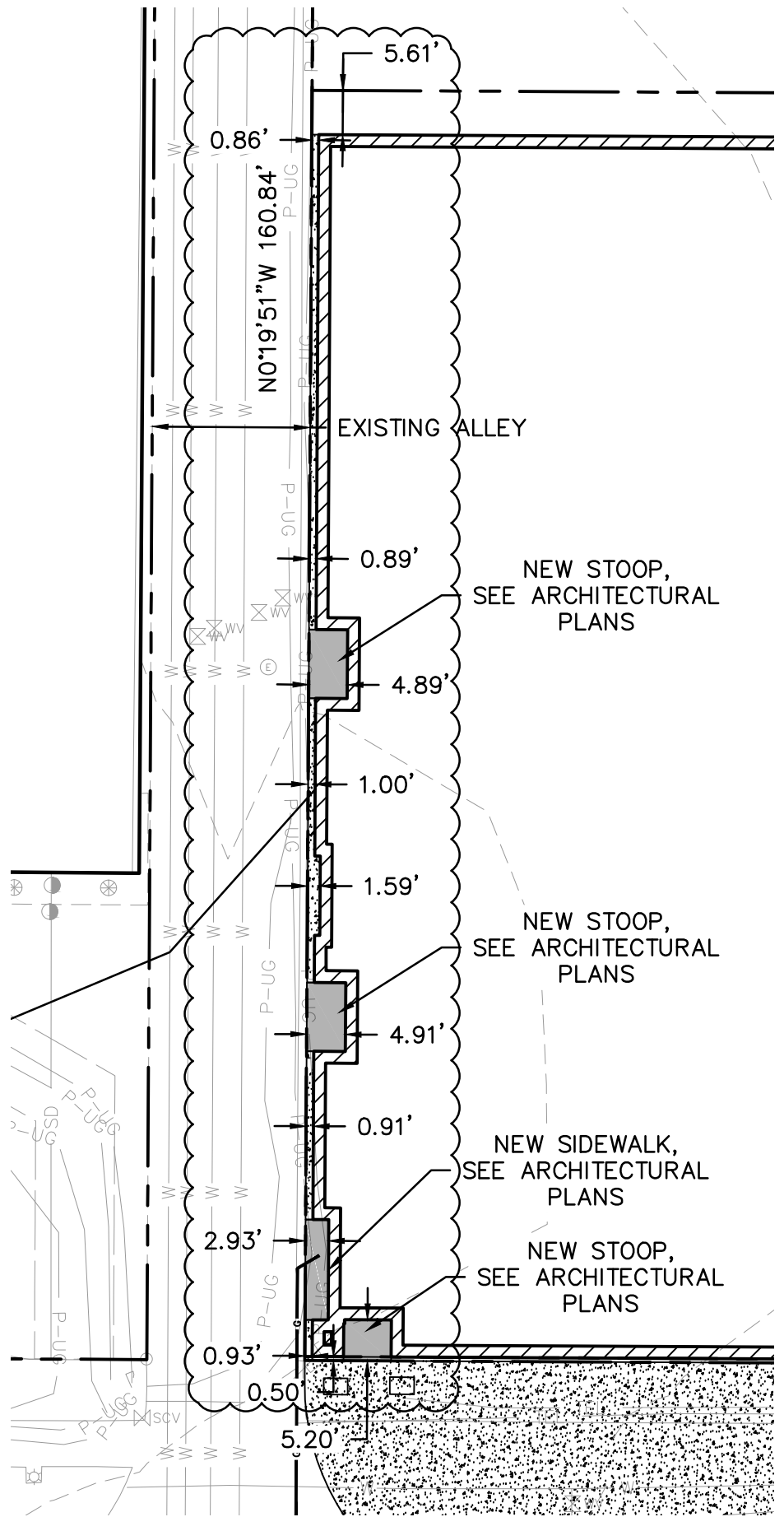
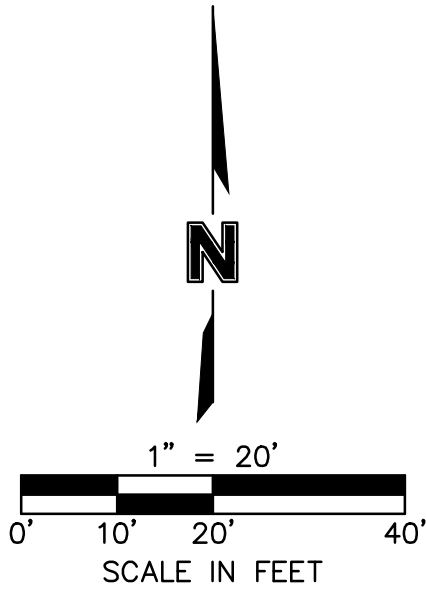
ATTACHMENTS

ADD 2-57. The following attachments are included as part of this addendum.

- Attachment C2-1: Alley Paving Revisions.
- Attachment C2-2: P Street Parking Exhibit.
- Attachment E2-1: Revisions to E112
- Attachment E2-2: Revisions to E113
- Attachment E2-3: Revisions to E401
- Attachment E2-4: Revisions to E402
- Attachment E2-5: Revisions to E403
- Attachment E2-6: Revisions to E404
- Attachment E2-7: Revisions to E405
- Attachment E2-8: Revisions to E406
- Attachment E2-9: Revisions to E407
- Attachment E2-10: Revisions to E603
- Attachment E2-11: Revisions to E611
- Attachment E2-12: Revisions to E611
- Attachment E2-13: Added 260529
- Attachment E2-14: Added 262818
- Attachment E2-15: Added 263600

End of Core & Shell Addendum #2

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 DATE: Jan 25, 2016 2:00pm
 USER: jfasnacht
 XREFS: C_PBASE_52006
 122356_PBASE
 FloorPlan-Level1
 Deck_3_Level_1
 112056-PO CSI01-use in base



PROJECT NO:	015-2006
DRAWN BY:	JEF
DATE:	01/25/2016

HUDL BLOCK B
ALLEY PAVING REVISION

MOLSSON
 ASSOCIATES

601 P Street, Suite 200
 P.O. Box 84608
 Lincoln, NE 68508
 TEL 402.474.6311
 FAX 402.474.5160

EXHIBIT
C2-1

KEYED NOTES:

1. PROVIDE JUNCTION BOX AT +18" AFF FOR RECEPTACLE TO BE INSTALLED BY TENANT AT A LATER DATE. PROVIDE 3/4" CONDUIT WITH PULL STRING STUBBED INTO TENANT SPACE FOR FUTURE CONNECTION BY TENANT.
2. REFER TO A10/E201 FOR STAIRWELL LIGHTING CIRCUITING.

Addendum 2

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Revision to Sheet: **E112**

Hudl HQ - New Office / Mixed Use Building

Attachment: E2-1

Scale: 1/16" = 1'-0"

Project Number:

15024-05

Date:

January 26, 2016

Attachment to:

Addendum 02

- ACCESS. SEE DETAIL 11/ES01. COORDINATE ALL REQUIREMENTS WITH EQUIPMENT MANUFACTURERS PRIOR TO ROUGH-IN.
3. PROVIDE JUNCTION BOX AT +18" AFF FOR RECEPTACLE TO BE INSTALLED BY TENANT AT A LATER DATE. PROVIDE 3/4" CONDUIT WITH PULL STRING STUBBED INTO TENANT SPACE FOR FUTURE CONNECTION BY TENANT.
 4. PROVIDE JUNCTION BOX FUTURE TENANT CONNECTION TO SIGNAGE. COORDINATE



Addendum 2

Revision to Sheet: **E113**

Hudl HQ - New Office / Mixed Use Building

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Attachment: E2-2

Scale: 1/16" = 1'-0"

Project Number:

15024-05

Date:

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Addendum 02

- REQUIREMENTS WITH PLUMBING CONTRACTOR
PRIOR TO ROUGH-IN.
4. PROVIDE 32 CIRCUIT RELAY PANEL. REFER TO E504 FOR ADDITIONAL INFORMATION.
 5. PROVIDE ROUGH-IN AND POWER TO DOOR

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Revision to Sheet: **E401**

Hudl HQ - New Office / Mixed Use Building

Attachment: E2-3

Scale: 1/4" = 1'-0"

Project Number:

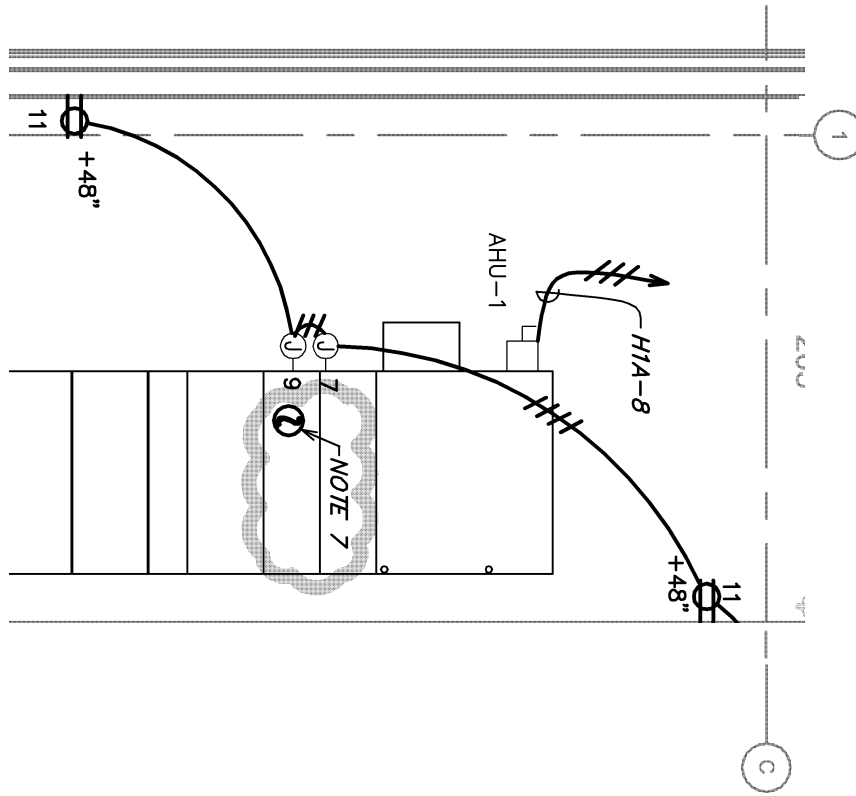
15024-05

Date:

January 26, 2016

Attachment to:

Addendum 02



6. BLOCKING BEHIND MIRROR. REFER TO INTERIOR DESIGN PLANS FOR DETAILS. PROVIDE JUNCTION BOX AT +18" AFF FOR RECEPTACLE TO BE INSTALLED BY TENANT AT A LATER DATE. PROVIDE 3/4" CONDUIT WITH PULL STRING STUBBED INTO TENANT SPACE FOR FUTURE CONNECTION BY TENANT.

7. SUPPLY FAN SHUTDOWN SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL ALSO PROVIDE A REMOTE KEYED TEST STATION WITH VISUAL STATUS ANNUNCIATOR WHEN DUCT SMOKE DETECTOR IS INSTALLED IN A CONCEALED LOCATION GREATER THAN 10'-0" ABOVE FINISHED FLOOR OR WHEN DUCT SMOKE DETECTOR'S STATUS INDICATORS ARE NOT READILY VISIBLE. COORDINATE LOCATION OF REMOTE KEYED TEST STATION WITH AUTHORITY HAVING JURISDICTION AND OWNER PRIOR TO ROUGH-IN. ALL FINAL WIRING SHALL BE BY THE ELECTRICAL CONTRACTOR.

Addendum 2

Revision to Sheet: **E402**

Hudl HQ - New Office / Mixed Use Building

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Attachment: **E2-4**

Scale: 1/4" = 1'-0"

Project Number:

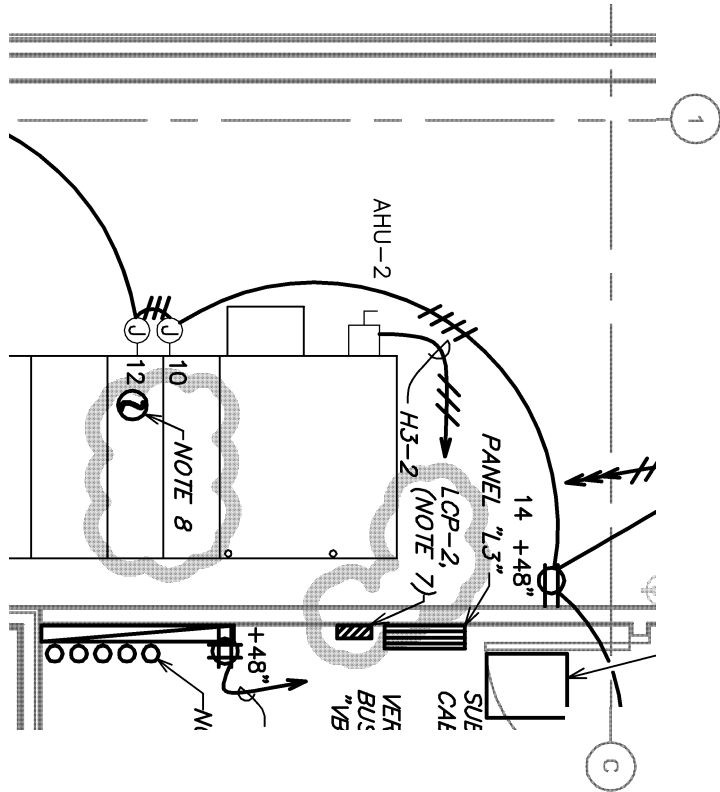
15024-05

Date:

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7. PROVIDE 8 CIRCUIT RELAY PANEL. REFER TO E504 FOR ADDITIONAL INFORMATION. SUPPLY FAN SHUTDOWN SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL ALSO PROVIDE A REMOTE KEYED TEST STATION WITH VISUAL STATUS ANNUNCIATOR WHEN DUCT SMOKE DETECTOR IS INSTALLED IN A CONCEALED LOCATION GREATER THAN 10'-0" ABOVE FINISHED FLOOR OR WHEN DUCT SMOKE DETECTOR'S STATUS INDICATORS ARE NOT READILY VISIBLE. COORDINATE LOCATION OF REMOTE KEYED TEST STATION WITH AUTHORITY HAVING JURISDICTION AND OWNER PRIOR TO ROUGH-IN. ALL FINAL WIRING SHALL BE BY THE ELECTRICAL CONTRACTOR.
- 8.

Addendum 2

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Revision to Sheet: **E403**

Hudl HQ - New Office / Mixed Use Building

Attachment: E2-5

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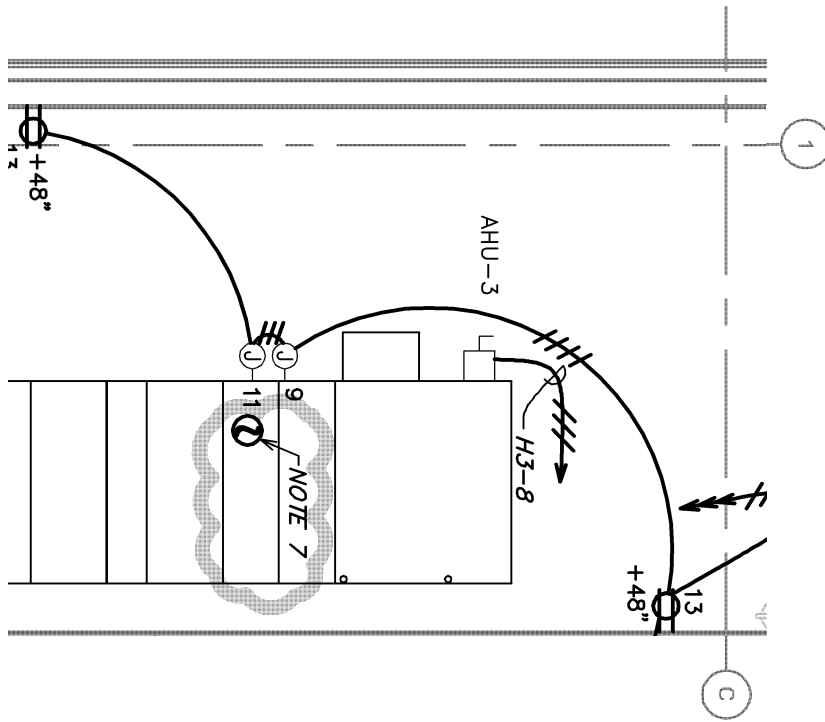
15024-05

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Addendum 2

Revision to Sheet: **E404**

Hudl HQ - New Office / Mixed Use Building

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Attachment: **E2-6**

Scale: 1/4" = 1'-0"

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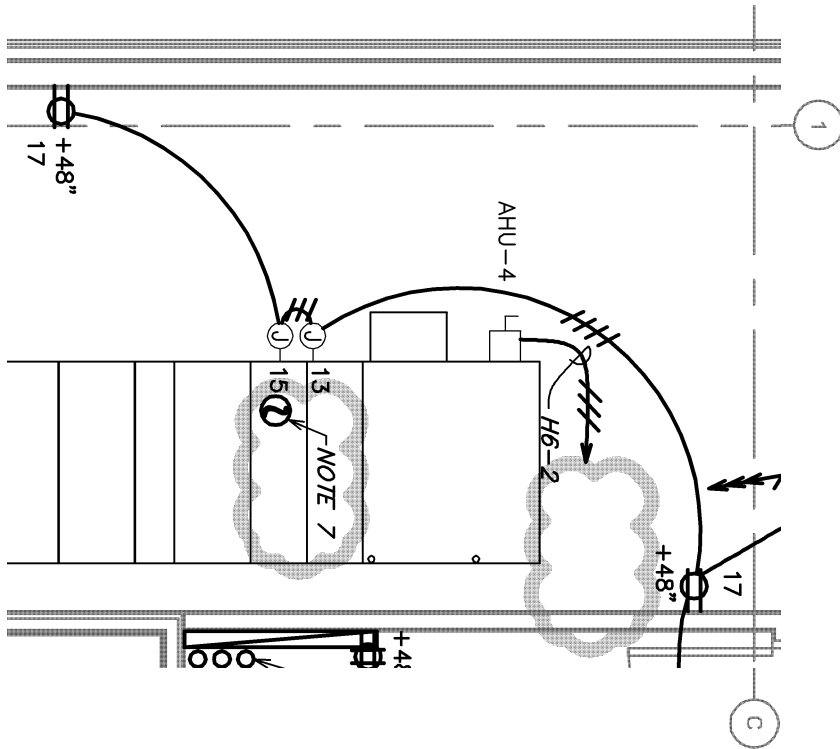
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6. INTERIOR DESIGN PLANS FOR DETAILS, PROVIDE JUNCTION BOX AT +18" AFF FOR RECEPTACLE TO BE INSTALLED BY TENANT AT A LATER DATE. PROVIDE 3/4" CONDUIT WITH PULL STRING STUBBED INTO TENANT SPACE FOR FUTURE CONNECTION BY TENANT. SUPPLY FAN SHUTDOWN SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL ALSO PROVIDE A REMOTE KEYED TEST STATION WITH VISUAL STATUS ANNUNCIATOR WHEN DUCT SMOKE DETECTOR IS INSTALLED IN A CONCEALED LOCATION GREATER THAN 10'-0" ABOVE FINISHED FLOOR OR WHEN DUCT SMOKE DETECTOR'S STATUS INDICATORS ARE NOT READILY VISIBLE. COORDINATE LOCATION OF REMOTE KEYED TEST STATION WITH AUTHORITY HAVING JURISDICTION AND OWNER PRIOR TO ROUGH-IN. ALL FINAL WIRING SHALL BE BY THE ELECTRICAL CONTRACTOR.

7.

Addendum 2

Revision to Sheet: **E405**

Hudl HQ - New Office / Mixed Use Building

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Attachment: **E2-7**

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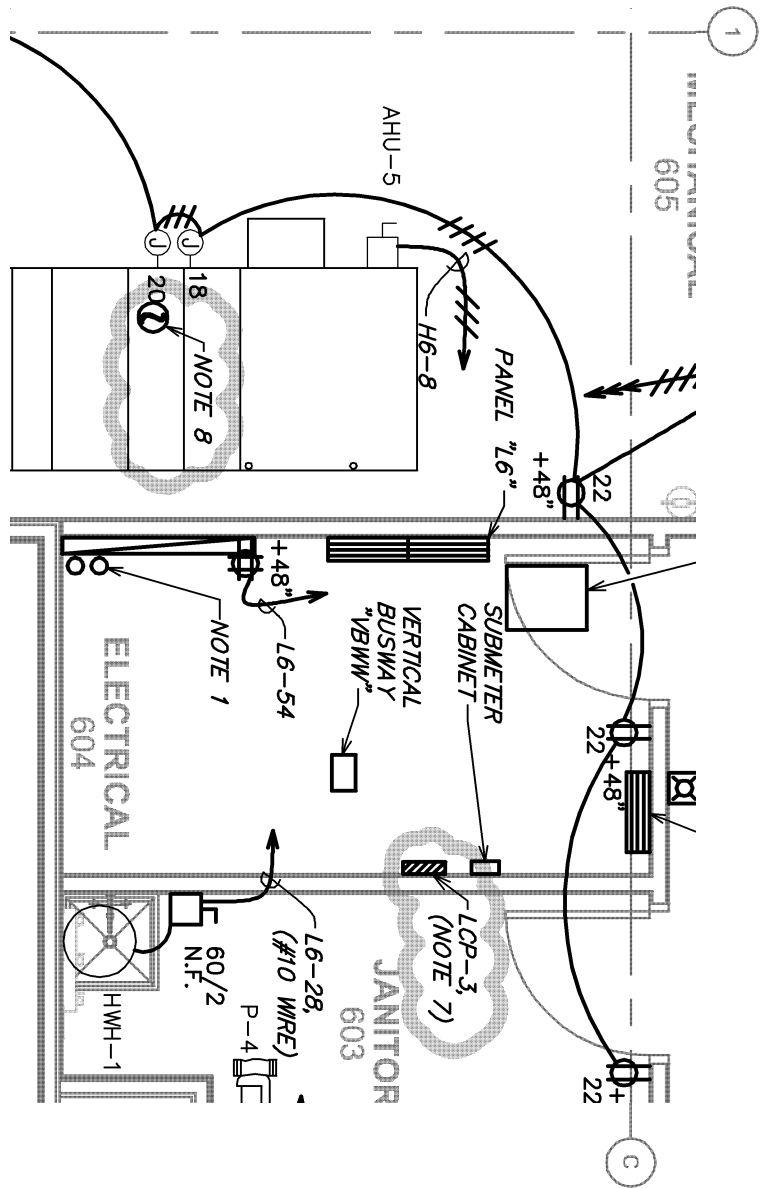
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 7. PROVIDE 16 CIRCUIT RELAY PANEL. REFER TO SUPPLY FAN SHUTDOWN SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL ALSO PROVIDE A REMOTE KEYED TEST STATION WITH VISUAL STATUS ANNUNCIATOR WHEN DUCT SMOKE DETECTOR IS INSTALLED IN A CONCEALED LOCATION GREATER THAN 10'-0" ABOVE FINISHED FLOOR OR WHEN DUCT SMOKE DETECTOR'S STATUS INDICATORS ARE NOT READILY VISIBLE. COORDINATE LOCATION OF REMOTE KEYED TEST STATION WITH AUTHORITY HAVING JURISDICTION AND OWNER PRIOR TO ROUGH-IN. ALL FINAL WIRING SHALL BE BY THE ELECTRICAL CONTRACTOR.
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Revision to Sheet: **E406**

Hudl HQ - New Office / Mixed Use Building

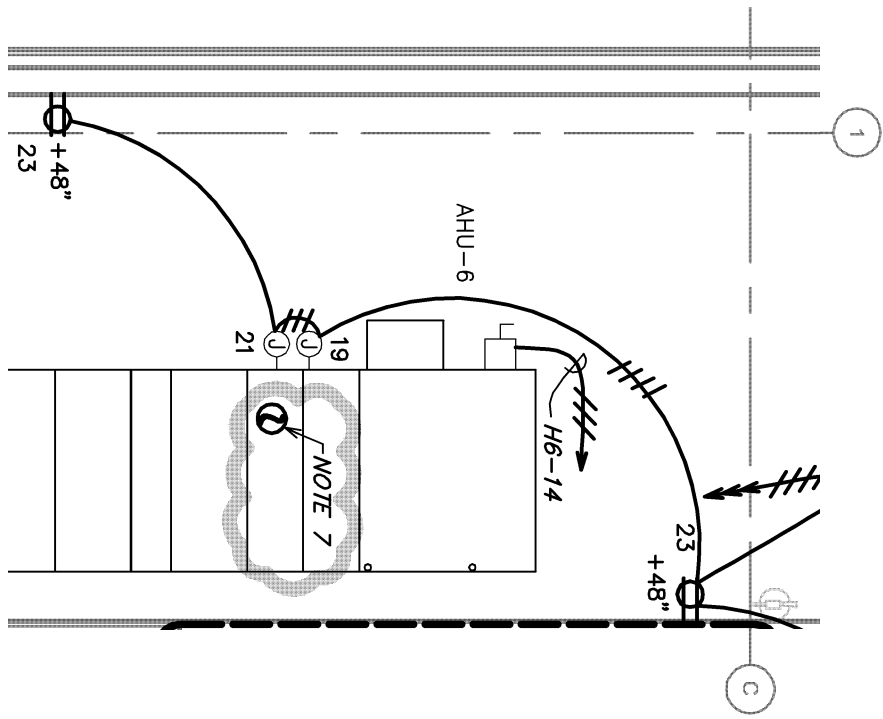
Attachment: **E2-8**

Scale: 1/4" = 1'-0"

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Date: January 26, 2016

Attachment to: **Addendum 02**



6. BLUICKING BEHIND MIRROR, REFER TO INTERIOR DESIGN PLANS FOR DETAILS. PROVIDE JUNCTION BOX AT +18" AFF FOR RECEPTACLE TO BE INSTALLED BY TENANT AT A LATER DATE. PROVIDE 3/4" CONDUIT WITH PULL STRING STUBBED INTO TENANT SPACE FOR FUTURE CONNECTION BY TENANT. SUPPLY FAN SHUTDOWN SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL ALSO PROVIDE A REMOTE KEYED TEST STATION WITH VISUAL STATUS ANNUNCIATOR WHEN DUCT SMOKE DETECTOR IS INSTALLED IN A CONCEALED LOCATION GREATER THAN 10'-0" ABOVE FINISHED FLOOR OR WHEN DUCT SMOKE DETECTOR'S STATUS INDICATORS ARE NOT READILY VISIBLE. COORDINATE LOCATION OF REMOTE KEYED TEST STATION WITH AUTHORITY HAVING JURISDICTION AND OWNER PRIOR TO ROUGH-IN. ALL FINAL WIRING SHALL BE BY THE ELECTRICAL CONTRACTOR.

7.

Addendum 2

Revision to Sheet: **E407**

Hudl HQ - New Office / Mixed Use Building

SINCLAIR **hille** architects

Attachment: **E2-9**

Scale: 1/4" = 1'-0"

Project Number:

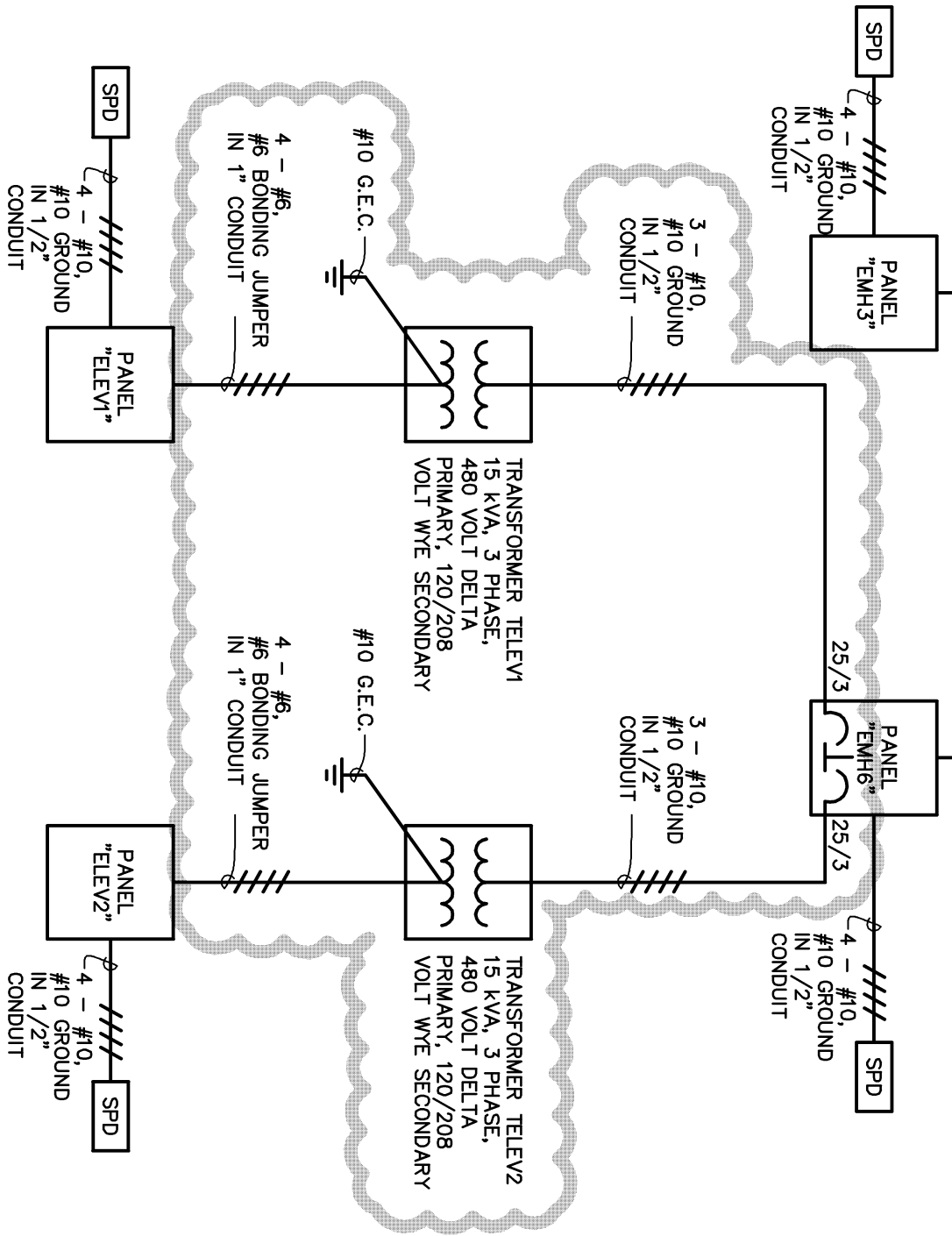
15024-05

Date:

January 26, 2016

Attachment to:

Addendum 02



Addendum 2

Revision to Sheet: E611

Hudl HQ - New Office / Mixed Use Building

SINCLAIR **hille** architects

Attachment: **E2-11**

Scale: N.T.S.

Project Number:

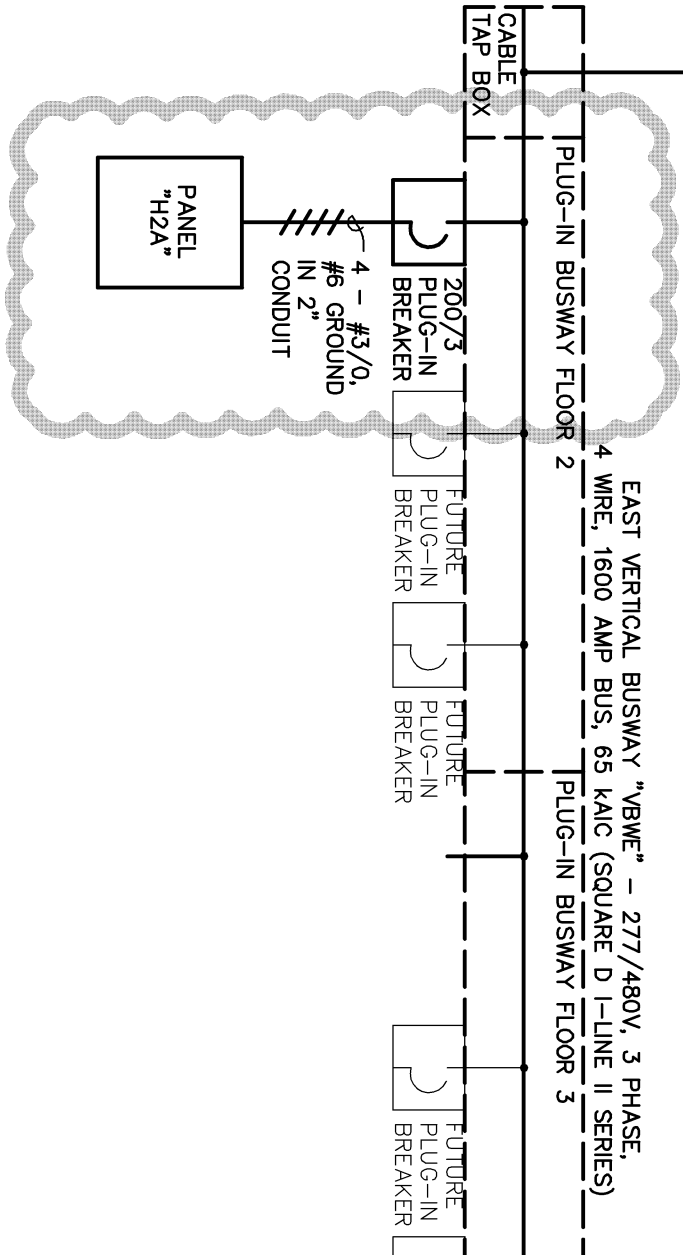
15024-05

Date:

January 26, 2016

Attachment to:

Addendum 02



PROVIDE EMON DMON MMUB
 SUBMETER CABINET IN EACH
 ELECTRICAL ROOM ON FLOORS
 2-7. REFER TO ELECTRICAL
 PLANS FOR LOCATION IN EACH
 ROOM.

Addendum 2

Revision to Sheet: **E611**

Hudl HQ - New Office / Mixed Use Building

SINCLAIR **hille**
architects

Attachment: E2-12

Scale: N.T.S.

Project Number:

15024-05

Date:

January 26, 2016

Attachment to:

Addendum 02

SECTION 260529 - HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

1.02 REFERENCE STANDARDS

- A. ICC-ES AC01 - Acceptance Criteria for Expansion Anchors in Masonry Elements; 2009.
- B. ICC-ES AC193 - Acceptance Criteria for Mechanical Anchors in Concrete Elements; 2010
- C. ICC-ES AC308 - Acceptance Criteria for Post-Installed Adhesive Anchors in Concrete Elements; 2009.
- D. NECA 1 - Standard for Good Workmanship in Electrical Construction; National Electrical Contractors Association; 2010.
- E. NFPA 70 - National Electrical Code; National Fire Protection Association; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

1.03 QUALITY ASSURANCE

- A. Conform to requirements of NFPA 70.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Thomas & Betts Corporation: www.tnb.com.
- B. Threaded Rod Company: www.threadedrod.com.
- C. Erico : www.erico.com.
- D. Substitutions: The products of other manufacturers may be submitted, at the Contractor's option, during shop drawing review. The products of other manufacturers shall meet or exceed all requirements of these specifications and all requirements of the project as listed or shown on the Drawings. The Contractor accepts all responsibility for costs and coordination issues arising out of the substitution of materials or equipment, and the coordination of such substitutions with all other contractors and subcontractors.

2.02 MATERIALS

- A. Hangers, Supports, Anchors, and Fasteners - General: Corrosion-resistant materials of size and type adequate to carry the loads of equipment and conduit, including weight of wire in conduit.
- B. Supports: Fabricated of structural steel or formed steel members; galvanized or painted.

- C. Anchors and Fasteners:
 - 1. Obtain permission from Engineer before using powder-actuated anchors.
 - 2. Concrete Structural Elements: Use precast inserts, expansion anchors, or preset inserts as approved by the Structural Engineer.
 - 3. Steel Structural Elements: Use beam clamps, steel spring clips, steel ramset fasteners, or welded fasteners.
 - 4. Concrete Surfaces: Use self-drilling anchors or expansion anchors as approved by the Structural Engineer.
 - 5. Hollow Masonry, Plaster, and Gypsum Board Partitions: Use toggle bolts or hollow wall fasteners.
 - 6. Solid Masonry Walls: Use expansion anchors or preset inserts.
 - 7. Sheet Metal: Use sheet metal screws.
 - 8. Wood Elements: Use wood screws.

- D. Fastener Types:
 - 1. Concrete Wedge Expansion Anchors: Complying with ICC-ES AC193.
 - 2. Masonry Wedge Expansion Anchors: Complying with ICC-ES AC01.
 - 3. Concrete Screw Type Anchors: Complying with ICC-ES AC193.
 - 4. Masonry Screw Type Anchors: Complying with ICC-ES AC106.
 - 5. Concrete Adhesive Type Anchors: Complying with ICC-ES AC308.
 - 6. Other Types: As required.

PART 3 EXECUTION

3.01 INSTALLATION

- 1. Do not fasten supports to pipes, ducts, mechanical equipment, or conduit.
- 2. Obtain permission from the Structural Engineer before drilling or cutting structural members.
- 3. Support independent of ceiling suspension wires.

END OF SECTION 260529

SECTION 262818 - ENCLOSED SWITCHES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Enclosed safety switches.
 - 1. Fusible switches.
 - 2. Nonfusible switches.
- B. NETA testing.

1.02 RELATED REQUIREMENTS

- A. Section 260526 - GROUNDING AND BONDING.
- B. Section 260529 - Hangers and Supports for Electrical Systems.
- C. Section 262813 - Fuses.

1.03 REFERENCE STANDARDS

- A. NECA 1 - Standard for Good Workmanship in Electrical Construction; National Electrical Contractors Association; 2010.
- B. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum); 2008.
- C. NEMA KS 1 - Enclosed and Miscellaneous Distribution Equipment Switches (600 Volts Maximum); National Electrical Manufacturers Association; 2001 (R2006).
- D. NETA STD ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems; International Electrical Testing Association; 2009.
- E. NFPA 70 - National Electrical Code; National Fire Protection Association; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- F. UL 50 - Enclosures for Electrical Equipment, Non-Environmental Considerations; Current Edition, Including All Revisions.
- G. UL 50E - Enclosures for Electrical Equipment, Environmental Considerations; Current Edition, Including All Revisions.
- H. UL 98 - Enclosed and Dead-Front Switches; Current Edition, Including All Revisions.
- I. UL 869A - Reference Standard for Service Equipment; Current Edition, Including All Revisions.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:

1. Coordinate the work with other trades. Avoid placement of ductwork, piping, equipment, or other potential obstructions within the dedicated equipment spaces and within working clearances for electrical equipment required by NFPA 70.
 2. Coordinate arrangement of electrical equipment with the dimensions and clearance requirements of the actual equipment to be installed.
 3. Verify with manufacturer that conductor terminations are suitable for use with the conductors to be installed.
 4. Notify Engineer of any conflicts with or deviations from the contract documents. Obtain direction before proceeding with work.
- B. Code or utility company requirements shall supercede any conflicting requirements of this section.

1.05 SUBMITTALS

- A. Product Data: Provide manufacturer's standard catalog pages and data sheets for enclosed switches and other installed components and accessories.
- B. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, installation, and starting of product.
- C. Project Record Documents: Record actual locations of enclosed switches.
- D. Maintenance Data: Include information on replacement parts and recommended maintenance procedures and intervals.
- E. Submittals are reviewed only for general compliance with the Contract Documents. Dimensions, quantities and details are not checked during submittal review. Review of the submittals does not relieve the Contractor of the responsibility for providing all materials, equipment and accessories necessary for a complete and operational system meeting the requirements of the project and the intent of the Contract Documents. The responsibility for coordination of substituted materials and equipment lies solely with the substituting Contractor.

1.06 QUALITY ASSURANCE

- A. Conform to requirements of NFPA 70.
- B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum five years' experience.
- C. Equipment performance and accessories shall be as indicated on the Drawings or specified herein. Inclusion in both locations is not a prerequisite to inclusion in the Contract. Equipment and accessories specified in either location shall be included in the Contract. Provide all necessary accessories and connections as required for a complete, functional system, including all required components reasonably inferred to as necessary although such components may or may not be specifically indicated on the Drawings or within the Specifications.

1.07 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 carefully in accordance with manufacturer's written instructions to avoid damage to enclosed switch internal components, enclosure, and finish.

1.08 FIELD CONDITIONS

- A. Maintain ambient temperature between -22 degrees F (-30 degrees C) and 104 degrees F (40 degrees C) during and after installation of enclosed switches.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Eaton Corporation; Cutler-Hammer Products: www.eaton.com.
- B. General Electric Company: www.geindustrial.com.
- C. Schneider Electric; Square D Products: www.schneider-electric.us.
- D. Siemens Energy and Automation, Inc: www.siemens.com.
- E. Substitutions: The products of other manufacturers may be submitted, at the Contractor's option, during shop drawing review. The products of other manufacturers shall meet or exceed all requirements of these specifications and all requirements of the project as listed or shown on the Drawings. The Contractor accepts all responsibility for costs and coordination issues arising out of the substitution of materials or equipment, and the coordination of such substitutions with all other contractors and subcontractors.
- F. Source Limitations: Furnish enclosed switches and associated components produced by the same manufacturer as the other electrical distribution equipment used for this project and obtained from a single supplier.

2.02 ENCLOSED SAFETY SWITCHES

- A. Description: Quick-make, quick-break, enclosed safety switches complying with NEMA KS 1, type GD (general duty), and listed and labeled as complying with UL 98; ratings, configurations, and features as indicated on the Drawings.
- B. Provide products listed and labeled by Underwriters Laboratories Inc. as suitable for the purpose specified and indicated.
- C. Unless otherwise indicated, provide products suitable for continuous operation under the following service conditions:
 - 1. Altitude: Less than 6,600 feet (2,000 m).
 - 2. Ambient Temperature: Between -22 degrees F (-30 degrees C) and 104 degrees F (40 degrees C).

- D. Horsepower Rating: Suitable for connected load.
- E. Voltage Rating: Suitable for circuit voltage.
- F. Short Circuit Current Rating:
 - 1. Provide enclosed safety switches, when protected by the fuses or supply side overcurrent protective devices to be installed, with listed short circuit current rating not less than the available fault current at the installed location as indicated on the drawings.
 - 2. Minimum Ratings:
 - a. Switches Protected by Class H Fuses: 10,000 rms symmetrical amperes.
 - b. General Duty Single Throw Switches Protected by Class R, Class J, or Class T Fuses: 100,000 rms symmetrical amperes.
 - c. Double Throw Switches Protected by Class R, Class J, or Class T Fuses: 100,000 rms symmetrical amperes.
- G. Enclosed Safety Switches Used for Service Entrance: Listed and labeled as suitable for use as service equipment according to UL 869A.
- H. Provide with switch blade contact position that is visible when the cover is open.
- I. Fuse Clips for Fusible Switches: As required to accept fuses indicated.
 - 1. Where NEMA Class R fuses are installed, provide rejection feature to prevent installation of fuses other than Class R.
- J. Conductor Terminations: Suitable for use with the conductors to be installed.
- K. Provide insulated, groundable fully rated solid neutral assembly where a neutral connection is required, with a suitable lug for terminating each neutral conductor.
- L. Provide solidly bonded equipment ground bus in each enclosed safety switch, with a suitable lug for terminating each equipment grounding conductor.
- M. Enclosures: Comply with NEMA KS 1 and NEMA 250, and list and label as complying with UL 50 and UL 50E.
 - 1. Environment Type per NEMA 250: Unless otherwise indicated, as specified for the following installation locations:
 - a. Indoor Clean, Dry Locations: Type 1.
 - b. Outdoor Locations: Type 3R.
 - 2. Finish for Painted Steel Enclosures: Manufacturer's standard, factory applied grey unless otherwise indicated.
- N. Provide safety interlock to prevent opening the cover with the switch in the ON position with capability of overriding interlock for testing purposes.
- O. General Duty Switches:
 - 1. Conductor Terminations:
 - a. Provide mechanical lugs.
 - b. Lug Material: Aluminum, suitable for terminating aluminum or copper conductors.
 - 2. Provide externally operable handle with means for locking in the OFF position, capable of accepting two padlocks.

- P. Provide the following features and accessories where indicated or where required to complete installation:
1. Hubs: As required for environment type; sized to accept conduits to be installed.
 2. Integral fuse pullers.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that field measurements are as shown on the drawings.
- B. Verify that the ratings of the enclosed switches are consistent with the indicated requirements.
- C. Verify that mounting surfaces are ready to receive enclosed safety switches.
- D. Verify that conditions are satisfactory for installation prior to starting work.

3.02 INSTALLATION

- A. Install enclosed switches in accordance with manufacturer's instructions.
- B. Install enclosed switches securely, in a neat and workmanlike manner in accordance with NECA 1.
- C. Arrange equipment to provide minimum clearances in accordance with manufacturer's instructions and NFPA 70.
- D. Provide required supports in accordance with Section 260529.
- E. Install enclosed switches plumb.
- F. Except where indicated to be mounted adjacent to the equipment they supply, mount enclosed switches at 5 feet (1600 mm) to the operating handle or such that the highest position of the operating handle does not exceed 79 inches (2000 mm) above the floor or working platform.
- G. Provide grounding and bonding in accordance with Section 260526.
- H. Provide fuses complying with Section 262813 for fusible switches as indicated or as required by equipment manufacturer's recommendations.
- I. Provide identification nameplate for each enclosed switch in accordance with Section 260553.
- J. Provide arc flash warning labels in accordance with NFPA 70.
- K. Apply adhesive tag on inside door of each fused switch indicating NEMA fuse class and size installed.
- L. Provided engraved plastic nameplates on each switch indicating the equipment tag served.

3.03 FIELD QUALITY CONTROL

- A. Inspect and test in accordance with NETA STD ATS, except Section 4.
- B. Correct deficiencies and replace damaged or defective enclosed safety switches or associated components.

3.04 ADJUSTING

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

3.05 CLEANING

- A. Clean dirt and debris from switch enclosures and components according to manufacturer's instructions.
- B. Repair scratched or marred exterior surfaces to match original factory finish.

END OF SECTION 262818

SECTION 263600 - TRANSFER SWITCHES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Automatic Transfer Switch.
- B. Manual Transfer Switch.
- C. Automatic Transfer Switch and Bypass/Isolation Switch.
- D. NETA Testing.

1.02 RELATED REQUIREMENTS

- A. Section 260553 - Identification for Electrical Systems: Identification products and requirements.
- B. Section 263213 - PACKAGED ENGINE GENERATORS: Testing requirements.

1.03 REFERENCE STANDARDS

- A. NEMA ICS 10 - Industrial Control and Systems: AC Transfer Switch Equipment; National Electrical Manufacturers Association; 2005.
- B. NETA STD ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems; International Electrical Testing Association; 2009.
- C. NFPA 70 - National Electrical Code; National Fire Protection Association; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

1.04 SUBMITTALS

- A. Product Data: Provide catalog sheets showing voltage, switch size, ratings and size of switching and overcurrent protective devices, operating logic, short circuit ratings, dimensions, and enclosure details.
- B. Operation Data: Instructions for operating equipment under emergency conditions when engine generator is running.
- C. Maintenance Data: Routine preventative maintenance and lubrication schedule. List special tools, maintenance materials, and replacement parts.
- D. Submittals are reviewed only for general compliance with the Contract Documents. Dimensions, quantities and details are not checked during submittal review. Review of the submittals does not relieve the Contractor of the responsibility for providing all materials, equipment and accessories necessary for a complete and operational system meeting the requirements of the project and the intent of the Contract Documents. The

responsibility for coordination of substituted materials and equipment lies solely with the substituting Contractor.

1.05 QUALITY ASSURANCE

- A. Conform to requirements of NFPA 70.
- B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum five years experience and with service facilities within 100 miles (160 km) of Project.
- C. Supplier Qualifications: Authorized distributor of specified manufacturer with minimum five years experience.
- D. Products: Listed and classified by Underwriters Laboratories Inc. as suitable for the purpose specified and indicated.
- E. Code or utility company requirements shall supersede any conflicting requirements of this section.
- F. Equipment performance and accessories shall be as indicated on the Drawings or specified herein. Inclusion in both locations is not a prerequisite to inclusion in the Contract. Equipment and accessories specified in either location shall be included in the Contract. Provide all necessary accessories and connections as required for a complete, functional system, including all required components reasonably inferred to as necessary although such components may or may not be specifically indicated on the Drawings or within the Specifications.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. ASCO Power Technologies, LP: www.asco.com.
- B. Caterpillar, Inc: www.caterpillar.com.
- C. Cummins Engine Company: www.cummins.com.
- D. Eaton Corporation; Cutler-Hammer Products: www.eaton.com.
- E. Russelectric: www.russelectric.com.
- F. Substitutions: The products of other manufacturers may be submitted, at the Contractor's option, during shop drawing review. The products of other manufacturers shall meet or exceed all requirements of these specifications and all requirements of the project as listed or shown on the Drawings. The Contractor accepts all responsibility for costs and coordination issues arising out of the substitution of materials or equipment, and the coordination of such substitutions with all other contractors and subcontractors.

2.02 AUTOMATIC TRANSFER SWITCH

- A. Description: NEMA ICS 10, automatic transfer switch .
- B. Configuration: Electrically operated, mechanically held transfer switch, 4 pole, open transition unless noted otherwise.
- C. In-Phase Monitor: Inhibit transfer until source and load are synchronized

2.03 AUTOMATIC TRANSFER AND BYPASS/ISOLATION SWITCH

- A. Description: NEMA ICS 10, automatic transfer switch with manual bypass switch.
- B. Configuration: Draw-out type electrically-operated, mechanically-held transfer switch with manually-operated CONNECTED, TEST, AND DISCONNECTED draw-out positions, and with mechanically-operated, mechanically-held transfer switch connected to bypass automatic switch in both NORMAL and EMERGENCY positions. Transfer shall be open transition, 4 pole unless noted otherwise.
- C. Bypass Switch Ratings: Match automatic transfer switch for electrical ratings.
- D. In-Phase Monitor: Inhibit transfer until source and load are synchronized.

2.04 MANUAL TRANSFER SWITCH

- A. Description: NEMA ICS 10, manual transfer switch .
- B. Configuration: Electrically-operated, mechanically-held transfer switch, 4 pole, open transition configuration unless noted otherwise.
- C. Sequence of Operation: Switch position is selected by control switch mounted in switch cover.

2.05 SERVICE CONDITIONS

- A. Service Conditions: NEMA ICS 10.

2.06 COMPONENTS

- A. Indicating Lights: Mount in cover of enclosure to indicate NORMAL SOURCE AVAILABLE, ALTERNATE SOURCE AVAILABLE, and SWITCH POSITION.
- B. Test Switch: Mount in cover of enclosure to simulate failure of normal source.
- C. Return to Normal Switch: Mount in cover of enclosure to initiate manual transfer from alternate source to normal source.
- D. Transfer Switch Auxiliary Contacts: 1 normally open; 1 normally closed.
- E. Normal Source Monitor: Monitor each line of normal source voltage and frequency; initiate transfer when voltage drops below 85 percent or frequency varies more than 3 percent from rated nominal value.

- F. Alternate Source Monitor: Monitor alternate source voltage and frequency; inhibit transfer when voltage is below 85 percent or frequency varies more than 3 percent from rated nominal value.
- G. Switched Neutral: Overlapping contacts.
- H. Enclosure: ICS 10, Type 1, finished with manufacturer's standard enamel.

2.07 AUTOMATIC SEQUENCE OF OPERATION

- A. Initiate Time Delay to Start Alternate Source Engine Generator: Upon initiation by normal source monitor.
- B. Time Delay To Start Alternate Source Engine Generator: 0 to 10 seconds, adjustable.
- C. Initiate Transfer Load to Alternate Source: Upon initiation by normal source monitor and permission by alternate source monitor.
- D. Time Delay Before Transfer to Alternate Power Source: 0 to 300 seconds, adjustable.
- E. Initiate Retransfer Load to Normal Source: Upon permission by normal source monitor.
- F. Time Delay Before Transfer to Normal Power: 0 to 1800 seconds, adjustable; bypass time delay in event of alternate source failure.
- G. Time Delay Before Engine Shut Down: 0 to 30 minutes, adjustable, of unloaded operation.
- H. Engine Exerciser: Start engine every 7 days; run for 30 minutes before shutting down. Bypass exerciser control if normal source fails during exercising period.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surface is suitable for transfer switch installation.

3.02 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Provide engraved plastic nameplates under the provisions of Section 260553.

3.03 FIELD QUALITY CONTROL

- A. Provide the services of the manufacturer's technical representative to check out transfer switch connections and operation and place in service.
- B. Inspect and test in accordance with NETA STD ATS, except Section 4.

3.04 CLOSEOUT ACTIVITIES

- A. Demonstrate operation of transfer switch in bypass, normal, and emergency modes.
- END OF SECTION 263600