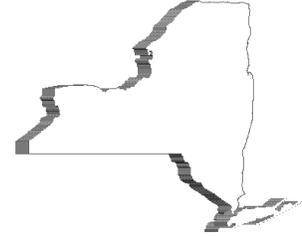




STATE OF NEW YORK
OFFICE OF GENERAL SERVICES
DESIGN AND CONSTRUCTION GROUP
THE GOVERNOR NELSON A. ROCKEFELLER
EMPIRE STATE PLAZA
ALBANY, NY 12242



ADDENDUM No. 4 TO PROJECT No. 44846

**ELECTRICAL WORK
PROVIDE VOIP COMMUNICATIONS
SYSTEM AND ELECTRICAL
INFRASTRUCTURE MODIFICATIONS
HIGHLAND RESIDENTIAL CENTER
629 NORTH CHODIKEE LAKE ROAD
HIGHLAND, NY 12528**

June 09, 2014

NOTE: This Addendum forms a part of the Contract Documents. Insert it in the Project Manual. Acknowledge receipt of this Addendum in the space provided on the Bid Form.

SPECIFICATIONS GROUP

1. SECTION 262416 PANELBOARDS: Add the accompanying section (pages 262416-1 through 262416-3) to the Project Manual.
2. SECTION 260543 UNDERGROUND CONDUIT SYSTEM:
 - a. Page 260543-2, subparagraph 2.01G. Delete 2. For Rigid Nonmetallic Conduit: Conduit manufacturer's standard end bells.
 - b. Page 260543-5, subparagraph 3.02 D. change to read "Concrete Encasement for Rigid Ferrous Metallic Conduit required at all roadway crossing; refer to plans for exact location and quantity".
 - c. Page 260543-5, subparagraph 3.02 D. delete section D.2.

ELECTRICAL DRAWINGS

3. Drawings No. E-701:
 - a. Drawing No. E-701, noted "Revised Drawing 06/06/2014" accompany this Addendum and supersede the same numbered originally issued drawing.

END OF ADDENDUM

Margaret F. Larkin
Acting Executive Director

SECTION 262416

PANELBOARDS

PART 1 GENERAL

1.01 REFERENCES

- A. NEMA, UL.

1.02 SUBMITTALS

- A. Waiver of Submittals: The “Waiver of Certain Submittal Requirements” in Section 013300 does not apply to this Section.
- B. Submittal Packages: Submit the shop drawings, product data, and the quality control submittals specified below at the same time as a package.
- C. Shop Drawings; include the following for each panelboard:
 - 1. Cabinet and gutter size.
 - 2. Voltage and current rating.
 - 3. Panelboard short circuit rating. Indicate if rating is Fully Rated Equipment Rating, or where acceptable, UL listed Integrated Equipment Short Circuit Rating.
 - 4. Circuit breaker enumeration (frame, ATE, poles, I.C.).
 - a. Indicate if circuit breakers are suitable for the panelboards’ Fully Rated Equipment Rating, or where acceptable, are series connected devices that have been test verified and listed with UL (include documentation proving the compatibility of the proposed circuit breaker combinations). Circuit breakers do not have to be listed as series connected devices when all of the circuit breaker interrupting ratings are equal to, or greater than, the short circuit rating of the panelboard.
 - 5. Accessories.
- D. Product Data:
 - 1. Catalog sheets, specifications and installation instructions.
 - 2. Bill of materials.
- E. Contract Closeout Submittals:
 - 1. Operation and Maintenance Data: Deliver 2 copies, covering the installed products, to the Director’s Representative.

PART 2 PRODUCTS

2.01 PANELBOARDS

- A. As produced by Cutler-Hammer/Eaton Corp., Challenger Electrical Equipment Corp. General Electric Co., Siemens/ITE, or Square D Co., having:

1. Flush or surface type cabinets as indicated on the drawings.
2. Increased gutter space for gutter taps, sub-feed wiring, through-feed wiring, oversize lugs.
3. UL label "SUITABLE FOR USE AS SERVICE EQUIPMENT" where used as service equipment.
 - a. Where indicated, equip panelboards used as service equipment with secondary surge arresters; GE's Tranquell Series, Joslyn's Mfr. Co.'s Surge Tec Series, Intermatic Incorp.'s AG2401 or AG6503, Square D Co.'s SDSA 1175 or SDSA 3650, to suit system primary (transformer size, available current) and secondary characteristics.
4. Door and one piece trim. Door fastened to trim with butt or piano hinges. Trim fastened to cabinet with devices having provision for trim adjustment.
5. Yale No. 511S locks with brass cylinder rosette, blind fastened from inside of door. 2 No. 47 keys with each lock (Exception: Not more than 7 keys, total).
6. Solid copper bus bars. Ampere rating of bus bars not less than frame size of main circuit breaker.
7. Full capacity copper neutral bus in panelboards where neutrals are required.
8. Copper equipment grounding bus in panelboards where equipment grounding conductors are required.
9. Sections designated "space" or "provision for future breaker" equipped to accept future circuit breakers.
10. Lock on devices for exit light, fire alarm, stair well circuits.
11. Provisions for padlocking circuit breaker handle in OFF position where indicated.
12. Directory.
13. Short circuit rating not less than indicated on panelboard schedule. Furnish panelboards having Fully Rated Equipment Rating (the short circuit rating of the panelboard is equal to the lowest interrupting rating of any device installed in the panelboard).
14. Molded case, bolt-on circuit breakers:
 - a. Mounting: Individually mounted main circuit breaker (when MCB is required), and group mounted branch/feeder circuit breakers to accommodate the circuit breaker style and panelboard construction.
 - b. Components: See panelboard schedule for specific components required for each circuit breaker. In addition to the specific components, equip each circuit breaker with additional components as required to achieve a coordinated selective scheme between the main circuit breaker and the branch/feeder circuit breakers when indicated on the panelboard schedule that a coordinated selective scheme is required.
 - c. Single pole 15 ATE and 20 ATE circuit breakers marked SWD where used as switches.
 - d. Single pole and two pole 15, 20, and 30 ATE circuit breakers rated for high intensity discharge lighting loads when applicable.

2.02 NAMEPLATES

- A. General: Precision engrave letters and numbers with uniform margins, character size minimum 3/16 inch high.
 - 1. Phenolic: Two color laminated engravers stock, 1/16 inch minimum thickness, machine engraved to expose inner core color (white).
 - 2. Aluminum: Standard aluminum alloy plate stock, minimum .032 inches thick, engraved areas enamel filled or background enameled with natural aluminum engraved characters.
 - 3. Materials for Outdoor Applications: As recommended by nameplate manufacturer to suit environmental conditions.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install panelboards in accordance with NEMA Publication No. PB1.1 "General Instructions for Proper Installation, Operation and Maintenance of Panelboards Rated 600 Volts or Less".
 - 1. Set/program the circuit breakers.
- B. Directory: Indicate on typewritten directory the equipment controlled by each circuit breaker, and size of feeder servicing panelboard. For power panelboards also include ATE rating and feeder size for each breaker.
- C. Identification:
 - 1. Use nameplates, or stencil on front of each panelboard with white paint, "LP-1, PP-1, etc." in 1/2 inch lettering corresponding to panelboard designations on the drawings, and electrical parameters (phase, wire, voltage).
 - 2. Install a nameplate on each panelboard that explains the means of identifying each ungrounded system conductor by phase and system. Examples of nameplate statements:
 - a. Identification of 120/208 Volt Circuit Conductors:
 - 2 wire circuit - white*, black.
 - 3 wire circuit - white*, black, red.
 - 4 wire circuit - white*, black, red, blue.

*White is used only as neutral. Where neutral is not required, black, red, or black, red, blue is used for phase to phase circuits.

END OF SECTION

RACEWAY SCHEDULE					
SYMBOL	TAG	TYPE	DESCRIPTION	INNER-DUCT DESIGNATION	NOTES
ⓧ	S	SECURITY	12 STRAND SINGLE MODE	BLUE	1
ⓧ	FS	SECURITY	FUTURE 12 STRAND SINGLE MODE	BLUE	1
ⓧ	F	FIRE ALARM	FUTURE 12 STRAND MULTI-MODE	RED	1
ⓧ	D	DATA/VOIP/ GRADE	SUBSCRIPT g - 12 STRAND SINGLE MODE SUBSCRIPT b - 48 STRAND SINGLE MODE	ORANGE	1
ⓧ	R	SPARE	RESERVED FOR FUTURE USE	GRAY	1
ⓧ	C	COPPER	SUBSCRIPT e - 25 PAIR SUBSCRIPT f - 50 PAIR SUBSCRIPT h - 100 PAIR SUBSCRIPT i - 200 PAIR	BLACK/GRAY	2

- NOTES:
 1. PROVIDE (3) PULL WIRES IN EACH OF THE INNERDUCTS.
 2. PROVIDE (3) PULL WIRES IN EACH OF CONDUIT.

BORING SCHEDULE	
BORING LOCATIONS	APPROXIMATE DEPTH OF BEDROCK BELOW FINISH GRADE
B1	1'-3"
B2	1'-8"
B3	7'-0"
B4	2'-1"
B5	2'-1"
B6	2'-6"
B7	4'-0"
B8	5'-0"
B11	8'-0"
B12	7'-0"

BORING LOCATIONS AND RESULTS WERE PERFORMED BY AQUIFER DRILLING AND TESTING, INC. AND MONITORED BY C.T. MALE ASSOCIATES, P.C. ON JANUARY 4, 2008. THE RESULTS HAVE BEEN INCLUDED ON THE CONTRACT DRAWINGS FOR REFERENCE ONLY.



ANDREW M. CUOMO
 GOVERNOR
 ROSS M. DESITTO
 COMMISSIONER

CONSULTANT
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111 Warren Circle, PO Box 5289 Albany, NY 12205-0289
 Phone: (518) 434-8500 • www.chaonline.com



2136 Five Mile Line Road, Perinton, NY 14526
 Phone: 585-377-1850 Fax: 585-381-5654

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CONSTRUCTION

TITLE:
 PROVIDE VOIP COMMUNICATIONS SYSTEM AND ELECTRICAL INFRASTRUCTURE MODIFICATIONS

LOCATION:
 HIGHLAND RESIDENTIAL CENTER
 NORTH CHODIKEE LAKE ROAD
 HIGHLAND, NY 12528

CLIENT:
 OFFICE OF CHILDREN AND FAMILY SERVICES

MARK	DATE	DESCRIPTION
	6/6/14	REVISED DRAWINGS
	4/9/14	FINAL BID DOCUMENTS
PROJECT NUMBER:	44846 - E	
DESIGNED BY:	MPI	
DRAWN BY:	DAS	
FIELD CHECK:	-	
APPROVED:	FI	

ELECTRICAL SCHEDULES

DRAWING NUMBER:
 E-701