



DESIGN AND CONSTRUCTION GROUP
THE GOVERNOR NELSON A. ROCKEFELLER
EMPIRE STATE PLAZA
ALBANY, NY 12242

ADDENDUM NO. 1 TO PROJECT NO. 45394

**CONSTRUCTION WORK, HVAC WORK, ELECTRIC WORK
PROVIDE BAR SCREEN, BAR SCREEN BUILDING
MARCY CORRECTIONAL FACILITY
9000 OLD RIVER ROAD
MARCY, NY 13403**

October 11, 2016

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

C-Contract

1. SECTION 015720, SECTION 3.02A: Add "Average daily flow is approximately 363,000 gpd. Peak flow is estimated to be approximately 1,500,000 gpd."
2. SECTION 017329 – Remove paragraph 1.03B.
3. SECTION 087100, 2.04 A1 – Replace "2ea. – Zero 919 STST" with "1ea. Ives 700 full mortise hinge."
4. SECTION 212510, 1.04 A2 – Replace "Six years from date of Substantial Completion" to "Five years".
5. SECTION 333101 – Remove in its entirety.
6. SECTION 461313 – Add SECTION 461313 Parshall Flume, attached
7. SECTION 462116, 2.03A – Add "g. Screen may be provided as non-reversing."
8. SECTION 462116, 2.04A – Add "16. Washer Compactor may be provided as non-reversing."
9. SECTION 462116, 2.05B – Add "10. The panel should be sized and have available card slots, space, power supply, and ancillary equipment to connect the future equipment within the same Common Control Panel.

10. SECTION 462116, 2.05B4 – Add after the second sentence “A main control panel fused disconnect switch with through-the-door handle is acceptable.”

E-Contract

1. ADD “SECTION 261219 – TRANSFORMERS-PAD MOUNTED” attached.

DRAWINGS**C-Contract**

1. SHEET C-102 – Contract Limit line to extend 25-feet either side of the proposed 2” dia. water service line.
2. SHEET A-001, DOOR SCHEDULE: Replace 10’-8” wide door with 10’ wide door.
3. SHEET A-101, FLOOR PLAN 1: Replace “FRP Railing” with “Aluminum Railing.”
4. SHEET A-102, DETAIL 5, NOTE: “2-1/2x3-1/2 LLV Galv. Steel Angle at Perimeter of building Angle at the perimeter of the building” Add: “Attach angle to wall with 1/4” diameter x 1-1/2” L Tapcon masonry anchors at 3’-0” O.C. The angle shall be 3/16” thick”.
5. SHEET S-102 –PLAN 3: Replace L-2 with L-1 at the entry door to the control room.
6. SHEET S-106, DRAWING NOTES 1: Replace “new, unused” with “new or used in good condition”

E-Contract

1. SHEET E-002 – KEY NOTES: In note No. 2 replace “feeder PF-2 will be energized” with “feeder PF-2 must remain energized”.

CLARIFICATIONS RESULTING FROM BIDDERS QUESTIONS**SPECIFICATIONS****C-Contract**

1. SECTION 462116, 2.05C4- The “PCS” refers to the “Process Control System” which consists of the PLC and OIT systems working together
2. SECTION 462116, 2.02 A Channel Width clarification - The channel dimension is 3’-0”, a frame filler plate is required for the bottom 6’-0’ of the channel wall, depicted on Section 1 of M-100.
3. SECTION 462116, 2.02 A lists the channel depth as 192” but Drawing M-100 dimension is 195.6” based on top channel EL of 517.00 and bottom channel EL of 500.7. – Clarification: Finished Floor elevation is 517.0’. Top of footing elevation is 500.0’ Floor is grouted up to the 500.7’ elevation for a channel depth of 195.6’.

DRAWINGS

C-Contract

1. A driveway permit has been applied for with the Oneida County Department of Public Works. The contractor shall be required to post a \$5000 bond prior to receiving the permit as stated in general note 5 on sheet G-101.
2. SHEET S102 - The 9' removable grating section indicated on the floor plan should be supported by embedded angles like the rest of the grating.

END OF ADDENDUM

Margaret F. Larkin
Executive Director
Design and Construction

SECTION 461313

PARSHALL FLUMES

PART 1 GENERAL

1.01 SUMMARY

- A. This Section includes all Parshall Flumes required for the complete installation of the work.

1.02 REFERENCES

- A. Design, fabricate and Parshall Flumes and materials in accordance with manufacturer's recommended procedures and the following codes and standards:
 - 1. ASTM A193 Stainless Steel Anchor Bolts
 - 2. ASTM D256 Izod Impact Strength
 - 3. ASTM D570 Water Absorption Rate
 - 4. ASTM D638 Tensile Strength
 - 5. ASTM D695 Compressive Properties of Rigid Plastic
 - 6. ASTM D696 Coefficient of Linear Expansion
 - 7. ASTM D790 Flexural Properties
 - 8. ASTM D792 Density and Specific Gravity at 23⁰C
 - 9. ASTM D1056 Polymer Grade
 - 10. ASTM D2593 Indention Hardness
 - 11. ASTM D2584 Resin, Glass & Filler Content
 - 12. ISO1438/1-1980 Open Channel Flow Measurement
- B. Composition of the Parshall Flume laminate shall be in accordance with the recommendations shown in the Quality Assurance Report for Reinforced Thermoset Plastic (RTP) Corrosion Resistant Equipment prepared under the sponsorship of the Society of the Plastics Industry, Inc. (SPI), and the Material Technology Institute (MTI) of the Chemical Process Industry for "Hand Lay-UP Laminates," and shall meet the specifications for Type I, Grade 10 laminates shown in Appendix M-1 of said report.
- C. Manufacturer shall be experienced in the design and manufacture of specific Parshall Flumes and accessories for a minimum period of 20 years.
- D. Manufacturer must provide warranty for 25 years against corrosion.

1.03 SUBMITTALS

- A. Submit the following for acceptance:
 - 1. Approval Drawings
 - a. Showing all critical dimensions.
 - b. Showing principal parts and materials.
 - 2. Spare parts list (when applicable).

1.04 DELIVERY, STORAGE AND HANDLING

- A. Ship all Parshall Flumes with suitable packaging to protect products from damage.
- B. Protect flume flanges, tabs and accessories from damage.
- C. The flume shall be stored on a smooth flat surface, free of sharp objects, and if laid horizontally, shall be placed in such a way as to avoid structural damage.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Flume body shall be:
 - 1. Engineered composite fiberglass reinforced plastic (FRP).
 - a. Molded in one piece to create a seamless corrosion barrier impervious to moisture.
 - b. FRP resin shall be polyester / vinyl ester.
 - 2. Flume Hardware: T-316L stainless steel.

2.02 PARSHALL FLUMES

- A. Acceptable Manufacturers:
 - 1. Plasti-Fab Inc. or approved equal.
 - 2. The flume fabrication, engineering and customer support shall all be provided by the same company.

2.03 DESIGN CRITERIA

- A. Flume shall be dimensioned and shaped according to Dr. Ralph L. Parshall's design
- B. Composition of the Flume laminate shall be in accordance with the recommendations shown in the Quality Assurance Report for Reinforced Thermostat Plastic (RTP) Corrosion Resistant Equipment prepared under the sponsorship the Society of the Plastics Industry, Inc. (SPI) and the Material Technology Institute of the Chemical Process Industries, Inc. (MTI) for "Hand Lay-up Laminates" and shall meet the specifications for Type 1, Grade 10 laminates shown in Appendix M-1 of said report.
 - 1. Visual inspection for defects shall be made without the aid of magnification and defects shall be classified as to type and level as shown in Table 1 of ANSI/ASTM D2563-0, approved 1977, (or any subsequent revision). Allowable surface tolerances are as follows:

DEFECTS	ALLOWABLE TOLERANCE
Cracks Crazing Blisters Chips Pits Dry Spots Fish Eyes Burned Areas Entrapped Air	None
Wrinkles and solid blisters, not to exceed 1/8"	Maximum Deviation: 10% of thickness
Surface porosity (pinholes or pores in the laminate surface)	None
Exposed Glass Exposure of cut edges	None
Scratches	None more than .002" deep (.05mm)
Foreign Matter	None

C. Maximum Fiber Stress

1. Ultimate or yield, whichever applies, does not exceed 2.5 times the working stress.

2.04 CONSTRUCTION

A. Flume

1. Flume throat size shall be 6 inch.
2. Parshall Flume body shall be totally manufactured of fiberglass reinforced polyester.
3. Each Flume shall be molded individually to the exact dimensions specified.
4. The thickness of the walls and floor of the flume shall be not less than ¼" (6mm) thick.
5. Flumes shall be manufactured of reinforced thermoset plastic.
6. Flume shall have UV Stabilizing pigment in the Resin to provide long-term protection from UV.
7. Flume inside surface shall be smooth, isophthalic gelcoat of 10 - 20 mil (0.25 - 0.51mm) thickness.
8. The surface shall be free of exposed reinforcing fibers.
9. The minimum glass content shall be 30% exclusive of gelcoat surfaces.
10. The flume shall be reinforced with box section stiffeners down the sides and across the bottom.
11. The stiffeners shall be joined at the knee to form a rigid dimensionally stable flume.

12. Reinforcing shall be designed to provide structural support throughout the length and width of the flume floor.
 13. Flume shall be structurally designed to maintain dimensional integrity with a full head of water while being free standing.
 14. Flume shall have a molded-in head gage with dual graduation in inches / feet and GPM / MGD / CFS.
- B. Accessories (add new, and/or delete unwanted items)
1. Wingwalls.
 2. T-304 adjustable stainless steel ultrasonic mounting bracket.
 3. Neoprene boots with stainless steel bands for connection to existing pipe.

2.04 PHYSICAL PROPERTIES

- A. Structural characteristics for a 1/8" (3mm) glass mat laminate shall meet the following minimum physical properties:

Tensile strength	15,000 psi (1034 ksc)
Flexural Modulus	1,000,000 psi (70307 ksc)
Flexural Strength	20,000 psi (1406 ksc)
Compressive Strength	22,000 psi (1547 ksc)
Impact Strength	9.0 ft-lbs/in. (1.24 kgf.m/25mm)
Water absorption	0.13% (in 24 hours)

2.05 DIMENSIONS

- A. The flume shall conform to the physical dimensions listed in Figure 19 of the U.S. Department of Interior, Water Measurement Manual, latest edition. Dimensional tolerances for large flumes shall be plus or minus 1/8" (3mm) maximum in the throat, and plus or minus 1/4" (6mm) maximum elsewhere

PART 3 EXECUTION

3.01 INSTALLATION

- A. Verify that dimensions are correct and project conditions are suitable for installation. Do not proceed with installation until unsatisfactory conditions have been corrected.
- B. Thoroughly clean and remove all shipping materials prior to setting.
- C. Install products in accordance with plans, general comments below and the Manufacturer's recommendations.
- D. Care shall be taken in the handling, storage and placement of the flume in preparation for installation. The top spreaders shall be left on the flume until after installation is complete. They may be removed after the grout has cured if desired.
- E. The flume shall be installed level end-to-end and side-to-side, and must remain level throughout installation. Flume assembly should be set into a pre-poured block-out / channel.

- F. The contractor shall provide sufficient shoring and bracing of the floor and sidewalls to prevent lifting, floating, buckling or bulging of the sides and bottom during installation. The side locking clips are not intended to be used as anchorage points. Their function is to key the flume into the grout or concrete.
- G. Concrete shall be poured in successive lifts of not more than 6" - 8"(152-203mm) per lift. Extra care shall be exercised during the first pour to insure that grout flows smoothly under the floor, and an even fill is achieved. The first lift shall be allowed to set so that excessive hydraulic forces are not transferred to the bottom of the flume by later lifts.

3.02 ADJUSTMENT AND START UP

- A. Check flume for being level both directions, meeting dimensional requirements and cleaned per manufacture's instructions.
- B. Site to be left clean and free of any debris.
- C. Representative shall complete a Certification of Proper Installation and provide copies to the Owner, Engineer, Contractor and Manufacturing Facility.

3.03 FIELD TESTING

- A. Qualified Factory representative shall provide (8) hours of training for facility employees.
- B. Representative shall complete a Certification of Proper Installation and provide copies to the Owner, Engineer, Contractor and Manufacturing Facility.

END OF SECTION

SECTION 261219

TRANSFORMERS - PAD MOUNTED

PART 1 GENERAL

1.01 REFERENCES

- A. NEMA, ANSI/IEEE.

1.02 SUBMITTALS

- A. Waiver of Submittals: The “Waiver of Certain Submittal Requirements” in Section 013300 does not apply to this Section.
- B. Submittals Package:
 - 1. For Transformers Rated over 75KVA: Submit the product data, and quality control submittals preliminary data specified below at the same time as a package.
- C. Product Data:
 - 1. Catalog sheets, specifications and installation instructions.
 - 2. Proof that enclosure integrity and finish meets latest specified ANSI C57.12.28, or C57.12.2.
- D. Quality Control Submittals:
 - 1. Transformers Rated Over 75KVA:
 - a. Preliminary Data: Submit certified report of the Company’s standard tests for each type transformer. Test report format shall be NEMA “Transformer Test Report”.
 - b. Final Approval: After approval of preliminary data and after construction of transformers, make routine commercial ANSI/IEEE tests at the factory on the actual transformers and submit certified test reports. Test report format shall be NEMA “Transformer Test Report”.
- E. Contract Closeout Submittals:
 - 1. Operation and Maintenance Data: Deliver 2 copies, covering the installed products, to the Director’s Representative.

1.03 QUALITY ASSURANCE

- A. Equipment Qualifications For Products Other Than Those Specified:
 - 1. At the time of submission provide written notice to the Director of the intent to propose an “or equal” for products other than those specified. Make the “or equal” submission in a timely manner to allow the Director sufficient time to review the proposed product, perform inspections and witness test demonstrations.

2. If products other than those specified are proposed for use furnish the name, address, and telephone numbers of at least 5 comparable installations that can prove the proposed products have performed satisfactorily for 3 years. Certify in writing that the owners of the 5 comparable installations will allow inspection of their installation by the Director's Representative and the Company Field Advisor.
 - a. Make arrangements with the owners of 2 installations (selected by the Director) for inspection of the installations by the Director's Representative. Also obtain the services of the Company Field Advisor for the proposed products to be present. Notify the Director a minimum of 3 weeks prior to the availability of the installations for the inspection, and provide at least one alternative date for each inspection.
 - b. Only references from the actual owner or owner's representative (Security Supervisor, Maintenance Supervisor, etc.) will be accepted. References from dealers, system installers or others, who are not the actual owners of the proposed products, are not acceptable.
 - 1) Verify the accuracy of all references submitted prior to submission and certify in writing that the accuracy of the information has been confirmed.
3. The product manufacturer shall have test facilities available that can demonstrate that the proposed products meet the contract requirements.
 - a. Make arrangements with the test facility for the Director's Representative to witness test demonstrations. Also obtain the services of the Company Field Advisor for the proposed product to be present at the test facility. Notify the Director a minimum of 3 weeks prior to the availability of the test facility, and provide at least one alternative date for the testing.
4. Provide written certification from the manufacturer that the proposed products are compatible for use with all other equipment proposed for use for this system and meet all contract requirements.

PART 2 PRODUCTS

2.01 THREE PHASE COMPARTMENTAL PAD MOUNTED TRANSFORMERS

- A. ABB Power T & D Company Inc.'s MTR or Plazapad, Alstom USA/Balteau's Three Phase Compartmental Padmount Transformers, Cooper Power Systems' Three Phase Compartmental Transformers, General Electric Co.'s Compad, Niagara Transformer Corp.'s OAPTD, or Square D Co.'s Three Phase Compartmental Transformers:
 1. Cooling liquid, transformer mineral oil as recommended by the transformer Company.
 2. Average winding temperature rise not exceeding 65 degrees C.
 3. Minimum of two 2-1/2 percent FCAN and two 2-1/2 percent FCBN primary taps.
 4. Externally operated tap changer for operation when the transformer is de-energized.

5. Four or five-legged core/coil construction.
6. Live front construction.
7. Enclosure Integrity: ANSI C57.12.28 1999 Pad Mounted Equipment-Enclosure Integrity.
8. Accessories and operating procedure which will allow access to the high-voltage compartment only after the door to the low-voltage compartment has been opened:
 - a. Accessories:
 - 1) Door handle and three-point latching mechanism for low-voltage compartment door. Equip door handle with locking device that includes provision for securing door handle with padlock. Padlock: Yale/Scovill 7300 Series with hardened steel triple plated shackle, 8 inch brass chain, two No. 47 keys with each padlock.
 - 2) One or more captive and recessed pentahead bolts for additional security of the low-voltage compartment door.
 - 3) Key interlock between transformer low-voltage compartment door and pad mounted high voltage switch and fuse assembly so that transformer door cannot be opened unless the high voltage switch is in the open position (both switches if dual radial primary feeder). Match key interlock supplied with high voltage switch. Flush mount key interlock. Padlock type key interlocks are not acceptable.
 - 4) Internal locking device for high-voltage compartment door, which is accessible only after low-voltage compartment door is opened.
 - b. Procedure:
 - 1) Remove padlock securing low-voltage compartment door handle.
 - 2) Release pentahead bolts.
 - 3) Obtain key from key interlock provided on the pad mounted high voltage switch and fuse assembly serving the transformer. (High voltage switch must be in the open position before the key can be removed).
 - 4) Insert key into key interlock on transformer low-voltage compartment door and release key interlock.
 - 5) Operate door handle to unlatch and open low-voltage compartment door.
 - 6) Release internal locking device that allows high-voltage compartment door to be opened.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install transformers on concrete pad.

END OF SECTION