



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. 44190

**CONSTRUCTION WORK, HVAC WORK, PLUMBING WORK, AND ELECTRICAL WORK
PROVIDE FIELD OPERATIONS BUILDING
STATE PREPAREDNESS TRAINING CENTER
5900 AIRPORT ROAD
ORISKANY, NY 13424**

December 28, 2011

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.

CONSTRUCTION WORK SPECIFICATIONS

1. DOCUMENT 004113 BID FORM: Change “Electrical Work” In Project Title to read “Construction Work”.
2. SECTION 412223 HOISTS: Add the attached Section (pages 412223-1 thru 412223-2) to the Project Manual.
3. SECTION 040513 MORTAR AND MASONRY GROUT: Delete the Section bound in Project Manual and substitute the attached Section (pages 040513-1 thru 040513-2) dated “REVISED 12/28/11”.
4. SECTION 042113 BRICK MASONRY: Delete the Section bound in Project Manual and substitute the attached Section (pages 042113-1 thru 042113-8) dated “REVISED 12/28/11”.

HVAC WORK SPECIFICATIONS

5. Page 230923-40, Change Sub-paragraph 3.03 A.6. to Read: “The system-wide outdoor air temperature and outdoor air humidity signals shall each consist of the average of 4 sensors. The sensors shall be located in each of RTUs.”

PLUMBING WORK SPECIFICATIONS

6. DOCUMENT 212100 FM-200 FIRE EXTINGUISHING SYSTEM: Change all references to Standard “NFPA-12A”, to “NFPA-2001 (Clean Agent Installation Standard)” throughout the section.
7. Page 212100-2, Paragraph 2.03 H.: Delete this Paragraph in its entirety.

8. Page 212100-3, Change Sub-paragraph 3.02 A.2. to Read: "Provide a room integrity test as required by NFPA 2001 and as described in NFPA 2001 Annex C. Test shall be witness by the Director's Representative."

ELECTRIC WORK SPECIFICATIONS

9. Page 262726-4, Add the following Article to PART 2 PRODUCTS:

"2.05 CORD REEL

- A. Industrial type cord reel with (2) duplex outlets in HBLPOB1D box. Cable to be 12/3 SJE0, 45 feet in length. Housing constructed of steel with powder coat finish. Multi-position nylon rollers on guide arm. Must be capable of mounting on ceiling, wall, floor, or bench. Positive latch mechanism.
- B. Design Make: Hubbell #HBL45123R or approved equal."

10. Page 271300-13, Delete Paragraph 3.02 I. in its entirety.

CONSTRUCTION WORK DRAWINGS

11. Revised Drawings:
 - a. Drawing No. C-502 noted "REVISED DRAWING 12/15/11" accompanies this Addendum and supersedes the same numbered originally issued drawing.

PLUMBING WORK DRAWINGS

12. Revised Drawings:
 - a. Drawing No. P-101 and P-102 noted "REVISED DRAWING 12/28/11" accompanies this Addendum and supersedes the same numbered originally issued drawings.

ELECTRICAL WORK DRAWINGS

13. Drawing No. E-001, Diagram 1/E-001, POWER ONE LINE DIAGRAM: Change "5-500 KCM" to read "4-500 KCM" at all locations, including feeds from transformer to main breaker, main breaker to transfer switch, and from transfer switch to generator and main panel.
14. Drawing No. E-001, General Installation Notes: Delete note H in its entirety.
15. Drawing No. E-101, ELECTRONIC EQUIPMENT SCHEDULE:
 - a. Add the following to Note #3: "All 120V and 208V wiring is by Electric Contractor. All low voltage control wiring for mechanical equipment is by the Mechanical Contractor."

END OF ADDENDUM

James Dirolf, P.E.
Director of Design

SECTION 412223

HOISTS

PART 1 - GENERAL

1.01 RELATED WORK SPECIFIED ELSEWHERE

- A. Structural Steel Supports: Section 051200.

1.02 SUBMITTALS

- A. Product Data: Submit manufacturer's technical data, maintenance data and installation instructions.

1.03 WARRANTY

- A. Manufacturer's Warranty: Two-year warranty on hoist and trolley.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Hoist and Trolley:
 1. Columbus McKinnon Corporation, 140 John James Audobon Parkway, Amherst, NY 14228, (800) 888-0985, www.cmworks.com
 2. Harrington Hoists, Inc., 401 West End Ave., Manheim, PA 17545, (800) 233-3010, www.harringtonhoists.com.
 3. Milwaukee Crane and Hoist Corporation, 10250 SW North Dakota Street, Tigard, OR 97223, (800) 869-8091, www.milwaukeecrane.com.
- B. Hoist and trolley shall be from the same manufacturer.

2.02 ELECTRIC CHAIN HOIST

- A. Provide electric chain hoist with manufacturer's standard aluminum housing.
 1. Capacity: 1 ton.
 2. Suspension: Hook.
 3. Height: 14'-0".
 4. Hoist Speed: single speed, 15 fpm.
 5. Voltage: 208V 3Ph 60hz
 6. Load Sheave: 5-Pocket
- B. Type: Coffing Model JLC-2016 by Columbus McKinnon Corp.
- C. Materials
 1. Hook: Forged steel
 2. Hoist body: Pressure-cast aluminum

- D. Controller:
 - 1. Provide 24V pushbutton controller with NEMA 3R housing
 - 2. Provide cord drop to within 48" of finished floor surface

2.03 TROLLEY

- A. Type: Coffing model CTA Plain Trolley by Columbus McKinnon Corp.
- B. Style: Hook mount
- C. Operation: Manual.

PART 3 - EXECUTION

3.01 INSTALLATION:

- A. Inspect system for conformance with reviewed shop drawings and contract documents prior to installation of equipment.
- B. Provide all necessary accessories to make the system complete, usable, and capable of meeting the operating requirements specified.

3.02 ADJUSTING AND CLEANING:

- A. All hoist equipment shall be operated through a complete lift and lowering cycle to determine that the equipment shall perform smoothly and safely. Any defects shall be corrected by the hoist provider without any expense to the Owner.
- B. Clean all exposed surfaces after removing protective coatings.

END OF SECTION

SECTION 040513

MORTAR AND MASONRY GROUT

PART 1 GENERAL

1.01 REFERENCES

- A. Standards:
 - 1. Mortar: ASTM C 270, except as otherwise specified.
 - 2. Grout: ASTM C 476.

1.02 SUBMITTALS

- A. Product Data:
 - 1. Portland Cement: Brand and manufacturer's name.
 - 2. Masonry Cement: Brand and manufacturer's name.
 - 3. Lime: Brand and manufacturer's name.
 - 4. Sand(s): Location of pit, name of owner, and previous test data.
 - 5. Color Pigments: Brand and manufacturer's name.

1.03 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle materials in a manner which will insure the preservation of their quality and fitness for the Work.
- B. Store cement and lime on raised platforms under waterproof, well ventilated cover.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Cement: One of the following complying with the indicated requirements:
 - 1. Portland Cement: ASTM C 150, Type 1, of natural color or white as required to produce the desired color.
 - 2. Masonry Cement: ASTM C 91, of natural color or custom color as required to produce the desired color.
- B. Hydrated Lime: ASTM C 207, Type S.
- C. Mortar Sand: ASTM C 144, except that for joints less than 1/4 inch thick use sand graded with 100 percent passing the No. 16 sieve.
- D. Grout Sand: ASTM C 404.
- E. Color Pigments: High purity, finely ground, chemically inert, unfading, lime proof mineral oxides specially prepared for use in mortar.

- F. Water: Clean and free of deleterious amounts of acids, alkalis, and organic materials.

2.02 MIXES

- A. Mortar for Unit Masonry: Comply with ASTM C 270, proportion specifications, except limit materials to those specified.
 - 1. Colored Mortar: Proportion color pigments with other ingredients as necessary to match required color, except limit pigments other than carbon black to a maximum of 10 percent of cement content by weight and limit carbon black to a maximum of 3 percent of cement content by weight.
- B. Grout: Comply with ASTM C 476. If grout types are not indicated on Drawings, furnish type (fine or coarse) most suitable for the particular job conditions to completely fill cavities and embed reinforcement and other built-in items.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Refer to sections of Specifications which require mortar and masonry grout.

3.02 MORTAR SCHEDULE

- A. Where mortar types are not indicated on Drawings or specified, use types as follows:
 - 1. Type M for unit masonry below grade in contact with fill materials.
 - 2. Type S for concrete masonry units.
 - 3. Type N for brick masonry units.
 - a. Proportion Portland cement, lime, and sand in a 1:1:6 ratio.

END OF SECTION

SECTION 042113

BRICK MASONRY

PART 1 GENERAL

1.01 RELATED WORK SPECIFIED ELSEWHERE

- B. Mortar: Section 040513.
- C. Concrete Unit Masonry: Section 042200.
- D. Built-In Flashings: Section 076000.

1.02 SUBMITTALS

- A. Product Data:
 - 1. Facing Brick
 - 2. Reinforcement and Accessories
 - 3. Air Vent / Weep Vent.
 - 4. Cavity Wall Mortar Net.
- B. Shop Drawings:
 - 1. Precast sills.
- C. Samples:
 - 1. Facing Brick: 25, each type, showing full range of color and texture.
 - 2. Precast Sill: 6 inch long section of complete sill.
 - 3. Accessories: Each item specified, full size or 24 inch long sections as applicable.
- D. Quality Control Submittals:
 - 1. Test Reports: At the written request of the Director, submit certified test reports for each type of brick specified as follows:
 - a. Compressive strength.
 - b. Twenty-four hour cold water absorption.
 - c. Five hour boiling water absorption.
 - d. Saturation coefficient.
 - e. Initial rate of absorption (suction).

1.03 QUALITY ASSURANCE

- A. Field Examples:
 - 1. Prior to installation of brick masonry, construct a sample stud/brick masonry wall panel at the Site.
 - 2. Build panel 4 feet long by 3 feet high by full wall thickness, with materials, bond, joints, accessories, and back-up steel studs required for the Work.

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4. Do not start brick masonry until a sample panel has been approved by the Director's Representative.
5. Approved panel will be the standard of workmanship required for all masonry built of the same materials. Failure to maintain this standard will be cause for rejection of the masonry.
6. Maintain approved panel intact until all brick masonry has been installed and approved; then remove panel from the Site.

1.04 DELIVERY, STORAGE AND HANDLING

- A. Deliver brick for use in exposed Work on pallets. Handle by mechanical means, by hand or tongs. Dumping will not be permitted.
- B. Store brick off the ground to prevent contamination by mud, dust or other materials likely to cause staining or other defects.
- C. Cover brick, when necessary, to protect from the elements.
- D. Protect accessories from the elements.

1.05 PROJECT CONDITIONS

- A. Environmental Requirements; Cold Weather Conditions:
 1. At temperatures below 40 degrees F, maintain mortar temperature between 40 degrees F and 120 degrees F. If necessary, heat mixing water and sand to produce the required results.
 2. At temperatures between 40 degrees F and 32 degrees F, protect masonry from rain and snow for 24 hours after laying.
 3. At temperatures between 32 degrees F and 20 degrees F, provide wind breaks and cover the masonry to prevent wetting and freezing. Maintain masonry above freezing for not less than 24 hours using auxiliary heat or insulating blankets.
 4. At temperatures below 20 degrees F, provide heated enclosures for laying the masonry. At the end of the workday, maintain the enclosures and keep the Work from freezing for not less than 24 hours.
 5. Do not lower freezing point of mortar by use of antifreeze, calcium chloride or other additives.
 6. Do not use frozen materials or materials coated with ice or frost.

PART 2 PRODUCTS

2.01 FACING BRICK

- A. Facing Brick (Exterior): ASTM C 216, Grade SW, Type FBS.
 1. Size, Color, and Texture: Closure modular, nominal 8" x 4" x 4" (actual 7 5/8" x 3 5/8" x 3 5/8"). Matt Bedford Type 3 by Watsontown Brick Co.

- C. Option: Facing brick may be either cored or solid except that only solid brick shall be used for corbeling and where cores would be exposed to view. If cored brick are furnished, core holes shall be not less than 3/4 inch from any edge and no more than 25 percent of the gross area of the brick.

2.02 AIR VENTS, WEEP VENTS, AND CAVITY WALL NET

- A. Air Vents: Flexible ultra violet resistant polypropylene co-polymer DA1006 Cell Vent by Dur-O-Wal Inc., 7777 Washington Village Dr., Ste. 130, Dayton, OH 45459, (888) 977.9600, www.dur-o-wal.com..
 - 1. Size: Height 2-1/2 inch maximum except as indicated otherwise, by full width of brick.
 - 2. Color: To match mortar color.
- B. Weep Vents: Flexible ultra violet stable recycled polyester mesh, rectangular shape by Mortar Net USA Ltd, 541 S. Lake St., Gary, IN 46403, (800) 664-6638, www.mortarnet.com, CavClear Weep Vents by Archovations, Inc., PO Box 241, Hudson, WI 54016, (888) 436-2620, www.cavclear.com.
 - 1. Size: Height 2-1/2 inch maximum except as indicated otherwise, by full width of Brick.
 - 2. Color: To match mortar color.
- C. Cavity Wall Mortar Net: Lightweight polyethylene, 90 percent open woven mesh by Mortar Net USA Ltd, 541 South Lake Street, Gary, IN 46403, (800) -664-6638, www.mortarnet.com. or CavClear Masonry Mat by Archovations, Inc., PO Box 241, Hudson, WI 54016, (888) 436-2620, www.cavclear.com.
 - 1. Size: Height 10 inches, thickness as required to fill cavity.

2.03 ACCESSORIES

- A. Masonry Wall Reinforcement: Joint reinforcement factory fabricated from cold-drawn steel wire, ASTM A 82, truss or ladder design, with 9 gage deformed steel wire longitudinal rods welded to 9 gage steel wire cross ties spaced 16 inches oc; width 1-1/2 to 2 inches less than total wall thickness. Furnish factory fabricated corner and tee sections for corners and wall intersections.
 - 1. Finish for Exterior Walls: 1.5 oz per sq ft hot dipped galvanized after fabrication, ASTM A 153, Class B-2.
 - 2. Finish for Interior Walls: 0.8 oz per sq ft mill galvanized, ASTM A 641, Class 3, except interior walls exposed to moist environment shall have finish specified for exterior walls.
 - 3. Cavity Wall Construction: Ladder design fabricated with drip notch in cross ties centered over cavity.
 - 4. For walls with concrete masonry unit back-up wythe, reinforcement shall have a third longitudinal rod located for proper embedment at internal face shell of concrete masonry units.
 - 5. Provide units with adjustable 2 piece rectangular ties where horizontal joints of facing wythe do not align with those of back-up.
- B. Adjustable Wall Ties: 3/16 inch diameter cold-drawn steel wire, ASTM A 82; 2 piece construction consisting of pintle section with 2 legs and corresponding eye

section. Maximum clearance between connecting parts shall be 1/16 inch. Wall tie shall be of size for at least 1-1/2 inch embedment into the mortar bed of solid masonry units.

1. Finish for Exterior Walls: 1.5 oz per sq ft hot dipped galvanized after fabrication, ASTM A 153, Class B-2.
 2. Finish for Interior Walls: 0.8 oz per sq ft mill galvanized, ASTM A 641, Class 3, except interior walls exposed to moist environment shall have finish specified for exterior walls.
 3. For solid masonry wythes, provide z-shaped ties.
 4. For composite wythes (face brick with hollow concrete masonry backing), provide rectangular shaped ties.
- C. Flexible Anchors: 1.5 oz per sq ft hot dipped galvanized steel anchors which will permit horizontal and vertical movement of masonry but will maintain lateral restraint, and as follows:
1. For Anchorage To Steel Framework: 2 piece anchors with crimped 1/4 inch diameter bar for welding to steel and rectangular or vee-shaped 3/16 inch diameter wire tie section sized to extend to within one inch of face of masonry.

2.04 SEISMIC MASONRY ANCHORING SYSTEM

A. Where indicated on the drawings, provide seismic interlock tie system including the following components:

1. Continuous 9 gauge stainless steel wire reinforcing in brick mortar joint.
2. PVC extrusion with grooved base and retaining ridges to accept horizontal wire reinforcing and masonry wire ties. Hohmann and Barnard Seismiclip #250.
3. 1/4" diameter stainless steel wire ties, v-shaped ties with overlapping horizontal legs snapped into PVC seismiclip and hooked to backup anchors. Hohmann and Barnard Stainless Steel Byna-Tie, 1/4" diameter, length as required for various cavity widths, with cavity drip shape.
4. Anchoring system: Hohmann and Barnard DW-10-X stainless steel anchor with pronged legs to penetrate 5/8" sheathing for metal stud backup wall, or 2" rigid insulation at cmu backup wall, with ends of prongs abutting steel stud or cmu wall. Fasten each anchor with 2 stainless steel fasteners: 1/4" diameter expansion bolts at cmu backup; 1/4" diameter self drill/self tap screws at metal stud backup. Install continuous vertical 2 1/2" wide adhesive backed 40 mil thick polyurethane air and vapor membrane behind vertical rows of anchors: Hohmann and Barnard "Textro Seal".

2.05 CLEANING AGENTS

- A. Powder:
1. Trisodium phosphate.
 2. Detergent, biodegradable type.
- B. Liquid: Green Clean-100 by L&W Stone Corp., 1036 South St., Orland, CA 95963, (800)-346-9739, www.lwstonecorp.com or; "Clean As You Go" by

Diedtech Technologies, Inc., 7373 S. 6th St., Oak Creek, WI 53154, (800) 323-3565, www.diedrichtechnologies.com.

2.06 SOURCE QUALITY CONTROL

- A. Brick Tests: Test brick in accordance with ASTM C 67. Have tests performed by a qualified independent testing laboratory.

PART 3 EXECUTION

3.01 PREPARATION

- A. Wetting Brick:
 - 1. Wet brick that absorb 20 drops of water (placed in a one inch circle) in less than 90 seconds.
 - 2. One day before use of brick (or several hours in extremely warm weather), play a waterhose on the brick pile until excess water runs off. Allow brick surfaces to dry before use.
- B. Clean loose and foreign materials off supporting surfaces just prior to laying brick.
- C. Protection:
 - 1. Protect face materials against staining.
 - 2. Remove misplaced mortar immediately.
 - 3. Protect sills, ledges, off-sets, and similar items from mortar drippings and other damage during construction.
 - 4. Protect newly laid masonry from exposure to precipitation, excessive drying, freezing, soiling, and other harmful elements.
 - 5. Cover top of walls with non-staining waterproof covering when Work is not in progress. Place with minimum 2 foot overhang of protective covering on each side of wall and securely anchor.

3.02 INSTALLATION

- A. General:
 - 1. Pattern Bond:
 - a. Lay exposed brick in running bond, unless otherwise indicated.
 - b. Bond unexposed brick by lapping units at least 2 inches.
 - 2. Joining of Work:
 - a. When a run of brickwork cannot be completed by the end of the day, stop off horizontal run of brickwork by racking back 1/2 length of unit in each course.
 - b. Tothing is not permitted unless approved in writing by the Director's Representative.
 - c. Where fresh brickwork joins set brickwork, remove loose brick and mortar. Clean and lightly wet exposed bond surfaces of set brickwork.
 - 3. Cutting Brick: Cut exposed brick with a motor-driven saw or by other methods which provide straight and true cuts.

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4. Mortar Joint Thickness:
 - a. Lay brick with 3/8 inch joints.
 5. Joint Tooling:
 - a. Tool exposed joints when "thumb-print" hard with a rounded jointer which is slightly larger than thickness of joint.
 - b. Trowel-point or concave-tool exterior joints below grade.
 6. Movement Joints:
 - a. Install expansion joints and control joints as required by the Drawings.
 - b. Keep joints free of mortar and debris.
 - c. Do not bridge expansion joints and control joints in wall system with reinforcement, anchors or ties.
 7. Sealant Recesses:
 - a. Unless otherwise shown on the Drawings, leave 3/4 inch deep by 1/4 inch wide open joints around outside perimeters of exterior door frames, window frames, and other framed wall openings.
 8. Weep Holes:
 - a. Form weep holes in mortar joints of exterior wythe of cavity walls at bottom of cavity over foundations, bond beams, through wall flashings, and other water stops in wall.
 - b. Form weep holes by leaving head joint free and clean of mortar, and raking out bed joint at weep hole.
 - c. Space weep holes approximately 24 inches oc. Keep weep holes free of mortar droppings and other obstructions.
 9. Flashings:
 - a. Clean contact surfaces and remove projections which might puncture the flashing.
 - b. Place flashing on bed of mortar and cover with mortar.
 10. Built-In Work:
 - a. Fit brick closely around built-in Work.
 - b. Except where cavities are required, fill all spaces between built-in Work (including metal frames and structural steel) and brickwork solidly with mortar.
- B. Laying Brick:
1. Unless otherwise required by the design, lay brick plumb, true to line and with level courses accurately spaced within allowable tolerances.
 2. Completely fill mortar joints. Do not furrow bed joints. Butter ends of brick with sufficient mortar to fill head joints. Point closure joints full.
 3. Collar Joints: Except in cavity walls, fill vertical-longitudinal joint between wythes by slushing and rodding the joint full of mortar.
 4. Do not pound corners and jambs to fit stretcher units after they are set in position. Where an adjustment must be made after mortar has started to harden, remove units and clean units and joints of mortar and re-lay with fresh mortar.
- C. Cavity Walls:

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1. Keep cavity clean by placing wood strips with attached wire pulls on cross ties. Before placing next level of ties, remove and clean wood strips.
 2. As Work progresses, trowel protruding mortar fins in cavity flat onto inner face of wythe.
- D. Non-Bearing Partitions:
1. Unless otherwise shown on the Drawings, extend partitions from top of structural floor to bottom surface of floor construction. Wedge with small pieces of tile, slate or brick. Fill topmost joint with mortar.
- E. Structural Bonding:
1. Use masonry bond method for corners and intersections of loadbearing brick walls wherever possible.
 2. Anchoring Intersecting Bearing or Shear Walls Required to be Erected Separately:
 - a. Regularly block vertical joint with 8 inch maximum offsets.
 - b. Place tiebars in horizontal joints at not more than 3 foot centers vertically.
 3. Bond multi-wythe brick walls with continuous masonry wall reinforcement, spaced not more than 16 inches vertically. Lap individual lengths of reinforcement 6 inches.
individual lengths of reinforcement 6 inches.
- F. Anchoring Brick to Concrete Unit Masonry:
1. Tie adjacent wythes of masonry walls together with continuous masonry wall reinforcement spaced vertically not more than 16 inches oc. Lap individual lengths of reinforcement 6 inches.
 - a. Where horizontal mortar joints of back-up wythe and face wythe do not align or where one wythe is required to be constructed before the other, tie adjacent wythes of masonry walls together with adjustable wall ties spaced 16 inches vertically and 24 inches horizontally, in conjunction with continuous masonry wall reinforcement.
- H. Anchoring Non-Bearing Partitions:
1. Anchor partitions abutting or intersecting other walls or partitions with adjustable wall ties, placed at vertical intervals of not more than 24 inches.

3.03 TOLERANCES

- A. Maximum Allowable Variation From Plumb:
1. In lines and surfaces of columns, walls and arises:
 - a. 1/4 inch in 10 ft.
 - b. 3/8 inch in any story or 20 ft maximum.
 - c. 1/2 inch in 40 ft.
 2. For external corners, expansion joints and other conspicuous lines.
 - a. 1/4 inch in any story or 20 ft maximum.
 - b. 1/2 inch in 40 ft.

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- B. Maximum allowable variation from level or grades for exposed lintels, sills, parapets, horizontal grooves, and other conspicuous lines:
 - 1. 1/4 inch in any bay or 20 ft.
 - 2. 1/2 inch in 40 ft.

- C. Maximum allowable variation of linear building line from an established position in plan and related portions of columns, walls and partitions:
 - 1. 1/2 inch in any bay or 20 ft maximum.
 - 2. 3/4 inch in 40 ft.

- D. Maximum allowable variation in cross-sectional dimensions of columns and thickness of walls: Not less than 1/4 inch smaller nor more than 1/2 inch larger than walls.

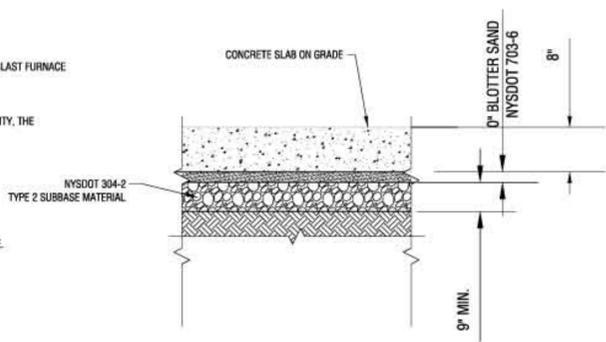
3.04 CLEANING

- A. Dry brush brickwork after mortar has set, at end of each day's Work.

- B. Clean brickwork, using the following steps:
 - 1. Clean initially with stiff brushes and water.
 - 2. If staining or soiling persists, reclean with stiff brushes and a solution of trisodium phosphate, detergent, and water (1/2 cup of each in one gallon of water). Rinse with clean water.
 - 3. If the above methods are unsuccessful, use specified liquid cleaning agent in conformance with the manufacturer's instructions. Test the cleaning agent on a sample area, selected by the Director's Representative. Proceed with the cleaning of the Work after the sample has been approved by the Director's Representative. Protect adjacent non-masonry Work from contact with the cleaning solution.

END OF SECTION

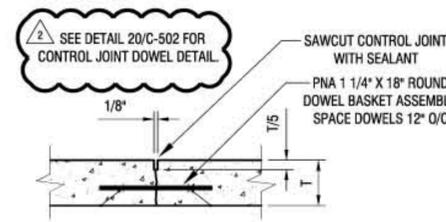
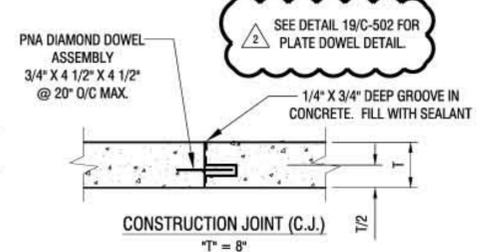
- CONCRETE MATERIAL REQUIREMENTS:**
- 1) CONCRETE PAVEMENT PROPERTIES:
 - a. MINIMUM COMPRESSIVE STRENGTH: 4000 PSI AT 28-DAYS; MAXIMUM WATER/CEMENT RATIO: 0.45.
 - b. PORTLAND CEMENT SUBSTITUTE: 20% MAX SUBSTITUTION WITH FLY ASH OR GROUND GRANULATED BLAST FURNACE SLAG.
 - c. COURSE AGGREGATE MEETING THE REQUIREMENTS OF ASTM C33 SIZE NUMBER 57.
 - d. FINE AGGREGATE MEETING THE REQUIREMENTS OF ASTM C33.
 - e. SLUMP LIMIT: 2 INCHES, PLUS OR MINUS 1/2 INCH. IF ADMIXTURES ARE USED TO IMPROVE WORKABILITY, THE MAXIMUM SLUMP LIMITS MAY BE RELAXED WITH ENGINEER'S APPROVAL.
 - f. AIR CONTENT: 6.5% PLUS OR MINUS 1.5%.
 - g. NYS DOT CLASS C CONCRETE IS ACCEPTABLE IN LIEU OF THE ABOVE REQUIREMENTS.
 - 2) ALL REINFORCING BARS SHALL CONFORM TO ASTM A615/A706 GRADE 60.
- CONCRETE GENERAL NOTES:**
- 1) GENERAL - COMPLY WITH THE FOLLOWING:
 1. ACI 301 - SPECIFICATIONS FOR STRUCTURAL CONCRETE.
 2. ACI 302 - GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION
 3. ACI 304 - RECOMMENDED PRACTICE FOR MEASURING, MIXING, TRANSPORTING AND PLACING CONCRETE.
 4. ACI 308 - STANDARD SPECIFICATION FOR CURING CONCRETE.
 5. ACI 318 - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.
 6. ASTM C33 - CONCRETE AGGREGATES.
 7. ASTM C94 - READY MIXED CONCRETE.
 8. ASTM C150 - PORTLAND CEMENT.
 9. ASTM C260 - AIR ENTRAINING ADMIXTURES FOR CONCRETE.
 10. ASTM C494 - CHEMICALS ADMIXTURES FOR CONCRETE.
 11. ACI 117, TOLERANCES FOR CONCRETE CONSTRUCTION
 12. COMPLY WITH ACI 302.1R RECOMMENDATIONS FOR SCREEDING, RESTRAIGHTENING, AND FINISHING OPERATIONS FOR CONCRETE SURFACES. DO NOT WET CONCRETE SURFACES.
 - 2) CONCRETE WORK, CONSTRUCTION, AND REINFORCING DETAILS SHALL CONFORM TO THE 'BUILDING CODE OF NEW YORK STATE' AND 'THE MANUAL OF CONCRETE PRACTICE' (ACI-MCP), LATEST EDITION.
 - 3) CURE CONCRETE ACCORDING TO ACI 308.1 AND THE FOLLOWING:
 - a. MOIST CURE CONCRETE FOR 48 HOURS WITH POTABLE WATER AND BURLAP COVERING KEPT CONTINUOUSLY WET. COVER CONCRETE SURFACES AND EDGES WITH 12-INCH LAP OVER ADJACENT ABSORPTIVE COVERS. FINISH CURE CONCRETE WITH CLEAR, WATERBORNE, MEMBRANE-FORMING CURING COMPOUND: ASTM C 309, TYPE 1, CLASS B, DISSPATING. REMOVE CURING COMPOUND ENTIRELY AFTER RECOMMENDED CURING PERIOD, PER MANUFACTURER'S RECOMMENDATIONS, HAS ELAPSED. DO NOT INSTALL CURING COMPOUND THAT MAY INTERFERE WITH SURFACE FINISH.
 - 4) SCRATCH FINISH: AFTER APPLYING FLOAT FINISH AND CONCRETE HAS SET SUFFICIENTLY TO MAINTAIN A TEXTURE AND NO BLEED WATER REMAINS ON THE SURFACE, USE STIFF BRUSHES, BROOMS, OR RAKES TO PRODUCE A PROFILE AMPLITUDE OF 1/16 INCH TO 1/8 INCH IN ONE DIRECTION.
 - 5) REINFORCING STEEL SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH 'ACI MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES' (ACI-315), LATEST EDITION.
 - 6) REINFORCING SHALL BE LAPPED OR EMBEDDED PER ACI 318, UNLESS OTHERWISE NOTED.
 - 7) PROVIDE CONCRETE COVER OVER REINFORCING IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318 OR AS INDICATED.
 - 8) SLAB OPENINGS SHALL BE SAWCUT TRUE TO LINE AND NEAT IN APPEARANCE.
 - 9) PROVIDE SILICONE JOINT SEALANT, DOW 890SL OR EQUIVALENT AND BACKER ROD AT ALL JOINTS.
 - 10) THE CONTRACTOR SHALL REPAIR ALL SURFACES DAMAGED DURING CONSTRUCTION TO MEET OWNER REQUIREMENTS.
- EARTHWORK NOTES:**
- 1) CONCRETE PAVEMENT SHALL BE PLACED ON CLEAN, DRY, LEVEL, SUBBASE CONFORMING TO THE MATERIAL REQUIREMENTS OF NYS DOT ITEM 304-2 TYPE 2.
 - 2) BLOTTER MATERIAL (CHOCKER) SHALL MEET THE REQUIREMENTS OF NYS DOT 703-6 SAND. THE SAND SHALL BE PLACED ON COMPACTED SUBBASE TO FILL VOIDS AND PROVIDE A SMOOTH SURFACE.
 - 3) ALL EXCAVATIONS SHALL FULLY CONFORM TO ALL LOCAL, STATE AND FEDERAL SAFETY REGULATIONS.
 - 4) ALL FILL MATERIAL PLACED BENEATH SLABS SHALL BE SPREAD IN MAXIMUM 6" THICK LAYERS AND UNIFORMLY COMPACTED TO 95% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST (ASTM D1557).



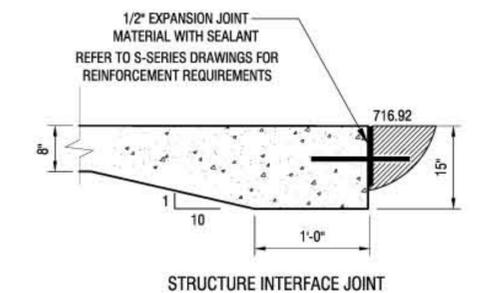
CONCRETE PAVEMENT SHALL BE 8" THICK UNLESS IT IS TO BE PLACED FLUSH AGAINST ASPHALT PAVEMENT. IN THAT CASE THE CONCRETE PAVEMENT SHALL BE 7" THICK.

PROVIDE CONTROL JOINTS AT A MAXIMUM OF 12' ON-CENTER AS INDICATED ON DETAIL 19/C-502 OR CONSTRUCTION JOINTS AT 20' ON-CENTER AS INDICATED ON DETAIL 19/C-502.

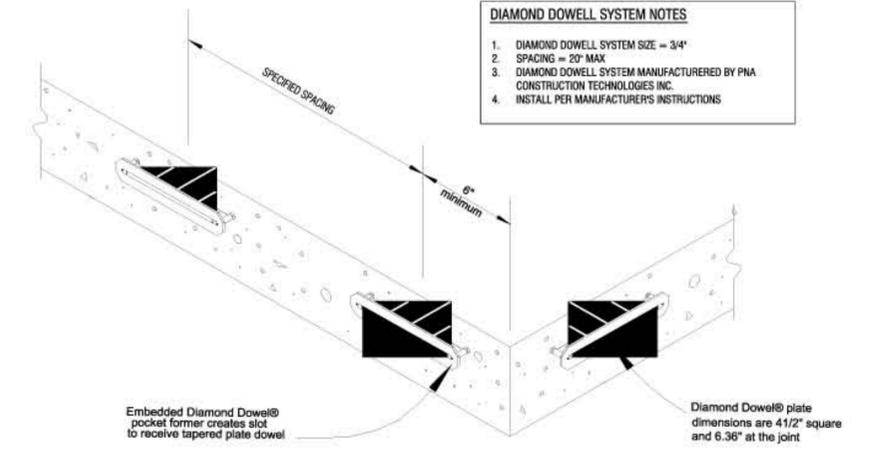
17 CONCRETE PAVEMENT SECTION
C-502



18 CONSTRUCTION JOINT (C.J.)
19 SAW-CUT CONTROL JOINT (S.J.)
C-502



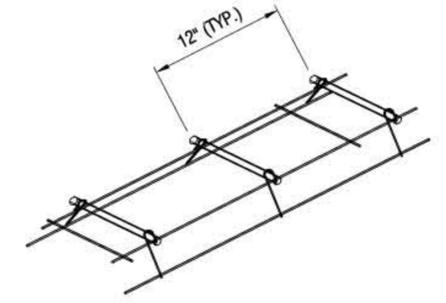
20 STRUCTURE INTERFACE JOINT
C-502



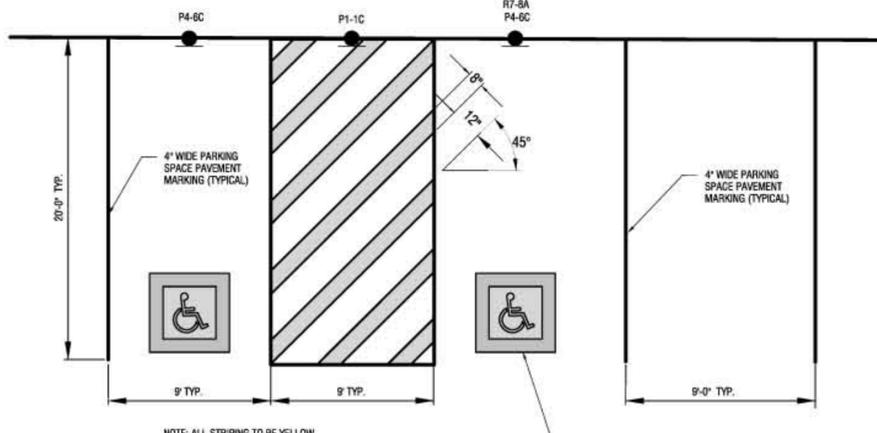
- DIAMOND DOWEL SYSTEM NOTES**
1. DIAMOND DOWEL SYSTEM SIZE = 3/4"
 2. SPACING = 20' MAX
 3. DIAMOND DOWEL SYSTEM MANUFACTURED BY PNA CONSTRUCTION TECHNOLOGIES INC.
 4. INSTALL PER MANUFACTURER'S INSTRUCTIONS

19 CONSTRUCTION JOINT PLATE DOWEL DETAIL
C-502

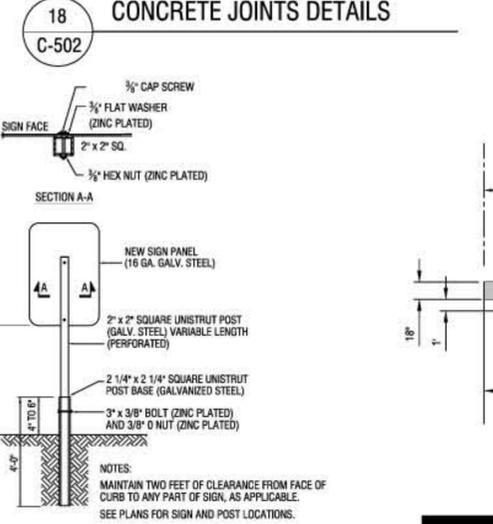
- DOWEL BASKET ASSEMBLY NOTES**
1. PROVIDE DOWEL BASKET ASSEMBLY AT ALL CONTROL JOINTS & WHERE JOINT DOWELS ARE CALLED FOR ON PLANS & TYPICAL DETAILS.
 2. DOWELS SAW CUT FROM HOT ROLLED STEEL BAR PER ASTM A36 TO 18 INCHES IN LENGTH. CENTER DOWEL BASKET ASSEMBLY IN JOINT.
 3. SIDE FRAME SUPPORTS FABRICATED FROM 1/4" DIAMETER COLD DRAWING WIRE PER ASTM A108 GRADE 1010 - 1020.
 4. LIGHTLY GREASE FULL LENGTH OF DOWELS OR SPECIFY FACTORY DEBONDED BASKETS FROM PNA CONSTRUCTION TECHNOLOGIES, INC.
 5. ASSEMBLIES MANUFACTURED SO THAT THEY STACK ON TOP OF EACH OTHER FOR TRANSPORTATION AND REMAIN STABLE UNDER CONCRETE PLACEMENT.
 6. END ROUND DOWEL CANNOT BE PLACED CLOSER THAN 12" TO THE JOINT INTERSECTION.
 7. ROUND DOWEL BASKET ASSEMBLY AS MANUFACTURED BY PNA CONSTRUCTION TECHNOLOGIES, INC. (800) 542-0214 OR APPROVED EQUIVALENT.



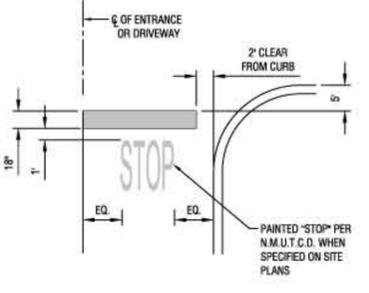
20 CONTROL JOINT DOWEL DETAIL
C-502



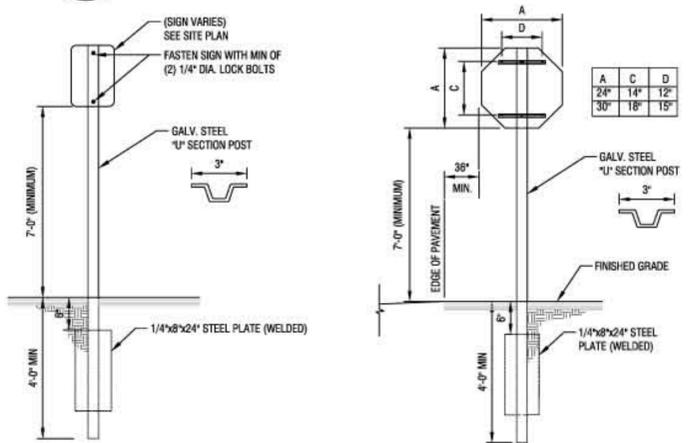
21 PASSENGER AND ADA PARKING STRIPPING AND SIGNAGE
C-502



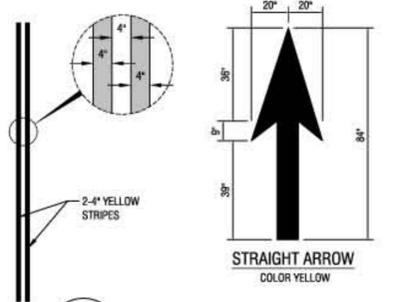
22 POST MOUNT SIGN INSTALLATION
C-502



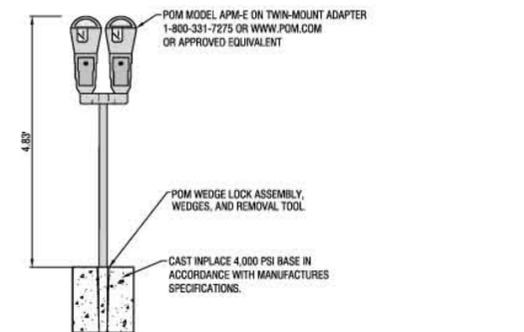
24 STOP BAR
C-502



25 SINGLE POST SIGN DETAIL
C-502



23 PAVEMENT MARKINGS
C-502



26 PARKING METER DETAIL
C-502

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CONTRACT: CONSTRUCTION

TITLE: PROVIDE FIELD OPERATIONS BUILDING

LOCATION: STATE PREPAREDNESS TRAINING CENTER
5900 AIRPORT ROAD
ORISKANY, NY 13424

CLIENT: NY DIVISION OF HOMELAND SECURITY AND EMERGENCY SERVICES

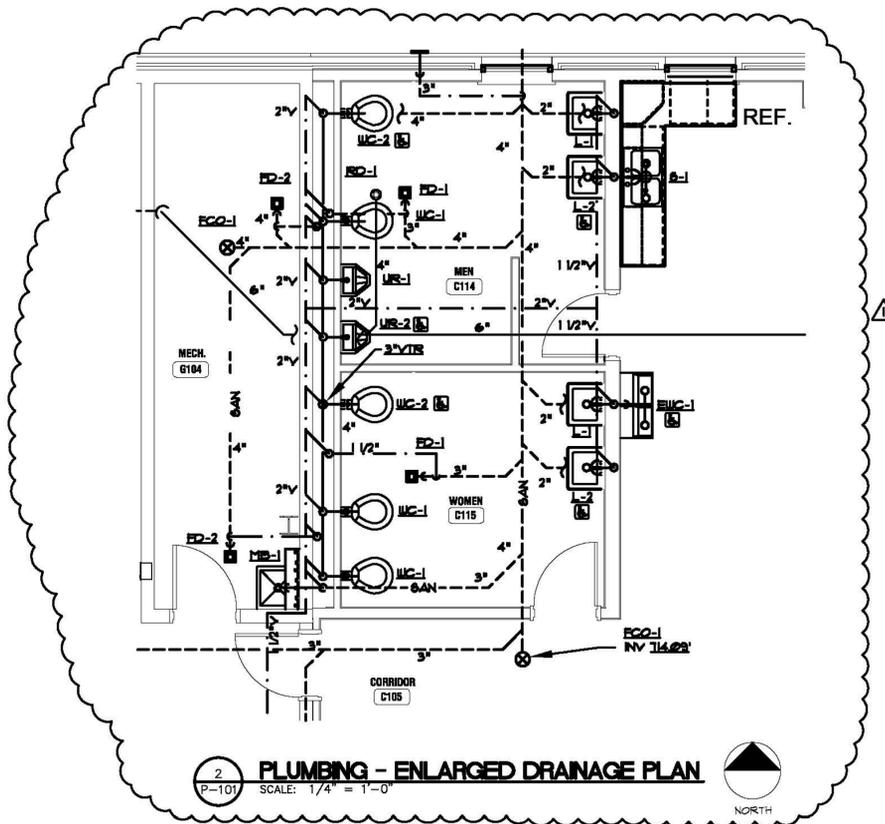
PROJECT NUMBER:	44190-C
DESIGNED BY:	Designer
DRAWN BY:	Author
FIELD CHECK:	Checker
APPROVED:	Approver

CONCRETE PAVEMENT AND SIGNAGE DETAILS

DRAWING NUMBER: C-502

24 x 36 PLOT SHEET

DATE: 12/15/11
SCALE: AS SHOWN
SHEET NO. AND OF TOTAL SHEETS: 12 OF 12

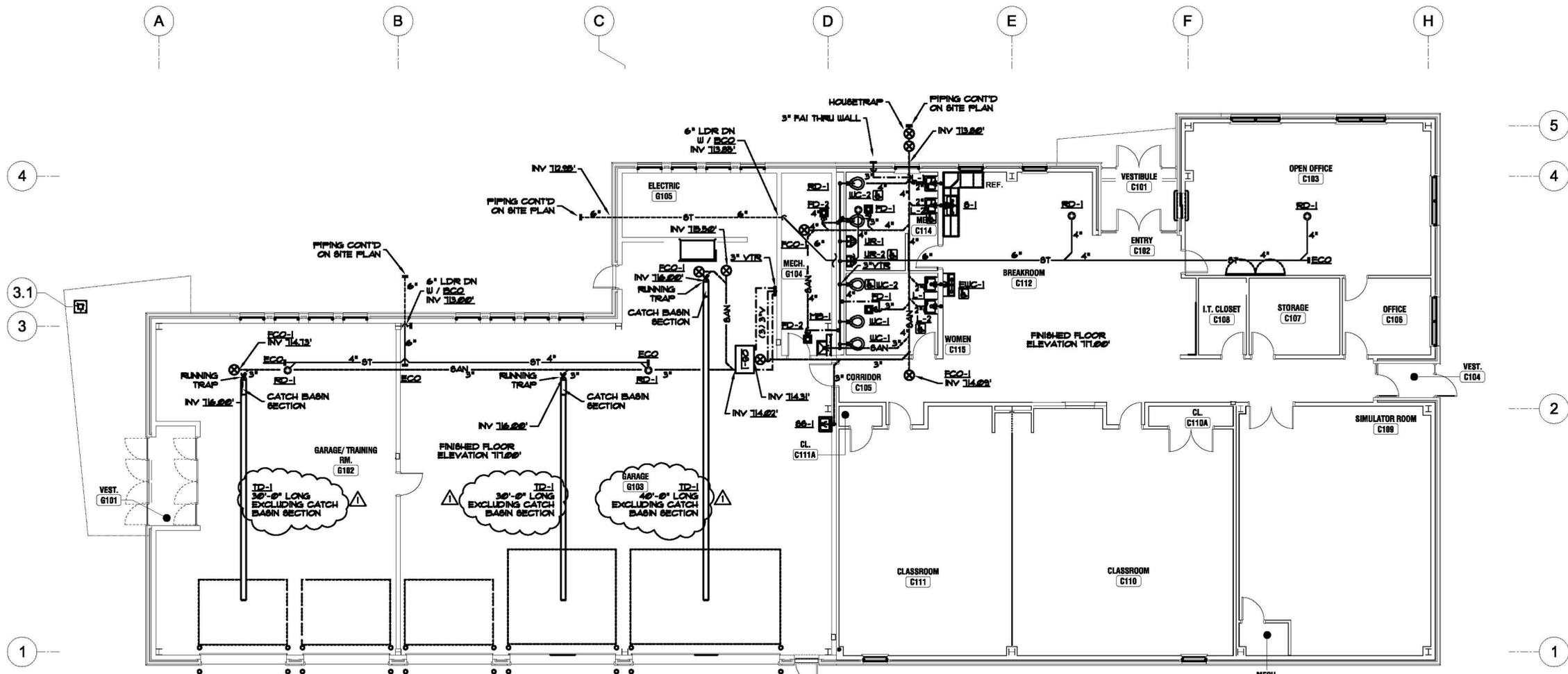


2 PLUMBING - ENLARGED DRAINAGE PLAN
SCALE: 1/4" = 1'-0"

DRAWING NOTES:

1. AN UNDERSLAB DEPRESSURIZATION SYSTEM IS BEING PROVIDED UNDER THE CONSTRUCTION CONTRACT. ALL FLOOR SLAB PENETRATIONS UNDER THIS CONTRACT SHALL BE SEALED WITH TYPE I-A SEALANT.

REVISED DRAWING
12/28/11



1 PLUMBING - DRAINAGE PLAN
SCALE: 1/8" = 1'-0"

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CONTRACT: **PLUMBING**

TITLE: PROVIDE FIELD OPERATIONS COMPLEX

LOCATION: STATE PREPAREDNESS TRAINING CENTER
5900 AIRPORT ROAD
ORISKANY, NY 13424

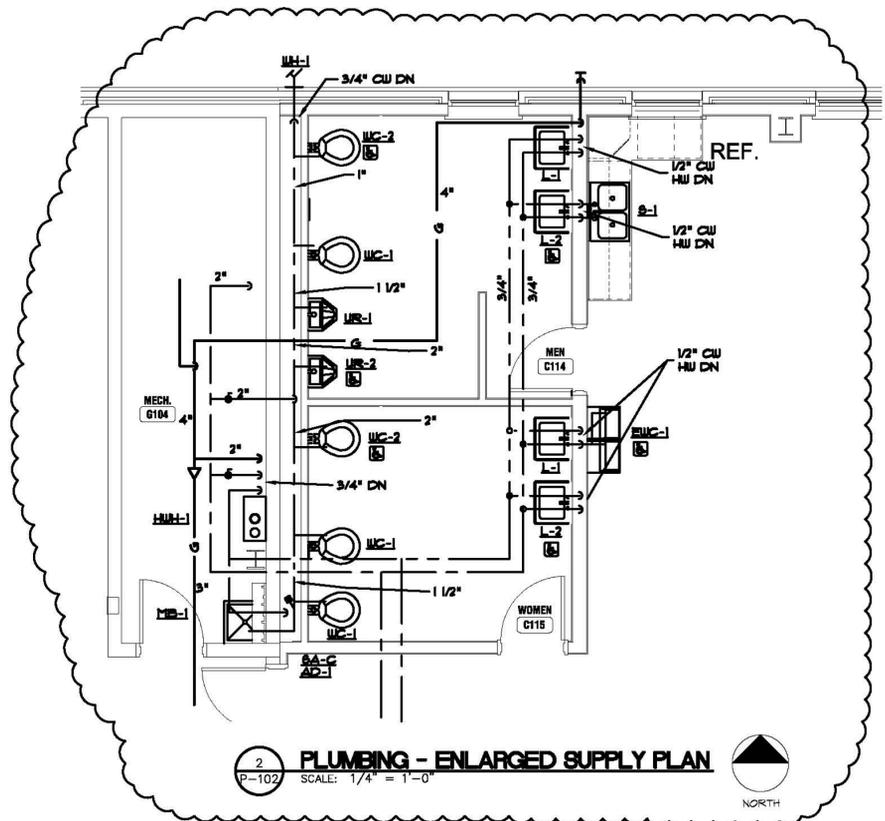
CLIENT: NY DIVISION OF HOMELAND SECURITY
AND EMERGENCY SERVICES

MARK	DATE	DESCRIPTION
Δ	12/28/2011	ADDENDUM #4
BD	10/19/2011	BID DOCUMENTS
PROJECT NUMBER: 44190 - P		
DESIGNED BY:	D.F.H.	
DRAWN BY:	D.F.H.	
FIELD CHECK:	--	
APPROVED:	--	

SHEET TITLE: **PLUMBING - DRAINAGE PLAN**

DRAWING NUMBER: **P-101**

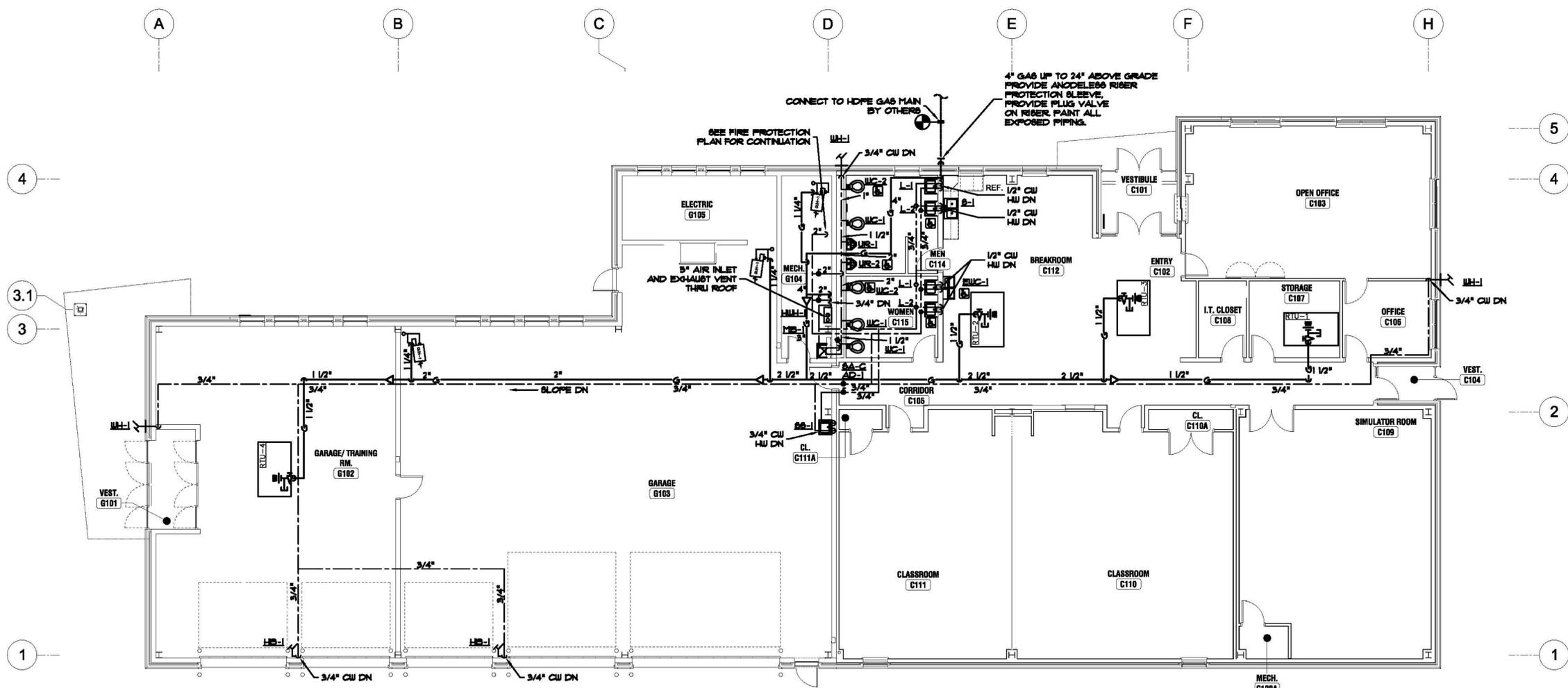
SHEET 2 OF 5



DRAWING NOTES:

1. AN UNDERSLAB DEHUMIDIFICATION SYSTEM IS BEING PROVIDED UNDER THE CONSTRUCTION CONTRACT. ALL FLOOR SLAB PENETRATIONS UNDER THIS CONTRACT SHALL BE SEALED WITH TYPE I-A SEALANT.

REVISED DRAWING
12/28/11



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CONTRACT: **PLUMBING**

TITLE: **PROVIDE FIELD OPERATIONS COMPLEX**

LOCATION: **STATE PREPAREDNESS TRAINING CENTER
5900 AIRPORT ROAD
ORISKANY, NY 13424**

CLIENT: **NY DIVISION OF HOMELAND SECURITY
AND EMERGENCY SERVICES**

MARK	DATE	DESCRIPTION
△	12/28/2011	ADDENDUM #4
BD	10/19/2011	BID DOCUMENTS
PROJECT NUMBER: 44190 - P		
DESIGNED BY: D.Rhw		
DRAWN BY: D.Rhw		
FIELD CHECK: --		
APPROVED: --		
SHEET TITLE: PLUMBING - SUPPLY PLAN		
DRAWING NUMBER: P-102		
SHEET 3 OF 5		