

**JOYNER HALL**  
**Northwestern Connecticut Community College**  
**Winsted, Connecticut**  
**PROJECT: BI-CT-427**

<b>BID OPENING</b>	<b>1:00 P.M.</b>	<b>April 9, 2014</b>
<b>ADDENDUM NUMBER 1</b>	<b>DATE OF ADDENDUM</b>	<b>March 21, 2014</b>

The following clarifications are applicable to drawings and specifications for the project referenced above.

**GENERAL:**

1. The Mandatory Pre-Bid Meeting was held on March 18, 2014 at Joyner Hall. Copies of the sign-in sheets are attached to this Addendum.

**CLARIFICATIONS:**

1. All window stools shall be "Quartz Stool" as noted in the drawings. The quartz stool material is Simulated Stone Countertops specification section 123661.
2. Sections 042000; 042000, 2.10; 042000, 2.11; 072726; and 074213.19: Each component of the wall system shall have been tested to comply with NFPA 285 in an assembly matching the exterior wall assembly for this project. Compliance reports shall be submitted during the submittals process.

**ACCEPTABLE EQUALS AND SUBSTITUTIONS:**

1. Section 072726: Substitution Request for the following Fluid Applied Membrane Air Barrier are approved subject to compliance with specification requirements, testing reports and verification as a component in a tested wall assembly matching this project complying with NFPA 285.
  1. BASF Wall Systems
  2. STO Corp
2. Section 074213.23: Substitution Request for Metal Composite Material Wall Panels by Larson by Alucoil is approved.

**RESPONSES TO QUESTIONS AND RFI'S RECEIVED:**

1. Question: "A-020 Wall Type 7; please verify if wall type 7 has one layer of gyp as plan view indicates or two layers of gyp as narrative indicates." RESPONSE: Notes supersede graphic indications; proceed with two layers of gypsum board as noted.
2. Question: "A-020; Please verify if tile is being directly applied to all of the CMU walls where wall types indicate tile to CMU. No furring or substrate required?" RESPONSE: Tile is applied to CMU walls without furring nor substrate.

3. Question: "Please provide the details (cross sections, area Maps) of the locations of each soil classification as it relates to laboratory analytical data." RESPONSE: The *Soil Pre-Characterization Data Report* dated April 25, 2013 and prepared by GEI Consultants, Inc., has figures and boring logs, which indicate the location and depth of all samples collected and analyzed. This report is located in the Available Information Section at the end of the Technical Specifications.
4. Question: "Please clarify that additional sampling for disposal facility waste characterization purposes are to be collected and analyzed by the contractor and NOT the owners engineer." RESPONSE: Additional sampling, which may be required for disposal facility waste characterization purposes are to be collected and analyzed by the contractor's Qualified Environmental Professional. Paragraph 3.1 of the Section 028100 states that the Qualified Environmental Professional shall sample Regulated Soil and have the samples analyzed as required by the treatment, recycling or disposal facility to supplement existing data.
5. Question: "Section 028416 Removal and Handling of Regulated Material: Is there an inventory of regulated material to be removed?" RESPONSE: No. Information regarding the Regulated Soil's chemical and physical characteristics is provided in the Soil Pre-Characterization Data Report and Geotechnical Engineering Report. These reports identify the types of Regulated Soil expected to be encountered during underground construction in the project area.
6. Question: "Would the DCS/ Architect/ Engineer consider establishing a WSA (Waste Stockpile Area) for temporarily stockpiling AEOC'S (Areas of Environmental Concern) excavated materials for determination of disposal classification due to the possible concentration range of controlled materials. – This would require establishing unit prices per ton/ yard, or allowance, for different range of "contaminated" material and potential different locations for disposal." RESPONSE: This alternative was evaluated and it was decided not to pay for disposal of soil based on a unit price basis. The soil has been precharacterized and there is limited space available onsite for a waste stockpile area. Direct loading is preferred and adequate soil characterization has been performed to facilitate direct loading and minimize supplemental sampling that a particular disposal/recycling facility may require.
7. Question: "Due to condition of the soil and uncertainty of the length of pile length required to reach the required load, the base bid should be based on a set length of piles. And a unit price should be applied for a deduct or addition of length of a pile. In order to make every contractor bid the same thing, The architect should consider including in the bid form two unit prices: 1) A linear foot of additional pile, if a pile installed in a location specified on the drawings, hits a boulder. 2) A cubic yard of suitable soil installed in place of removed boulder(s)." RESPONSE: Obstructions are addressed in Section 3.4 of Specification 316216 Steel H-Piles. Pile Installation is addressed in Section 3.3 of Specification 316216 Steel H-Piles. Unit Pricing to add (or deduct) pile length is included in Section 01 20 00 Contract Considerations Item 1.5,D.

## **SPECIFICATIONS:**

1. Section 015000, 3.3, B.2.a: Delete the words "Construction Manager: and replace with "Contractor."
2. Section 015000, 3.3, B.3: Delete the words "Construction Manager: and replace with "Contractor."
3. Section 017823, 1.3, B: Delete the words "Construction Manager: and replace with "Contractor."
4. Section 017823, 1.5, B.1.d: Delete the words "Construction Manager: and replace with "Contractor."
5. Section 017823, 1.7, C.2: Delete the words "Construction Manager: and replace with "Contractor."
6. Section 017830: 1.3, F: Clarification: The warranty period stated in this paragraph, 18 months, is applicable to all products, materials and workmanship contained in the Contract Documents and provided for the project. The commencement of all warranties is the date of Substantial Completion of the project.
7. Section 028100: Clarification: Transportation and Disposal of Regulated Soil has been revised to remove sections regarding soil classification, and measurement and payment. Regulated Soil transportation and disposal costs are to be included in the base bid and will not be paid for on a unit basis. Information regarding the Regulated Soil's chemical and physical characteristics is provided in the Soil Pre-Characterization Data Report and Geotechnical Engineering Report. These reports identify the types of Regulated Soil expected to be encountered during underground construction in the project area. Costs associated with conditions consistent with the information in the reports are the responsibility of the Contractor, and the Contractor's base bid must reflect the cost of properly handling and disposing of such materials. Replace entire specifications Section 028100 Transportation and Disposal of Regulated Soil with the revised specification attached.
8. Section 033000, 2.7, Article 2.7, ADD Paragraphs A. 1. b. and A. 1. c. to read as follows:
  - b. W.R. Meadows, INC; Perminator, 15 mil Class A
  - c. Reef Industries, INC; Griffolyn, Type-105
9. Section 042000, 2.7, G.4: Note that Contractor may use any one of the adjustable masonry veneer anchor manufacturers and products specified in paragraphs 2.7, G.5, G.6 and G.7.
10. Section 042000, 2.7, G.5.a: Add the following manufacturer and product:  
Wire-Bond; 1004X, Type III X
11. Section 042000, 2.7, G.6.a: Add the following manufacturer and product:  
Hohmann & Barnard, Inc.: 2-Seal Tie

12. Section 042000, 2.7,G.8: Delete paragraph in its entirety and substitute the following: Stainless-Steel Drill Screws for Steel Studs: ASTM C 954 except manufactured with hex washer head and neoprene or EPDM washer, No. 10 (4.83-mm) diameter by length required to penetrate steel stud flange with not less than three exposed threads; either made from Type 410 stainless steel or made with a carbon-steel drill point and 300 Series stainless-steel shank.
13. Section 042000, 2.10, D.2: add the following manufacturer and product:  
Keene Building Products; Drywall Weep Vents 025.
14. Section 042000, 2.10, E.1: add the following manufacturer and product:  
Heckmann Building Products, Inc.: Weep-Thru Mortar Deflector
15. Section 042000, 2.10, E.3: add the following: NFPA 285 Approved Assembly Report: For cavity drainage material assembly that it has been tested as a part of an approved assembly matching the exterior wall assembly for this project.
16. Section 044313.13: 2.5, A. 1: Add the following manufacturer and product:  
Hohmann & Barnard: Mighty-Flash stainless steel
17. Section 057300: 2.1, A: Add the following Manufacturers:
  1. Julius Blum & Co.
  2. R&B Wagner
  3. P&P Artec
18. Section 064116: 2.2, B.5.a: Add the following Manufacturer:  
Agristrand Mankato, LLC
19. Section 071416: 2.4, B: delete this paragraph in its entirety.
20. Section 071614: 2.1, A.1: Add the following manufacturer and product:  
BASF Master Builders: Chemrex MV-Block
21. Section 072100: 2.2, A.1: Add the following manufacturers and products:
  1. Johns Manville: Corbond III
  2. VolatileFree, Inc.: VFI-714 spray foam insulation
22. Section 072100: 2.1.4: Add the following manufacturers and products:
  1. Johns Manville: Igintion Barrier
  2. VolatileFree, Inc.: VFI-2623 Fire Retardant Plastic Encapsulant
23. Section 074213.19: 2.2, B.1: Add the following:
  1. Subject to compliance with the specifications, comparable products to the basis of Design by the following are acceptable:
    - i. Kingspan Insulated Panels.
    - ii. Metl-Span Architectural Insulated Panel.
24. Section 076200: 2.6, A and B: Gutter Sleeves / drop tube and adapter may be custom fabricated or manufactured from aluminum 0.040" thick as specified.
25. Section 076200: 2.6,C: Rain leaders may be custom manufactured from titanium zinc material specified.

26. Section 077253: 2.2, A: Insert the following:
  2. Subject to compliance with specifications and system description, products of the following manufacturers are acceptable:
    - a. Sno Barricade Deck Mounted System by Sno Gem
    - b. C2, single ply fence by TRA-MAGE, Inc.
  
27. Section 079200: 2.2, B and C: Add the following manufacturers:
  - Dow Corning Corporation
  - GE Construction Sealants
  - Polymeric Systems
  - Tremco Incorporated
  
28. Section 079200: 2.3, A and C: Add the following manufacturer:
  - BASF Building Systems
  
29. Section 079200: 2.5, a.1: Add the following manufacturer:
  - Tremco Incorporated, Acoustical Sealant
  
30. Section 087100: 2.5, E.2: Add the following manufacturer:
  - Schlage (SC) Primus XP Series
  
31. Section 087100: 2.17, A.1: Add the following manufacturer:
  - Sargent Manufacturing (SA) – WT1 Wiegand Test Unit
  
32. Section 087100: 2.17, B.1: Add the following manufacturers:
  - Corbin Russwin (CR)
  - Sargent (SA)
  
33. Section 088000: 2.3, B: Replace the first paragraph with the following: B.1 through B.8 remain unchanged:
 

Standard Insulating-Glass Units: **Drawing Designation: G1:** Basis-of-Design Product: Viracon Vue (VUE 6-50). Subject to compliance with requirements below, comparable products from the following manufacturers are acceptable:

  - Oldcastle Building Envelope
  - PPG Industries, Inc.
  - Schott North America, Inc.
  
34. Section 088813; 2.5 D.1: Add the following manufacturers and products:
  - Technical Glass Products; FireLite IGU 60 minute rated exterior.
  - Vetrotech Saint-Gobain; Contraflam IGU 60 minute rated exterior.
  
35. Section 088813: 2.6 A: Add the following sentence:
  - Products by the following manufacturers are also acceptable:
  - Aluflam North America
  - Kawneer; Forster thermfix vario
  
36. Section 092900: 2.6, C: Add the following paragraph:
  2. Products by the following of same profile as noted are acceptable:
    - Fry Reglet; reveal molding
    - Trim-Tex Architectural; Reveal Bead

37. Section 093000: 2.4, B1: add the following manufacturers:  
Noble Company; NobleSeal TS  
Wedi Corporation; Subliner Dry
38. Section 095113: 2.2, A.1: Acoustical Panels (ACP-1): Products: Basis of Design: USG Frost ClimaPlus High LR.
39. Section 095113: 2.2, B.1: Acoustical Panels (ACP-2): Products: Basis of Design: USG Frost ClimaPlus High LR.
40. Section 095113: 2.4, A.1.d: add the following manufacturers:  
Chicago Metallic Corporation  
USG Interiors, Inc.
41. Section 096513: 2.2: Delete B and C and substitute the following:
  - B. Basis of Design: Carpet tile design is based on the following manufacturer, style and color. Products of other manufacturers will be considered, subject to compliance with the requirements specified.
    1. Johnsonite rubber stair tread with riser
      - a. Bamboo profile with visibility strip in prima marble: MOONROCK-29 with vis.strip 807
    2. Subject to compliance with the specifications below, the following are acceptable alternative manufacturers to the Basis of Design, matching in color, profile and style:
      - a. American Biltrite
      - b. Burke
  - C. Resilient Stair Treads Standard: ASTM F 2169.
    1. Material Requirement: Type TS (rubber, vulcanized thermoset) or Type TP (rubber, thermoplastic).
    2. Surface Design: As noted in Basis of Design
42. Section 096516: 2.2, B: add the following manufacturer:  
Johnsonite; a Tarkett Company: Arcade
43. Section 096516: 2.3, D: delete paragraph in its entirety.
44. Section 096516: 3.4, D: Remove paragraph in its entirety.
45. Section 096519: 2.2 B: add the following manufacturer:  
Johnsonite; a Tarkett Company
46. Section 096519: 3.4, D: Delete the word "terrazzo."
47. Section 096813: 2.1, A.1: Delete CPT2

48. Section 096813: 2.1, A: Add the following:
  3. Subject to compliance with the specifications below, manufacturers offering products that are acceptable are the following:
    - a. Shaw: 5T018 Tangle Tile; color: 18504 Tease
    - b. Interface: 1391202500 Aliteration; color: 9725 Sage/Prairie
49. Section 096813: 2.2, A: Add the following:
  3. Subject to compliance with the specifications below, the following are acceptable alternative products to the Basis of Design:
    - c. Shaw: All Access Collection
    - d. Interface: Entry Level
50. Section 101100: 2.5, A: add the following sentence:

Products by the following are acceptable, subject to compliance with the specifications below:  
Armstrong World Industries  
Johnsonite: a Tarkett Company
51. Section 102219: 2.2, A.1: add the following:
  2. Subject to compliance with the specifications below, products of the following manufacturers are acceptable:
    - a. Dirtt
    - b. Unifor
52. Section 102800: 2.2, A: Manufacturers listed are acceptable as alternatives to products listed in paragraphs 2.2, 2.3, 2.4, 2.5 and 2.6.
53. Section 11500: 2.1, A: add the following:
  5. Subject to compliance with the specifications, products by the following manufacturers are acceptable:
    - a. Liberty Industries
    - b. Innotech Products, Inc.
54. Section 11500: 2.2, A: add the following:
  4. Subject to compliance with the specifications, products by the following manufacturers are acceptable:
    - a. Bobrick
    - b. Bradley
55. Section 129300: Replace entire specifications Section 129300 Site Improvements with the revised specification attached.
56. Section 210517, Article 2.2, ADD Paragraph A. 3. to read as follows:
  3. Wade Manufacturing Co.; a McWane Plumbing Group Company.
57. Section 211313, Article 2.4, ADD Paragraph B. 1. c. to read as follows:
  - c. NIBCO Valve, Inc.
58. Section 211313, Article 2.5, ADD Paragraph D. 1. c. to read as follows:
  - c. NIBCO Valve, Inc.

59. Section 211313, Article 2.10, ADD Paragraph E. 1. c. to read as follows:
  - c. Fire-Lite Alarms, Inc.; a Honeywell company.
60. Section 220010, Article 1.14, REVISE Paragraph A. 1. to read as follows:
  1. Warranty all materials and workmanship under these Specifications and the Contract for a period of 18 months from the date of substantial completion.
61. Section 220517, Article 2.2, ADD Paragraph A. 3. to read as follows:
  2. Wade Manufacturing Co.; a McWane Plumbing Group Company.
62. Section 220523, Article 2.2, ADD Paragraphs A. 1. b. and A. 1. c. to read as follows:
  - b. NIBCO Valve, Inc.
  - c. Milwaukee Valve.
63. Section 220523, Article 2.7, ADD Paragraph A. 1. c. to read as follows:
  2. Milwaukee Valve Company.
64. Section 220523, Article 2.14, ADD Paragraphs A. 1. b. and A. 1. c. to read as follows:
  - b. Flowserve Corporation.
  - c. Homestead Valve.
65. Section 220523, Article 2.14, ADD Paragraphs A. 1. b. and A. 1. c. to read as follows:
  - b. Flowserve Corporation.
  - c. Homestead Valve.
66. Section 220716, Article 2.3, ADD Paragraph B. 1. c. to read as follows:
  - c. Childers Brand, Specialty Construction Brands, Inc.; CP-30.
67. Section 220716, Article 2.4, ADD Paragraphs B. 1. b. and B. 1. c. to read as follows:
  - b. Foster Brand, Specialty Construction Brands, Inc.; 30-45, 95-44.
  - c. Eagle Bridges-Marathon Industries; 405.
68. Section 220716, Article 2.8, ADD Paragraph A. 1. c. to read as follows:
  - c. Band-It-Idex, Inc.; a unit of Idex Corp.; Band-Fast.
69. Section 220719, Article 2.3, ADD Paragraph B. 1. c. to read as follows:
  - c. Childers Brand, Specialty Construction Brands, Inc.; CP-30.
70. Section 220719, Article 2.4, ADD Paragraphs B. 1. b. and B. 1. c. to read as follows:
  - b. Foster Brand, Specialty Construction Brands, Inc.; 30-45, 95-44.
  - c. Eagle Bridges-Marathon Industries; 405.
71. Section 220719, Article 2.8, ADD Paragraph A. 1. c. to read as follows:
  - c. Band-It-Idex, Inc.; a unit of Idex Corp.; Band-Fast.
72. Section 220719, Article 2.9, ADD Paragraph B. 1. c. to read as follows:
  - c. Plumberex Specialty Products Inc.
73. Section 221116, Article 2.7, ADD Paragraph E. 1. c. to read as follows:
  - c. Watts Industries.

74. Section 221316, Article 2.4, ADD Paragraphs B. 2. a. 2) and B. 2. a. 3) to read as follows:
- 2) Charlotte Pipe.
  - 3) Tyler Pipe.
75. Section 221316, Article 2.4, ADD Paragraphs C. 1. b. and C. 1. c. to read as follows:
- b. Fernco.
  - c. Mission Rubber.
76. Section 221319, 1) Article 2.4, ADD Paragraph A. 1. c. to read as follows:
- c. Oatey.
77. Section 221319, Article 2.5, ADD Paragraphs A. 1. b. and A. 1. c. to read as follows:
- b. Hilti.
  - c. Tremco Sealants.
78. Section 221413, Article 2.4, ADD Paragraphs C. 1. b. and C. 1. c. to read as follows:
- b. Charlotte Pipe.
  - c. Tyler Pipe.
79. Section 221423, Article 2.2, ADD Paragraphs A. 1. b. and A. 1. c. to read as follows:
- b. Hilti.
  - c. Tremco Sealants.
80. Section 224223, Article 2.3, ADD Paragraph A. 1. a. 3) to read as follows:
- 3) Swanstone.
81. Section 223400, Article 1.7, REVISE Paragraph A. 2. a. 5) to read as follows:
- 5) Burner and All Heater Parts: 18 months from substantial completion.
82. Section 226600, Article 2.1, ADD Paragraphs B. 1. b. and B. 1. c. and B. 1. d. to read as follows:
- b. Josam.
  - c. Blucher.
  - d. Watts Drainage.
83. Section 226600, Article 2.3, ADD Paragraphs B. 1. b and B. 1. c. and B. 1 d. to read as follows:
- b. Josam.
  - c. Blucher.
  - d. Watts Drainage.
84. Section 226600, Article 2.3, ADD Paragraphs C. 1. b. and C. 1. c. and C. 1. d. to read as follows:
- b. Josam.
  - c. Blucher.
  - d. Watts Drainage.
85. Section 230517, Article 2.2, ADD Paragraph A. 3. to read as follows:
- 3. Wade Manufacturing Co.; a McWane Plumbing Group Company.

86. Section 230713, Article 2.3, ADD Paragraph B. 1. c. to read as follows:
  - c. Childers Brand, Specialty Construction Brands, Inc.; CP-30.
87. Section 230713, Article 2.4, ADD Paragraphs B. 1. b. and B. 1. c. to read as follows:
  - b. Foster Brand, Specialty Construction Brands, Inc.; 30-45, 95-44.
  - c. Eagle Bridges-Marathon Industries; 405.
88. Section 230713, Article 2.8, ADD Paragraph A. 1. c. to read as follows:
  - c. Band-It-Idex, Inc.; a unit of Idex Corp.; Band-Fast.
89. Section 230716, Article 2.3, ADD Paragraph B. 1. c. to read as follows:
  - c. Childers Brand, Specialty Construction Brands, Inc.; CP-30.
90. Section 230716, Article 2.5, ADD Paragraphs B. 1. b. and B. 1. c. to read as follows:
  - b. Foster Brand, Specialty Construction Brands, Inc.; 30-45, 95-44.
  - c. Eagle Bridges-Marathon Industries; 405.
91. Section 230716, Article 2.8, ADD Paragraph A. 1. c. to read as follows:
  - c. Band-It-Idex, Inc.; a unit of Idex Corp.; Band-Fast.
92. Section 230719, Article 2.3, ADD Paragraph B. 1. c. to read as follows:
  - c. Childers Brand, Specialty Construction Brands, Inc.; CP-30.
93. Section 230719, Article 2.4, ADD Paragraphs B. 1. b. and B. 1. c. to read as follows:
  - b. Foster Brand, Specialty Construction Brands, Inc.; 30-45, 95-44.
  - c. Eagle Bridges-Marathon Industries; 405.
94. Section 230900, Article 2.4, ADD Paragraph G. 1. a. 3) to read as follows:
  - 3) Scheider Electric.
95. Section 230900, Article 2.4, ADD Paragraph H. 2. a. 3) to read as follows:
  - 3) Schneider Electric.
96. Section 230900, Article 2.6, ADD Paragraph E. 1. c. to read as follows:
  - c. General Electric.
97. Section 231123, Article 2.1, ADD Paragraph C. 7. a. 3) to read as follows:
  - 3) Grinnell Mechanical Products.
98. Section 231123, Article 2.4, ADD Paragraph G. 1. c. to read as follows:
  - c. Xomox Corporation; a Crane Company.
99. Section 231123, Article 2.5, ADD Paragraph A. 1. c. to read as follows:
  - c. Seismic Safety Products.
100. Section 233113, Article 2.4, ADD Paragraph A. 1. c. to read as follows:
  - c. Aeroflex USA, Inc.; Aerocel Duct Liner.
101. Section 233300, Article 2.7, ADD Paragraphs D. 1. b. and D. 1. c. to read as follows:
  - b. Ruskin.
  - c. Greenheck.

102. Section 233300, Article 2.9, ADD Paragraph A. 3. to read as follows:
  3. In-O-Vate Dryer Products; Dryerflex.
103. Section 260010, Article 1.13, REVISE Paragraph B. 1. to read as follows:
  1. Warranty all materials and workmanship under these Specifications and the Contract for a period of (18) eighteen months from the date of substantial completion.
104. Section 260544, Article 2.3, ADD Paragraphs A. 1. b. and A. 1. c. to read as follows:
  - b. Flexicraft Industries.
  - c. Link-Seal.
105. Section 260573, Article 2.1, REVISE A. to read as follows:
  - A. Basis-of-Design Product: Subject to compliance with requirements, utilize software by SKM Systems Analysis.
106. Section 262726, Article 2.15, ADD A. 3. to read as follows:
  3. Mono Systems, Inc.
107. Section 265100, Article 2.1, ADD A. 3. c. to read as follows:
  - c. Advance.
108. Section 270544, Article 2.3, ADD Paragraphs A. 1. b. and A. 1. c. to read as follows:
  - b. Flexicraft Industries.
  - c. Link-Seal.
109. Section 275313, Article 2.4, REVISE Paragraphs A. 1. a. and A. 1. b. to read as follows:
  - a. 12" product.
  - b. 16" product for clocks indicated on plans.
110. Section 280544, Article 2.3, ADD Paragraphs A. 1. b. and A. 1. c. to read as follows:
  - b. Flexicraft Industries.
  - c. Link-Seal.
111. Section 321413.13: Replace entire specifications Section 321413.13 Concrete Pavers on Sand with the revised specification attached.
112. Section 321713.19: Replace entire specifications Section 321713.19 Concrete Wheel Stops with the revised specification attached.
113. Section 323119.16: Replace entire specifications Section 323119.16 Ornamental Fence with the revised specification attached.
114. Section 323129: Replace entire specifications Section 323129 Wooden Stockade Fence with the revised specification attached.
115. Section 323132: Replace entire specifications Section 323132 Bollards with the revised specification attached.

116. Section 330500, Article 2.2, ADD Paragraphs D. 2. b. and D. 2. c. to read as follows:
  - b. George Fisher Piping Systems.
  - c. Lasco Fittings.
117. Section 330500, Article 2.2, ADD Paragraph E. 2. c. to read as follows:
  - c. NIBCO, Inc.
118. Section 330500, Article 2.3, ADD Paragraph E. 2. c. to read as follows:
  - c. Watts.
119. Section 334100, Article 2.9, ADD Paragraph C. 2. c. to read as follows:
  - c. StormDrain.

**DRAWINGS:**

1. Attached are drawing ADA-01, clarifying threshold at Door 201A.

**END OF ADDENDUM NUMBER 1**

Attachments:

Pre-Bid Meeting Sign-In Sheets: 5 pages  
Drawings ADA-01, SL-100, SL-200 and SL-300: 4 pages  
Specification Section 028100:7 pages  
Specification Section 129300: 3 pages  
Specification Section 321413.13: 4 pages  
Specification Section 321713.19: 2 pages  
Specification Section 323119.16: 3 pages  
Specification Section 323129: 3 pages  
Specification Section 323132: 3 pages

TOTAL PAGES FOR ADDENDUM NUMBER 1: 46 (including 3 full size drawings)

CTDCS Project No.: Bi-CTC-427 Joyner Hall Replacement  
 Date: Tueaday, March 18, 2014  
 Meeting Start Time: 10:00 a.m.  
 Meeting Location: NCCC Joyner Hall Room LC-5  
 Meeting Purpose:  Pre-Bid Meeting  
 Post Bid Review Meeting  
 Other:

**PLEASE PRINT CLEARLY**

Name: Cassie Leng	Title: Project manager
Company/Department: WORTH CONSTRUCTION COMPANY	E-mail: CHIEFESTIMATOR@WORTHCONSTRUCTION.COM
Street: 24 TAYLOR AVE	Phone: 203-797-8788
City/State/Zip: BRIMFIELD, CT 06021	FAX:

Name: J. Peter Mack	Title: Director
Company/Department: Nordmack Corp (NMC)	E-mail: peter@nordmackcorp.com
Street: 69 NORDMACK RD	Phone: 860-378-7772
City/State/Zip: Windham CT 06098	FAX: 860-378-1685

Name: Steve Rines	Title: Building Sup. I
Company/Department: NCCC	E-mail: srines@nwcc.comnet.edu
Street: 4 Park Place East	Phone: 1-860-309-1915
City/State/Zip: Winsted, CT 06098	FAX:

Name: Matt Rioux	Title: Field Engineer
Company/Department: Newfield Construction	E-mail: MattRioux@newfieldconstruction.com
Street: 225 Newfield Ave	Phone: 860-993-0178
City/State/Zip: Hartford, CT 06106	FAX:

Name: Dale Dubinsky	Title: Estimator
Company/Department: KBE Building Corp	E-mail: ddubinsky@kbebuilding.com
Street: 30 Batterson Park Rd	Phone: 860 254 7742
City/State/Zip: Farmington, CT 06030	FAX:

Name: Tony Martin	Title: Estimator
Company/Department: Ducci Electric Contr Inc	E-mail: tmartin@duccielectrical.com
Street: 472 Boston Rd	Phone: 860 489-9267
City/State/Zip: Torrington CT 06790	FAX:

CTDCS Project No.: Bi-CTC-427 Joyner Hall Replacement  
 Date: Tueaday, March 18, 2014  
 Meeting Start Time: 10:00 a.m.  
 Meeting Location: NCCC Joyner Hall Room LC-5

Name: TIFFANY LENNYEL	Title: ESTIMATING/CONTRACTS
Company/Department: LAROSA BUILDING GROUP	E-mail: tlennyel@larosabg.com
Street: 103 RESEARCH PARKWAY	Phone: 203-235-1720
City/State/Zip: MERIDEN CT 06450	FAX: 203-599-6210

Name: David Haulhan	Title: Sales
Company/Department: American Networks International	E-mail: dhaulhan@americannetworks.com
Street: 45 Peter Court	Phone: 860-985-8416
City/State/Zip: New Britain CT 06058	FAX:

Name: PHIL PRIOR	Title: ESTIMATOR
Company/Department: RESTECH	E-mail: pprior@restechct.com
Street: 25 PINNEY ST	Phone: 860 896-1000
City/State/Zip: ILLINGTON CT 06029	FAX: 860 871-5982

Name: CHLOE NANCE	Title: ESTIMATOR
Company/Department: FIP CONSTRUCTION	E-mail: nancec@fipconstruction.com
Street: 308 FARMINGTON AVE	Phone: 203-271-0356
City/State/Zip: FARMINGTON, CT 06032	FAX: 203-272-5073

Name: Jonathan Breda	Title:
Company/Department: PRO Electric Inc	E-mail: PROElectricInc@CS.com
Street: 210 Hickory Lane	Phone: 860 605 9146 X312
City/State/Zip: Bethelham CT 06751	FAX: 203-266-6821

Name: ANDREW BARSZCZ	Title: ESTIMATOR
Company/Department: RIZZO CORPORATION	E-mail: abarszcz@rizzoconstruction.com
Street: 64 TRIANGLE STREET	Phone: 203-731-3132
City/State/Zip: DANBURY, CT 06810	FAX: 203-748-8747

CTDCS Project No.: Bi-CTC-427 Joyner Hall Replacement  
 Date: Tueaday, March 18, 2014  
 Meeting Start Time: 10:00 a.m.  
 Meeting Location: NCCC Joyner Hall Room LC-5

Name: Peter Carey	Title: Project Manager
Company/Department: Millennium Builders	E-mail: pcarey@mbict.com
Street: 50 Inwood Rd	Phone: 860-571-0555
City/State/Zip: Rocky Hill CT 06067	FAX: 860 571-0550

Name: JACOB CAWENDO	Title: ESTIMATOR
Company/Department: NUTMEG COMPANIES	E-mail: BIDS@NUTMEGCOMPANIES.COM
Street: 31 NEW LONDON TPKE	Phone: 860 823 1780
City/State/Zip: NORWICH, CT 06360	FAX: 860 885 1421

Name: LAWRENCE BRUNDI	Title:
Company/Department: LAWRENCE BRUNDI, LLC	E-mail: LBRUNDI@LBRUNDI.COM
Street:	Phone: 860 276 7900
City/State/Zip: 11 EASTVIEW DRIVE FARMINGTON	FAX: 860 276 2455

Name: Chip Florio	Title: P.E.
Company/Department: Lawrence Brundi Inc	E-mail: b.ds@lbrundi.com
Street: 11 eastview drive	Phone: 860-676-9900
City/State/Zip: Farmington, CT 06479	FAX: 860-676-0455

Name: Rich Elliott	Title: Estimator
Company/Department: Bantex Construction Comp	E-mail: RElliott@BantexConstruction.com
Street: 339 Washington Ave	Phone: 860-406-1065
City/State/Zip: North Haven CT	FAX: 203-234-0010

Name: JIM BONA	Title:
Company/Department: ELECTRICAL CONTRACTORS INC.	E-mail: JIMB@ECCORPORATED.COM
Street: 3510 MAIN ST	Phone: 860-549-2822
City/State/Zip: HARTFORD	FAX:

CTDCS Project No.: Bi-CTC-427 Joyner Hall Replacement  
 Date: Tueaday, March 18, 2014  
 Meeting Start Time: 10:00 a.m.  
 Meeting Location: NCCC Joyner Hall Room LC-5

Name: MARK CARROLL	Title: ESTIMATOR
Company/Department: OEG INDUSTRIES INC	E-mail: markcarroll.com
Street: 112 WALL ST	Phone: 860-489-9261
City/State/Zip: TUBRINGTON, CT	FAX: 860-496-4227

Name: DAVID LONGO	Title: ESTIMATOR
Company/Department: OEG INDUSTRIES, INC	E-mail: davidlongo@oginc.com
Street: " " "	Phone: " " "
City/State/Zip: " " "	FAX: " " "

Name: Linda McKim	Title: Chief Estimator
Company/Department: Ferguson	E-mail: lmcKim@ferguson-cta.com
Street: 112 Northwest Drive	Phone: 860-517-3221
City/State/Zip: Plainville CT	FAX: 860-798-5050

Name: Steve Spalla	Title: Sales
Company/Department: Data-link	E-mail: sspalla@datalinkcorp.com
Street: 98 Main St	Phone: 203-379-2833
City/State/Zip: Meriden, CT 06451	FAX:

Name: Sean M Barrett	Title: Project Manager
Company/Department: Platinum terrazzo	E-mail: sbarrett@platinumterrazzo.com
Street: 2253 Main St.	Phone: 774-200-1488
City/State/Zip: 90701 Concord MA	FAX: -

Sub

Name: True Blue Environmental Services	Title: estimator
Company/Department: Jeff James	E-mail: jJames@trueblueenvironmental.com
Street: 5 Northfield Road	Phone: 203-269-3355
City/State/Zip: Wallingford, CT 06492	FAX: 203-284-2137

CTDCS Project No.: Bi-CTC-427 Joyner Hall Replacement  
 Date: Tueaday, March 18, 2014  
 Meeting Start Time: 10:00 a.m.  
 Meeting Location: NCCC Joyner Hall Room LC-5

Name: Clare Olesen	Title: Proj Mgr / Estimator
Company/Department: AES Remedial Contracting LLC	E-mail: clare@aesremedial.com
Street: 132 Trow Lane Rd	Phone: 860-620-1291
City/State/Zip: Southington, CT 06489	FAX: 860-620-1772

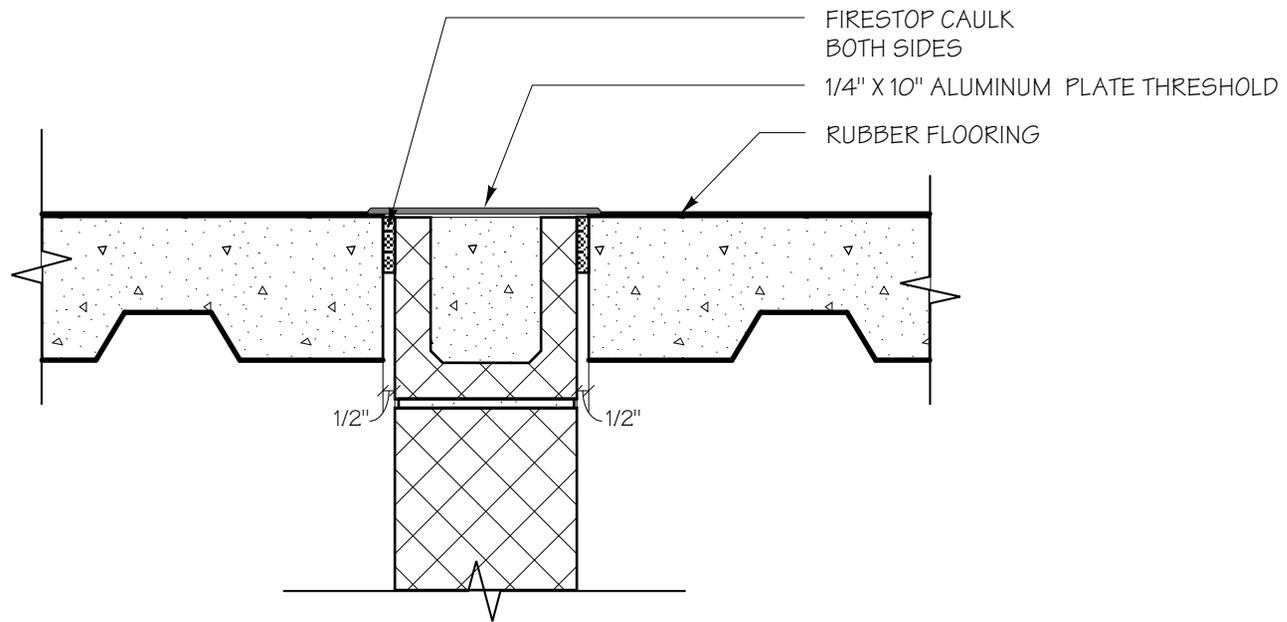
Name: DARYLE DUNLAP	Title: VP / MM
Company/Department: ELITE ENVIRONMENTAL SOLUTIONS	E-mail: DARYLE.DUNLAP@CINCASTA.NET
Street: 300 MARSH PHELPS RD P.O. Box 97	Phone: 860-683-9958
City/State/Zip: WINDSOR, CT 06095 MBE/SBE	FAX: ASBESTOS ABATEMENT SUB

Name: Rick Baker	Title: ACCOUNT MANAGER
Company/Department: SIMPLEX GRINNELL - SUB CONTRACTOR	E-mail: rlbaker@simplexgrinnell.com
Street: 80 CLARK DR.	Phone: 860-438-3244
City/State/Zip: EAST BERLIN, CT 06023	FAX: 860-438-3258

Name:	Title:
Company/Department:	E-mail:
Street:	Phone:
City/State/Zip	FAX:

Name:	Title:
Company/Department:	E-mail:
Street:	Phone:
City/State/Zip	FAX:

Name:	Title:
Company/Department:	E-mail:
Street:	Phone:
City/State/Zip	FAX:



A 1  
 ADA-01

**UPPER LEVEL THRESHOLD @ DOOR 201A**

SCALE: 1 1/2" = 1'-0"

NORTHEAST  
 COLLABORATIVE  
 ARCHITECTS  
 500 Plaza Middlesex  
 Middletown CT 06457  
 TEL: 860.344.9332 | FAX: 860.347.4075  
 www.ncarchitects.com

JOYNER HALL  
 NORTHWESTERN CONNECTICUT COMMUNITY COLLEGE  
 100 SOUTH MAIN STREET  
 WINSTED, CT  
 STATE PROJECT NO. BI-CTC-427

NCA PROJECT NO.  
 08290

DATE: 03/17/14

ADA-01

PART 1 - GENERAL

1.1 WORK INCLUDES

- A. Transportation and disposal of Regulated Soil.
- B. Provide all layout, products, materials, equipment, tools, services, testing, transportation, supervision, and labor to complete all transportation and disposal of regulated soil required to complete the work.

1.2 RELATED WORK:

- A. Section 013529: Environmental Health and safety
- B. Section 02975: Handling of Regulated Soil

1.3 DEFINITIONS

- A. Contaminated Soil: Treated or untreated soil and/or sediment affected by a known or suspected release and determined, or reasonably expected to contain substances exceeding Residential Direct Exposure Criteria or GA Pollutant Mobility Criteria, as these terms are defined in the Remediation Standard Regulations (RCSA Section 22a-133k-1).
- B. Hazardous Soil: Soil that is classified as a hazardous waste. Soil is classified as hazardous waste if it exhibits a hazardous waste characteristic or if it contains RCRA-listed hazardous constituents above Connecticut's RCRA "Contained-In" Policy dated May 2002.
- C. Hazardous Waste Disposal Area: Facility permitted for treatment, storage, or disposal of Hazardous Waste under RCRA and applicable Connecticut laws and regulations.
- D. Polluted Soil: Soil affected by a release of a substance at a concentration above the analytical detection limit for such substance in accordance with RCSA 22a-133k-1(a)(45) or for naturally occurring substance at a concentration that exceeds concentrations that naturally occur in the environment.
- E. Regulated Soil: Includes Polluted Soil and Contaminated Soil.
- F. Soil: As used in this section soil includes natural soil, natural sediment, rock, brick, ceramics, concrete, asphalt paving fragments, and other miscellaneous debris and solid waste.
- G. Special Waste Disposal Area: Facility permitted to receive solid waste under RCSA Sections 22a-209-1 through 13, or for facilities not located in Connecticut, permitted by the state to receive solid or industrial waste.
- H. Treatment or Recycle Facility: Facility permitted to treat or recycle Regulated Soil that is permitted under RCSA 22a-174-3 and CGS Section 22a-454 or for facilities not located in

Connecticut, permitted by the state in which the facility is located to treat or recycle Regulated Soil.

1.4 SUBMITTALS:

A. Submit the following prior to commencement of Work:

1. Transporter Information:

- a. The name and address of transporters to be used on the project to transport Regulated Soil.
- b. Current licenses and permits to operate in all states affected by transport.

2. Facility Information:

- a. Facility Name
- b. Facility Address
- c. Name of Contact Person
- d. Title of Contact Person
- e. Telephone Number of Contact Person
- f. Permit Number

3. Written confirmation from the facility that they are permitted to accept and will accept material of the general quality and quantity described by these Specifications.

- a. Facility permits
- b. Facility acceptance criteria.
- c. Written approval from Connecticut Department of Energy and Environmental Protection (CT DEEP) for disposal of Regulated Soil or use of Regulated Soil as cover soil in a solid waste disposal area or for beneficial reuse as fill at facilities located in Connecticut.
- d. Facility sampling frequency and analytical testing requirements.

B. Submit the following during execution or Work:

1. Waste profile forms, material shipping records or any other forms, letters or documents that must be signed by the Owner to obtain authorizations for disposal no less than 7 days in advance of shipping materials off site.
2. Shipping papers or manifests that must be signed by the Owner no less than 48 hours in advance of shipping materials off site.
3. Certified manifests or shipping paper and weigh slips from the approved disposal facilities for Regulated Soil transported and disposed of off Site within 5 days of receipt. At a minimum, manifests and weigh slips include the following:
  - a. Transporter name, address and telephone number.
  - b. Truck number, date and time of load-out.

- c. Gross weight, tare weight and net weight of truck.
4. All chemical analytical reports within 48 hours of receipt.
5. Registrations, letters, forms or applications to be sent to Federal, State or Local environmental regulatory agencies to the Engineer for review prior to submittal. Allow 7 days for review. No adjustments for time or money will be made if re-submittals are required due to deficiencies.

#### 1.5 QUALITY ASSURANCE

- A. Regulatory Requirements: Perform earthwork, storage, transportation and disposal in compliance with applicable requirements of authorities having jurisdiction, including but not limited to the following:
  1. Connecticut Department of Energy and Environmental Protection
    - a. Connecticut Remediation Standard Regulations (RSRs), RCSA 22a-133k-1 to 3.
    - b. Connecticut Hazardous Waste Regulations, RCSA 22a-449(c)-100 to 119.
    - c. Connecticut Solid Waste Management Regulations, RCSA 22a-209-1 to 17.
    - d. CT DEEP Bureau of Materials Management and Compliance Assurance - Disposal of Special Waste Authorization (DEP-WEED-APP-200).
  2. Massachusetts Department of Environmental Protection (MassDEP),
    - a. Massachusetts Solid Waste Management Regulations, 310 CMR 19.000.
    - b. Reuse and Disposal of Contaminated Soil at Massachusetts Landfills, DEP Policy No. COMM-97-001.
    - c. MassDEP Bureau of Waste Prevention – Solid Waste Management – Special Waste Determination (BWP SW 14, 31).
    - d. MassDEP Bureau of Waste Prevention – Solid Waste Management – Beneficial Use Determination (BUD) (BWP SW 40).
  3. United States Environmental Protection Agency (EPA)
    - a. Federal Hazardous Waste Regulations, 40 CFR 261-268.
  4. The Owner will be the “generator” of all Regulated Soil.
- B. Qualifications: Conform to the following qualifications:
  1. Work must be performed by personnel formally trained in procedures for Regulated Soil with proven history of successfully executing similar projects.
  2. Work must be accomplished with proper equipment and personnel experienced in similar work.

- C. Qualified Environmental Professional shall be or work under the direct supervision of a currently licensed as a Licensed Environmental Professional (LEP) in Connecticut and, if applicable, Licensed Site Professional (LSP) in Massachusetts.
- D. Independent Analytical Laboratory: Conform to the following qualifications:
  - 1. Accredited by the State of Connecticut Department of Health Services.
  - 2. Have a minimum 5 years of experience.
  - 3. Ability to perform all analyses and provide analytical reports in accordance with the CTDEEP's Reasonable Confidence Protocols.

#### 1.6 PROJECT CONDITIONS

- A. The geotechnical and environmental reports listed below provide soil chemical analysis, and boring logs showing subsurface conditions:
  - 1. GEI Consultants, Inc., Soil Pre-Characterization Data Report, April 25, 2013.
  - 2. GeoDesign, Inc. Geotechnical Engineering Report, January 2013.
- B. All soil within the property limits is classified as Regulated Soil.
- C. No soil within the project limits is classified as Hazardous Soil or requires disposal in a US EPA permitted PCB disposal area.
- D. The Engineer shall be notified within 24 hours if Regulated Soil is discovered that has not been previously identified or if other discrepancies between data provided and actual field conditions are discovered.
- E. Do not remediate, excavate, treat, or delineate Regulated Soil, not previously identified, without consent from the Engineer.

#### 1.7 SCHEDULING

- A. Notify the Engineer 14 calendar days prior to the start of excavation or generation of Regulated Material. The Engineer will be responsible for contacting regulatory agencies in accordance with the applicable reporting requirements.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. Spill response materials: Provide appropriate spill response materials including, but not limited to the following: containers, adsorbents, shovels, and personal protective equipment. Spill response materials shall be available at all times when Regulated Soil is being handled or

transported. Spill response materials shall be compatible with the type of soil and contaminants being handled and detailed in the Site-Specific Health and Safety Plan.

- B. Packaging, Labeling, Marking and Placarding Materials: Provide all of the materials required for the packaging, labeling, marking, placarding and transportation of contaminated materials in conformance with Department of Transportation standards. Details in this specification shall not be construed as establishing the limits of responsibility.

### PART 3 - EXECUTION

#### 3.1 SAMPLING AND ANALYSIS

- A. The Qualified Environmental Professional shall sample Regulated Soil and have the samples analyzed as required by the treatment, recycling or disposal facility to supplement existing data. This analysis can be performed on samples of in-situ soil collected prior to excavation or on samples of excavated soil that has been stockpiled. The frequency of sampling and parameters analyzed shall be performed as required by the treatment, recycling or disposal facility.
- B. Submit a copy of all analytical results to the Engineer within 24 hours of receipt of the laboratory report. Analytical data shall only be distributed to the Owner and Engineer.
- C. Coordinate schedule so that Engineer may observe sample collection activities.
- D. All chemical analysis shall be performed by an Independent Analytical Laboratory.

#### 3.2 FACILITY APPROVAL

- A. Upon receipt of the final approval from the treatment, recycling or disposal facility immediately forward a copy of said approval to the Engineer. Coordinate facility approval, loading, transportation, and ultimate disposal of the material at the facility.

#### 3.3 REUSE AND DISPOSAL

- A. Surplus or unsuitable Regulated Soil shall be:
  1. Used as cover or disposed of in a Special Waste Disposal Area provided written approval is obtained from CT DEEP under RCSA Sec.22a-209-8 for use in an in-state facility.
  2. Beneficially reused at a Massachusetts permitted lined or unlined landfill under Massachusetts Department of Environmental Protection Policy # COMM-97-001.
  3. Taken to a Special Waste Disposal area for disposal or use as cover in a facility not located in Massachusetts or Connecticut.
  4. Taken to a properly permitted Treatment or Recycling Facility for thermal treatment or recycling.

5. Reused at an off-site location in accordance with RCSA Sec. 22a-133k-2(h)(3) provided that written approval is obtained from CT DEEP for such reuse.
6. Disposed in a Hazardous Waste Disposal Area.

### 3.4 WASTE PROFILES, SHIPPING RECORDS AND MANIFESTS

- A. Prepare and submit to the Engineer for review all waste profiles or material shipping records and coordinate with disposal facilities.
- B. Prepare all manifests and shipping documents required to the Engineer for review. Engineer will be responsible for obtaining Owner's signature. For most types of Regulated Soil signed documents are not required for each load.
- C. Submit to Owner and the Engineer, prior to receiving progress payment, documentation certifying that all materials were transported to, accepted, and disposed of, at the selected receiving facility, including but not limited to:
  1. Facility signed manifests.
  2. Weight slips. Provide certified tare and gross weights for each load.

### 3.5 LOADING

- A. Load Regulated Soil for transport from the project site to the facility following approval by the Engineer.
- B. Load all Regulated Soil into the transportation vehicle.
- C. Following load-out from the stockpile or direct loading each day, remove residual Regulated Soil resulting from spillage from the loading area and return it to appropriate stockpile.

### 3.6 TRANSPORTATION

- A. The Transporter shall adhere to all pertinent Federal, State, and local laws or regulatory agency policies.
- B. No material shall leave the site until the treatment, recycling or disposal facility has approved shipments.
- C. Cover transported Regulated Soil prior to leaving the point of generation and until its arrival at the treatment, recycling or disposal facility.
- D. All vehicles departing the Site are to be properly logged to show the vehicle identification number, driver's name, time of departure, destination, and approximate volume and content of materials.

- E. All transportation vehicles are to have secure bodies and be free of defects for material transportation.

### 3.7 SPILLS

- A. Immediately notify the Engineer in the event of a spill or release of a hazardous substance, pollutant, contaminant, or oil. The Owner or Engineer will be responsible for any notifications to regulatory agencies. Follow the pre-established procedures as described in HASP. Immediately take containment actions to minimize the effect of any spill or leak. Cleanup in accordance with applicable federal, state, and local regulations. Perform extra sampling and testing as directed by the Engineer to verify spills have been cleaned up. Spill cleanup and testing shall be done at no additional cost to the Owner.

END OF SECTION 028100

**PART 1 - GENERAL**

**1.1 DESCRIPTION OF WORK:**

Work includes the furnishing of all labor, materials and equipment required to install the site improvements listed below at the locations shown and as detailed and described.

**1.2 RELATED WORK:**

31 00 00 Earthwork  
32 13 13 Portland Cement Concrete Paving  
32 12 16.13 Bituminous Concrete Paving

**1.3 SUBMITTALS:**

- A. General: Refer to Division I for Submittal Requirements.
- B. Required Submittals:
  - 1. Shop Drawings: Provide shop drawings of the vehicular gate pursuant to the requirements of Division I.
  - 2. Samples: Provide the samples listed below pursuant to the requirements of Division I.
    - a. Finish metal paint.
    - b. Manufacturer's Product Data: Submit manufacturer's technical data for each manufactured product.

**1.4 JOB CONDITIONS:**

- A. Existing Conditions: Examine all work that the Work of this section is contingent upon and report any deficiencies to the Architect. Commencement of work will be construed to mean complete acceptance of the preparatory work of others. No adjustment will be made for discrepancies brought to the Architect's attention after work has begun.
- B. Coordination: Coordinate all Work of this section with related Work of other sections. Failure to coordinate properly will not reduce the obligation to meet the standards of acceptance of the various elements of Work contained herein.

**PART 2 - PRODUCTS**

**2.1 GENERAL MATERIALS REQUIREMENTS:**

- A. Trash Receptacles (2 Total) - Shall be equal to:
  - 1. Model # S-424 by Victor Stanley, Inc. (800) 368-2573. Color: Semi-gloss Silver

2. Model #157-32 SH-FTO- Surface Mounted. Polyester powder coated. Color: Argento by Du Mor (800) 598-4018.
  3. Model URT-FBS-36-F-P-LD-LF, TGIC Polyester powder coated. Color: Metallic Silver by Creative Pipe Inc., (800) 644-8467.
- B. Bike Racks (5 Total): - Shall be:
1. "Ribbon Rack", Model # RB05-I-S, in-ground anchor mount, stainless steel finish by Brandir International, Inc. (800) 849-3488.
  2. Model #125-20 (S-1) w/ polyester powder coating, Color: Argento by Du Mor (800) 598-4018.
  3. Model BRCS-103 (In-ground mount) powder coated over galvanizing. Color: Titanium by Victor Stanley, Inc. (800) 368-2573.
- C. Signage: All signage shall be in compliance w/ State of Connecticut requirements. Provide the following signs in high intensity reflective aluminum.
1. Handicap Signage: Provide "Handicapped Parking" sign (4 @ 12" x 18" - Blue/White) w/ "\$150 Fine" (5 @ 12" x 6" - Blue/White), "Van Accessible" (1 @ 12" x 6" - Blue/White)
  2. Traffic Signage: Provide "Stop" signs, (3 @ 30" x 30"- Red/White) , "Pedestrian Crossing" Sign (2 @ 24" x 24" diamond - Yellow / Black w/pedestrian graphic).
  3. Support Posts / Hardware: 2" X 2" square steel tubing with cap (match ornamental iron fence cap) 1/8' Min. wall thickness. Height as detailed , 1 coat prime, 1 coat finish paint (Color/finish: Match ornamental iron fence). Pre-drill to allow sign to be secured w stainless steel hardware.
- D. Ornamental Planters. Shall be as provided by one of the following:
1. "Galveston" planters by Dura Art Stone (800) 232-0332  
Model: "GA-round-Cast Stone", Color: "Nordic Cream"  
Finish: "Medium Sand Blast"  
Sizes: 3' x 36" (6 total)  
          4' x 36" (4 total)  
          5' x 36" (4 total)
  2. "Brunello Roll Rim" planters by Crescent Garden (877) 477-0027  
Finish: "Weathered Stone"  
Sizes: 35" (6 total)  
          37" (4 total)  
          44" (4 total)

3. "Chase Park" planter by Longshadow (618) 893-4831  
Finish: Cast Limestone  
Sizes: Chase Park LS 9658 (6 total)  
Chase Park LS 9562 (4 total)  
Chase Park LS 9563 (4 total)
  
4. Planting Medium (all planters):
  - a.) Drainage Medium: Perlite
  - b.) Soil: Provide pre-manufactured, sterilized potting soil approved by the Architect.

### PART 3 - EXECUTION

#### 3.1 PRE-INSTALLATION REQUIREMENTS:

Secure approval of the Installation Location prior to final installation of the site improvements.

#### 3.2 FABRICATION/INSTALLATION:

- A. Trash Receptacles: Secure in locations shown on drawings and as per manufacturer's recommendations.
  
- B. Bike Rack: Secure in locations shown on drawings and as per manufacturer's recommendations.
  
- C. Control Signs: Fabricate posts and install in locations shown on drawings. Posts shall be set plumb and true and shall be installed to depth as detailed below grade. Touch up any finishes damaged during installation. Secure sign plates as per manufactures recommendations. All attachment hardware shall be of non-rusting materials. Traffic control signs shall be field located.
  
- D. Planters:
  1. Locate planters in agreed upon locations.
  2. Provide a screen material over the drainage hole and fill the planter with a 4" depth of "Perlite".
  3. Fill remaining depth of pot to 4" below rim elevation with approved potting soil.

#### 3.3 PROTECTION:

The Contractor shall take special care to protect all site improvements and keep them in first class condition until the completion of the contract. Exercise particular care to prevent damage to the finished surfaces.

END OF SECTION

\*\*\*\*

**PART 1 - GENERAL**

**1.1 DESCRIPTION OF WORK:**

- A. The Work of this Section includes, but is not limited to, the furnishing of all labor, materials and equipment required to provide concrete pavers in the locations shown and as detailed and described in the Contract Documents.

**1.2 RELATED WORK:**

32 11 23.23 Processed Aggregate

**1.3 QUALITY ASSURANCE:**

- A. Industry Reference Standards: Form 816: "State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 816, 2004" and any amendments and supplements.
- B. Installer Qualifications: Engaged firm must be able to provide evidence to indicate successful documented experience in the installation work specified herein.
- C. Sample Installations: Provide a sample panel for approval prior to commencing full masonry work. The panel shall be minimum of 4' X 4' and indicate the range of color, texture, pattern and workmanship to be expected in the completed work. The sample panel may be part of the final masonry paving work, if agreed to by the Owner's Representative.
- D. Source Quality Control:
  - 1. Obtain materials of each type from a single source to ensure matching of quality, color, pattern and texture.
  - 2. Do not change source of materials during course of construction.

**1.4 SUBMITTALS:**

- A. General: Refer to Division I for Submittal Requirements.
- B. Required Submittals:
  - 1. Certificates: The Owner's Representative shall be furnished with duplicate signed copies of a statement from the appropriate vendor certifying the analysis of each of the following:
    - a. Processed Aggregate.
    - b. Bedding Sand.
    - c. Joint Sand.
    - d. Paver Edge Restraints
  - 2. Samples: Provide the samples listed below pursuant to the requirements of Division I.
    - a. Concrete paving unit samples for each type of paving required. Include in each set the full range of color and texture to be expected.

b. Geotextile Soil Separator.

3. Compaction Tests: Coordinate with Owner's testing lab to ensure that compaction tests are carried out and provided for review.
4. Shop Drawing w/ etched Artwork for Granite Accent Panel / Graphic.

1.5 PRODUCT HANDLING:

- A. Protection: Protect masonry materials and sand during storage and construction against wetting by rain, snow or ground water and against soilage or intermixture with earth or other types of materials.

1.6 JOB CONDITIONS:

- A. Existing Conditions: Examine all work that the Work of this section is contingent upon and report any deficiencies to the Owner's Representative. Commencement of work will be construed to mean complete acceptance of the preparatory work of others. No adjustment will be made for discrepancies brought to the Owner's Representative's attention after work has begun.
- B. Coordination: Coordinate all Work of this section with related Work of other sections. Failure to coordinate properly will not reduce the obligation to meet the standards of acceptance of the various elements of Work contained herein.
- C. Sequencing and Scheduling: No construction of the concrete pavers is to commence until general construction operations within the area are generally complete so that no staining or damage to the brick paving shall occur.

1.7 SPECIAL CONDITIONS:

Provide custom Granite Accent Panel w/ Graphic to be determined as part of this scope of work to be set with the pavers.

PART 2 - PRODUCTS

2.1 GENERAL MATERIALS REQUIREMENTS:

A. Standard Concrete Paving Units:

1. Pedestrian Areas: Provide a 60 mm" thick pavers meeting the minimum material and physical properties set forth in ASTM C 936, Standard Specification for Interlocking Concrete Paving Units.

Vehicular Areas: Provide a 80 mm" thick pavers meeting the minimum material and physical properties set forth in ASTM C 936, Standard Specification for Interlocking Concrete Paving Units. Pigment in concrete pavers shall conform to ASTM C 979. ACI Report No. 212.3R provides guidance on the use of pigments.

2. General: The basis of design consists of the following pavers as manufactured by: Pavestone Company, 18 Cowan Drive, Middleboro, MA. 02346 (508) 947-6001 or substitute accepted by Owner.

- 
- a. Border Course: Provide “Carriage Stone” pavers in standard pattern.  
Light Color: Fieldstone Blend  
Dark Color: Charcoal
  - b. Accent Course: Provide “Tumbled Holland Stone”:  
Light Color: Fieldstone Blend  
Dark Color: Charcoal
  - c. Main Field Pattern: Provide “Plaza Series” in Plaza I, II & Giant Heritage”  
Light Color: Fieldstone Blend  
Dark Color: Charcoal
  - d. Detectable Warning Pavers: Provide “Detectable Warning” Paver as manufactured by Pavestone Company. Size: Nominal Dimensions 3 7/8”W x 7 13/16”L x 2 3/8”T,  
Color: Charcoal
3. Equivalent pavers as manufactured by the following companies will also be considered:
- a. Unilock - Brewster, NY. 845.278.6700
  - b. Belgard/Old Castle Architectural - Atlanta, GA. 877.235.4273
- B. Granite Accent Panel: Provide 2” thick x 4’ Diameter “Absolute” Granite panel etched with custom graphic (Final graphic TBD). Surface finish: Flame w/ ¼” to ½” deep etched graphic.
- C. Bedding and Joint Sand: Shall conform specifically to the Manufacturer’s Recommendations.
- D. Geotextile Soil Separator: Shall be a woven geo-textile soil separator fabric specifically recommended for use under pavers and acceptable to the paver manufacturer to maintain the warranty.
- E. Paver Edge Restraint Material: Shall be equal to the following:
- 1. Pave Edge Pro, by Pave Tech, Inc. 800.728.3832
  - 2. Snap Edge Paver Restraint as provided by SEK/Surebond, 800.932.3343
  - 3. B.E.A.S.T. Plastic Paver Edging as provide by BrickStop, 800.565.2599
- F. Processed Aggregate: Shall confirm to Section 32 11 23.23 contained herein.
- G. Rolled Gravel Base: Shall confirm to Section 31 11 16.16 contained herein.

### PART 3 - EXECUTION

- 3.1 PRE-INSTALLATION REQUIREMENTS: Pre-installation Approval: Secure approval of the sample installation prior to commencing further brick paving operations.
- 3.2 INSTALLATION:
- A. General:
    - 1. Do not use pavers with excessive chips, cracks, voids, discoloration or other defects which might be visible or cause staining in finished work. Set granite accent panel along with pavers. Protect and take care to avoid damaging / scarring granite surface until turned over to Owner.

- 
- 2. Cut pavers with motor-driven saw equipment to provide clean, sharp, unchipped edges. Cut units to provide pattern shown and to fit adjoining work neatly. Use full pavers without cutting wherever possible.
  - 3. Set pavers in patterns shown in the Contract Documents and with uniform joint of widths indicated herein.
  - 4. Surface Tolerances: Maintain surface plane for finished masonry pavers shall not deviate more than 1/8" in 10' when tested with a 10' straight edge.
- B. Preparation: Accurately lay-out dimensioned paver work in accordance with the Contract Documents.
  - C. Subgrade: Compact the subgrade to 95 to 98 percent Proctor density as described in Section 2.09 of Form 816. Special care shall be taken to achieve full compaction adjacent to curbing at front circle.
  - D. Base:
    - 1. Backfill over the compacted subgrade with processed aggregate to the depth indicated on the Drawings. Level the base as required to ensure that it is uniform with no depressions over 2" in 10 feet. Do not backfill with sand bedding until surface uniformity has been achieved.
    - 2. The base shall be compacted by means of an engine powered vibratory compactor to 95 percent modified AASHTO laboratory density.
  - E. Place geotextile soil separator over the base allowing for a minimum of 12" overlap between sections of fabric.
  - F. Place sand over the geotextile soil separator to the depth indicated on the drawings. Do not compact.
  - G. Paving Work:
    - 1. Paving work shall be constructed to line and grade as detailed in the Contract Documents.
    - 2. Install pavers hand tight in pattern as detailed. Maximum joint width shall not exceed 1/8".
    - 3. Sweep joint sand into the joints until they are full. Lightly fog with water, and continue to fill with sand until no further settlement occurs.
  - H. Paver edge restraints shall be installed around the entire perimeter of the concrete paving stones that are not restrained by concrete curbing or building walls. Place edge restraint on the base and spike through pre-drilled holes into the compacted base using 10" X 3/8" diameter steel spikes and as per manufacturer's recommendations.
  - I. Cleaning: Clean the surface of paving by watering and brushing as required.
- 3.3 PROTECTION AND ADJUSTMENT:
- A. Protect the paving as necessary to prevent the introduction of foreign material into base, staining, or damage due to construction operations.
  - B. Prior to final acceptance, repair any damage to the paving which may occur.

END OF SECTION  
\*\*\*\*\*

**PART 1 - GENERAL**

**1.1 DESCRIPTION OF WORK:**

- A. Provide concrete wheel stops in the locations shown and as detailed and described in the Contract Documents.

**1.2 RELATED WORK:**

All sections of Division I.

- 32 12 16.13 Bituminous Concrete Paving
- 32 13 13 Portland Cement Concrete Paving
- 32 17 23.13 Pavement Marking

**1.3 QUALITY ASSURANCE:**

- A. Industry Reference Standards: Form 816, "State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 816, 2004" and any amendments and supplements.
- B. Installer Qualifications: Engaged firm must be able to provide evidence to indicate five (5) years documented experience in the installation work specified herein.

**1.4 SUBMITTALS:**

- A. General: Refer to Division I for submittal requirements.
- B. Required Submittals:
  - 1. Manufacturer's Product Data: Prior to installation submit manufacturer's technical data.
  - 2. Unit Prices: Concrete Wheel Stops.

**PART 2 - PRODUCTS**

**2.1 GENERAL MATERIALS REQUIREMENTS:**

- A. Concrete Wheel Stops: Provide 6'-0" precast concrete wheel stops as manufactured by one of the following:
  - 1. United Concrete Products, Inc., Yalesville, CT. 800.234.3119
  - 2. Cromwell Concrete Products, Cromwell, CT. 860.635.6585
  - 3. Arrow Concrete Inc., Granby, CT. 860.653.5063.
- B. Deformed Bar: Provide ½" Deformed Bars for pinning the curb to the pavement.

PART 3 - EXECUTION

3.1 FABRICATION/INSTALLATION:

- A. Install concrete wheel stops in the locations indicated on the drawings.
- B. Drive pins through the holes and into the bituminous concrete. Drive pins slightly below the surface of the curb top.

3.2 PROTECTION AND ADJUSTMENT:

- A. Protect concrete wheel stops as necessary to prevent damage due to construction operations.

END OF SECTION

\* \* \* \*

**PART 1 - GENERAL**

**1.1 DESCRIPTION OF WORK:**

This item shall include the furnishing of all labor, materials and equipment required to install Ornamental Iron Fence and Railing in the locations shown as detailed and described in the Contract Documents.

**1.2 RELATED WORK:**

All sections of Division I.

32 13 13          Portland Cement Concrete Paving

**1.3 SYSTEM DESCRIPTION:**

A.     The manufacturer shall supply a total industrial ornamental fence system. The system shall include all components (i.e., pickets, rails, posts, gates and hardware) required.

**1.4 QUALITY ASSURANCE:**

A.     Industry Reference Standards:

1.     ASTM B117 - Practice for Operating Salt-Spray (Fog) Apparatus.
2.     ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles and Tubes.
3.     ASTM D523 - Test Method for Specular Gloss.
4.     ASTM D822 - Practice for Conducting Tests on Paint and Related Coatings and Materials using Filtered Open-Flame Carbon-Arc Light and Water Exposure Apparatus.
5.     ASTM D1654 - Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments.
6.     ASTM D2244 - Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates.
7.     ASTM D2794 - Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
8.     ASTM D3359 - Test Method for Measuring Adhesion by Tape Test.

B.     Qualifications:

1. The contractor shall provide laborers and supervisors who are thoroughly familiar with the type of construction involved and materials and techniques

1.5 SUBMITTALS:

- A. Manufacturer's product data and finish sample
- B. Shop drawings indicating all components and layout

1.6 JOB CONDITIONS:

- A. Existing Conditions: Examine all work that the Work of this section is contingent upon and report any deficiencies to the Owner's Representative. Commencement of work will be construed to mean complete acceptance of the preparatory work of others. No adjustment will be made for discrepancies brought to the Owner's Representative's attention after work has begun.
- B. Coordination: Coordinate all Work of this section with related Work of other sections. Failure to coordinate properly will not reduce the obligation to meet the standards of acceptance of the various elements of Work contained herein.
- C. Sequencing and Scheduling: Installation of the ornamental iron handrail(s) and railing(s) is not to commence until construction of the project is generally complete.

PART 2 - PRODUCTS

2.1 FENCE:

- A. The fence shall be a 3 rail (double Top Rail) ornamental iron fence system with 3/4" pickets at 3" spacing with extended pickets for "Zero" clearance at bottom. Height: 6'0", Color: Black
  1. Ameristar Fence Products, Inc. Tulsa, OK. 888.333.3422
  2. Master Halco, Hartford, CT. 800.262.7925
  3. Iron World, Laurel, MD. 888.428.3415

- 2.2 CONCRETE FOOTING: Shall be CT. Form 816 "Class C"

PART 3 - EXECUTION

3.1 SPECIAL REQUIREMENTS:

- A. Special care shall be taken by the contractor to field measure and lay out the fence installation location. The contractor shall make minor adjustments to the final dimensions to ensure a proper fit.

3.2 FABRICATION:

- A. Fabricate and install the fence system, gates, and all necessary hardware in the locations shown on the drawings and per the manufacturer's recommendations.
- B. Concrete: Provide concrete for bases conforming to the requirements of Article M.03.01, Form 816 and shall be Class "C". The concrete shall not contain less than five nor more than seven percent entrained air at the time the concrete is deposited in the forms.
- C. Fence posts shall be set in accordance with the plans, plus or minus 1/2", depending on the nominal span specified. Gate posts shall be spaced according to the gate openings specified in the construction plans. The "Concrete" sections of this specification shall govern post base material requirements. Fence panels shall be attached to posts using mechanically fastened panel brackets supplied by the manufacturer. When cutting fence rails immediately seal the exposed surfaces by:
  - 1. Removing all metal shavings from cut area.
  - 2. Apply zinc-rich primer to thoroughly cover cut edge and drilled hole; let dry.
  - 3. Apply 2 coats of custom finish spray paint matching fence color.

3.3 CLEANING:

- A. The contractor shall clean the job site of excess materials; post-hole excavations shall be scattered uniformly away from posts.

3.4 PROTECTION, ADJUSTMENT, AND CLEANING:

- A. Protection: Protect finishes from damage during construction. Restore finishes damaged during installation and construction period so that no evidence remains of corrective work. Return items which cannot be refinished in the field to the shop; make required alterations and refinish entire unit, or provide new units as required.
- B. Adjustment: Touch-up painting of chips, scratches or abraded areas shall occur immediately to prevent rusting or further damage.

END OF SECTION

\* \* \* \*

**PART 1 - GENERAL**

**1.1 DESCRIPTION OF WORK:**

- A. The Work of this Section includes, but is not limited to, the furnishing of all labor, materials and equipment required to install wooden stockade fence in the locations shown and as detailed and described in the Contract Documents.

**1.2 RELATED WORK:**

All sections of Division I.

32 90 00 Trees, Shrubs, Groundcover & Perennials

**1.3 QUALITY ASSURANCE:**

A. Industry Reference Standards:

- 1. Federal Specifications (FS) publications: FS-TT-W-550, Specifications for Wood Preservation Treating Practices using a Chromated Copper Arsenate Mixture.
- 2. American Wood Preserver's Associations (AWPA) publications: AWPA C2, Standards for Lumber, Timbers, Bridge Ties and Mine Ties - Preservation Treatment by Pressure Processes.

B. Qualifications:

- 1. Fabricator Qualifications: Engaged firm must be able to provide evidence to indicate successful documented experience in the fabrication work specified herein.
- 2. Installer Qualifications: Engaged firm must be able to provide evidence to indicate successful documented experience in the installation work specified herein.

**1.4 SUBMITTALS:**

A. General: Refer to Division I for Submittal Requirements.

B. Required Submittals:

- 1. Manufacturer's Product Data: Submit manufacturer's technical data for each manufactured product.
- 2. Certificates:
  - a. The Owner's Representative shall be furnished with duplicate signed copies of a statement from the manufacturer of each manufactured product that the product complies with the requirements of the Contract Documents.
  - b. The Owner's Representative shall be furnished with duplicate signed copies of a statement from the appropriate vendor certifying the analysis of each the following:

- (1) Compliance with the wood preservation requirements.
- c. Unit Prices: Provide unit prices for the Work of this Section pursuant to the requirements of Division I.
- 3. Submittals Schedule: Before Installation
  - a. Manufacturer's Product Data
  - b. Certificates

1.5 JOB CONDITIONS:

- A. Existing Conditions: Examine all work that the Work of this section is contingent upon and report any deficiencies to the Owner's Representative. Commencement of work will be construed to mean complete acceptance of the preparatory work of others. No adjustment will be made for discrepancies brought to the Owner's Representative's attention after work has begun.
- B. Coordination: Coordinate all Work of this section with related Work of other sections. Failure to coordinate properly will not reduce the obligation to meet the standards of acceptance of the various elements of Work contained herein.
- C. Sequencing and Scheduling: No construction of the stockade fence is to commence until construction work is substantially complete.

- 1.6 SPECIAL CONDITIONS: Note that this fencing is to be stained black - Custom color to be selected to match ornamental fencing.

PART 2 - PRODUCTS

2.1 GENERAL MATERIALS REQUIREMENTS:

- A. Concrete Bases: Post settings shall be of the depth and size as recommended by the product manufacturer and as detailed for the specific work shown. Provide portland cement concrete conforming to the requirements of Section 02 512, Concrete Paving.
- B. Wood Fence: Shall be white cedar fencing equal to:
  - 1. "Universal Fence with Lattice Topper" and "Bedford" post caps as provided by Walpole Woodworkers, 800.343.6948
  - 2. "Courtyard with Lattice Topper" with ornamental posts caps as provided by Atlas Fence Co. 315.463.9207
  - 3. "Eastham Board Fence with Lattice Topper" as provided by Cape Cod Fence, Canton, CT. 860.673.3211

- C. Provide brace assemblies, tension wires, and miscellaneous galvanized hardware as required for proper installation and operation of fences and gates. Height shall be 6' overall to match ornamental iron fence.
- D. Stain: Provide shop primer and solid stain as recommended or provided by the fence manufacturer.  
Color: Black

**PART 3 - EXECUTION**

3.1 PRE-INSTALLATION REQUIREMENTS: Secure approval of the materials and design prior to installation.

3.2 FABRICATION/INSTALLATION:

- A. Excavation: Dig or drill holes for concrete bases of diameters and spacing shown, in firm, undisturbed or compacted soil. Excavate the holes to the minimum diameters as recommended by the fence manufacturer. Excavate hole depths approximately 3" lower than post bottoms, with the bottom of posts set not less than 42" below finish grade surface.
- B. Setting Posts: Center and align posts in the holes 3" above bottom of excavation. Place concrete around posts and vibrate or tamp for consolidation. Check each post for vertical and top alignment, and hold in position during placement and finishing operations.
- C. Assemble and install wood fence and gate/hardware per manufacturer's recommendations.
- D. Paint with one coat primer, two coats finish stain.

3.3 PROTECTION AND ADJUSTMENT:

- A. Protect fencing as necessary to prevent damage due to construction operations.
- B. Adjust hardware and brace rails and tension rods for proper installation.
- C. Tighten hardware, fasteners, and accessories.
- D. Touch up and repaint/restain any surfaces scarred or scraped during installation.

END OF SECTION

\* \* \* \*

**PART 1 - GENERAL**

**1.1 DESCRIPTION OF WORK:**

The Work of this Section includes, but is not limited to, the furnishing of all labor, materials and equipment required to install steel bollards in the locations shown and as detailed and described in the Contract Documents.

**1.2 RELATED WORK:**

All sections of Division I.

32 13 13      Portland Cement Concrete Paving  
32 14 13.13      Concrete Pavers on Sand

**1.3 QUALITY ASSURANCE:**

**A. Industry Reference Standards:**

1. Form 816: "State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 816, 2004" and any amendments and supplements.
2. American Society for Testing and Materials (ASTM) publications:
  - a. ASTM - A120-81      Pipe, Steel, Black, and Hot-Dipped Zinc-Coated (Galvanized) Welded and Seamless, for Ordinary Uses, Specification for.

**1.4 SUBMITTALS:**

**A. General:** Refer to Division I for Submittal Requirements.

**B. Required Submittals:**

1. Shop Drawings: Provide shop drawings of the steel bollard and it's installation details.
2. Unit Prices: Provide unit prices for the Work of this Section pursuant to the requirements of Division I.

**1.5 JOB CONDITIONS:**

**A. Existing Conditions:** Examine all work that the Work of this section is contingent upon and report any deficiencies to the Owner's Representative. Commencement of work will be construed to mean complete acceptance of the preparatory work of others. No adjustment will be made for discrepancies brought to the Owner's Representative's attention after work has begun.

- B. Coordination: Coordinate all Work of this section with related Work of other sections. Failure to coordinate properly will not reduce the obligation to meet the standards of acceptance of the various elements of Work contained herein.
- C. Sequencing and Scheduling: No construction of the chain link fencing is to commence until construction work is generally complete.

## PART 2 - PRODUCTS

### 2.1 GENERAL MATERIALS REQUIREMENTS:

- A. Bollard:
  - 1. Bollard Base: Provide 6", schedule 40 Iron pipe to the length as detailed. J Finish: One coat of rust inhibiting primer.
  - 2. [Bollard Sleeve: The basis of design is the 6" "Decobollard" sleeve cut to sizes as detailed. Color: Black. As manufactured by Bollard Solutions \(770\) 857-0400.](#)  
  
[Or provide equivalent bollard sleeves as provided by the following manufacturers:](#)
    - a. [6" Metro Bollard Cover. Color: Black as provided by Ideal Sheild 866.825.8659](#)
    - b. [6" Architectural Bollard. Color: Black as provided by Bollards & Sleeves 800.914.4771.](#)
  - 3. Concrete Base and Infill: Shall meet the requirements of Article M.03.01, Form 816 and shall be Class "F. The concrete shall contain not less than five nor more than seven percent entrained air at the time the concrete is deposited in their forms.
- B. Bollard Settings: Bollard foundation shall be of the depth and size as shown on the drawings. Provide portland cement concrete conforming to the requirements of Article M.03.01 of Form 816, Class "C". The concrete shall contain not less than five or more than seven percent entrained air at the time the concrete is deposited in the forms.
- C. Paint: Shall be as manufactured by the Tnemec Company, Inc., P.O. Box 411749, Kansas City, MO 64141 (816) 483-3400 or approved equal.
  - 1. Shop Primer: 90-97 Tnemec-Zinc Aromatic Urethane, Zinc Rich primer; 2.5-3.5 mils DFT (Dry Film Thickness).
  - 2. Second Coat: Series 27 F.C. Typoxy Polyamid epoxy, 5 mils DFT (Dry Film Thickness)
  - 3. Third Coat: Provide Aliphatic Urethane 75 (semi-gloss), 2.0-5.0 mils DFT (Dry Film Thickness)
  - 4. Color: Shall be selected by the Owner.

PART 3 - EXECUTION

3.1 INSTALLATION:

- A. Fabricate bollard per drawing.
- B. Shop Painting:
  - 1. Shop paint bollards per paint manufacturer's recommendations.
  - 2. Prepare the iron surface to SP6 Specifications, Commercial blast cleaning.
  - 3. Remove oil, grease and similar contaminants.
  - 4. Immediately after surface preparation, brush or spray on primer in accordance with manufacturer's instructions, and at a rate to provide uniform dry film thickness of 2.5 - 3.5 mils. Use painting methods which will result in full coverage of joints, corners, edges and exposed surfaces.
  - 5. Apply 2 shop coats to fabricated metal items. Apply 2 coats of paint to surfaces inaccessible after assembly or erection.
- C. Installation:
  - 1. Install in locations as per drawings
  - 2. Fill Bollard with concrete and round top to drain.
  - 3. Field paint 2 coats.
  - 4. Cut Bollard sleeve to proper height, install over iron bollard base and secure with stainless steel screw.

3.2 PROTECTION AND ADJUSTMENT:

- A. Protect bollard as necessary to prevent damage due to construction operations.
- B. Paint as required to restore paint to "like new" condition.

END OF SECTION

\* \* \* \*