

State of Connecticut

Department of Transportation

SUPPLEMENTAL SPECIFICATIONS

TO

THE STANDARD SPECIFICATIONS

FOR

ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION

FORM 816

2004

JULY 2008

July 2008

DIVISION I
GENERAL REQUIREMENTS AND COVENANTS

<u>SECTION</u>		<u>SPECIFICATION NUMBER</u>
1.01	Definition of Terms and Permissible Abbreviations	101
1.05	Control of the Work	105
1.09	Measurement and Payment	109
1.10	Environmental Compliance	110
1.20	General Clauses for Facilities Construction	120

July 2008

DIVISION II
CONSTRUCTION DETAILS

<u>SECTION</u>		<u>SPECIFICATION NUMBER</u>
3.04	Processed Aggregate Base	304
4.01	Concrete Pavement	401
6.01	Concrete for Structures	601
6.03	Structural Steel	603
6.12	Concrete Cylinder Curing Box	612
6.51	Culverts	651
7.02	Piles	702
9.10	Metal Beam Rail	910
9.18	Three-Cable Guide Railing (I-Beam Post) and Anchorages	918
10.10	Concrete Handhole	1010
11.13	Control Cable	1113
12.10	Epoxy Resin Pavement Markings, Symbols and Legends	1210

July 2008

DIVISION III
MATERIALS SECTION

SECTION

**SPECIFICATION
NUMBER**

M.16 Traffic Control Signals
M.17 Elastomeric Materials
M.18 Signing

M16
M17
M18

July 2008
STANDARD SPECIFICATIONS
FOR
ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION
FORM 816

ERRATA

<u>PG.</u>	<u>ARTICLE OR SUBARTICLE</u>	<u>LINE NO.</u>	<u>CORRECTION</u>
iv	Table of Contents	11	Change "Guild" to "Guide"
4	1.01.01	8	After the end of the definition for "Plans," insert as a subset, "A. Standard Sheets – Standardized plans containing details approved by the Department and the FHWA, for construction of a given type on any project, included in contracts on an as-needed basis."
6	1.01.02	41	Change "Aluminum Association" to "Aluminum Association, Inc. (The)"
6	1.01.02	42	Delete "AAA – Aluminum Alloy Association"
7	1.01.02	1	Insert "AABC – Associated Air Balance Council"
7	1.01.02	1	Insert "AAMA – American Architectural Manufacturers Association"
7	1.01.02	12	Insert "ABMA – American Bearing Manufacturers Association"
7	1.01.02	12	Insert "ACGIH – American Council of Government Industrial Hygienists"
7	1.01.02	12	Change "American Concrete Institute" to "ACI International (American Concrete Institute)"
7	1.01.02	14	Insert "ADAAG – Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities"
7	1.01.02	16	Change "Associated General Contractors of America" to "Associated General Contractors of America (The)"
7	1.01.02	19	Insert "AI – Asphalt Institute"
7	1.01.02	19	Change "American Institute of Architects" to "American Institute of Architects (The)"
7	1.01.02	20	Delete "AIEE – American Institute of Electrical Engineers "
7	1.01.02	24	Delete "ALI – Associated Laboratories, Inc."
7	1.01.02	26	Change "American Lumber Standard Committee" to "American Lumber Standards Committee, Incorporated"
7	1.01.02	27	Change "Air Movement and Control Association" to "Air Movement and Control Association International, Inc."
7	1.01.02	31	Delete "AOEC – Area of Environmental Concern"
7	1.01.02	33	Change "The Engineered Wood Association" to "APA-The Engineered Wood Association"
7	1.01.02	37	Change "Air Conditioning" to "Air-Conditioning"
8	1.01.02	7	Change "Air Conditioning" to "Air-Conditioning"
8	1.01.02	8	Change "American Society of Mechanical Engineers" to "ASME International (The American Society of Mechanical Engineers International)"
8	1.01.02	18	Delete "ATA – American Transit Association"
8	1.01.02	20	Delete "AWG – American Wire Gauge"
8	1.01.02	22	Change "Wood-Preservers" to "Wood-Preservers' "
8	1.01.02	33	Delete "AZI – American Zinc Institute"
8	1.01.02	35	Change "Building Officials and Code Administrators International" to "BOCA International, Inc."

<u>PG.</u>	<u>ARTICLE OR SUBARTICLE</u>	<u>LINE NO.</u>	<u>CORRECTION</u>
8	1.01.02	38	Change "Library" to "Laboratory"
9	1.01.02	2	Change "CONNDOT" to "ConnDOT"
9	1.01.02	6	Delete "CPI – Clay Pipe Institute"
9	1.01.02	9	Delete "CS – Commercial Standard"
9	1.01.02	10	Change "Construction Specifications Institute" to "Construction Specifications Institute (The)"
9	1.01.02	12	Change "Tower" to "Technology"
9	1.01.02	17	Delete "DFPA – Douglas Fir Plywood Association"
9	1.01.02	19	Change "Department of Defense" to "Department of Defense Military Specifications and Standards"
9	1.01.02	21	Change "Association" to "Alliance"
9	1.01.02	23	Delete "U.S. Department of Transportation"
9	1.01.02	28	Delete "U.S. Department of Transportation"
9	1.01.02	30	Insert "FMG – FM Global"
9	1.01.02	31	Delete "U.S. Department of Transportation"
10	1.01.02	2	Delete "HASP – Health and Safety Plan"
10	1.01.02	3	Delete "HMA – Hot Mix Asphalt or Bituminous Concrete"
10	1.01.02	4	Delete "HPMA – Hardwood Plywood Manufacturers Association"
10	1.01.02	5	Insert "HPVA – Hardwood Plywood & Veneer Association"
10	1.01.02	9	Insert "ICC – International Code Council"
10	1.01.02	9	Change "Insulated Cable Engineers Association" to "Insulated Cable Engineers Association, Inc."
10	1.01.02	10	Change "Institute of Electrical and Electronics Engineers" to "Institute of Electrical and Electronics Engineers, Inc. (The)"
10	1.01.02	21	Change "Military Standardization Documents, U.S. Department of Defense" to "(MILSPEC) Military Specification and Standards"
10	1.01.02	24	Delete "MS – Military Specifications"
10	1.01.02	26	Change "Manufacturers Standardization Society of the Valve and Fittings Industry Inc." to "Manufacturers Standardization Society of The Valve and Fittings the Valve Industry Inc."
10	1.01.02	29	Change "National Association of Architectural Metal Manufacturers (The)" to "National Association of Architectural Metal Manufacturers"
10	1.01.02	31	Insert "NADCA – National Air Duct Cleaners Association"
10	1.01.02	34	Delete "NBS – National Bureau of Standards"
10	1.01.02	35	Delete "NC – National Course"
11	1.01.02	3	Delete "NCPRC – National Clay Pipe Research Corporation"
11	1.01.02	10	Change "International Electrical Testing Association" to "InterNational Testing Association"
11	1.01.02	12	Delete "NFS – NFS International"
11	1.01.02	13	Insert "NHLA – National Hardwood Lumber Association"
11	1.01.02	18	Insert "NLGA – National Lumber Grades Authority"
11	1.01.02	18	Delete "NLMA – National Lumber Manufacturers Association"
11	1.01.02	21	Insert "NSF – NSF International"
11	1.01.02	21	Change "National Terrazzo and Mosaic Association (The)" to "National Terrazzo and Mosaic Association, Inc."
11	1.01.02	26	Delete "PCC – Portland Cement Concrete"
11	1.01.02	28	Delete "PLP – Plastic Laminate Producers"
11	1.01.02	29	Delete "PS – Product Standard of NBS, U.S. Department of Commerce"
11	1.01.02	32	Delete "RLMI – Reflector and Lamp Manufacturers' Institute"

<u>PG.</u>	<u>ARTICLE OR SUBARTICLE</u>	<u>LINE NO.</u>	<u>CORRECTION</u>
11	1.01.02	35	Delete "SAWP – Society of American Wood Preservers"
11	1.01.02	36	Insert "SDI – Steel Deck Institute"
11	1.01.02	36	Insert "S.D.I. – Steel Door Institute"
11	1.01.02	37	Insert "SJI – Steel Joist Institute"
11	1.01.02	37	Insert "SMACNA – Sheet Metal and Air Conditioning Contractors' National Association"
11	1.01.02	37	Change "Southern Pine Inspection Bureau" to "Southern Pine Inspection Bureau (The)"
12	1.01.02	9	Change "Tile Council of America" to "Tile Council of America, Inc."
12	1.01.02	10	Insert "TIA – Telecommunications Industry Association"
12	1.01.02	10	Insert "TPI – Truss Plate Institute, Inc."
12	1.01.02	10	Delete "UBC – Uniform Building Code"
12	1.01.02	11	Change "Underwriters Laboratories, Inc." to "Underwriters Laboratories Inc."
12	1.01.02	12	Delete "UMTA – Urban Mass Transportation Administration, U.S. Department of Transportation"
12	1.01.02	14	Delete "UPC – Uniform Plumbing Code"
12	1.01.02	15	Insert "USGBC – U.S. Green Building Council"
12	1.01.02	16	Delete "USS – United States Standard"
12	1.01.02	17	Delete "VOC – Volatile Synthetic Organic Chemicals"
12	1.01.02	19	Delete "WCLA – West Coast Lumberman's Association"
12	1.01.02	20	Insert "WCSC – Window Covering Safety Council"
12	1.01.02	20	Delete "WSA – Temporary Waste Stockpile Area"
12	1.01.03	31	Insert "AOEC – Area of Environmental Concern"
12	1.01.03	31	Insert "AWG – American Wire Gauge"
13	1.01.03	16	Insert "HASP – Health and Safety Plan"
13	1.01.03	29	Insert "PCC – Portland Cement Concrete"
14	1.01.03	25	Insert "VOC – Volatile Organic Compound"
14	1.01.03	26	Insert "WSA – Temporary Waste Stockpile Area"
22	1.03.07	23	Change " \$1,000,000 " to " \$2,000,000 "
32	1.05.01	38	Change "Connecticut General Statutes" to "CGS"
45	1.05.15	29	Change "Department of Public Utility Control" to "DPUC"
105	1.20	29	Change "Workmen and Equipment" to "Personnel and Equipment"
105	1.20	31	Delete "Completion of Construction Work and"
107	1.20-1.02.13	15	Change "Americans with Disabilities Act Accessibility Guidelines" to "ADAAG"
108	1.20-1.04.01	26	Change "othewise" to "otherwise"
119	1.20-1.05.25	4	Change "Certificate of Compliance" to "C.O.C."
122	1.20-1.06.08	3	Change "Certificate of Compliance" to "C.O.C."
131	1.20-1.08.05	34	Change "Workmen and Equipment" to "Personnel and Equipment"
132	1.20-1.08.11	12	Change "Certificate of Compliance" to "C.O.C."
133	1.20-1.08.13	7	Delete "Completion of Construction Work and"
133	1.20-1.08.13	9	Change "Certificate of Compliance" to "C.O.C."
133	1.20-1.08.11	15	Change "Certificate of Compliance" to "C.O.C."
133	1.20-1.08.11	20	Change "Certificate of Compliance" to "C.O.C."
143	2.02.01	28	Insert ", swales" after "channels"
245	4.06.04	11	Change " Over weight (mass) Adjustments - " and replace with indented "Over weight (mass) Adjustments -" as a subsection of " 1. Bituminous Concrete Class () ".
351	6.03.03	8	Change "MS MIL-C-11796B" to "MIL-C-11796B"

<u>PG.</u>	<u>ARTICLE OR SUBARTICLE</u>	<u>LINE NO.</u>	<u>CORRECTION</u>
496	9.70.01	37	Change "CDOT" to "ConnDOT"
604	18.00.02	7	Change "National Cooperative Highway Research Program (NCHRP)" to "NCHRP"
623	M.03.01	9	Change "Cement and Concrete Reference Laboratory" to "CCRL"
623	M.03.01	13	Change "Cement and Concrete Reference Laboratory" to "CCRL"
626	M.03.01	2	Change "Cement and Concrete Reference Laboratory" to "CCRL"
626	M.03.01	3	Change "NBS" to "NIST"
632	M.03.01	18	Change "Cement and Concrete Reference Laboratory" to "CCRL"
638	M.04.02	37	Change "Asphalt Institute's" to "AI's"
735	M.13.03	22	Change "AOAC International" to "AOAC"
760	M.15.15	21	Change "non-fusible" to "fused"
780	M.16.08	41	Change "Americans With Disabilities Act (ADA)" to "ADA"
790	M.16.10	24	Change "Underwriter's Laboratory" to "UL"
800	M.17.01	19	Change "AAA 6061-T6" to "AA 6061-T6"
845	Index	6	Add page 133 to "Acceptance of Project"
846	Index	13	Add page 107 to "Bids: Consideration of"
847	Index	28	Add page 132 to "Cleaning Up, Final"
849	Index	25	Add page 107 to "Consideration of Bids"
849	Index	39	Add page 108 to "Contract: Intent of"
850	Index	3	Add page 133 to "Contractor's: Responsibility, Termination of the"
850	Index	13	Add page 114 to "Cooperation by Contractor"
850	Index	15	Add page 114 to "Coordination of Special Provisions, Plans, Supplemental Specifications and Standard Specifications and Other Contract Requirements"
850	Index	40	Add page 128 to "Cutting and Patching:"
852	Index	16	Add page 106 to "Examination of Plans, Specifications, Special Provisions and Site of Work"
852	Index	38	Insert "Facilities, Temporary...126"
853	Index	7	Add page 132 to "Final: Cleaning Up"
854	Index	35	Add page 115 to "Inspection"
855	Index	11	Add page 108 to "Intent of Contract"
855	Index	22	Add page 106 to "Knowledge of Applicable Laws"
855	Index	25	Add page 106 to "Laws: Knowledge of Applicable"
856	Index	27	Add page 120 to "Materials: Source of Supply and Quality"
856	Index	28	Add page 121 to "Materials: Storage of"
857	Index	33	Add page 133 to "Operation and Maintenance Manuals:"
857	Index	34	Change page 133 to 136 for "Equipment and Systems Maintenance Manual"
859	Index	2	Add page 131 to "Personnel and Equipment"
860	Index	6	Add page 114 to "Plans: Coordination of Special Provisions, Supplemental Specifications and Standard Specifications and Other Contract Requirements"
860	Index	7	Add page 106 to "Plans: Examination of"
860	Index	30	Change page 108 to 112 for "Product Data"
860	Index	31	Change page 108 to 112 for "Product Samples "
860	Index	32	Add page 124 to "Product Selection:"
861	Index	12	Add page 126 to "Prosecution of Work"
861	Index	38	Change page 115 to 135 for "Record Drawings"
863	Index	3	Add page 125 to "Sanitary Provisions"
863	Index	18	Insert "Services, Temporary...126"

<u>PG.</u>	<u>ARTICLE OR SUBARTICLE</u>	<u>LINE NO.</u>	<u>CORRECTION</u>
863	Index	23	Add page 111 to "Shop Drawings"
864	Index	4	Add page 106 to "Site of Work, Examination of"
864	Index	12	Add page 120 to "Source of Supply and Quality"
864	Index	19	Add page 114 to "Special Provisions: Coordination of Plans, Supplemental Specifications and Standard Specifications and Other Contract Requirements"
864	Index	20	Add page 106 to "Special Provisions: Examination of"
864	Index	26	Add page 114 to "Specifications: Coordination of Plans, Special Provisions and Other Contract Requirements"
864	Index	27	Add page 106 to "Specifications: Examination of"
864	Index	43	Add page 121 to "Storage"
865	Index	27	Delete page 108 from "Submittals: Shop Drawings"
865	Index	45	Insert "Temporary Utilities, Services, and Facilities...126"
866	Index	2	Add page 133 to "Termination of Contractor's Responsibility"
866	Index	23	Insert "Training...137"
866	Index	45	Add page 133 to "Utility Services"
867	Index	8	Insert "Warranties...121"
867	Index	24	Add page 126 to "Work: Prosecution of"

**CONNECTICUT
SUPPLEMENTAL SPECIFICATION
SECTION 1.01
DEFINITIONS OF TERMS AND
PERMISSIBLE ABBREVIATIONS**

1.01.02 — Abbreviations, Publications, and Standards:

Delete the like-named abbreviations and replace it with the following abbreviations:

“**AA** – Aluminum Association, Inc. (The)
ALSC – American Lumber Standard Committee, Incorporated
AMCA – Air Movement and Control Association International, Inc.
AOSA – Association of Official Seed Analysts, Inc.
ASME – ASME International (The American Society of Mechanical Engineers International)
CTI – Cooling Technology Institute
EIA – Electronic Industries Alliance
ICEA – Insulated Cable Engineers Association, Inc.
IEEE – Institute of Electrical and Electronics Engineers, Inc. (The)
NTMA – National Terrazzo & Mosaic Association, Inc. (The)
TCA – Tile Council of America, Inc.”

Delete the Following abbreviations:

“**ADA** – Americans with Disabilities Act
AFPA – American Forest and Paper Association
BOCA – Building Officials and Code Administrators International
FM – Factory Mutual System
ICBO – International Conference of Building Officials
MIL – Military Standardization Documents, U.S Department of Defense
MS – Military Specifications
NWWDA – National Wood Window and Door Association
NFS – NFS International”

Add the following abbreviations:

“**ADAAG** – Americans with Disabilities Act (ADA)
AABC – Associated Air Balance Council
AAMA – American Architectural Manufacturers Association
ABMA – American Bearing Manufacturers Association
AF&PA – American Forest & Paper Association
AI – Asphalt Institute
BIA – Brick Industry Association (The)
CDA – Copper Development Association Inc.

CGA – Compressed Gas Association
FMG – FM Global
HI – Hydraulic Institute
HPVA – Hardwood Plywood & Veneer Association
ICC – International Code Council
ICC-ES – ICC Evaluation Service, Inc.
IEC – International Electrotechnical Commission
IGMA – Insulating Glass Manufacturers Alliance
ISO – International Organization for Standardization
MILSPEC – Military Specification and Standards
NADCA – National Air Duct Cleaners Association
NFRC – National Fenestration Rating Council
NHLA – National Hardwood Lumber Association
NSF – NSF International (National Sanitation Foundation International)
PDI – Plumbing & Drainage Institute
SDI – Steel Deck Institute *or*
 - Steel Door Institute
SJI – Steel Joist Institute
SMACNA – Sheet Metal and Air Conditioning Contractors' National Association
SPRI – Single Ply Roofing Industry
SWRI – Sealant, Waterproofing, & Restoration Institute
TIA/EIA – Telecommunications Industry Association/Electronic Industries Alliance
TRB – Transportation Research Board
UFAS – Uniform Federal Accessibility Standards
USGBC – U.S. Green Building Council
WDMA – Window & Door Manufacturers Association”

**CONNECTICUT
SUPPLEMENTAL SPECIFICATION
SECTION 1.05
CONTROL OF THE WORK**

Add the following Article:

1.05.17 - WELDING

The Contractor shall ensure that all welding of materials permanently incorporated into the work, and welding of materials used temporarily during construction of the work is performed in accordance with the following codes:

- American Welding Society (AWS) Structural Welding Code – Steel – ANSI/AWS D1.1: Miscellaneous steel items that are statically loaded including but not limited to columns, and floor beams in buildings, railings, sign supports, cofferdams, tubular items, and modifications to existing statically loaded structures.
- AWS Structural Welding Code – Aluminum – AWS D1.2/D1.2M: Any aluminum structure or member including but not limited to brackets, light standards, and poles.
- AWS Structural Welding Code – Sheet Steel – AWS D1.3/D1.3M: Sheet steel and cold-formed members 0.18 in.(4.6 mm) or less in thickness used as, but not limited, to decking and stay-in-place forms.
- AWS Structural Welding Code – Reinforcing Steel – AWS D1.4/D1.4M: Steel material used in the reinforcement of cast-in-place or pre-cast Portland cement concrete elements including but not limited to bridge decks, catch basin components, walls, beams, deck units, and girders.
- AASHTO/AWS – Bridge Welding Code, AASHTO/AWS D1.5/D1.5M: Steel highway bridges and other dynamically loaded steel structures. Also includes sign supports, and any other fracture critical structure.

The edition governing the work shall be in effect on the date the Contract was advertised for solicitation of bids.

The Contractor is responsible to provide a Certified Welding Inspector in accordance with the above noted codes. The cost for this service is included in the general cost of the work.

All welders shall be certified by the Engineer in accordance with Section 6.03.

CONNECTICUT
SUPPLEMENTAL SPECIFICATION
SECTION 1.09
MEASUREMENT AND PAYMENT

Article 1.09.04 – Extra and Cost-Plus Work

Delete the word “bonding” under section (a) Labor, (3).

Delete existing section (e) and replace with the following:

(e) Administrative Expense: When extra work on a cost-plus basis is performed by an authorized subcontractor, the Department will pay the Contractor an additional 7.5% for that work; such payment will be in addition to the percentage payments described in (a), (b), (c) and (d) above, as a reimbursement for the Contractor's administrative expense in connection with such work.

Change Section designation for Miscellaneous from:

(f) Miscellaneous to: **(g) Miscellaneous**

Add the following as (f):

(f) Bonding Costs: For bonding on the total cost of the cost-plus work including administrative expenses as outlined in (e) above, the Contractor shall receive its actual cost. The Contractor shall provide to the Engineer documentation, satisfactory to the Engineer in form and substance, of all such costs.

**CONNECTICUT
SUPPLEMENTAL SPECIFICATION
SECTION 1.10
ENVIRONMENTAL COMPLIANCE**

Add the following Article:

1.10.08 – VEHICLE EMISSIONS

All motor vehicles and/or construction equipment (both on-highway and non-road) shall comply with all pertinent State and Federal regulations relative to exhaust emission controls and safety.

The Contractor shall establish staging zones for vehicles that are waiting to load or unload at the contract area. Such zones shall be located where the emissions from the vehicles will have minimum impact on abutters and the general public.

Idling of delivery trucks, dump trucks, and other equipment shall not be permitted in excess of 3 minutes during periods of non-activity except as allowed by the Regulations of Connecticut State Agencies Section 22a-174-18(b)(3)(c):

No mobile source engine shall be allowed “to operate for more than three (3) consecutive minutes when the mobile source is not in motion, except as follows:

- (i) When a mobile source is forced to remain motionless because of traffic conditions or mechanical difficulties over which the operator has no control,
- (ii) When it is necessary to operate defrosting, heating or cooling equipment to ensure the safety or health of the driver or passengers,
- (iii) When it is necessary to operate auxiliary equipment that is located in or on the mobile source to accomplish the intended use of the mobile source,
- (iv) To bring the mobile source to the manufacturer’s recommended operating temperature,
- (v) When the outdoor temperature is below twenty degrees Fahrenheit (20 degrees F) [negative seven degrees Celsius (-7 degrees C)],
- (vi) When the mobile source is undergoing maintenance that requires such mobile source be operated for more than three (3) consecutive minutes, or
- (vii) When a mobile source is in queue to be inspected by U.S. military personnel prior to gaining access to a U.S. military installation.”

All work shall be conducted to ensure that no harmful effects are caused to adjacent sensitive receptors. Sensitive receptors include but are not limited to hospitals, schools, daycare facilities, elderly housing and convalescent facilities. Engine exhaust shall be located away from fresh air intakes, air conditioners, and windows.

A Vehicle Emissions Mitigation plan will be required for areas where extensive work will be performed within (less than 50 feet (15 meters)) to sensitive receptors. No work will proceed until a sequence of construction and a Vehicle Emissions Mitigation plan is submitted in writing to the Engineer for review and all comments are addressed in a manner acceptable to the Engineer. The mitigation plan must address the control of vehicle emissions from all vehicles and construction equipment.

Any costs associated with this "Vehicle Emissions" article shall be included in the general cost of the Contract. In addition, there shall be no time granted to the contractor for compliance with this notice. The contractor's compliance with this notice and any associated regulations shall not be grounds for claims as outlined in Section 1.11 – "Claims".

**CONNECTICUT
SUPPLEMENTAL SPECIFICATION
SECTION 1.20
GENERAL CLAUSES FOR FACILITIES CONSTRUCTION**

1.20-1.00 – General:

Delete the last sentence of the first paragraph and replace with the following:

“Facilities Construction is defined as the type of construction that requires the issuance of a Certificate of Compliance (C.O.C.) by the State Building Inspector or his authorized representative at the completion of a project, and includes site work considered ancillary to this type of construction.”

Add the following article:

1.20-1.01.01—Definitions:

OWNER: Where used herein, it is synonymous with Department or State.

1.20-1.02.04 – Examination of Plans, Specifications, Special Provisions and Site of Work:

Delete the first sentence of the first paragraph and replace with the following:

“CSI-formatted specifications are organized into Divisions and Sections based on the CSI’s “MasterFormat” numbering system.”

1.20-1.02.13 – Knowledge of Applicable Laws:

Delete Items 1 through 9 in their entirety and replace with the following:

1. “The 2003 International Building Code with the State Building Code, including latest Connecticut Supplement.
2. The 2003 International Plumbing Code.
3. The 2003 International Mechanical Code.
4. The 2003 International Existing Building Code.
5. The 2003 International Energy Conservation Code.
6. The 2005 NFPA 70 National Electrical Code.
7. The 2003 ICC/ANSI A117.1.
8. The Fire Safety Code, including latest Connecticut Supplement.

9. The 2003 International Fire Code.
10. The 2003 NFPA 1 Uniform Fire Code.
11. The 2003 NFPA 101 Life Safety Code.”

Add the following as the new last paragraph:

“All work to be performed by the Contractor shall comply with the “Americans with Disabilities Act Accessibility Guidelines.”

1.20-1.03.01 – Consideration of Bids:

Delete the second and third paragraphs and replace with the following:

“The total in the Schedule of Values shall equal the bid dollar amount for the Major Lump Sum Item.

The Schedule of Values shall be divided into “Line Items” listed separately for each CSI Section of the Special Provisions.”

1.20-1.05.02--Shop Drawings, Product Data, Product Samples and Quality Assurance Submittals

Delete the last sentence of the first paragraph and replace with the following:

“All facsimiles or other electronic documents from the Contractor shall be followed by an official transmittal.”

Delete the third paragraph and replace with the following:

“The Contractor shall number each submittal consecutively: When resubmitting a “Revise and Resubmit” or “Rejected” submittal, the Contractor shall label the transmittal with the original submittal number followed by a letter to designate the additional submission. All submittals shall be numbered conforming to the following examples:”

In column B of line 001, line 001a, and line 001b of the table in subsection 1, replace “07511” with “075110.”

Add the following to the end of the first paragraph of subsection 2:

“The Department reserves the right to return partial submittals unreviewed to the Contractor.”

Revise the third paragraph of subsection 2 to read:

“The Contractor shall allow at least 60 calendar days for review of any submittal requiring approval by FAA, FTA, any railroad, DEP, U.S. Coast Guard, Army Corps of Engineers, or any other outside agency.”

Delete the third and fourth paragraphs of subsection 3 and replace with the following:

“The Designer will not review submittals and the Engineer will not process payment estimates until the initial submittal schedule has been provided. Any delays in construction due to the Contractor's failure to provide a submittal schedule shall be the responsibility of the Contractor.

The Contractor must update its submittal schedule at least once a month, and distribute and post each updated schedule in the manner described above. The Engineer reserves the right not to process payment estimates without a recently updated submittal schedule on file.”

Replace the first sentence of the first paragraph of subsection 4 with the following:

“Shop Drawings consist of fabrication and installation drawings, roughing-in and setting drawings, schedules, patterns, templates and similar drawings, and wiring diagrams showing field-installed wiring, including power, signal, and control wiring.”

Replace the second paragraph of subsection 4 with the following:

“Shop drawings shall include the following information: Contract number, Project description, number and title of the drawing, date of drawing, revision number, name of Contractor and subcontractor submitting drawings, dimensions, identification of products, shopwork manufacturing instructions, design calculations, statement of compliance with Contractual standards, notation of dimensions established by field measurement, relationship to adjoining construction clearly indicated, seal and signature of a professional engineer if specified, and any other information required by individual Contract provisions.”

Replace the first sentence of the first paragraph of subsection 5 with the following:

“Product data consist of printed information such as manufacturer's product specifications, manufacturer's installation instructions, manufacturer's catalog cuts, standard color charts, wiring diagrams showing factory-installed wiring, printed performance curves, operational range diagrams, and mill reports.”

Replace the first sentence of the first paragraph of subsection 7 with the following:

“Quality assurance submittals consist of qualification data, design data, certifications, manufacturer’s instructions, manufacturer’s field reports, test reports, Material Safety Data Sheets (MSDSs), and other quality assurance information required by individual Contract provisions.”

1.20-1.05.04—Coordination of Special Provisions, Plans, Supplemental Specifications and Standard Specifications and Other Contract Requirements:

Delete the first and second paragraphs and replace with the following:

“Industry Standards: Each entity engaged in construction of the Contract shall be familiar with industry standards applicable to that entity's construction activities. If printed standards have been established by organizations referenced in Article 1.01.02 or in the Contract, the Contractor shall obtain copies of said standards directly from the publication source.

Unless the Special Provisions include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Special Provisions to the extent referenced. Such standards are made a part of the Contract by reference.”

Add the following article:

1.20-1.05.23—Requests for Information (RFIs):

The Contractor shall forward all RFIs to the Engineer in writing (facsimile or other electronic document) for review. The Engineer will forward the RFI to the Designer for review. Upon receipt of an RFI, the Designer will attempt to determine if additional information is required from the Contractor to respond to the RFI, and request said information from the Engineer.

All other RFIs will be responded to within 10 calendar days of receipt by the Designer.

1.20-1.05.24--Project Meetings:

Delete the third paragraph under subsection 1.

Delete the second paragraph under subsection 2 and replace with the following:

“The meeting participants shall review progress of other construction activities and preparations for the particular activity under consideration, including requirements of Contract documents, related requests for interpretations, related construction orders, purchases, deliveries, submittals, review of mockups, possible conflicts, compatibility problems, time schedules, weather limitations, manufacturer’s written

recommendations, warranty requirements, compatibility of materials, acceptability of substrates, temporary facilities and controls, space and access limitations, regulations of authorities having jurisdiction, testing and inspecting requirements, installation procedures coordination with other work, required performance results, protection of adjacent work, and protection of construction and personnel.”

Delete the second, third and fourth paragraph under subsection 3 and replace with the following:

“The Contractor shall provide the Engineer with a detailed agenda for the proposed meeting, specifying what topics will be covered. In addition to representatives of the Engineer, each subcontractor, supplier or other entity concerned with current progress or involved in planning, coordination or performance of future activities shall attend these meetings. All participants at the meeting shall be familiar with the Project and authorized to conclude matters relating to the Project.

At each progress meeting, the participants shall (1) review items of significance that could affect progress; (2) discuss topics appropriate to the current status of the Project; (3) review progress since the last meeting; (4) determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to the Contractor's Construction Schedule; (5) determine how to expedite any Project work that may be behind schedule; (6) discuss whether or not schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract time; and (7) review the present and future needs of each entity represented at the meeting, including such items as interface requirements, time, sequences, deliveries, off-site fabrication problems, access, site utilization, temporary facilities and controls, hours of work, hazards and risks, housekeeping, quality and work standards, status of correction of deficient items, field observations, requests for interpretations, status of proposal requests, pending changes, status of construction orders, and documentation of information for payment requests. The Engineer will distribute copies of minutes of the meeting to the Designer and the Contractor. The Contractor shall distribute copies to parties who were or should have been at the meeting.”

1.20-1.05.25—Schedules and Reports:

Delete the first paragraph under subsection 1 and replace with the following:

1. Baseline Bar Chart Construction Schedule: The Contractor shall prepare a comprehensive, multi-color, bar-chart construction schedule. The schedule shall be submitted at the Preconstruction Meeting with the corresponding submittal schedule as required by Article 1.20-1.05.02. The schedule shall demonstrate the Contractor's sequence for construction by separating it into major work elements further defined according to individual activities. The Engineer reserves the right not to process payment estimates before receiving the baseline schedule.”

Add the following to the end of subsection 1:

“The Contractor shall provide the Engineer with a licensed copy of the software used to prepare the construction schedule. This software will be loaded on a computer in the Engineer’s field office. The software will remain the property of the Contractor.”

Add the following to the end of the first paragraph of subsection 2:

“An electronic file copy of the schedule shall also be provided with all monthly updates. Furthermore, the Engineer reserves the right not to process payment estimates before receiving the updated construction schedule.”

Delete subsection 3 and replace with the following:

“3. Biweekly Schedules: Every week the Contractor shall be required to produce and submit to the Engineer a two week look ahead schedule. This short-term schedule may be handwritten but shall clearly indicate all work planned for the two-week period.”

1.20-1.06.08 - Warranties:

Delete the eighth and ninth paragraph and replace with the following:

“The Contractor shall:

(a) Bind warranties in heavy-duty, commercial-quality, durable 3-ring vinyl-covered loose-leaf binders, thick enough to accommodate the contents, and sized to receive 8 1/2-inch x 11-inch paper (216-millimeter x 279-millimeter) paper.

(b) Identify the binder’s contents on the binder’s front and spine with the typed or printed title “WARRANTIES,” the Project title or name, and the name of the Contractor.

(c) Provide a heavy paper divider with a tab for each separate warranty.

(d) Mark the tab to identify the related product or installation.

(e) Provide a typed description of the product or installation, including the name of the product, and the name, address and telephone number of the Contractor or pertinent subcontractor.

(f) Furnish to the Department a written warranty for all Project work accompanied by a cover letter with the following contents:

[Addressed to:]

Commissioner of Transportation
Department of Transportation
P.O. Box 317546
Newington, Connecticut 06131-7546

Project Title and Number

[We] hereby warrant all materials and workmanship for all work performed under this Contract for a period of one (1) year from [date of issuance of C.O.C.] against failures of workmanship and materials in accordance with the Contract. Furthermore, as a condition of this warranty, [we] agree to have in place all insurance coverage identified in the Contract for the performance of any warranty work.

[Signature:] [Name of authorized signatory]
[Title]

(g) Countersign all warranties supplied by subcontractors, suppliers or manufacturers.

(h) Submit to the Engineer, upon completion of installation of materials or assemblies that are required to have either a flame-rating or a fire-endurance hourly rating, a detailed letter certifying that the required rating has been attained.

Upon determination by the Engineer that Project work covered by a warranty has failed, the Contractor shall replace or rebuild the work to an acceptable condition complying with Contract requirements. The Contractor is responsible for the cost of replacing or rebuilding defective construction or components and those which may have needed to be damaged or removed in order to cure the defective work including costs of material, equipment, labor, and material disposal, regardless of whether or not the State has benefited from use of the work through a portion of its anticipated useful service life. The Contractor shall respond to the Project Site when Project work covered by a warranty has failed within 3 calendar days, unless in the Engineer's opinion said failure is deemed to be an emergency, in which case the Contractor shall respond to the Project Site as directed by the Engineer."

1.20-1.08.03—Prosecution of Work:

Under subsection '3. Cutting and Patching,' delete the heading 'B. Protection of Structural Elements' and replace with the following:

"B. Protection:"

Move the existing first and second paragraphs to under the following subparagraph:

"1. Structural Elements:"

Add the following after the first paragraph under B:

"2. Operational Elements: The Contractor shall not cut and patch operating elements and related components in a manner that results in their reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.

3. Miscellaneous Elements: The Contractor shall not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, that results reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.”

Add the following after subsection 3:

“4. Selective Demolition:

A. Definitions:

Remove: The Contractor shall detach materials from existing construction and legally dispose or recycle them off-site, unless indicated to be removed and salvaged or removed and reinstalled. Except for materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Engineer's property, demolished materials shall become Contractor's property and shall be removed from the Project Site.

Remove and Salvage: The Contractor shall detach materials from existing construction and deliver them to Engineer. The Engineer reserves the right to identify other materials for salvage during the course of demolition.

Remove and Reinstall: The Contractor shall detach materials from existing construction, prepare them for reuse, and reinstall them where indicated.

Existing to Remain: Existing materials of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

B. Approval Process:

The Contractor shall submit pre-demolition photographs to the Engineer prior to the commencement of Project work to show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by selective demolition operations.

Well in advance of performing any selective demolition on the Project, the Contractor shall submit to the Engineer a proposal describing the procedures that the Contractor intends to use for same.

The Contractor shall include the following information, as applicable, in its proposal: (1) detailed sequence of selective demolition and removal work with starting and ending dates for each activity while ensuring that the Engineer's on-site operations are not disrupted; (2) interruption of utility services; (3) coordination for shutoff, capping, and continuation of utility services; (4) use of elevators and stairs; (5) locations of temporary partitions and means of egress; (6) coordination of Engineer's continuing occupancy of

portions of existing building and of Engineer's partial occupancy of completed Project work; and (7) means of protection for items to remain and items in path of waste removal from building.

The Contractor shall comply with (1) governing EPA notification regulations before beginning selective demolition; (2) hauling and disposal regulations of authorities having jurisdiction; (3) ANSI A10.6; and (4) NFPA 241.

The Engineer will conduct a Pre-Demolition Meeting at the Project site in accordance with Article 1.20-1.05.24. Said meeting will review the methods and procedures related to selective demolition including, but not limited to, the following: (1) an inspection and discussion of the condition of construction to be selectively demolished; (2) a review of the structural load limitations of the existing structure; (3) a review and finalization of the selective demolition schedule and a verification of the availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays; (4) a review of requirements of Project work performed by other trades that rely on substrates exposed by selective demolition operations; and (5) a review of areas where existing construction is to remain and requires protection.

C. Repair Materials:

The Contractor shall comply with Article 1.20-1.08.03 subsection 3E for repair materials and shall comply with material and installation requirements specified in other Contract provisions.

D. Examination:

The Contractor shall (1) verify that utilities have been disconnected and capped; (2) survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required; (3) inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged; (4) investigate and measure the nature and extent of unanticipated mechanical, electrical, or structural elements that conflict with intended function or design and submit a written report to Engineer; and (5) perform surveys as the Project work progresses to detect hazards resulting from selective demolition activities.

E. Utility Services:

The Contractor shall (1) maintain existing utility services indicated to remain and protect them against damage during selective demolition operations; (2) not interrupt existing utilities serving occupied or operating facilities unless authorized in writing by the Engineer; (3) provide temporary services during interruptions to existing utilities, as acceptable to Engineer; (4) provide at least 3 calendar days notice to the Engineer if shutdown of service is required during changeover; and (5) locate, identify, disconnect,

and seal or cap off indicated utilities serving areas to be selectively demolished. The Contractor shall arrange to shut off indicated utilities with utility companies. If utility services are required to be removed, relocated, or abandoned, before proceeding with selective demolition the Contractor shall provide temporary utilities that bypass area of selective demolition and that maintain continuity of service to other parts of building. The Contractor shall cut off pipe or conduit in walls or partitions to be removed and shall cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing.

The Contractor shall refer to other Contract provisions for shutting off, disconnecting, removing, and sealing or capping utilities. The Contractor shall not start selective demolition work until utility disconnecting and sealing have been completed and verified by the Engineer in writing.

F. Preparation:

The Contractor shall conduct selective demolition and debris-removal operations to ensure minimum interference with adjacent occupied and used facilities on the Project site. The Contractor shall not disrupt the Owner's operations without the Engineer's permission. The Contractor shall protect existing site improvements, appurtenances, and landscaping to remain.

The Contractor shall provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain. The Contractor shall provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas. The Contractor shall protect walls, ceilings, floors, and other existing finish work that are to remain or that are

exposed during selective demolition operations. The Contractor shall cover and protect furniture, furnishings, and equipment that have not been removed.

The Contractor shall provide temporary enclosures for protection of existing building and construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. The Contractor shall provide temporary weathertight enclosure for building exterior. Where heating is needed and permanent enclosure is not complete, the Contractor shall provide insulated temporary enclosures and shall coordinate enclosure with ventilating and material drying or curing requirements to avoid dangerous conditions and effects.

The Contractor shall erect and maintain dustproof partitions and temporary enclosures to limit dust and dirt migration and to separate areas from fumes and noise.

The Contractor shall provide and maintain interior and exterior shoring, bracing, or structural support to preserve stability and prevent movement, settlement, or collapse of construction to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished. The Contractor shall strengthen or add new supports when required during progress of selective demolition.

G. Pollution Controls:

The Contractor shall comply with governing regulations pertaining to environmental protection.

The Contractor shall not use water when it may create a hazardous or objectionable condition such as ice, flooding, or pollution.

The Contractor shall remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas. The Contractor shall remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

The Contractor shall clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. The Contractor shall return adjacent areas to condition existing before selective demolition operations began.

H. Performance:

The Contractor shall not use explosives for demolition purposes.

The Contractor shall demolish and remove existing construction only to the extent required by new construction and as indicated. The Contractor shall (1) proceed with selective demolition systematically; (2) neatly cut openings and holes plumb, square, and true to dimensions required; (3) use cutting methods least likely to damage

remaining or adjoining construction; (4) use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces; (5) temporarily cover openings to remain; (6) cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces; (7) not use cutting torches until work area is cleared of flammable materials; (8) verify condition and contents of concealed spaces such as duct and pipe interiors before starting flame-cutting operations; (9) maintain fire watch and portable fire-suppression devices during flame-cutting operations; (10) maintain adequate ventilation when using cutting torches; (11) remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site; (12) remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation; (13) locate selective demolition

equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing; and (14) dispose of demolished items and materials promptly.

The Contractor shall comply with the Engineer's requirements for using and protecting walkways, building entries, and other building facilities during selective demolition operations.

The Contractor shall demolish and remove foundations and other below grade structures completely unless otherwise indicated on the plans. The Contractor shall fill below grade areas and voids resulting from demolition of structures with granular fill materials. Prior to placement of fill materials, the Contractor shall ensure that the areas to be filled are free of standing water, frost, frozen material, trash, and debris. After fill placement and compaction, grade surface to meet adjacent contours and provide flow to surface drainage structures. Backfilling and grading related to demolition is included in the Major Lump Sum Item (MLSI) for the Project. There will be no separate payment for this backfilling and grading.

The Contractor shall (1) demolish concrete in sections; (2) cut concrete at junctures with construction to remain to the depth shown on the Contract plans and at regular intervals using power-driven saw; and (3) remove concrete between saw cuts.

The Contractor shall (1) demolish masonry in small sections; (2) cut masonry at junctures with construction to remain using power-driven saw; and (3) remove masonry between saw cuts.

The Contractor shall (1) saw-cut perimeter of concrete slabs-on-grade to be demolished as shown on the Contract plans; and (2) break up and remove concrete slabs-on-grade.

The Contractor shall (1) remove floor coverings and adhesive according to recommendations in RFCI-WP and its Addendum; and (2) remove residual adhesive and prepare substrate for new floor coverings by one of the methods recommended by RFCI.

The Contractor shall (1) only remove existing roofing in one day to the extent that it can be covered by new roofing; and (2) refer to other Contract provisions for new roofing requirements.

The Contractor shall remove air conditioning equipment without releasing refrigerants.

I. Reuse of Building Elements:

The Contractor shall not demolish building elements beyond what is indicated on the plans without the Engineer's approval.

J. Removed and Salvaged Materials:

Unless otherwise directed by the Engineer, the Contractor shall (1) store materials in a secure area until delivery to the owner; (2) transport materials to the owner's storage area off-site; and (3) protect materials from damage during transport and storage.

K. Removed and Reinstalled Materials:

Unless otherwise directed by the Engineer, the Contractor shall (1) clean and repair materials to functional condition adequate for intended reuse; (2) paint equipment to match the color of new equipment; (3) protect materials from damage during transport and storage; and (4) reinstall items in locations indicated complying with installation requirements for new materials and equipment and providing connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

L. Existing Materials to Remain:

The Contractor shall protect construction indicated to remain against damage and soiling during selective demolition.

The Contractor shall drain piping and cap or plug piping with the same or a compatible piping material for piping to be abandoned in place.

The Contractor shall cap or plug ducts with the same or a compatible ductwork material for ducts to be abandoned in place.

The Contractor shall cut and remove concealed conduits and wiring to be abandoned in place 2-inches (50-mm) below the surface of the adjacent construction, cap the conduit end, and patch the surface to match the existing finish. The Contractor shall cut existing conduits installed in concrete slabs to be abandoned in place flush with the top of the slab and fill conduit end with a minimum of 4-inches (100-mm) of concrete.

M. Patching and Repairing:

The Contractor shall comply with Article 1.20-1.08.03 subsection 3H for patching and repairing damage to adjacent construction caused by selective demolition operations.

N. Disposal of Demolished Materials:

The Contractor shall (1) not allow demolished materials to accumulate or be sold on the Project Site; (2) not burn demolished materials on the Project Site; and (3) promptly and legally dispose or recycle demolished materials off the Project Site."

1.20-1.08.05--Workmen and Equipment:

Replace "FM with "FMG" in subsection (a)

Add the following article:

"1.20-1.08.12--Semi-Final and Final Inspections:

1. Semi-Final Inspection: Before requesting the Semi-Final Inspection, the Contractor shall show 100% completion for all Project work claimed as complete. The Contractor shall submit final test/adjust/balance records including the final air and water balance report. For all incomplete Project work, the Contractor shall prepare its own "Punch List" of the incomplete items and reasons the work is not complete. The Contractor shall submit final test/adjust/balance records including the final air and water balance report.

On receipt of a Contractor request for inspection, the Engineer will proceed with inspection or notify the Contractor of unfulfilled requirements. The Engineer will prepare a "Punch List" of unfilled, substandard, or incomplete items. During this inspection, the Contractor shall have all technicians necessary to demonstrate the complete operation of all systems on-site. Examples of such systems include, but are not limited to, the following: boiler, HVAC, fire alarm, and building automation. The Engineer will advise the Contractor of the construction that must be completed or corrected before the issuance of the C.O.C. Results of the completed inspection will form the basis of requirements for the Final Inspection. The Engineer reserves the right to issue the C.O.C. after the Semi-Final Inspection if there are no Building Code or Fire Code compliance issues or any major "Punch List" items.

2. Final Inspection: Before requesting Final Inspection for issuance of the C.O.C., the Contractor shall: (1) submit specific warranties, maintenance service agreements, final certifications and similar documents; (2) submit Record Drawings, Record Specifications, operations and maintenance manuals, final project photographs, property surveys, and similar final record information; (3) deliver spare parts; (4) make final changeover of permanent locks and deliver the keys to the Engineer; (5) complete start-up testing of systems; (6) train the owner's operation and maintenance personnel; (7) discontinue or change over and remove temporary facilities from the Project Site, along with construction tools, mock-ups, and similar elements; (8) complete final cleaning requirements, including touch-up painting; (9) touch-up and otherwise repair and restore marred exposed finishes to eliminate visual defects; (10) submit a certified copy of the Engineer's "Punch List" of items to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance, and the list has been endorsed and dated by the Engineer; (11) submit final meter readings for utilities, a measured record of stored fuel, and similar data as of the date of Final Inspection, or when the Engineer took possession of and responsibility for corresponding elements of the Project work; and (12) install permanent electrical service. The Contractor shall

install permanent electrical service prior to Semi-Final Inspection if requested by the Engineer, or if necessary for the Engineer or Contractor to perform testing of building and other related systems and equipment to certify acceptance and completion of Project work. The Contractor shall submit all outstanding items or unacceptable submissions from the Semi-Final Inspection, or other outstanding items required for submittal, prior to the Final Inspection.

On receipt of a Contractor request for inspection, the Engineer will proceed with inspection and notify the Contractor of unfulfilled requirements.”

1.20 – 1.08.13 – Termination of the Contractor’s Responsibility:

Add subsection 3 as follows:

“3. Insurance Coverage: The Contractor shall have in place all insurance coverage identified in Article 1.03.07 for the performance of any warranty work.”

1.20-1.08.14--Acceptance of Project:

Add the following to subsection 2 under the heading “Equipment and Systems Maintenance Manual:”

“(j) Copies of maintenance agreements with service agent name and telephone number.”

Add the following paragraph in subsection 3 after the second paragraph:

“The Contractor shall provide a syllabus prior to the training to ensure that the appropriate owner’s operation and maintenance personnel are in attendance.”

Delete the last paragraph and replace with the following:

The Contractor shall submit to the Engineer for approval, a qualified commercial videographer to videotape the training sessions. The videographer shall be a firm or an individual of established reputation that has been regularly engaged as a professional videographer for not less than 3 years.

The Contractor shall video record each training session and provide said video in DVD format to the Engineer for the owner’s future use.”

**CONNECTICUT
SUPPLEMENTAL SPECIFICATION
SECTION 3.04
PROCESSED AGGREGATE BASE**

Delete the entire Section and replace with the following:

3.04.01--Description: The base shall consist of a foundation constructed on the prepared subbase or subgrade in accordance with these specifications and in conformity with the lines, grades, compacted thickness and typical cross-section as shown on the plans.

3.04.02--Materials: All materials for this work shall conform to the requirements of Article M.05.01.

3.04.03--Construction Methods: Only one type of coarse aggregate shall be used on a project unless otherwise permitted by the Engineer.

Prior to placing the processed aggregate base, the prepared subbase or subgrade shall be maintained true to line and grade, for a minimum distance of 200 feet (60 meters) in advance of the work. None of the aggregate courses shall be placed more than 500 feet (150 meters) ahead of the compaction and binding operation on that particular course.

The processed aggregate base shall be spread uniformly by a method approved by the Engineer. The thickness of each course shall not be more than 4 inches (100 millimeters) after compaction, unless otherwise ordered.

After the aggregate is spread, it shall be thoroughly compacted and bound by use of equipment specifically manufactured for that purpose. Rollers shall deliver a ground pressure of not less than 300 pounds per lineal inch (52.5 newtons/millimeter) of contact width and shall have a weight (mass) not less than 10 tons (9100 kilograms). Vibratory units shall have a static weight (mass) of not less than 4 tons (3650 kilograms). Water may be used during the compaction and binding operation and shall be applied from an approved watering device. The compacting and binding operation shall begin at the outside edges, overlapping the shoulders for a distance of not less than 6 inches (150 millimeters) and progress towards the middle, parallel with the centerline of the pavement. The work shall cover the entire surface of the course with uniform overlapping of each preceding track or pass. Areas of super-elevation and special cross slope shall be compacted by beginning at the lowest edge and proceeding towards the higher edge, unless otherwise directed by the Engineer. The compacting and binding operation shall be continued until the voids in the aggregates have been reduced to provide a firm and uniform surface satisfactory to the Engineer. The amount of compactive effort shall in no case shall be less than four (4) complete passes of the compacting and binding operations. All aggregate shall be completely compacted and bound at the end of each day's work or when traffic is to be permitted to operate on the

road. The dry density of each layer of processed aggregate base after compaction shall not be less than 95 percent of the dry density for that material when tested in accordance with AASHTO T180, Method D.

Should the subbase or subgrade material become churned up or mixed with the processed aggregate base at any time, the Contractor shall, without additional compensation remove the mixture. The Contractor shall add new subbase material, if required, and reshape and recompact the subbase in accordance with the requirements of Article 2.12.03. New aggregate material shall be added, compacted and bound, as hereinbefore specified, to match the surrounding surface.

Any surface irregularities which develop during, or after work on each course, shall be corrected by loosening material already in place and removing or adding aggregate as required. The entire area, including the surrounding surface, shall be re-compacted and rebound until it is brought to a firm and uniform surface satisfactory to the Engineer.

3.04.04--Method of Measurement: Processed Aggregate Base will be measured horizontally in-place after final grading and compaction. Materials placed beyond the horizontal limits indicated on the plans will not be measured for payment.

The total thickness shall be as indicated on the plans, or as ordered by the Engineer and within a tolerance of minus three-fourths of an inch ($-\frac{3}{4}$ ") to plus one-half inch ($+\frac{1}{2}$ ") (-19 millimeters to +13 millimeters).

Measurements to determine the thickness will be taken by the Engineer at intervals of 500 feet (150 meters) or less, along lanes, and shall be considered representative of the lane. For the purpose of these measurements, a shoulder will be considered a lane.

If a thickness measurement is taken and found deficient, the Engineer will take such additional measurements as he considers necessary to determine the longitudinal limits of the deficiency. Areas not within allowable tolerances shall be corrected, as ordered by the Engineer, without additional compensation to the Contractor.

3.04.05--Basis of Payment: This work will be paid for at the contract unit price per cubic yard for "Processed Aggregate Base", complete in place, which price shall include all materials, tools, equipment and work incidental thereto.

Pay Item	Pay Unit
Processed Aggregate Base	c.y. (cu. m)

**CONNECTICUT
SUPPLEMENTAL SPECIFICATION
SECTION 4.01
CONCRETE PAVEMENT**

Article 4.01.03-A. Composition:

Add the following new paragraph before the last paragraph:

“The temperature of the concrete at the time of placement shall not be less than 60° F (15.5° C) or greater than 90° F (32° C). For pumped concrete, the temperature shall be determined at the placement end of the pump line. The temperature of the concrete shall be determined in accordance with ASTM C1064.”

**CONNECTICUT
SUPPLEMENTAL SPECIFICATION
SECTION 6.01
CONCRETE FOR STRUCTURES**

Article 6.01.03-8. Placing Concrete:

Add the following new paragraph after the first paragraph:

“The temperature of the concrete at the time of placement shall not be less than 60° F (15.5° C) or greater than 90° F (32° C). For pumped concrete, the temperature shall be determined at the placement end of the pump line. The temperature of the concrete shall be determined in accordance with ASTM C1064.”

**CONNECTICUT
SUPPLEMENTAL SPECIFICATION
SECTION 6.03
STRUCTURAL STEEL**

6.03.03 – Construction Methods:

In the 5th paragraph of subsection 37 Shop Painting, replace “MS MIL” with “MILSPEC.”

**CONNECTICUT
SUPPLEMENTAL SPECIFICATION
SECTION 6.12
CONCRETE CYLINDER CURING BOX**

Delete the entire section and replace with it the following:

6.12.01 –Description: This item shall consist of furnishing a box for curing concrete test cylinders. The box shall be commercially available and manufactured specifically for curing concrete test cylinders. The box will remain the property of the Contractor at the conclusion of the project. The box shall be delivered to a location on the project as directed by the Engineer.

6.12.02 – Materials: A catalog cut listing detailed specifications of the box and operating instructions from the manufacturer must be submitted to the Engineer. The box and its components shall be constructed of non-corroding materials and shall be capable of storing a minimum of 18 test cylinders, 6" X 12" (152 mm X 305 mm) stored vertically with the lid closed. The lid must be watertight when closed and hinged in the back with security latches on the front that can be padlocked. The box must be capable of holding water to a maximum level of one inch above test cylinders placed in the box vertically. A drain hole must be provided in a wall of the box to allow manual drainage of the water that exceeds this level. A drain hole must also be provided at the bottom of the box so that it can be manually emptied. The temperature of the water must be controlled by heating and cooling device capable of maintaining the temperature of the water within a range of 60 to 80° F, +/- 2 °F (15.5 to 26.7 °C, +/- 1 °C) within an outside ambient air temperature range of -10 to 120 ° F (-23.3 to 49 °C). The heating and cooling device must be positioned to allow free circulation of air and water around the cylinders and be rated at 120 volts and 15 amps. A rack must be provided within the box to support the cylinders above the pool of temperature controlled water. The device must be thermostatically controlled with a digital readout that is capable of displaying the high/low water temperature within the box since the last reading was taken.

6.12.03 - Construction Methods: The Contractor shall maintain the curing box in working order and shall provide all necessary electrical service and water so that the curing box can be used properly during the entire course of the project. Any curing box that is not operating properly, as determined by the Engineer, shall be replaced within 24 hours by the Contractor at no expense to the State. The Engineer reserves the right to prohibit placement of fresh concrete on the project until a curing box acceptable to the Engineer is operational on the project site.

6.12.04 - Method of Measurement: The furnishing of the concrete test cylinder curing box will be measured for payment by the number of boxes delivered by the Contractor and accepted by the Engineer.

6.12.05 – Basis of Payment: This item will be paid for at the contract unit price each for “Concrete Cylinder Curing Box” ordered and accepted on the project, which price shall include all submittals, material, tools, equipment, and labor incidental thereto. The price shall also include all maintenance and operating costs related to the curing box for the duration of the project.

**CONNECTICUT
SUPPLEMENTAL SPECIFICATION
SECTION 6.51
CULVERTS**

6.51.02 – Materials:

In the 2nd paragraph replace “Gravel fill” with “Granular fill”.

6.51.03 – Construction Methods:

In the 8th paragraph replace “gravel fill” with “granular fill”.

Delete the 13th paragraph, “Bituminous fiber and ... as the pipe.”

6.51.04 – Methods of Measurement:

In the 7th paragraph replace “Gravel Fill” with “Granular Fill”.

6.51.05 – Basis of Payment:

In the 8th paragraph replace “Gravel Fill” with “Granular Fill”.

**CONNECTICUT
SUPPLEMENTAL SPECIFICATION
SECTION 7.02
PILES**

Article 7.02.05- Basis of Payment:

In the first sentence of the first paragraph of Section "2. Timber Piles" change "Furnishing Timber Piles Foot (Meter Length) and Furnishing Treated Timber Piles Foot (Meter Length)" to "Furnishing (Type) Timber Piles (Foot (Meter) Length)".

In the first sentence of the last paragraph of Section "2. Timber Piles" change "Driving Timber Piles" and "Driving Treated Timber Piles " to "Driving (Type) Timber Piles".

Under Pay Items:

Delete:

<u>Pay Item</u>	<u>Pay Unit</u>
Furnishing (Type) Piles (Lengths)	lb. (kg)

Add:

<u>Pay Item</u>	<u>Pay Unit</u>
Furnishing (Type) Timber Piles (Length)	ea. (ea)
Furnishing Steel Piles	lb. (kg)
Furnishing (Type) Prestressed Concrete Piles	l.f. (m)
Cast-in-Place Concrete Piles	l.f. (m)

**CONNECTICUT
SUPPLEMENTAL SPECIFICATION
SECTION 9.10
METAL BEAM RAIL**

Article 9.10.04 – Method of Measurement

Subarticle 1 – Metal Beam Rail (Type)

Delete the only sentence and replace with the following:

The length of metal beam rail measured for payment will be the number of linear feet (meters) of accepted rail of the type or designation installed, including radius rail other than Curved Guide Rail Treatment, measured along the top of rail between centers of end posts in each continuous section.

**CONNECTICUT
SUPPLEMENTAL SPECIFICATION
SECTION 9.18
THREE CABLE GUIDE RAILING
(I-BEAM POSTS) AND ANCHORAGES**

9.18.03 – Construction Methods:

In the 10th paragraph, replace “MIL” with “MILSPEC.”

**CONNECTICUT
SUPPLEMENTAL SPECIFICATION
SECTION 10.10
CONCRETE HANDHOLE**

Article 10.10.05 – Basis of Payment

Remove the words “ground wire”.

At the end of the paragraph add the following sentence:

The ground wire (bonding wire) is included in the Contract unit price under Section 10.08 – Electrical Conduit.

Add the word “Cover” to the end of the pay item “Cast Iron Handhole”

**CONNECTICUT
SUPPLEMENTAL SPECIFICATION
SECTION 11.13
CONTROL CABLE**

11.13.03 – Construction Methods:

In the 1st paragraph of subsection 2 replace "MIL" with "MILSPEC."

**CONNECTICUT
SUPPLEMENTAL SPECIFICATION
SECTION 12.10
EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS**

12.10.03 (2) – Procedures:

Insert the following after the sixth paragraph:

The epoxy shall be uniformly applied to the surface to be marked to ensure a wet film thickness of the applied epoxy, without glass beads, of 20 mils +/- 1 mil (500 um +/- 25 um).

**CONNECTICUT
SUPPLEMENTAL SPECIFICATION
SECTION M.16
TRAFFIC CONTROL SIGNALS**

Article M.16.04 – Poles:

Subarticle 1. Steel Poles:

(i) Wire Entrance Fitting:

In the second sentence, delete “required to accept the cables”.

Article M.16.06 – Traffic Signals:

In the 1st paragraph of subsection 9 replace “MIL” with “MILSPEC”.

Under the paragraph entitled Third Coat, replace the first two sentence with the following:

“Dark Green Enamel: Shall be Dark Green exterior baked enamel and shall comply with FS A-A 2962. The color shall be No. 14056, FS No. 595.”

and in the third sentence replace “MIL” with “MILSPEC.”

Article M.16.08 – Pedestrian Push Button

Subarticle – Painting

Delete the entire “Third Coat” paragraph and replace with the following:

Third Coat: Dark Green Enamel, shall be DARK GREEN exterior-baking enamel and shall comply with Federal Specifications A-A 2962. The color shall be No. 14056, Federal Standard No. 595.

**CONNECTICUT
SUPPLEMENTAL SPECIFICATION
SECTION M.17
ELASTOMERIC MATERIALS**

M.17.01 – Elastomeric Bearing Pads:

In the 2nd paragraph of subsection 4(b), replace “MS MIL” with “MILSPEC.”

**CONNECTICUT
SUPPLEMENTAL SPECIFICATION
SECTION M.18
SIGNING**

M.18.10 – Demountable Copy:

In the chart under subsection 3H, replace “MS MIL” with “MILSPEC.”