



MUNICIPAL MANUAL

**Connecticut Department of Transportation
Bureau of Engineering and Construction**

Office of Construction

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Glossary

ACI	American Concrete Institute
Administrator	Municipal Administrator assigned to the project
AFQ	Apparent final quantities – submitted to DMT at end of project to determine testing discrepancies
CLA-12	Form utilized between Municipality and Contractor authorizing subcontractors work
Consultant	Firm hired by Municipality to oversee construction activities
CON-5	Construction Order form used for tracking quantities on project
CON-9	Form used to track payment based on time and material
CON-40	Form used for Utility work on State Roads
CON-87	Pile Driving Form
CON-100M	Form used to start and stop contract dates
CON-131	Labor Wage Check Form
CON-134	Inspector Daily Work Report – DWR - Form used for everyday activity for project.
CON-134A	Form used on days that paving is done if no DWR done same day
CON-136	Paving Report – Form used for days when bituminous paving placed
CON-142	Notification of Environmental Corrective Actions
CON-500M	Certificate of Acceptance of Physical Work
CON-501M	Certificate of Acceptance of Project
CON-502A	Department MSAT Leader form Certificate of Compliance
CON-502C	Consultant form Certificate of Compliance
CON-505D	Contractor form Certificate of Compliance
CON-502M	Municipal Administrator form Certificate of Compliance
CON-502T	Municipal Inspector form Certificate of Compliance
DBE	Disadvantaged Business Enterprise
Department	State of Connecticut Department of Transportation

DMT	State of Connecticut Department of Material Testing
DOL	State of Connecticut Department of Labor
EEO	Equal Employment Opportunity
Eligible	Items eligible for Participation
FHWA	Federal Highway Administration
Form 816	Department's Standard Specification for Roads, Bridges and Incidental Construction
ISP	Invoice Summary and Processing – Form used for billing Department for Reimbursement
LDs	Liquidated Damages to be held if contract not complete within allotted time
LHPP	Lead Health Protection Program – Program to be in place for removal of lead on projects – Primarily used on bridge projects
MAT100M	Form used for submitting testing
MAT-103	Report of Rejected material – Must be filled out when material is rejected by DMT
MAT-308	Form submitted by Inspection staff with Concrete Cylinders
MAT-314	PC-1 Supplied by Precast Manufacturer for any precast delivered to project
MSAT	Municipal System Action Team
Municipality	Town or City
NETTCP	Northeast Transportation Training and Certification Program
NICET	National Institute for Certification in Engineering Technologies
Non-Eligible	Items not eligible for Participation
Retainage	Amount to be held each month from estimate till acceptance of project
SBE	Small Business Enterprise
Volume I	Volume used to keep DWR's in
Volume II	Volume used to records quantities from DWR and payments
Volume III	Volume used to record computations
Volume IV	Volume for miscellaneous data

Chapter 1 - Introduction

1-1 Introduction

This manual is designed to provide guidance and assistance to the Municipality in the performance of their responsibilities in administering construction projects with Connecticut Department of Transportation (Department) oversight.

The contents are intended for general information and every circumstance cannot be anticipated, however, every effort was made to cover the areas of concern in order to be an effective resource. If additional clarification is needed, contact the Department's District's Municipal Systems Action Team (MSAT) Leader.

Alternate methods of documentation recommended by the Municipalities may be allowed, if they conform to the requirements set forth in the manual. Such revisions to the standard methods of documentation will have to be approved by the Department prior to implementation.

An MSAT Leader has been assigned in all four (4) DOT Districts. The fundamental basis for the implementation of these teams is to assist the Municipalities in the administration of their construction projects that are federally funded through the Department. The primary functions of the teams are to oversee all Municipal administered projects during Construction through Final Audit.

1-2 Web Addresses

The following Website Addresses are for additional references:

Department of Transportation Construction	www.ct.gov/dot/construction
CT Department of Administrative Services (DAS)	www.das.state.ct.us
CT Department of Labor (DOL)	www.ctdol.state.ct.us
CT Department of Transportation (CDOT)	http://www.ct.gov/dot/
U.S. Department of Transportation	www.dot.gov
Federal Highway Administration	www.fhwa.dot.gov
U.S. Department of Labor	www.dol.gov
CT Department of Environmental Protection	www.dep.state.ct.us
Capitol Region Council of Governments (CRCOG)	www.crcog.org
Central Connecticut Regional Planning Agency	www.ccrpa.org
Council of Governments of the Central Naugatuck Valley	www.cogcnv.org
Greater Bridgeport Regional Planning Agency	www.gbrpa.org

Housatonic Valley Council of Elected Officials	www.hvceo.org
Midstate Regional Planning Agency	www.midstateerpa.org/index
South Central Regional Council of Governments	http://www.scrkog.org
South Western Regional Planning Agency	www.swrpa.org
Southeastern Connecticut Council of Governments	http://www.seccog.org
Valley Regional Planning Agency	http://www.valleycog.org

1-3 Municipality Requirements

Assign a municipal employee to administer, be responsible for, and in charge of the project at all times. This individual will be the Municipal Administrator for the project. He/she must be thoroughly knowledgeable of the day-to-day operations of both the contractors and the inspection services. Although this person does not need to be exclusively assigned to that project, this employee must:

- Be aware of the day-to-day operations of the project.
- Be aware of and involved in decisions relative to changed conditions, which require construction orders or supplemental agreements.
- Visit the project, as needed, commensurate with the magnitude and complexity of the project and project activity.
- At all stages of the project, be responsible and in charge of the consultant/inspection staff.
- Attend all project meetings as warranted/requested.
- Review the project volumes for accuracy and compliance with Department and Federal requirements.
- Meet monthly with the MSAT Leader to review the project records and discuss any issues with regard to project status or construction that require attention.

Submit the names and qualifications of all administration/inspection personnel to be utilized on the project to the District's MSAT Leader for approval (if approval is not done during the design phase). Submit alternates if inspector is to be absent at any time during the duration of project.

- Projects under \$150,000 construction contract value shall require inspection of only critical items to be determined prior to construction.
- Projects over \$150,000 construction contract value usually require full-time inspection, but it will be at the discretion of the District MSAT Leader if full-time or part-time inspection is required, whether inspection is done by the Municipality or Consultant.

If consultant inspection is to be utilized on the project, prior approval of all consultant personnel who will be charging time to the project must be done by the Municipality and Department. Pay rates for all consultant personnel must also be approved **prior** to working on the project.

If not submitted prior to the award of the contract, provide the Department with five (5) copies of the contract/specification and plans at that time, to be distributed to:

- The Office of Construction
- The Division of Materials Testing – Rocky Hill Lab
- The District overseeing the project
- The Unit initiating the project
- The District’s Materials Testing Lab

Meet with the District’s MSAT Leader prior to the preconstruction meeting to go over a Department checklist, consisting of the Municipality’s responsibilities in providing administrative and inspection services, the Department’s recordkeeping requirements, subcontractor approvals, testing of materials procedures, the initiation and processing of the Construction Orders, invoicing (ISP), and their responsibilities in the closing out of the project.

1-4 Project Staffing Municipal Inspected

Municipal-administered and -inspected projects require as a minimum the following qualifications:

- Both the Administrator and Inspector must be a municipal employee.
- They must have some construction knowledge.
- If they do not possess American Concrete Institute (ACI) or National Institute for Certification in Engineering Technologies (NICET) certification they must hire an outside laboratory for the concrete samples, nuclear density testing, and quality assurance testing.
- Municipal employees must be exclusively engaged on the project if value is in excess of \$150,000, or part-time at the discretion of the District MSAT Leader. This is to be determined before construction starts.

1-5 Project Being Inspected by Consultants

Projects Inspected by Consultants require the following:

- Municipalities shall provide a Municipal Administrator for any Consultant-inspected projects.
- The Consulting Engineer's staff shall report to, accept and fulfill all orders, directives, and interpretations of the plans, specifications, and special provisions as given by the Municipal Administrator.
- The Municipality has overall responsibility for the work.
- The Consulting Engineer shall provide sufficient qualified staff to continuously inspect each of the Construction Contractor's principal operations in accordance with the Department's and Municipality's established policies, procedures and practices as shown in the Municipal Manual and other publications referred to in the Consultant Agreement.
- In addition, the Consulting Engineer's staff (including home office personnel) shall provide any construction engineering services required for the project, including, but not limited to, the review of working drawings, rigging plans, construction orders, substitutions, constructability issues, or other issues that may arise and provide suitable engineering recommendations.
- The Consulting Engineer shall organize his staff to provide the required administrative functions associated with the construction project including, but not limited to, preparation of correspondence; construction orders; periodic payment estimates; quantity computations; material sampling and testing; Equal Employment Opportunity (EEO) and Disadvantaged Business Enterprise (DBE) monitoring; final documentation; Municipal, Department, and Federal reports; construction surveys; reviews and recommendations of all construction issues; claims analysis support; and other project-related functions as directed by the Municipal Administrator.

1-6 Initial Assignments

Prior to assignment of any personnel to the project, the Consulting Engineer shall submit the following information to the Municipality and the MSAT Leader for approval: name, position, current and proposed rate of compensation, benefit and overtime-exempt status, evidence of any required degrees, licenses or certifications, or evidence that the individual has applied for the next scheduled certification examination. In no case will any personnel be assigned to a project without prior written approval by the Department. The Municipality and Department reserves the right to require the replacement of any employee determined not qualified, competent, or suitable for the duties required of his or her position.

1-7 Overtime

Municipal Employees will be paid per their established Municipal policies.

Consulting Engineers:

- The Consulting Engineer shall obtain authorization, in writing, for any overtime performed on the project from the Department's MSAT Leader. Unless an emergency situation exists, the authorization shall be obtained prior to the overtime work being performed. If the situation develops where advance authorization cannot be obtained, the Consulting Engineer shall inform the Department's MSAT Leader of the need for the overtime as soon as practical after the fact. A copy of the Company's overtime policy must be provided to the Department.
- There may be times when the Contractor is working during periods that would be outside of an inspector's normal work shift (i.e. Saturday, Sunday, a holiday, etc.). Under these situations, an inspector may be assigned to come in to cover the Contractor's operations. Except in emergency circumstances, advance approval from the Department's MSAT Leader is required for all overtime.
- Administrative and survey work do not require overtime coverage, except in emergency cases or situations where it is more economical to complete the work than to return the following day. Individuals must receive approval of the responsible MSAT Leader in advance.

1-8 Salary Adjustment Promotions

Any adjustment to salaries after initial approval of an individual's rate shall be submitted to the Municipality and the MSAT Leader for approval. The submittal shall contain the following information: employee name, job classification, current and proposed rates of pay, rate of pay and job classification one (1) year prior to the proposed increase, and effective date of the proposed increase.

The maximum amount an employee can receive as an annual salary adjustment shall not exceed 3%. The promotion of an individual on the Consulting Engineer's staff will only be allowed for the purpose of filling a vacant position. The individual must meet the minimum requirements for the position to which they are being promoted. Promotions will only be recognized based on job classifications within the Municipal/Consultant agreement.

In general, a salary increase based on a promotion shall not exceed the mean rate of pay range for the position class the employee is promoted to, as shown in the agreement. Consultants may request a higher increase in exceptional cases, but in no case will the salary exceed the maximum rate negotiated for the classification in the agreement.

Requests for approval of salary adjustments must be submitted at least 21 days prior to the effective date of the adjustment. Retroactive approval of salary rates will not be made and the effective date of any adjustment made without prior submission, shall be 21 days after submission of the request to the MSAT Leader.

The Department reserves the right to limit the amount of any increase based upon the Department's appraisal of an individual's performance. If the Department reduces the amount of the increase proposed by the Consulting Engineer, the reason for the reduction will be provided in writing to the Consulting Engineer.

1-9 Shift Differential

The Consulting Engineer shall provide the initiating unit with a copy of their company's policies and procedures regarding shift differential at the project assignment meeting. No negotiations may take place until these policies and procedures have been received. Shift differential cannot be reimbursed unless it is a part of the Consulting Engineer's policies and procedures at the time of negotiations. A shift differential no greater than the amount currently allowed in the Department's P-4 Engineering Contract and subsequent P-4 Engineering Contracts will be reimbursed.

1-10 Submittals

Prior to the start of construction engineering and inspection services, the Consulting Engineer is required to submit the following:

- Project Staffing Plan
- Personnel Policies and Procedures (including sick leave, vacation, overtime, holidays, etc.)
- Quality Management Plan
- Certificate of Insurance
- Documentation of any required certification, degrees, or licenses

1-11 Subcontracting

The Consulting Engineer must perform the major part, at least seventy-five percent of the assignment with their own forces unless specifically authorized by the Office of Construction. Sub-consultant assignments will be permitted up to twenty-five percent of the value of the assignment. If specialized work is required which results in subcontract values in excess of 25% of the agreement value, the Prime Consultant shall obtain written approval from the Municipal Administrator for the addition sub-consultant assignments.

Should the project have a DBE or Small Business Enterprise (SBE) goal associated with it, the Prime shall document their good faith efforts to provide opportunities for DBE firms to participate, in accordance with the respective specification.

The Department of Transportation is committed to an effective implementation of a DBE Program as defined in Title 49, Code of Federal Regulations, Part 26 and SBE Program as defined in the Connecticut General Statutes. Implementation of the DBE/SBE Program is accorded the same priority as compliance with all other legal obligations incurred by the Connecticut Department of Transportation in its financial assistance agreements with the U.S. Department of Transportation.

Note: Replacing DBE sub-consultants previously presented to the selection panel without providing sufficient cause to the Department will not be allowed without written approval of the administering unit.

1-12 Consultant Titles and Qualifications

Depending on the scope of the project, other titles may need to be added. Those additional qualifications will be approved by the MSAT Leader. The MSAT Leader shall be asked to assist the Municipality and Design unit in the negotiation of the Consultant agreement to ensure that projects are staffed properly. The following experience shall be required for each classification listed.

- Construction Coordinator:
 - The Construction Coordinator will be responsible for coordination between the administering unit of the Municipality, Department, Consulting Firm, and project staff to resolve problems concerning activities related to the project.
 - Experience:
 1. Not less than fifteen (15) year employment in civil or highway engineering of which at least six (6) years must have been in a supervisory capacity of complex highway and/or bridge construction activities, vertical or rail construction activities as required, and at least four (4) years of which will have been in field inspection activities. A Bachelor of Science Degree in Civil or Construction Engineering may be substituted for two (2) years of general experience requirement.
 2. Have considerable knowledge of construction practices and procedures as required; ability to prepare correspondence, reports, and recommendations concerning construction issues; the demonstrated ability to deal effectively with others; the ability to supervise.

- Chief Inspector – Level 3 (Moderately Complex Projects; typically between \$5 and \$20 Million):
 - Experience:
 1. Not less than ten (10) years employment in civil, highway, or relevant engineering field of which five (5) years must have been in a supervisory capacity of highway, bridge, facilities, or rail construction activities, as required by the project; and at least five (5) years of which shall have been in field inspection activities.
 2. Have considerable knowledge of highway, bridge, facilities, or rail construction practices and procedures, as required; the ability to prepare correspondence, reports, and recommendations concerning construction issues; the demonstrated ability to deal effectively with others; the ability to supervise; ability to establish and maintain project records.
 - Certifications: NICET Level IV Certification in Transportation/Highway Construction is required, except for those persons possessing a current Professional Engineer's License registered in the State of Connecticut (PE).
- Chief Inspector – Level 2 (Low Complexity Projects; typically under \$5 Million):
 - Experience:
 1. Not less than eight (8) years employment in civil, highway or a relevant engineering field of which three (3) years must have been in a supervisory capacity of highway, bridge, facilities, or rail construction activities, as required; at least four (4) years of which shall have been in field inspection activities.
 2. Have considerable knowledge of highway, bridge, facilities, or rail construction practices and procedures as required; ability to prepare correspondence, reports, and recommendations concerning construction issues; demonstrated ability to deal effectively with others; the ability to supervise; and the ability to establish and maintain project records.
 - Certifications: NICET Level III Certification in Transportation/Highway Construction is required, except for those persons possessing a current Professional Engineer's License registered in the State of Connecticut (PE).

- Chief Inspector – Level 1
 - Experience:
 1. Not less than six (6) years employment in civil, highway, or a relevant engineering field of which two (2) years must have been in a supervisory capacity of highway, bridge, facilities, or rail construction activities, as required; at least two (2) years of which shall have been in field inspection activities.
 2. Have considerable knowledge of highway, bridge, facilities, or rail construction practices and procedures, as required; the ability to prepare correspondence, reports, and recommendations concerning construction issues; the demonstrated ability to deal effectively with others; the ability to supervise; and the ability to establish and maintain project records.
 - Certifications: NICET Level II Certification in Transportation/Highway Construction is required, except for those persons possessing a current Professional Engineer's License registered in the State of Connecticut (PE) or a Bachelor of Science Degree (BS) in a relevant field.
- Chief Inspector – Mechanical, Electrical, Plumbing (MEP):
 - Experience:
 1. Not less than six (6) years employment in the mechanical, electrical, and plumbing (MEP) field of which two (2) years must have been in a supervisory capacity of MEP construction activities; at least two (2) years of which shall have been in field inspection activities.
 2. Have considerable knowledge of MEP construction practices and procedures, as they relate to facilities, or rail construction as required; the ability to prepare correspondence, reports, and recommendations concerning construction issues; the demonstrated ability to deal effectively with others; the ability to supervise; the ability to establish and maintain project records.
 - Degree: Bachelor of Science Degree in a relevant field.

- Inspector:
 - Experience:
 1. Not less than three (3) years employment in civil, highway, or an appropriate engineering field of which at least one (1) year shall be in field inspection activities.
 2. Have considerable knowledge of construction materials, methods, and procedures; ability to maintain field and office records; the ability to perform complex quantity and engineering computations; the ability to read and interpret plans and specifications; and the ability to deal effectively with people.
 - Certifications: NICET Level II Certification in Transportation/Highway Construction is required, except for those persons possessing a current Professional Engineer's License registered in the State of Connecticut (PE) or a Bachelor of Science Degree (BS) in a relevant field.
- Office Engineer:
 - Experience:
 1. Not less than four (4) years employment in construction projects (highway, facilities, or rail), maintaining project records.
 2. The ability to prepare change orders, material testing reports, filing and considerable knowledge in establishing and maintaining project records; ability to use applicable software and record keeping methods.
 - Certifications: NICET Level II Certification in Transportation/Highway Construction is required, except for those persons possessing a current Professional Engineer's License registered in the State of Connecticut (PE) or a Bachelor of Science Degree (BS) in a relevant field.

- Entry-level Inspector:
 - Experience: None required.
 - Certifications: NICET Level I Certification in Transportation/Highway Construction is required, except for those possessing a Bachelor or Associate of Science Degree in a relevant field. Persons possessing a NICET Level I Certification must have a high school diploma and demonstrate a proficiency in math and science.
 - This position may only be used on projects over \$10 million. Entry-level inspectors must be directly supervised by more senior employees and may only be used with the written approval of the Department.
- Building Inspector:
 - Experience:
 1. Not less than six (6) years employment in facilities construction projects.
 2. Have considerable knowledge of construction practices and procedures for facilities construction and extensive knowledge of all relevant building codes and regulations.
 - Licensing: Assistant Building Official License registered in the State of Connecticut is required.
- Survey Party Chief:
 - Experience:
 1. Not less than four (4) years of construction survey experience of which at least three (3) years shall have been as an instrument person or survey party chief.
 2. Have considerable knowledge of principles and methods of land surveying; knowledge of principles and practices of highway engineering; the ability to keep and reduce field notes; the ability to determine construction quantities and amounts on completed projects; the ability to supervise the layout of limits of work and grades, ability to check contractor's survey layout for accuracy; the ability to layout foundations, rail track layouts, abutments, culverts and pipe lines; the ability to re-establish boundary lines and stake-taking lines; and the ability to prepare as-built plans and other related duties as required.
 - Licensing: Land Surveyor License in the State of Connecticut or shall be working under the direct supervision of a member of the Consulting Engineer's staff.

1-13 Consultant Project Staffing Requirements

Consultant staffing for a project shall be determined by the complexity of the project and then staffed accordingly as directed by the MSAT Leader who determines of the needs per project. The staffing requirements based on project types are outlined below (these are to be used as a guide but are subject to change based on the needs of the project as determined by the MSAT Leader). Staffing will be determined for each individual project. **The MSAT Leader shall be consulted prior to consultant negotiations to determine the amounts and levels of inspectors required.**

- Project Staffing for Complex Consultant-Inspected Enhancement Projects

Complex Enhancement Projects are projects consisting of more complex work including but not limited to Bridge Structures, Buildings etc. These projects require the following staffing if determined needed by the MSAT Leader:

- Construction Coordinator
- Chief Inspector Level 2 or 3 as deemed necessary by MSAT Leader
- Chief Inspector (MEP)
- Inspector
- Office Engineer
- Entry-level Inspector
- Building Inspector
- Survey Party Chief
- Project Staffing for Consultant-Inspected Enhancement Projects

Enhancement projects consisting of projects relatively small in scale no structures involved also including reclamation projects require the following Levels as determined by the MSAT Leader:

- Construction Coordinator
- Chief Inspector Level 1 or 2 as deemed necessary by MSAT Leader
- Inspector
- Entry-level Inspector
- Survey Party Chief
- Project Staffing for Consultant-Inspected Bridge Projects

Bridge projects consisting of Bridge Replacement or Rehabilitation require the following Levels as determined by the MSAT Leader:

- Construction Coordinator
- Chief Inspector Level 3 or 2 as deemed necessary by MSAT Leader
- Inspector
- Entry-level Inspector
- Survey Party Chief
- Project Staffing for Consultant-Inspected Pavement Preservation/Rehabilitation Projects

Pavement Preservation Projects require the following Levels as determined by the MSAT Leader:

- Construction Coordinator
- Chief Inspector Level 1 or 2 as deemed necessary by MSAT Leader
- Inspector
- Entry Level Inspector
- Survey Party Chief

1-14 Certifications

American Concrete Institute (ACI)

Consulting Engineers performing any field sampling or testing of Portland Cement Concrete (PCC) must be currently certified as an ACI Field Testing Technician – Grade I. For each assignment, the consultant will be required to provide a minimum of one ACI Field Testing Technician – Grade I. Concrete field sampling and testing shall be performed by certified personnel only. Some projects may require additional certified personnel due to multi-shift operations or other testing needs. For project assignments with no concrete items, the ACI requirement will be waived.

National Institute For Certification In Engineering Technologies (NICET)

Consulting Engineer personnel are required to be NICET certified at the appropriate level in accordance with requirements of the above sections. NICET Certification requirements are waived for persons possessing a current Professional Engineer's License registered in the State of Connecticut (PE).

Northeast Transportation Training And Certification Program (NETTCP)

The Department requires personnel utilized on construction engineering and inspection assignments to have been certified under the NETTCP program or under another acceptable program. Currently, the NETTCP certification program is the only program acceptable to the Department for meeting this requirement. The NETTCP certifications required on CONNDOT construction engineering and inspection assignments include Concrete Inspector (CI) and HMA Paving Inspector (HMAPI). For each assignment, the consultant will be required to provide a minimum of one CI and one HMAPI (the same individual may possess all certifications). Concrete field tests and HMA field tests shall be performed by certified personnel only. Some projects may require additional certified personnel due to multi-shift operations or other testing needs.

For project assignments with no concrete items, the CI requirements will be waived. Likewise, on projects with no HMA pavement installation, the HMAPI requirement will be waived.

Nuclear Density

Consulting Engineers performing nuclear density testing must possess any certifications required by the Nuclear Regulatory Commission (NRC) in accordance with the provisions of their NRC license, as applicable

1-15 Consulting Engineer Responsibilities

The Consulting Engineer's Construction Coordinator shall be responsible for the overall administration and supervision of construction inspection for the project. The Construction Coordinator shall ensure the inspection staff is thoroughly familiar with the plans and specifications for the work. The Consulting Engineer shall also ensure that the staff properly documents the work performed in accordance with the Department's record keeping procedures.

The Consulting Engineer shall work under the general supervision and direct control of the Municipal Administrator and the MSAT Leader. The Consulting Engineer shall perform all tasks, functions, and operations described in the Department's *Construction Manual* and *Municipal Manual* including, but not limited to:

- Inspection of Contract Work

The Consulting Engineer shall inspect all construction within project limits to ensure that the work conforms to the project plans and specifications. They shall monitor and document all work performed by public utility companies, railroads, and government agencies within the project limits or work being billed to the project. The Consulting Engineer's staff shall become thoroughly familiar with the plans and specifications. They shall take measurements necessary for periodic payments to the Contractor and shall document the Contractor's daily operations in accordance with established Department procedures.

- Construction Survey

The Consulting Engineer shall perform all construction survey work, if required, and negotiated as part of the agreement, with the exception of that included in the construction contract to be done by the Contractor. They shall check layout staking performed by the Contractor; perform survey work and take measurements required for determination of quantities (i.e. cross-sections of earth, rock structure, excavation, etc.); perform survey work required for as-built plans; perform survey work and construction staking for the accurate installation of fencing; verify the highway line and the non-access taking line; and perform other project-related survey work as directed by the Municipal Administrator.

- Material Testing

The Consulting Engineer shall sample all materials to be incorporated into the work as required by the Department's material testing requirements. Sampling shall be performed in a timely manner so that materials can be tested prior to use. The Consulting Engineer shall prepare the Requests for Material Test (MAT-100) and shall maintain the testing logs in the project records. All sampling and field testing shall be performed in accordance with established DOT procedures. Any field testing equipment required including, but not limited to, slump cone, air meter, nuclear density gauge, etc., shall be provided by the Consulting Engineer.

- Project Records

The Consulting Engineer shall perform all administrative functions associated with the project in accordance with *Construction Manual* and *Municipal Manual* including but not limited to:

- Establishing and maintaining project records.
- Establishing and maintaining daily project diaries and Inspector's Daily Reports (CON-134).
- Reviewing and monitoring Contractor EEO, DBE, and training compliance; preparing associated periodic reports; notifying the Municipal Administrator and MSAT Leader of deficiencies and problems.
- Preparing of Construction Orders; semi-monthly and monthly estimates.
- Preparing of Cost-Plus records (CON-9); Utility Work records (CON-40 and -41)
- Preparing in a timely manner of correspondence, memorandums and reports (Turn-around time should be within five (5) working days of receipt unless substantial investigation and/or review are required).
- Reviewing, analyzing and recommending for contractor claims, proposals, extra work, time extensions, etc.
- Establishing and maintaining shop drawing file.
- Preparing of periodic reports and forms as required by the Department.
- Recording minutes and preparing reports of all project-related meetings, within three (3) days of the meeting, for approval by the Municipal Administrator.
- Preparing project final documents (i.e. final estimate, final construction order, as-built plans, construction report and other related documents).

- Traffic Control

The Consulting Engineer shall monitor contractor compliance with the Maintenance and Protection of Traffic, Limit of Operations, and Traffic Control sections of the plans and specifications and shall promptly report any corrective actions necessary to the Contractor. In the event that the Contractor fails to rectify the situation, the Consulting Engineer shall notify the Municipal Administrator and the MSAT Leader immediately.

- Coordination and Liaison

The Consulting Engineer shall assist in the coordination and act as a liaison between all parties affected by the project. They shall conduct coordination and progress meetings as required, act as a liaison for the Contractor, State agencies, municipalities, property owners, and utilities affected by the work. The Consulting Engineer shall identify, clearly define, and promptly report any issues, concerns, or problems as they arise to the Municipal Administrator. It is the responsibility of the Consulting Engineer to facilitate the resolution of such issues, or in the alternative, to recommend appropriate solutions to the Engineer.

- Plan Review

The Consulting Engineer shall review the construction plans and notify the Municipal Administrator of potential problems as soon as they are noticed. They shall review alternatives and recommend solutions to construction issues as requested by the Municipal Administrator.

- Environmental Monitoring

The Consulting Engineer shall be aware of the environmental concerns related to the project, shall monitor contractor compliance with the environmental controls and report to the Municipal Administrator, if deemed necessary. It shall be the Consulting Engineer's responsibility to prepare all reports required by environmental permits or Department procedures (i.e. Project Site Environmental Inspection Report).

In addition to the items detailed above, the Consulting Engineer shall perform all duties and tasks outlined for inspectors in the Department's *Construction Manual* and *Municipal Manual*. The Consulting Engineer's staff shall also perform any other special tasks related to the construction contract as directed by the Municipal Administrator.

1-16 Health and Safety

The Consulting Engineer is required to have a Health and Safety Plan (HASP) covering the activities of their own staff and any sub-consultants. The Consulting Engineer, at his own expense, shall provide all necessary training, supervision, equipment, and programs to ensure that staff assigned to the Project will be protected from health and safety risks according to the current requirements of OSHA, as well as, all other applicable federal, state, and local laws, rules, and regulations.

In addition, it is expected that the Consulting Engineer's staff comply with the most current version of the following Department policies and plans:

- Policy Statement E&H.O.-35A (Headgear Policy)
- Policy Statement E&H.O.-35B (Protective Footwear Policy)
- Policy Statement E&H.O.-35C (Safety Vests)
- Fall Protection Plan

1-17 Equipment Procurement

Prior to purchasing any equipment, which has been authorized by an agreement, supplement, or extra work claim, and charged as a direct cost to the Municipality and Department, the Consulting Engineer shall obtain written approval for the purchase from the Municipal Administrator and the Department's District Engineer. For equipment costing in excess of \$2,500.00, the Consulting Engineer shall obtain cost proposals from at least three (3) suppliers and submit the proposals and equipment catalog cuts for approval. All purchased equipment shall be tagged by the Department, maintained in good condition, and be turned over to the Department upon completion of the construction project.

1-18 Mileage, Lodging, and Subsistence

Employee travel expenses will be limited to on-site project related mileage. All other travel/lodging/subsistence expenses will only be reimbursed with prior approval from the Municipality and Department and as negotiated. Subsistence and lodging rates, once negotiated and approved by the Municipality and Department, shall not exceed the rates currently in effect for Department Managers under State Travel Regulations. In addition, if any employee has a company vehicle assigned for use on the project, mileage will only be reimbursed if the vehicle's mileage is not normally charged to the company's overhead. Reimbursement shall be made only for the percentage of on-job and project-related use. The Consulting Engineer shall provide a monthly accounting of job-related mileage, commuting mileage, and any other mileage, and compute the proportional share of mileage to be charged as a direct cost in accordance with the Office of Policy and Management's General Letter 97-1. (The maximum allowable charge is established per the State Travel Regulations in the Manager's Agreement.) This accounting shall

be submitted with an invoice (ISP). Lodging and subsistence will not be allowed as a direct cost unless specifically negotiated and listed in the agreement or supplemental agreement, and only with prior approval from the Municipal Administrator and MSAT Leader. Subsistence and lodging rates when approved shall not exceed the rates currently in effect under the State Travel Regulations in the Manager's Agreement.

1-19 Billing Procedures

In accordance with the Consulting Engineer's agreement, the Consulting Engineer shall submit on a monthly basis, two copies of a certified payroll, in effect at the time of the invoicing, and request for payment (using the ISP form provided by the MSAT Leader), including copies of all supporting documentation.

The ISP and supporting documents must be submitted monthly in accordance with the *Information Pamphlet for Consulting Engineers*. Delays in submission and combining several months in one submission, severely impacts the review and approval of the invoice and causes delay in payment.

When the ISP is submitted, the Consulting Engineer should ensure legible copies of all substantiating data are included. Refer to Chapter 25 for documentation required.

Any ISP submitted with insufficient information, illegible copies of substantiating data, or errors shall be returned to the Municipality for correction. Corrections should be made promptly so that any errors do not carry over to future invoices.

The Consulting Engineer shall complete one sub-consultant payment log for each sub-consultant assigned to the project per calendar year.

Consultant's semi-final invoice (ISP), before final audit, shall be for release of retainage. This invoice **shall** be held pending final audit results.

Note: At the completion of the project, the Consulting Engineer will be required to provide documentation confirming that all of their subcontractors have been paid.

Documentation of "Good Faith" efforts and amounts completed of the DBE/SBE Program, if any, will be required to be submitted with the final invoice.

Chapter 2 - Preconstruction Meeting

2-1 General

When notified by the Department of the “authorization to award” the contract, the Municipality shall schedule and facilitate a preconstruction meeting. The preconstruction meeting’s purpose is to introduce all parties and to discuss the construction of the project. A portion of the preconstruction meeting will also be to review the DBE and EEO requirements for the project. The contractors EEO officer must be present for this portion of the meeting.

2-2 Who To Invite

The following individuals must be invited to the preconstruction meeting:

- Contractor
- Utilities
- Municipality Officials
- Consultant
- MSAT Leader
- Department of Transportation Design Liaison
- Department of Transportation Division of Contract Compliance
- Department of Labor – Federal Contract Compliance
- Department of Transportation District Testing Laboratory
- Department of Transportation Central Testing Laboratory

2-3 Preconstruction Letter To Be Sent Out Confirming Meeting

A Preconstruction letter should be forwarded to the Contractor with copies sent to the other attendees. The letter should request the Contractor to bring documentation needed for the preconstruction meeting. See Figure 2.1 for a sample letter.

Figure 2.1a – Preconstruction Letter, Page 1

(860)

Subject: Project No(s). _____

A meeting will be held on _____ at 10:00 a.m. at _____,
on the above noted project.

On the agenda will be a Preconstruction Conference followed by an E.E.O. meeting.

The purpose of the Preconstruction Conference is as follows:

1. To review the Special Provisions.
2. To discuss project features, particularly those which may present problems, including utilities.
3. To review the Contractor's proposed progress schedule and the method of handling traffic.
4. To answer any of the Contractor's questions regarding the plans and the contract in order to decrease possible misunderstandings during the project.

The purpose of the E.E.O. meeting is to discuss the Equal Employment Opportunity requirements of the contract.

Please bring a written statement of your company's policy on recruitment, specifically related to this project. Your statement should indicate:

1. At least six names, addresses, and telephone numbers of Union Locals and/or Business Agents of the Locals.
2. The names of Agencies you intend to contact for labor.
3. Specific efforts your Company intends to make in improving minority representation in all classifications used on this project.
4. Copy of your Company's most recent Affirmative Action Policy.

Figure 2.1b –Preconstruction Letter, Page 2

5. Written notification to the local office of the Connecticut State Employment Service of the award of this project and to register each job vacancy.

Please arrange to have your E.E.O. Officer present.

Enclosed is a copy of a breakdown of insurance and taxes to be completed and brought with you to the Preconstruction Conference. This information will be utilized in the payment of any cost-plus work necessary on this project. It is your responsibility to update this breakdown on a yearly basis.

If you have any questions regarding any of these matters, please contact _____, Project Engineer, at telephone number (860) _____.

Very truly yours,

Municipal Official

_____/_____
Attachment
Labor Mark-Up for Insurance and Taxes

cc:
District MSAT

2-4 Labor Mark-Up for Insurance and Taxes

The labor mark-up for insurance and taxes form should be sent to the Contractor with the preconstruction letter. This needs to be kept on file for use if cost-plus is required. During the project this form should be updated yearly. See Figure 2.2 for form.

2-5 Issues To Be Discussed

Ensure attendees sign in for the meeting. See Figure 2.3 for an example of a sign-in sheet. Conduct introductions prior to discussing project issues. Major issues should be the main topics of the discussion. See Figure 2.4 for an agenda of topics to cover during the preconstruction meeting.

Emphasize that testing must be submitted for contract items installed in order to receive payment for them.

Figure 2.4 – Preconstruction Agenda

Preconstruction Meeting Agenda	
Date:	
Project No.:	
FAP No.:	
Contractor:	
Town:	
Introductions:	
Award Date:	
Contract Value: \$	
Utility Problems:	
Call Before you Dig:	
Required Start Date is within 45 days after award:	
When Contractor Would Like to Start:	
Notice to Proceed:	
Number of Calendar days in Contract:	
Liquidated Damages	
Winter shut down time counted:	
Office Location Submitted: Where:	
Notice to Install Field Office:	
Emergency phone numbers:	
Town:	
Contractor:	
DBE Percentage:	
Contractor's Insurance in Place:	
Press Release (if required):	
Environmental Problems:	
Addendums:	
Review Specifications:	
Any Speciality Items Discussed:	
Site Record Review to be done end of each calendar year and at end of project:	
Who to send Shop Drawings to:	
Subcontractor approvals shall be in place prior to their working on site (Town required to sign CLA12's):	
Estimates Town Pays Contractor, State Reimburses Town: Does town have deadline for payment:	
Any New Items must be approved by the State:	
All Quantity changes must be placed on a construction order and approved by the State prior to payment:	
No time extension shall be granted without State approval:	
Testing of material: town inspector gets samples from contractor and arranges to get to the State Lab:	

2-6 Notice To Proceed

The Municipality shall issue the Notice to Proceed to the Contractor in accordance with section 1.03.08 of the Standard Specification for Roads, Bridges, and Incidental Construction – Form 816 or its amended version. The date of the Notice to Proceed is the ordered to start date, which is the date used to begin counting calendar days on the project. See Figure 2.5 for Notice to Proceed Letter.

Figure 2.5 – Notice to Proceed Letter

Subject: Project No. _____

Notice to Proceed

In accordance with the Department of Transportation Standard Specifications for Roads, Bridges, and Incidental Construction, Form 81 __, you are ordered to start work on this contract on _____. In no case, however, shall you begin work prior to the date stipulated in this letter. The Municipality Office must be notified 48 hours previous to the starting of work on this project.

Since time is the essence of effective prosecution of this project, it is essential that you become familiar with Article 1.08.07, which explains the method for the determination of contract time; Article 1.08.08, which explains the method for the extension of time; Article 1.08.09, which deals with the failure to complete work on time; Article 1.08.10, which deals with the annulment of contract; Article 1.08.13, which deals with the completion of construction work and termination of the Contractor’s responsibility; Article 1.08.14, which explains when the contract is accepted.

It is necessary that you note, particularly, all of the paragraphs in Articles 1.08.06 and 1.08.08, since these articles set forth the conditions under which temporary suspensions of work may be allowed; they define the justifiable causes for the extensions of time, and they describe the method by which the Contractor can appeal for an extension of contract time for acts or causes beyond his control. It is of the utmost importance for you to conform to the requirements of our Standard Specifications for Roads, Bridges, and Incidental Construction, Form 81 ____.

Very truly yours,

Municipal Administrator

cc: Insurance Company

Bonding Company

MSAT Leader

2-7 EEO Portion of the Preconstruction

This portion of the meeting will cover the DBE and EEO goals for the project. The DBE goal set forth in the contract documents will be reviewed. The Contractor needs to be aware that the approved DBE pre-award documents are pre-award documents of the DBE subcontractor listed in the pre-award. See Chapter 4 – DBE for further clarification of DBE monitoring. See Figure 2.6 – DBE Preconstruction Notes.

Discuss that a Site Record Review is to be conducted by the Municipality or the Consultant Inspector at the end of each construction season and at the end of the project. See Chapter 23 – Site Record Review meeting for the form used and further clarification. Copies of the Site Record Review form are to be distributed during the preconstruction meeting. Also, the Contractor should be given the web address to locate the Muni CLA-12 form. See Chapter 5 for more information.

Figure 2.6a – DBE Preconstruction Notes, Page 1

CONNECTICUT DEPARTMENT OF TRANSPORTATION
PRECONSTRUCTION MEETING / EQUAL OPPORTUNITY SEGMENT

Preconstruction Date: _____ **Location:** _____

General Contract Information

I. Contract No.: _____ Federal No.: _____

II. Contractor: _____

III. Contract Value \$ _____

IV. Date of Award _____ Anticipated Start Date: _____

V. Calendar Days: _____ Trainees: _____

Inspection Consultant Firm: _____

Individual responsible for EEO on the Project Site:

- a. Contractor _____
- b. Municipal Administrator _____
- c. Chief Inspector _____
- d. State Project Engineer _____

VI. DBE Goal _____ %

VII. SBE Goal _____ %

VIII. Labor Market Area: _____

IX. Affirmative Action Program Current? YES _____ No _____

The following posters and directives must be posted on site, or located in an area that all employees are able to access; (to be given at meeting)

- a. Directive on Posting Information
- b. The Law (English)
- c. The Law (Spanish)
- d. Wage rate information Federal-Aid Highway Project (English)
- e. Wage rate information Federal-Aid highway Project (Spanish)
- f. NOTICE
- g. Sexual harassment is illegal
- h. Job Safety & Health Protection shall govern
- i. Affirmative Action Policy (contractor to provide)
- j. Prevailing Wage Rates
- k. Copy of any job vacancies & openings

Figure 2.6b – DBE Preconstruction Notes, Page 2

CONNECTICUT DEPARTMENT OF TRANSPORTATION
PRECONSTRUCTION MEETING / EQUAL OPPORTUNITY SEGMENT

General Staffing Information

I. Is your Company affiliated with a Union (s)? Yes Or No

II. If Union affiliated, which unions do you have signed agreements with:

a. _____

b. _____

c. _____

III. How many Employees, from your company, will be needed to complete the project? _____

IV. What Job classifications will you be utilizing?

V. Do you currently have minorities in your workforce? Yes or No

Do you currently have females in your workforce? Yes or No

VI. Will the above noted minority and/or female employees be part of this project?
Yes or No

VII. What would your company do if the Unions were unable to provide you with minorities or females to meet the goals?

VIII. _____

IX. What recruitment sources do you intend to utilize in order to staff this project? I.e. use existing workforce, hire, advertise, walk-ins, etc.

X. The contract has a _____% minority requirement because the project is located with the _____ Labor Market Area(s).

XI. The contract has a 6.9% Women in construction provision, which encourages you to hire, train and utilize women in non-traditional crafts.

XII. You are aware of the A(76) Affirmative Action Provision which states in part that a "good faith effort" must be made when hiring in job classification that do not have minority or female participation in order to increase the overall participation?
Yes or No

XIII. You are aware of the Governor's Executive Order #17 requiring you to list (register) all employment openings with the Office of the Connecticut State Employment Service in the area where the work is to be performed.(copy of this letter is required at time of preconstruction meeting) Yes or No
can register on line at DOL website "www.ctdol.state.ct.us"

Figure 2.6c – DBE Preconstruction Notes, Page 3

CONNECTICUT DEPARTMENT OF TRANSPORTATION
PRECONSTRUCTION MEETING / EQUAL OPPORTUNITY SEGMENT

DBE/SBE Subcontractor Information

I. Name the firms that you have signed agreements/intend to use to meet the DBE contract goal of _____ %: (This goal is based on the ORIGINAL contract value)

II.

Subcontractor	D/SBE	Preward Value	% of Contract	Anticipated Start Date
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

With regard to the above named DBE/SBE subcontractors, do you agree with, have knowledge of and adhere to the following?

- The special requirements regarding the “requests to sublet” as they apply to the DBE/SBE firms?
Yes or No
- All subcontractors must have an ethics affirmation (Form 6) on file. This affidavit can be found at <http://www.ct.gov/opm/>
- An approved Affirmative Action Plan Statement (AAP) for each firm is required to be on file with the Division of Contract Compliance for each subcontract valued at \$10,000 or more on federally-assisted projects or \$10,000 or more on state-funded projects.
- Contractors are reminded that in accordance with the Standard Specifications, Article 1.05.12 Payrolls, certified payrolls are required to be submitted for every employee working on each project. The requirement also applies to each subcontractor, including rental rates for truck or other equipment used for the project work. Forms are available at www.ct.gov/dot/construction
- That no payment can be made for any work performed by your DBE/SBE (or any subcontractor) prior to written approval from the Municipality?
Yes or No
- Prior notification of the start dates of your subcontractors (ALL) must be given to the Chief inspector?
Yes or No
- You must notify the Chief Inspector of any problems you may have with your DBE/SBE subcontractors immediately? Yes or No
- The DBE/SBE goal is based on the “original” value?
Yes or No

Figure 2.6d - DBE Preconstruction Notes, Page 4

CONNECTICUT DEPARTMENT OF TRANSPORTATION
PRECONSTRUCTION MEETING / EQUAL OPPORTUNITY SEGMENT

- i. Documentation is necessary when a DBE/SBE is unable or unwilling to perform or is terminated from the project for just cause? Yes or No
- j. "Good faith efforts" must be made to find other DBE/SBE firms to increase the DBE/SBE participation? Yes or No
- k. Credit for DBE suppliers is limited to 60% of the value of the material to be supplied, provided such material is obtained from a regular DBE dealer? Yes or No

Credit for DBE manufactures is 100% of the value of the manufactured product?
Yes or No
- l. Connecticut Department of Transportation DBE Supplier/Manufacturer Affidavit is located in your contract and must be filled out in order to obtain credit towards the DBE goal for DBE supplier/Manufacturers? Yes or No
- m. A Quarterly report indicating work done and dollars paid to your DBE/SBE firms must be submitted in order to monitor the DBE/SBE goal? Yes or No

DBE/SBE Subcontractor Payrolls Requirements

- I. Your current payroll week begins on _____ and Ends on _____.
- II. Who is the person responsible for payrolls at your office?
 - a. _____ phone _____
- III. Do you agree with, have knowledge of and adhere to the following?
 - a. Are you aware that payrolls will be submitted to the Municipality within five days after the employees are paid? (2 copies are required) Yes or No
 - b. The payroll records shall contain the name, last 4 digits of the employees social security number, and address of each employee, classification, hourly rates, fringe benefits or cash equivalent, daily and weekly number of hours worked, deductions made and actual wages paid?
Yes or No
 - c. If you are using computer-generated payroll, or payroll service, the payrolls must meet the State's payroll requirements?
 - d. Both a State and Federal compliance certification statement shall accompany each payroll submitted by the contractor/subcontractor.
 - e. The contract Prevailing Wage Rates and Benefits must be clearly stated on each payroll so the Municipality inspectors can complete their Labor Wage Checks.

Figure 2.6e – DBE Preconstruction Notes, Page 5

CONNECTICUT DEPARTMENT OF TRANSPORTATION
PRECONSTRUCTION MEETING / EQUAL OPPORTUNITY SEGMENT

You should provide a copy of the current prevailing wage rates to all subcontractors and remind them that prevailing wages are to always be paid when working on state projects. Please ask if you are not sure if the operation being worked on falls under prevailing wage.

- f. Have you reviewed the Prevailing Wage Rates for each job classification that you intend to utilize on this project? Yes or No
- g. Are you aware each July 1st prevailing wage rates change and must be adhered to? Yes or No
- h. The Municipality will be forwarding to the Department of Labor, a Contracting Agency Certification Form, indicating a contact person from your company that the DOL can contact if there is a problem with the certified payrolls.
- i. To ensure that the prevailing wage rates and proper benefits are being paid, our Municipality inspectors will be periodically taking Labor Wage Checks on the contractor's employees and your subcontractors.
- j. These checks will be compared with the payrolls to validate the pay rate.
- k. You will be made aware of any discrepancies and given ample time to correct the situation. If the matter can not be resolved, we will forward the issue to the Department of Labor for their review.
- l. In case of conflict between the minimum wage rates prescribed by the U.S. Department of Labor and those prescribed by the State of Connecticut Department of Labor, the higher of the two rates prevail.
- m. Payrolls will no longer be accepted with just owner listed. The Owner must list his wage rate.
- n. NTC Certified Payrolls, dated 4/1/09. This notice alerts the contractors to the updated requirements for the submittal and content of certified payrolls as a result of recent changes to the CFR's. The notice is also posted on the DOT web page under www.ct.gov/dot/construction.

Do you have any comments or questions pertaining to these rates or the information presented above?

Figure 2.6f – DBE Preconstruction Notes , Page 6

CONNECTICUT DEPARTMENT OF TRANSPORTATION
PRECONSTRUCTION MEETING / EQUAL OPPORTUNITY SEGMENT

Subcontractor Payments:

- I. You agree to pay your subcontractors for work performed within thirty days after you receive payment from the Department for the work performed by them? Yes or No
- II. You agree to release retained monies to the subcontractor within thirty days after satisfactory completion of the entire subcontractor's work? (Refer to Article 1.08.01) Yes or No
- III. You agree to prepare, for the DBE/SBE signature, a Verification of payment statement, which lists the dates, check numbers and dollar amounts paid to each DBE/SBE subcontractor working on this project?
Yes or No
- IV. You agree to submit to the Municipality a detailed "good faith effort" package, including all documentation of the events pertaining to a DBE/SBE shortfall should one occur.
Yes or No

Training and Registration of Apprentices Requirements:

- I. The training requirement for this project is _____.
- II. If you have any questions or need assistance with the On-the-Job-Training requirements or the trainees, please contact the Office of Construction. All requests for trainees, approvals 1409's and assistant with training programs can be directed to with a copy to the District:

Ms. Debra Goss
State of Connecticut
Department of Transportation
P.O. Box 317546
Newington, Connecticut 06131-7546

- III. Contractor or Subcontractor employing apprentices or trainees under approved programs shall complete a Davis-Bacon apprentice Certification Questionnaire and forward this information to:

Mr. Jack M. Guerrero
Apprenticeship Program manager
Connecticut Department of Labor
200 Folly Brook Boulevard
Wethersfield, Connecticut 06109-1114

Figure 2.6g – DBE Preconstruction Notes, Page 7

CONNECTICUT DEPARTMENT OF TRANSPORTATION
PRECONSTRUCTION MEETING / EQUAL OPPORTUNITY SEGMENT

Trucking

Should DBE trucking firms be used to meet part of your DBE goal, only that work, which is performed by the bona fide DBE owner/operator, will be applied towards the DBE goal. A non-DBE owner/operator may perform work for the DBE subcontractor but no credit for their participation will be applied towards the DBE goal.

When submitting your Verification of Payment Statement for the trucking firm, you must breakout that portion which was done by the non-DBE trucking firms

Due to the various scenarios involved in the use and subcontracting of trucking firms on Conn DOT projects the following decision matrix is used to indicate the appropriate type of submittal and subcontract approval that is required:

1. Is the firm proposed for DBE/SBE credit?
Yes- Submittal A is required
No – go to next question.
2. Is the firm hired by a Supplier or a Disposal Facility?
Yes – no action required.
No – Go to next question
3. Is the firm only hauling to/from a commercial facility? In this scenario, the firm is solely performing in the capacity of a material man/hauling/supplier.
Yes – Submittal C is required.
No – go to next question.
4. Is the firm working within the project limits or to/from location established exclusively for the project?
Yes – Submittal A is required
No – go to next question
5. Is the firm an owner-operator?
Yes – Submittal B is required
No – go to next question
6. Other:
Yes – Submittal A is required

Figure 2.6h – DBE Preconstruction Notes, Page 8

CONNECTICUT DEPARTMENT OF TRANSPORTATION PRECONSTRUCTION MEETING / EQUAL OPPORTUNITY SEGMENT		
Submittal A (same as in Subcontractor Approval)	Submittal B	Submittal C
Required: <ul style="list-style-type: none"> • CLA-12 • AAP • Ethics Statement • Certified Payrolls 	Required <ul style="list-style-type: none"> • Owner Operator Certification by Prime and Owner Operator • AAP • Ethics Statement • Certified Payrolls 	Required <ul style="list-style-type: none"> • List of trucking firms • Ethics Statement for each firm.
<ul style="list-style-type: none"> • Prime submits to Municipality • Upon Municipality approval entered into Volume IV and approval letters transmitted 	<ul style="list-style-type: none"> • Prime submits to Municipality • Municipality provides Prime with approval letter if all conditions are met. 	<ul style="list-style-type: none"> • Prime submits to Municipality • No response required from Municipality, unless conditions not met.

The Owner Operator Certification indicated under Submittal B must include a certification statement by the owner operator that they are the owner and operator of the truck and not an employee of another entity; the make, model and plate of the truck; a copy of the registration and a copy of the lease agreement if they are not the owner.

The list of trucking firms indicated under Submittal C must include the name and address for each trucking firm, and indicate the hauling/supply operations that they will be utilized on.

If you have any doubt about whether a trucker is a subcontractor or not or if prevailing wages need to be paid, please call the Municipality.

Figure 2.6i – Preconstruction Notes, Page 9

CONNECTICUT DEPARTMENT OF TRANSPORTATION
PRECONSTRUCTION MEETING / EQUAL OPPORTUNITY SEGMENT

OSHA Requirements:

NTC Contractor Training Requirement for 10-Hour OSHA Construction Safety and Health Courses, dated 3/11/09. This notice alerts the contractors to the updated requirements for 10-hour health and safety training in accordance with Connecticut General Statute 32-53b and Public Act No. 08-83. This notice will be included in future contracts and applies to any contract that is awarded on or after July 1, 2009. Proof of compliance with the provisions of the statute shall consist of a student course completion card issued by the federal Occupational Safety and Health Administration or other such proof as deemed appropriate by the commissioner of the Connecticut Department of Labor, dated no earlier than five year prior to commencement of the project. Each employer shall affix a copy of the construction safety course completion card for each applicable employee to the first certified payroll submitted to the Municipality on which the employee's name first appears.

Signature of Contractor

A copy of this report will be provided to you. You may refer to this report and address any questions you may have to _____ EEO Representative at Telephone Number _____.

Signature required by the Contractors EEO Officer or representative as documentation that this information was reviewed and materials provided.

Contractor's EEO Officer or Representative:

Signature

Date

Print Name

Title

Cc:
Municipal Administration
District MSAT
State Office of Compliance

Chapter 3 - CON-100M

3-1 General

The CON-100M is utilized from the start of construction to the completion of the project. It is used to start, suspend, resume and complete time for the project. This form must be completed and signed by the Municipal Administrator of the project and submitted to the MSAT Leader within seven (7) days of any of the above occurrences. See Figure 3.1 for CON-100M form.

Figure 3.1 – CON-100M Form

CON-100M

State of Connecticut
Department of Transportation
Bureau of Engineering and Construction
Office of Construction

Contract No. _____

Project No(s). _____

Fed. Aid No(s). _____

Date CON-100M Prepared _____

CONTRACT STATUS

Prime Contractor: _____

Town: _____

Full Description including crossroads: _____

Project Limits : (From) : Start _____ (To) : End _____

Contract Awarded on : _____

Ordered to Start on : _____

Inspector : _____ Job Tel.: _____

Final Maint. Responsibility : _____ Date closed to traffic _____

_____ Date open to traffic _____

Status of Contract (Check One)	Active <input type="checkbox"/>	Suspended <input type="checkbox"/>	Resumed <input type="checkbox"/>	Substantially Completed <input type="checkbox"/>
Date				

Signature: _____ on _____ Date _____

Printed Name: _____ Municipal Official

Revised: May 2012

District Personnel-Please see instruction for use and routing for distribution

Chapter 4 - DBE

4-1 General

Strict adherence to the DBE Special Provision found in the Contract is required.

The Disadvantaged Business Enterprises (DBE) program is a requirement for federally participating projects. From the selection of the low bid through the acceptance of the Contract, the DBE utilization **must** be actively monitored by the Municipality for compliance in accordance with the Code of Federal Regulations, Title 49, Part 26 (49 CFR Part 26).

The DBE program is a program designed to offer equal opportunities for disadvantaged small businesses to participate in federally funded projects. It is a requirement for all projects funded by the Federal Highway Administration, Federal Transit Administration and the Federal Aviation Administration, and in accordance with the Code of Federal Regulations, Title 49, Part 26 (49 CFR Part 26).

A DBE goal percentage will be determined prior to contract award. The Municipality shall monitor DBE subcontractors for goal status throughout the project.

All DBE subcontractors must be certified for the type of work they will perform. DBE subcontractors are certified by the ConnDOT, Office of Contract Compliance.

A list of Contractors/Subcontractors approved by the ConnDOT Office of Contract Compliance as a DBE may be obtained by calling or visiting the ConnDOT website.

The Prime Contractor may utilize DBE firms as Material Suppliers or Manufacturers to meet the goal. See Contract Special Provisions for the applicable DBE credit toward goal.

4-2 Pre-award Documents

The DBE pre-award documents which are approved by the Department's Contract Compliance Office are to be maintained by the Municipality and placed in Volume IV for reference. All DBE firms that were listed in the pre-award documentation are considered to be committed to the project. The Contractor is obligated to provide at least the value of the work specified in the pre-award documentation to each DBE firm submitted.

The Contractor shall submit for approval from the Municipality a CLA-12 form (Subcontractor Approval form) for work assigned in the pre-award commitment for all DBE subcontractors. The CLA-12 form can be found at <http://www.ct.gov/dot/construction> under the Subcontracting section. A copy of the legal Contract between the Contractor and the DBE subcontractor/supplier must be submitted along with a request for subcontractor approval. The Subcontract Agreement must contain a copy of the required contract provisions for Federal Aid Construction Contracts (Form FHWA-1273), a mechanism that requires for payment to the Contractor for work performed be within thirty (30) days of receipt of federal-aid payment by ConnDOT, as well as, the return of retainage to the Subcontractor within (30) days after

satisfactory completion of the Subcontractor's work. If contract documents state that retainage is prohibited from being held from the Prime Contractor, the Prime Contractor shall not hold retainage from any subcontractor.

4-3 Monitoring of DBE Items

Neither the Prime nor its Non-DBE Subcontractors are allowed to work on any items that were designated to be performed by the DBE Subcontractors in the pre-award documentation. If for some reason the DBE firm is unable or unwilling to do the work identified in the pre-award commitment, the Prime Contractor must provide five (5) days written notice to the affected firm and obtain a written release from that firm. The five day notice is to provide the DBE firm with an opportunity to object to the administering unit regarding their release, if necessary. Any perceived changes to the pre-award submission must be approved by the Town prior to the change taking place. Copies of approval letters and backup documentation must be copied to the MSAT Leader and ConnDOT's Office of Contract Compliance.

Should the Contractor opt to perform the work itself without prior approval, it will be considered in non-compliance. The Contractor must make every effort to solicit another DBE subcontractor to provide the work identified in the pre-award commitment and document all efforts made. In the absence of a replacement DBE firm, the Contractor must make efforts to provide work to additional DBE firms. The Contractor must document all efforts made to achieve the DBE goal. These "good faith efforts" (GFE) will be evaluated if there is a shortfall of the DBE goal.

If a Contractor, during the pre-award, has made a GFE to meet the goal and the Department has approved the Contractor based on a reduced goal for the pre-award, this in no way releases the Contractor from making every effort to reach the goal assigned to the project.

DBE firms must perform their assigned work independently. A DBE firm must perform the work on a project with its own labor, equipment and supervisory personnel and according to work that it is certified for and as committed in the pre-award documents. This is referred to as working in a "Commercially Useful Function" (CUF) and spelled out clearly in the DBE Special Provision. Inspection staff must notify the Contractor and the MSAT leader if the DBE is not performing work according to a CUF and the DBE subcontractors work will not be counted towards the DBE goal.

The Contractor should be encouraged to try to utilize additional DBE subcontractors for any extra work on the project. The Municipality can ensure that the DBE is approved by referring the Contractor to the DBE directory on the ConnDOT webpage or contact Contract Compliance at 860-594-2171. Solicitation of DBE subcontractors should be documented and even if a DBE is not hired for the work, these efforts will count as a GFE towards the DBE goal in the event that a shortfall should occur. If additional items are to be subcontracted out to an approved DBE Subcontractor, a form CLA-12 must be submitted according to the same procedure above for subcontract documents.

4-4 Bi-Monthly Contractor Reports

The Contractor must provide bi-monthly reports as well as verification of payment to the Municipality as a means for monitoring DBE compliance. The bi-monthly report should document the DBE subcontractors identified in the pre-award commitment, the dollar amount assigned and goal amount, verified payments, status of the goal to date, and expected time that the DBE subcontractor will be expected to provide their services on the project. It should also state any problems to date and any extra DBEs solicited for the project. Monitoring of DBE status is a requirement of the federal regulations 40 CFR Part 26 and also a requirement of ConnDOT's DBE Special Provision. A bi-monthly report can be located on the ConnDOT website. See Figure 4.1 for DBE monitoring form. This form should be kept in Volume IV with the CLA-12s.

Figure 4.1 – Bi-Monthly DBE Monitoring Report

Bi-Monthly DBE Monitoring Report									
Project No. _____					Town: _____				
Chief Inspector: _____					Contractor: _____				
MSAT Reviewer: _____					Date: _____				
	List of DBE's	Verified Sub is DBE	Items are authorized DBE Work	CLA-12M matches Preaward Amount	Original Contract in Volume IV	List of Actual Items Worked On	DBE doing assigned items	Payment Verifications	Form 88-1M
DBE's from Preaward									
DBE's Added after Preaward									

4-5 Final Payment Verifications

All payments to DBE subcontractors require final payment verification at the completion of the project. Whether a contract has a DBE goal or not this verification shall be obtained for all DBE subcontractors working on the project. DBE verifications shall be submitted to the Municipality for review. If the Contractor cannot obtain the verification letters, then copies of the canceled checks are acceptable. See Figure 4.3 for Payment Verifications.

Figure 4.2 – Payment Verification

Date:		
Subject:	Town:	
Project No.:		
DBE Subcontractor:		
Address:		
City & State:		
Gentlemen:		
Please verify the payments made to your corporation for Project No. _____, by signing the bottom of this letter and return it to this office in the enclosed envelope.		
<u>Amount</u>	<u>Date</u>	<u>Check No.</u>
Thank you for your cooperation.		
Yours,		Very Truly
		Prime Contractor
		Signature Name: Title:
I, _____, did receive the sum of \$ _____ in payments as listed above for work stipulated in our signed Subcontract Agreement dated _____.		
	Subcontractor Signature	
	Title	

4-6 DBE Fulfillment and Shortfall Procedures

The following procedure must be used to verify the Contractor’s fulfillment of the Contract’s DBE goal requirement, as well as, the method to follow if a shortfall occurs and handling GFE documentation.

The Municipality must review the DBE verification documents from the Contractor according to the commitment made in the pre-award. If the DBE payment verifications equal or exceed the contract goal, the Municipality will complete the Form 88-1M.

- The original Form 88-1M and payment verification remains with the Municipality for their records.
- A copy of the form 88-1M along with copies of the payment verifications shall be submitted to the MSAT Leader for review.

- See Figure 4.3 for Form 88-1M.

Figure 4.3 – Form 88-1 M

**FINAL DBE & SBE PARTICIPATING REPORT
(FORM 88-1M)**

CONTRACT NO.: _____ F.A.P. NO.: _____

PRIME CONTRACTOR: _____

COMPLETION DATE _____ DATE OF AWARD: _____

ORIGINAL CONTRACT VALUE _____

FINAL CONTRACT VALUE _____

SPECIFIED GOAL % _____ Type _____ DBE _____

LIST OF DBE OR SBE FIRMS APPROVED TO WORK ON CONTRACT

NAME OF FIRM	PREAWARD ASSIGNED VALUE OF WORK	VERIFIED VALUE OF WORK

TOTALS		
PERCENT OF CONTRACT VALUE		

Original: Municipality
CC: MSAT Team

If the review indicates a shortfall, the Municipality will send a letter to the Contractor indicating the apparent shortfall with the dollar amount that may be withheld if the Municipality does not receive acceptable justification of a GFE from the Contractor with attached backup documentation.

Documentation of GFE is to include, but not be limited to the following:

- A detailed statement of the efforts made to solicit additional DBE subcontractors for any extra work offered on the project. Sufficient cause for not choosing a DBE must also be provided.
- A detailed statement including documentation of the efforts made to contact and solicit bids with certified DBEs including the names, addresses, dates and telephone numbers of each DBE contacted. A description of the information that was provided to each DBE subcontractor regarding the scope of services and anticipated time schedule of work items proposed to be subcontracted and nature of response from firms contacted.
- Provide a detailed statement for each DBE that submitted a subcontract proposal, which the Contractor considered not to be acceptable stating the reasons for this conclusion.
- Provide documents to support contacts made with the Municipality and the Department (for DBE program) requesting assistance in satisfying the Contract specified goal.
- Provide documentation of all other efforts undertaken by the Contractor to meet the defined goal.

The Municipality will review the GFE documents provided by the Contractor and prepare a memorandum to the District identifying the GFE made by the Contractor. Backup documentation should include the Municipality's review comments, the completed Form 88-1M, and any other related correspondence.

The District will review the Municipality's submission for completeness. If complete, the District transmits the Municipality's submission with any additional comments that the District may have on the subject to the Office of Construction and a copy to the Director of Contract Compliance. The District **SHOULD NOT** make any recommendations. Once the Office of Construction (OOC) and the Office of Contract Compliance have reviewed the shortfall documentation, a determination about the GFE that was made by the Contractor and what, if any, remedy will be imposed. The criteria for shortfalls and sanctions are explained in the DBE Special Provisions of the Contract. The OOC will notify the District by memorandum of the findings and the District will notify the Municipality. In the event of a sanction, the Municipality must ensure that enough money was held in retainage.

Note: The same procedure must be followed for consultant agreements with DBE goal requirements.

Chapter 5 - CLA-12

5-1 General

All subcontractors, regardless of value, must have prior approval from the Municipality before starting any work on the project. Approval is granted by use of the Municipal CLA-12 form completed by the Contractor and Subcontractor and signed by an authorized representative of the Municipality. See Figure 5.1 for Municipal CLA-12 Form.

CLA-12s can be located on the Department's website at the following location:

- www.ct.gov/dot/construction
- Click on Forms & Publications
- Must use the MUNI CLA-12 forms

The Municipality in reviewing and approving the CLA-12 form must adhere to the following format:

- Two (2) original CLA-12 forms are required.
- All must have original signatures and dated by the Prime and Subcontractor.
- Name should be typed or printed under each signature.
- Front page must indicate item number, description of item, code, quantity, unit price and total value of subcontract agreement.
- The Municipality should ensure that if the Subcontractor is listed on the DBE pre-award approval, the CLA-12 reflects that value of work that was committed in the pre-award documents.
 - Additional items may be added, however, if the DBE firm is not certified to perform that work, then the work will not be counted toward the DBE goal.

To check the DBE certification, call Contract Compliance at 860-594-2171 or check the online DBE Directory at http://www.biznet.ct.gov/dot_dbe/dbesearch.aspx.

- If the value of work is less than indicated in the pre-award, the Municipality should clarify who will be performing the work before signing the CLA-12.

- The Municipality needs to ensure that any work assigned in the DBE pre-award is not performed by a non DBE firm for federally participating projects. The Contractor must ensure that all subcontracts for the project include the FHWA-1273 and required Title VI assurances. These provisions and assurances must be physically incorporated into each subcontract that the Contractor signs.
- If the submitted subcontractor is a DBE firm, then a copy of the subcontract agreement must also accompany the submitted CLA-12 before it can be approved.

The completed CLA-12 may be submitted by postal mail or by electronic means including but not limited to, email. The method of submission is at the discretion of the Municipality. The same method should be used consistently throughout life of the project.

Distribution of the CLA-12 forms upon signing by the Municipality is as follows:

- One copy is to be returned to Prime Contractor for their files. This may be returned to the Contractor via the method received.
- One copy is to be placed in Volume IV.

Figure 5.1a – CLA-12, Page 1

CLA-12 M (Rev 06/20/2012)
Municipality Town/City of _____
SUBCONTRACTOR APPROVAL

The Municipality, , grants approval for a Subcontract between:

 (Name) (Address)
 as Contractor and _____
 (Name) (Address)

FEIN No. of Subcontractor: _____

as Subcontractor to the Contractor and _____
 (Name) (Address)

FEIN No. of Lower Tiered Subcontractor: _____

as lower tier Subcontractor to the Contractor on a certain contract described as follows:

Town of: _____ **ConnDOT Project No.:** _____

This approval to sublet to the Subcontractor (or lower tiered subcontractor) is for the following portions of the original contract, including special provisions, plans, specifications, addenda, and other documents made a part of said contract.

Anticipated start date for Subcontractor/lower tiered Subcontractor _____

Is the Subcontractor/ lower tiered Subcontractor a (if applicable, check only one):

SBE (State Funded Contracts Only) or DBE (Fed. Participating Contracts Only)

If the request for approval is for an SBE or DBE Subcontractor, then a copy of the legal contract, including all SBE or DBE contract provisions required pursuant to the applicable State or Federal program, between the Contractor and the SBE or DBE Subcontractor must be submitted to the Municipality along with the request for subcontractor approval. The Contractor and Subcontractor are required to comply with the applicable laws, regulations, and SBE or DBE contract provisions related to the applicable SBE or DBE program.

NOTE: The Contractor is required to clearly break out assignments of work for each Subcontractor (and, as applicable, each lower tiered subcontractor) by item for each project (and, as applicable, each subproject), including reference to Project Number(s) and Line Item Number(s) as outlined in the "Line Item Category Report". The following table must be completed by the Contractor. If additional space is required, attach additional pages as required. (Check if additional pages are attached:)

Project No.	Item Code	Line Item	Work Description	Code *	Pay Unit	Unit Price	Quantity	Subcontract Total Item Value	% of Orig. Bid Qty.

(* Code: S – Subcontractor, T – Trucking, P – Supplier) **Total Subcontract Value** _____

Each CLA-12 must also indicate the following items are included (if applicable). If applicable, items shown in bold are required for approval*:

- Required Contract Provisions (FHWA-1273) (Federal Aid projects only)
- Title VI Assurance Language (Federal Aid Projects only)
- Copy of DBE Subcontract Agreement (includes lower tier subcontractors) – A copy of the subcontract agreement must be included with each DBE/SBE Subcontractor Approval request.**
- Copy of NON-DBE Subcontract Agreement (includes lower tier subcontractors) - At least one copy of the subcontract agreement must be included per project for a NON-DBE firm (Federal Aid Projects only). All subcontract agreements must be made available upon request.**

*By checking the boxes above the Contractor and Subcontractor verify that they are in compliance with this requirement.

This approval is granted on the condition that the Contractor and Subcontractor agree that the subcontract between them shall include the following provisions, which agreement is evidenced by their signatures subscribed hereto:

(A) The Subcontractor agrees to be bound to the Contractor by the terms of the Prime Contract between the Contractor and the Municipality, including special provisions, plans, specifications, addenda, and other documents made a part of said Prime Contract, and to assume to the Contractor all the obligations and responsibilities that the Contractor, by those documents, assumes to the State of Connecticut, except to the extent that provisions contained therein are, by their terms or by law, applicable only to the Contractor.

(B) It is further distinctly agreed that the Contractor or Subcontractor shall not (i) assign their contract, or any part thereof, or any right to any of the moneys to be paid hereunder, or (ii) sublet any part of the work to be done, or material furnished under their contract without the consent in writing of the Municipality Administrator.

Figure 5.1b – CLA-12, Page 2

CLA-12 (Rev 6/20/12), Page 2

(C) It is further understood and agreed that on all subcontracts valued at \$10,000 or more the required Equal Employment Opportunity Provisions have been read and understood by the Subcontractor. The Subcontractor agrees to be guided by and to fully comply with these Provisions.

(D) It is further understood and agreed that the following provisions shall be applied to each subcontract:

(1) The Subcontractor agrees and warrants that in the performance of the contract such Subcontractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, mental retardation, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such Subcontractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the state of Connecticut, and the Subcontractor further agrees to take affirmative action to insure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, mental retardation, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such Subcontractor that such disability prevents performance of the work involved;

(2) The Subcontractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the Subcontractor, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the Commission on Human Rights and Opportunities (Commission);

(3) The Subcontractor agrees to provide each labor union or representative of workers with which such Subcontractor has a collective bargaining agreement or other contract or understanding and each vendor with which such Subcontractor has a contract or understanding, a notice to be provided by the commission advising the labor union or workers' representative of the Subcontractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment;

(4) The Subcontractor agrees to comply with each provision of § 4a-60 and §§ 46a-60e and 46a-68f of the Connecticut General Statutes and with each regulation or relevant order issued by said Commission pursuant to §§ 46a-56, 46a-68e and 46a-68f; and

(5) The Subcontractor agrees to provide the Commission with such information requested by the Commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the Subcontractor as relate to the provisions of §§ 4a-60a and 46a-56.

(E) This contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill, promulgated June 16, 1971, concerning labor employment practices, Executive Order No. Seventeen of Governor Thomas J. Meskill, promulgated February 15, 1973, concerning the listing of employment openings and Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, concerning violence in the workplace, all of which are incorporated into and are made a part of the contract as if they had been fully set forth in it. The contract may also be subject to Executive Order No. 7C of Governor M. Jodi Rell, promulgated July 13, 2006, concerning contracting reforms and Executive Order No. 14 of Governor M. Jodi Rell, promulgated April 17, 2006, concerning procurement of cleaning products and services, in accordance with their respective terms and conditions. If Executive Orders 7C and 14 are applicable, they are deemed to be incorporated into and are made a part of the contract as if they had been fully set forth in it. At the Subcontractor's request, the Contractor shall provide a copy of these orders to the Subcontractor.

(F) It is further understood and agreed that it is a condition of the contract, and shall be made a condition of each subcontract entered into pursuant to the contract, that for any dispute arising out of the agreement between the Contractor and a Subcontractor, including claims of late or non-payment, which cannot be settled within 60 days of the Subcontractor submitting a written claim to the Contractor, either party may bring the dispute before an alternative dispute resolution entity for resolution. If the parties do not agree upon a particular dispute resolution entity for that purpose, the dispute will be resolved under the auspices and construction arbitration rules of the American Arbitration Association. The Municipality shall not be made a party to such dispute proceedings. These rights and restrictions shall not be waivable, and if these provisions are not included in the Contractor's subcontracts for the Project, these provisions shall none the less be read into them;

(G) It is further understood and agreed that it is a condition of the contract, and shall be made a condition of each subcontract entered into pursuant to the contract, that the Contractor and any Subcontractor shall not require any laborer or mechanic employed in any performance of the contract to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (Title 29, Code of Federal Regulation, Part 1518 published in the Federal Register on April 17, 1971) promulgated by the United States Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act, (83 Stat. 96);

(H) It is further understood and agreed that, on Federal-aid Contracts, the Required Contract Provisions (FHWA FORM 1273) and Title VI assurances have been read by the Subcontractor and fully understood. The Subcontractor agrees to be guided by and to fully comply with these Provisions, and it is also understood that these provisions will be physically included in the subcontract.

It is further understood and agreed that, with respect to federally participating contracts or contracts with assigned DBE goals, the most recent Appendix DBE entitled "Policy Statement, Policy No. F&A-19, Subject: Policy on DBEs" is hereby attached and made a part of this document; and

In accordance with § 49-41c of the Connecticut General Statutes, the Subcontractor shall pay any amounts due any of its Subcontractors, whether for labor performed or materials furnished, within thirty days after such Subcontractor receives a payment from the general Contractor which encompasses labor or materials furnished by such Subcontractor.

This Subcontractor Approval (CLA-12M) may be executed by handwritten signature or by digital signature, and in either case will be deemed to be an original signature binding the Contractor and Subcontractor. If executed by digital signature, the Contractor and Subcontractor agree that the digital signature is the legal equivalent of having placed a handwritten signature on the CLA-12M.

Figure 5.2a – CLA-12 Completed, Page 1

Municipal CLA-12 (Rev. 5/1/09)

SUBCONTRACTOR APPROVAL

The Municipality, grants approval for a Subcontract between
Stephen Construction River Canal, Griswold, CT 06351
 (Name) (Address)

as Contractor and Ed & Son Pratt Road, Griswold, CT 06351
 (Name) (Address)

FEIN No. of Subcontractor:
 as Subcontractor to the Contractor and _____
 (Name) (Address)

FEIN No. of Sub-Subcontractor:
 as Sub-Subcontractor to the Contractor on a certain contract described as follows:

Town of: Griswold **Municipal Project No.:** 200-200

This approval to sublet to the Subcontractor is for the following portions of the original contract, including Special Provisions, plans, specifications, addenda, and other documents made a part of said contract.

Anticipated start date for Subcontractor/Sub-Subcontractor April 15, 2001

Is the Subcontractor/Sub-Subcontractor a (if applicable, check only one):
SBE (State Funded Contracts Only) or **DBE** (Fed. Participating Contracts Only)

If the request for approval is for a SBE or DBE subcontractor for the purpose of meeting the applicable Contract SBE Set-aside or DBE Goal, then a copy of the legal contract between the prime and the subcontractor must be submitted along with the request for subcontractor approval. The Contractor and Subcontractor are required to comply with the applicable SBE or DBE provisions.

NOTE: For Contracts awarded after May 2002, the Contractor is required to clearly breakout assignments of work to subcontractors (sub-subcontractors) by item for each project (subproject), including reference Project Number(s) and Line Item Number(s) as outlined in the "Line Item Category Report". The following table is to be completed by the Contractor. If additional space is required, attach additional pages as required. (Check if additional pages are attached.)

Project No.	Item Code	Line Item	Work Description	Code *	Pay Unit	Unit Price	Quantity	Subcontract Total Item Value	% of Orig. Bid Qty.
200-200	0909497A		Timber Guide Rail System	S	L.F.	\$466.66	30	\$14,000.00	
200-200	0909498A		Timber Guide Rail End Anchorage	S	Each	\$2000.00	4	\$8,000.00	
200-200	0909500A		Timber Guide Rail	S	L.F.	\$363.64	55	\$20,000.00	
200-200	0912503		Remove Metal Beam Rail	S	L.F.	\$20.00	24	\$480.00	

(* Code: S Subcontractor, T Trucking, P Supplier)

Total Subcontract Value \$4,248.00

This approval is granted on condition that the Contractor and Subcontractor agree that the subcontract between them shall include the following provisions, which agreement is evidenced by their signatures subscribed hereto:
 The Subcontractor agrees to be bound to the Contractor by the terms of the herein before original contract, including special provisions, plans, specifications, addenda, and other documents made a part of said contract, and to assume to the Contractor all the obligations and responsibilities that the Contractor by those documents assumes to the Municipality, except to the extent that provisions contained therein are by their terms or by law applicable only to the Contractor.

Figure 5.2b – CLA-12 Completed, Page 2**Municipal CLA-12 (Rev. 5/1-09), Page 2**

It is further distinctly agreed that the Contractor or Subcontractor shall not assign their Contract, or any part thereof, or any right to any of the moneys to be paid hereunder, or shall any part of the work to be done, or material furnished under their contract be sublet without the consent in writing of the Municipality;

It is further understood and agreed that all subcontracts valued at \$10,000 or more the required Equal Employment Opportunity Provisions have been read and understood by the Subcontractor. The Subcontractor agrees to be guided by and to fully comply with these Provisions and it is also understood that these Provisions will be physically included in the Subcontract:

The Subcontractor agrees and warrants that in the performance of the Subcontract it will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, sex, mental retardation or physical disability, including but not limited to, blindness, unless it is shown by such Subcontractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the State of Connecticut or the Municipality. If the contract is for a public works project, the Subcontractor agrees and warrants that it will make good faith efforts to employ Minority Business Enterprises as subcontractors and suppliers of materials on such project. The Subcontractor further agrees to provide the Commission on Human Rights and Opportunities with such information requested by the Commission concerning the employment practices and procedures of the Subcontractor as related to the provisions of Section 4a-60 and Section 46a-56 of the Connecticut General Statutes as amended:

It is further understood and agreed that the contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill promulgated June 16, 1971 and, as such, may be cancelled, terminated or suspended by the State Labor Commissioner for violation of or noncompliance with said Executive Order No. Three, or any state or federal law concerning nondiscrimination, notwithstanding that the Labor Commissioner is not a party to the contract. The parties to this document, as part of the consideration hereof, agree that said Executive Order No. Three is incorporated herein by reference and made a part hereof. The parties agree to abide by the said Executive Order and agree that the State Labor Commissioner shall have continuing jurisdiction in respect to contract performance in regard to nondiscrimination, until the contract is completed or terminated prior to completion. The Contractor and Subcontractor agree, as part consideration hereof, that this agreement is subject to the Guidelines and Rules issued by the State Labor Commissioner to implement Executive Order No. Three and that they will not discriminate in their employment practices or policies, will file all reports as required, and will fully cooperate with the State of Connecticut, Municipality and the State Labor Commissioner;

It is further understood and agreed that copies of the Governor's Executive Order No. Three and the Guidelines implementing said Order are attached to and made part of the contract between the Prime Contractor and the Subcontractor;

It is further understood and agreed that it is a condition of the contract, and shall be made a condition of each subcontract entered into pursuant to the contract, that for any dispute arising out of the agreement between the Contractor and a subcontractor, including claims of late or non-payment, which cannot be settled within 60 days of the subcontractor submitting a written claim to the Contractor, either party may bring the dispute before an alternative dispute resolution entity for resolution. If the parties do not agree upon a particular dispute resolution entity for that purpose, the dispute will be resolved under the auspices and construction arbitration rules of the American Arbitration Association. The Department may not be made a party to such dispute proceedings. These rights and restrictions shall not be waivable, and if these provisions are not included in the Contractor's subcontracts for the Project, these provisions shall none the less be read into them;

It is further understood and agreed that it is a condition of the contract, and shall be made a condition of each subcontract entered into pursuant to the contract, that the Contractor and any subcontractor shall not require any laborer or mechanic employed in any performance of the contract to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (Title 29, Code of Federal Regulation, Part 1518 published in the Federal Register on April 17, 1971) promulgated by the United States Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act, (83 Stat. 96);

Figure 5.2c – CLA-12 Completed, Page 3

Municipal CLA-12 (Rev. 5/1/09), Page 3

It is further understood and agreed that, on Federal-aid Contracts, the Required Contract Provisions have been read by the Subcontractor and fully understood. The Subcontractor agrees to be guided by and to fully comply with these Provisions, and it is also understood that these provisions will be physically included in the Subcontract.

It is further understood and agreed that this Document is executed subject to provisions of Executive Order No. 17 of Governor Thomas J. Meskill promulgated February 15, 1973 and, as such, the contract may be cancelled, terminated or suspended by the State Labor Commissioner for violation or for noncompliance with Executive Order No. 17 and any orders, rules or regulations issued pursuant thereto.

It is further understood and agreed that copies of the Governor's Executive Order No. 17 and any Guidelines implementing said Order are attached to and made part of the Contract between the Prime Contractor and the Subcontractor.

It is further understood and agreed that the most recent Appendix DBE entitled "Policy Statement, Policy No. Admin.-19, Subject: Policy on DBEs" is hereby attached and made a part of this document.

The Subcontractor is hereby put on notice that Section 4a-60 of the Connecticut General Statutes entitled "Nondiscrimination Causes in State Contracts" has been expanded by Public Act 84-418 of the Connecticut General Assembly to include certain definitions, factors to be considered in determining good faith efforts, the need for documentation of such good faith efforts, and a mandate to the Commission on Human Rights and Opportunities to adopt regulations implementing state law.

And the Subcontract shall include a provision, in accordance with Section 49-41c of the General Statutes, requiring the subcontractor to pay any amounts due any of its subcontractors, whether for labor performed or materials furnished, within thirty days after such subcontractor receives a payment from the general contractor which encompasses labor or materials furnished by such subcontractor.

Signed, sealed and delivered in the presence of Witnesses:

<u>Joseph D. With</u> Witness		<u>Stephen Tyler</u> (L.S.)
<u>Gay Thomas</u> Witness	As to Contractor	3-1-01 Date <u>Stephen Tyler, Stephen Construction</u> Contractor
<u>Jen Watson</u> Witness		<u>Si Elefanta</u> (L.S.)
<u>Laura Clarence</u> Witness	As to Subcontractor	3-1-01 Date <u>Ed & Son</u> Subcontractor
Witness		(L.S.)
Witness	As to Sub-Subcontractor	Date Sub-Subcontractor

Approved for the Municipality by Ed Madejek, Town Selectman

Date: 3-1-01

Figure 5.2d – CLA-12 Completed, Page 4

Municipal CLA-12 (Rev. 5/1/09), Page 4

Project No.	Item Code	Line Item	Work Description	Code *	Pay Unit	Unit Price	Quantity	Subcontract Total Item Value	% of Orig. Bid Qty.

(* Code: S – Subcontractor, T – Trucking, P – Supplier)
Total Subcontract Value _____

Chapter 6 - Subcontract Information

6-1 General

Unless specified otherwise in the contract provisions, the Contractor must perform at least 51% of the original total contract amount with their own workforce. The amount should be kept track of by the Municipality when they are approving the CLA-12s.

For all subcontracts with a value of \$10,000.00 or more, the Subcontractor must have an approved Affirmative Action Plan (AAP) on file with the Office of Contract Compliance before they are authorized to perform work. Additional information on the AAP or copies of the required AAP paperwork may be received by contacting the Office of Contract Compliance.

For projects that receive participating funds from the Federal Highway Administration, all subcontracts must contain the Required Contract Provisions for Federal-Aid Construction Projects (FHWA-1273) and the required Title VI assurances for Federal Aid Contracts. These must be physically incorporated into each subcontract, and cannot be incorporated by reference.


To find out if a contractor has a current AAP on file with the Department contact your District MSAT Unit.

The Chief Inspector **shall** not pay for any work that a subcontractor performs on the project until that subcontractor is approved. The subcontractor will also be prohibited from working on items not included in their subcontract agreement.

6-2 Form 6

An ethics affirmation titled Subcontractor and/or Consultant Affirmation of Receipt of Summary of State Ethics Laws (Form 6) is required to be submitted with the CLA-12 for each and every subcontractor and lower-tier subcontractor on projects that are valued at \$500,000.00 or more. The required form is available on the web at: www.opm.state.ct.us.

Figure 6.1 – Form 6

OPM Ethics Form 6	Rev. 04-06-09
 <div style="display: inline-block; vertical-align: middle; margin-left: 10px;"> <p style="margin: 0;">STATE OF CONNECTICUT</p> <p style="margin: 0;">AFFIRMATION OF RECEIPT OF STATE ETHICS LAWS SUMMARY</p> </div>	
<p><i>Affirmation to accompany a large State construction or procurement contract, having a cost of more than \$500,000, pursuant to Connecticut General Statutes §§ 1-101mm and 1-101qq</i></p>	
<p>INSTRUCTIONS:</p> <p>Complete all sections of the form. Submit completed form to the awarding State agency or contractor, as directed below.</p>	
<p>CHECK ONE:</p> <p><input type="checkbox"/> I am a person seeking a large State construction or procurement contract. I am submitting this affirmation to the awarding State agency with my bid or proposal. [Check this box if the contract will be awarded through a competitive process.]</p> <p><input type="checkbox"/> I am a contractor who has been awarded a large State construction or procurement contract. I am submitting this affirmation to the awarding State agency at the time of contract execution. [Check this box if the contract was a sole source award.]</p> <p><input type="checkbox"/> I am a subcontractor or consultant of a contractor who has been awarded a large State construction or procurement contract. I am submitting this affirmation to the contractor.</p>	
<p>IMPORTANT NOTE:</p> <p>Contractors shall submit the affirmations of their subcontractors and consultants to the awarding State agency. Failure to submit such affirmations in a timely manner shall be cause for termination of the large State construction or procurement contract.</p>	
<p>AFFIRMATION:</p> <p>I, the undersigned person, contractor, subcontractor, consultant, or the duly authorized representative thereof, affirm (1) receipt of the summary of State ethics laws* developed by the Office of State Ethics pursuant to Connecticut General Statutes § 1-81b and (2) that key employees of such person, contractor, subcontractor, or consultant have read and understand the summary and agree to comply with its provisions.</p>	
<p>* The summary of State ethics laws is available on the State of Connecticut's Office of State Ethics website at http://www.ct.gov/ethics/lib/ethics/guides/contractors_guide_09_final.pdf</p>	
<p>_____ Signature</p>	<p>_____ Date</p>
<p>_____ Printed Name</p>	<p>_____ Title</p>
<p>_____ Firm or Corporation (if applicable)</p>	
<p>_____ Street Address</p>	<p>_____ City</p>
	<p>_____ State</p>
	<p>_____ Zip</p>
<p>_____ Awarding State Agency</p>	

Chapter 7 - Funding

7-1 General

A project funding breakdown is shown in the agreements executed between the Municipality and the Department. This funding breakdown is used by the Districts to determine what monies are available for payment purposes for both construction and incidental costs.

Some projects are capped and therefore, no additional funding is available for reimbursement to the Municipality for any extra work on the project.

The Department must approve all requests for extra work prior to any reimbursement payments are made to the Municipality. All requests must be submitted through the District's MSAT Leader for review and forwarding if required.

Projects, which when completed, have a total cost (construction plus incidental) that exceeds the original agreement value by less than 10%, must have a letter requesting approval by the Department to participate in the amount over the agreement value. The District will review the request and determine if it is eligible.

Projects, which when completed, have total costs (construction plus inspection) that exceed the original agreement value by more than 10%, shall have a supplemental agreement in place (if funding is available) between the Municipality and the Department before any additional money may be reimbursed to the Municipality. A breakdown of the approximate final contract value and consultant costs must be submitted by the Municipality to the District for review, prior to the District requesting a supplemental agreement. In addition, depending on the final billable amount due and maximum allowable payment to the Consultant Engineer for his services by the Municipality as stipulated in the agreement between the Municipality and the Consultant Engineer, a supplemental Municipality/Consultant agreement may also be required. Payments to the Municipality may be delayed while the agreement is in processing, which may take several months.

The Municipality shall make no change in the character or scope of work, which will increase the cost of the project, alter the termini, or grant any time extension without prior authorization from the MSAT Unit. Failure by the Municipality to get prior authorization may result in some or all of the extra work done to be considered "non-eligible", and therefore those costs will not be reimbursed to the Municipality. This non-eligible work will also result in a portion of the incidental reimbursement to be considered as "non-eligible" as well.

Chapter 8 - Recordkeeping Procedures

8-1 General

This section deals with the Department's system for recording and documenting construction work. These records are to be maintained and kept at the project field office during the construction phase. These documents are utilized to document the day to day operations of the construction.

Project records can be subject to review and audit by state or federal personnel during construction or long after the completion of the project. They must also be available in case of a court claim action.

8-2 Recordkeeping Format

The following recordkeeping format has been created to establish uniformity in recordkeeping throughout the State and to facilitate the review and audit of project records.

The records should be as complete as possible; however, sufficiently simple and clear so that laypersons, auditors, etc. can easily understand the contents.

The Municipality may implement the use of their own recordkeeping procedures and/or introduce the utilization of their own forms, however, in each case; they must have **prior** approval from the Districts.

Format of Books (each identified properly, showing contents of each, showing project number, dates, and DWR numbers):

- Volume I - Inspector's Daily Work Reports
- Volume II – Contract Items, Material Testing, and Testing Summaries
- Volume III – Computations and Quantity Summaries
- Volume IV – Miscellaneous Project Information

All field books shall be labeled and numbered accordingly.

If an error is noted at any time, then the incorrect figure, item, or statement is to be crossed out, initialed, and the corrections neatly written above it or referenced to the correction. **No erasures or whiteout are allowed.**

All computations and checks must show the date and name of the persons (signature and printed name) using “Computed by _____, Checked by _____” format.

All recorded sketches/measurements/etc. included in the project records should be noted “field measured by _____.”

8-3 *Records Retention*

The Federal Aid Highway Program Manual references the *Retention Schedule of Federal Aid Highway Records of State Highway Departments* as applied within this record keeping section: These records must be retained for seven (7) years after issuance of the project’s Certification of Acceptance (CON-501M) providing there is no pending litigation.

To clarify what records, documents, etc. must be retained by the Municipality after the projects are accepted, the following lists what is applicable:

- Contract
- All field records/books
- Payment Estimates
- Construction Orders with backup documentation
- Cost-plus records/sheets with backup documentation
- All delivery tickets, bituminous concrete, processed aggregate base, concrete, etc.
- All laboratory reports: Material Certifications, nuclear density tests, data sheets, etc.
- Pile driving logs (CON-87)
- Environmental logs
- Utility forms and billings
- Prime and Subcontractors’ payrolls
- EEO/AA reports (site record review forms)
- Labor wage checks (CON-131)
- Shop drawings
- Hazardous waste manifests
- Purchase orders, requisitions, transfer vouchers
- Agreements

- Bonds and insurance certificates
- All correspondence
- All billings submitted to the Department with backup documentation
- Copy of As-Built plans
- USB storage device (“thumb drive”) with pertinent spreadsheets, emails, etc.
- Any other related records – if required or requested

Chapter 9 - Volume I: Inspector's Daily Work Reports

9-1 General

The Municipality inspection forces have the option to utilize the Department issued form (CON-134) or their own daily inspection form. If the Municipality elects to use their own form, it must have a similar format and contain the appropriate information as required. If alternate forms are used, **prior** MSAT Leader approval must be given for use of these forms.

The CON-134 (DWR) form can be located at the following location:

- www.ct.gov/dot/construction
- Click on Forms & Publication
- CON134 (DWR)

A Daily Work Report (DWR) shall be prepared daily by **all** field personnel engaged in inspection of a field operation, in their own handwriting and not be altered in any way by other personnel. The only exception is that personnel assisting in concrete and bituminous concrete placement operations may be accounted for on the Paving Report (CON-136) showing their duties and hours of work.

Typed DWRs will be accepted provided that the actual notes taken in the field are attached to the DWR. Time to type the DWRs **shall** not be billed to the Municipality or Department. Consultants should not be working extra hours to type reports, since handwritten reports are what is required.

For project staff not engaged in field activities (i.e. working in the project office on computations, etc.) they may be carried on the Chief Inspector's DWR, showing their hours of work and a brief description of their activities.

In some cases DWRs may be required prior to the ordered-to-start date (e.g. utilities performing work on the project prior to its start). These DWRs should be labeled P1, P2, etc. until the start of the project, and then they will start with label 1A.

It shall be the responsibility of the Municipal Administrator to **review** and **sign** five (5) DWRs per month of construction activity.

All DWRs require a second signature, either the Municipal Administrator or Consultant must ensure all DWRs are reviewed and signed by Chief Inspector and the individual checking the DWRs.

9-2 Inspector's Daily Work Reports (CON-134)

Inspection Daily Work Reports shall be made out in their entirety.

The Chief Inspector/Resident Engineer (whomever is in charge of the inspection of the project) is required to prepare a DWR daily, including weekends and holidays, from the ordered to start date (DWR 1A) to the completion date of the project. The completion date is the Date of substantial completion set by the CON100M. After this date DWRs will only be required when making payments or when the Contractor is actually doing field work. It is important to remember that the DWR is the "Diary" of the ConnDOT record keeping system.

Saturday and Sunday may be included on one hard copy DWR with both dates noted if there is no activity.

If the Chief Inspector/Resident Engineer is on leave, it shall be the requirement of the assistant or person assigned in charge during their absence to assume the "A" DWR suffix. Their absence shall be so noted on the DWR. This is the only time an inspector will be allowed to change his/her suffix.

In addition, the following information should be noted on the DWR when applicable:

- Discussions with Department representatives, Municipal personnel, the Contractor, property owners, Utilities, etc.
- Sketches, measurements, computations
- Work performed by others (Utilities, Municipalities, etc.)
- Reference to project meetings, etc.
- Official visitors (Department, Municipal Officials, ConnDOT personnel, FHWA, Utility Officials, etc.)
- Possible extra work/Cost-Plus shall be noted on back side of DWR

All supplementary sheets containing field notes, measurements, etc. must be signed accordingly and attached to the DWRs. These DWRs should be labeled A-1, A-2, etc.

Pay quantities listed on the DWRs must show reference to the source of the documentation (Volume Book No. and Page No.).

The Inspector's full signature is required on all forms that are prepared.

Figure 9.1a – CON-134, Front Side

Official Visitors To The Job		CON-134 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION INSPECTOR'S DAILY WORK REPORT		Weather: AM Sunny PM Overcast	Temp(High): 75 Temp(Low): 50	CON-134 (Rev. 12/08). DWR Front
B. Madejek - DOT		Prime Contractor: Stephen Construction	Town: Griswold	Project No.: 200-200		
Contractor / Subcontractor: Location, Description of Work Performed and Inspected						
01 000001	Stephen Construction (Prime) No Activity on site; Forman on site					
-						
01 002009	Tyler Construction (Sub DBE) Installed 12" RCP on Ellmond Road Between Stations 20+010 to 20+085. Installed entire length this day.					
-						
-	Installed 69.66' of 12" RCP, field measured by T. Stephens & forman from Stephen Construction.					
CONTRACT PAYMENTS						
Item No.	Item Description	Quantity	Category No.	Sub / Contract	Location / Reference	
0205001	Trench Excavation 0' - 4'	23.41 cy	01	01-002009	Volume III Book 2 Page 9	
0205002	Rock in Trench 0' - 4'	1.25 cy	01	01-002009	Volume III Book 2 Page 9	
0205003	Trench Excavation 0' - 10'	28.35 cy	01	01-002009	Volume III Book 2 Page 9	
0507201	Type "C-L" Catch Basin	2 each	01	01-002009	Volume III Book 2 Page 9	
0651001	Bedding Material	4.10 cy	01	01-002009	Volume III Book 2 Page 9	
0651011	12" RCP	69.66 lf	01	01-002009	Volume III Book 2 Page 9	
<input type="checkbox"/> Additional Sheets Attached <input type="checkbox"/> Report Entered Into Site Manager <input type="checkbox"/> Report Authorized In Site Manager			Lane Closures: Bridge Closed			
Inspector's Hours of Work		Contractor's Hours of Work		Day of Week	Date	User ID
Start: 0700	End: 1630	Start: 0700	End: 1630	Friday	5/10/02	Madejek
						DWR # 20020510

Figure 9.1b – CON-134, Back Side

PROJECT WORK FORCE AND EQUIPMENT ON SITE					
Prime Contractor				Subcontractor	Subcontractor / Utility
Labor	Equipment	EQ #	A / I	Labor & Equipment	Labor & Equipment
1 Forman	1 Backhoe	45	Idle	1 forman	
	1 dump truck	11	Idle	3 laborers	
	1 pickup	10	Active	1 operator	
				2 truck drivers	
				1 backhoe (#2)	
				2 dump truck (#4,5)	
				1 tamper (#15)	
Problems / Delays / Accidents					
Possible Extra Work / Cost Plus					
Time Work Performed			Labor, Material, and Equipment Involved		
Non Compliance / Compliance Issues					
Number	Brief Description			Location / Reference	
Inspector's Certification					
To the best of my knowledge, information and belief, all work described in this report, including the pay items entered, was performed in substantial conformance with the contract. This statement is for the Department's information only and does not place any obligation on the part of the Department with regard to any party including but not limited to any subcontractor and Contractor's surety.					
_____ Inspector's Signature	_____ Reviewed By (Check applicable box at the right)			<input type="checkbox"/> Chief Inspector / Resident Eng <input type="checkbox"/> Project Engineer <input type="checkbox"/> Other	

CON-134 (Rev. 12/08), DWR Back

9-3 Paving Reports (CON-136)

Paving Reports (CON-136) are to be kept in the Volume I folder. (See Figure 9.3 for CON-136).

At least one (1) Paving Inspector must be present at all times when a paving operation is underway. The Contractor has the major responsibility for having a satisfactory and uniform job. The Inspector provides quality assurance.

The Paving Inspector is responsible for authorizing the placement of the material and collecting tickets or receipts. Control of the shipment of materials is the responsibility of the supplier. Cooperation between the plant and the Paving Inspector is essential. The Paving Inspector must advise the Contractor immediately if bad weather or other unsatisfactory conditions at the job site require the suspension of paving operations. Delays in stopping the trucks may result in wasted material, or placing unacceptable material.

The Paving Inspector must keep accurate records of the stations worked, locations, areas covered in square yards /square meters, and tons used, and record all batches condemned or wasted with an explanation for the reason for rejection. The information will be included on the Base & Bituminous Concrete Inspection Report.

Items to be recorded on the CON-136 form include:

- The project number
- Weather and temperature readings
- The item number and class of paving
- The location of the paving and quantities placed
- Width and depth checks
- Information for depth checks shown on the DWR includes:
 - The station and offset where the check was made and
 - The depth of each course at that location
 - Sample Recording:

Station	Offset	Course #1	Course #2	Total
32+000.00	7.88ft Rt.	1-5/8 in (41.3mm)	1-1/2 in (18.2mm)	3-1/8 in (79.4mm)

- Loads rejected and the reasons for rejection
- Hours worked by the Contractor
- The work force and equipment assigned by the Contractor

- The inspection personnel assigned
- Theoretical yield computations should be written and any discrepancy explained (i.e., Contractor paved too wide, etc.). Thickness checks and yield computations should appear on the CON-136 and any significant discrepancy should be explained (i.e., Contractor paved too wide, etc.).
- Temperatures of the mix

Weight Tickets

- Paving Inspectors are personally responsible for collecting the weigh tickets and signing each ticket as the load is dumped. Time and temperature is required to be recorded on the delivery ticket by the Inspector.
- Weigh tickets should be checked for adequate information. The minimum information that should be shown on a weigh ticket includes:
 - Name of the producer
 - Identification of the plant
 - Date
 - Time out of plant
 - Type of material
 - Net weight of material
 - Project number(s)
 - Name of the Contractor
 - Truck identification
 - Time and results of temperature checks for air, base, and mix
 - Weights should be in the appropriate unit either English or Metric tons (Tons/MTons)
 - In addition, any deficiencies or special conditions should be noted on the tickets

- The Inspector should make the following checks:
 1. Where computerized weigh tickets are provided for the delivery of bituminous concrete, verify at least twice a day the accuracy of the individual batch weights that comprise the total. Add the weights of the aggregate and check the total weight on the ticket. Any discrepancies on individual tickets should be reported immediately to the Central Laboratory.
 2. Truck weigh tickets should include gross, tare, and net weights. Mathematically check the net weight several times each day.
 3. Note on the ticket when a mathematical check is made and the results of the check
 4. If inconsistencies are found on any ticket, all tickets for the day must be mathematically checked.

Temperatures of the mix are to be recorded, with the time taken on both the weigh tickets and CON-136's.

For partially used loads, document how the amount was determined (measurements), where the remainder went, and the use for the remainder. This information should appear on both the CON-136 and batch/weigh ticket.

If any class of material is used for an unusual purpose, document the purpose it was used for, reason for use, and how the material was paid for. Again, information should appear on both the CON-136 and batch ticket.

Figure 9.2a – CON-136, Front Page

Plant / Location A.E.N. / Franklin, CT			CON - 138 REV 3/87 (302-08-0817) STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION				Project No. 200-200		
Silo Used: Y N N			BASE & BITUMINOUS CONCRETE INSPECTION REPORT				Weather Clear		
Paving Contractor Tyler Construction							Paving Temperatures (High/Low) Air: 76 Surface: 72		

Item No.	Class	Lane	Location Sta. to Sta.	Length ft.	Proposed Width	Area sq. yd.	Factor T/sq.yd./in.	Proposed Depth In.	Theoretical t/Tons
0406012	1	Elmond Rd	19+085 - 19+365	280	24	746.67	0.0575	4	171.73
0406017	2	Elmond Rd	19+365 - 19+425	60	24	160.00	0.0575	2	18.40
						0.00	0.0575		0.00
						0.00	0.0575		0.00
						0.00	0.0575		0.00
					Total	906.67			190.13

Width Measurements			Depth Measurements			Mix Temperatures		
Station	Plan Width ft.	Field Width ft.	Station	Plan Depth in.	Field Depth in.	Time	Ticket	Temperature °F
19+085	24	24	19+085	4	4	11:50	159892	285
19+365	24	24	19+365	2	2	12:00	159902	285

Item No.	Item Description	Quantity tons	Sect.	Sub/Contr No.	t/Tons Received	t/Tons Used	Wasted/ Rejected*
0406012	Bituminous Class 1	172.25	01	01-0020009	172.25	172.25	0.00
0406017	Bituminous Class 2	20.25	02	01-0020009	20.25	20.25	0.00
						0.00	0.00
						0.00	0.00

Paving Work Force and Equipment		List of Inspection Personnel Assisting in Operation		no. of tickets by class	
1 Foreman	BK PF200	Tyler Stephens		No. 159892	to No. 159901
4 Laborers	IR CC-90/VIB			No. 159902	to No. N/A
3 Operators	Hyster 8 Ton			No.	to No.
				No.	to No.

<input checked="" type="checkbox"/> Information on Reverse <input checked="" type="checkbox"/> Additional Sheets Attached <input type="checkbox"/> Density Report Attached (CON-133) <input type="checkbox"/> DWR Entered on Site Manager <input type="checkbox"/> DWR Accepted				Inspector's Signature: <i>Tyler Madejek</i> Reviewed by: <i>Stephen Madejek</i>			
Inspector's Hours of Work: Start 0800 End 2100				Lane Closures: Bridge has been closed since beginning of project			
Contractor's Hours of Work: Start 0800 End 2100				Day of Week Wednesday		Date 5/1/2002	
				D.W.R.# 396A			

Figure 9.2b – CON-136, Back Side

*t/Tons Rejected	Ticket No.	Class	Reason

*Waste: Show computation if over 10t(10 tons). If material is used elsewhere on project document purpose, reason and item number material was paid under.

TOLERANCE:	0.25	+ or - in.	Standard Spec. form 815 Section 4.06.04 p.193
PLAN DEPTH:	4	in.	Approval letter dated 4/20/04 (75mm depth)
MASS FACTOR:	0.0575	T/SQ.YD/in.	Standard Spec. form 815 Section 4.06.04 p.194
ACTUAL TONS:	172.25	TONS	Reverse Side
TOTAL AREA:	906.67	SQ.YD.	Reverse Side

DEPTH (in)	X	AREA (SQ.YD)	X	FACTOR	=	TONS
3.75		906.667		0.0575		195.50
4		906.667		0.0575		208.53
4.25		906.667		0.0575		221.57

MIN. TONS	<	ACTUAL TONS	<	MAX. TONS
195.50		172.25		221.57

REMOVE AND REPLACE

Actual Depth (in.): 3.30

Checked by Tyler Madejek

Chapter 10 - Volume II: Contract Items

10-1 General

Volume II is for the posting of daily contract item quantities based upon DWRs, recording of payments made to the Contractor, quantity changes by Construction Orders, and testing of materials.

The Volume II shall consist of the following pages of information:

- The Project Identification Sheet – gives general information of the project. See Figure 10.1.

Figure 10.1 – Project Identification Sheet

VOLUME IV PROJECT IDENTIFICATION SHEET	
PROJECT NO.:	_____
MUNICIPALITY:	_____
ROAD NAME OR ROUTE:	_____
CONTRACTOR:	_____
INSPECTOR:	_____
COMPANY:	_____
DISTRICT:	_____
MSAT LIASION:	_____
CONTRACT VALUE:	_____
ORIGINAL CALENDAR DAYS:	_____
CONTRACT STARTED:	_____
CONTRACT COMPLETION:	_____
SPECIFICATION REFERENCE:	_____

- The Index Sheet – lists all the contract items numbered consecutively including new items. See Figure 10.2.

Figure 10.2 – Volume II Index Sheet

Project No: 200-200		F.A.P. No: BRZ-6200		Volume 2	
Index			Index (Cont'd)		
Item No.	Item Description	Page No.	Item No.	Item Description	Page No.
0202002	Earth Excavation	1-1A	0707001A	Membrane Waterproofing (Woven Glass)]	17-17A
0202102	Rock Excavation	2-2A	0708001	Dampproofing	18-18A
0202202	Channel Excavation-Earth	3-3A	0725002	Bagged Stone	19-19A
0202251	Channel Excavation-Rock	4-4A	0980001	Construction Staking	20-20A
0202529	Cut Bituminous Concrete Pavement	5-5A	1220011A	Construction Signs - Type III Reflective Sheeting	21-21A
0203002	Structure Excavation - Earth (Complete)	6-6A	O6A0001	Archeological Find	22-22A
0203101	Structure Excavation - Rock (Complete)	7-7A	O6A0002	Install Traffic Light	23-23A
0204151A	Handling Water	8-8A	O6B0001	Install Park Benches	24-24A
0205001	Trench Excavation (0-4 ft Deep)	9-9A	O6C0001	Redesign Footing	25-25A
0205002	Rock in Trench Excavation (0-4 ft Deep)	10-10A	O6C0002	Install Stringer	26-26A
0205003	Trench Excavation (0-10 ft Deep)	11-11A			
0205004	Rock in Trench Excavation (0-10 ft Deep)	12-12A			
0209001	Formation of Subgrade	13-13A			
0210035A	Temporary Dewatering Basin	14-14A			
0210306	Turbidity Control Curtains	15-15A			
0210820A	Water Pollution Control (Estimated Cost)	16-16A			

- Request for Test Index Sheet – the listing of material tests in numerical test order. See Figure 10.3. Use of the Department’s spreadsheet from SiteManager Reporting is allowed; this spreadsheet will be provided by the MSAT Leader.

Figure 10.3 – Test Index Sheet

REQUEST FOR TEST INDEX					
PROJECT #: 200-200					
REQUEST FOR CONTRACT ITEMS					
SAMPLE NUMBER	SAMPLE DATE	MATERIAL	REPORT DATE	APPROVED REJECTED	VOLUME 2 REFERENCE
C-1	05/01/01	Signs (material Cert)	06/02/01	A	PAGE 65A
C-2	05/02/01	Gravel (Source)	05/09/01	R	PAGE 17A
C-2A	05/10/01	Gravel (Source)	05/20/01	A	PAGE 17A
C-3	05/21/01	Gravel (Gradation)	05/29/01	A	PAGE 17A
C-4	05/21/01	Gravel (Proctor)	05/29/01	I	PAGE 17A
C-5	05/21/01	C. Barricade III (material cert)	06/07/01	A	PAGE 63A
REQUEST FOR CP TESTING (ASSURANCE)					
SAMPLE NUMBER	SAMPLE DATE	MATERIAL	REPORT DATE	APPROVED REJECTED	VOLUME 2 REFERENCE
CP-27	09/01/01	Gravel	10/01/01	A	PAGE 17A
CP-6032	12/11/01	Class "F" Concrete	12/17/01	I	PAGE 32A
REQUEST FOR TEST CYLINDER CARDS					
SAMPLE NUMBER	SAMPLE DATE	MATERIAL	REPORT DATE	APPROVED REJECTED	VOLUME 2 REFERENCE
C6001	04/10/01	Class "A" Concrete	04/13/01	I	PAGE 28A
C6001A	04/10/01	Class "A" Concrete	04/13/01	I	PAGE 28A
REQUEST FOR TEST BITUMINOUS					
SAMPLE NUMBER	SAMPLE DATE	MATERIAL	REPORT DATE	APPROVED REJECTED	VOLUME 2 REFERENCE
B1	08/25/01	Bituminous Concrete Class 4	09/07/01	A	PAGE 24A
B2	08/25/01	Bituminous Concrete Class 1	09/07/01	A	PAGE 22A

Notes:

- 1) Rejected material must have a "Report of Rejected Material" filled out and submitted to the District.
- 2) All items should be checked at the beginning of the project to determine what testing is required. These should be recorded in Volume 2. This information may be found in the "Special Provisions" and the Minimum Testing Requirements Manual.

- Contract items in consecutive order.
 - The contract item will be entered on the left hand page. See Figure 10.4 for Contract Item Page.
 - Opposite the Contract Item page is the page containing testing. See Figure 10.5 for the Testing Contract Item Page.
 - Continue this procedure for all contract items including new items.

Figure 10.4 – Contract Item Page

PAGE	ITEM NO. 0202002 Earth Excavation	PROJECT NO.: 200-200
ORIGINAL QUANTITY	1,115.00 e.y. @ \$12.00	
CONST. ORDER	O6A	O6C
QUANTITY CHANGE	57.00	58.88
REVISED QUANTITY	1,172.00	1,230.88
FINAL QUANTITY		

DATE	LOCATION	QTY.	QTY. TO DATE	REFERENCE
04/15/02	Ellmond Rd Station 19+085.591 to 19+285	235.57	235.57	
04/16/02	Ellmond Rd Station 19+285 to 19+365.591	78.88	314.45	
Estimate # 13 date 4-30-02 Pay 314 C.Y. Total Paid to Date 314 C.Y. (estimate to be written in red)				
05/01/02	Ellmond Rd Sta 19+425.591 to 19+525.591	159.67	474.12	
05/03/02	Ellmond Rd Sta 19+525.591 to 19+725.591	287.85	761.97	
05/04/02	Ellmond Rd Sta 19+725.591 to 19+785	57.98	819.95	
05/18/02	Ellmond Rd Sta 19+785 to 19+875	121.15	941.10	
05/21/02	Ellmond Rd Sta 19+875 to 19+995	186.24	1,127.34	
Estimate #14 date 5-31-02 Pay 813.34 C.Y. Total Paid to Date 1127.34 C.Y.				
06/01/02	Ellmond Rd Sta 19+995 to 20+085.591	103.54	1,230.88	
Estimate #15 date 6-30-02 Pay 103.54 C.Y. Total paid to Date 1230.88 C.Y.				

COMPUTED BY: PRINTED NAME: Tyler Stephens SIGNATURE: <i>Tyler Stephens</i> DATE: 5/11/2002	CHECKED BY: PRINTED NAME: Stephen Stephens SIGNATURE: <i>Stephen Stephens</i> DATE: 5/12/2002
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Figure 10.5 – Test Contract Page

PROJECT NO. 200-200		TEST REQUIREMENTS		PAGE NO. 27A	
ITEM PAGE		CONTROL			
		PROGRESS			
MATERIAL TESTS					
TEST NO.	LAB NO.	QUAN.	TO DATE	RESULT	
Minimum Requirements	C-90	678279 TOP/FRAME/GRATE	5 EACH	5 EACH	A
	C-92	678277 SUMP	5 EACH	5 EACH	A
Slab (Precast) Each	C-118	567623 SAND	10 C.Y.	10 C.Y.	R
Sand (Masonry) Grade A C.Y.	C-117	187390 BLOCKS	125 EACH	125 EACH	A
Sand (Masonry) Grade B C.Y.	C-118A	568331 SAND	10 C.Y.	10 C.Y.	A
Cement - Portland Type I/II (Bags)	C-139	685827 CEMENT	5 BAGS	5 BAGS	A
Catch Basin - Top, Frame & Grate	C-140	686621 RISER	10 EACH	10 EACH	A
Catch Basin - Sump (Precast)	C-212	691245 TOP/FRAME/GRATE	4 EACH	9 EACH	A
Catch Basin - Blocks (Concrete)	C-213	691249 SUMP	5 EACH	9 EACH	A
Brick (Concrete)	C-214	213456 SAND	10 C.Y.	20 C.Y.	A
Water	C-215	196785 BLOCKS	100 EACH	225 EACH	A
Catch Basin - Riser (Precast)	C-216	692451 CEMENT	4 BAGS	9 BAGS	A
	C-217	692452 RISER	8 EACH	18 EACH	A
	C-218	693547 WATER	15 GALS	15 GALS	A

All entries recorded in Volume II shall be referenced to a DWR and to the source of the documentation.

All monthly estimate payments should be recorded in red.

All new items introduced on Construction Orders must be included in this volume after the original items.

The tracking of the typical contract item increases and decreases are recorded with the contract item in Volume II at the top of the left hand page.

If an error is noted at any time, then the incorrect figure, item, or statement is to be crossed out, initialed, and the corrections neatly written above it or referenced to the correction. **No erasures or whiteout are allowed.**

Every contract item sheet throughout Volume II must show the date and name of the persons (signature and printed name) who made the computations or checks, using “Computed by _____, Checked by _____” format.

Chapter 11 - Volume III: Computations and Quantity Summaries

11-1 General

Volume III should be used for items involving more extensive computations and/or measurements.

All Volume III books will have their own number (Volume III, Book 1, 2, 3, etc.)

If an error is noted at any time, then the incorrect figure, item, or statement is to be crossed out, initialed, and the corrections neatly written above it or referenced to the correction. **No erasures or whiteout are allowed.**

Every sheet throughout Volume III must show the date and name of the persons (signature and printed name) who made the computations or checks, using “Computed by_____, Checked by_____” format.

11-2 Contract Items

Every Volume III must have an index page. The Volume III Index page shall contain a listing of all the contract items in the Volume III, which are listed consecutively and includes new items. See Figure 11.1.

Figure 11.1 – Volume III Index

Project No: 200-200			F.A.P. No: BRZ-6200			Volume 3		
Index			Index (Cont'd)					
Item No.	Item Description	Page No.	Item No.	Item Description	Page No.	Item No.	Item Description	Page No.
0202002	Earth Excavation	1	0707001A	Membrane Waterproofing (Woven Glass)]	23			
0202102	Rock Excavation	2	0708001	Dampproofing	24			
0202202	Channel Excavation-Earth	2	0725002	Bagged Stone	25			
0202251	Channel Excavation-Rock	4	0811004	Concrete Transition Curbing	26			
0202529	Cut Bituminous Concrete Pavement	5	0822001A	Temporary Precast Concrete Barrier Curb	27			
0203002	Structure Excavation - Earth (Complete)	6	0909497A	Timber Guide Rail Transition System	28			
0203101	Structure Excavation - Rock (Complete)	7	0909498A	Timber Guide Rail End Anchorage	29			
0204151A	Handling Water	8	0909500A	Timber Guide Rail	30			
0210035A	Temporary Dewatering Basin	9	0969002A	Construction Field Office (Type B)	31			
0210306	Turbidity Control Curtains	10	0971001A	Maintenance and Protection of Traffic	32			
0210820A	Water Pollution Control (Estimated Cost)	11	0974001A	Removal of Existing Masonry	33			
0212002	Subbase	12	0975002	Mobilization	34			
0213011	Granular Fill	13	0976002	Barricade Warning Lights - High Intensity	35			
0214020	Compacted Granular Fill	14	0978002	Traffic Drum	36			
0216002	Pervious Structure BackFill	15	0979003A	Construction Barricade type III	37			
0219001	Sedimentation Control System	16	0980001	Construction Staking	38			
0406012	Bituminous Concrete Class 1	17	1220011A	Construction Signs - Type III Reflective Sheeting	39			
0406017	Bituminous Concrete Class 2	18	O6A0001	Archeological Find	40			
0406030	Bituminous Concrete Class 4	19	O6A0002	Install Traffic Light	41			
0406236	Material for Tack Coat	20	O6B0001	Install Park Benches	42			
0507001	Type "C" Catch Basin	21	O6C0001	Redesign Footing	43			
0507201	Type "C-L" Catch Basin	22						

Drainage items are to be maintained in Volume III. The following is the format for setting up a system for drainage computations in Volume III books:

- A Master Drainage Summary is required for any project with more than one drainage run. See Figure 11.2 for Master Drainage Summary.

Figure 11.2 – Mater Drainage Summary

DRAINAGE MASTER SUMMARY LOG								Project No. 200-200
								Page No. 9
VOLUME 3 PAGE NUMBER	STATION FROM TO	0205001 TRENCH 0-4	0205003 TRENCH 0-10	0205004 ROCK 0-10	0507201 TYPE "C-L" CB	0651001 BEDDING MAT	0651011 12" RCP	
9A	19+465.591 TO 19+565.591	32.19	28.35	0.75	2.00	5.74		
9C	19+565.591LT TO 19+565.591RT	7.16				1.40		
9E	19+575 TO 19+625	18.05	28.60	4.50	1.00	2.84	48.66	
9G	19+625 TO 19+775	52.15	14.18		1.00	8.80	148.00	
9I	19+775 TO 19+855	28.53	14.18		1.00		79.00	
9K	19+855 TO 19+935	28.47	14.18		1.00		79.00	
9M	19+935 TO 20+010	28.56	14.18		1.00		74.00	
9O	20+010 TO 20+085	23.41	28.35		1.00	4.10	69.66	
9Q	20+085LT TO 20+085RT	7.16			1.00	1.40	24.00	
TOTALS		225.68	142.02	5.25	9.00	24.28	522.32	
Comp by:	Printed Name:	Tyler Madejek			Chkd By:	Printed Name:	Stephen Madejek	
	Signature:	<i>Tyler Madejek</i>				Signature:	<i>Stephen Madejek</i>	
	Date:	5/9/2002				Date:	5/11/2002	

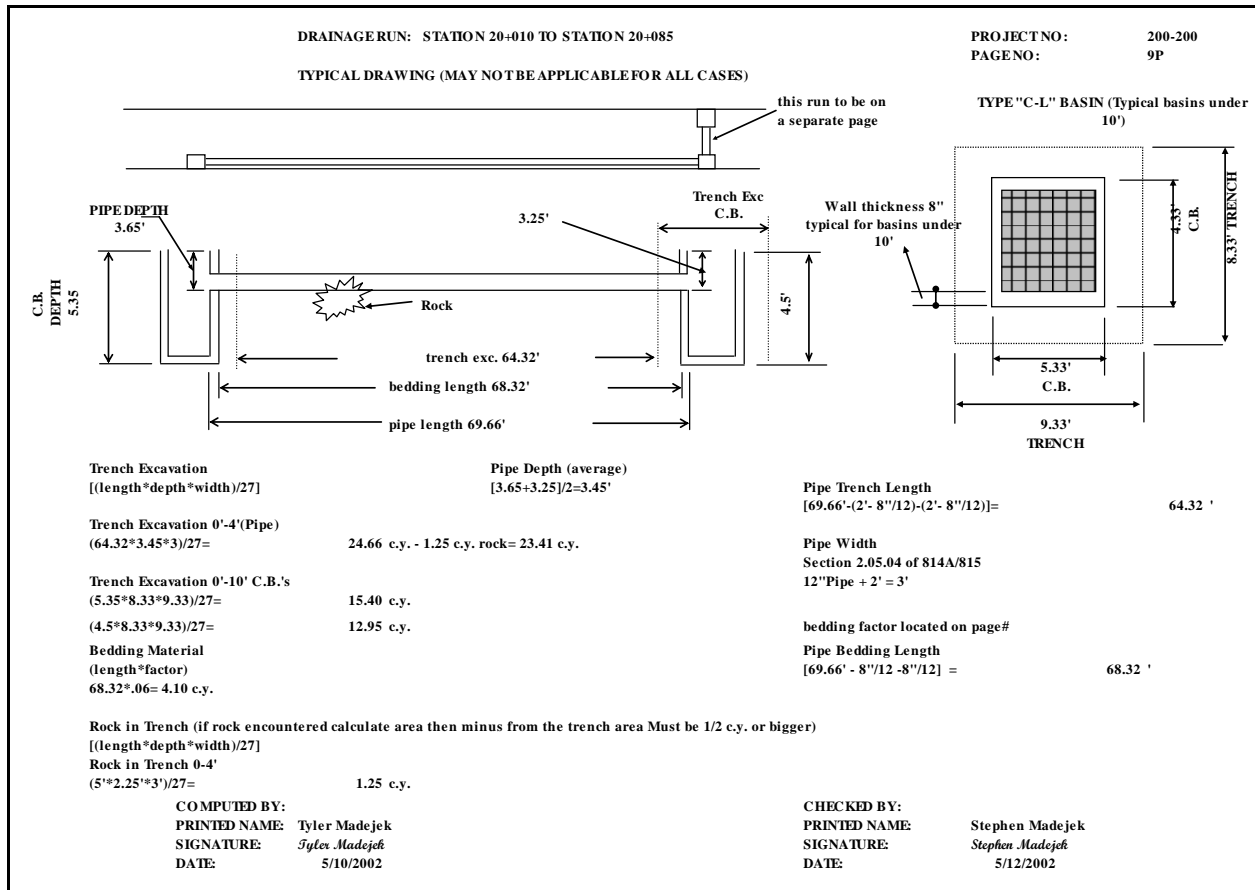
- For a specific drainage run, the left hand page shall list the items and quantities pertinent to the system shown on the right hand page. Quantity entries shall be listed as each segment of the system is completed. A total shall be shown for each item at the conclusion of the project. See Figure 11.3 for left hand drainage page.

Figure 11.3 – List of Drainage Items for Single Line (Left Side)

		STATION 20+010 TO 20+085						Project No. 200-200 Page No. 90	
LR.#	DATE	0205001 TRENCH 0-4'	0205002 ROCK 0-4'	0205003 TRENCH 0-10'	0507201 TYPE "C-L" CB	0651001 BEDDING MAT	0651011 12" RCP		
405A	5/10/2002	23.41	1.25	28.35	2	4.10	69.66		
TOTALS		23.41	1.25	28.35	2	4.10	69.66		
		Comp by: Printed Name Tyler Madejek Signature: Tyler Madejek Date: 5/10/2002				Chkd By: Printed Name Stephen Madejek Signature: Stephen Madejek Date: 5/12/2002			

- The right hand page of a drainage line shall show the plan view of the sketch and the profile view of the sketch and the computations for that system. See Figure 11.4 for right hand drainage page.

Figure 11.4 – List of Drainage Items for Single Line (Right Side)



- Any factor sheets used for the computations need to be referenced and included in Volume III.

Other items and/or documentation which should be incorporated in Volume III, if applicable:

- A summary sheet which lists any item contained on more than one page within the Volume III. See Figure 11.5 for Summary Sheet.

Figure 11.5 – Volume III Summary Sheet

ITEM : 0601003 CLASS "A" CONCRETE		PROJECT NO: 200-200
Volume III Summary		PAGE NO: 23
Location	Quantity	Source Documentation
Abutment No 1	405.89	Volume III Page#23A
Abutment No 2	379.28	Volume III Page#23B
Wingwall 1A & 1B	18.67	Volume III Page#23C
Wingwall 2A & 2B	18.67	Volume III Page#23D
TOTAL CLASS "A" CONCRETE		822.51
COMPUTED BY:		CHECKED BY:
PRINTED NAME: Tyler Madejek		PRINTED NAME: Stephen Madejek
SIGNATURE: <i>Tyler Madejek</i>		SIGNATURE: <i>Stephen Madejek</i>
DATE: 12/10/2001		DATE: 12/11/2001

- A master summary sheet which lists any item contained in more than one Volume III book or on DWRs. The Master Summary shows the totals of each Volume III Summary Sheet, DWR entries, and the final quantities paid. See Figure 11.6 for Volume III Master Summary.

Figure 11.6 – Volume III Master Summary Sheet

ITEM : 0202002 Earth Excavation Master Summary Final Breakdown Volume III		PROJECTNO: 200-200 PAGE NO: 1
Location	Quantity	Source Documentation
Elmond Road Station 19+085.591 to 19+285	267.54	Volume III Book 1 Page 1A
Elmond Road Station 19+285 to 19+365.591	87.88	LR. 12A
Elmond Road Station 19+425.591 to 19+525.591	159.67	Volume III Book 1 Page 1C
Elmond Road Station 19+525.591 to 19+725.591	187.85	Volume III Book 1 Page 1D
Elmond Road Station 19+725.91 to 19+785	57.98	LR. 54A
Elmond Road Station 19+785 to 19+875	121.15	Volume III Book 1 Page 1F
Elmond Road Station 19+875 to 19+995	186.24	Volume III Book 1 Page 1G
Elmond Road Station 19+995 to 20+085.591	103.54	Volume III Book 1 Page 1H
TOTAL FINAL EARTH EXCAVATION		1,171.85
COMPUTED BY:		CHECKED BY:
PRINTED NAME: Tyler Stephens		PRINTED NAME: Stephen Madejek
SIGNATURE: <i>Tyler Stephens</i>		SIGNATURE: <i>Stephen Madejek</i>
DATE: 12/10/2001		DATE: 12/11/2001

A Flasher summary which is used to keep track of the working flashers utilized on the project. See Figure 11.7 for Flasher Summary.

Figure 11.7 – Flasher Summary

ITEM # 0976002	FLASHERS MONTH OF May-01	PROJECT NO. 200-200 PAGE NO. 53B																															
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	TOTALS	
Sta 19+085	A	A	A	A	A	D	D	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	A	A	A	A	A	A	A	A	26
Sta 19+085	A	A	A	A	A	A	A	B	B	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	28
Sta 19+085	A	A	A	A	A	A	A	B	B	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	28
Sta20+090	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	29
Sta20+090	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	31
Sta20+090	A	A	A	C	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	30
Flashers (All Types) are to be listed initially with locations on an inspector's field report,																																	
than noted on an I.R. report only when a change in the count occurs. This form to be used																																	
to maintain daily totals. Summarize monthly on item entry sheet																																	
TOTALS	6	6	6	5	6	5	5	4	4	4	6	6	6	6	6	6	5	5	6	6	6	5	5	5	6	6	6	6	6	6	6	6	172
A Working																TOTAL THIS MONTH	172																
B inoperative																PREVIOUS TOTAL	100																
C Missing																TOTAL TO DATE	272																
D Sign missing																																	
Comp By:	Printed Name:	Tyler Madejek															Checked By:	Printed Name:	Stephen Madejek														
	Signature:	<i>Tyler Madejek</i>																Signature:	<i>Stephen Madejek</i>														
	Date:	6/1/01																Date:	6/1/01														

11-3 Trafficperson Item

The following procedure will be used for the Trafficperson Item:

- Payment for the Trafficperson Item shall be in accordance with the Specification. Designate one person on every project the responsibility to ensure proper payment of the Trafficperson Item. The duties of this individual will include the review of the DWRs to ensure accuracy, and prevent overlapping of the work hours if the service is moved from one duty station to another or from one project to another. Typically the Chief Inspector may perform this function when he/she reviews the Subinspectors' reports.
- On DWRs (CON-134, CON-134A, or CON-136) record daily services of trafficpersons as a zero quantity and record the following:
 - Name of agency/company providing trafficperson (i.e. State Police, Municipal Police, Contractor's workforce or Subcontractor)
 - Name of Trafficperson

- Badge number if law enforcement officer
- Hours worked
- Lunch or no lunch period
- Hours of police vehicle service if appropriate
- Duty station and function performed

Sample: State Police

Reed #362, 0900-1500, no lunch

Closed left lane, 00+15 to 00+25

Municipal Police

Doe #55, 1000-1800, 0.5 hr. lunch

Police Vehicle, 7.5 hr.

Intersection of Ellmond Ave and Gilbert Lane

Contractor's Workforce

J. Walker, 1000-1500, 0.5 hr. lunch

Closed right lane of Ellmond Avenue

- Keep the monthly statements and receipted bills for Trafficperson in Volume III. If the statements or bills are not itemized with the trafficpersons' names, hours, dates, police vehicle, etc.; request a revised statement or bill that is detailed.
- If Municipal Police are used for the Trafficperson Item, request the Contractor to provide a letter from the Municipality documenting the rates and surcharges, if any, that are regularly charged for their police and police vehicle services. Keep a copy of this letter in Volume III with the monthly statements and receipted bills.

- Before payment of the Trafficperson item is made, compare the trafficpersons listed on the DWRs against the monthly statement or receipted bills from the agency/company that actually provided the service. If a discrepancy exists between the entries, the monthly statement, and receipted bills; it must be fully investigated and a determination made by the Municipal Administrator as to the appropriateness of the payment. The reasons for changes in payment amounts where discrepancies were found must be fully documented on the DWR where the payment is made. In addition, it is encouraged to maintain the list of trafficpersons used on the project in Volume III with the monthly statement and receipted bills in order to facilitate the proper payment for services rendered.
- Do not use the Contractor's log as the source for payment of the trafficpersons.
- Make separate monthly payments for each law enforcement agency or company providing trafficperson services. Each payment should be clearly labeled on the DWR with the respective agency or company name for which the payment is made.

11-4 Water Pollution Control

A Water Pollution Control item is included in some of the contracts if there is an anticipated need for additional controls to prevent soil erosion. This is an umbrella item, intended to provide funding for these additional controls. Payments are not made under the Water Pollution Control Item unless called for in the Specification; they are made under the applicable contract items when available, such as riprap, hay bales, and turf establishment or as provided for under Extra and Cost-Plus Work. Works performed under this item are incorporated through Construction Orders and paid for on an item-by-item basis. A summary of Water Pollution Control activities must be maintained. See Figure 11.8 for a sample summary sheet. The summary must include all item payments, including new or cost-plus items, and must be maintained.

Figure 11.8 – Water Pollution Control Summary

ITEM 0210000 WATER POLLUTION CONTROL SUMMARY SHEET				Project No. 200-200 Page No. 12		
ORIGINAL CONTRACT ALLOTMENT				\$100,000.00		
Date	Item	Quantity	Cost	Total to Date	Balance Remaining	DWR/Reference
7/31/2004	#07033010 - Riprap	24 c.y.	\$930.00	\$930.00	\$99,070.00	DWR-15A
8/5/2004	#CO00031- Install Hay Bales	\$116.92 c.p.	\$116.92	\$1,046.92	\$98,023.08	DWR-20A Cost Plus Sheets
8/6/2004	#0950005 - Turf Establishment	5,842 s.y.	\$2,292.30	\$3,339.22	\$94,683.86	DWR-21A & Vol. III, Page 12
TOTALS			\$3,339.22	\$5,316.14	\$291,776.94	
Comp by:		Printed Name: Tyler Madejek Signature: <i>Tyler Madejek</i> Date: 05/28/08		Chkd By:		Printed Name: Stephen Madejek Signature: <i>Stephen Madejek</i> Date: 5-28-08

Chapter 12 - Volume IV: Miscellaneous Project Information

12-1 General

Volume IV is set up to contain all the miscellaneous project information.

The information on the sheets must be complete and kept up to date throughout the project.

Enter a note on any sheet that is not pertinent to a project stating "Not Required" or "N/A". The sheets may either be handwritten or computer-generated reports. If a spreadsheet is maintained on the computer, printouts should be done regularly to replace older ones for audit purposes.

12-2 Index of Data in Volume IV

A Volume IV index is a required listing all of the sheets in Volume IV. All of the sheets listed on the sample index sheet in Figure 12.1 must be kept in the Volume IV.

Figure 12.1 – Volume IV Index

VOLUME IV INDEX		
PROJECT NO.	PAGE NO.	
This Volume is set up to contain all the miscellaneous construction data pertaining to the project. The index may be added to. If the data is not required on a particular project, record "Not Required" in the remarks column.		
Index of Data	Page	Remarks
Inspection of Field Records		
Record of Project Personnel		
Index of Construction Orders		
Record of Labor Wage Checks (CON-131)		
Record of Payrolls		
Record of Prime/Subcontractors		
Non-Compliance/Compliance Notices		
Material Stored Inventory Log		
CLA-12's		
DBE Preaward Documents		

12-3 Inspection of Field Records by Supervisory Personnel

All personnel other than the project forces, who review or examine the project records, are required to sign and Inspection of Field Records by Supervisory Personnel sheet. These people include record examiners, State auditors, FHWA representatives, and the person who performed the District Level Final Review. The Municipal Administrator is required to review records monthly and sign the sheet. This sheet is shown in Figure 12.2.

Figure 12.2 – Inspection of Field Records by Supervisory Personnel

INSPECTION OF FIELD RECORDS BY SUPERVISORY PERSONNEL INCLUDING RECORDS EXAMINERS, STATE AUDITORS & FHWA			PROJECT NO: 200-200
			PAGE NO: 1
DATE	SIGNATURE	PRINTED NAME	AREAS EXAMINED/COMMENTS
2/5/2006	<i>Barbara J. Madejek</i>	Barbara J. Madejek	Review IR's 1A, 15A, 30A, 20A, Items 0202001,0506001,0406231

12-4 Record of Project Personnel

Record all personnel assigned to the project from the ordered-to-state date until the project final is completed, including the Municipal Administrator. Include the start and completion dates for each employee and their assigned operation. This sheet is shown in Figure 12.3.

Figure 12.3 – Record of Project Personnel

Record of Project Personnel						PROJECT NO: 200-200
						PAGE NO: 2
NAME PRINTED	SIGNATURE	INITIALS	DATE STARTED	DATE COMPLETED	OPERATIONS COVERED	
Stephen Madejek	<i>Stephen Madejek</i>	SM	4/1/2001	8/15/2002	Chief Inspector all operations covered	
Tyler Madejek	<i>Tyler Madejek</i>	TM	4/15/2001	6/1/2002	Inspector Drainage/Paving	
Edward Madejek	<i>Edward Madejek</i>	EM	4/1/2001	8/15/2002	Town Administrator all operations covered	

12-5 Index of Construction Orders

List each Construction Order, paragraph by paragraph, with a brief description of each on an index sheet like shown in Figure 12.4.

Figure 12.4 – Index of Construction Orders

		PROJECT NO: 200-200 PAGE NO: 5
INDEX OF CONSTRUCTION ORDERS		
C.O. O6A		
Paragraph 01	Eliminate Field Office from contract Items Incorporate two (2) new items into the contract	
C.O. O6B		
Paragraph 01	Incorporate 15 Day time extension into contract	
Paragraph 02	Normal increases and/or decreases to regular contract items	
Paragraph 03	Normal increses and/or decreases to environmental items	
Paragraph 04	Incorporate one new item into the contract non-participating	
C.O. O6C		
Paragraph 01	Normal increases and/or decreases to regular contract items Incorporate two (2) new items into the contract	
C.O. O6D	Final Construction Order	

12-6 Record of Labor Wage Checks

List all Labor Wage Checks (CON-131s) taken during the duration of the project on a summary sheet and place in front of the wage checks taken. If the number of records is too large, they may be kept in a separate booklet, labeled accordingly. See Chapter 22 for information on Labor Wage Checks. If no additional personnel are added during the duration of the project, then this shall be noted as such on the summary sheet. See Figure 12.5 for a sample summary sheet.

Figure 12.5 – Record of Labor Wage Checks

Project No. 200-200 Page No. 7					
RECORD OF LABOR WAGE CHECKS					
Employee	Contractor	Date Wage Check Taken	Complying to the Minimum Hourly Rate		Comments
			Is	Is Not	
Ellie Wilson	Stephen Construction	05/05/01	X		
Denise Misale	Stephen Construction	05/05/01	X		
Jeff Exley	Tyler Construction	08/15/01	X		
Tom Mara	Tyler Construction	08/15/01	X		
Tyler Madejek	Nakita Construction	11/01/01	X		
Ed Madejek	ED & Son	04/15/02	X		
Stephen Madejek	ED & Son	04/15/02	X		
Amber Allen	Midnight Construction	04/28/02	X		
Stephen Jeffers	Stephen Construction	05/01/02	X		
Note: for the remainder of the project there were no new employee's on project to do labor wage checks on					

12-7 Record of Payrolls

The United States Department of Labor and the Connecticut Department of Labor require that all construction contracts are in compliance with state and federal laws and guidelines. The timely submission of certified payrolls and assurance that appropriate wages are being paid on construction contracts has been emphasized by both agencies.

In accordance with Public Act No. 09-25, once work has been performed by a firm on a contract, all weekly certified payrolls are to be submitted to the Municipality representative by USPS mail, first class postage prepaid. The weekly payrolls may be submitted on a monthly basis. The envelopes must be retained with the payrolls for periods of no work. Payrolls must still be submitted during periods of no work noting “no work performed”. For those periods that no work has been performed, the contractor may submit four weeks of no work on a single payroll form mailed to the Municipality once a month.

Once the payrolls have been received from the Contractor, project personnel will check each payroll for the following:

- Each employee has an identifying number, however this number should NOT be the employee's Social Security Number, however, the last four digits of the SSN may be used.
- Both the State and Federal statements of compliance are included.
- All wages appear to be correct and in compliance; and
- The payrolls are accurate and complete.

If payrolls have not been received or there are discrepancies in the payrolls, project staff should notify the Contractor by phone or email providing the Contractor with seven days to correct the discrepancy. If there is no resolution after seven days, the Municipality should notify the Contractor, in writing, that they have seven days from the receipt of the letter to correct the discrepancy or the issue will be forwarded to the appropriate labor department.

A Payroll log must be kept up date by project personnel and kept with the project records. A copy of each weekly payroll shall be on file with the project records. See Figure 12.6 for a payroll log.

Figure 12.6 – Record of Payrolls

YEAR : 2001			PROJECT NO.: 200-200		
PRIME CONTRACTOR : STEPHEN CONSTRUCTION			PAGE NO.: 8		
PAY ROLL LOG FOR					
SUBCONTRACTOR :					
DATE STARTED: 04-01-01			DATE COMPLETED: 06-15-02		
Week of	Date Payroll Received	Wage Check Taken	Week of	Date Payroll Received	Wage Check Taken
JANUARY			JULY		
		YES / NO	7-1-01 TO 7-7-01	07/28/01	YES / NO
		YES / NO	7-8-01 TO 7-14-01	07/28/01	YES / NO
		YES / NO	7-15-01 TO 7-21-01	08/11/01	YES / NO
		YES / NO	7-22-01 TO 7-28-01	08/11/01	YES / NO
		YES / NO			YES / NO
FEBRUARY			AUGUST		
		YES / NO	7-29-01 TO 8-4-01	08/25/01	YES / NO
		YES / NO	8-5-01 TO 8-11-01	08/25/01	YES / NO
		YES / NO	8-12-01 TO 8-18-01	09/01/01	YES / NO
		YES / NO	8-19-01 TO 8-25-01	09/29/01	YES / NO
		YES / NO			YES / NO
MARCH			SEPTEMBER		
		YES / NO	8-26-01 TO 9-1-01	09/29/01	YES / NO
		YES / NO	9-2-01 TO 9-8-01	09/29/01	YES / NO
		YES / NO	9-9-01 TO 9-15-01	09/29/01	YES / NO
		YES / NO	9-16-01 TO 9-22-01	10/19/01	YES / NO
		YES / NO	9-23-01 TO 9-29-01	10/19/01	YES / NO
APRIL			OCTOBER		
4-1-01 TO 4-7-01	04/16/01	YES / NO	9-30-01 TO 10-5-01	10/19/01	YES / NO
4-8-01 TO 4-14-01	04/28/01	YES / NO	10-6-01 TO 10-12-01	11/09/01	YES / NO
4-15-01 TO 4-21-01	05/01/01	YES / NO	10-13-01 TO 10-19-01	11/09/01	YES / NO
4-22-01 TO 4-28-01	05/19/01	YES / NO	10-20-01 TO 10-26-01	11/09/01	YES / NO
		YES / NO			YES / NO
MAY			NOVEMBER		
4-29-01 TO 5-5-01	05/26/01	YES / NO	10-27-01 TO 11-2-01	11/23/01	YES / NO
5-6-01 TO 5-12-01	05/26/01	YES / NO	11-3-01 TO 11-9-01	11/23/01	YES / NO
5-13-01 TO 5-19-01	06/02/01	YES / NO	11-10-01 TO 11-16-01	12/07/01	YES / NO
5-20-01 TO 5-26-01	06/02/01	YES / NO	11-17-01 TO 11-23-01	12/07/01	YES / NO
		YES / NO	11-24-01 TO 11-30-01	12/14/01	YES / NO
JUNE			DECEMBER		
5-27-01 TO 6-2-01	06/30/01	YES / NO	12-01-01 TO 12-07-01	12/28/01	YES / NO
6-3-01 TO 6-9-01	06/30/01	YES / NO	12-08-01 TO 12-14-01	12/28/01	YES / NO
6-10-01 TO 6-16-01	06/30/01	YES / NO	12-15-01 TO 12-21-01	01/16/02	YES / NO
6-17-01 TO 6-23-01	07/07/01	YES / NO	12-22-01 TO 12-28-01	01/16/02	YES / NO
6-24-01 TO 6-30-01	07/07/01	YES / NO			YES / NO

12-8 Record of Prime and Subcontractors

List both Prime and Subcontractors who perform work on the project. A remarks column shall be utilized to record what work they performed. See Figure 12.7.

Figure 12.7 – Record of Prime and Subcontractors

PROJECT NO: 200-200 PAGE NO: 9							RECORD OF PRIME AND SUBCONTRACTORS	
NAME AND ADDRESS	D/SBE	DATE	DATE	DATE	DATE	DATE	REMARKS	
		APPROVED	STARTED	SUSPENDED	RESUMED	COMPLETED		
Stephen Construction River Canal Griswold, CT. 06351			April 1, 2001			June 15, 2002	Prime Contractor	
Tyler Construction 152 State Street Griswold Ct. 06351	DBE	March 15, 2001	April 21, 2001			June 10, 2002	SubContractor for Drainage and Paving	
Nakita Construction HillDale Avenue Jewett City, Ct. 06351	DBE	June 1, 2001	July 1, 2002			April 10, 2002	SubContractor for Concrete	
Amber Manufacturing Highland Street Concord, NH	DBE	March 15, 2001	April 1, 2001			March 12, 2002	SubContractor for Deck Units	
Ed & Son Pratt Road Griswold, Ct. 06351	DBE	March 21, 2002	June 11, 2002			June 15, 2002	SubContractor for Guiderail	
Midnight Construction Clover Street Griswold, CT. 06351	DBE	March 15, 2001	April 1, 2001			June 15, 2002	SubContractor for Warning Lights	
Valerie Inc. Clamont Avenue Griswold, Ct. 06351	DBE	March 15, 2001	April 15, 2001			May 15, 2002	SubContractor for Trucking	

12-10 Material Stored Inventory Log

The material stored for the project must be inspected and inventoried as specified in Chapter 20. Figure 12.9 has a sample log for material stored.

Figure 12.9 – Material Stored Inventory Log

"MATERIAL STORED" INVENTORY LOG			PROJECT NO:	PAGE NO:
DESCRIPTION OF MATERIAL	MATERIAL QUANTITY	STORED SITE (LOCATION)	VERIFIED BY (SIGNATURE OF INSPECTOR)	REMARKS

12-11 CLA-12s

The CLA-12s are the agreements between the Prime Contractor and Subcontractors of what work is to be performed. Also attached with these should be the actual contract between the Prime Contractor and Subcontractors. See Chapter 5 for CLA-12 forms and more information about their use.

12-12 DBE Pre-award Document

Disadvantage Business Enterprises (DBEs) are firms which are approved by the Department prior to the award of the contract for the Prime Contractor to use to meet a goal of work performed by a DBE. See Chapter 4 for more information about DBEs. All documents in the pre-award must be kept in Volume IV. See Figure 12.10 for a sample pre-award document.

Figure 12.10a – DBE Pre-award Document, Page 1

STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION		subject: Federal Local Bridge Program Project No. 200-200 Town of Griswold Ellmond Road Bridge over Quanic River
m e m o r a n d u m		date: March 1, 2001
to: Mr. Thomas A. DiCioccio Director, Contract Compliance Office of Contract Compliance Bureau of Finance and Administration	from:	William R. Stark Transportation Principal Engineer Bureau of Engineering and Highway Operations
<p>The Department's DBE Screening Committee has determined that 12% of the construction contract value will be assigned to Disadvantaged Business Enterprises for the subject project which has been advertised and will be administered by the Municipality. Attached are DBE Participation Approval Request Forms identifying the DBE Contractors to be utilized. The bid proposal estimate is \$1,505,742.67 and these firms have a total subcontract value of \$211,470.00 which represents approximately 14.05% of the contract value.</p> <p>Please verify that these contractors are State certified DBE firms and that they have approved affirmative action plans on file with the Department. Please indicate your concurrence by signing below and returning the attached copy of this memorandum to this office.</p> <p>If you have any questions concerning this matter, please contact Mr. Joseph C. Cancelliere, Program Administrator, at extension 3208.</p> <p>Concur: _____ Thomas A. DiCioccio Office of Contract Compliance</p> <p>_____ Date</p> <p>Must be a signed copy attachements</p>		

Figure 12.10b – DBE Pre-award Document, Sheet 2

DBE PARTICIPATION APPROVAL REQUEST					
TO BE SUBMITTED WITHIN THE TIME FRAME INDICATED BY THE BID DOCUMENTS.					
Submit this form with ORIGINAL SIGNATURES for approval to:					
		Submitted by: <u>Stephen Construction</u> Prime Contractor			
		for Project No.: <u>200-200</u> Town of: <u>Griswold</u>			
		Proposed DBE subcontractor: <u>Tyler Construction</u> Full Company Name			
Date of Bid Opening:		<u>152 State Street Griswold, CT. 06351 860-376-0000</u>			
Date of Submittal:		Full Company Address Phone Number			
		Original contract amount	<u>\$1,505,742.67</u>	Proposed total amount to be subcontracted to this firm:	<u>\$142,870.00</u>
				Proposed percent of contract to be subcontracted: %	<u>9%</u>
Only Firms currently certified as DBE firms by ConnDOT may be submitted					
Status of firms may be verified by calling ConnDOT's Contract Compliance office at 594-2163					
Item Number & Description	Quantity for Item Subcontracted	Are any Items Partial	Item Amount Bid by Prime (\$)	Dollar Amount to be Subcontracted (\$)	Subcontractor Classified as MBE or WBE?
0205001 Trench Excavation (0-4 ft Deep)	198		\$10,692.00	\$8,910.00	
0205002 Rock in trench Excavation (0-4 ft Deep)	10		\$2,800.00	\$1,800.00	MBE
0205003 Trench Excavation (0-10 ft Deep)	122		\$6,588.00	\$5,490.00	WBE
0205004 Rock in trench Excavation (0-10 ft Deep)	20		\$5,000.00	\$3,000.00	DBE X
0406012 Bituminous Concrete Class 1	330		\$5,280.00	\$3,300.00	
0406017 Bituminous Concrete Class 2	4		\$480.00	\$540.00	
0406030 Bituminous Concrete Class 4	475		\$29,450.00	\$19,950.00	
0406236 Material for Tack Coat	680		\$1,360.00	\$680.00	
0507001 Type "C" Catch Basin	1		\$3,100.00	\$2,200.00	
0507201 Type "C-L" Catch Basin	2		\$5,100.00	\$4,000.00	
0651001 Bedding Material	10		\$1,000.00	\$500.00	
0651011 12" R.C. Pipe	500		\$162,500.00	\$75,500.00	
0651013 15" R.C. Pipe	110		\$22,000.00	\$15,500.00	
0652011 15" R.C. Culvert End	1		\$1,100.00	\$1,500.00	
Note: If yes, please explain subcontractor's involvement.					
Approval is requested for the above firm to perform as		Subcontractor	<u>X</u>	Manufacturer	Supplier
Signed by: <u>Tyler Stephen</u> for Prime Contractor, title		Signed by: <u>Stephen Tyler</u> for Subcontractor, title			

Chapter 13 - Extra and Cost-Plus Work

13-1 General

Extra work is new and unforeseen work that cannot be covered by a contract item, a combination of contract items, or work that is designated as such by the specifications. All new and unforeseen work is not necessarily extra work.

Before approving extra work, the Chief Inspector should carefully review the contract documents (i.e. Standard Specifications, Addenda, Special Provisions, Permits, Plan Sheets, etc.) to make sure the work is not included in other items or the general cost of the Project. If the new or unforeseen work is the same as items included in the Contract, payment must be at the contract item price, unless there has been a significant change in the quantity or character of the work. For significant changes in the quantity of an item (amounts > 25% of the total quantity), significant changes in the character of work, or differing site conditions refer to Articles 1.04.02, 1.04.03 and 1.04.04 of the Standard Specification.

13-2 Agreed Price

Whenever possible, efforts are to be made to agree upon prices for extra work. File with the Contract records any calculations made to justify agreed prices for extra work. These calculations must be attached to the price approval letters and be included with the backup documentation for the Construction Order and must be in such a form that they clearly substantiate and justify the amount paid for the extra work. Agreed prices may be unit prices or lump sum. Before an agreed price may be used to pay for extra work, the Municipality and the Contractor must agree on compensation. The Municipality must request authorization from the Department whether the item is eligible or non-eligible. A Construction Order must be authorized for processing.

As soon as the extent of extra work has been determined, request the Contractor to submit a proposed agreed price and a request for additional time with supporting documentation if the extra work will impact the completion of the project. When requesting a proposed price, make sure the Contractor knows the Specification(s) he or she will have to follow to perform the extra work. Analyze the Contractor's proposed price to determine if it is acceptable. Methods to determine if prices are acceptable include:

- Comparison with weighted unit prices
- Comparison with actual bids on similar projects
- Cost-plus analysis using a CON-9 Form (Check the "Scope Analysis" box if used for this purpose.)
- Other cost estimating guidelines approved by the Department, i.e. means estimating books

- If the parties agree, a measured unit can be established for a production rate. The Municipal Administrator and Chief Inspector must make sure the production rate is consistent with the normal industry practice. Prior to using this method, concurrence must be obtained from the Department.

The Municipal Administrator/Chief Inspector also may initially determine a price based on any method used above and present it to the Contractor. Before proposing a price to the Contractor make sure the Department concurs.

After an agreement has been reached by all parties, project staff will prepare a letter for the Municipal Administrator's signature agreeing to the price and process a Construction Order to incorporate the extra work item into the Contract. **Again, it is stressed that whenever possible, the Municipal Administrator/Chief Inspector must make every effort to agree upon prices for extra work.**

13-3 Cost-Plus

When the extent of extra work cannot be predetermined or an agreed price cannot be reached with the Contractor, an order to do the extra work on a cost-plus basis may be pursued. Cost-plus work can only be used for payment of extra work unless otherwise specified in the Contract. Once it is determined that the extra work will be performed on a cost-plus basis, the project staff will prepare a letter for the Municipal Administrator's signature directing the Contractor to perform the extra work on a cost-plus basis.

The cost-plus sheets (CON-9s) and all applicable attachments must be kept in Volume III. If the item is excessive, then it may be kept in its own Volume III book.

If an error is noted at any time, the incorrect figure, item, or statement is to be crossed out, initialed, and the corrections neatly written above it or referenced to the correction. **No erasures or whiteout are allowed.**

13-4 Issues

Before the cost-plus work begins the Chief Inspector should discuss with the Contractor the labor, material, and equipment to be used. Knowing the resources ahead of time can avoid misunderstanding and inefficiencies. The Chief Inspector must keep the Municipality and Department well informed on discussions with the Contractor.

The Municipality must ensure they have contacted the Department about eligibility for the new item. See Chapter 15 for an explanation of procedures to incorporate new items.

The Municipality must pay the Contractor labor, material and equipment costs used to perform cost-plus work. The Standard Specification Articles 1.09.02, 1.09.03 and 1.09.04 are very explicit about the method of payment, and the Inspector must become familiar with this section before engaging in cost-plus work.

13-5 Documentation

Cost-Plus documentation includes the following:

- A letter from the Municipality to the Contractor directing or confirming the work is being done on a cost-plus basis.
- A letter from the Department to the Municipality directing or confirming the work is being done on a cost-plus basis.
- A completed Daily Report of Cost-Plus (CON-9) signed by the Contractor and the Inspector for each day work is performed.
- A representative certified payroll that contains the labor rates reported on the CON-9. For cost-plus operations that extend more than one pay period the Chief Inspector must verify the actual rates paid for each period. Additional payrolls only need to be attached when rates change.
- The Contractor's cost for insurance, taxes, and bonding.
- Quotes for specialized work (if quotes were requested).
- Copies of paid (receipted) bills for all materials and rented equipment used. (Items must be paid or only a fraction of the costs will be reimbursed with no markup.)
- Affidavit for material taken out of the Contractor's stock, certifying material quantities claimed and prices claimed. The affidavit must include language that attests the price claimed for materials is representative of the current fair market value.
- Quotes for rental equipment (if quotes were requested).
- Worksheets documenting the allowable equipment rates determined from the Rental Rate Blue Book published by Primedia Business Magazines & Media. This must be requested through the MSAT Leader.

13-6 Procedures

When it is determined that cost-plus work is required, the Chief Inspector will immediately process a Construction Order to establish an item and an estimated cost-plus account for that item. For Construction Order procedure, refer to Chapter 14.

Cost-plus operations must have full-time inspection. The Inspector will complete a CON-9 for each day cost-plus work is performed and have it signed by the Contractor at the end of each work day. The report must accurately document the labor, equipment, and material used for the cost-plus work for that day. Before signature, the Inspector must compare the daily report with the Contractor's daily record for the cost-plus work and note any discrepancies on the daily

report. If the Contractor refuses to sign the report or does not provide a record for comparison, note this on the CON-9 and the DWR. The initial reports of cost-plus are to be kept in the Volume III with the applicable item.

On DWRs, record observations and inspections of cost-plus work to provide a reasonable basis for agreement on payment.

Cost-plus payments are processed on a payment estimate within thirty (30) calendar days after the work is performed regardless if the Contractor has furnished supporting documents or not.

When supporting documents are missing, the Inspector will determine an estimated progress payment by using available information such as DWRs, previously submitted certified payrolls, prevailing wage scales, previous insurance and tax premiums, subcontracts, invoices, area prices for materials, etc.

Estimated progress payments for cost-plus work are to be calculated by completing the CON-9 and attaching it to the DWR or for a cost-plus operation with limited labor, equipment, and materials by calculating it directly on the DWR. When a CON-9 is used for a progress payment, the "Progress Payment" check box must be selected and the form must indicate the period covered. For payment purposes, progress payments will only be for up to 90% of the total estimated value for labor, material, and equipment; 10% will be withheld until the Contractor furnishes all required documentation necessary to final the cost-plus payment. The Municipal Administrator or Department may recommend holding additional amounts if there is significant documentation lacking. When appropriate, multiple cost-plus sheets may be generated for a day's activities for the ease of estimated payments for a portion of the work and final payments for the remaining work. The description for the estimated progress payment on the DWR will be clearly labeled indicating that this is an "Estimated Progress Payment". A summary sheet is to be provided in the Volume III listing all progress and final payments and to reference to the DWR.

Before the final cost-plus payment can be made, the final Daily Reports of Cost-Plus need to be prepared and checked to verify the information recorded agrees with the signed daily reports, certified payrolls, and insurance and tax premiums, receipted bills, and approved equipment rates.

When a subcontractor performs cost-plus work, an administrative expense is paid to the Prime Contractor in addition to the amount determined by the CON-9s. Refer to the Standard Specifications Section 1.09.04 (e) for the appropriate rate, unless the Contract states a different rate.

Completed daily reports of cost-plus are forwarded to the Contractor for signature.

Completed original CON-9s are kept in the Volume III, along with the supporting payrolls, material receipts, rented equipment invoices, and equipment rate sheets. See Figure 13.1 for a cost-plus sheet.

13-7 Labor Rates

The Contractor is responsible to ensure appropriate wage rates are paid to all employees based on the type of work performed. When preparing the CON-9, record the actual rate shown on the certified payroll for employees working on cost-plus work. Verify the employees' classifications are appropriate for the work performed and the rates of pay are at least equal to the applicable prevailing wage rates, which are usually found at the back of the Contract Special Provisions. Please keep in mind that these rates change every July 1st. Do not correct the wage rates the Contractor has submitted. Any concerns about the rates shown on the certified payroll are to be resolved by the Contractor and the Contractor is to make corrections if necessary.

When cash benefits are paid, they are reported in the upper labor section, Item 1 of the CON-9. This information is obtained from the certified payrolls. Use a separate line to record this information for each employee that receives cash benefits. When overtime is authorized and used for cost-plus work, make sure time and a half is only applied to the hourly wage rate and not the cash benefits unless the certified payrolls reflect otherwise.

When plan fringe benefits are provided, these costs are reported in the Health, Welfare and Pension section, Item 2 of the CON-9. The plan benefit costs must be obtained from the certified payrolls.

Contract provisions require the submission of certified copies of payrolls showing the names of all employees working on the project (Article 1.05.12 of the Standard Specification). This provision also applies to subcontractors. In addition, State and Federal regulations require the submission of a statement of compliance when prevailing wage rates apply. These forms are available at the DOT Website: www.ctdol.state.ct.us.

No one above the grade of Foreman is to be included in the labor section of a CON-9 except when the following three conditions are met: (1) the Contractor is entirely occupied with cost-plus work, (2) the Municipality has authorized a Superintendent, and (3) the allowable pay rate for the Superintendent has been agreed upon with the Contractor. **Before authorizing a Superintendent and negotiating an allowable pay rate, the Municipality must discuss the need for a Superintendent with the MSAT Leader.**

13-8 Labor Mark-Up for Insurance and Taxes

For worker's compensation, public liability and property damage insurance premiums, unemployment insurance contributions, social security taxes, and bonding costs for cost-plus work, the Contractor must furnish satisfactory evidence of the cost paid for such insurances and taxes.

The Contractor should be asked to furnish the insurance and tax rates at the preconstruction meeting, however, they are subject to change and need to be updated annually. Keep in mind that insurance and tax costs associated with straight time and overtime can be significantly different. In certain situations, such as when overtime has been approved for cost-plus work for an extended period of time, an insurance and tax rate for overtime hours should also be requested.

The Municipality should request that the Contractor's submittal be addressed in a letter signed by an officer of the company, addressed to the Municipality which identifies a breakdown of labor additives in writing. This letter can be found in Chapter 2, Figure 2.3. The letter must include the following:

- Worker's compensation rate
- General liability and property damage insurance rate*
- Social Security (FICA) rate
- State unemployment insurance rate
- Federal unemployment insurance rate

*A copy of the "Declaration Sheet" from the insurance company or a notarized letter certified by an officer of the company for self-insured contractors is sufficient.

Benefits such as Vacation, Holiday, and Sick Leave should not be included in the tax and insurance markup for cost-plus. This should be included in the benefits column (Health, Welfare, and Pension) on the CON-9 and must be supported by certified payrolls. If the Contractor includes this as part of their submittal for the tax and insurance markup, the Contractor shall be asked for a written explanation to be submitted to the Municipality for review.

Insurance for all vehicles including pick-up trucks, company cars, and construction equipment is included in the Blue Book rates and is not to be included in the insurance and tax rate percentage.

Copies of these submittals are to be maintained in Volume III with the cost-plus sheets.

Reimbursement for insurance and tax additive (the total of the above listed items) should not exceed 60% for general construction work. For steel erection and bridge painting work, the

maximum additive should not exceed 80%. If the additive exceeds these rates, the Municipality should require the Contractor to submit a justification for the higher rates for the Municipality to submit to the District for review and approval. If a Contractor's rate changes by 5% or more at any time, this change must be brought to the MSAT Leader's attention. Figure 13.2 shows examples for additives and Figure 13.3 shows Labor Mark-up for Insurance and Taxes.

Figure 13.2 – Premium Time Labor Additives

Insurance and Taxes	Paid on Premium Portion	Effect
Workers Compensation	No	None Paid on Premium Portion (1)
Social Security	Yes	6.2% of All Overtime
Medicare	Yes	1.45% of All Overtime
State Unemployment (Only up to 1 st \$15,000 of wages per year)	Yes	1% to 6.9% of Overtime
Federal Unemployment (Only up to 1 st \$7,000 of wages per year)	Yes	0.8% of Overtime
General Liability Insurance	No	None Paid on Premium Portion (1)
Union Dues	No	None Paid on Premium Portion (1,2)
Health Insurance	No	None Paid on Premium Portion (1)

Figure 13.3 – Labor Mark-Up for Insurance and Taxes Preconstruction Form

LABOR MARK-UP FOR INSURANCE AND TAXES		
PROJECT NO. : _____	DATE: _____	
DESCRIPTION: _____ _____		
CONTRACTOR: _____		
ADDRESS: _____		
TOWN/CITY, STATE, ZIP: _____		
TELEPHONE NUMBER: _____		
I certify the below rates, which are to be used for cost-plus or cost-plus related work on the subject project. Revised rates will be provided annually or as needed in certain cost associated situations.		
(Ex.: Straight time vs. overtime or additional risks)		
	<u>Straight Time Portion</u>	<u>Premium Portion</u>
Workers Compensation Rate:	_____	_____
General Liability and Property Damage Insurance Rate: <i>(Note: Insurance for construction equipment)</i>	_____	_____
Social Security (FICA) Rate:	_____	_____
State Unemployment Insurance Rate:	_____	_____
Federal Unemployment Insurance Rate:	_____	_____
Total of Above Rates =		
NOTE: A copy of the "Declaration Sheet" from our insurance company (or certified letter if self insured) is attached.		
	_____ Signed by Officer of Company	_____ Date
Certified by Notary		

13-9 Material and Equipment Invoices

For any material utilized during a cost-plus operation the Contractor must provide the following information:

- Copies of paid (receipted) bills for all materials and rented equipment used. See Figure 13.4 for a receipted bill. Receipted bills shall be referenced to an actual invoice, which documents the amount of the cost-plus item. Acceptable documentation for receipted bills is as follows:
 - Copies of cancelled checks for the invoiced/rented equipment
 - Invoices signed, “Paid in Full” by the Vendor
 - Invoices stamped “Paid” with the Contractor’s check number noted and a copy of a bank statement showing that the check has cleared.
 - Letter or affidavit from the vendor showing full payment was specifically received for noted items. Any credits or change in value must be indicated.

Figure 13.4 – Receipted Bill

Douglas Lumber		invoice number		22234	
Route 7		invoice date		7/4/2001	
Smithfield, RI 02917					
SOLD TO Stephen Construction		SHIP TO: Stephen Construction			
River Canal		River Canal			
Griswold CT. 06351		Griswold, CT. 06351			

ACCOUNT #	CUSTOMER P.O. #	TERMS	ORDER #	ORDER DATE	SLSMN	INVOICE #	INVOICE DATE
M5987		NET 10	90933	06/24/01	720	22234	7/4/2001
ORDERED	BACK ORDERED	SHIPPED	U/M	DESCRIPTION	PRICE	AMOUNT	
1	0	1	EACH	8X12X12 #2 SYP RGH N/S	\$121.00	\$121.00	
7	0	1	EACH	8X12X16 #2 SYP RGH N/S	\$162.00	\$1,134.00	
1,000	0	1,000	EACH	6" DECK SCREW GALVANIZED	\$0.109	\$109.00	
PAID CHECK NO 10234					NET INVOICE:	\$1,364.00	
*** COPY OF CANCELLED CHECK SHALL BE ATTACHED FOR PROOF OF PAYMENT OR BANK STATEMENT SHOWING PROOF OF PAYMENT					OTHER:	\$0.00	
					FREIGHT:	\$0.00	
					SALES TAX:	\$0.00	
					INVOICE TOTAL:	<u>\$1,364.00</u>	

If material is permanently incorporated into the work, then sales tax is not reimbursable to the Contractor. If the material is temporarily incorporated into the work then sales tax is reimbursable. If temporary material is used during the cost-plus operation then the material shall be returned to the Municipality.

An affidavit for material taken out of the Contractor’s stock certifying material quantities and prices claimed must include language that attests the price claimed for materials is representative of the current fair market value. See Figure 13.5 for affidavit.

Figure 13.5 – Affidavit Material from Stock

MATERIAL CERTIFICATION FOR MATERIAL TAKEN FROM STOCK

Stephen Construction
River Canal
Griswold, Ct. 06351

RE: MATERIAL CERTIFICATION
Ellmond Road Bridge Reconstruction

Stephen Construction has prepared this letter to certify that the following material:

4x6x16 ACQ Preserved #2 lumber
4 @ \$30.97 each

was taken from our inventory and used for the installation of a boardwalk section
for the Ellmond Road Bridge

We trust that this letter satisfies the proeject requiremntns at this time. Please do not hesitate
to contact me if you should have any questions or require any additional information.

Very Truly Yours
Stephen Construction
Stephen Tyler
Signature
Stephen Tyler
President

13-10 Bonding Costs

Increased bonding costs associated with cost-plus work will typically be reimbursed in a single lump sum payment near the completion of the project after the Contractor has furnished documentation that substantiates the increased costs. Documents supporting increased bonding costs are to be maintained in Volume III. The bonding cost should be between 0% and 2% of the total cost of the cost-plus work. If the bonding cost is greater than 2%, check with the MSAT Leader to see if the percentage rate is acceptable.

13-11 Specialized Work

On rare occasions, the Contractor may be directed to perform specialized work requiring skills, tools and equipment substantially different than those ordinarily used by the Contractor and their Subcontractors. Items of work that are covered by the Standard Specifications or by the original Contract documents are not considered specialized work unless specifically designated as such in the original Contract documents. Before classifying work as specialized, the Municipality must check with the MSAT Leader for clarification. Prior to performing such specialized work, the Contractor shall obtain and submit to the Municipality a minimum of three quotes for the work, if requested by the Municipality. Specialized subcontractors need to be approved to work on the project and are required to furnish certified payrolls. For specialized work, the Contractor will be reimbursed their actual cost-plus administrative expense per Standard Specification Article 1.09.04(e) unless otherwise specified in the Contract. An example of specialized work would be the removal of asbestos that was not originally anticipated.

13-12 Rental Rate Blue Book

Contractor owned equipment including equipment owned by a subsidiary, affiliate, or parent company of the Contractor that has been authorized for cost-plus work is reimbursed the applicable rental rate determined from the Rental Rate Blue Book published by Primedia Business Magazines & Media Inc. This information is to be obtained from the MSAT Leader.

The maximum rate used in paying for contractor-owned equipment is the applicable monthly rate in the Blue Book divided by 176 (176 working hours per month).

The Blue Book rates reflect an amount an equipment owner should charge during a contractual period to recover equipment related costs based on single shift of 8 hours/day, 40 hours/week, 176 hours/month basis. These rates take into consideration normal owner and operating costs for contractor-owned equipment including major overhaul costs; however, the estimated operating cost/hour may not include extraordinary operation expendables. The excluded operation expendables will be noted on the worksheet. To obtain payment for operating expendables the Contractor must provide satisfactory documentation of their actual cost.

When equipment is exclusively assigned to cost-plus work and is consistently working in severe conditions, the Contractor may be entitled to additional payment for maintenance costs.


When requesting a Blue Book rate, make sure to provide sufficient information to obtain the correct rate. The information provided should include year, make, model, horsepower, diesel or gas, wheel or track, rollover protection, transmission type, attachments, bucket sizes, lifting capacity, etc. Staff needs to exercise caution as the wrong rate may be inadvertently provided if insufficient information is provided. See Figure 13.6 for minimum information needed to request rates and Figure 13.7 for a sample Primedia Blue Book rate.

Figure 13.4 – Minimum Requirements for Requesting Rates

EQUIPMENT MINIMUM INFORMATION NEEDED FOR DISTRICT TO PROVIDE RATES TO PROJECT
Requests for Blue book equipment rates must have the following minimum information provided to Districts in order for proper rates to be supplied to be used on cost plus sheets
Jackhammers (Pavement Breaker) - Standard or silenced, lbs., year
Hydraulic Impact Breakers - year, make model, foot lbs., BPM
Compressor - year, CFM rating, No. of wheels, H.P., gas or diesel, make, model
Roller - year, make, model, tons, H.P., No. of wheels, gas or diesel, static or vibratory
Grader - year, make, model, type of trans., H.P., type of blade, gas or diesel, articulated
Loader - year, wheel or crawler, gas or diesel, make, model, cap. (C.Y.), H.P., type of transmission, with or without backhoe attachment, bucket capacity, 2WD or 4WD, articulated
Backhoe - year, make, model, gas or diesel, self propelled, crawler, tire mounted, capacity, buck capacity, H.P., axle config
Gradall - year, make, model, H.P.
Shovel - year, make, model, bucket capacity, H.P.
Clamshell - year, need bucket type (round or square nose), general purpose or heavy duty, concrete bucket (size C.Y.), vibratory (air) diameter, H.P.
Clamshell Buckets - year, capacity, type, duty (standard, heavy, lightweight)
Generator - year, make, model, kilowatts, H.P., gas or diesel
Crane - year, make model, hydraulic or mechanical, self propelled or truck mounted, gas or diesel, boom range, capacity (tons), lift capacity, H.P., axle config., track or wheels
Bulldozer - year, make, model, H.P., blade (angled or straight), Hyd. Control units, Hyd. Tilt attachment, track or wheels, gas or diesel
Pump - year, centrifugal, diaphragm, trash/sewage, air or water colled, C.P.B. rating pump size, portable or tire mounted, gas or diesel, gals/hr., H.P., hand or electric, pump capacity
Hoses - year, diameter, length, suction or discharge
Trailers - year, front/rear loading - flush deck, rear loading - drop dec., rear load - flush deck, tandem or triple axle, tons, folding or fixed gooseneck, on/off highway, tilt decks, capacity, axle configuration, payload, deck length
Prime Mover - year, make, model, H.P. (all diesel)
Trucks - Dump - year, on/off highway, GVW, gas or diesel, body capacity, H.P., axle configuration
Trucks - On/Off Highway - year, make, model, gas or diesel, capacity (tons), capacity (C.Y.), H.P., GVW
Trucks - Pickup - year, model (4x2 or 4x4), tons, gas or diesel, cab type, H.P.
Trucks - Flatbed - year, gas or diesel, axle config., GVW, H.P.
Electric Drills - year, size, G.P., reversible, heavy duty, extra heavy duty, RPM's, chuck size, amps, hammer
Air Drills - year, make, model, max hole size, drill type
Power Saws - Chain- year, bar length, bar type, handle size
Power Saws - Cut Off - year, engine size (Cu. Inc.), blade diameter
Power Saws - Circular - year, blade size, depth cut, amps, Direct or worm gear drive
Power Saws - Reciprocating - year, strokes per min., type
Compactors - Plate Type - year, hand held, gas or diesel, size of plate, H.P.
Compactors - Static/Vibratory - year, make, model, towed or self propelled, number of drums, drum size, number of wheels, weight, gas or diesel, H.P.
Heaters - year, space, type, BTU, propane or kerosene

Figure 13.5 – Primedia Blue Book Rate

Rental Rate Blue Book
Page 1 of 1



www.equipmentwatch.com

Rental Rate Blue Book

Date:
Tuesday, Feb 6, 2007

New Holland LS180 (discontinued 2004)
Skid Steer Loaders

Size Class:
Sae Operating Load: 2201 lbs & Over
Weight:
7,223 lbs

Equipment Notes: Includes bucket and ROPS, unless otherwise noted.

Configuration for LS180

Power Mode : **Diesel** Operating Capacity : **2,555 lbs**
HP : **60.0**

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate **
	Monthly	Weekly	Daily	Hourly		
Published Rates	\$2,150.00	\$600.00	\$150.00	\$23.00	\$12.20	\$24.42
Adjustments						
Region (Connecticut: 103.7%)	+\$79.55	+\$22.20	+\$5.55	+\$0.85		
Model Year (100%)	-	-	-	-		
Ownership (100%)	-	-	-	-		
Operating (100%)					-	
Total:	\$2,229.55	\$622.20	\$155.55	\$23.85	\$12.20	\$24.87

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	26%	\$559.00
Overhaul (ownership)	59%	\$1,268.50
CFC (ownership)	8%	\$172.00
Indirect (ownership)	7%	\$150.50
Fuel (operating) @ \$2.49 / gal	45%	\$5.53 / hr

Revised Date: 2nd Half 2006

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https://www.equipmentwatch.com/Tools/RRBB/RRBB_PrintDetails.jsp?isAdjusted=Yes
2/6/2007

If there is no rental rate readily available from the Blue Book for a piece of equipment, the publisher should be contacted to determine if they can provide one. If they cannot, a rate can be established by using rates listed by other publishers, organizations or rental companies or any other method approved by the MSAT Leader.

13-13 Idle Equipment

For any piece of contractor-owned equipment assigned exclusively for cost-plus work the Contractor is guaranteed reimbursement for a minimum of 8 hours of use time, idle time, or combination thereof, excluding weekends, federal holidays where the Contractor does no work, and other days he or she is ordered not to do Contract work. Idle time is only reimbursed at **50% of the applicable rental rate, excluding operating cost.**

If the Contractor is actively working on cost-plus work, payment for contractor owned equipment that is idle or partially idle as follows:

- If the equipment for cost-plus work is also being used for non-cost-plus work, no idle time will be paid for the day.
- If a piece of equipment remains idle during any day or portion of a day, excluding Saturday, Sunday, a holiday which the Contractor does no work, or any other day the Contractor is ordered to do no work, payment is made at 50% of the applicable rental rate, excluding operating costs up to a maximum of 8 hours. When a contractor works a nonstandard 40 hour work week (i.e. four – ten hour days), the Contractor is still only reimbursed for the idle equipment up to a maximum of 8 hours. For example, the Contractor uses a piece of equipment for only one hour during a 10-hour work day, the Contractor would be reimbursed for 1 hour at the active rate and 7 hours at the idle rate for the piece of equipment.
- If a piece of equipment is idle for the entire work day that is on Saturday, Sunday, a holiday which the Contractor does no work, or for any other day the Contractor is ordered to do no work; no payment will be made for the piece of equipment.
- If the equipment is used for part of the work day that is on Saturday, Sunday, or a holiday; active and idle time, if any, will be paid up to a total of 8 hours for the day.

13-14 Renting Equipment

The Municipality may direct the Contractor to rent equipment when it is determined the equipment is needed to perform cost-plus work. Before directing the rental of equipment, discuss with the Contractor the equipment they have available, the equipment needed to perform the work, and how long they think the equipment will be needed. If after discussion, it is determined that a certain piece of equipment is needed that the Contractor does not have, ask the Contractor to furnish published rates from the rental company they plan to use.

The rates furnished should include the following:

- A daily rate per hour for equipment used for seven consecutive days or less
- A weekly rate per hour for equipment used from eight to twenty-one consecutive days
- A monthly rate per hour for equipment used more than twenty-one consecutive days

If the rates appear high, ask for additional quotes. You can also check the rates with those listed in the Rental Rate Blue Book. The Contractor will be reimbursed the actual rental rate paid based on original receipted bills for the rental expenses incurred unless otherwise specified in the Specifications.

Note: Rented Equipment that comes with an operator is not exempt from prevailing wage requirements. The operator must be reported on a certified payroll.

13-15 Administrative Expenses

When extra work on a cost-plus basis is performed by an authorized subcontractor, the Municipality will pay the Prime Contractor an administrative expense for that work based on the table in the Standard Specification Section 1.09.04(e) unless otherwise specified in the Contract.

The percentage paid to the Prime Contractor as an administrative expense is an additional 7.5%. Such payment will be in addition to the percentage payments described in (a), (b), (c) and (d) of Article 1.09.04. This change went into effect in the July 2008 version of the Supplemental Specifications.

The administrative expenses are applied at the conclusion of the extra work. When the extra work is concluded depends on how the extra work was originally requested and subsequently directed to be done in accordance with Article 1.09.04.

The administrative mark-up for cost-plus work is payable to the Prime Contractor only. Additional mark-up when multiple tiers of subcontractors are involved is not allowed.

Chapter 14 - Construction Orders

14-1 General

Construction Orders (CON-5s) are issued to authorize changes to the Contract. The Municipality **shall not** make any changes or increase contract time without Department's approval. Construction Orders adjust original quantities of contract items, add extra work, add or modify contract plan sheets, or alter the sequence or character of the work. They will also be utilized to incorporate new items and time extensions into the Contract. See Chapter 15 for procedure of the incorporation of new contract items and time extensions into Contract.

Construction Orders on each project shall be lettered in alphabetical order. When the Department's Project Number is 200-200, the first Construction Order issued on a project would be 200-200-O6A, second issued 200-200-O6B, etc.

The terms of an executed Construction Order are enforced as though they were part of the original contract. It is essential that Construction Orders explicitly describe the change proposed, including:

- The character and scope of the change
- Where and within which limits the change applies
- The method of compensation
- Any changes in the allowed contract time

The Construction Order needs to explain why it has been prepared. It should be short and concise yet detailed enough to provide persons with no knowledge of the project with an understanding of why the change is made.

When a Construction Order is done properly it will identify:

- What the change is
- Who initiated the change
- Where the specific location of the change is
- Why the change is needed
- When the change was initiated

All Construction Orders must be presented in an acceptable format with the appropriate backup documentation that is acceptable to the MSAT Leader.

14-2 Need for Construction Orders

Construction Orders are required for design-initiated changes in the plans or typical sections, for any changes that result in monetary increases or decreases, and/or when there is an adjustment in contract time. The changes can be made part of the Contract only through Construction Orders. Design changes and cost-plus work should be submitted promptly with estimated quantities rather than waiting until accurate quantities are available.

Changes and extra work should be held to the minimum and limited almost exclusively for conditions that could not reasonably be anticipated before the project was advertised for bid. The Municipality must carefully review changes that involve a substitute material or product or a change in the method of construction.

Review of a proposed change will involve the following considerations:

- Is the change in the public interest?
- Does it provide an equal or better material or product than originally planned?
- Does it provide a better method of construction than originally planned?
- Does the Contractor benefit from the change, and if so, is there a corresponding benefit to the project?

Design changes, substitution of materials, revised methods of construction, and specification modifications must satisfy the criteria to provide adequate justification for consideration and approval.

Additional contract time is to be processed on intermediate Construction Orders whenever a contractor's request for an extension of contract time is approved. A full explanation justifying the additional time must be attached to the Construction Order.

14-3 Preparation

The process to initiate a Construction Order should be started as soon as the potential need for a change is identified. Revised quantity determinations are to be made as the work progresses, and final quantity revisions are to be included on intermediate Construction Orders as items are completed. Updating quantities on intermediate Construction Orders reduces the time required to prepare the final construction costs and enables one to keep better track of the project cost.

The Chief Inspector is the primary person responsible for the preparation and content of the Construction Order. The Municipal Administrator is responsible for ensuring that the Construction Orders are being done and submitted to the MSAT Leader for review.

Construction Orders that involve price adjustments, differing site conditions, or claim settlements cannot be initiated until the Municipality has asked the MSAT Leader to obtain the required approvals.

No new items or time extensions shall be placed on a Construction Order without prior approval of items or time. See Chapter 15 for new contract items and time extension processing.

14-4 Content

In preparing Construction Order explanations, remember that the Auditor or Reviewer of a Construction Order usually is unfamiliar with the project. The explanations provided must clearly explain the need and authority for the change and provide an analysis that people unfamiliar with the project can understand. Use the following guidelines.

- Dimensional changes or a change in the plans or typical section (with the exception of minor revisions in the location of culvert, manholes, and catch basins): Incorporate revised plan sheets when available. When the change is being made to benefit the Contractor make sure to indicate as such and also identify the corresponding benefit to the Municipality and Department if one exists.
- Overruns/Underruns (no design change): Provide a detailed change order explanation whenever both of the following conditions are met:
 - The cumulative quantity change of an item varies by 10 percent or more from the original estimate.
 - The value of the quantity change is more than \$10,000.
 - If the item is increased or decreased on more than one construction order, an item summary must be provided. The reason why the quantity differs from the design estimate should be explained in detail whenever possible. Avoid simply stating that design overestimated or underestimated the item. If the designer provided insufficient detail that caused an overrun or underrun, indicate so. Note: Do not include quantity changes caused by design revisions when determining overrun/underrun percentages.

When items are determined to be non-eligible work, ensure to place explanation in a non-eligible paragraph on the Construction Order. On the CON-5, eligible and non-eligible quantities cannot be adjusted in the same paragraph due to the different funding sources. If cost-plus work is being added on the Construction Order, prior authorization of incorporation of a new item must be obtained. Attach an estimated cost breakdown to initiate funding for the item. A second paragraph on a future Construction Order will be required to adjust the item to final value.

14-5 Classification of Item Changes and Standard Explanations

Use the following classifications to identify the appropriate standard explanation for the changes for specific items (line items) to classify the changes:

- S** Change in Scope – Changes from the original intent or purpose of the project, extension of project limits (i.e. additional signalized intersection, limits more than 100 feet beyond original, etc.), elimination of contract work, and work not normally associated with the type of work originally bid.
- U** Unforeseen Condition – Additional work necessitated by encountering reasonably unforeseeable conditions which differ materially from those indicated in the contract or unusual conditions differing from those normally encountered. Items applying to this classification are defined by Article 1.04.04 – Differing Site Conditions of the Standard Specifications (e.g. underground storage tank, contaminated materials, concealed decay, unanticipated rock or groundwater).
- C** Contract Revision – Changes in the original design initiated by Design or Construction which falls within the original scope of the project and does not alter the basic character of the project. This also includes revised specifications (e.g. revisions to pavement markings, revisions to base materials, revisions to stage construction, and revisions to a signalized intersection).
- Q** Quantity Adjustments – Minor increases or decreases in original quantities not attributable to any of the above explanations. (Increase or decrease less than 10% of the original estimate and the value of the quantity is less than \$10,000.)
- O** Other Adjustments – Revisions to the contract or plans to correct foreseeable changes which reasonably could have been expected (e.g. work shown on the plans for which no pay item was provided, for example, no rock in trench item where rock outcrops are plainly visible; revisions to comply with environmental permit requirements or Right of Way agreements; incorrect original computations, and an elevation bust resulting in extra work to correct). This explanation also includes contract adjustments like incentives/disincentives, material escalation clauses, etc.
- T** Time Extension – Adjustment in allowable contract time for any portion of the work.

14-6 Documentation

Documentation used to support the Construction Order must be referenced and identified in the Construction Order addendum. General requirements include:

- Change initiator – a directive to the Contractor from the Municipality or a *Request for Information* from Contractor which requests additional work to be done in the response
- Price request and specification for performance of the work
- Price submittal
- Price justification
- Price acceptance
- Correspondence between Municipality and Department addressing eligibility of the change, if applicable

14-7 Processing

Construction Orders are processed according to the following guidelines:

- The Municipal Administrator and Chief Inspector must make regular checks of the project records to identify any need for a Construction Order.
- Funding for the Construction Order work must be reviewed, as soon as possible, to determine if additional funding or agreements are needed.
- Chief Inspector prepares the draft construction order and submits it to the MSAT Leader for review.
- MSAT Leader will review the draft Construction Order for participating eligibility, funding, and format.
- MSAT Leader returns the draft Construction Order with comments to the Chief Inspector for corrections.
- Chief Inspector makes corrections and creates two originals of the CON-5 form.
- Chief Inspector signs and dates both originals.
- Municipality mails both originals of the CON-5 form to the Contractor for signature. The Contractor is given two weeks for signing. See Figure 14.1 for sample letter.
- Any Construction Order not returned should be processed within two weeks from the date of submission to the Contractor. The Construction Order must state the reason why the Construction Order is being processed without the Contractor's signature. The Municipality is the last party to sign and date the two original copies of the Change Order. (As the Administrator of the Contract, the document is executed upon the Municipality's signature.)

- If the Contractor returns the Construction Order unsigned, a letter of explanation should be included. The Contractor's objections for not signing a Construction Order will be investigated. In the meantime, the Construction Order will be processed unsigned by the Contractor.
 - If the objections are determined to be invalid, the Contractor is notified of the reasons.
 - If the objections are determined to be valid, a subsequent Construction Order is processed with the appropriate corrections and the Contractor is notified that the corrections will be addressed by a future Construction Order. This letter must be included with the fully executed Construction Order.
- If the Contractor returns the construction order signed, then the Municipality has its Municipal Administrator sign and date both originals. See Figure 14.2 for CON-5 and Figure 14.3 for addendum.

Figure 14.1 – Letter of Transmit (CON-5)

January 3, 2001
<p>Stephens Construction River Canal Griswold, Connecticut 06351</p> <p>Gentlemen:</p> <p style="margin-left: 150px;">Subject: Project No. 200-200 FAP No. BRZ-6200 Replacement of Ellmond Road Bridge Griswold</p> <p>Transmitted, for your signature of acceptance, are two copies of Construction Order No. O6B Dated January 2, 2001, on the above captioned project.</p> <p>Please sign and return all copies within two weeks to the Municipality. The original copy will be returned to you when it has been approved by the proper authority.</p> <p>If, for any reason, you do not wish to sign this Construction Order, please return it to this office with a letter of explanation. If the Construction Order is not returned within two weeks, we will reprocess this order and forward it, unsigned, for processing.</p> <p style="text-align: center;">Sincerely,</p> <p style="text-align: center;"><i>Edward Madejek</i></p> <p style="text-align: center;">Municipal Official</p> <p>Cc: MSAT Leader</p>

Figure 14.3 – Addendum

		Project No.	200-200
		Addendum to Construcion Order O6B	
		Page 1 of 1	
Paragraph 01	Eligible		
Incorporate a 15 Day Time Extension into the contract.			
Correspondence:	1A) Letter Dated May 27, 2001 from JoAnn Devine to Edward Madejek Authorizing Time Extension 1B) Letter Dated May 20, 2001 from Edward Madejek to Carl Nelson to review time extension. 1C) Time Extension Backup		
Paragraph 02	Eligible		
<u>Item No.</u>	<u>Description</u>	<u>Quantity</u>	
0406031	Bituminous Concrete Class 4	+200.00 TONS	
Reason: Item is being increased due to original computations accomadated a width of 10' as to an actual 24' width.			
Paragraph 03	Non - Eligible		
<u>Item No.</u>	<u>Description</u>	<u>Quantity</u>	
O6B0001	Install Park Benches	+4 EACH	
Reason: Municipality wanted to have 4 park benches installed on each embankment of bridge area for fisherman. This item is non-participating by the Department.			
Correspondence: 2A) Letter Dated May 1, 2002 from Barbara Madejek to Stephen Madejek stating that the Item will be Non-Participating			
2B) Letter Dated April 20, 2002 from Stephen Madejek To Assistant District Engineer requesting participation			

14-8 Distribution

- The Municipality returns one signed original copy to the Contractor for his file.
- The Municipality forwards the other signed original copy to the MSAT Leader for Departmental over-site stamp and review signatures.
- After the District signs the Construction Order, this original is returned to the Municipality for their files.

14-9 Final Construction Orders

The Final Construction Order **will not** be initiated until all required paperwork from the Prime Contractor has been submitted. No Final Construction Order shall be processed without authorization from the MSAT Leader. The Final Construction Order will be processed in the same manner as intermediate Construction Orders.

Minor quantity adjustments to quantities, due to field measurements, computation corrections, etc., can be made on the Final Construction Order; however, no new or cost-plus items can be initiated on the Final. New items must be introduced on intermediate Construction Orders.

If the Final Construction Order has been accepted and quantity changes are required for any reason, a supplemental final may be initiated. The construction order is designated “Supplemental Final Construction Order” on the front sheet. See Figure 14.4 for Final Construction Order.

Figure 14.4 – Final CON-5

NAME OF TOWN AND ROAD Griswold Ellmond Road Bridge FED. AID PROJ. # BRZ-6200	CON. 5 REV 2/93 DEPARTMENT OF TRANSPORTATION BUREAU OF ENGINEERING & HIGHWAY OPERATIONS STATE OF CONNECTICUT CONSTRUCTION ORDER	KIND OF WORK EXTRA ____ ADDITIONAL ____ COST PLUS ____	ORDER NO. 200-200-O6D DATE July 31, 2002	
TO ADDRESS Stephen Construction River Canal Griswold, CT. 06351	CONTRACTOR	ACCOUNTS CHARGEABLE		ESTIMATED COST 0.00
UNIT 701		TOWN 200	PROJECT 200	
PLEASE EXECUTE THE FOLLOWING WORK ON THE ABOVE CONTRACT, BASED ON THE UNIT PRICE. ON ITEMS NOT LISTED IN THE CONTRACT, THE DEPARTMENT OF TRANSPORTATION WILL PAY AND THE CONTRACTOR WILL ACCEPT THE UNIT PRICES AS LISTED BELOW. ACCEPTANCE OF THIS CONSTRUCTION ORDER BY THE CONTRACTOR MAKES THIS ORDER A PART OF THE ORIGINAL CONTRACT AND THE CONTRACTOR AGREES TO PERFORM THE WORK DESCRIBED AT THE PRICES STATED HERIN.				
COST PLUS WORK AS NOTED.			INCREASES	DECREASES
Authority: FINAL CONSTRUCTION ORDER				
ORIGINAL CALENDAR DAYS: 305 TIME EXTENSION GRANTED: <u>15</u> TOTAL CONTRACT TIME: 320				
SUMMARY:	ELIGIBLE	NON-ELIGIBLE	TOTALS	
ORIGINAL ESTIMATE:	1,505,742.67	0.00	1,505,742.67	
PREVIOUS C.O.'S	427,016.81	5,230.00	432,246.81	
CO O6D	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	
REVISED EST.	1,932,759.48	5,230.00	1,937,989.48	
RECOMMENDED BY <i>Tyler Madejek</i>	ACCEPTED BY <i>Stephen Madejek</i>		APPROVED BY <i>Edward Madejek</i>	
INSPECTOR DATE 05/27/08	PER CONTRACTOR DATE 05/27/08		TOWN REPRESENTATIVE DATE 05/27/08	

Chapter 15 - New Contract Items and Time Extensions

15-1 General

Per the State/Municipality agreements, once the project is awarded, the Municipality shall make **no** change which increases the cost of the project or alters the termini, character, or scope of work without prior Department approval. In addition, the Municipality **shall not** grant any contract time extensions without advance Department approval.

Any extra items or change in the scope of the work must have prior approval by the Department to warrant eligibility or the items may be deemed non-eligible.

Items which are not imperative or necessary for the completion of the project may be deemed non-eligible. Items which are for aesthetics will be evaluated on a project-specific basis. Items which are determined to be omissions or errors of the design may be determined to be non-eligible.

15-2 Addition of New Items

Whenever a new item is encountered, the Municipality does the research to ensure that it is not included under an existing item. The Municipality shall notify the MSAT Leader immediately of the possibility of a new item.

If a new item is required, the Municipality must request in writing to the Contractor for a price. Once the Contractor has submitted a price, the Municipality shall review the submission to determine if the price is reasonable and if there is sufficient backup documentation for an analysis of the item. If additional information is needed the Municipality should request that the Contractor supply justification of the price.

The Municipality will submit in writing to the MSAT Leader what the change is, what other contract items will be affected (if any), and what the cost is. This submission shall include the Contractor's breakdown of the item costs and a cost justification by the Municipality or Consultant. See Figure 15.1 for sample letter of submission.

Figure 15.1 – New Item Request

Ms. JoAnn Devine
Assistant District Engineer
171 Salem Turnpike
P.O. Box 1007
Norwich, Connecticut 06360-1007

Dear Ms. Devine:

Subject: Project No. 200-200
Rehabilitation of Ellmond Road Bridge
Addition of four Park Benches

Griswold Public Utilities has directed that a design change be implemented for the relocation of the water main that needs to take place in conjunction with the rehabilitation of the bridge. The Contractor has submitted a detailed quote of \$42,106.64 Lump Sum for the redesigned work. See attached letter from Contractor with analysis.

This revision is necessary for the completion of the project.

15-3 Processing of New Items

The MSAT Leader will review the submission from the Municipality and determine if the items are eligible or non-eligible.

If additional information is needed, the Municipality will be notified as to what is needed by the MSAT Leader.

Upon approval, the Municipality shall be notified and the changes will need to be incorporated on a Construction Order (CON-5). See Chapter 14 for Construction Order processing.

New items will **not** be paid by the Department until they are approved, placed on a Construction Order, and the Construction Order is submitted to the MSAT Leader.

15-4 Time Extensions

The Standard Specifications allows the Contractor to present in writing a request for an extension of contract time if the time needed to complete the work increased due to added or extra work, or due to causes beyond the Contractor's control. Any delay that the Inspector is aware of should be well documented in the Daily Work Reports (DWR). The information on the DWRs will be essential for evaluating the time extension request in a fair and equitable manner.

Information that should be reported in the Daily Work Reports includes:

- Date the delay first arose
- Date the delay ceased to exist
- The cause and description of the delay
- Effect of delay on entire project
- Operations in progress during the delay
- Labor and equipment that were idle each day of the delay must be documented in detail, photographic documentation should also be made
- Direction given to work in other areas

The authority for granting a time extension is found in Article 1.08.08 of the Standard Specifications. The article covers acceptable reasons for a time extension.

Time extensions must be requested by the Contractor in a timely manner. The Contractor is responsible for providing the necessary documentation to support the validity of the request for additional time. The documentation submitted must include the number of days requested (including dates). Any other documentation to support the requested time extension should be submitted at this time.

The Municipality will provide written acknowledgement of each Contractor's time extension request. If the information is determined to be incomplete or fails to meet the requirements of the Contract, the Municipality will reject time extension request. See Figure 15.2 for Time Extension Response Letter.

Figure 15.2 – Time Extension Response Letter

Contractor name/address

Town, State, Zip Code

Dear Sir or Madam:

Subject: Project No.

 (Project Description)

 Town

 Time Extension Request

On (date), you submitted a request for an extension of contract time for
project no. _____.

If the Municipality determines a time extension request to be invalid, they are not required to forward it to the Department for review. The Municipality need only forward their response to the Contractor and carbon copy the MSAT Leader. Only time extensions determined by the Municipality to be valid shall be forwarded to the Department.

15-5 Time Extension Analysis

The Municipality's Inspector should prepare its own written analysis of each time extension request including:

- A description of the request
- An evaluation of the request based on the field records. Each specific delay needs to be identified and explained in detail including the periods of the delay on the critical path of the project, as well as, explaining any time determined to be concurrent with another delay on the project.
- A conclusion
- A recommendation
- A time chart comparing the Contractor's anticipated and actual schedules and the effect of each cause of delay, including the Contractor's original time charts.

When preparing an analysis you will need to consider the following:

- Did the condition causing the delay exist at the time bids were received?
- Were the conditions discussed at the preconstruction meeting?
- Do you believe the Contractor might have reasonable or could have full knowledge of the conditions causing the delay?
- Could the delay be attributed to the Contractor's method of operation?
- Did the Contractor have other areas in which he or she could have operated in?
- Was the Contractor advised to work in other areas and to utilize idle workers and equipment?
- What other operations were in progress during the delay?
- Did the delay affect the entire project?
- Was the delay beyond the Contractor's control?
- Was the Contractor responsible for any portion of the delay which could have concluded to a request for delay?

The analysis with recommendation shall be submitted to the MSAT Leader for review and determination of eligibility. See Figure 15.3 for Time Extension Request from the Municipality to the Department letter. See Figures 15.4 for time extension analysis.

Figure 15.3 – Time Extension Request from Municipality

District Engineer

Dear _____ :

Subject: Project No.
FAP No.
(Description of Project)
Name of Municipality
Time Extension Request

Enclosed for your review and approval is the justification for a time extension for the above noted project. We have reviewed this analysis and feel that the time shown is warranted.

Upon your approval, we will process the time extension. If you have any questions please contact _____, at telephone number _____

Very truly yours,

Municipal Official

cc:
District MSAT

Figure 15.4a – Time Extension Analysis, Page 1

Attached for your review and approval, is a copy of the justification for a 15 day time extension and analysis for the completion of work on the Ellmond Road Bridge project.
Project Summary

Project No.: 200-200
FAP No.: BRZ-6200
Standard Specification: 814A
Original Contract Value: \$1,505,742.67
To Date Contract Value: \$1,937,989.48
Award Date: March 1, 2001
Ordered to Start Date: April 1, 2001
Actual Start Date: April 1, 2001
Original Calendar Days: 305
Original Completion Date: May 31, 2002
Actual Completion Date: June 15, 2002
Calendar Days Used: 320
Calendar Days Allowed: 320
Previous Time Extension Granted: 0
Winter Days: 121
Contract Suspension Time: 0
Apparent Time Overrun: 15
Time Extension Recommended: 15
Liquidated Damages Recommended: 0
Revised Completion Date : June 15, 2002

Please indicate your approval by your signature in the appropriate space.

Approved: *Edward Madejek*
Edward Madejek
First Selectman

Figure 15.4b – Time Extension Analysis, Page 2

<p>The Contractor, Stephen Construction, in a letter dated May 15, 2001, copy attached, has requested an extension of contract time of 15 days on the above noted project due to a utility delay.</p> <p>Project documentation between the periods of April 1, 2001 through April 15, 2001, confirm that the utility(s) delayed the Contractor from performing contract work.</p> <p>As completion date is slated for May 31, 2002, an extension of 15 days to the contract would extend the completion contract date to June 15, 2002.</p> <p>Recommendation: There is justification for granting a 15 day extension of contract time due to the utility company delay beyond the control of the Contractor. It is my opinion that the time overrun and delay in the overall completion of the project resulted from causes beyond the Contractor's control. It is recommended that a 15 day extension of contract time be granted resulting in a completion date of June 15, 2002.</p> <p style="text-align: right;">Recommended by: Tyler Stephens</p> <p style="text-align: center;">TIME EXTENSION BACKUP SUMMARY</p> <table><thead><tr><th><u>DATE</u></th><th><u>DESCRIPTION OR EVENT</u></th></tr></thead><tbody><tr><td>03/01/01</td><td>Award Date</td></tr><tr><td>04/01/01</td><td>Notice to proceed</td></tr><tr><td>04/01/01</td><td>Start of Work</td></tr><tr><td>04/15/01</td><td>Letter From Stephen Construction requesting a time extension</td></tr></tbody></table>		<u>DATE</u>	<u>DESCRIPTION OR EVENT</u>	03/01/01	Award Date	04/01/01	Notice to proceed	04/01/01	Start of Work	04/15/01	Letter From Stephen Construction requesting a time extension
<u>DATE</u>	<u>DESCRIPTION OR EVENT</u>										
03/01/01	Award Date										
04/01/01	Notice to proceed										
04/01/01	Start of Work										
04/15/01	Letter From Stephen Construction requesting a time extension										

15-6 Processing of Time Extension

The MSAT Leader will review the time extension to ensure that the analysis by the Municipality is complete, that the Contractor has provided the required documentation and that said documentation adequately supports the recommendation. If it is determined that the Municipality may proceed with processing the time extension, the District will notify the Municipality.

Once the Municipality receives the District's approval, the time extension must be placed on a Construction Order to be incorporated into the project.

The Municipality should begin withholding Liquidated Damages (LDs) from the original completion date until the work is determined to be significantly complete (refer to Chapter 31), otherwise the LDs will remain in effect. If the original contract time is not completed prior to December 1st, LDs run continuously through the winter period.

Chapter 16 - Estimates

16-1 General

Progress payments, or Estimates, shall be made monthly by the Municipality to the Contractor, including all contract item work that is completed satisfactorily in accordance with the Contract.

The Chief Inspector is responsible for the preparation of the Estimate. Volume II should be utilized for determining the payment for each month's estimate. After going over the estimate with the Contractor, the estimate should be forwarded to the Municipality for processing. The MSAT's review for reimbursement will be based upon quantities properly documented in the Volume II.

When 75% of the funds have been expended, the Municipality should review:

- If the balance of unexpended funds sufficient to complete remaining work
- If the Contractor is on schedule to complete the project within contract time and meet all other milestones
- If DBE / SBE / OJT goals meet or exceed required percentages; if not, discuss with the MSAT Leader

16-2 Retainage

Retainage is held in accordance with the terms of the Contract. Retainage **shall not** be authorized for release until all outstanding documents are submitted by the Contractor. Retainage **shall not** be released until authorized by the MSAT Leader.

16-3 Liquidated Damages & Sanctions

Liquidated Damages (LDs) are generally stipulated for overruns in contract time. (Other factors, such as “loss of use,” may apply and would be detailed in the Contract.) This is an administrative function of the Contract intended to protect the owner or public from undue incurred costs. When the Contractor overruns allowable time, etc., the corresponding LDs must be deducted from reimbursement.

- LDs are “pending” until a time extension is authorized or another administrative procedure (i.e. negotiation) is acknowledged by the Department.
- While pending, the value-to-date of LDs must be deducted from the “Total Earned Less Retainage” portion of the estimate sheet. (A value equal to the possible LDs will be deducted from payment, without impact on retainage.)
- The cover letter of the Estimate to be sent to the Contractor must be amended to define the deduction and state, “this administrative deduction in no way precludes the Contractor from making obligatory payments to subcontractors for work reimbursed in the estimate period.”
- Upon resolution, which also must be acknowledged by the Department of any issue for which LDs are pending, the final value of LDs is determined to be “assessed” and appropriately addressed on the next estimate, again, with clarification in the cover letter.
- The Municipality is advised to maintain detailed records of values and proceedings.

Sanctions may be imposed when the Contractor fails to satisfy contractual obligations including but not exclusive to:

- Disadvantaged Business Enterprises (DBE)
- Small Business Enterprises (SBE)
- On-The-Job Training Program (OJT)
- Article 1.05.08 Schedules and Reports

Generally, these obligations require the Contractor to make regular submissions and report progress toward goals. The Municipality, as administrator, is responsible for monitoring progress toward all goals. It is important that the Municipality monitor the complete project since reimbursements required that all aspects of the Contract and Municipality/State Agreement be met.

Goals set for DBE and SBE are commonly greater, by percentage of work, than the percentage held in retainage. It is advisable that the Municipality utilize sanctions to withhold for administrative shortfalls.

- Relying upon retainage for potential DBE/SBE/OJT shortfalls may impact the Municipalities use of retainage to address corrective work.
- Withholding required under Article 1.05.08 cannot be addressed with retainage.

The Municipality should make every effort to address potential Sanctions with the Contractor before withholding a value from payment. When determined necessary or advised by the MSAT, the following procedures should be followed:

- Sanctions are “pending” until a resolution or determination is approved by the Department.
- While pending, the value-to-date of sanctions must be deducted from the “Total Earned Less Retainage” portion of the estimate sheet. (A value equal to the possible Sanctions will be deducted from payment, without impact on retainage.)
- The cover letter of the Estimate to be sent to the Contractor must be amended to define the deduction and state, “this administrative deduction in no way precludes the Contractor from making obligatory payments to subcontractors for work reimbursed in the estimate period.”
- Upon resolution, which also must be acknowledged by the Department of any issue for which Sanctions are pending, the final value of Sanctions is determined to be “assessed” and appropriately addressed on the next following estimate, again, with clarification in the cover letter.
- The Municipality is advised to maintain detailed records of values and proceedings.

16-4 Deductions

Deductions are amounts held back for specific purposes (i.e. overweight vehicles, deficient material testing, warranty period has not completed final finishing has not been completed). These deductions may be either temporary or permanent. The Municipal Administrator in conjunction with the Chief Inspector must identify, initiate, and control all deductions.

Project Deductions – Chief Inspectors must keep source documents and summary sheets in the appropriate contract records to cover all deductions. For items bid on a unit basis: include in progress estimates work that is substantially complete less a sufficient number of units to cover the value of the incomplete incidental work. A source document must be on file showing the details of the quantity's determination. Base the withheld amount on a cost-plus analysis of the remaining incidental work or other method approved by the Municipality. The following examples are listed to illustrate the procedure:

- Road Way Excavation

In normal situations material is excavated, hauled, placed in final position in embankment and compacted, but slope finishing is not done. This is considered incidental work and a quantity may be withheld to cover the value of the work remaining.

- Aggregate for Subbase and Base

Material may be produced, hauled, placed, and compacted, but final trimming to tolerance has not been performed. This is incidental work and a quantity may be withheld to cover value.

- Fence

Posts and wire or mesh may be in place and securely fastened, but bracing wires not completed. Withhold units to cover this incidental work.

- Structure Concrete

When structure concrete has been placed, but items such as removing forms and falsework, curing, finishing, and other similar items have not been completed, withhold a number of units sufficient to cover the cost of this work.

- Structural Steel

When steel placed is paid by unit price, withhold units to cover incidental work such as additional bolting and welding.

- Trees, Vines or Shrubs

When trees, vines or shrubs have been installed, withhold units to cover anticipated plant loss during the establishment period.

MSAT Deductions from Reimbursable Value – MSAT will use the following criteria to evaluate reimbursable quantities. It is advised that the Municipality use a similar procedure in evaluating quantities for payment on an estimate.

Reimbursement for item quantities must have:

- Proper installation in conformance with plans and specification
- Testing submitted for all materials requiring testing
- Computations complete, payment in Volume I, and recorded in the Volume II

In addition, deductions from item quantities submitted will be made for:

- Rejection of submitted material for testing
- Excess of current approved quantity (Change Order required)

Deductions made by MSAT will be recovered by the Municipality as issues with testing, change orders, etc. are addressed by Municipality and approved by MSAT.

16-5 Payment for Stored Materials

Article 1.09.06-B of the Standard Specifications provides for payment of materials stored, whether stored on or off the project. See Chapter 20 – Material Stored Documents for what is required to make these payments. All criteria in Chapter 20 must be met prior to any payment for stored material.

The maximum payment for stored materials should not exceed 80% of the bid price for the contract item the material is being stored for. Estimated costs for delivery and installation of the materials are always to be withheld until the installation is complete.

Excess stored materials should be returned to the Contractor and appropriate adjustments made.

16-6 Payment to Subcontractors and Suppliers

State Statutes and Federal Regulations require the prompt payment to Subcontractors for amounts due for labor performed or materials furnished when charges for such labor or materials have been included in a progress estimate paid by the Municipality including the release of retainage. Upon payment of a progress estimate that includes labor or materials provided by a Subcontractor or the release of retainage for work satisfactory performed by a Subcontractor, the Contractor must pay such Subcontractor within 30 days of receipt of payment from the Municipality, unless the Contractor believes they have a valid reason to withhold payment from such Subcontractor. In which case, the Contractor must notify the Subcontractor and the Municipality of the reasons for the withholding of payment.

Federal Regulations require the Municipality to release retainage to the Prime Contractor for subcontract work that has been satisfactorily completed. Upon request from the Subcontractor and satisfactory completion of their work, the Contractor must be reimbursed the retainage for that portion of the work completed. A subcontractor's work will be considered satisfactorily complete when:

- The Subcontractor has fulfilled the contract requirements of the Department, Municipality, and the Subcontract for subcontract work, including the completion of any specified material and equipment testing requirement or plant establishment period and the submission of all submittals required by the Specifications (i.e. certified payrolls, material samples, and certifications, required state and federal submissions, etc.).
- The work done by the Subcontractor has been inspected and approved by the Department and Municipality and the final quantities of the Subcontractor's work have been determined and agreed upon.

16-7 Processing

Federally-funded contract work is a reimbursable program and as such the Municipality must make payments to the Contractor first and then request reimbursement from the Department. See Chapter 25 on ISP billings.

The Municipality is responsible for ensuring adequate funding, material testing, and Construction Orders are in place for each estimate. Adjustments should be made for deficiencies. (Refer to Section 16-4, above.) See Figure 16.1 for sample of Contractor's Estimate.

AIA Documents: Many Municipal contracts call for AIA forms to be utilized. The Municipality is responsible for ensuring that quantities and values presented in the AIA Document comply with all sections of this chapter. The Municipality may need to alter the documents before authorizing and reimbursing them.

- If additional clarification is necessary, the Inspector may prepare an estimate to accompany and clarify the reimbursable amount.
- If discrepancies are noted between the AIA Document and the Volume II, the Municipality shall request reimbursement based the quantities indicated in the Volume II.
- Final values of the AIA documents and the Volume II must align in order for the project to be adequately balanced.

Estimate forms should be agreed upon prior to the first submission. An acceptable format must be submitted to the MSAT Leader for billing purposes. See Figure 16.1 for Estimate Form.

Estimates should include the following information:

- Each contract item in order
- Any increases by Construction Orders
- Prior payments
- Work this period
- Total to date

Figure 16.1 – Estimate

TOWN OF GRISWOLD PROJECT NO 200-200													
ITEM NUMBER	QUANTITY	UNIT	UNIT PRICE	AMOUNT	APPROVED C.O. QUANTITIES	REVISED CONTRACT AMT	ITEM DESCRIPTION	PREVIOUS WORK QUANTITY	PREVIOUS WORK AMOUNT	WORK THIS PERIOD QUANTITY	WORK THIS PERIOD AMOUNT	WORK TO DATE QUANTITY	WORK TO DATE AMOUNT
0202002	1,020.00	C.Y.	\$40.00	\$40,800.00	1.25	\$40,850.00	Earth Excavation	1,000.00	\$40,000.00	21.25	\$850.00	1,021.25	\$40,850.00
0202102	240.00	C.Y.	\$150.00	\$36,000.00	7.75	\$37,162.50	Rock Excavation	245.00	\$36,750.00	2.75	\$412.50	247.75	\$37,162.50
0202202	260.00	C.Y.	\$115.00	\$29,900.00	(17.35)	\$27,904.75	Channel Excavation - Earth	235.00	\$27,025.00	7.65	\$879.75	242.65	\$27,904.75
0202251	20.00	C.Y.	\$300.00	\$6,000.00	1.35	\$6,405.00	Channel Excavation - Rock	20.00	\$6,000.00	1.35	\$405.00	21.35	\$6,405.00
0202529	30.00	L.F.	\$20.00	\$600.00	17.00	\$940.00	Cut Bituminous Concrete Pavement	42.00	\$840.00	5.00	\$100.00	47.00	\$940.00
0203002	190.00	C.Y.	\$140.00	\$26,600.00	61.25	\$35,175.00	Structure Excavation - Earth (Complete)	251.25	\$35,175.00	0.00	\$0.00	251.25	\$35,175.00
0203101	50.00	C.Y.	\$440.00	\$22,000.00	28.35	\$34,474.00	Structure Excavation - Rock (Complete)	78.35	\$34,474.00	0.00	\$0.00	78.35	\$34,474.00
0204151A	24,000.00	L.S.	\$1.00	\$24,000.00	0.00	\$24,000.00	Handling Water	24,000.00	\$24,000.00	0.00	\$0.00	24,000.00	\$24,000.00
0205001	198.00	C.Y.	\$54.00	\$10,692.00	27.68	\$12,186.72	Trench Excavation (0-4 FT Deep)	225.68	\$12,186.72	0.00	\$0.00	225.68	\$12,186.72
0205002	10.00	C.Y.	\$280.00	\$2,800.00	(1.06)	\$2,503.20	Rock in Trench Excavation (0-4 FT Deep)	8.94	\$2,503.20	0.00	\$0.00	8.94	\$2,503.20
0205003	122.00	C.Y.	\$54.00	\$6,588.00	20.02	\$7,669.08	Trench Excavation (0-10 FT Deep)	142.02	\$7,669.08	0.00	\$0.00	142.02	\$7,669.08
0205004	20.00	C.Y.	\$250.00	\$5,000.00	(14.75)	\$1,312.50	Rock in Trench Excavation (0-10 FT Deep)	5.25	\$1,312.50	0.00	\$0.00	5.25	\$1,312.50
0209001	1,625.00	S.Y.	\$3.00	\$4,875.00	23.65	\$4,945.95	Formation of Subgrade	1,665.00	\$4,995.00	(16.35)	(\$49.05)	1,648.65	\$4,945.95
0210035A	2.00	EACH	\$1,450.00	\$2,900.00	0.00	\$2,900.00	Temporary Dewatering Basin	2.00	\$2,900.00	0.00	\$0.00	2.00	\$2,900.00
0210306A	70.00	L.F.	\$60.00	\$4,200.00	5.75	\$4,545.00	Turbidity Control Curtains	75.78	\$4,546.80	(0.03)	(\$1.80)	75.75	\$4,545.00
0210820A	1,000.00	EST.	\$1.00	\$1,000.00	(1,000.00)	\$0.00	Water Pollution Control (Estimated Cost)	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00
0212002	525.00	C.Y.	\$34.00	\$17,850.00	73.45	\$20,347.30	Subbase	595.00	\$20,230.00	3.45	\$117.30	598.45	\$20,347.30
0213011	45.00	C.Y.	\$35.00	\$1,575.00	3.95	\$1,713.25	Granular Fill	48.95	\$1,713.25	0.00	\$0.00	48.95	\$1,713.25
0214020	3.00	C.Y.	\$35.00	\$105.00	(0.25)	\$96.25	Compacted Granular Fill	2.75	\$96.25	0.00	\$0.00	2.75	\$96.25
0216002	400.00	C.Y.	\$80.00	\$32,000.00	25.50	\$34,040.00	Pervious Structure Backfill	425.50	\$34,040.00	0.00	\$0.00	425.50	\$34,040.00
0219001	250.00	L.F.	\$36.00	\$9,000.00	500.00	\$27,000.00	Sedimentation Control System	750.00	\$27,000.00	0.00	\$0.00	750.00	\$27,000.00
0406012	330.00	TON	\$16.00	\$5,280.00	25.00	\$5,680.00	Bituminous Concrete Class 1	150.00	\$2,400.00	205.00	\$3,280.00	355.00	\$5,680.00
0406017	4.00	TON	\$120.00	\$480.00	0.50	\$540.00	Bituminous Concrete Class 2	4.50	\$540.00	0.00	\$0.00	4.50	\$540.00
0507201	2.00	EACH	\$2,550.00	\$5,100.00	7.00	\$22,950.00	Type "C-L" Catch Basin	9.00	\$22,950.00	0.00	\$0.00	9.00	\$22,950.00
0601003A	240.00	C.Y.	\$425.00	\$102,000.00	582.51	\$349,566.75	Class "A" Concrete	822.51	\$349,566.75	0.00	\$0.00	822.51	\$349,566.75
0651011	500.00	L.F.	\$325.00	\$162,500.00	22.32	\$169,754.00	12" R.C. Pipe	522.32	\$169,754.00	0.00	\$0.00	522.32	\$169,754.00
0651013	110.00	L.F.	\$200.00	\$22,000.00	11.00	\$24,200.00	15" R.C. Pipe	121.00	\$24,200.00	0.00	\$0.00	121.00	\$24,200.00
0652011	1.00	EACH	\$1,100.00	\$1,100.00	0.00	\$1,100.00	15" R.C. Culvert End	1.00	\$1,100.00	0.00	\$0.00	1.00	\$1,100.00
0703011	95.00	C.Y.	\$104.00	\$9,880.00	1.65	\$10,051.60	Intermediate Riprap	97.00	\$10,088.00	(0.35)	(\$36.40)	96.65	\$10,051.60
0703012	3.00	C.Y.	\$150.00	\$450.00	0.15	\$472.50	Modified Riprap	4.00	\$600.00	(0.85)	(\$127.50)	3.15	\$472.50
0707001A	53.00	S.Y.	\$40.00	\$2,120.00	1.00	\$2,160.00	Membrane Waterproofing (Woven Glass)	54.00	\$2,160.00	0.00	\$0.00	54.00	\$2,160.00
0909498A	4.00	EACH	\$2,300.00	\$9,200.00	0.00	\$9,200.00	Timber Guide Rail End Anchorage	0.00	\$0.00	4.00	\$9,200.00	4.00	\$9,200.00
0909500A	60.00	L.F.	\$384.00	\$23,040.00	(5.00)	\$21,120.00	Timber Guide Rail	0.00	\$0.00	55.00	\$21,120.00	55.00	\$21,120.00
0912503	24.00	L.F.	\$20.00	\$480.00	0.00	\$480.00	Remove Metal Beam Rail	24.00	\$480.00	0.00	\$0.00	24.00	\$480.00
0912506	4.00	EACH	\$20.00	\$80.00	0.00	\$80.00	Remove Single Post	4.00	\$80.00	0.00	\$0.00	4.00	\$80.00
0922501	20.00	S.Y.	\$35.00	\$700.00	(10.00)	\$350.00	Bituminous Concrete Driveway	0.00	\$0.00	10.00	\$350.00	10.00	\$350.00
0939001	20.00	HOUR	\$50.00	\$1,000.00	(20.00)	\$0.00	Sweeping for Dust Control	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00
0976002	1,000.00	DAY	\$1.50	\$1,500.00	(280.00)	\$1,080.00	Barricade Warning Light High Intensity	650.00	\$975.00	70.00	\$105.00	720.00	\$1,080.00
0978002	30.00	EACH	\$75.00	\$2,250.00	0.00	\$2,250.00	Traffic Drum	30.00	\$2,250.00	0.00	\$0.00	30.00	\$2,250.00
0979003A	4.00	EACH	\$250.00	\$1,000.00	0.00	\$1,000.00	Construction Barricade Type III	4.00	\$1,000.00	0.00	\$0.00	4.00	\$1,000.00
0980001	5,200.00	L.S.	\$1.00	\$5,200.00	0.00	\$5,200.00	Construction Staking	5,200.00	\$5,200.00	0.00	\$0.00	5,200.00	\$5,200.00
1220011A	24.00	S.Y.	\$200.00	\$4,800.00	0.00	\$4,800.00	Construction Signs - Type III Reflec	24.00	\$4,800.00	0.00	\$0.00	24.00	\$4,800.00
06A0001		L.S.	\$1.00	\$0.00	10,176.50	\$10,176.50	Archeological Find	10,176.50	\$10,176.50	0.00	\$0.00	10,176.50	\$10,176.50
06A0002		L.S.	\$1.00	\$0.00	27,138.64	\$27,138.64	Install Traffic Light	27,138.64	\$27,138.64	0.00	\$0.00	27,138.64	\$27,138.64
06B0001		EACH	\$1,307.50	\$0.00	4.00	\$5,230.00	Install Park Benches	2.00	\$2,615.00	2.00	\$2,615.00	4.00	\$5,230.00
06C0001		L.S.	\$1.00	\$0.00	32,125.35	\$32,125.35	Install Park Benches	32,125.35	\$32,125.35	0.00	\$0.00	32,125.35	\$32,125.35
				\$0.00	0.00	\$0.00			\$0.00	0.00	\$0.00		\$0.00
				\$1,505,742.67			\$1,937,989.48	GROSS \$1,528,054.31		GROSS \$409,935.17		GROSS \$1,937,989.48	
								RET @5% (\$76,402.72)		RET @5% \$76,402.72		RET @5% \$0.00	
								NET \$1,451,651.59		NET \$486,337.89		NET \$1,937,989.48	

Chapter 17 - Lead Health Protection Program

17-1 General

Any project containing the item Lead Health and Protection Program (LHPP) must follow the specifications of the Contract.

The Contractor is fully responsible for the protection of his employees, Municipality employees and their representatives, and ConnDOT personnel from exposure to lead in accordance with OSHA regulations and the contract specification. At least 20 working days (or otherwise specified in the Contract Special Provisions) prior to performing any work on the structure, the Contractor shall submit to the Engineer a written site-specific LHPP prepared by a Certified Industrial Hygienist(s) (CIH) that covers all workers on the project (Contractor, Subcontractor, Municipality, and ConnDOT representatives). The CIH shall be listed by the American Board of Industrial Hygiene. The LHPP shall include procedures for medical surveillance of the Contractors, Subcontractors and other project-related personnel, hazard communication procedures, employee training, protective equipment, and all other procedures that may be necessary to comply with 29 CFR Part 1926.62 that pertains to lead exposure in construction.

Please note that the CIH firm is considered a Subcontractor. As such, the Contractor and the CIH firm are required to comply with all subcontracting and associated reporting requirements.

The LHPP specification includes provisions for protective equipment, hand wash facilities, and a decontamination facility.

No removal of lead structures shall commence without written authorization from the CIH firm. Documentation must be supplied from the CIH firm about the action for removal of the structure.

If the CIH firm's representative does not find lead on the structure, they must provide proper documentation to the Municipality for their records of their findings. It is the responsibility of the Contractor to obtain this documentation.

Under **no** circumstances shall the item LHPP be eliminated from the contract without documentation from the CIH firm that there will be no billings and no lead in the structure.

Chapter 18 - Testing

18-1 Testing Procedures

The Municipality shall ensure that all testing requirements of the Standard Specification Form 816 and the Special Provisions are adhered to in their entirety.

The Municipality through the State of Connecticut Division of Materials Testing (DMT) shall test all materials being incorporated in the work.

Minimum Testing Requirements, Assurance Test Requirements and Qualified Products List can be located at the following web address:

- www.ct.gov/dot
- Click on “Doing Business with CONNDOT”
- Scroll down to Publications
- Click on “2009 Materials Testing Manual”

The Municipality shall ensure:

- The DMT is provided copies of test reports for materials tested by the Municipality, including:
 - In-place nuclear density tests for all materials, such as bituminous concrete, structural backfill, embankment and base materials
 - Air content, temperature, and slump tests for Portland Cement Concrete
- Personnel performing inspection, sampling, and testing hold the appropriate, and current certifications. (If not, funding may be jeopardized.)
- Special mixes are submitted and revised for content according to the Special Provisions.
- The DMT is notified of the final disposition of all materials recommended for rejection by the DMT, by using the MAT-103 Form (See Section 18-8).
- Ascertains that samples for all materials incorporated permanently or temporarily into a project are representative of the material used and meet the contract specifications.
- Submits acceptance and assurance samples are submitted and in accordance with the Schedule of Minimum Requirements for sampling materials for test.

The primary responsibility for adequate and sufficient testing rests with the Chief Inspector. The Chief Inspector must comply, in all regards, with the requirements stipulated in the “Schedule of

Minimum Requirements for Sampling Materials for Test,” or as directed. The Municipal Administrator is responsible for providing adequate supervision and instructions to the Inspector to ensure adherence to material testing retirements. The Municipal Administrator should review the project records monthly to ensure testing is being completed.

The Inspector is responsible for taking samples, so that the DMT will be able to complete the tests and forward the results to the District representative before the Contractor actually uses the material. It is the Contractor’s responsibility to have materials on the project in sufficient quantities early enough to allow for testing. Any material installed by the Contractor prior to obtaining testing results is at the Contractor’s own risk.

No testing, insufficient testing, or rejected testing may jeopardize the federal participation for those items on the project. The MSAT Leader will **not** pay for items which are not tested or have rejected testing.

The Municipality must arrange for the delivery of samples of all materials to be used on the project to the DMT, except those to be tested at the source of supply or by the Municipality personnel. Material submitted for testing can only be sampled or witnessed by Department forces or other designated representatives employed by the Department.

A Certified Test Report is a document containing a list of the dimensional, chemical, metallurgical, electrical, and physical results of the actual tests of the materials. Refer to Section 1.06.07 of the Standard Specifications for the requirements

If the co-signee listed on the Certified Test Report is not the Prime Contractor, a Materials Certificate is required to identify the shipment. A Materials Certificate is a document that certifies that the materials, components and equipment furnished conform to all requirements of the plans and specifications. Refer to Section 1.06.07 of the Standard Specifications for the requirements.

18-2 MAT-100

A standard Request for Test (Form MAT-100) form must accompany any acceptance or assurance sample, Certified Test Reports, Materials Certificates, and Approved Product List items submitted to the DMT. Sampling, labeling, and shipping must be in accordance with the instruction contained in the “Schedule of Minimum Requirements for Sampling Materials for Test.” See Figure 18.1 for MAT-100.

MAT-100 can be located at the following location:

- www.ct.gov/dot
- Doing Business with CONNDOT
- Under “Contractor Resources”
- “Forms”

- MAT-100 Form

Figure 18.1 – MAT-100

*SAMPLE ID	T0000-0000C0001	REMARKS Submitted for Gradation
Material Code	08034	
*Material Description	Stone (Broken/Crushed)	
*Sample Date	5/20/08	
*Sample By	Bassett, Richard W.	
*Source of Supply	TILCON - Plainville - New Britain, CT	
Producer / Supplier Code	0628	
*Material Rep Qty	100	
*Unit Type	English	
*Sample Unit	c.y.	
*Sample Test Type	Acceptance (Production)	
*Acceptance Method Type	Laboratory Test	
Batch Number		
Sample Taken From	site	
*Purpose / Intended Use	Subbase	
Location of Sample	Stockpile	
Plant ID / Type		
Plant Name		
*Contract Number	00-000	
*District Number	01	
*Federal Aid Number		
*Field Office Phone No.	000-000-0000	
Sample Status	Pending	
Date of Assigned Status		
*Creator User Name	Muni	
Item Number	0212003	
*MSAT Required Fields		

Only one item will be allowed per MAT-100 submission.

The Inspector should use the following guidelines for completing the MAT-100.

- Sample ID: Enter the number assigned to the sample. The sample number will be reported back exactly as submitted. No two sample numbers can be the same. Sample numbers must begin with a “T”, followed by the contract number (8 digits), then followed by the sample number as shown in the following examples:
 - T0200-0200C0001 (Numbering to be consecutive)
 - T0200-0200C0001A (Numbering for additional versions of prior sample)
 - T0200-0200B0001 (Numbering to be used for bituminous items to be consecutive)
 - T0200-0200C6001 (Numbering for cylinders to be consecutive)
- Material Code: Will be automatically populated
- Material Description: Select from the drop down list
- Sample Date: Enter date as shown
- Sample By: Select from the drop down list
- Source of Supply: Select from the drop down list
- Producer/Supplier Code: Will be automatically populated
- Material Rep Qty.: Enter quantity (only numbers)
- Unit Type: Select from the drop down list
- Sample Unit: Select from the drop down list
- Sample Test Type: Select from the drop down list
- Acceptance Method Type: Select from the drop down list
- Sample taken from: Enter information
- Purpose/Intended Use: Enter information
- Location of Sample: Enter information
- Contract Number: Enter Contract Number (if there are multiple project numbers associated with one project, label every sample under the main project number)
- District Number: Select from the drop down List
- Field Office Phone No.: Enter phone number

- Sample Status: always **Pending**
- Date of Assigned Status: Leave blank
- Creator User Name: Do not change
- Item Number: Enter item number being tested (only one (1) item number per MAT-100)
- Remarks: Type in any pertinent information (if there are multiple project numbers associated with one project, list all the project numbers in the remarks section)

18-3 Submission of MAT-100s

Hardcopy MAT-100s **shall** be printed and submitted with the sample for testing to the lab.

- Original Certified Test Reports/Material Certifications must accompany the MAT100 to the lab. (Lab will not approve material without originals.)
- Copies of the documents shall be kept at the field office along with a copy being submitted to the MSAT Leader.

An electronic MAT-100 will be forwarded via e-mail to the respective District MSAT Leaders via the following email addresses:

DOT.**Dist1**.MAT100@ct.gov

DOT.**Dist2**.MAT100@ct.gov

DOT.**Dist3**.MAT100@ct.gov

DOT.**Dist4**.MAT100@ct.gov

When submitting to the District, please label each MAT-100 file separately by using the Sample ID number as the file name.

Once the MSAT Leaders have reviewed the MAT-100s, they will be uploaded into SiteManager for processing. Therefore, it is imperative that these MAT-100s be submitted to the MSAT Leader in a timely manner.

The respective District will get the testing results from SiteManager and distribute them to the projects.

18-4 Test Results

Materials cannot be used until a favorable report of the test is received from the DMT, except in special cases as provided in the Specifications. When a verbal or email report is received from the DMT or the MSAT Leader, either recommending acceptance or rejection of the material, a notation is generally made on the Request for Test by DMT Personnel. If material is installed prior to approval, it is at the Contractor's own risk.

The MSAT Leader will deliver test results to the Municipality on a regular basis. The Municipality will forward copies of all test results to the Prime Contractor.

18-5 Samples Recommended for Rejection

If the DMT determines that a sample does not meet specifications, a representative from the Division contacts the project field office and provides the results of the tests. A detailed test report may also be issued. Copies of all test reports are on file at the DMT. **Rejected material will not be reimbursed by the Department.**

18-6 MAT-314 (PC-1)

MAT-314s (PC1s) are to be obtained when any prefabricated concrete materials are delivered to the site. The original MAT-314 must accompany the MAT-100 submission to the lab for the material listed. The Inspector must include the casting dates for each of the items on the MAT-314. A copy shall also be submitted to the MSAT Leader. See Figure 18.2.

Figure 18.3 – MAT-308

STATE OF CONNECTICUT - DEPARTMENT OF TRANSPORTATION
Division of Materials Testing 280 West Street , Rocky Hill CT 06067-3502
Report of Test on Portland Cement Concrete Cylinders MAT-308 REV 3/06

<i>Inspector is responsible for unshaded portion. Lab personnel are responsible for shaded areas</i>		Curing Box Used	Y or N →
Project No.		District	
Structure/location where concrete was placed		Source/Location	
		Sampled From (i.e.chute/pump)	
Item Number/Code*		Inspector	
Item Quantity**		Item Units	
Material Quantity***		Units - (yd³ or m³)	
Brand of Cement			
Required Strength		Contractor	

Air (ASTM C173/C231)		}	Measured at point of placement
Conc Temp (ASTM C1064)			
Slump (ASTM C143)			
Date Sampled			

Sample/Cyl No. - Version						
Age Requested						
Date Received						
Date Tested						
Age Tested						
Cyl Dia.		Cyl Area	<i>Unless otherwise noted, cylinder dia. is 6 in. (15.2 cm) and cross sectional area is 28.27 in² (182.4 cm²)</i>			
Total Load (AASHTO T-22)						
Load (PSI/Mpa)						
Average						
Status						
Lab No.						
Material No.						
Vendor No.						
Destination Code						
Usage Code						
Tested by						

*Item Number : Contract Item under which Contractor is being paid for concrete that is represented by sample.
**Item Quantity : Amount of concrete/Number of items represented by sample in pay units for that contract item. It is never the number of cylinders submitted.
***Material Quantity : Amount of Concrete represented by sample. Min. Schedule for Test requires one sample every 75 CY (60 m ³) for structures and 50 CY (40 m ³) for pavement. It is never the number of cylinders submitted.

18-8 MAT-103

MAT-103 is the Report of Rejected Material. This report is used to show the corrective action taken by the Municipality for rejected material. It is to be completed and signed by the Chief Inspector and the Municipal Administrator, and then submitted to the MSAT Leader. The MSAT Leader will sign and forward it the Assistant District Engineer for signature. Once all persons have signed the MAT-103 it will be forwarded to the DMT and a copy forwarded to the Municipality for their records. Appropriate backup documentation shall accompany the report for acceptance of rejected material without any action to be taken or funding for this portion of the item may not be reimbursed. See Figure 18.4.

Figure 18.4 – MAT-103

REPORT OF REJECTED MATERIAL								
MAT-103 REV 05/09 STATE OF CONNECTICUT - DEPARTMENT OF TRANSPORTATION								
Project Number	ITEM # (if multiple, only list first from MAT-100)	Date						
Material	Sample ID							
Source of Material	Quantity Represented	Reason for Rejection						
Complete section 1 OR 2. See below for instructions								
1. ACTION TAKEN - DOES NOT include retesting the same material with a different test method. (ie windsor probe, swiss hammer)								
New Sample	Source	Sample ID						
		Sample Status						
Material Replaced	Source	Sample ID						
		Sample Status						
Signature								
Inspector _____		Print _____						
Project Engineer _____		Print _____						
District or Assistant District Engineer _____		Print _____						
Town Official/Title (municipal projects only) _____		Print _____						
2. ACCEPTANCE OF REJECTED MATERIAL WITHOUT ACTION								
In accordance with ConnDOT Standard Specifications Section 1.06.02 or 1.06.04 the non-complying material is hereby accepted by the District.		<table border="1" style="margin: auto;"> <tr> <th colspan="2" style="padding: 5px;">Section Applied</th> </tr> <tr> <td style="padding: 5px; text-align: center;"><input type="checkbox"/> 1.06.02</td> <td style="padding: 5px; text-align: center;"><input type="checkbox"/> 1.06.04</td> </tr> <tr> <td colspan="2" style="padding: 5px; text-align: center;">Check one</td> </tr> </table>	Section Applied		<input type="checkbox"/> 1.06.02	<input type="checkbox"/> 1.06.04	Check one	
Section Applied								
<input type="checkbox"/> 1.06.02	<input type="checkbox"/> 1.06.04							
Check one								
Signature								
Inspector _____		Print _____						
Project Engineer _____		Print _____						
District or Assistant District Engineer _____		Print _____						
Town Official/Title (municipal projects only) _____		Print _____						
<i>For acceptance by Section 1.06.02 ,all the following criteria must be met.</i>								
1. Results of prior and subsequent series of tests of the material or materials from the same source or sources are found satisfactory.								
2. The incidence and degree of non-conformance with the Contract requirements are, in the Engineer's judgement, within reasonable limits.								
3. The Contractor, in the Engineer's judgement, had diligently exercised material controls consistent with good practices.								
4. No adverse effect on the value or serviceability of the completed work could result.								
<i>For acceptance by Section 1.06.04 , any credits, allowances, warranties, or other conditions of acceptance must be described below.</i>								
Orig - Division of Materials Testing	Copy -District	Copy - Project Records						

18-9 Nuclear Density Testing

The following procedures must be followed for Nuclear Density Testing:

- If a consultant firm has been hired to do the field inspection, the agreement between the Municipality and the Consultant shall stipulate that the Consultant would be responsible for performing the nuclear field density testing.
- If the Municipality is doing the inspection, with the District's approval, they may request that the District personnel do the density testing, if available. If not, then the following procedures are applicable:
 - They may perform their own nuclear testing providing they have the capability, qualifications, equipment, etc.
 - The Municipality can hire an outside firm to do the nuclear field density testing as a direct cost to the project, if incidentals are being reimbursed, or the Municipality will need to pay for this cost.

In any case, the person conducting the density tests must be certified to perform these tests. Whichever option is chosen, the nuclear density gauge must be calibrated with the Department's. It shall be the responsibility of the Municipality to contact the Lab through the District for certification procedures and to have an assurance testing done on that person and their machine.

18-10 Schedule of Minimum Requirements and Materials Assurance Tests

All materials are subject to inspection, testing, and acceptance or rejection at any time during preparation and use. The Municipality must be aware of and comply with the Schedule of Minimum Requirements and Assurance Testing Requirements of the Department. Notification to the Lab Supervisor is required to have appropriate testing performed.

The testing requirements for each specific material are included within Schedule of Minimum Requirements. It includes the following information:

- Persons responsible for sampling
- Sample size
- Location for sampling
- Frequency for acceptance sampling
- Frequency for assurance sampling
- Any special instructions

It is required by Federal and State regulations that at least the minimum number of tests be conducted. Additional sampling and testing may be needed to assure acceptability of materials.

Project sampling and testing falls into three general classifications:

- Quality Control samples – samples obtained by the Contractor to provide quality control of his process/material.
- Acceptance samples – taken and tested, by DOT personnel to determine material compliance with the contract specifications.
- Assurance samples – taken by or under the observation of supervision of the DMT, personnel of the Office of Construction, a representative of the Federal Highway Administration, or representatives of other federal agencies to provide an independent check on the quality of the sampling and testing equipment and the personnel performing these tasks. Assurance testing is extremely important in that it validates the results and recommendations of the entire acceptance sampling and testing done on the project.

To ensure that assurance sampling and testing is performed as required, including qualification of sampling and testing personnel, it is necessary that the Municipal project personnel notify DMT personnel of the need for these samples and tests with as much advance notice as possible. Assurance samples and tests performed by DMT personnel must be in accordance with one of the following:

- When assurance samples are required for materials subject to gradation analysis, DMT personnel must be contacted to witness the sampling procedure at the project site. The samples are then transported to a District Lab and halved in accordance with AASHTO T248. One-half of the assurance samples are tested at the District Lab. If desired by project personnel, this sample can additionally serve as the acceptance sample for the appropriate test coverage.
- When assurance tests are required for Portland Cement Concrete testing, DMT personnel must be contacted to witness all required sampling and testing procedures at the project site. DMT personnel will record the testing procedures, names of persons involved, and molding of the specimens. They will also verify equipment calibration and use of proper testing techniques and equipment. If there are any deficiencies, the MSAT Leader will be notified via memorandum that corrective action is required.
- Assurance tests for concrete cylinders must include air content, temperature, and slump tests on the plastic Portland cement concrete. The technician indicates on the assurance testing the names of all persons involved in the tests and molding of all specimens. The cylinders molded during an assurance test can be submitted for acceptance testing provided they are submitted with a separate MAT-100. It is possible that the material could be recommended for rejection but the assurance test is acceptable or vice versa.

- When assurance tests are required for field density testing, DMT personnel must be contacted to observe the test site preparation, calibration, and testing procedure performed by the operators. Upon completion of a test by the operator, the DMT person will perform a test in the same location to verify test results obtained by the operator. Corrective action is required if there are any discrepancies. The operator's test report must be given to the DMT person to be marked "Assurance Test" and placed in the appropriate project folder.

18-11 Apparent Final Quantities

Once the contract work has been completed, a request must be submitted to the MSAT Leader for a list of testing deficiencies on the project. This is done by submitting an Apparent Final Quantity Report listing all the items and their final quantities. This will be transmitted to the MSAT Leader; they in turn will transmit it to the Department's Material Testing section for a listing of outstanding testing. If there are any deficiencies the lab will notify the MSAT Leader, who in turn will forward to the Municipality and/or Consultant. All discrepancies shall be addressed to the satisfaction of the Department prior to the lab issuing a Final Material Certificate for the project. See Figure 18.5 for sample.

Figure 18.5 – Apparent Final Quantity Report

PROJECT #200-200 TOWN OF Griswold MUNICIPAL PROJECT APPARENT FINAL QUANTITIES			
ITEM #	DESCRIPTION	UNIT	FINAL QUANTITY
0939001	Sweeping for Dust Control	HOUR	0
0950005	Turf Establishment	S.Y.	1,676
0969002A	Construction Field Office (Type B)	MON	0
0971001A	Maintenance and Protection of Traffic	L.S.	\$8,000
0974001A	Removal of Existing Masonry	C.Y.	163
0975002	Mobilization	L.S.	\$56,538
0976002	Barricade Warning Light - High Intensity	DAY	720
0978002	Traffic Drum	EACH	30
0979003A	Construction Barricade Type III	EACH	4
0980001	Construction Staking	L.S.	\$5,000
1220011A	Construction Signs - Type III Reflec	S.Y.	24
O6A0001	Archeological Find	L.S.	\$10,170
O6A0002	Install Traffic Light	L.S.	\$27,139
O6B0001	Install Park Benches	EACH	4
O6C0001	Redesign Footing	L.S.	\$32,125

18-12 Hot Mix Asphalt Coverage

It shall be the responsibility of the Municipality to contact the District's Testing Coordinator or MSAT Leader to ensure coverage from the laboratory on hot-mix asphalt production. These calls must be received by 2:00 P.M. the day before paving is to take place. For night work and weekends, two (2) or three (3) days' notice is needed. Information needed at the time of call-in includes, Superpave mix size or HMA Class, time material will be picked up at plant, etc. Inspector must call the District with this information. A MAT-100 is required for each day's actual production, estimated tonnage, plant and location. Density and a density assurance test are required for each class of material. A separate MAT-100 is required for deficient tonnage. If these procedures are not followed, the bituminous may be considered non-eligible.

18-13 Buy America Requirements

As stated in Section 1.06.01 of the Standard Specifications, "All permanently incorporated steel and iron used in the construction of the project must have been produced and fabricated in the United States, **including welding rods and welds.**" DMT personnel will review all documentation submitted with requests for test for steel and materials containing steel and recommend acceptance or rejection based on their review. As part of the enforcement of contract specifications for materials, it is important that all project personnel be aware of this requirement and notifies their chain of command and the DMT if there is evidence or suspicion that this requirement is not being met. **Keep in mind these requirements also apply to all Utility Agreements using FHWA funding or any project that falls under the scope of National Environmental Policy Act (NEPA). Therefore, regardless of other contract funding sources, if one construction contract is funded with participating monies, all the other contracts, justified under one NEPA document, will be governed by these requirements.**

As further stated in Section 1.06.01, "The Contractor may request, in accordance with Section 635.410(b) (4) of Title 23 CFR, approval to include a minimal amount of steel in the project." These requests must be made in writing. The District will approve these requests provided the overall value of the steel, including delivery cost to the project, is less than 1/10 of 1% of the total Contract price or \$2,500, whichever is greater. The cost of the foreign steel or iron is defined as its contract value when delivered to the project site. When multiple approvals are requested the combined total cannot exceed the minimal amount defined above.

Additionally, the FHWA has granted a nationwide waiver of the requirements of 23 CFR 635.410 – Buy America, for the production of pig iron and processed, pelletized, and reduced iron ore. Items not specifically included in the waiver remain subject to the Buy America requirements. The Contractor may request the Engineer to seek from the FHWA a further waiver of said requirements, but it shall be at the sole discretion of the Engineer whether or not to seek such a waiver.

There may be other circumstances where the Contractor proposes to use foreign steel and may request that the District seek a waiver. Should this occur, the District will obtain from the Contractor details of the efforts made to secure domestic steel. The District will forward this information to the Office of Construction which may request a waiver from the Federal Highway Administration or other administering agency for the specific project.

Foreign steel should never be permanently incorporated into the Project unless approved. Steel and iron products that are to be used on a temporary basis and removed from the project are not subject to the Buy America requirements. If there is a potential for temporary sheet piling to be left in place then Buy America requirement will apply. Inspection personnel are required to track the value of all foreign steel delivered to the project and provide documentation to the DMT at the conclusion of the Project that substantiates required waivers and/or approvals have been obtained.

Projects with FTA or FAA funding have separate requirements under their own Buy America clauses. It is best to check the contract documents as they would supersede the requirements under the Standard Specifications.

Chapter 19 - Bituminous Concrete

Note: This chapter is to give the Inspector general guidance for paving operations. The Engineer will provide additional project-specific information based on the revision date of the Special Provision Section 4.06 in the Contract.

19-1 Base Courses

A base course consists of a layer or layers of material placed between the subbase and the surface course of a pavement to provide economical, homogeneous, and stable support. Base courses are subjected to severe loading, and thus the materials must be durable enough to support and transmit these loads to the underlying roadway components.

Before any base course is placed, the subbase must be constructed according to the current Standard Specifications. The riding surface of the completed pavement is affected by irregularities in either the subbase or the surface of the base course; therefore, it is necessary for the Inspector to ensure that the Contractor is conscientious when carrying out this phase of the work. The Contractor is responsible for draining and protecting the subbase. No base material should be placed on a soft, loose, or frozen subbase.

Each day a base material is incorporated in the job, a Base & Bituminous Concrete Inspection Report (CON-136) is to be completed by the Inspector. Base courses include:

- Granular Base
- Processed Aggregate Base
- HMA S1
- Bituminous Concrete Class 4
- Concrete Base

A CON-136 is required for any item being paid by the Ton (MTon). See Chapter 9 for CON-136 form and additional information on the duties of the Paving Inspector.

19-2 Pre-paving Meeting

A pre-paving meeting must be held in advance of the actual start of paving. The pre-paving meeting should be scheduled so the Contractor's Paving Foreman, who will supervise the actual paving operation, can attend. The Paving Foreman will receive an understanding of the work to be done and can assign the proper equipment to perform the work as specified. The Contractor's approved Quality Control Plan should be discussed in detail at the meeting. Use the appropriate pre-paving meeting form that is designed for the Special Provision Section 4.06 in the Contract.

19-3 Density Testing of Hot Mix Asphalt (HMA)

Special Provision Section 4.06 Bituminous Concrete, found in the contract, should be reviewed for the required placement methods and further details. Articles 4.06.03 and 4.06.04 describe the requirements of placing HMA, Contractor Quality Control, and HMA adjustments.

19-4 Extended Season Paving

Subarticle 4.06.03-4 of the Special Provision Section 4.06 addresses seasonal requirements. In addition to specifying temperature limitations, this article also requires that an Extended Season paving procedure be submitted as a supplement to the Contractor's Quality Control Plan for any paving done between the specified dates. The Extended Season is normally between October and April. See Figure 19.1 for Cold Weather Paving Approval Memo, Figure 19.2 for Cold Weather Paving Letter and Figure 19.3 for Cold Weather Paving Approval Check List.

Figure 19.1 – Cold Weather Paving Approval Memo

COLD WEATHER PAVING APPROVAL

The following list of items should cover all concerns if the need for cold weather paving should arise:

- 1) Project No.: 200-200
- 2) Town: Griswold
- 3) Street Name: Ellmond Road
- 4) Anticipated paving schedule: include number of days and hours of work: As needed by Stephen Construction in October and November 2001. The hours of operation will generally be 7:00 A.M. to 4:00 P.M. during the day.
- 5) Plant Location(s): Groton
- 6) Rate of Production: 200 TPH
- 7) Average Haul Distance: 20 Miles
- 8) Number of Trucks: Six +/- trucks according to scope of work and plant production at the time.
- 9) Paver Speed (distance/min.): Average is 60 feet/minute but will vary according to production and scope of work.
- 10) Delivered mix temperature (+/- 5 degrees): 295 F
- 11) Maximum length and width of paver pass: 1800' x 14'
- 12) Average compacted lift thickness: 4" of Class 1
- 13) Number of rollers (include capacity, type and drum width): Two Rollers, a 10 to 12 ton vibratory steel with 84" drums, and a 10 to 12 ton vibratory steel with 74" drums.
- 14) Name of Contractor representative responsible for the placement and compaction process: Stephen Tyler (000)000-0000
- 15) Reason(s) for request to allow paving under cold weather conditions: Safety
- 16) Impact of **not** proceeding with paving under cold weather conditions: Safety

Figure 19.2 – Cold Weather Paving Letter

STEPHENS CONSTRUCTION RIVER CANAL GRISWOLD, CT. 06351	
Mr. Tyler Stephens Town of Griswold State Street Griswold, CT. 06351	
Dear Mr. Stephens:	
Subject: Project No. 200-200 Ellmond Road Bridge Griswold	
Attached please find the Cold Weather Paving Policy furnished to the Stephens Construction by our paving Subcontractor, Tyler Construction. If any additional information is required please call.	
Sincerely	
<i>Stephen Tyler</i> Stephen Tyler President	
Attachment	

Figure 19.3 – Cold Weather Paving Approval

Town of Griswold State Street Griswold, CT. 06351	
SUBJECT: PROJECT NO. 200-200	
TO:	FROM:
STEPHEN TYLER STEPHEN CONSTRUCTION	TYLER STEPHENS TOWN OF GRISWOLD
MESSAGE:	
<p style="text-align: center;">This is in reference to the Cold Weather Paving Procedure, Dated October 18, 2001, for the above noted project.</p> <p style="text-align: center;">With the subsequent clarification concerning the reason for cold weather paving and the impact of not paving, this procedure has been approved with the following stipulations:</p>	
<p style="text-align: center;">1. Conditions may warrant suspension of activities at a later date.</p>	
All conditions of the Standard Specifications and those	

19-5 Pavement Evaluations

Semi-final pavement inspections and final pavement evaluations are required on all projects that have 2,500 tons or more of HMA in the final course of pavement. The final course of pavement may be comprised of multiple lifts of the same HMA material. The definitions of lift, course and other terms are described in Article 4.06.01. These inspections can, however, be performed on any project the District deems appropriate. The Office of Construction's Advisory Team will perform the semi-final pavement inspections and final pavement evaluations with the assistance of the Project Engineer and/or the Chief Inspector.

All required corrections are the Contractor's responsibility and no payment should be made for the material, labor, and equipment used.

It is recommended to use the Department-supplied Final Pavement Evaluation Report form. An example of a completed form can be found in Figure 19.4.

Figure 19.4a – Final Pavement Evaluation Report, Page 1

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Note: This report is required for all projects with a top course of 2,500 tons or more.

FINAL PAVEMENT EVALUATION REPORT

District No. 1 Project No. 0131-0161 Route/Town: Rte.229 Southington

Project Engineer: _____ (State) _____ Chief Inspector: (Town/Consultant)

Pavement Information (Top Course)

Paving Contractor: XYZ Paving Material: HMA S0.5 Depth: 2 inches
 Date Started: 6/1/11 Date Completed: 9/23/11
 Plant(s) used CT Asphalt Drum X Silo Used? YES
 _____ Batch _____ Silo Used? _____

Dates of evaluation: 10/1/11 Reviewer(s): (State/Town/Consultant)

Pavement Rating System: 1=Excellent 2=Good 3=Fair 4=Requires Repair*

	<u>Rating</u>	<u>Remarks</u>
A. Pavement Appearance (overall)	1 2 (3) 4	_____
1) Segregation (Rating of 1 = none or minimal) Check next to type, if present: <u>X</u> Truck End _____ Centerline <u>X</u> Joint/Edge _____ Random _____	1 (2) 3 4	<u>see comment #1</u>
2) Surface Appearance (overall) Check next to type, if present: _____ Shadows (center/outside) <u>X</u> Cracks _____ Flushing _____ Rutting <u>X</u> Roller marks/lines _____ Screed marks/lines _____ Fuel/solvent spills <u>X</u> Non-uniformity	1 2 (3) 4	<u>see comment #2</u>
3) Joint Construction (overall) - note excessive handwork, bump, cracks, etc. Transverse (excessive handwork, bumps, etc) 1 2 (3) 4 _____ Longitudinal (excessive handwork, cracking, etc) 1 (2) 3 4 <u>see comment #1</u>	1 2 (3) 4	_____
4) Rideability (overall) Transfer Device Used?	1 2 (3) 4	_____
B. Other Problems Encountered – Circle examples		
1) Mix condition: Overheated / Cold / Dry / Tender (cracks when rolled) / Bleeding / Difficult to compact / Inconsistent-nonuniform		
2) Was any paving done during: Rain / Cold (under 40F or 10c) / Surface damp or wet		
3) Compaction/Density: Difficult / Easy to achieve		
4) Paving Delays due to: Insufficient Equip. / Equip. Breakdown / Plant Breakdown / Traffic / Waiting for Trucks		

- If repairs are required has the contractor been notified?

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Figure 19.4b – Final Pavement Evaluation Report, Page 2

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Note: This report is required for all projects with a top course of 2,500 tons or more.

Additional Comments:

- 1. The project has some minor Truck End (Load to Load) segregation. There is also some areas of minor segregation at the longitudinal joint and around some structures from poor hand work. The areas are minor in nature and do not require corrective action.**
- 2. A couple areas of heat checking were observed. The areas are minor in nature and do not require corrective action. There were also some roller marks on the mat along the bean rail that were not removed with plate compactors.**

Submitted By: _____

Approved By: _____

Cc:

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Chapter 20 - Material Stored Documentation

20-1 Payments for Stored Materials

Article 1.09.06-B of the Standard Specifications provides for payment of materials stored, whether stored on or off the project. The stored material payments shall not exceed the contract unit price less the actual value of delivery and installation of the materials. The following criteria must be met before paying for stored materials:

- Obtaining a Certificate of Title. The Certificate of Title shall not be altered in any way (language added or deleted). If altered, it renders the certificate void, and payments will not be made. Included with the Certificate, the Contractor shall provide the material location and method of identification. The Certificate of Title shall be attached to the DWR that is recording the material stored on site payment. See Figure 20.1 for a Certificate of Title.

Figure 20.1a – Certificate of Title, Page 1

STATE OF CONNECTICUT
CERTIFICATION OF TITLE
TO MATERIALS STORED OR TO BE STORED
FOR INCORPORATION IN DEPARTMENT OF
TRANSPORTATIONS PROJECT

WHEREAS, STEPHEN CONSTRUCTION, hereinafter referred to as the
“Contractor”, is engaged in the performance of a certain construction contract with the State of Connecticut, Department of
Transportation, hereinafter referred to as the “Department”, designated as
Contract No. 200-200

WHEREAS, the Contractor has purchased from NATIONAL EASTERN CORPORATION of Plainville, CT., hereinafter
referred to as the “Vender”, for incorporation in Contract No. 200-200, in accordance with the plans and specifications therefore,
or as ordered by the Engineer, and has stockpiled or stored, or intends to stockpile or store certain materials at the contract site, or at a
place and in a manner approved by the Engineer, namely, the following materials:

DESCRIPTION of materials and quantities (5) GIRDERS: MKS:
G1A, G2A, G3A,G4A, G5A (20) DIAPHRAGMS: MKS: 3-D1, 1-D2, 1-D3, 3-D4,
6-D5, 6-D6, and FIELD HARDWARE

ITEM NO: 603801A
INVOICE 20907
\$134,000.00

and,

WHEREAS, to comply with the provisions of the Department’s Specifications (Subsection 1.09.06) requiring certification of
the Contractor’s absolute legal title to the materials hereinabove, described before the Department can pay the Contractor for the actual
cost thereof, the Contractor and the Vendor have entered into the following agreement:

NOW, THEREFORE, for and in consideration of the foregoing premises, the Contractor and the Vendor agree, with the
intention of being legally bound hereby, as follows:

1. The Vendor has executed this document for the purpose of acknowledging that the Vendor has made an outright sale
and transfer of title of the above-described materials lawfully owned by the Vendor to the Contractor free of all
restriction, Uniform Commercial Code or other filings, or liens and does not have any interest of any kind in the said
products, has the right to make such transfer of title, and will not in the future make any claim whatsoever to
such title.
2. The Contractor certifies and represents that he is the lawful holder of the absolute legal title to the above-described
materials and has the full legal right, power and authority to sell and transfer title the same without
restriction, Uniform Commercial Code or other filings, or liens of any kind on the part of the Vendor
and/or Subcontractor.

Figure 20.1b – Certificate of Title, Page 2

CERTIFICATION OF TITLE	
PAGE 2	
3.	The Contractor and/or any Subcontractor and the Vendor, their successors and assigns, will and do by these presents, warrant the title to the above-described materials to the Department.
4.	In the event the Vendor has furnished or sold the above-described materials, or transferred title to such materials to a Subcontractor of the Contractor rather than directly to the Contractor, this Certification of Title is hereby-amended at all applicable points to reflect this fact. By the execution of the Certification by any such Subcontractor, such Subcontractor is executing this document for the purpose of acknowledging that such Subcontractor has made to the Contractor an outright sale and transfer of title which it may have to the above-described materials as it may be lawfully owned by the Subcontractor free of all restriction, Uniform Commercial Code or other filings, or liens and does not have any interest of any kind in the said products, has the right to make such transfer of title, and will not in the future make any claim whatsoever to such title.
IN WITNESS WHEREOF, the parties hereto have caused this Certification of Title to be executed this <u>26TH</u> day of <u>MAY</u> , 2001.	
ATTEST:	CONTRACTOR
Melissa Anthony	Tyler Construction By <u>Stephen Tyler</u> Title <u>President</u>
ATTEST:	SUBCONTRACTOR
Melissa Anthony	Stephens Construction By <u>Tyler Stephens</u> Title <u>President</u>
ATTEST:	VENDOR
Melissa Anthony	<u>NATIONAL EASTERN CORP</u> By <u>Edward Madejek</u> Title <u>PRESIDENT</u>

- All testing requirements **must** be met prior to payment. Testing must be approved by the Department. Without approved testing, there will be no payment for material stored.
- A positive means of identification must be affixed to the materials and noted on the receipted bills or Certificate of Title furnished by the Contractor. Markings must be clear and visible for rapid identification while the materials are in storage. If paint color-coding is used, different color markings should be used for each project. Heat numbers are not an acceptable marking. It is the Contractor's responsibility to provide this information.
- Keeping an inventory. Initial and quarterly inventories are to be performed by Municipality inspection staff. All documentation of these inventories must be written and filed in the project records noting the material, location and identification. The Inspector performing the inventory shall sign and date the material list with a statement, "Material and quantities verified by _____".

- Stored materials with universal use, such as guide rail, poles, luminaries, and signal equipment, must be stored on-site unless otherwise approved by the Municipality. They must also be inventoried quarterly, and the results documented. Any discrepancies between inventories shall be immediately adjusted on the next payment estimate. This applies to materials stored on the project site, as well as, at **approved off-site locations**.
- The Contractor/Fabricator, etc. must maintain records of all materials stored and make them available to the Municipality upon request. These records must be clear, concise, and complete in every way. Additionally, a schematic of the storage area must be available so that stored material can be easily located.

The District will only approve payments for materials stored once the DMT has made their recommendation and it is reviewed. The DMT will contact the MSAT Leader of their findings.

If approved by the Department, payments will be made only for a portion of the total item value based on a lump sum breakdown submitted by the Contractor excluding all costs for fabrication, shipping, installation, erection, etc.

20-2 Materials Stored On-Site or Off-Site within the State (excluding raw materials)

Off-site, but within the State, storage sites will be personally inspected and approved by the Municipality with written approval placed in the project records. The inspection should be done by the Chief Inspector or above. The approval of storage sites is the responsibility of the Municipality with the assistance from the DMT, as required. The Municipality shall contact the MSAT Leader to determine if the site is acceptable to the Department.

20-3 Material Stored Out of State

All conditions and requirements as outlined in the above section “Payments for Stored Materials” shall apply with the exception of the following:

- Out-of-State storage sites for structural steel and precast concrete units must be approved by the DMT. Inspection of the site will be performed by the DMT or their designated on-site inspector. For other materials, Municipality personnel will inspect the site only if it can be accomplished within a normal workday; otherwise approval will not be granted unless specifically authorized by the Municipality.
- Requests for out-of-state storage site approvals will be made from the Municipal Administrator to the Director of DMT, via fax, with a copy sent to the MSAT Leader.
- A right of entry and a waiver of lien (against the material stored) are required any time the property that the material is stored on is not owned by the vendor or contractor(s) named in the Certificate of Title.

- The MSAT Leader will determine if material stored off site will be paid for.

Inventory: Initial inventory and quarterly or follow-up inventories by Municipality or DMT personnel will follow the procedures as outlined in Section 20-1. If it is not possible to perform additional inventories after the initial storage site approval and inventory, payment of material stored out of state will not be approved and any materials already paid will be deducted from the next payment estimate.

When the materials are delivered to the project, they should be in the same condition as when first stored. If the material is not delivered to the project in an acceptable condition, the cost of the material will be deducted from the next payment estimate to the Contractor.

20-4 Raw or Partially Fabricated Material Stored

Generally, raw or partially fabricated materials **will not** be paid for as stored materials. When raw materials are required to be purchased early in the project for use later on, (i.e. steel for stage construction, etc.), consideration will be given for partial payment upon request from the Contractor.

All conditions apply as outlined above with the following exceptions which will be included with the request for payment of raw material, in addition to the standard requirements as outlined in Article 1.09.06-2:

- Original contract value
- Original calendar days
- Days used to date
- When the material will be incorporated into the project
- Type of contract (i.e. stage construction, etc.)
- Value of raw material as percent of the contract value.
- Testing – After the submittal is reviewed by the Municipality and the DMT will be directed to inspect and inventory the material. The DMT will check to ensure that all the materials are in stock, identified, stored, secured properly, and that the materials are of the type specified by the contract.

Final testing will be performed when the material is fully fabricated and a MAT-100 is submitted to the DMT for approval

Any requests for payment for material stored must be cleared with the MSAT Leader or it will not be paid for.

Note: This documentation will be placed in Volume IV – Miscellaneous Project Information.

Chapter 21 - Pile Driving Reports (CON-87)

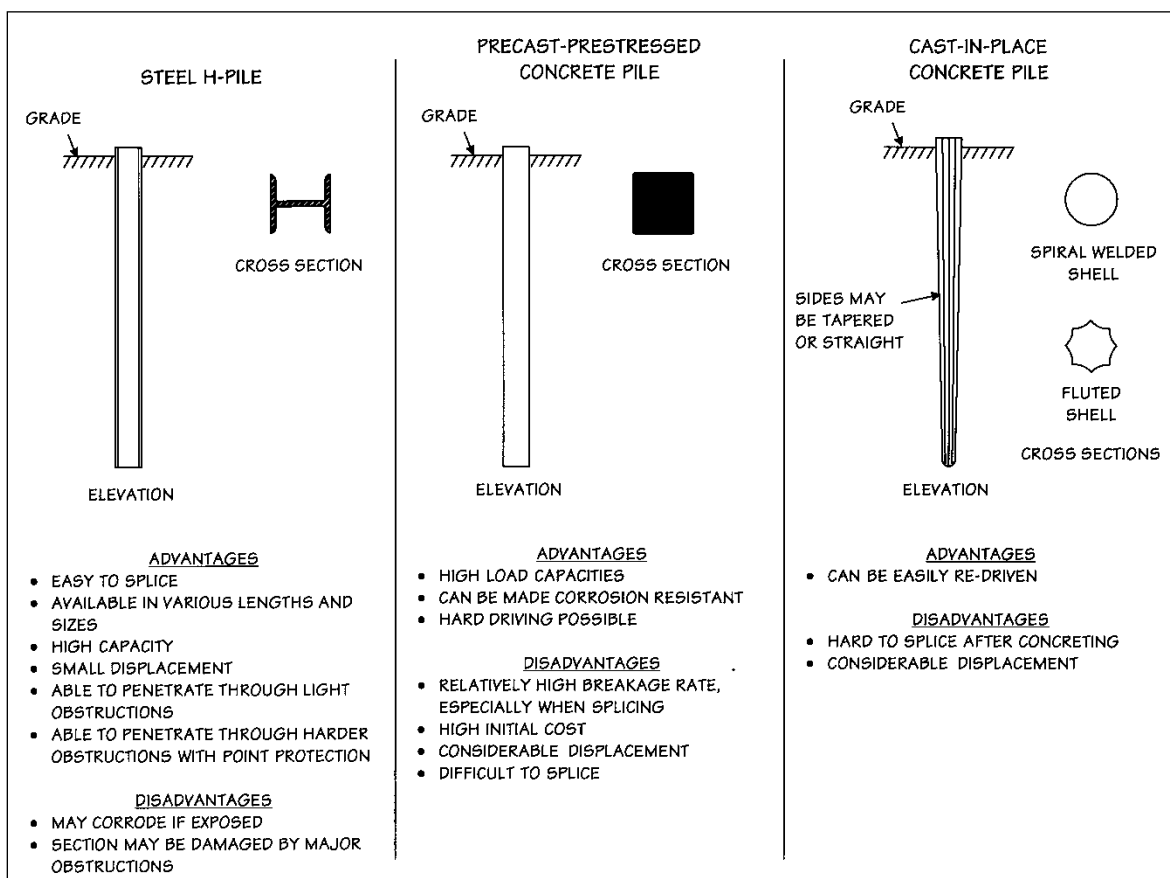
21-1 General

If the existing soils cannot satisfactorily support a structure, foundation support is provided by piles or caissons. The piles may be end-bearing or friction type.

End-bearing piles usually are steel pipe piles or steel H-piles that are driven to refusal with an approved hammer. Prior to driving end-bearing piles, soil borings are studied, and the soil types above the rock are evaluated for elevation and driving resistance. Hard pan, till, or decomposed rock often overlie satisfactory rock. High pile-driving resistance [high blows per foot (meter)] should not be mistaken for refusal.

Friction piles may be steel H- or pipe piles, precast or cast-in-place concrete piles. Friction piles often are driven to a prescribed tip elevation or blow-count resistance. The criteria are based upon soil testing, test-pile driving resistance results, and pile-load test results.

Figure 21.1 – Steel H, Precast and Cast-In-Place Piles



The type of pile specified must be driven in accordance with the current Standard Specifications and based upon the specific recommendations of the Soils and Foundations Division. The Inspector must give efficient advance notice to the MSAT Unit of the date set for driving test piles to arrange to have the Soils and Foundation Engineer or Designer present. Test piles are driven with the same equipment and by the same methods to be used for the piles of the permanent structure, because of appreciable differences in hammer types, weights, and drops there can be differences in penetration and bearing.

The depth of penetration and the length of piling for structures are usually determined by driving test piles. The contract documents specify the test-pile locations, minimum penetrations and bearing values and the estimated tip elevations. The Contractor uses the information to order the test piling and drive the test piles. Then the actual, safe bearing value of the test piling is determined by load testing.

21-2 Load Test

Load tests are covered in Article 7.02.03-10 of the Standard Specification, “Determination of Bearing Values of Piles.” The load-test set-up, the measuring system, the loading device, the loading procedure, the frequency of measuring the movement of piles, and the recordkeeping must conform to the contract documents.

The Contractor must submit drawings and computations to the Engineer showing all details of the proposed pile load-test set-up and must obtain the Engineer’s approval prior to starting the work. The submittal includes the method of applying the load, the reaction frame and reaction pile configuration, if used, and the placement and support of measuring devices.

At each load test location, the Engineer provides driving criteria for the test pile. The pile is driven and load tested to the test load specified in the contract documents or as directed by the Engineer. If the pile fails to achieve the required capacity, a contingent load test is performed on a second test pile. This pile may be located adjacent to the initial test pile and driven according to revised driving criteria provided by the Engineer. The Engineer may elect to have the Contractor re-drive piles if they do not meet the required penetration resistance.

If at any stage during the test, the Engineer detects malfunctioning of any apparatus furnished by the Contractor (i.e. the load being eccentrically applied, or the anchor piles yielding), the Engineer will order the test abandoned, and the Contractor will replace it with another test at no cost to the Department. The Contractor must have an employee present at the site at all times during the performance of the test to maintain the required load.

After the test piles are driven, and the pile load tests, if any, are performed, the Soils and Foundations Engineer or Consultant Designer will promptly analyze the data and furnish the Municipality with a list of recommended order lengths for the piles in that locality. If these lengths appear proper, the Municipality or representative of the Municipality will use them to make up an order list to the Contractor for pile lengths to be furnished by the Contractor. The Municipality and its representative are responsible for determining required pile length.

21-3 Driving Plan

The Contractor must submit to the Engineer a plan of the pile-driving method, including type of hammer, for approval prior to driving any piles.

21-4 Equipment

The size of the hammer must be appropriate for the type and size of the piles and the driving conditions. The hammer to be used must be approved by the Soils and Foundations Engineer. The Inspector should refer to Article 7.02.03-5 of the Standard Specifications.

The hammer to be used for driving permanent piles must be the same hammer that was used to drive the test piles. If the Contractor changes hammers, the Contractor must drive additional test piles at his expense before driving the permanent piles, even if the energy ratings of the hammers are identical.

Hammers are to be operated at speeds recommended by the manufacturer for the bearing value specified. The manufacturer's manual for the hammer employed must be available to the Engineer at the project site.

If the required penetration is not obtained by the use of a hammer complying with the requirements, a heavier hammer, jetting, spudding, or a combination of these methods may be used to obtain the required penetration. The Inspector must be aware that hammers delivering an energy that the Engineer considers detrimental to the piles will not be used. Diesel hammers and vibratory methods for driving piles, other than pre-stressed concrete piles, are permitted, however are subject to the restrictions in the applicable Standard Specifications.

Pile-driver leads are used for driving all piles unless otherwise not permitted by the Engineer. The Contractor must drive the piles within the tolerance as specified without injury to the piles. Any leads that do not produce satisfactory end results in the driving of piles are to be removed from the work.

Long piles and battered piles may require guides and additional support to prevent excessive bending or buckling under the hammer blow. Piles must be held in place and aligned by templates or other means approved by the Engineer.

21-5 Driving

In pile-driving operations the Inspector must be aware of a number of circumstances that may cause driving resistance to be falsely indicated.

- If using a pile hammer that is too light, a considerable amount of the energy is absorbed by inertia of the pile instead of being available for driving.
- The stroke of the hammer may be shorter than needed and should always be checked.
- Slowing down some types of single-acting hammers by the operator will reduce the stroke by several inches (millimeters).
- Resetting the slide bar on a hammer will create backpressure and will ultimately reduce the penetration of the pile under each blow.
- Soft wood placed in the cushion pad will absorb energy, falsely indicating resistance.
- Reduction of speed in a double-acting hammer will reduce the energy of the hammer.
- If piling must penetrate strata that resist driving, the Contractor must auger or drill holes through the strata. The size of the auger or drill may not be larger than the nominal diameter of a round pile or the minimum diameter of a circle in which an H-pile fits and must meet with the approval of the Engineer before use. After the hole is completed, the pile is inserted and dry sand is used to completely fill any voids between the pile and the walls of the hole. Driving is then completed, after which any remaining voids are completely filled with dry sand.
 - Once driving a pile has begun, it must be kept continuous except for splicing. A temporary halt in driving a pile may allow the pile to “set.” It may be necessary to continue driving the halted pile for a distance of several feet (meters) before resistance returns to what it was before the stoppage.
 - If splicing is necessary, it should be performed before approaching the estimated tip elevation. If splicing steel H-piles or shells for cast-in-place concrete piles is necessary, the piles or shells must be spliced as specified in the contract documents by electric arc welding conforming to the American Welding Society (AWS) Structural Welding Code for the full periphery. The number of splices permitted should be compatible with driving conditions at the site and the standard lengths of piling produced by the manufacturer.

- A pile becoming overstressed during driving. If a pile is founded on rock, it becomes a column and additional driving cannot increase its bearing value, but it may seriously damage the pile by brooming, fracturing, or shearing. When the resistance to driving increases near to the designed resistance, smaller increments should be used to check penetration. They will aid the Inspector in ascertaining the number of blows required for each foot (meter) of penetration, the total driving length, and the elevation of the tip of the pile.

Disposition of pile cutoffs is covered by Article 7.02.03-14 of the Standard Specifications or by the project special provisions.

21-6 Tolerances

Piles are driven to the following tolerances:

- General: Foundation piles should not be driven out of the position specified in the contract documents by more than 6 in. (150mm) in any direction regardless of the length of piles. Variation from the vertical or from the batter should not be more than ¼ in./ft. (20 mm/m).
- H-Piles: Rotation of the pile in excess of 25 degrees from the planned axis is not permitted.
- Bents: Piles must be driven so that the cap may be placed in its proper location.

21-7 Unacceptable Piles

Any pile that does not conform to the contract documents will be corrected at the Contractor's expense by one of the following methods or by other methods approved by the Engineer:

- The pile is withdrawn and replaced by a new pile.
- A second pile is driven adjacent to the unacceptable pile.
- The pile is spliced or built up.
- A sufficient portion of the footing is extended to properly embed the pile.

21-8 Reporting

An accurate and complete record should be kept of each driven pile for substantiating the length driven, driving resistance, and tip elevation. Information should be recorded on a Pile-Driving Report (CON-87). See Figure 21.1.

Figure 21.2 – Pile Driving Report (CON-87)

CON-87 REV. 9/88		STRUCTURE		Bridge # 01234 W.W. #2		SHEET NO. 1 OF 4	
STATE OF CONNECTICUT		LOCATION		Ellmond Road, Griswold		PROJECT NO. 200-200	
DEPARTMENT OF TRANSPORTATION		INSPECTOR		Tyler Stephens		DATE 08/08/01	
BUREAU OF HIGHWAYS						TYPE OF PILE STEEL H	
PILE DRIVING RECORDS SHEET							
MAKE & MODEL							
OF HAMMER		I.C.E 42S		TYPE DIESEL		RATED ENERGY 42,000 FT.LBS.AT 15 BLOWS PER MIN	
PILE NO. 001		002		003		004	
LENGTH 28'		28'		28'		28'	
SPLICE FROM TIP -		-		10'		-	
DRIVEN LENGTH 21.67'		27.25'		37.60'		26.90'	
CUT OFF 6.33'		2.75'		.40'		1.10'	
BLOWS/FT.LAST FT. 15		7		5		12	
BLOWS/IN.LAST INCH 18		21		11		25	
BLOWS/MIN.LAST FT. 15		14		16		18	
ELEV. OF CUT OFF 105.50		105.75		105.75		105.50	
ELEV. BOTTOM PILE 83.83		78.50		68.15		78.60	
FT.	NO OF BLOW	FT.	NO OF BLOW	FT.	NO OF BLOW	FT.	NO OF BLOW
1	2	47	93	1	1	47	93
2	2	48	94	2	1	48	94
3	1	49	95	3	1	49	95
4	1	50	96	4	1	50	96
5	1	51	97	5	1	51	97
6	1	52	98	6	1	52	98
7	3	53	99	7	1	53	99
8	4	54	100	8	3	54	100
9	2	55		9	1	55	
10	5	56		10	1	56	
11	5	57		11	1	57	
12	6	58	INCH	12	4	58	INCH
13	1	59	1	13	4	59	1
14	1	60	2	14	7	60	2
15	1	61	3	15	5	61	3
16	1	62	4	16	5	62	4
17	8	63	5	17	6	63	5
18	12	64	6	18	10	64	6
19	12	65	7	19	5	65	7
20	15	66	8	20	4	66	8
21	15	67	9	21	12	67	9
22	68	10		22	12	68	10
23	69	11		23	12	69	11
24	70	12		24	10	70	12
25	71			25	10	71	
26	72			26	8	72	
27	73			27	7	73	
28	74			28	7	74	
29	75			29	7	75	
30	76			30	7	76	
31	77			31	7	77	
32	78			32	7	78	
33	79			33	7	79	
34	80			34	7	80	
35	81			35	7	81	
36	82			36	7	82	
37	83			37	5	83	
38	84			38	7	84	
39	85			39	7	85	
40	86			40	7	86	
41	87			41	7	87	
42	88			42	7	88	
43	89			43	7	89	
44	90			44	7	90	
45	91			45	7	91	
46	92			46	7	92	

NOTES: Driven to Refusal in Gravel

NOTES: Driven to Refusal in Gravel

NOTES: Driven to 1' above Cutoff Elevation, Directed Contractor to Splice Pile using Method #1 finished Driving pile to refusal

NOTES: Driven to Refusal - Sandy Soil

Distribution: Original - retained by Inspector; 2nd Copy - Soils and Foundations; 3rd copy - District Files

Chapter 22 - Labor Wage Rate Checks

22-1 General

The responsibility for carrying out procedures to ensure compliance with minimum wage requirements rests in part with the Inspector. The following procedures are Department policy. Strict compliance is required:

- The Davis Bacon and Related Acts (DBRA) are applicable to all federally assisted contracts in excess of \$2,000.00 for the construction, alteration and repair of a public building or public work. Coverage is described in detail in the Code of Federal Regulations Title 29, Part 5 (29CFR5).
- For instances where there is a deviation between the State and Federal guidelines, the more stringent of the two shall generally apply.
- The Inspector will ensure that a wage rate information poster is available for viewing by all Contractor employees at all times that the project is under way.
- The Inspector **must** make a monthly examination of the Contractor and Subcontractor's employment records to ascertain the following:
 - That wages being paid are not less than the current minimum prescribed per requirements.

A listing of the Federal Prevailing Wage Rates can be found at <http://www.wdol.gov/wdol/scafiles/davisbacon/ct.html>. These rates are displayed by both Wage Decision and County. These wage rates apply throughout the life of the Contract. A comparison must be made between the federal rates and the State rates, with the higher of the two prevailing. The State rate is updated each July; this will require the two rates to be reviewed at least annually. The State rates may be found on the CT DOL website at <http://www.ctdol.state.us/wgwkstnd/prevailing-rates/rates.html> (These change every July 1st).

- That the work being performed by the employees, including helpers and apprentices, appears to conform to the labor classification for which they are being paid.
- That the classifications appear to be correct.

22-2 *Frequency*

The Inspector will make labor wage checks based on the following criteria:

- Projects under \$5,000,000 in construction costs. One monthly labor wage check on Prime Contractor employees and one monthly labor wage check on employees of each subcontractor.
- Projects over \$5,000,000 in construction costs. Two monthly labor wage checks on Prime Contractor employees and one monthly labor check on employees of each subcontractor.
- The number and frequency of labor wage checks may be increased if the initial reviews indicate problems.

If the number and frequency of labor wage checks requires checking employees previously interviewed, the labor wage check will not be required. If no more employees are available for a wage check interview this should be noted in Volume IV, List of Wage Checks for each month this situation occurs.

22-3 *CON-131*

The Inspector will use Labor Wage Check (CON-131) form (Figure 21.1), when interviewing the employees of the Contractor and Subcontractors to establish the following:

- That there is full compliance with the minimum wage rate provisions, and
- That there is no misclassification of labor.

The Inspector must inform the Municipal Administrator and the MSAT Leader promptly of any apparent violations.

Figure 22.1 – Labor Wage Check

State of Connecticut Department of Transportation Bureau of Engineering and Construction		CON-131 Rev 6/11 302-06-066
Labor Wage Check		
<p>DOT Field personnel conduct periodic Labor Wage Checks to insure that you are being paid the full prevailing wage rates established for this Project. The prevailing wage rate schedule is included in the Contract Documents. These are the minimum rates that your employer must pay to all employees physically working on the Project for the class of work they are performing as laborers or mechanics. Any class of laborers or mechanics not listed in the rate schedule shall be classified in conformance with the wage determination. The rate schedule and additional classifications are required to be posted on the site and visible for you inspection.</p> <p>Date of employee wage check: _____</p> <p>For Completion by DOT Inspector: _____ (This portion is to be completed within 30 days of the date of the employee wage check.)</p> <p>Town: _____</p> <p>Project No: _____ FAP No: _____</p> <p>DOT Inspector: _____</p> <p>Remarks: _____</p> <p>Hourly Rate Shown on Schedule Hourly Rate Shown on Certified Payroll</p> <p>Base: _____ Fringe: _____ Base: _____ Fringe: _____</p> <p>After Review, it appears this employee:</p> <p><input type="checkbox"/> IS being paid at or more than the proper prevailing wage rate.</p> <p><input type="checkbox"/> IS NOT being paid at or more than the proper prevailing wage rate. (Prevailing Wage Referral to CT Department of Labor Required)</p>	<p>Complete the following information:</p> <p>Employee Name: _____</p> <p>Employee Address: _____ City: _____ State: _____</p> <p>Employer: _____</p> <p>Job Classification: _____</p> <p>Description of Work: _____</p> <p>Hourly Rate Paid: _____</p> <p>Fringe Benefits Provided (please check all that apply):</p> <p><input type="checkbox"/> Vacation <input type="checkbox"/> Sick <input type="checkbox"/> Medical, Life, or Disability Insurance</p> <p><input type="checkbox"/> Holiday <input type="checkbox"/> 401K Plan <input type="checkbox"/> Pension/Profit Sharing Plan</p> <p>Apprentice Registration:</p> <p>No <input type="checkbox"/></p> <p>Yes <input type="checkbox"/> Effective Date: _____ Credit (Hours): _____</p> <p>Licensed Journeyman:</p> <p>No <input type="checkbox"/></p> <p>Yes <input type="checkbox"/> Trade: _____</p> <p>License No: _____</p> <p>Effective Date: _____</p>	
Distribution: Project File - Original District Office - Copy		Department of Labor - Copy if referral required

22-4 Discrepancies

Contractors must pay the equivalent health, welfare, and training benefits listed in the wage decision, either directly to the employees or to an approved plan. If the benefits are not listed on the certified payroll as being paid into an approved plan, they must be paid directly to the employee in the form of wages. The payment of the benefits should be checked against the payroll, and if a question concerning the payment of benefits exists, the Inspector must inform the Municipal Administrator and the MSAT Leader. Apparent violations in payment of benefits are handled in the same way as violations in wage rates.

When project personnel are unable to complete the CON-131 within 30 working days from the day when the check was started, the following actions should be taken:

- Forward a copy of the CON-131 to the MSAT Leader with a note or letter explaining the reason the incomplete form is being submitted.

- Record the appropriate notes on the field copy of the form, for information purposes.

The MSAT Leader will assist the Municipality in correcting the problem.

22-5 Processing of Complaints or Violations

The following procedure is used on receipt of a complaint or discovery of an apparent violation:

- The Municipality notifies the Contractor in writing, via certified mail, of the details of the complaint or violation. The Contractor should be required to respond with the methods to be taken to resolve the complaint or violation within 14 days.
- If the Contractor's response satisfactorily resolves the issues, no further action is necessary.
- If the response does not resolve the issues to the satisfaction of the District, the Municipality will be required to notify the Wage and Hour Division of the Connecticut Department of Labor of the alleged complaint or violation and include copies of all documents pertaining to the issue. The Connecticut Department of Labor determines the appropriate actions and initiates further investigation, if required.
- Occasionally, the Department of Labor may request assistance from the Municipality in compiling documentation (i.e. wage checks, payrolls, etc.).

Chapter 23 - Site Record Review Meeting (EEO)

23-1 General

A Site Record Review is to be conducted for all Municipal projects. The reviews monitor and document the Contractor's accomplishments including subcontractors in Equal Employment and Affirmative Action.

Each contract is to have one review performed annually and at the completion of the project. The initial review on a project should be held late in the construction season of the first year of activity. For contracts that have a duration of less than one year, then the review should be performed at the midpoint of the Contract as well as at the Contract's completion. This review shall report on a Contractor's activities including his/her subcontractors from the beginning of the project. Succeeding reviews only need to report on activities performed from the date of the last review to the new review date. See Figure 23.1 for Site Record Review forms.

Figure 23.1a – Site Record Review, Page 1

CONNECTICUT DEPARTMENT OF TRANSPORTATION
CONSTRUCTION PROJECT SITE RECORD REVIEW

Project Number: _____

Review Date: _____

Percent Complete: _____

Contract Name: _____

Contractor Representatives Present:

_____ TITLE: _____

_____ TITLE: _____

_____ TITLE: _____

Municipality Representatives Present:

_____ TITLE: _____

_____ TITLE: _____

Consultant Representative Present:

_____ TITLE: _____

_____ TITLE: _____

DOT Representatives Present:

_____ TITLE: _____

_____ TITLE: _____

_____ TITLE: _____

Is this Project in Compliance: Yes _____ No _____

Full Compliance Review Recommended: Yes _____ No _____

Municipal/Inspector EEO Coordinator: _____

Contractor's EEO Coordinator _____

Town Official: _____

Figure 23.1b – Site Record Review, Page 2

CONNECTICUT DEPARTMENT OF TRANSPORTATION
CONSTRUCTION PROJECT SITE RECORD REVIEW

- 1) Has your company's EEO policy, affirmative action policy and grievance procedures been brought to the attention of the employees on this project?
How? _____ When? _____
- 2) How many minorities have been employed on this project? _____
How many are currently employed? _____
- 3) Is the Minority utilization of _____ % per craft being met?
Yes _____ No _____ (if no, explain)
- 4) How many females have been employed on this project? _____
How many are currently employed? _____
- 5) Is the female utilization of 6.9% per craft being met?
Yes _____ No _____ (if no, explain)
- 6) List recruitment sources utilized to staff this project? (Attach copies of Documentation)

- 7) Are the materials listed below posted where the project personnel can review them?
EEO Posters _____ EEO/Affirmative Action Policy _____
Wage Schedule _____ Grievance Procedures _____ Union Notice _____
- 8) Has each job opening been listed with Connecticut State Job Service as required by Executive Order 17?
Yes _____ No _____ (if no, explain)
- 9) Are trainees a provision of the contract?
Yes _____ No _____ (if no, explain)
- 10) Have you discussed with you Subcontractors their EEO/Affirmative Action contract obligations?
Yes _____ No _____ (if no, explain)
- 11) Are your Subcontractors being paid within 30 days after you receive payment?
Yes _____ No _____ (if no, explain)
- 12) Have you any your Subcontractors requested certification from the Department of Labor for apprentices working on this project?
Yes _____ No _____ (if no, explain)

Have all Payrolls Been received for the Contractor: Yes _____ No _____

List Missing Payrolls: _____

Have all Payrolls been received for the Subcontractors: Yes _____ No _____

List Missing Payrolls: _____

Insurance Up to Date: Yes _____ No _____

Expected Completion Date: _____

Verification of Payment Requested: _____

Quarterly Reports Received _____

DBE Goal on Track: Yes _____ No _____

Any Problems to report: _____

Final DBE package started: _____

23-2 Who to Invite

The following individuals must be invited to the Site Record Review meeting (EEO):

- Contractor's EEO Officer
- Municipal Administrator
- Consultant
- MSAT Leader
- Department of Transportation Division of Contract Compliance

23-3 To Perform the Review

To perform a review the following procedures are to be followed:

- It is the Municipality's and/or their Consultant's responsibility to conduct the meeting.
- Schedule the review at least four (4) weeks in advance.
- When the meeting is scheduled, forward Packet "A": Prime Contractor Data and Packet "B": Subcontractor Data to the Contractor. (See Appendix for documents.) Make sure to fill in the review period on the employment data sheets prior to sending packets to the Contractor. If necessary, the package may be forwarded to the Contractor in advance of setting the actual meeting date in order to facilitate completion of the required information. A sample Project Site Record Review Request Letter is shown in Figure 23.2.
- Packet "A" is for the Prime Contractor data and should be completed by the Prime Contractor for the review period.
- Packet "B" is for Subcontractor data and must be completed for each Subcontractor who performed work during this review period.
- Direct the Prime Contractor to return all the packets prior to the scheduled review date, thus allowing time to review the information for content.
- Advise the Prime Contractor that if he is unable to obtain a completed packet from a subcontractor, he/she must provide documentation at the meeting that shows efforts made to obtain information.
- The Municipal Administrator or Chief Inspector is to review all the packets submitted by the Contractor. They are to check information to see if it is representative of what actually occurred on the project. If it is not, discrepancies are to be brought to the attention of the MSAT Leader. The Contractor is to be asked to address all discrepancies.
- During the review, the Site Record Review form is to be completed by the Municipal Administrator.
- After the meeting, the Municipal Administrator will review the packets provided by the Contractor and the Site Record Review form and determine if there are any areas of concern and, if warranted, recommend a full compliance review. Any errors found on the Site Record Review form are to be corrected. Errors are not to be erased. They are to be crossed out with the correct response inserted and initialed.

Figure 23.2a – Site Record Review Request Letter, Page 1

Dear M_, :

Subject: Project No.
Description of Project

This letter is being provided to assist you and your subcontractor's in preparing the attached packages required for a "Construction Project Site Record Review".

Each contract is required to have one (1) review annually and at the completion of the project. this review shall report on the Contractor's activities, including all has subcontractors, from the beginning of the project. succeeding reviews shall only report on activities performed since the last review.

The contract was awarded to you on . Construction began on and was completed on . This review will cover the period of through .

Before a review can be performed, the following procedures and documents need to be completed:

1. The review will be held approximately four (4) weeks from the receipt of this letter. Please contact me at (860) 000-000 to schedule the meeting.
2. The contractor is responsible for filling out Packet "A". These forms must be completed thoroughly and accurately. If you did not have any activity in a particular area, please write "no activity" on that form. A listing of recruitment sources utilized to staff the project should also be provided at the time of the meeting.

Included in the Contractor's Packet "A" are the following forms:

- A. Employment Data: Report all hours worked by craftsperson's during the specific reporting period. The "Minority Percent of total Work Hours" must be calculated and the number of craftspersons needs to be entered in the "Total Employment" columns for all employees and minority employees.
- B. The next three sheets pertain to:
 1. New Hires: A craftsperson working for a contractor for the first time or craftsperson referred from a Union or Hiring Hall in response to a request by the Contractor.
 2. Rehires: a rehire is a craftsperson who worked for the contractor the previous construction season and is recalled for work by the same contractor when that same contract commences in the next construction season.

Figure 23.2b – Site Record Review Request Letter, Page 2

3. Transfers: A transfer is a craftsperson who works for the contractor and who moves from contractor to contract working for the same contractor.

Note: The total number of employees shown on the Employment Data sheet must equal the total number of employees shown on the above three sheets.

- C. On-The-Job Trainees (OJT): List the Trainee's Name, Craft, Total Hours completed, Hours to be Completed, Active/Inactive or Terminated and if the training was completed.
- D. DBE/SBE Participation: List all subcontractors or suppliers, DBE or SBE, percent contracted out, subcontract or agreement value. Monies paid to date, and the total DBE/SBE percentage of the original contract complete to date. (Note – Only indicate the one program that applies: DBE on Federal participating or SBE on State only project.)

The contractor must forward Packet "B" to all of their subcontractors performing work on the contract. The packet must be completed thoroughly and accurately. If no activity was performed during a particular time period, please write "no activity" on that form. The contractor should review the submittals for completeness and accuracy prior to submitting them to the Municipality.

If you are unable to obtain a completed Packet "B" from a subcontractor, you must provide documentation at the meeting that efforts were made to obtain this information. It is advised that the subcontractor be notified that failure to fill out this package may result in the suspension of his Affirmative Action Plan and other actions.

The Following forms are included in the Subcontract's packet "B":

1. Employment Data: See Above Instruction 2A.
2. The Next Three sheets pertain to:
 - A. New Hires: See Above Instruction B1.
 - B. Rehires: See Above Instruction B2.
 - C. Transfers: See Above Instruction B3.

Packets "A" and "B" should be submitted to the Municipality for review prior to the meeting. The contractor will be asked to address all discrepancies. Any errors found on the site record review forms are to be corrected and resubmitted to the Municipality within two (2) weeks. Failure to submit missing information will result in the package being forwarded to the Department of Transportation Contract Compliance with the recommendation that a full compliance review be performed.

Any questions regarding this review or the procedures required should be directed to at () - . Again, please call to arrange a meeting.

Sincerely,

Municipal Official

Attachments Packets "A" and "B"

cc: MSAT Team

Chapter 24 - Project Documentation

24-1 General

Enclosed are guidelines, documentation, and letters to be utilized by the Municipality during the project.

24-2 Working Drawings for Permanent Construction

When Working Drawings for permanent construction are required, the Contract should require the Contractor to submit nine (9) copies of the Working Drawings directly to the Municipality or their designated representative. Along with the drawings, the required insurance, per the 816, shall be submitted. The Municipality is responsible for transmitting the submission to the other reviewing units for comments. Examples of Working Drawings for permanent construction are Proprietary Retaining Walls, Precast Concrete Box Culverts, Pot Bearings, Modular Joints, Permanent Soil Nail Wall, Tie-Backs, Micro-Piles, etc.

The Working Drawings are reviewed and stamped in accordance with the Requirements of the Bridge Design Manual. After review, five (5) stamped copies of the Working Drawing submittal are returned to the Municipality with a recommendation regarding acceptance.

The Municipality is to forward two (2) copies of the Working Drawing submittal along with the review comments and statement regarding the acceptability of the submission to the Contractor. The Municipality is responsible to ensure that all review comments are appropriately addressed prior to the Contractor starting work.

The Municipality is to forward one (1) copy of the submittal to the MSAT Leader for their files. One copy is to be forwarded to the Division of Materials Testing and one copy is to remain in the field trailer.

The Municipality is to direct the Contractor to submit reproducible mylar drawings/as-builts of the Working Drawings after the Contractor has addressed the review comments and made necessary changes. The Municipality is responsible for including these mylar drawings/as-builts as part of the “As-Built” Drawings. Insurance shall accompany the Drawings or they will not be accepted.

24-3 Working Drawings for Temporary Construction

When Working Drawings for temporary construction are required, the Contract should require the Contractor to submit nine (9) copies of the Working Drawings to the Municipality or their designated representative. The Municipality is responsible for transmitting the submission to the other reviewing units for comments.

The Working Drawings will be reviewed and stamped in accordance with the requirements of the Bridge Design Manual. After review, five (5) stamped copies of the Working Drawing submittals are returned to the Municipality with a recommendation regarding acceptance.

The Municipality will forward three (3) copies of the Working Drawing submittal with the review comments to the Contractor along with a statement regarding the acceptability of the Working Drawing submission. The Municipality will be responsible for the resolution of all comments prior to the Contractor starting work.

The Municipality will forward one (1) copy to the MSAT Leader and one (1) copy will remain in the field office files.

24-4 Examples of Working Drawings That Require Review

Permanent Construction

- Proprietary Retaining Walls
- Precast Concrete Box Culverts
- Pot Bearings, Modular Joints
- Permanent Soil Nail Wall
- Tie-Backs and Micro-Piles.

Temporary Construction

- Temporary Sheet Piling
- Temporary Soil Nail Walls
- Cofferdams, Temporary Superstructure Supports
- Falsework
- Jacking
- Structural Steel Erection Plans
- Post-Tensioning Procedures
- Containment and Collection Systems for painting.

In general, the Working Drawings that can be reviewed by the Municipality are minor traffic control plans; minor construction staging plans, if project calls for staging; minor erection schemes; bearing replacement or repair schemes; and barrier relocation plans; etc.

The Contractor should provide the Municipality with a copy of the letter of transmittal for all Working Drawings that are not sent directly to the Municipality. The Inspector must maintain a log to track the acceptance of Working Drawings and notify the Municipality if reviews are not sent in a timely manner.

24-5 Shop Drawings

When Shop Drawings are required, the Contract should require the Contractor to submit nine (9) copies of the Shop Drawings directly to the Municipality or their designated representative for review. The Drawings must include erection plans, material lists, and material designated for project use, such as:

- Reinforcing steel
- Anchorage details for rail attachments at the ends of bridge parapets
- Structural steel
- Pre-tensioned concrete beams and deck units
- Post-tensioned concrete superstructures
- Post-tensioned pier caps
- Concrete for structures (including remain-in-place forms)
- “Modular” expansion joints
- Mechanical/electrical components of movable bridges
- Elastomeric compression seals
- Bearings
- Bridge scuppers
- Pipe for bridge drainage
- Stain protection
- Metal bridge rail
- Open steel sidewalk grating
- Granite facing
- Illumination

In addition to bridges, Shop Drawings are required for side-mounted sign supports, bridge-mounted sign supports, and tubular and truss sign supports.

The Contractor should provide the Municipality with a copy of the letter of transmittal for all Shop Drawings that are not sent directly to the Municipality. The Inspector must maintain a log to track the acceptance of Shop Drawings and notify the Municipality if reviews are not in a timely manner.

24-6 Progress Meetings

Progress meetings are required – at least monthly on active projects except during winter shutdown period when no work activity is occurring. The Municipality or representative is responsible to ensure that accurate minutes are recorded during each meeting. These minutes should be prepared for distribution within five (5) working days from the date of the meeting.

The following is a list of topics that should always be discussed and included in the Report of Meeting minutes when applicable:

- Contractor’s progress
- Utilities
- Environmental concerns
- Maintenance and Protection of Traffic/Work Zone Safety
- Submittals
- Testing
- DBE/SBE, OJT, Workforce Utilization
- Payrolls and Labor Wage Checks
- General Concerns

24-7 Report of Major Road Closure/Project Incident

This form is to be completed by the Municipal Administrator or the Chief Inspector to document incidents impacting traffic, safety, media interest, etc. and forwarded to an MSAT member immediately. See Figure 24.1 for Report of Major Road Closure/Project Incident form.

Figure 24.1 – Report of Major Road Closure/Project Incident

OFFICE OF CONSTRUCTION			
REPORT OF MAJOR ROAD CLOSURE / PROJECT INCIDENT			
DISTRICT: _____			
DATE: _____	TIME: _____	PROJECT #: _____	
ROUTE: _____	DIRECTION: _____	TOWN: _____	
SPECIFIC LOCATION: _____			
OCCURRENCE: _____			
INJURIES: YES ___ NO ___ UNKNOWN _____			
TIME OF CLOSURE: _____		ANT. CLEARING: _____	
NUMBER OF OPERATIONAL LANES: _____		NUMBER OF OPEN LANES: _____	
CLOSED LANES: LEFT _____	CENTER _____	RIGHT _____	ALL _____
DETOUR: _____			
ON SCENE: _____			
TIME & ACTION TAKEN: _____			
REPORTED BY: _____		PHONE # _____	
<u>INCIDENT CLEARED</u>			
DATE: _____	TIME _____	FROM WHOM: _____	
CC: Office of Construction Liaison, Fax # 594-2678			
Operations Center, Fax # 594-3476:			
District Engineer, Fax # 823-3111			

24-8 Contracting Agency Certification Form

This form is to be completed by the Municipality and forwarded to the Department of Labor. This form is a requirement of Connecticut General Statute, Section 31-53.

This form is to be completed when the start and estimated completion date of a project is known. The Municipal Administrator is required to sign the form. See Figure 24.2 for Contracting Agency Certification Form.

Figure 24.2 – Contracting Agency Certification Form

STATE OF CONNECTICUT DEPARTMENT OF LABOR	
WAGE & WORKPLACE STANDARDS DIVISION CONTRACT COMPLIANCE UNIT	
<u>CONTRACTING AGENCY CERTIFICATION FORM</u>	
I, _____, acting in my official capacity as _____,	
Authorized Representative	Title
for _____, located at _____,	
Contracting Agency	
do hereby certify that the total dollar amount of work to be done	
in connection with _____,	
project name and number	
located at _____,	
address	
shall be \$ _____, which includes all work, regardless	
of whether such project consists of one or more contracts.	
CONTRACTOR INFORMATION	
Name: _____	
Address: _____	
Authorized Representative: _____	
Approximate Starting Date: _____ / _____ / _____	
Approximate Completion Date: _____ / _____ / _____	

Signature	Date
Return To:	Department of Labor Wage & Workplace Standards Division Contract Compliance Unit 200 Folly Brook Blvd. Wehtersfield, CT 06109

24-9 Winter Work Approval Letter

If the Contractor wishes to work during the winter shutdown (generally December 1st through March 31st unless different in contract) they must submit, in writing to the Municipality, a list of items they want to work on during this time period, how they plan to control temperature sensitive materials, and provide a new construction schedule for review by the Municipality.

The Municipality will then forward this request to the MSAT Leader for review and Department approval.

The Municipality must be aware that this will increase the incidental costs if the inspection staff is required to work during the winter. The benefits/gain of allowing the Contractor to work must justify the additional expense. Some of these costs may be deemed to be non-eligible.

Once the Municipality has received the Department's stance on the Winter Work, the Municipality would either approve the work or deny the Winter Work by letter to the Contractor. See Figure 24.3 for Winter Approval Letter.

Figure 24.3 – Winter Approval Letter

Subject: Project No. _____
FAP No. _____
Description of Project _____

Your request dated _____, to perform construction activities on the above mentioned project(s) during the winter period of December 1, 20__ to March 31, 20__, is approved with the following stipulations:

1. Items worked on will be preapproved by project personnel.
2. Conditions may warrant suspension of all activities at a later date.
3. All conditions of the Standard Specifications and those supplementals governing the items worked on must be adhered to.
4. It is understood that work done during this period will be performed at no additional cost to the Municipality.

Very truly yours,

Municipal Administrator

cc:
District MSAT

24-10 Disposal of Materials

The Contractor must submit, in writing, the proposed disposal site for excavated materials. The Municipality would either approve the site or deny the location (See Figure 24.4 for letter). The disposal site must be approved prior to receiving any material.

24-11 Apprentice Certification

Apprentice Certification by the Connecticut Department of Labor (DOL) is required for apprentices working on Davis-Bacon prevailing wage projects. This certification is project specific. Contractors sponsoring apprentices, whether union or non-union, are required to request certification from DOL for their apprentice(s). A Contractor can obtain this certification by submitting a Davis-Bacon Apprentice Certification Questionnaire to the DOL. See Figure 24.5 for Apprentice Certification Questionnaire.

Upon receipt of a questionnaire, DOL will prepare an Apprentice Certification and mail it to the contracting agency. When the District receives a certification, they will forward it to the project. The certification will be kept with the certified payrolls at the project site.

If DOL has certified that individual for the project, a copy of the certification will be requested. If DOL has not received a request, the Contractor will be reminded again of the requirement to request apprentice certification.

The Contractor should also be advised that prevailing wages must be paid to all laborers/mechanics. When a laborer/mechanic is an approved trainee for the training provision or listed on a DOL Apprentice Certification for the project, they shall be paid not less than the appropriate percentage of the prevailing wage.

Figure 24.5 – Apprentice Certification Form

AT-71 Rev. 12/06

**CONNECTICUT DEPARTMENT OF LABOR
DAVIS-BACON APPRENTICE CERTIFICATION QUESTIONNAIRE**

The following information is required to obtain an apprentice letter for Davis-Bacon (prevailing wage) jobs. **Please print or type. Complete one form for each apprentice to be certified.**

Section 1: Company Information:

Name: _____
Address: _____
Phone: _____ Fax: _____

Section 2: Apprentice Information:

Name: _____ SS# _____
Trade: _____

Section 3: Project Information:

Name of Project: _____
Project location: _____
Contract or Project number: _____

***Section 4: If applicable, to be completed by apprentice supervisor (collective bargaining)**

a. Name and Local Union #: _____
b. Percentage of apprentice on wage schedule: _____
c. Date apprentice attained this percentage: _____

***Please note:** If your company is party to a collective bargaining agreement, after completing questionnaire please **forward to the local union apprentice supervisor** so that they may complete Section 4.

Mail or Fax to: Connecticut Department of Labor
Office of Apprenticeship Training
Davis Bacon Request
200 Folly Brook Boulevard
Wethersfield, CT 06109

FAX: (860) 263-6088

24-13 Manual and Paperwork to be Handed Out to Municipality

Prior to construction the MSAT Leader shall provide the Municipality with the following:

- Municipal Manual
 - Located on the Internet at the following location: www.ct.gov/dot/construction
 - Click on Forms and Publications
 - Under Publications, click on “Municipal Manual”
- Construction Manual
 - Located on the Internet at the following location: www.ct.gov/dot/construction
 - Click on Forms and Publications
 - Under Publications, click on “Construction Manual”
- Schedule of Minimum Testing Requirements, Assurance Test Requirements and Qualified Products List
 - Located on the Internet at the following location: www.ct.gov/dot
 - Click on Publications
 - Select Manuals in the drop-down menu
 - Click on “2009 Materials Testing Manual”
- Daily Work Reports (CON-134)
 - Located on the Internet at the following location: www.ct.gov/dot/construction
 - Click on Forms and Publications
 - Under Forms, Click on “Muni Inspector’s Daily Work Reports (CON-134)”
- Inspector Daily Report Appendix (CON-134A)
- Paving Report (CON-136)
- Volume II, III, and IV pages
- Request for Test (MAT-100)
- ISP

Forms

Chapter 25 - Invoice Summary and Processing (ISP) Submissions and Processing

25-1 General

Federally-funded contract work with the Department is a reimbursable program; therefore the Municipality shall make the payments to the Contractor and/or Consultants prior to billing the Department. The Municipality will invoice the Department for the billings during construction on the ISP forms provided at the following location:

- www.ct.gov/dot
- Click Doing Business with CONNDOT
- Select Contractor Resources from the drop-down menu
- Click Forms
- Click “Invoice Summary and Processing (ISP) Form”

Contract items which exceed the original contract item quantity or new items will not be reimbursed by the Department until such time as they are on a Construction Order and submitted to the MSAT Leader for approval.

If the Municipality bills for items that do not have testing, insufficient testing, or rejected material the MSAT Leader will deduct these quantities from the ISP billing until the discrepancies are addressed. If not addressed, these items will be deemed to be non-eligible.

Retainage shall not be released until authorized by the MSAT Team.

25-2 Municipality Responsibility

The Municipality should ensure billing is done on a monthly basis. The Municipality is responsible to ensure that all charges billed are accurate and that all backup documentation is in place prior to submission to the Department.

If a consultant is working on the project, the Municipality is responsible for checking all their billing submissions (i.e. timesheets, mileage sheets, phone charges, etc.). The Municipality is to ensure that the Consultant is only billing for individuals **approved** to work on the project by the State. Wage rates for all Consultant personnel are to be approved by the Municipality and Department prior to any billings being submitted. The Municipality is to check the billings to ensure that the wage rates of the individuals have been approved. If a consultant has given wage increases without Municipality and Department approval, these increases will not be reimbursed.

If the Municipality is billing for their personnel, they shall ensure that time sheets are submitted. These time sheets must show the actual time worked on the project broken out by the project number.

The Municipality shall review all items and incidentals to ensure there is appropriate backup documentation prior to submitting of the ISP to the Department. The Municipality must show proof of payment to the Contractor and/or Consultant prior to reimbursement. The Municipality shall check all computations when reviewing the items and incidentals.

The Municipality must review the agreements and ensure they stay within the requirements and maximums allowable for reimbursement. If the Municipality determines that they will be exceeding the agreement amounts they must notify the MSAT Leader immediately. See Chapter 7 – Funding for additional details.

25-3 Allowable Costs

Refer to the State/Municipality Agreement to determine if there are any non-eligible costs and percentages for eligible costs. Some of the agreements have maximums on eligibility for costs which may be less than the contract value; in this case the MSAT Leader will hold retainage on the eligible amount until all aspects of the project are complete including construction and administrative requirements.

Agreements which have non-eligible contract items will also have non-eligible incidental costs.

Only **on-site** mileage is reimbursable for Municipality and Consultant personnel. If the Municipality is billing for a Material Testing Company doing nuclear density or making cylinders, the Agreement/Contract shall be submitted to the MSAT Leader prior to billing the Department.

The Municipality should check all billings prior to submission to ensure the cost being paid by the Municipality and billed to the Department are accurate and **allowable** costs.

25-4 Documents for Submission

All pertinent forms and documentation must be submitted in order to have a timely reimbursement. If any of the forms or documents are missing, the Municipality will be notified and the ISP reimbursement will be delayed.

The following is the listing of what is required for submission:

- ISP (See Figure 25.1)

Figure 25.1 – ISP Form

Connecticut Department of Transportation Invoice Summary and Processing (ISP) Form <small>Please submit at least one signed original and one copy of this form with each invoice to: Department of Transportation, Division of Financial Management & Support - Room 1329 2800 Berlin Tpke., PO Box 317546, Newington, Connecticut 06131-7546</small> <small>Rev 05/27/2009</small>			
Section 1 - To be completed by Vendor. (Please see the Instruction Guide worksheet tab for assistance in completing this form.)			
Contract CORE ID:	01AAA010101BB		For A/P Use
Vendor Name & Remit Address: <small>(Please contact the Department for all remittance address changes.)</small>			
Payee:	Town of Griswold		
Address:	123 Main Street		
Address:			
City:	Griswold	State: CT Zip Code: 06351	
Brief Contract Description:	Project 200-200 Elmond Road Construction		
Vendor Contacts:			
Engineering:	John Doe <small>Print Name</small>	(860) 555-1212 <small>Phone</small>	jdoe1@townofgriswold.com <small>Email</small>
Financial:	Jane Doe <small>Print Name</small>	(860) 555-6789 <small>Phone</small>	jdoe2@townofgriswold.com <small>Email</small>
<small>(Up to 30 characters will appear on the reimbursement check.)</small>			
Vendor Invoice No./Info:	123456	Billed Amount:	\$12,345.67
<small>(The Vendor Invoice Number must be unique for each invoice. Whatever is entered into the Invoice Number and Brief Description fields will appear on the check stub to facilitate payment.)</small>			
Billing Period:	From: 01/01/11 To: 03/01/11	-(Billing Period must be filled in.)	
Brief Invoice Description:	Consultant Inspection Costs <small>(Up to 70 characters will appear on the reimbursement check.)</small>		
I certify that the above claim for reimbursement is just and correct and that all work has been performed as indicated.			
	Town Engineer		03/15/11
	<small>Title</small>	<small>Signature</small>	<small>Date</small>
Section 2 - For DOT Office Use Only			
Certification of Commodities Received or Services Rendered:			
Project Engineer:	Tom White		03/15/11
	<small>Print Name</small>	<small>Initial</small>	<small>Date</small>
Project Manager:	Tim Black		03/15/11
	<small>Print Name</small>	<small>Signature</small>	<small>Date</small>
Financial Review Completed:			
Accountant	Violet Plum		3/20/11 (860) 555-4321
	<small>Print Name</small>	<small>Signature</small>	<small>Date</small> <small>Phone</small>
PO No.:		Project ID:	
<small>(For Multiple PO's, please leave PO No. field blank, and attach separate listing of PO numbers.)</small>			
Receipt ID:		Return Check:	
<small>(Leave Receipt ID blank and attach list for multiple Receivers.)</small>			
Amount Paid:		Separate Payment:	
Invoice Date:		Reportable (ROW):	
<small>(Date to DOT)</small>			
		Retainages ReceiptID:	
		Retainages Held:	
		Key No.:	

- An Invoice Summary breaking down the current billing and showing the billing totals to date (Figure 25.2).

Figure 25.2 – Invoice Summary Sheet

SUMMARY SHEET INVOICE #	17			
PROJECT NUMBER:	200-200			
A. Contract Items & Contingencies	Prior Billing	This Invoice	To Date	
1. Payments to Contractor				
Gross Cont. Billing	\$1,528,054.31	\$488,952.89	\$2,017,007.20	
Gross Non-Participating Items		(\$2,615.00)	(\$2,615.00)	
Less Retainage @ 2.5%	(\$38,201.36)		(\$38,201.36)	
Subtotal Item A1:	<u>\$1,489,852.95</u>	<u>\$486,337.89</u>	<u>\$1,976,190.84</u>	
B. Incidentals to Construction				
1. Payments to Municipality				
Payroll-Regular		\$2,812.56	\$2,812.56	
Fringe Benefits @ __ %		\$1,494.74	\$1,494.74	
Direct Costs		<u>\$202.87</u>	<u>\$202.87</u>	
Subtotal Item B1:		<u>\$4,510.17</u>	<u>\$4,510.17</u>	
2. Payments to Consultant for Inspection Services				MAXIMUMS
Payroll Office	\$200.00	\$300.00	\$500.00	\$2,000.00
BF & O @	\$175.00	\$485.00	\$660.00	\$1,750.00
Payroll Field	\$14,500.00	\$461.00	\$14,961.00	\$38,000.00
BF & O @	\$13,775.00	\$437.95	\$14,212.95	\$36,252.00
Fixed Fee	\$2,000.00		\$2,000.00	\$6,000.00
Direct Costs	\$1,578.25	\$24.18	\$1,602.43	\$3,000.00
Less Retainage @ ___%	(\$300.00)		(\$300.00)	
Subtotal Item B2:	<u>\$31,928.25</u>	<u>\$1,708.13</u>	<u>\$33,636.38</u>	<u>\$87,002.00</u>
TOTAL INCIDENTALS B1+B2	\$31,928.25	\$6,218.30	\$38,146.55	
TOTAL BILLED FOR INVOICE (A+B)	\$1,521,781.20	\$492,556.19	\$2,014,337.39	
MUNICIPALITY SHARE @ 20%	\$304,356.24	\$98,511.24	\$402,867.48	
AMOUNT DUE MUNICIPALITY @80%	\$1,217,424.96	\$394,044.95	\$1,611,469.91	

- The Contractor's charges, which require the following documentation:
 - A proof of payment letter or cancelled check from the Contractor is required. This letter must be included with the billing to the Department. No reimbursement shall be made to the Municipality without this. See Figure 25.3 for a sample.

Figure 25.3 – Sample Letter for Proof of Payment

SUBJECT: Receipt of Payment
Project No. 200-200
Rehabilitation of Ellmond Road Bridge
Town of Griswold

To whom it may concern:

This letter confirms that the Town of Griswold has distributed and we have received a check in the amount of \$486,337.89 for work performed from April 1, 2001 through July 31, 2002 on the above stated project.

sincerely,

Stephen Tyler
Stephens Construction

- The Estimate form used to show all the contract items paid within the period and the total paid to date. See Chapter 16 for Estimate form.

- The Municipality’s charges which require the following documentation:
 - A payroll summary which shows the breakdown of the billing period, the weeks worked, hourly rates, and fringe benefits. This sheet must be signed by the Municipal Administrator. See Figure 25.4 for a sample of the breakdown.

Figure 25.4 – Breakdown

Town of Griswold Summary of Hours Worked Project No. 200-200						
Pay Period Ending	September 1 - 28, 2001				Total Hours	
	1-7	8-14	15-21	22-28		
Tyler Stephens	40.00	40.00	40.00		120.00	
Denise Misale	2.00		2.00		4.00	
Kerry Soliday				8.00	8.00	
					132.00	

	Vacation Holiday Sick	Insurance	S.S.	Pension	Workmen's Comp.	Fringe Add. \$
Tyler Stephens	2.90	4.14	1.65	2.65	0.03	\$ 11.37
Denise Misale	1.68	4.14	0.96	1.54	0.02	\$ 8.34
Kerry Soliday	2.90	4.14	1.65	2.65	0.03	\$ 11.37

	Hrs	X	Fringe%	X	Rate	=	Sum
Tyler Stephens	120.00	X	1.529	X	\$ 21.51	=	\$ 3,946.65
Denise Misale	4.00	X	1.667	X	\$ 12.50	=	\$ 83.35
Kerry Soliday	8.00	X	1.529	X	\$ 22.67	=	\$ 277.30

Total Amt Due	\$ 4,307.30
---------------	-------------

THE ABOVE EXPENSES ARE A TRUE REFLECTION OF TIME SHEETS AND WAGES PAID
FOR THE SPECIFIED INDIVIDUALS

Edward Madejek
Town Manager

(ATTACH APPROPRIATE TIME SHEETS AS BACKUP TO SUPPORT PAYROLL COSTS)

- Time sheets for Municipality personnel. Failure to do this may result in delaying a portion of the Municipality’s reimbursement. (Time may be deducted from the invoice until the required information is submitted). See Figure 25.5 for a sample Time Sheet.

Figure 25.5 – Time Sheet

Municipality of Griswold				Sun	Mon	Tue	Wed	Thu	Fri	Sat
Time Sheet for the Period Ending 9-7-01		Total		9/1	9/2	9/3	9/4	9/5	9/6	9/7
Employee	Tyler Stephens									
Signed	<i>Tyler Stephens</i>									
Approved	<i>Edward Madjek</i>									
Administrative		Reg. <input type="text" value="2"/>							2	
		Ovt. <input type="text"/>								
Meeting		Reg. <input type="text"/>								
		Ovt. <input type="text"/>								
Personal		Reg. <input type="text" value="2"/>				2				
		Ovt. <input type="text"/>								
Business Dev		Reg. <input type="text"/>								
		Ovt. <input type="text"/>								
Project No. 200-200	Ellmond Road Bridge	Reg. <input type="text" value="36"/>		8	8	6	8	6		
		Ovt. <input type="text"/>								

- Municipality’s Direct Costs which can include on-site mileage, long distance phone charges, postage, film and developing, and material testing for nuclear density testing, making of concrete cylinders and/or grout cubes.
 1. For a sample of a summary of direct costs being billed, see Figure 25.6.
 2. For a sample of mileage submission with a breakdown of applicable charges, see Figure 25.7.
 3. Reimbursement for long distance phone calls require a phone bill listing the calls requested for reimbursement. (This can also be done by highlighting the applicable calls on a general phone bill.)
 4. Receipted bills are required for postage and film and developing.
 5. A receipted invoice from the testing laboratory is required for material testing

Figure 25.6 – Direct Cost Summary

SUMMARY OF DIRECT COSTS TOWN FORCES		
FOR THE PERIOD	01/01/02 to 01/31/02	
	PROJECT NUMBER	200-200
1. MILEAGE:	486x.31	\$ 150.66
2. MISCELLANEOUS		
Telephone		\$ 47.22
Inspection Photos		\$ 4.99
3. NUCLEAR DENSITY		
	TOTAL	\$ 202.87

Figure 25.7 – Mileage Sheet

MILEAGE RECORD MONTH OF SEPTEMBER 2001					
DATE	BUSINESS PURPOSE	ODOMETER READING		BUSINESS MILES	SITE MILES
		BEGIN	END		
9/2	Home - Trailer-Signage-home	58590	58620	30	23
9/3	home- lab-trailer-home	58671	58715	44	37
9/4	home-Trailer-Home	58752	58759	7	0
9/5	home-trailer-town hall-home	58766	58787	21	14
9/6	home-trailer-signage-home	58796	58826	30	23
9/9	home-trailer-signage-home	58843	58874	31	23
9/10	home-trailer-signage-home	58881	58924	43	23
9/11	home-trailer-lab-home	58936	58981	45	37
9/12	home-trailer-signage-home	58988	59019	31	23
9/13	home-trailer-signage-home	59026	59057	31	23
9/16	home-trailer-signage-home	59064	59095	31	23
9/17	home-trailer-signage-home	59102	59133	31	23
9/18	home-trailer-signage-home	59140	59171	31	23
9/19	home-trailer-signage-home	59178	59209	31	23
9/20	home-trailer-signage-home	59216	59247	31	23
9/23	home-trailer-signage-home	59254	59285	31	23
9/24	home-trailer-signage-home	59292	59323	31	23
9/25	home-trailer-signage-home	59330	59361	31	23
9/26	home-trailer-signage-home	59368	59399	31	23
9/27	home-trailer-signage-home	59406	59437	31	23
					456

- Consultant time sheets which must be attached for the period being billed or it will delay reimbursement. The Municipality is to **ensure** that all the time billed is accurate and the total invoiced is correct. The Consultant's titles can be found in the agreement. The personnel and wage rates which have been previously been approved by both the Municipality and the Department should be verified that they do not exceed the maximums set in the agreement. The Consultant time sheets should have the same basic information as the Municipality time sheet shown in Figure 25.5. If time is billed for individuals not previously approved they will not be reimbursed by the Department. If pay rates are increased from what is approved, the difference will not be reimbursed.
- Consultant Direct Costs can include on-site mileage, long distance phone charges, postage, film and developing, material testing for nuclear density and making of concrete cylinders.
 1. The summary of Direct Costs being billed would be similar to the one required for the Municipality (Figure 25.6).
 2. Mileage is reimbursed by the submission of a mileage sheet with the breakdown of applicable charges (Figure 25.7).
 3. Reimbursement of long distance phone calls requires a phone bill listing the calls requested. (This can also be done by highlighting the applicable calls on a general phone bill.)
 4. Receipted bills are required for postage and film and developing.
 5. A receipted invoice from the testing laboratory is required for material testing.

25-5 Processing

Once the Municipality has ensured all the billing is accurate, they will submit one (1) original and one (1) copy of the ISP with all the pertinent backup documentation to the Department Headquarters in Newington. Headquarters will send the ISPs to the appropriate District for processing. The MSAT Leader will review the documentation and determine if any documentation is missing. The MSAT Leader will make a determination whether to hold the entire invoice or process a partial payment.

Once all pertinent documentation has been submitted and there is sufficient testing, Construction Order coverage, and all amounts are within the Agreement and/or the Project Agreement Estimate (PAE), the invoice will be sent for processing.

Chapter 26 - Force Account

26-1 General

Force Account projects are projects constructed by the Municipality; they were not put out for bid to a Contractor. They require minimal oversight by the Department. The Municipality supplies the labor, material and equipment to construct the project.

The following procedures shall be followed:

- The Municipality shall conduct a preconstruction meeting with the MSAT Leader to go over pertinent construction procedures and applicable paperwork.
- The Municipality will keep the MSAT Leader informed of the progress of the project on a monthly basis.
- Daily logs must be kept as a basis of record of all the activities constructed to compare on the ISP billings.
- The CON-100M issued to start and complete the time used by the Municipal forces.
- A semi-final inspection of the construction work shall be conducted by the Department and the Municipality.
- A final inspection of the project will be conducted by both the Department and Municipality.

26-2 Equipment Rates

Equipment rates and reimbursement of costs shall be based on the requirements set forth in the agreement.

26-3 Testing

No testing of material shall be required. The Municipality should make every effort to comply with the most recent Municipality and Departmental standards for material being installed on these types of projects. The Municipality will be required to certify testing at the completion of the Construction Work. See Figure 26.1 for Letter of Certification for Testing.

Figure 26.1 – Letter of Certification for Testing

	TOWN OF GRISWOLD STATE STREET GRISWOLD, CT. 06351
District Engineer 171 Salem Turnpike Norwich CT. 06360	
Dear Sir:	
Subject: Project No. 295-95 Testing Write off Force Account Project	
Please be advised that all construction materials used on this project were suitable for their intended purpose and accepted by the Town of Griswold.	
Should you need any additional information, please contact me at the above telephone number.	
Very truly yours,	
<i>Edward Madejek</i>	
Edward Madejek First Selectman	

26-4 ISP Billings

A Force Account project will be billed through the Department of Transportation on the ISP form. See Chapter 25 for ISP Billing Procedures. The Municipality shall keep track of personnel, material and equipment on Daily Work Logs. These Daily Work Logs with backup documentation will be submitted for billing justification. There needs to be backup documentation for:

- **Labor:** Time sheets and wage rates must be supplied to cover the time period being billed. See Chapter 25 for sample of a Payroll.
- **Material:** Material invoices need to be submitted to justify costs. See Figure 26.2 for a sample of Material Monthly Billing Summary.

Figure 26.2 – Material Monthly Billing Summary

MONTHLY SUMMARY OF MATERIAL			
Description	Quantity	Unit Price	Amount

- **Equipment:** Equipment rates should have daily records and a monthly summary. The rate sheets should be attached and highlighted. See Figure 26.3 for a sample of a daily summary and Figure 26.4 for monthly summary.

Figure 26.3 – Daily Equipment Summary

Project No.				
DAILY REPORT OF EQUIPMENT				
Size and Class	No. Pieces	Total Hours	Hourly Rate	Amount
Total				

Figure 26.4 – Monthly Equipment Summary

MONTHLY SUMMARY OF EQUIPMENT				
Size and Class	No. Pieces	Total Hours	Hourly Rate	Amount

26-5 Project Acceptance

Once projects are complete and final inspections have been conducted the following must be done to accept the project:

- The CON-500M – Certificate of Acceptance of Work shall be signed by both the Municipality and the District Engineer,
- The Construction Report shall be filled out and signed by Municipality,
- A letter from the Municipality shall be to the MSAT Leader accepting the material,
- The Municipality shall submit all ISPs to the Department,
- The CON-501M – Certificate of Acceptance of Project shall be signed by Municipality, District Engineer and Construction Division Chief,
- The CON-502M and CON-502T shall be filled out, and
- An external audit shall be requested by the MSAT Leader.

Chapter 27 - Non-Compliance Notices

27-1 General

Defective work is defined within the Standard Specification – Form 816, Section 1.05 and defective material within Section 1.06.

The Non-Compliance Notice is to document cases when the Contractor's workmanship or materials do not conform to the plans and/or specifications. Inspectors should exercise some discretion and not issue a Non-Compliance Notice for work in progress. However, a Non-Compliance Notice should be issued to the Contractor if any of the following conditions exist:

- Unacceptable materials are being incorporated into the work.
- The construction methods or workmanship do not meet the contract requirements or approved plan for the work.
- Rework is required to correct a deficiency discovered on the project.
- The survey layout is incorrect or there is inadequate survey to verify the accuracy of the work.
- The Contractor has left the work in a partially complete state, and it is possible the remaining work could be overlooked.
- The Contractor intends to place new work upon previous work that has not been accepted.

The process of recognizing and resolving non-compliance issues consists of the following major steps:

1. Recognizing the problem
2. Proposing a corrective procedure
3. Gaining approval for the corrective procedure
4. Completing the corrective work

Whenever unacceptable work is encountered, the above steps are always necessary. Depending upon the scope and/or severity of the non-compliance issue, corrective steps 2 and 3 above may become required. When approval is required for corrective procedures, separate correspondence is generated addressing the issue in question.

The goal of this procedure is to alleviate some of the difficulties of confronting these day to day and also can prevent items from being forgotten and left until the punch list. No Contractor likes rework, however, if the issues and expectations are clearly defined, the work can be reasonably discussed and included in their current work plan. In so doing, confrontation at the field level will be reduced.

27-2 Procedure

The following procedure is to be used for non-compliance issues:

- Whenever unacceptable materials or workmanship is discovered, a Non-Compliance Notice (Figure 27.1) should be issued to the Contractor that clearly identifies the problem and requests a proposed corrective measure if one is required. Each Non-Compliance Notice is to be numbered as follows: XXXX-XXXX-001NCN, XXXX-XXXX-002NCN, etc.
- For each Non-Compliance Notice issued that require a corrective procedure to be done, to ensure there is an agreement as to the scope of the repair work required, the final/approved corrective procedure will be issued by the Municipality. In some cases the correction is obvious and may be determined by project personnel. Other times, approval by the Municipality, District, DMT, Design, or other agencies is required. Project personnel are to obtain such approval, when required.
- Discussion of “open” Non-Compliance issues should be included as standing items at Progress Meetings.
- When the corrective work has been completed in accordance with the approved corrective procedure, a Compliance Notice (Figure 27.2) is to be issued to negate the Non-Compliance Notice. The Compliance Notice shall have the same number as the Non-Compliance Notice, i.e. XXXX-XXXX-0001CN, XXX-XXX-0002CN, etc.
- Each project shall maintain a file and a log of Non-Compliance and Compliance Notices. Any non-compliance issue that has not been resolved at the time of the semi-final inspection shall be included on the punch list. The Log for Non-Compliance Notices and Compliance Notices shall be kept in Volume IV

Figure 27.1 – Non-Compliance Notice

CT Department of Transportation		NON-COMPLIANCE NOTICE	
1990 Commerce Drive Bridgeport, CT 06605		Phone: 203-366-5417 Fax: 203-366-5484	
TITLE: Bridge No. 00099		DATE: 3/4/2005	
PROJECT: 15-272 & 50-201/I-95 Reconst.		JOB: STPA-95-1 (153) 27	
TO: Attn: Robert Woodman M. DeMatteo & Brunalli Const. (J.V.) 11 Dewey Street Bridgeport, CT 06605 Phone: 203-335-8672 Fax: 203-366-5408		STARTED: COMPLETED: REQUIRED: 3/11/2005	
DESCRIPTION OF NON-COMPLIANCE:			
SIGNATURE:			
DESCRIPTION OF NON-COMPLIANCE:			
Signed: _____			
Date: _____			

Chapter 28 - Consultant Engineering Services

28-1 Consultant Design Services During Construction

If there is a need for Consultant Engineering services during construction as required in the Preliminary Engineering agreement and specifically noted as design services during construction, the following procedure is to be followed:

- The Municipality is to request, in writing, from the MSAT Leader what services are required and the value of those services.
- The MSAT Leader will review the request and respond with either the Department's concurrence or non-concurrence to the work.
- The ISP billing for these services shall be paid through incidentals to construction, submitted to the District for review, initialed by the MSAT Leader, and forwarded to the Department's Designer. The total fee for design services during construction should be negotiated between the Municipality and the Consultant and approved by the Department's Design Unit prior to the construction contract being advertised. The value of these services will be reflected in the executed State/ Municipal Agreement and will be paid out of the incidentals to construction budget for the project.

28-2 Consultant-Inspected Project

After the construction work is completed on a Consultant-Inspected Project, the Consultant is required to complete all inspection-related paperwork before the Consultant's personnel are released from the Project. The Municipality shall ensure that sufficient staff is maintained by the Consultant at the site to complete the paperwork within a reasonable time – generally, 30 to 60 days after completion of the work.

If, upon completion of all the paperwork, it is not possible to process the Final Construction Order or Final Estimate because of outstanding corrective work and administrative submittals from the Contractor, the Municipality may deem it in their interest to terminate the Consultant's contract and complete the remaining processing with their own forces. When this is the case, the project records should be examined by the MSAT Leader, and the Consultant will make any necessary corrections before being released from the project. Consultants do not have to stand by on a project while the audit is prepared, but they must be available when requested to correct any errors or omissions.

Consultants must complete all project-related paperwork before they are released from their responsibilities under the Consultant agreement.

Chapter 29 - Project Data to be Submitted for Final Review

29-1 General

Once the physical work is completed, the Municipality must assure that the items have been balanced on a construction order; all estimates (excluding Retainage) have been processed, and the Volumes have been checked. All DWRs must be signed and all Volume III computations must be signed, “Computed By” and “Checked by”.

A letter of transmittal from the District to the Office of Quality Assurance must state that a thorough review of the final-estimate pay quantities and related documentation have been completed and that all quantities appearing on the final estimate have been computed and documented to conform to current Department procedures.

The District will submit along with the Letter of Transmittal a copy of their District-level Final Review indicating as to what was checked and where, including a list of the discrepancies found and corrected.

Upon receipt of notice from the District, the Office of Quality Assurance will conduct a Headquarters Final Review. Any exceptions resulting from this review will be transmitted to the District for resolution and response. The memorandum from the District responding to the Headquarters’ Final Review shall be addressed to the Construction Division Chief from the Assistant District Engineer or District Engineer. The written verification from the District must state that the corrections were verified by someone on the Municipal Team.

Note: The records should not be submitted to the Office of Quality Assurance until all items and punch-list work is complete unless directed otherwise by the Office of Quality Assurance. Also, all construction orders must have been forwarded to the Contractor with the exception of the final construction order, which is left open for possible quantity adjustments resulting from the Headquarters final review.

Once the physical work is completed, the Municipality has balanced the items on construction orders, processed all estimates (except retainage), and checked all computations in the Volumes, then the Municipality must submit all the Volumes to the District MSAT Leader and Office of Quality Assurance for review.

29-2 List Documentation to be Submitted

The following data for both the District Final Review and the Headquarters Final Review is forwarded with a letter of transmittal:

- Volume I
- Volume II
- Volume III
- Volume IV
- Delivery tickets for Bituminous Concrete (only for amounts paid for by the ton)
- A copy of a report showing apparent final quantities
- Copies of the approved and pending Construction Orders with backup documentation
- A copy of the Contract
- A copy of half-size plans
- Copies of Daily Reports of Cost Plus with backup documentation
- A copy of the District's final review

Chapter 30 - Project Close Out Processing

30-1 General

Project records and pertinent paperwork shall be submitted within 90 days after the completion date of construction. This is essential in starting the close-out process. There are various forms and documents required from the Contractor, Municipality, and Department that must be in place prior to acceptance of the physical work and the project.

30-2 The Contractor's Responsibilities

The following is a listing of the Contractor's responsibilities:

- Time extension has been requested, if applicable
- Corrective Work completed
- All Contractor payrolls submitted to the Municipality
- Payrolls for all subcontractors submitted to the Municipality
- FHWA-47 submitted to Municipality (only required on National Highway System roadways with a project value over one million dollars)
- Any outstanding testing requirements
- DBE/SBE verification of payment submitted to Municipality
- DBE/SBE Waiver has been requested, if applicable
- Other, as required/requested

30-3 The Municipality's Responsibilities

The following is a listing of the Municipality's responsibilities:

- CON-100M for Prime Contractor start and completion dates of contract work submitted to MSAT Leader within **7 days** of occurrence.
- All contract items are completed and balanced out and project records are complete
- All intermediate Construction Orders are submitted to the MSAT Leader
- Time Extension analysis complete. See Chapter 15 for additional information

- Liquidated Damages are applied, if applicable
- All testing submitted, completion of required MAT-103's for previously rejected materials completed, and request for a Final Material Certificate including a list of apparent final quantities and density summary reports for both bituminous and soils submitted to the MSAT Leader. Address any testing deficiencies noted by the Division Material Testing Unit upon completion of their review of the Final Material Certificate request.
- Semi-final inspection is performed by the Municipality and MSAT Leader.
- Final inspection is performed by the Municipality and then a request is sent for the Department to perform a final inspection.
- CON-502s completed and submitted to MSAT Leader. See Chapter 31 for additional information.
- Both the CON-500M and Relief of Responsibility letter are completed. See Chapter 31 for additional information.
- As-Built plans are submitted to MSAT Leader.
- Project Records are submitted to MSAT Leader for a District audit.
- Any discrepancies found in District audit are corrected.
- After District audit, records will be submitted to Department's Office of Quality Assurance for their audit.
- Completed Final package is submitted to MSAT Leader.
 - Construction Report (Figure 30.1). General contract information must be signed by Municipal Administrator.
 - Index of Construction Orders (Figure 30.2).
 - DBE/SBE Form 88-1 with payment verifications or DBE shortfall analysis is submitted to MSAT Leader. See Chapter 4 for additional information.
 - 10% Cost Overrun (Figure 30.3). If total project value increases by more than 10% this form must be submitted to the MSAT Leader.
 - All paid billing and ISPs are submitted to Department with the exception of the retainage. **Do not release retainage to Contractor until authorized by MSAT Leader.**
 - Final Construction Order which is processed once authorized by MSAT Leader.

Figure 30.1 – Construction Report

<u>CONSTRUCTION REPORT</u>		
Project No:	200-200	
FAP No:	BRZ-6200	
Description of Project:	Rehabilitation of Ellmond Road Bridge over Quanic River	
Contractor: (name/address)	Stephen Construction River Canal, Griswold, CT.	
Road(s):	Ellmond Road	
Bridge(s):	Ellmond Road Bridge #620001	
Contractor Ordered to Start On:	April 1, 2001	
Contractor Actually Started:	April 1, 2001	
Contractor Completed On:	June 15, 2002	
Date of Last I.R.:	July 31, 2002	
Number of Last I.R.:	487A	
Original Calendar Days:	305 days	
Revised Contract Increase:	N/A	
Time Extension Granted:	15 days	
Total Days Elapsed (excluding winter shutdowns - if applicable):	320 days	
#of Days Suspended: N/A	Date Suspended: N/A	Date Resumed: N/A
Date Road Closed to Traffic: April 1, 2001	Date Road opened to Traffic: June 15, 2002	
Total Calendar Days Allowed: 320 Days		
Total Calendar Days Used: 320 Days		
Liquidated Damages Assessed: N/A (days x dollars =)		
DBE Penalties: N/A (money value)		
Reason for Penalty/Liquidated Damages: N/A		
Changes Made:		
Design Changes: Redesigned Footing		
Drainage Changes:		
Difficulties Encountered:		
Work Done by Others:		
Tyler Construction: Drainage/paving	Ed & Son: Guide Rail	
Nakita Construction: Concrete	Midnight Construction: Warning Lights	
Amber Manufacturing: Deck Units	Valerie Inc.: trucking	
ConnDOT Project Engineer: Barbara J. Madejek		
Town Administrator: Edward Madejek		
Resident and/or Chief Inspector: Tyler Stephens		
Employed by: Municipality		
Consultant Firm: N/A		
<u>Edward Madejek, First Selectman</u>	<u>8/1/2002</u>	
(Signature and title of Town Engineer, Director of Public Works, Town Official)	Date	
(Attach additional sheets if necessary)		

Figure 30.2 – Index of Construction Orders

<u>INDEX OF CONSTRUCTION ORDERS</u>					
TOWN: GRISWOLD					
Project No: 200-200					
FAP No: BRZ-6200					
PART					
C.O. O6	PARAGRAPH	NON-PART	CLASSIFICATION	DESCRIPTION	
O6A	✔	01	PART	T	Incorporate Time Extension into Contract
	✔	02	PART	Q	Normal Increases and/or decreases to original contract items
	✔	03	PART	Q	Normal increases and/or decreases to environmental items
	✔	04	NON-PART	O	Incorporate one new item into the contract
O6B	✔	01	PART	O	Normal increases and/or decreases to original contract items. Incorporate 2 new items into the contract.
O6C					Final Construction order

Figure 30.3a – 10% Cost Overrun, Page 1

ConnDOT Office of Construction Project Cost Overrun Report			
Report Type:	Annual _____	Year _____	Final <u>X</u> _____
Project Number:	200-200	District:	2
Project Type:	Rehabilitation of Ellmond Road Bridge (ie. Traffic Signal, Bridge Rehab, Resurfacing, etc.)		
Original Bid	Final Cost	Difference	% Increase
\$1,505,742.67	\$1,937,989.48	\$432,246.81	28.7%
CATEGORY*	DESCRIPTION	COST CHANGE	
<u>Unforeseen Conditions:</u>	See attached list	\$10,176.50	

<u>Change in Scope:</u>	See attached list	\$32,125.35	

<u>Contract Revision:</u>	See attached list	\$0.00	

<u>Quantity Adjustments:</u>	See attached list	\$0.00	

<u>Other Adjustments:</u>	See attached list	\$268,461.75	

Total:			<u>\$310,763.60</u>
Submittal Requirements:			
<p>Annual - Required prior to February 1st for any active project where estimated final construction cost exceeds original bid by more than ten (10) percent for the previous calendar year.</p> <p>Final - Required when final construction cost exceeds original bid by more than ten (10) percent. Submittal required within 30 days of initiating final construction order.</p>			
* See Construction Manual Section 1-807 for definitions of categories.			
Rev. 10/4/07			

Figure 30.3b – 10% Cost Overrun, Page 2

Other Adjustments		Project #			
		200-200			
<u>Reason #1:</u>					
Item #	Item Description	Original Quantity	Final Quantity	Unit Price	Cost Change
02303002	Structure Exc Earth Complete	190.00	251.25	\$140.00	\$8,575.00
203101	Structure Exc Rock Complete	50.00	78.00	\$440.00	\$12,320.00
601003	Class "A" Concrete	240.00	822.51	\$425.00	\$247,566.75
					\$0.00
<u>Reason #1:</u>					
Item #	Item Description	Original Quantity	Final Quantity	Unit Price	Cost Change
					\$0.00
<u>Reason #1:</u>					
Item #	Item Description	Original Quantity	Final Quantity	Unit Price	Cost Change
					\$0.00
					\$0.00
					\$0.00
				Page Total:	\$268,461.75

30-4 The Department’s Responsibilities

- MSAT Leader is to perform the semi-final inspection with Municipality.
- District is to perform the final inspection and notify the Municipality of their findings.
- Sign both the CON-500M and Relief of responsibility letter. See Chapter 31 for additional information.
- MSAT Leader is to audit the project records.
- MSAT Leader is to send the project records to Office of Quality Assurance section for audit.
- Review any time extension and notify the Municipality of their findings.
- Review all final paperwork.
- Obtain Material Certification.
- Process all ISP billings.
- Have reviewed and processed all Construction Orders.

- Have authorized processing of Final Construction Order.
- Give authorization to release of retainage to Contractor.
- Process of CON-501M Certificate of Acceptance. See Chapter 32 for additional information.
- Send a memo to External Audit requesting final audit be conducted by MSAT Leader.

30-5 As-Built Drawings

The Chief Inspector must make sure the information necessary to create the As-Built drawings are kept up-to-date on White Paper Plans as the project progresses. At a minimum, the White Paper Plans shall be updated every other week.

When the Contractor is required to produce as-built drawings, (i.e. electrical or vertical construction projects), the Chief Inspector shall periodically remind the Contractor of the As-Built requirement and ask for an update on their status.

30-6 Final Revisions of Plans and Cross-Sections (As-Built)

Either the Municipality or Contracting Engineer must follow the procedures and methods below in preparing the final revisions of plans and cross sections.

Responsibility of the Contracting Engineer: The Contracting Engineer must indicate the as-built features of a project in either ink on the original tracings or the digital design file, if required. The work must be accomplished in accordance with the terms of the agreement with the Municipality.

Responsibility of Municipality Forces: Designated Municipal staff will revise the original tracings or digital design files to show the project as-built.

Note: For State road and bridge projects a copy of the reproducible mylar drawings/as-builts are provided to the Department.

Methods of Showing Revisions: If paper transparencies have been added to the plans to indicate revisions resulting from Construction Orders during construction, the revisions are transferred to the corresponding original tracings. Any notations are to be inscribed in a conspicuous place on the original tracings.

Title Sheet: Use the following guidelines for the title sheet:

Title. Show the corrected beginning and ending stations, and the horizontal length of the project in the title. Cross out original figures.

Inscription. Inscribe the following in a conspicuous place on the sheet:

Construction Started Date _____

Construction Completed Date _____

Index Plan and Index Profile Sheet: Do not correct the plan and profile sheets. In a conspicuous place, inscribe this note: “THIS SHEET NOT CORRECTED.”

Detailed Estimate Sheet: Inscribe this note somewhere on the Detailed Estimate Sheet: “THIS SHEET NOT CORRECTED”. If quantities are on the Title Sheet, inscribe this note: “THESE QUANTITIES NOT CORRECTED.”

Plan Sheets: If either the beginning or ending stations of the project have been changed, make the necessary correction and label: “BEGINNING OF COSTRUCTION” or “END OF CONSTRUCTION.”

- Use the following guidelines to revise the Plan View:
 - **General Construction Notes:** General Construction Notes are to be corrected.
 - **Culverts:** The locations and lengths of culverts must be changed, except that no change in location is made unless the culvert has been moved 3 m (10 ft.) or more from its original proposed location or unless the angle of crossing has been radically changed. If the original culvert notes were listed individually adjacent to each proposed culvert and no change has been made in the length or size, simply check the note with a black ink checkmark.
 - If either the length or size of the culvert has been changed, cross out the incorrect figures and insert the correct ones immediately above. If new pipes were installed that were not originally proposed, plot the pipe and label it. For example, “28 ft. – 28 in. x 20 in. (8.5 m – 680 mm x 500mm) A.C.C.M. PIPE ARCH INSTALLED.”
 - **Catch Basins:** Manholes, Underdrains, Endwalls and Ditches. Use the procedure for culverts. For example, “INSTALLED” or “DITCH EXCAVATED.”
 - **Drives and Barways:** Plot as constructed. If not constructed, cross out.
 - **Wire Fences:** Plot as constructed. Label “WIRE FENCE ERECTED” or “CHAIN LINK FENCE ERECTED.”
 - **Stone Wall Fences:** Plot in the locations constructed. Label “STONE WALL FENCE ERECTED” or “FARM WALL ERECTED”.

- **Guide Railing:** Show as constructed. Label “GUIDE RAILING ERECTED”. Cross out any not installed.
- **Single Posts:** If not proposed on the plan, plot and label “SINGLE POST ERECTED.” Single poles at each end of guide railing need not be shown.
- **Intersecting Roads:** Outline as constructed. Give the type of surface. Label “APPROACH CONSTRUCTED.”
- **Temporary Approaches:** Indicate by heavy broken lines and label “TEMPORARY APPROACH CONSTRUCTED.”
- **Slope Lines:** Do not revise.
- **Relocation of Buildings:** Poles, etc. Show in the new locations.
- **Channel Relocation:** Plot in the location actually constructed. If not originally proposed, plot and label “CHANNEL EXCAVATED.”
- **Riprap:** Show the outline as constructed. Label “RIPRAP INSTALLED.”
- **Curbing:** Show the beginning and end, with the note, “(TYPE) CURBING INSTALLED.”
- Use the following guidelines for the Profile View:
 - **Culverts, Catch Basins, Manholes, and Underdrains:** For structures 15 in. (381 mm) or greater in diameter, plot accurately all field changes in elevation and location. Use the procedure for plan view notes for these items.
 - **Grade Changes:** Any field change in grade of 0.3 ft. (91 mm) or more must be shown with a broken line. Label “GRADE AS CONSTRUCTED.”
 - **Subbase:** make all changes in subbase with correcting notes, such as “STA. _____ TO STA. _____ (DEPTH),” or if no change, check the original notes.
 - **Bridge Sheet:** Show all changes in the structures. Do not correct bar lists.

Cross-Section Tracings: Revise the final cross-section tracings only if changes in the original design were authorized or if embankment material is to be deducted from the borrow material.

Chapter 31 - Final Inspections and Stopping Contract Time

31-1 General

Once the physical work is complete and the semi-final inspection has been completed, substantial completion and stopping the contract time is warranted. Once the punch list has been completed and both the Department and the Municipality have completed their final inspections, the physical work is ready to be accepted. However, the work will not be accepted until the CON-502s are signed. The work will be accepted with the exceptions of any warranty items.

31-2 Notice of Substantial Completion and Stopping Contract Time

The project work is considered complete when all contract items have been done and all items noted in the semi-final inspection report have been satisfactorily addressed. However, under certain conditions the project may be deemed substantially complete and charges for time on the project are stopped even though of all aspects of the work are yet to be completed. A project may be considered substantially complete when the work done for the project is safe and convenient for use by the Department, Municipality, and the public, and all of the following conditions have been met:

- A semi-final inspection has been conducted documenting all the remaining work required on the Project.
- All traffic lanes including shoulders and ramps are in their final alignment and the final wearing surface has been installed.
- All operational and safety devices have been installed in accordance with the contract documents.
- Only a minor amount of work remains to be completed on the project. The value of the remaining work (contract work plus punch list work) shall be less than one percent (1%) of the total final contract price.
- The incomplete work will not affect the safety or operations of the transportation facility.
- The incomplete work will not affect the terms or conditions of any environmental permits.
- The actions required to complete the remaining work will not significantly impact the public or the operations of the facility.

If all the conditions described above have been met, then the Municipality shall notify the MSAT Leader that the Project may be substantially complete. The Municipality and MSAT Leader will review the Project and remaining work. If the MSAT Leader is in agreement with the

Municipality's assessment then a Contract Status form (CON-100M), will be prepared noting the date on which the Project was substantially completed. The form must be prepared and signed by the Municipal Administrator within seven (7) days after the date of substantial completion and submitted to the MSAT Leader for processing. The Contractor will also be notified by letter that the time charges on the project have stopped.

31-3 Partial Final Inspection & Partial Relief of Responsibility

On projects consisting of two or more individual, geographically separated sections of roadways, a final inspection of each individual, fully completed section will be arranged after receiving a specific request from the Contractor. A Contractor's request will only be considered when:

- A significant portion of the work has been completed for which the Department can take unconditional ownership,
- Traffic is in final alignment, and
- Subsequent work on the Project will not impact the completed section.

If the Contractor's request meets the above requirements, then a semi-final inspection will be scheduled for that portion of the work. When all work identified in the semi-final inspection has been satisfactorily completed, as determined by the Municipality, then a partial final inspection will be scheduled for the work in consideration. Upon successful completion of the partial final inspection the Municipality will notify the Contractor that the specific portion of work is acceptable and that the Municipality accepts responsibility for the completed work. The appropriate State offices including the responsible maintenance officials (Municipal or State), the Bridge Safety and Evaluation Unit, and the MSAT Leader shall be copied on this relief of responsibility letter. Such partial acceptance of the work does not affect any other requirements governing the completion and acceptance of the Contract as a whole.

31-4 CON-502s – Certificates of Compliance

Upon completion of the project, the applicable Certificate of Compliance must be completed and incorporated into the project records. Without these forms signed, the Contractor **will not** be relieved of the physical responsibility. One form must be completed by and signed by each of the following:

- CON-502M – Municipal Administrator (Figure 31.1)
- CON-502T – Municipal Inspector (Municipal Employee) (Figure 31.2)
- CON-502C – Resident Engineer or Project Manager (for Consultant-inspected projects) must be notarized (Figure 31.3)

- CON502D – Contractor’s Project Superintendent or other authorized representative, must be notarized (Figure 31.4)

The order for signing will be as follows:

- CON-502D – Contractor
- CON-502C – Consultant
- CON-502T – Municipal Inspector
- CON-502M – Municipal Administrator

The CON-502 originals shall be maintained by the Municipality with a copy given to the MSAT Leader for processing.

Figure 31.1 – CON-502M

CON-502M REV. 06/08 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION CERTIFICATE OF COMPLIANCE Municipality Administrator	
	Project No: Project Location: Project Name:
This is to certify that to the best of my knowledge, information and belief, the completed Project, as identified above, has been constructed in substantial compliance with the Contract plans, specifications and all approved Change Orders.	
Municipality Administrator:	
Signature: _____	
Print Name: _____	
Title: _____	
Date: _____	

Figure 31.2 – CON-502T

CON-502T REV. 06/08
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
CERTIFICATE OF COMPLIANCE
Municipal Inspection

Project No:
Project Location:
Project Name:

This is to certify that to the best of my knowledge, information and belief, the completed Project, as identified above, has been constructed in substantial compliance with the Contract plans, specifications and all approved Change Orders.

Municipal Inspector:

Signature: _____

Print Name: _____

Title: _____

Date: _____

Figure 31.3 – CON-502C

CON-502C REV. 06/08
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
CERTIFICATE OF COMPLIANCE
Consultant Inspection

Project No:
Project Location:
Project Name:

This is to certify that to the best of my knowledge, information and belief, the completed Project, as identified above, has been constructed in substantial compliance with the Contract plans, specifications and all approved Change Orders.

Consultant Inspector:

Signature: _____

Print Name: _____

Date: _____

Name of Firm: _____

Sworn and subscribed by me on this _____ day of _____, 200

Commissioner of Superior Court/Notary Public

Figure 31.4 – CON-502D

CON-502D REV. 06/08 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION CERTIFICATE OF COMPLIANCE General Contractor		Project No: Project Location: Project Name:
This is to certify that to the best of my knowledge, information and belief, the completed Project, as identified above, has been constructed in substantial compliance with the Contract plans, specifications and all approved Change Orders.		
General Contractor:		
Signature: _____		
Print Name: _____		
Title: _____		
Date: _____		
Name of Company: _____		
Sworn and subscribed by me on this _____ day of _____, 200		
Commissioner of Superior Court/Notary Public		

31-5 CON-500M – Certificate of Acceptance of Work

Once all CON-502s have been filled out and copies submitted to the MSAT Leader, the Municipality will fill out the CON-500M form and submit it to the MSAT Leader for review and processing. If the information is correct, the District Engineer will then sign the form and it will be returned to the Municipality for them to send to the Contractor with a copy sent to the District. See Figure 31.5 for CON-500M.

Figure 31.5 – CON-500M

CERTIFICATE OF ACCEPTANCE OF WORK	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION <i>Bureau of Engineering and Highway Operations</i>	FEDERAL AID PROJECT NO(S).	STATE PROJECT NO(S).						
CON-500M									
DESCRIPTION OF CONTRACT		TOWN(S)							
NAME OF HIGHWAY / ROUTE NO.	BEGINNING AT <i>(Specific Location - No Station Nos.)</i>	ENDING AT <i>(Specific Location - No Station Nos.)</i>							
TO CONTRACTOR <i>(Street Address Only - No PO Boxes)</i>			FINAL INSPECTION DATE						
TYPE OF IMPROVEMENT									
DISTRICT MANAGER Review <i>(Signature In BLUE Ink)</i>		NAME	DATE						
<p style="text-align: center;">THE ABOVE DESCRIBED WORK IS HEREBY ACCEPTED AS OF _____</p> <p style="text-align: center;">The transfer of improvement —</p>									
MUNICIPAL OFFICIAL <i>(Signature In BLUE Ink)</i>		NAME / TITLE	DATE						
----- CUT LINE									
<u>Instructions:</u>									
<u>Addresses:</u> Include street addresses - not PO Boxes.									
<u>Location:</u> BEGINNING AT / ENDING AT									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">EX: 1</td> <td style="width: 50%; text-align: center;">EX: 2</td> </tr> <tr> <td style="text-align: center;"><u>BEGINNING AT</u> East Main Street @ School Street</td> <td style="text-align: center;"><u>ENDING AT</u> East Main Street @ Harris Hill</td> </tr> </table>		EX: 1	EX: 2	<u>BEGINNING AT</u> East Main Street @ School Street	<u>ENDING AT</u> East Main Street @ Harris Hill	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;"><u>BEGINNING AT</u> I-91 @ EX 3 BR. 1234 MP .04</td> <td style="width: 50%; text-align: center;"><u>ENDING AT</u> I-91 @ EX 6 MP 20.4</td> </tr> </table>		<u>BEGINNING AT</u> I-91 @ EX 3 BR. 1234 MP .04	<u>ENDING AT</u> I-91 @ EX 6 MP 20.4
EX: 1	EX: 2								
<u>BEGINNING AT</u> East Main Street @ School Street	<u>ENDING AT</u> East Main Street @ Harris Hill								
<u>BEGINNING AT</u> I-91 @ EX 3 BR. 1234 MP .04	<u>ENDING AT</u> I-91 @ EX 6 MP 20.4								
<p>Municipality to fill out form and submit to District for Review District Manager to sign Review by District Returns to Municipality for their signature Municipality to send completed original form to Contractor with copy to District</p>									
			Revised 08/28/08						

31-6 Relief of Responsibility Letter

The CON-500M form will be transmitted to the Contractor with a Relief of Responsibility letter. See Figure 31.6 for an example letter.

Figure 31.6 – Relief of Responsibility Letter

<p>Stephens Construction</p> <p>River Canal</p> <p>Griswold, Connecticut 06351</p> <p>Gentlemen:</p> <p>Subject: Project No. 200-200</p> <p>FAP No. BRZ-6200</p> <p>The construction of the subject project has been satisfactorily completed. In accordance with Standard Specifications, Form 816, Section 1.08.13, you are hereby Relieved of the Responsibility for the physical aspects of the work placed on you by Article 1.07.12. Enclosed for your file is the "Certificate of Acceptance of Work" for the project. The effective date of the document is July 1, 2005.</p>

Chapter 32 - Acceptance of Project

32-1 General

Once all required documentation is submitted from the Contractor, Municipality and the Department, then the project is ready to be accepted.

32-2 CON-501M

The Municipality will fill out the CON-501M form and submit it to the MSAT Leader for review and processing. If the information is correct, the District Engineer will then sign the form and it will be returned to the Municipality for their signature and then given back to the MSAT Leader for submission to the Office of Construction (OOC) for signature. Once signed by OOC, it will then be sent to the Municipality for their records. See Figure 32.1 for an example CON-501M.

Figure 32.1 – CON-501M

CERTIFICATE OF ACCEPTANCE OF PROJECT		STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION BUREAU OF ENGINEERING AND CONSTRUCTION		FEDERAL AID PROJECT NO(S)	STATE PROJECT NO(S)
CON-501M					
DESCRIPTION OF CONTRACT				TOWN(S)	
NAME OF HIGHWAY / ROUTE NO.	BEGINNING AT (Specific Location - No Station Nos.)		ENDING AT (Specific Location - No Station Nos.)		
TO CONTRACTOR (Street Address Only - No PO Boxes)				DATE OF AWARD	
TYPE OF IMPROVEMENT				DATE WORK ACCEPTED (From CON - 500M)	
All work and administrative requirements under the above described contract has been completed in accordance with the plans, specifications, and special provisions of the contract, and is recommended for acceptance in fulfillment of the terms of said contract.					
DISTRICT MANAGER Review (Signature in BLUE ink)			NAME	DATE	
MUNICIPAL OFFICIAL (Signature in BLUE ink)			NAME / TITLE	DATE	
THE ABOVE DESCRIBED PROJECT IS HEREBY ACCEPTED AS OF _____					
The payment of a certified final estimate of the full amount owing, including the reserved amount.					
BY CONSTRUCTION DIVISION CHIEF (Signature in BLUE ink)			NAME	DATE	
			James P. Connery, PE		
----- CUT LINE -----					
Instructions:					
Addresses:					
Include street addresses - not PO Boxes.					
Municipal project, provide the mailing (street) address below for the municipal official who signed the CON-501M, and include this with the CON-501M submitted to Office of Construction :					
Location:					
BEGINNING AT / ENDING AT					
Include a physical description in addition to available Milepoints - Do NOT use stations.					
EX: 1		EX: 2			
BEGINNING AT	ENDING AT	BEGINNING AT	ENDING AT		
East Main Street	East Main Street	I-91 @ EX 3	I-91 @ EX 6		
@ School Street	@ Harris Hill	BR. 1234	MP 20.4		
		MP .04			
Municipality to fill out form, attach completed CON-500M and submit to District for Review					
District Engineer to sign Review by					
District Returns to Municipality for their signature					
Municipality returns completed form to District for submission to OCC					
Revised 3/3/10					

32-3 *Audits*

Once the CON-501M has been signed, the MSAT Leader will request an external audit to be done, per the State/Municipal Agreement. When the MSAT Leader is notified by External Audits that the audit is complete, the Municipality will be notified by letter of the audit results and any actions which need to be completed.

Chapter 33 - Consultant and Contractor Performance Evaluations

33-1 Consultant Evaluations

Consultant engineers shall be evaluated periodically by the Municipal Administrator and reviewed by the MSAT Leader in accordance with the established guidelines below. Figure 33.1 shows the performance evaluation form.

Figure 33.1a – Consultant Performance Evaluation Rating Form, Page 1

MUNICIPAL
CONSULTANT PERFORMANCE EVALUATION RATING

Revised 12/2011

Rating Period: _____ Year: _____ Month: _____

Project Number: _____ Firm: _____

Activity: Construction Inspection

Town(s): _____
 Consultant Project Manager: _____
 Project Description: _____

NUMERICAL RATING SCALE:
Exceptional: 5 Exceeds Contractual Expectation: 4 Meets Contractual Expectations: 3
Inadequately Meets Contractual Expectations: 2 Unsatisfactory: 1 Not Applicable: NA

ADMINISTRATION: (Weight = 30%)

1 Operational.....	_____	
2 Project Management.....	_____	
3 Scheduling (meets Department's financial obligations)	_____	
4 Contract Financials.....	_____	
5 Affirmative Action Compliance.....	_____	
6 Supervision Required.....	_____	
Total.....	_____	_____

Average Rating for Category (Total/No. of Items x .30)..... _____

Comments (required) _____

PROCEDURAL: (Weight = 30%)

7 Exhibits and employs the knowledge of federal, state and local policies, procedures and regulations, as required.....	_____	
8 Understands and employs method(s) and/or procedures applied to accomplish scope of work.....	_____	
9 Coordination and cooperation with Department and joint operating agencies (federal, state and local), as required.....	_____	
10 Milestone submission scheduling.....	_____	
11 Supervision required.....	_____	
Total.....	_____	_____

Average Rating for Category (Total/No. of Items x .30)..... _____

Comments (required) _____

Figure 33.1b – Consultant Performance Evaluation Rating Form, Page 2

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TECHNICAL: (Weight = 40%)

12 Knowledge, Application and Presentation of data generated.....	_____
13 Accuracy of Data.....	_____
14 Quality of Work.....	_____
15 Construction Cost Estimating.....	_____
16 Supervision required.....	_____
Total.....	_____

Average Rating for Category (Total/No. of Items x .40)..... _____

Comments (required) _____

PERFORMANCE RATING

Sum of all Average Rating Categories (Maximum Rating = 5)..... _____

General Comments (Required: at a minimum, discuss milestones achieved this past rating period)

Prepared by: _____ Date: _____

Reviewed by: _____ Date: _____

33-2 Evaluation of Consultant's Performance Guide

- Evaluation of the Consultant's performance shall be done periodically, as determined by MSAT Leader, to cover at least two (2) reviews (at approximately 50% and 100% completion or done semi-annually). The evaluations will be submitted to the MSAT Leader no later than the 10th of the month following the rating period.
- The rating form establishes standard questions under each item. The responses to these questions will be used to determine the consultant's rating. The evaluator shall check the answer he/she believes represents the Consultant's performance. If the evaluator believes a question is not applicable, he/she shall mark the question as N/A.
- The evaluator is encouraged to list the Consultant's strengths and weaknesses for each category in the comment section. This will enable the Consultant to address identified weaknesses. If any question is rated 1 or 5, comments will be mandatory.
- Copies of the evaluations will be provided to the Consultant through his/her on-site representative.

Upon completion of each evaluation the Consultant will be advised by the Municipality of the results of the evaluation. If requested by the Consultant, the Municipality will afford each consultant with the opportunity to schedule a meeting to discuss measures needed to improve the services which they provide.

33-3 Consultant Performance Evaluation Rating Guidance

The following guidance is to be applied to rating items identified in the Consultant Performance Evaluation Rating Form.

- **Administration**
 - Operational: The project is properly staffed with qualified personnel, and the staff is adequately equipped to perform the assignment. Displays cooperation with and discloses good faith efforts to DBE/SBE Subcontractors (refer to explanation of Good Faith Effort at end of this section).
 - Project Management: Lead personnel assigns responsibilities in a timely manner, properly supervises their staff, and provides training for staff when required. When applicable, makes sure other parties under his/her supervision are responsive, adequately supervised, and adequately trained. Makes sure all elements of project development are well coordinated. Responsive in submitting documents required to execute agreements and registrations with applicable boards and the Secretary of the State (e.g. insurance certificate, Affirmative Action plan).

- Contract Financials: Proposals, billings and audits are submitted in a timely manner and were accurate, complete and justifiable. Requests for Extra Work are justifiable. Payments made to sub-consultants are in accordance with Connecticut General Statutes. DBE/SBE requirements are monitored and required documentation is submitted in a timely fashion.
- Affirmative Action: Has knowledge, applies, and implements federal, state, and local policies and regulations regarding Affirmative Action. (Contact the Office of Equal Opportunity and Diversity at 860 594-2163 for guidance on the required Affirmative Action Plan and other specific contract requirements).
- Supervision: The ability to complete tasks and assignments independently with little Municipality/Department oversight and direction. The ability to supervise staff and sub consultants.
- **Procedural**
 - Knowledge of Federal, State and Local Policies, Procedures and Regulations: Has knowledge, applies, and implements federal, state, and local policies, procedures, and regulations, as required. Abides by the policies, procedures and regulations and assures that other parties under his/her supervision comply.
 - Method(s) and/or Procedures Applied: Follows procedures and specifications listed in appropriate federal and state manuals and/or management plans. When applicable, establishes and enforces safety requirements for his/her staff and ensures that proper safety and warning devices are in place and operational.
 - **Coordination and Cooperation:** Demonstrates the ability to coordinate with Municipality/Department offices, federal, and state agencies and the general public in accomplishing the assignment. Has the ability to coordinate the work of the Contractor, Subcontractor, Utilities, Department units, railroads, etc.
 - **Supervision:** Has the ability to complete tasks and assignments independently with little Department oversight and direction. Supervises staff and sub consultants appropriately.
- **Technical**
 - Knowledge of Assignment: Has knowledge of all aspects of the assignment.
 - Accuracy of Data: The data generated and presented to the Municipality/Department is accurate and reliable.

- Quality of Work: Demonstrates the ability to collect, generate, apply, interpret and present information. All project documents are generated and presented in a timely manner and are complete and understandable.
- Supervision: The ability to complete tasks and assignments independently with little Municipality/Department oversight and direction. The ability to supervise staff and sub consultants.
- **Good Faith Effort (Administration)**

Checklist for internal evaluation of good faith effort:

1. Pre-bid meeting held/sponsored by the Prime Contractor for DBE/SBE subcontractors
2. Used advertising in minority-focused media concerning subcontracting opportunities
3. Reached out to DBE/SBE subcontractors through media, trade associations, or private- and public-sector agencies
4. Followed up outreach efforts
5. Provided interested DBE/SBE subcontractors with adequate information about plans, specifications, and requirements of the Contract
6. Negotiated in good faith with interested DBE/SBE subcontractors
7. Made an effort to identify and work with DBE/SBE subcontractors who may not have previously worked for them
8. Made efforts to assist qualified DBE/SBE subcontractors
9. Worked with DBE/SBE organizations to recruit DBE/SBE subcontractors

33-4 Contractor Performance Rating Guide

Contractors shall be evaluated using the form shown in Figure 33.2 by the Municipal Administrator and reviewed by the MSAT Leader. A copy of the completed performance rating should be filed in the MSAT and Municipality project records.

The Municipal Administrator evaluates the performance of the Prime Contractors, annually and/or at the completion of each project. Subcontractors are evaluated only at the completion of each project. The evaluation is prepared with input from the Resident Engineer or Chief Inspector. It is then forwarded to the MSAT Leader for review and signature. A sample of Contractor Performance Evaluation Rating is shown in Figure 33.2.

Figure 33.2 – Contractor Performance Evaluation Rating Form

CONTRACTOR PERFORMANCE EVALUATION RATING

Project No. (s) : _____

Project Description : _____

Name of Firm : _____

Contractor Number : _____

Type of Contractor : (Check One) Prime Sub

Type of Report : (Check One) Annual Interim Final

Evaluation Year : _____

Summary of Rating Categories			
Category	Average Rating	Weight factor	Average Rating X Weight Factor
A		0.25	
B		0.25	
C		0.20	
D		0.15	
E		0.15	
Overall Performance Rating			

NUMERICAL RATING SCALE

EXCELLENT (4)	GOOD (3)	ACCEPTABLE (2)	NOT ACCEPTABLE (1)
A) Quality of Work 1) Quality of Prime/Sub Contractor's work including work performed by Subcontractors _____ Average Rating for Category A _____		D) Implementation of Federal, State and Local Policies, Procedures and Regulations 1) Compliance with environmental Requirements _____ 2) Prompt payment to Subcontractors _____ 3) Compliance with labor standards _____ 4) Compliance with AA/EEO requirements _____ 5) Compliance with DBE/SBE requirements _____ 6) Compliance with Training requirements _____ Total _____ Average Rating for Category D (Total / No of Items) _____	
B) Performance of Work 1) Adherence to contract specifications & plans _____ 2) Compliance with Limits of Operation _____ 3) Timely response to field directions _____ 4) Compliance with Maintenance & Protection of Traffic _____ Total _____ Average Rating for Category B (Total / No of Items) _____		E) Procedural/Administrative 1) Quality of supervisory personnel _____ 2) Relationship with Subcontractors _____ 3) Cooperation with other contractors _____ 4) Quality of housekeeping, job cleanliness _____ 5) Cooperation with Field Engineer, Authority Personnel, Consultant _____ 6) Attendance at job meetings _____ 7) Timely submission of payrolls/AA reports, etc _____ 8) Knowledge of department standards _____ 9) Knowledge of work performed _____ Total _____ Average Rating for Category D (Total / No of Items) _____	
C) Adherence to Project Schedule 1) Adequate equipment to perform work _____ 2) Timely ordering of material _____ 3) Timeliness in addressing punch list items or unacceptable work _____ 4) Adequate staffing of job _____ 5) Timely notification of possible delays _____ 6) Timely submission of shop drawings _____ Total _____ Average Rating for Category C (Total / No of Items) _____			

Are there any areas or types of work where performance has not been acceptable or contractor had problems performing? Yes No
 If yes, explain (Attach additional sheets if necessary) _____

Prepared by: _____

Reviewed by: _____

Reviewed with Contractor on: _____

Date: _____

Date: _____

Contractor Signature: _____

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Interim ratings shall be performed for substandard contractor performance on a project. Interim ratings may also be requested by the MSAT Leader.

A final rating is used to evaluate the Prime Contractor or Subcontractor's overall performance on the completed project.

The annual review covers the period from January 1st through December 31st. A copy of the rating shall be sent to the MSAT Leader no later than the 15th of January. A copy of the final ratings shall be included in the finals package forwarded to the MSAT Leader. In addition to sending a copy of the annual and final rating to the MSAT Leader, a copy of the rating is to be sent to the contractor being evaluated. Copies of subcontractor ratings are not to be sent to the Prime Contractor unless requested by the Prime. Interim ratings shall be forwarded to the contractor evaluated after being processed by the MSAT Leader.

Persons taking responsibility for rating a contractor should take the time to prepare a complete and accurate evaluation. This may be a composite effort between the project staff and MSAT members. The quality of work and workmanship are to be considered for all aspects of the work, including the administrative requirements of the project.

The reviewer is encouraged to include comments pertinent to the ratings given especially if those ratings are at the extreme high or low end of the scale. Some examples of valuable comments are as follows:

- Project staff needs little to no supervision in order to operate on a day to day basis.
- Contractor's staff anticipates constructability issues prior to the construction schedule.
- Coordination with the Municipality has been a balancing act.
- Contractor handled lane shift well as it entailed multiple lanes of over a two-mile segment of the highway.
- Timely ordering of catch basin risers may have prevented delays.
- Certified payrolls not received for the last three months of project.

These forms from all Municipalities are compiled and the average will be used to determine an overall, representative rating for each contractor. They may be used by the Department or Municipality when determining the qualification of contractors, as well as, responsibility issues. The Office of Construction provides the contractors' yearly average to the Office of Contracts and other interested units as requested.

If any annual project or overall project rating is at or below a 2.0, the MSAT Leader shall request that the Municipal Administrator meet with the contracting firm to discuss the problems or deficiencies noted on the evaluation. Note that the Contractor's performance was lacking in certain areas and that they need to improve on future projects to avoid a finding of irresponsibility that may impact the firm's future ability to be awarded work on Department or Municipal projects.

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Appendix 2 – Local Transportation Capital Improvement Program (LOTICIP)

On LOTICIP projects, Municipalities may utilize the Connecticut DOT Municipal Manual in place of their respective local contract administration standards. In circumstances where the Municipality has elected to utilize the Municipal Manual in the administration of the LOTICIP project, certain requirements and roles do not apply, or are modified as follows:

- The role of MSAT is replaced by the Engineer (a licensed Professional Engineer in the State of Connecticut overseeing construction).
- Referenced Federal programs and requirements that only apply when Federal funding is used do not apply.

There may be projects funded by LOTICIP that require the Municipality to use and follow the Municipal Manual. These may include but are not limited to proposed projects on or principally affecting a State facility or those that are funded in part with Federal funds. For any additional questions on the LOTICIP program please contact the Department's Local Road Unit at (860) 594-3219.