

THE CITY OF NORWALK
DEPARTMENT OF PUBLIC WORKS
125 EAST AVENUE
NORWALK, CONNECTICUT 06851
203-854-7791

PROJECT: **DRG2016-2 STORM DRAINAGE IMPROVEMENTS AT FODOR FARM, AVIATION COURT AND SOUNDVIEW AVENUE**

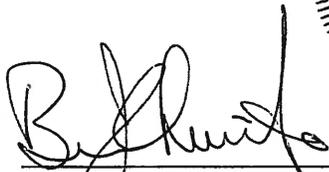
BID OPENING: **2:00 P.M.
Tuesday
August 2, 2016**

THE ATTACHED BIDDING DOCUMENTS ARE TO BE RETURNED WITH YOUR BID.

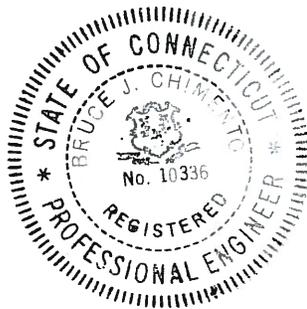
SEALED BIDS ARE TO BE SUBMITTED TO THE OFFICE OF THE CITY CLERK OF THE CITY OF NORWALK, ROOM 236, 125 EAST AVENUE, P.O. BOX 5125, NORWALK, CT 06856-5125. BIDS ARE TO BE CLEARLY LABELED WITH CONTRACTOR'S NAME AND TITLE OF BID.

THE PLANS AND SPECIFICATIONS SHALL BE RETURNED TO THE DEPARTMENT OF PUBLIC WORKS WITHIN TEN DAYS OF THE BID OPENING.

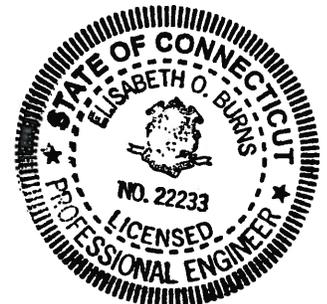
APPROVED:



BRUCE J. CHIMENTO, P.E. #10336
DIRECTOR OF PUBLIC WORKS



ELISABETH O. BURNS, P.E. #22233
PRINCIPAL ENGINEER



DATE: 7/8/16

PRINTED ON RECYCLED PAPER

THE CITY OF NORWALK
DEPARTMENT OF PUBLIC WORKS
125 EAST AVENUE
NORWALK, CONNECTICUT 06851
203-854-7791

**PROJECT: DRG2016-2 STORM DRAINAGE IMPROVEMENTS AT FODOR FARM, AVIATION
COURT AND SOUNDVIEW AVENUE**

**BID OPENING: 2:00 P.M.
Tuesday
August 2, 2016**

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PROJECT: DRG2016-2 STORM DRAINAGE IMPROVEMENTS AT FODOR FARM, AVIATION COURT AND SOUNDVIEW AVENUE

Sealed bids will be received at the Office of the City Clerk of the City of Norwalk, at the City Hall, 125 East Avenue, PO Box 5125, Norwalk, Connecticut 06856-5125, DRG2016-2 – Storm Drainage Improvements at Fodor Farm, Aviation Court and Soundview Avenue, until 2:00 P.M. on Tuesday, August 2, 2016, at which time and place said bids will be opened publicly and read aloud.

Contract documents may be obtained from the City of Norwalk's electronic procurement bidding system. A complete copy of the bid documents is available online through the City of Norwalk's website www.norwalkct.org via the Department of Purchasing and Central Services. Plans, Specifications and addenda will be present in pdf format. It is the responsibility of the prospective bidder to review all sheets of the set, all specification pages and any addenda issued. The contract documents can also be viewed in person at the Office of the Director of Public Works, 125 East Avenue, Norwalk, Connecticut.

The Contractor shall be responsible for checking the City of Norwalk's website for any addenda issued one week prior to the date of the bid opening. All questions pertaining to this bid shall be directed to the Department of Public Works.

This project includes, but is not limited to providing all labor, materials, supervision, etc. to complete the installation of a new stormwater detention basin, outlet control structure, 625± feet of 18 inch, 15 inch, 12 inch and 6 inch storm drainage pipe, manholes and catch basins on City streets within the City Right-Of-Way and on the Fodor Farm property (City owned parcel of property). The project will begin on Soundview Avenue at the west corner of the intersection with Windsor Place, cross Soundview Avenue, proceed west on Soundview Avenue, then north on Aviation Court and end at the Detention Basin on the Fodor Farm parcel of property.

The minimum prevailing wage rates to be paid for labor of the various classifications shall be in accordance with prevailing State and/or Federal Wage Rates, Schedules provided within the Contract Documents. See **Special Notes** for further information.

All bidders are required to inform themselves fully regarding all conditions impacting the construction of the Project described herein. This responsibility shall include carefully examining plans, specifications and all other requirements for the project, including the contract documents, as well as personally examining and inspecting the location of the project and all conditions impacting the work to be performed, together with the local sources of labor, supplies and materials. Each bidder must understand the conditions impacting the required performance of the work. All claims of any misunderstanding or lack of information regarding any of the foregoing shall be waived as a result of the responsibilities hereunder.

The City of Norwalk, hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority and disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation, and that they will not be discriminated against on the grounds of race, color, national origin, or sex, in consideration for an award.

All bids **must** include the following documentation:

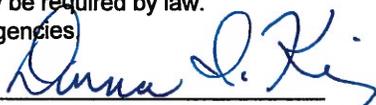
- A certified check or bid bond in the amount of 15% of the total bid amount. All checks and Bonds posted will be returned to unsuccessful bidders upon award of the Contract.
- For State funded projects, a Connecticut Department of Transportation Bid Proposal Request or Submission – Qualification Affidavit – signed and notarized on behalf of the bidder. **(Not Required for This Project)**
- For City funded projects, a Bidder's Qualification Statement - signed and notarized on behalf of the bidder. **(Required for This Project – Form Included)**
- A sworn statement/affidavit on behalf of the bidder certifying that the bidder has not, either directly or indirectly, entered into an agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the contract to be awarded. **(part of bid proposal form)**

Out of State Contractors will be required to provide proof of complying with State of Connecticut Department of Revenue Services Form AU-766 (See **Special Notes** and the **Appendix**) prior to contract signing.

The successful bidder will be required to furnish a performance bond, and a labor and materials bond for the amount of the total bid prior to signing a contract. A certified check cannot be substituted for either bond. The City of Norwalk reserves the right to alter quantities and to accept or reject any or all bids or any portion of any bids, for any or no reason, including unavailability of appropriated funds, as it may deem to be in its best interests.

All bidders are requested to note that the award of this Contract is subject to the following conditions and contingencies:

1. The approval of such governmental agencies as may be required by law.
2. The appropriation of adequate funds by the proper agencies



Donna I. King, City Clerk

ITEMIZED PROPOSAL

For Construction

PROJECT: DRG2016-2 Storm Drainage Improvements At Fodor Farm, Aviation Court and Soundview Avenue

The Work Proposed Herein Must be Completed within 90 calendar days of the date of this Contract.

Honorable Mayor and
Members of the Common Council
of the City of Norwalk, Connecticut

Gentlemen:

In submitting this bid the undersigned declares that he and the entity on behalf of which this bid is made is or they are the only person or persons interested in the said bid; that the bid is made without any connection with any person making another bid for the same contract; that the bid is in all respects fair and without collusion, fraud or mental reservation; and that no official of the City, or any person in the employ of the City is directly or indirectly interested in said bid or in the supplies or work to which it relates, or in any portion of the profits thereof.

The undersigned also hereby declares that he has, either for himself or on behalf of the entity he represents carefully examined the plans, specifications, and form of contract, for this project has personally inspected the actual location of the work together with the local sources of supply, and is satisfied as to all the quantities and conditions, and understands that in signing this proposal he or the entity that he represents waives all rights to plead any misunderstanding regarding the same.

The undersigned further understands and agrees that he is to furnish and provide for the respective item price bid all the necessary material, machinery, implements, tools, labor, services, and other items of whatever nature, and to do and perform all the work necessary under the aforesaid conditions, to complete the improvements of the aforementioned Project (DRG2016-2), which plans and specifications it is agreed are a part of this proposal, and to accept in full compensation therefore the amount of the summation of the products of the approximate quantities multiplied by the unit prices bid. This summation will hereinafter be referred to as the gross sum bid.

The values and costs submitted in this proposal shall include the value of all work included in the plans and specifications including, specifically, all work that may be performed by subcontractors.

The undersigned further agrees to accept the aforesaid unit bid prices in compensation for any additions or deductions caused by variation in quantities due to more accurate measurement, or by any changes or alterations in the plans or specifications of the work and for use in the computation of the value or the work performed for monthly estimates.

Every proposal must be accompanied by a certified check or bank cashier's check or bid bond payable to the City of Norwalk in the amount of fifteen (15) percent of the bid.

Accompanying this proposal is a certified check or bank cashier's check or bid bond payable to the City of Norwalk in the amount of \$_____. In case this proposal shall be accepted by the City of Norwalk, and the undersigned shall fail to execute the contract, the monies represented by such certified check or bank cashier's check or bid bond shall be regarded as liquidated damages and shall be forfeited and become the property of the City of Norwalk. Said checks or bid bonds shall be returned to the unsuccessful bidders upon the Award of Contract.

When work is required in which no specific payment item is listed in the Proposal Form the cost of such work shall be included in the unit prices bid.

All unit prices, lump sums, etc. listed in the bid proposal are firm and not subject to change for one hundred twenty (120) days from the day bids are opened.

Within ten (10) calendar days from the date of a notice of acceptance of this proposal, the undersigned agrees to execute the Contract and to furnish to the City a satisfactory "Faithful Performance Bond" and Labor and Material Bond" in the amount of 100% of the contract price.

All work to be performed under the Contract shall be completed within the time stated in the Agreement for the project or within such extended time for completion as may be granted by the Director.

As a condition of the contract award, the successful bidder shall provide proof, from the Connecticut Secretary of State's office, of its current authorization to do business in Connecticut. All Connecticut corporations must provide a Certificate of Good Standing from the Secretary of State's Office. All foreign (out of State) corporations shall provide a valid license to do business in Connecticut, in the form of a current Certificate of Authority from the Secretary of State's office and evidence of compliance with the bond requirements of the Connecticut Department of Revenue Services. These documents must be presented within thirty (30) days from the date of the bid opening.

Bidder acknowledges receipt of the Addenda listed below and further acknowledges that the provisions of each Addendum have been included in the preparation of this bid.

Addendum No.	Date Received	Addendum No.	Date Received
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

COMPANY NAME (BIDDER): _____

Address of Bidder: _____

Phone Number: Area Code (_____) _____

STATEMENT OF NON-COLLUSION

Project Number: DRG2016-2

Project Name: STORM DRAINAGE IMPROVEMENTS AT FODOR FARM, AVIATION COURT AND SOUNDVIEW AVENUE

<u>ITEM NUMBER</u>	<u>QUANTITY</u>	<u>UNIT PRICE IN WORDS</u>	<u>UNIT PRICE</u>	<u>AMOUNT BID</u>
0201001A	1	CLEARING AND GRUBBING _____ _____ <i>per</i> LUMP SUM	_____	_____
0202003	1000	EARTH EXCAVATION _____ _____ <i>per</i> CUBIC YARD	_____	_____
0202102	200	ROCK EXCAVATION _____ _____ <i>per</i> CUBIC YARD	_____	_____
0205001A	55	TRENCH EXCAVATION (0' - 4' DEEP) _____ _____ <i>per</i> CUBIC YARD	_____	_____
0205002A	5	ROCK IN TRENCH EXCAVATION (0' - 4' DEEP) _____ _____ <i>per</i> CUBIC YARD	_____	_____
0205003A	540	TRENCH EXCAVATION (0' - 10' DEEP) _____ _____ <i>per</i> CUBIC YARD	_____	_____
0205004A	60	ROCK IN TRENCH EXCAVATION (0' - 10' DEEP) _____ _____ <i>per</i> CUBIC YARD	_____	_____
0210100A	30	ANTI-TRACKING PAD _____ _____ <i>per</i> SQUARE YARDS	_____	_____

CONTRACTOR'S NAME: _____

PROPOSAL

Project Number: DRG2016-2

Project Name: STORM DRAINAGE IMPROVEMENTS AT FODOR FARM, AVIATION COURT AND SOUNDVIEW AVENUE

<u>ITEM NUMBER</u>	<u>QUANTITY</u>	<u>UNIT PRICE IN WORDS</u>	<u>UNIT PRICE</u>	<u>AMOUNT BID</u>
0213100	8	GRANULAR FILL _____ _____ <i>per</i> CUBIC YARD	_____	_____
0219001	200	SEDIMENTATION CONTROL SYSTEM _____ _____ <i>per</i> LINEAR FEET	_____	_____
0219011A	14	SEDIMENTATION CONTROL AT CATCH BASIN _____ _____ <i>per</i> EACH	_____	_____
0406005A	260	3" TEMPORARY PAVEMENT REPAIR (AVIATION COURT) _____ _____ <i>per</i> SQUARE YARDS	_____	_____
0406006A	160	5" TEMPORARY PAVEMENT REPAIR (SOUNDVIEW AVENUE) _____ _____ <i>per</i> SQUARE YARDS	_____	_____
0406007A	160	PERMANENT PAVEMENT REPAIR (SOUNDVIEW AVENUE) _____ _____ <i>per</i> SQUARE YARDS	_____	_____
0507001	5	TYPE "C" CATCH BASIN _____ _____ <i>per</i> EACH	_____	_____

CONTRACTOR'S NAME: _____

PROPOSAL

Project Number: DRG2016-2

Project Name: STORM DRAINAGE IMPROVEMENTS AT FODOR FARM, AVIATION COURT AND SOUNDVIEW AVENUE

<u>ITEM NUMBER</u>	<u>QUANTITY</u>	<u>UNIT PRICE IN WORDS</u>	<u>UNIT PRICE</u>	<u>AMOUNT BID</u>
0507022	1	TYPE "C" CATCH BASIN DOUBLE GRATE - TYPE II _____ _____ <i>per</i> EACH	_____	_____
0507105A	1	CONNECTION TO EXISTING MANHOLE, CATCH BASIN OR DRYWELL _____ _____ <i>per</i> EACH	_____	_____
0507190A	1	OUTLET CONTROL STRUCTURE _____ _____ <i>per</i> EACH	_____	_____
0507201	3	TYPE "CL" CATCH BASIN _____ _____ <i>per</i> EACH	_____	_____
0507254	1	TYPE "C" CATCH BASIN DOUBLE GRATE - TYPE II TOP _____ _____ <i>per</i> EACH	_____	_____
0507493	1	MANHOLE - 48" DIAMETER _____ _____ <i>per</i> EACH	_____	_____
0606001A	3	CEMENT RUBBLE MASONRY _____ _____ <i>per</i> CUBIC YARD	_____	_____
0651001A	50	BEDDING MATERIAL _____ _____ <i>per</i> CUBIC YARD	_____	_____

CONTRACTOR'S NAME: _____

PROPOSAL

Project Number: DRG2016-2

Project Name: STORM DRAINAGE IMPROVEMENTS AT FODOR FARM, AVIATION COURT AND SOUNDVIEW AVENUE

<u>ITEM NUMBER</u>	<u>QUANTITY</u>	<u>UNIT PRICE IN WORDS</u>	<u>UNIT PRICE</u>	<u>AMOUNT BID</u>
0651657	370	15" CORRUGATED P.E. PIPE (SMOOTH INTERIOR) <i>per</i> LINEAR FEET		
0651658	160	18" CORRUGATED P.E. PIPE (SMOOTH INTERIOR) <i>per</i> LINEAR FEET		
0651719	80	12" DUCTILE IRON PIPE <i>per</i> LINEAR FEET		
0651723	20	18" DUCTILE IRON PIPE <i>per</i> LINEAR FEET		
0651734	30	14" DUCTILE IRON PIPE <i>per</i> LINEAR FEET		
0703012	15	MODIFIED RIPRAP <i>per</i> CUBIC YARD		
0751700A	310	CURTAIN DRAIN - SMOOTH INTERIOR <i>per</i> LINEAR FEET		
0755014	45	GEOTEXTILE (SEPARATION - HIGH SURVIVABILITY) <i>per</i> SQUARE YARDS		

CONTRACTOR'S NAME: _____

PROPOSAL

Project Number: DRG2016-2

Project Name: STORM DRAINAGE IMPROVEMENTS AT FODOR FARM, AVIATION COURT AND SOUNDVIEW AVENUE

<u>ITEM NUMBER</u>	<u>QUANTITY</u>	<u>UNIT PRICE IN WORDS</u>	<u>UNIT PRICE</u>	<u>AMOUNT BID</u>
0815001	230	BITUMINOUS CONCRETE LIP CURBING per LINEAR FEET		
0905001A	30	STONE WALL FENCE per LINEAR FEET		
0906203A	40	SPLIT RAIL FENCE per LINEAR FEET		
0913003	190	4' POLYVINYL CHLORHIDE CHAIN LINK FENCE - BLACK per LINEAR FEET		
0913340	2	12' POLYVINYL CHLORIDE CHAIN LINK DOUBLE GATE 4' HIGH - BLACK per EACH		
0922001A	50	BITUMINOUS CONCRETE SIDEWALK per SQUARE YARDS		
0922501A	120	BITUMINOUS CONCRETE DRIVEWAY per SQUARE YARDS		

CONTRACTOR'S NAME: _____

PROPOSAL

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<u>ITEM NUMBER</u>	<u>QUANTITY</u>	<u>UNIT PRICE IN WORDS</u>	<u>UNIT PRICE</u>	<u>AMOUNT BID</u>
0922503A	240	GRAVEL DRIVEWAY _____ <i>per</i> SQUARE YARDS	_____	_____
0939001	12	SWEEPING FOR DUST CONTROL _____ <i>per</i> HOURS	_____	_____
0943001	100	WATER FOR DUST CONTROL _____ <i>per</i> MILLION GALLON	_____	_____
0944003A	2800	FURNISHING AND PLACING TOPSOIL _____ <i>per</i> SQUARE YARDS	_____	_____
0950005A	1300	TURF ESTABLISHMENT (MODIFIED) _____ <i>per</i> SQUARE YARDS	_____	_____
0950006A	700	NEW ENGLAND EROSION CONTROL / RESTORATION MIX _____ <i>per</i> SQUARE YARDS	_____	_____
0950007A	800	NEW ENGLAND WILDLIFE / CONSERVATION MIX _____ <i>per</i> SQUARE YARDS	_____	_____

CONTRACTOR'S NAME: _____

PROPOSAL

Project Number: DRG2016-2

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<u>ITEM NUMBER</u>	<u>QUANTITY</u>	<u>UNIT PRICE IN WORDS</u>	<u>UNIT PRICE</u>	<u>AMOUNT BID</u>
0970006A	1	TRAFFICMEN (MUNICIPAL POLICE OFFICER) Five Thousand Dollars and No Cents <i>per</i> ALLOWANCE	_____	\$ 5000.00
0970007A	100	TRAFFICMEN (UNIFORMED FLAGGER) <i>per</i> HOURS	_____	_____
0971001A	1	MAINTENANCE AND PROTECTION OF TRAFFIC <i>per</i> LUMP SUM	_____	_____
0975004A	1	MOBILIZATION AND PROJECT CLOSEOUT (MAX 3% OF BID) <i>per</i> LUMP SUM	_____	_____
0980002A	1	PROJECT SURVEY AND STAKEOUT <i>per</i> LUMP SUM	_____	_____
1000000A	1	RELOCATION OF EXISTING UTILITIES Seventeen Thousand Five Hundred Dollars And No Cents <i>per</i> ALLOWANCE	_____	\$ 17,500.00
1210102	50	4" YELLOW EPOXY RESIN PAVEMENT MARKINGS <i>per</i> LINEAR FEET	_____	_____

CONTRACTOR'S NAME: _____

PROPOSAL

Page 7 of 8

By submission of this bid each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bidder each party certifies as to its own organization under penalty of perjury, that to the best of knowledge and belief:

- A.) The prices in this bid have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor.
- B.) Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to the bid opening, directly or indirectly, to any other bidder or to any competitor.
- C.) No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not submit a bid for the purpose of restricting competition.

I hereby sign this document acting within my authority as a duly authorized representative of the named bidder. By signing below I certify, affirm and acknowledge that the information set forth in this document is true, accurate and complete to the best of my information and knowledge.

Signature of Bidder: _____ **Dated:** _____

Note: The Bidders signature must be notarized to be considered a responsive Bid!

Notary Public

Date

Name and Addresses of Members of the Firm:

BIDDER'S QUALIFICATION STATEMENT

The Bidder is required to submit the following information at the time of bid.

Name of Project submitted for: _____

1. How many years has your organization been in business as a general contractor: _____

2. How many years has your organization been in business under its present name? _____

a. If applicable, under what other names has your organization operated?

i. _____

ii. _____

iii. _____

3. If a corporation, please answer the following:

a. Date of Incorporation: _____

b. State of Incorporation: _____

c. President's Name: _____

d. Vice-President's Name(s) _____

d. Secretary's Name: _____

e. Treasurer's Name _____

4. If a partnership, please answer the following:

a. Date of Organization: _____

b. State type of partnership: _____

c. Name(s) of general partner(s) _____

5. If your organization is individually owned, please answer the following:

a. Date of Organization: _____

b. Name of Owner: _____

6. If the form of your organization is other than those listed above, please describe and name the principals:

7. List the categories of work that your organization normally performs with its own forces:

8. Have you ever failed to complete any work awarded to you? If so, note when, where and why:

9. Are you presently involved in any litigation or arbitration over existing contracts or work? If so, note when, where and why:

10. Within the last five (5) years, has any officer or principal of your organization ever been an officer or principal of another organization that has failed to complete a construction contract? If so, note when, where and why.

11. Attach a separate sheet, listing the major projects that your organization has completed in the past five (5) years, giving the name of project, owner, designer, contract amount, date of completion and percentage of work performed by your organization.

12. Attach a separate sheet, listing the total worth of work in progress and under contract, giving the name of project, owner, designer, contract amount, percent complete and scheduled completion date.

13. Attach a separate sheet, listing the construction experience and present commitment of the key individuals of your organization.

14. Trade References:

15. Bank References:

16. Name of Bonding Company and name and address of agent:

17. **Is NOT required at the time of Bid, but must be made available upon request.** Attach Statement of Financial Conditions, including Contractor's latest regular dated financial statement or balance sheet which must contain the following items:

Current Assets: (Cash, joint venture accounts, accounts receivable, notes receivable, accrued interest on notes, deposits, and material and prepaid expenses), net fixed assets and other assets.

Current Liabilities: (Accounts payable, notes payable, accrued interest on notes, provisions for income taxes, advances received from owners, accrued salaries, accrued payroll taxes)

Other Liabilities: (Capital, capital stock, authorized and outstanding shares par values, earned surplus and retained earnings)

Name and address of firm preparing attached financial statement and date thereof:

The undersigned certifies under oath that the information is true and sufficiently complete so as not to be misleading.

Date: _____

Name of Organization: _____

By: _____ (L.S.)

Title: _____

M _____ being duly sworn deposes and says that the information provided herein is true and sufficiently complete so as not to be misleading.

Subscribed and sworn before me this _____ day of _____ 20____.

Notary Public: _____

My Commission Expires: _____

**CITY OF NORWALK
SAMPLE BOND FORMS**

BID BOND FORM

Herewith find a deposit in the form of a certified check, cashier's check, cash, or bid bond in the amount of \$ _____ which amount is not less than fifteen (15) percent of the total bid.

Sign Here: _____

BID BOND
City of Norwalk
Norwalk, CT

KNOW ALL MEN BY THESE PRESENTS:

That we, _____, of _____
State of _____ as Principal, hereinafter called the Principal,
a corporation partnership individual duly authorized by law to do business in the state of
Connecticut, and _____, as Surety, a Corporation
duly authorized to do a surety business under the laws of the state of Connecticut, hereinafter called the
Surety, are held and firmly bound unto the City of Norwalk, Connecticut, as obligee, hereinafter called
City, in the sum of _____ Dollars
(\$ _____), for the payment of which the Principal and Surety bind themselves, their
heirs, executors, administrators, successors and assigns, jointly and severally, by these presents.
WHEREAS, the Principal has submitted a bid for the project named:

NOW, THEREFORE, if the Obligee shall accept the bid of the Principal, and the Principal shall duly
make and enter into a contract with City in accordance with the terms of said proposal or bid and award
and shall give bond for the faithful performance thereof, with Surety or Sureties approved by City; or if
the Principal shall, in case of failure so to do, pay and forfeit to City the penal amount of the deposit
specified in the all for bids, then this obligation shall be null and void; otherwise it shall be and remain in
full force and effect and the Surety shall forthwith pay and forfeit to City, as penalty and liquidated
damages, the amount of this bond.

Signed and sealed this _____ day of _____ 20 _____.

Witness

Principal (L.S.)

Print name above Title

Witness

Surety (L.S.) Seal

Print name above Title

LABOR AND MATERIAL BOND FORM

Within ten (10) days of notice of acceptance of this proposal, the undersigned agrees to provide a Labor and Material bond in the form of a certified check, cashier's check, cash, or bid bond in the amount of \$ _____ which amount is not less than one hundred (100) percent of the total bid.

LABOR AND MATERIAL BOND

**City of Norwalk
Norwalk, CT**

KNOW ALL MEN BY THESE PRESENTS:

That we, _____, of _____ State of _____ as Principal, hereinafter called the Principal, and _____, as Surety, a Corporation duly authorized to do a surety business under the laws of the state of Connecticut, hereinafter called the Surety, are held and firmly bound unto the City of Norwalk, Connecticut, as obligee, hereinafter called City, in the sum of _____ Dollars (\$ _____), for the payment of which the Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by these presents.

THE CONDITION OF THIS OBLIGATION is such, that WHEREAS said Principal has entered into or intends to enter into a written contract with the City for the construction of the project named:

_____ Which contract, together with all plans and specifications therefore, is hereby referred to, incorporated in, and made a part of this bond as though herein fully set forth.

NOW, THEREFORE, if said Principal shall make payment for all materials and labor used or employed in the performance of such contract, to the extent, and in the manner required by the contract or by the General Statutes of Connecticut, as revised, then this obligation shall be null and void, otherwise it shall remain and be in full force and effect.

Signed and sealed this _____ day of _____ 20 _____.

Witness

Principal (L.S.)

Print name above Title

Witness

Surety (L.S.) Seal

Print name above Title

PERFORMANCE BOND FORM

Within ten (10) days of notice of acceptance of this proposal, the undersigned agrees to provide a Performance bond in the form of a certified check, cashier's check, cash, or bid bond in the amount of \$ _____ which amount is not less than one hundred (100) percent of the total bid.

PERFORMANCE BOND

City of Norwalk
Norwalk, CT

KNOW ALL MEN BY THESE PRESENTS:

That we, _____, of _____ State of _____ as Principal, hereinafter called the Principal, and _____, as Surety, a Corporation duly authorized to do a surety business under the laws of the state of Connecticut, hereinafter called the Surety, are held and firmly bound unto the City of Norwalk, Connecticut, as obligee, hereinafter called City, in the sum of _____ Dollars (\$ _____), for the payment of which the Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT WHEREAS said Principal has entered into or intends to enter into a written contract with the City for the construction of the project named:

_____ which contract, together with all provisions, plans and specifications now made or which hereafter be made in extension, modification or alteration of said Contract, is hereby referred to, incorporated in and made a part of this bond as though herein fully set forth.

NOW, THEREFORE, if said Principal shall perform and comply with all the terms and conditions of said contract, and shall indemnify the Obligee for all losses, that the Obligee may sustain by reason of the Principal's failure to comply with said terms and conditions, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

Provided, however, that any alterations which may be made in terms of said contract or in the work done or to be done under it, which may increase or decrease said Contract sum, or the giving of an Obligee of any extension of time for the performance of said contract or any other forbearance on the part of either the Obligee or the Principal one to the other, shall not in any way release the Principal and/or the Surety, or either of them, their representatives, heirs, executors, administrators, successors or assigns from liability hereunder and any requirement of notice to the Surety or Sureties of any such alteration, extension or forbearance is hereby specifically and absolutely waived.

Signed and sealed this _____ day of _____ 20 _____.

Witness

Principal (L.S.)

Print name above Title

Witness

Surety (L.S.) Seal

Print name above Title

102-16 SPECIAL SPECIFICATIONS AND NOTES

CITY OF NORWALK PROJECT No. DRG2016-2
STORM DRAINAGE IMPROVEMENTS ON FODOR FARM, AVIATION COURT AND
SOUNDVIEW AVENUE

1. SCOPE OF WORK

It is the intent of this project to install a stormwater detention basin and outlet control structure on the City owned parcel of property known as Fodor Farm and install additional storm drainage infrastructure in Aviation Court and a portion of Soundview Avenue starting from the west corner of the intersection with Windsor Place, crossing Soundview Avenue, proceeding west on Soundview Avenue, then north on Aviation Court and ending at the Detention Basin on the Fodor Farm parcel of property. The goals of this project are as follows:

- A.) Eliminate flooding of private properties on Pogany Street and the City owned parcel of property known as Fodor Farm.
- B.) Eliminate flooding within the City Right-of-Way on Pogany Street and Aviation Court.

2. LIQUIDATED DAMAGES

There will be one notice to proceed issued for this project. Ninety (90) calendar days will be allowed for the completion of the work on this project. For each calendar day that any work remains uncompleted after the date specified for the completion of the work provided in the Contract, the amount of **FIVE HUNDRED DOLLARS (\$500.00) per calendar day** will be deducted from any money due the Contractor, not as a penalty but as liquidated damages; provided, however, that due account shall be taken of any adjustment of the contract time for completion of the work as provided elsewhere in the specifications.

3. FORM 816

Any reference to the "Standard Specifications for Roads, Bridges, and Incidental Construction, State of Connecticut, Department of Transportation" within the Bid Documents shall be construed to refer to **FORM 816** dated 2004 as amended. Any references to materials specifications shall refer to the "Standard Specifications for Roads, Bridges and Incidental Construction, State of Connecticut, Department of Transportation" **FORM 816** dated 2004 as amended unless otherwise included or specified in this bid package. The State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, **FORM 816**, 2004 as revised by Supplemental Specifications (otherwise referred to collectively as ConnDOT **Form 816**) is hereby made part of this contract, as modified by the Special Provisions/Technical Specifications or City of Norwalk General Provisions, dated July 2000, last revised

June 21, 2013, contained herein. Any references in the Bid Documents to Form 814A, 1995 shall be construed to refer to **FORM 816** dated 2004 as amended.

4. GENERAL NOTES ON CONTRACT DRAWINGS

The Contractor is hereby alerted to the General Notes on Sheet 2 of the Contract Drawings.

5. PROCUREMENT OF MATERIALS

Upon award, the Contractor shall proceed with shop drawings, working drawings, procurement of materials, and all other submittals required to complete the work in accordance with the contract documents.

6. MATERIALS AND COMMENCEMENT OF WORK

Since a portion of the work on this project will be taking place on the City owned parcel of property known as Fodor Farm, no work shall be allowed to begin on the project until all of the materials (pipe, outlet control structure, catch basin components, manhole components, etc.) for the entire project have been acquired by the Contractor and are ready for delivery to the site. **Due to the work on the Fodor Farm parcel of property, once the work has commenced on the project, the Contractor shall work on this project until the work on the project has been completed.**

7. HOURS OF OPERATION

Since the City of Norwalk has a noise ordinance which must be adhered to, the Contractor's activities will be limited to the hours from 7:00 A.M. to 7:00 P.M., Monday through Friday. No work will be allowed on weekends without specific prior written approval from the Engineer. The City of Norwalk Noise Ordinance restricts the operation of heavy equipment outside of the hours of 7:00 A.M. to 8:00 P.M.

8. NOTIFICATION

Any Daily work, **under ANY pay item**, must also be reported to the City by 4pm the day prior to the proposed work being conducted, for the purpose of scheduling inspections. If work commences without acceptable notification/inspection, the Contractor may not be paid for the work conducted.

The City is now requesting that all such notification/scheduling be provided in e-mail form to the following e-address:

DPWPermits@norwalkct.org.

9. PERMITS

The Contractor shall be required to obtain an Encroachment Permit from the City of Norwalk Department of Public Works for this project simply for documentation purposes. Since this is a City Department of Public Works project, all fees will be

waived. There will be no separate direct payment for obtaining the required permit. The cost shall be included in the cost of the other bid items including all labor, materials, or any other costs associated with successfully obtaining the permit.

10. CONTRACT DRAWINGS

The Contractor is hereby reminded that he is responsible to visit the site prior to bidding to ascertain actual field conditions. The contract drawings consisting of the planimetric features, topography, property lines, dwellings, driveways and other improvements were transcribed from the City's G.I.S. system mapping. This information has been supplemented with survey information prepared by Milone & MacBroom, Inc., Cheshire, CT 06410. The subsurface information is a compilation of field measurements, available public utility records and municipal records. The accuracy and completeness of subsurface information shown on these drawings is not guaranteed. The Contractor is required to Call Before You Dig prior to starting excavation. The Contractor shall determine the locations and elevations of all utilities within the City Right-of-Way or on private property which may affect their operations. The Contractor must adequately support all utilities and shall be responsible for protection of utility lines and any other property of the City or private property owners. The Contractor shall be responsible for repair of all damage to these facilities caused by their operations.

11. VERIFICATION OF PLAN DIMENSIONS AND FIELD MEASUREMENTS

The Contractor is responsible for verifying all dimensions before any work is begun. Dimensions of the existing structures shown on the plans are for general reference only; they are not guaranteed. The Contractor shall take all field measurements necessary to assure proper fit of the finished work and shall assume full responsibility for their accuracy. When shop drawings and/or working drawings based on field measurements are submitted for approval and/or review, the field measurements shall also be submitted for reference by the reviewer.

In the field, the Contractor shall examine and verify all existing and given conditions and dimensions with those shown on the plans. If field conditions and dimensions differ from those shown on the plans, the Contractor shall use the field conditions and dimensions and make the appropriate changes to those shown on the plans as approved by the Engineer. All field conditions and dimensions shall be so noted on the drawings submitted for approval.

There shall be no claim made against the City by the Contractor for work pertaining to modifications required by any difference between actual field conditions and those shown by the details and dimensions on the contract plans. The Contractor will be paid at the unit price bid for the actual quantities of materials used or for the work performed, as indicated by the various items in the contract.

12. SOIL EROSION AND SEDIMENT CONTROL

All soil erosion and sediment control measures shall be performed in accordance with the "Connecticut Guidelines for Soil Erosion and Sediment Control" dated January 1985 as amended, or as detailed in the Contract Documents. See appropriate specifications for additional information.

13. MAINTENANCE AND PROTECTION OF TRAFFIC

The Contractor shall furnish all traffic control, which shall include providing all necessary signs, barricades, and flagman to adequately protect the operation in accordance with the Manual On Uniform Traffic Control Devices.

The Contractor shall conduct the work at all times, in such a manner and in such sequence as will ensure the least practicable interference with traffic.

The Contractor shall note that they shall be responsible for providing appropriate traffic control persons anytime they are working within or obstruct traffic (pedestrian or vehicular) within the roadways during the construction of this project. Appropriate traffic personnel shall mean either State Certified Traffic Control Persons or Off Duty City of Norwalk Police Officers.

The project will be constructed while maintaining one lane of alternating traffic around the work areas throughout construction. **CLOSURE OF ROADWAYS WILL NOT BE ALLOWED.** The Contractor will be required to maintain access into and out of all residential driveways by pedestrian and vehicular traffic, except in the immediate area that he is working. The Contractor is responsible for providing notice to property owners regarding access issues to their property 48 hours in advance of disrupting access. In no case will the access to property be disrupted for more than 24 hours or on weekends.

The City shall order suspension of the work if in the opinion of the Engineer, traffic is excessively disrupted. On roadways carrying extremely high traffic volumes (Soundview Avenue), work hours shall be restricted when and where necessary. The Contractor shall be informed of these locations prior to the commencement of work.

The Contractor shall be required to complete all Permanent Pavement Repairs started on any work day within that work day. If for whatever reason, the Contractor is unable to complete the work started on any work day, all signs, barricades and lights which are deemed necessary by the Engineer to adequately protect the traveling public shall be furnished, installed and maintained by the Contractor at no additional cost to the City.

14. TRAFFIC PERSONS

It is intended that all traffic persons used for these projects will be "Uniformed Flaggers" with compensation being made to the Contractor based upon the number of hours flaggers work on the project in accordance with Item 0970007A, "Trafficmen (Uniformed Flagger)." If directed by the Director of Public Works, the Contractor shall employ "Municipal Police Officers" for traffic control on Soundview Avenue with compensation being made to the Contractor from the allowance in accordance with Item 0970006A, "Trafficmen (Municipal Police Officer)."

15. WARNING MARKINGS

In conformance with Section 16-345 of the Regulations of the Department of Public Utility Control, the Contractor shall install a metallic warning tape located a minimum of twelve (12) inches above all conduit, wires, cables, utility pipes, drainage pipes, under drains, or other facilities. The warning tape shall be of durable impervious material, designed to withstand extended underground exposure without material deterioration or color fade. It shall be of the color assigned to the type of facility for surface markings and shall be durably imprinted with an appropriate warning message. The tape shall also comply with specific requirements of the utility which owns the facility.

All tapes, unless otherwise directed by the specific utility, shall be detectable to a depth of at least three (3) feet with the least expensive commercial radio type metal locator.

Assigned colors are:

- Green - Storm and sanitary Systems
- Blue - Water
- Orange - Communication lines or cables
- Red - Electric power lines and conduits
- Yellow - Gas, oil, steam, petroleum products, compressed air, compressed gases, and all other hazardous materials
- Brown - Other
- Purple - Radioactive material

There will be no additional payment for the tape, the cost of which shall be included in the cost of the conduits, wires, cables, utility pipes, drainage pipes, underdrains, or other facilities.

16. THE FOLLOWING PROVISIONS OF THE COMMON COUNCIL RESOLUTION REGARDING LABOR ON CITY CONSTRUCTION CONTRACTS, ENACTED OCTOBER 26, 1992, SHALL APPLY:

Now, therefore, be it resolved, by the Common Council of the City of

Norwalk, Connecticut that each contract for the construction or repair of any building for the City of Norwalk shall contain the following provisions:

“In the employment of labor to perform the work specified herein, preference shall be given to the residents of the United States, who are, and continuously for at least three (3) months prior to the date hereof have been, residents of the labor market areas (of which Norwalk is a part), and if no such qualified person is available, then residents who have continuously resided in the county in which the work is to be performed for at least three (3) months prior to the date hereof, and then to residents of the state who have continuously resided in the state for at least three (3) months prior to the date hereof.”

Provided, however, that no such provisions shall apply where the City may suffer the loss of revenue granted or to be granted from any agency or department of the State of Connecticut or of the Federal Government as a result of said provisions or regulative pursuant thereto.

17. LABOR AND EMPLOYMENT REGULATIONS - PREVAILING WAGE RATES

Pursuant to Connecticut General Statutes, Section 31-52a, the following provision shall be incorporated into this contract and each subcontract hereunder insofar as this Contract or any such subcontract concerning a Public Works Project, including, but not limited to, construction, remodeling, or repairing of any public facility or structure (except public buildings covered by Section 31-52), site preparation or improvement, appurtenances or highways, or the preparation or improvement of any land or waterway on or in which a structure is situated or to be constructed.

In the employment of mechanics, laborers or workmen to perform the work specified herein, preference shall be given to residents of the State who are, and continuously for at least six (6) months prior the date hereof have been, residents of this State, and if no such person is available then to residents of other states. Nothing herein shall abrogate or supersede any provision regarding residence requirements in a collective bargaining agreement to which the Contractor is a party.

The Contractor shall include the foregoing provision in all subcontracts and subagreements entered into pursuant to this Contract or related to this Project.

Pursuant to Connecticut General Statutes, Section 31-53, the following provision shall be incorporated into each contract for work relating to the construction of a Public Works project where the total cost of all work to be performed in connection with such project is Four Hundred Thousand Dollars (\$400,000.00) or more, and each contract for work relating to the remodeling, refinishing,

refurbishing, rehabilitation, alteration or repair of any Public Works project where the total cost of all work to be performed in connection with such project is One Hundred Thousand Dollars (\$100,000.00) or more:

The wages paid on an hourly basis to any mechanic, laborer or workman employed upon the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such employee to any employee welfare fund described in Section 31-53(h) of the Connecticut General Statutes, shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the City of Norwalk. Any Contractor who is not obligated by agreement to make a payment or contribution on behalf of such employees to any such employee welfare fund shall pay to each employee as part of his wages the amount of payment or contribution for his classification on each pay day.

In the event that the City determines that any mechanic, laborer, or workman employed by the Contractor or any Subcontractor directly on the site for the work contemplated hereunder has been or is being paid a rate of wages less than that required to be paid, as stated herein, the City may, by written notice to the Contractor, terminate the Contractor's right to proceed with the work hereunder or such part of the work for which there has been failure to pay the required wages. In the event of such termination, the City may prosecute the work to be completed by contract or otherwise and the Contractor and its sureties shall be liable to the City for all costs incurred thereby in excess of the compensation to be paid under this Contract.

NOTE: THE CITY OF NORWALK HAS DETERMINED THAT PREVAILING WAGE RATES DO APPLY FOR THIS PROJECT IF THE TOTAL COST BID IS OVER \$100,000.00.

Prevailing wage rates have been included in 102-18 – Labor Rates.

18. MINORITY, WOMAN OR DISADVANTAGED BUSINESS ENTERPRISE REQUIREMENTS

Do not apply for this project.

19. NON-RESIDENT CONTRACTORS (CONNECTICUT GENERAL STATUTES 12-430-7)

The lowest qualified responsible bidder, if awarded the project by the Common Council and an "out of state" contractor will be required to provide proof to the City that they have complied with CGS 12-430-7, prior to execution of the Contract.

A non-resident contractor entering into a contract under which tangible personal

property will be consumed or used in Connecticut must deposit with the Commissioner of Revenue Services:

A.) 5% of the total contract price, or

B.) Must post a guarantee bond in the same amount to secure payment of Connecticut taxes.

The term Non Resident Contractor is defined as a contractor without a permanent place of business in this state. Such a place of business means an office continuously maintained, occupied and used by such contractor's employees regularly in attendance to carry on such contractor's business in the contractor's own name. An office maintained, occupied and used by a contractor only for the duration of a contract will not be considered a permanent place of business. An office maintained, occupied and used by a person affiliated with a contractor will not be considered a permanent place of business of the contractor.

Form AU -766 Guarantee Bond has been included in the Appendix.

20. PROTECTION AND COORDINATION OF EXISTING UTILITIES - CALL BEFORE YOU DIG

Existing utilities shall be maintained during construction except as specifically stated herein and/or noted on the plans and as coordinated with the utilities. The Contractor shall verify the location of underground, structure mounted and overhead utilities. Construction work within the vicinity of utilities shall be performed in accordance with current safety regulations.

Prior to any excavation taking place for any work related to this project, the Contractor shall contact all utility companies for verification of location of all underground utilities. The Contractor shall notify "Call Before You Dig", telephone: 8-1-1 or 1-800-922-4455 or go to CBYD.com for the location of public utility, in accordance with Section 16-345 of the Regulations of the Department of Utility Control.

Representatives of the various utility companies shall be provided access to the work, by the Contractor.

Contractors are cautioned that it is their responsibility to verify locations, conditions, and field dimensions of all existing features, as actual conditions may differ from the information shown on the plans or contained elsewhere in the specifications.

The Contractor shall notify the Engineer prior to the start of work and shall be responsible for all coordination with the Department. The Contractor shall allow

the Engineer complete access to the work.

The Contractor shall be liable for all damages or claims received or sustained by any persons, corporations or property in consequence of damage to the existing utilities, their appurtenances, or other facilities caused directly or indirectly by the operations of the Contractor.

Any damage to any existing private and public utility, as a result of the Contractor's operations, shall be repaired to the utility's and Engineer's satisfaction at no cost to the State or the Utilities, including all materials, labor, etc., required to complete the repairs.

The Contractor's attention is directed to the requirements of Section 1.07.13 – "Contractor's Responsibilities for Adjacent Property and Services".

Prior to opening an excavation, effort shall be made to determine whether underground installations, i.e., water, sanitary, gas, electric ducts, communication ducts, etc., will be encountered and, if so, where such underground installations are located. When the excavation approaches the estimated location of such an installation, the exact location shall be determined by careful probing or hand digging, and when it is uncovered, proper supports shall be provided for the existing installation. Utility companies shall be contacted and advised of proposed work prior to the start of actual excavation, as noted above.

The Contractor shall coordinate all utility relocations with the respective utility company.

The Contractor shall notify appropriate utility companies two weeks in advance of the required valve box adjustments as shown on the plans. The contractor will be responsible for resetting the valve boxes.

21. PROTECTION OF PERSONS AND PROPERTY

The Contractor shall barricade (fence) all earthwork/excavation operations that are part of this work. The Contractor shall exercise care in his construction procedures to protect all trees and shrubs, patios, fences, etc. which are not in direct conflict with his excavations. The Contractor shall protect structures, foundations, utilities, walkways, pavement, patios, retaining walls, etc. from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork/excavation operations. The Contractor shall provide barriers and warning notices as needed to prevent public access to the work areas. Prior to the commencement of work, the Engineer and the Contractor shall inspect the site to determine the extent of clearing and grubbing and the specific locations in which tree protection, existing structure protection, barricades (fence), barriers, and warning notices are required. The Engineers

decision as to the requirement for these measures will be final.

22. ACCESS TO PROPERTY

The Contractor shall provide all of the property owners, both commercial as well as residential, as applicable, with a means of accessing their property at all times. The Contractor shall install steel plates in the driveways and/or sidewalks if necessary during the excavation for the installation and during the actual installation of the drainage pipes and structures to allow property owners to drive into their driveways and access their walkway. There will be no direct payment for this work. The cost shall be included within the unit prices bid for other items.

23. PROTECTION OF EXISTING SEWER LATERALS / ACTIVE SEPTIC SYSTEMS (IF APPLICABLE) DURING CONSTRUCTION

When excavating for the installation of the storm drainage system (including any components of the system), special care shall be taken by the Contractor not to damage any portion of the existing sanitary sewer laterals / active septic systems or leaching fields (if applicable). Any damage shall be repaired by the Contractor to keep the sewer system operational to the satisfaction of the City of Norwalk Health Department and the Engineer. This repair work will be done by the Contractor at no cost to the City or the Property Owner.

24. CLEARING AND GRUBBING (SUPPLEMENTAL)

The Contractor will be required to visit the sites prior submitting his bid, to familiarize himself with the scope of work for this item. The City of Norwalk Tree Warden shall be notified prior to removal or pruning of any trees that the contractor thinks will interfere with his work that are within the City Right-of-Way. Posting for the required time period will still be necessary as part of the public notification. The cost of tree removals and tree prunings shall be included as part of the lump sum bid for Clearing and Grubbing.

Included in Item 0201001A shall be careful removal and resetting of any fences of any type, including metal beam guide rail, where shown on the Contract Drawings or as directed by the Engineer.

All new materials required shall conform to the requirements of Section M.10. Concrete shall conform to Article M.03.01.

The Contractor shall carefully remove sections of the existing fence as required or as directed by the Engineer. If the existing posts are set in concrete, the concrete shall be broken up and removed and the posts cleaned and stored for reuse. Holes left by the removal of the posts shall be backfilled and compacted.

For resetting of the removed fence sections, all applicable provisions of Articles 9.06.03 or 9.13.03 of the "State of Connecticut, Department of Transportation,

Standard Specifications for Roads, Bridges, and Incidental Construction, Form 816 dated 2004 as amended shall apply.

Construction Methods is amended by the following: Delete the first, second, and third paragraphs and replace with the following:

Within the excavation and fill lines only those trees marked for removal on the plans shall be cut off and stumps removed to a depth of not less than 12 inches below the graded surface after they have been properly posted by the City for removal (posting applies to City trees only).

This item is not a pay item but its cost shall be included in the cost of the remaining bid items. If new materials are required for resetting of fences, payment will be made for these new materials upon approval of the Engineer. No separate payment will be made for labor or any others costs associated with this work unless there is an Item of work specifically designated in the Itemized Proposal (Item 0906203A – Split Rail Fence). If there is, any work called for under that particular Item will be paid for in accordance with that Item.

25. DUST CONTROL

The Contractor is responsible for controlling air pollution at all times during work of this contract, 24 hours a day, 7 days per week, including non-working hours, weekends and holidays.

The Contractor shall comply with all State and Federal regulations pertaining to dust control. Particular attention shall be made to the Regulations of Connecticut State Agencies Section 22a-174-18a, b “Control of Particulate Emissions”.

The contractor shall submit a dust control plan to the Engineer within 30 days after the Award of the Contract. The dust control plan shall include contact information for the responsible individual(s) from the contractor (24-hour availability) who have authority to implement necessary controls. The plan should detail dust control procedures for anticipated activities that may typically generate dust (ex. Jack hammering, sawcutting pavement, haul roads, material storage sites, etc.)

The cost for the dust control submittal associated with this “Dust Control” notice shall be included in the general cost of the contract. Payment for the application of dust control items included in the Contract will be under those respective items.

When deemed necessary by the Engineer, the Contractor shall provide water, not calcium chloride for the purpose of allaying dust conditions at the site. The water shall be applied only at the locations, at such times, and in the amount as

may be directed by the Engineer. It shall be spread in such a manner and by such devices that uniform distribution is attained over the entire area on which it is ordered to be placed in accordance with Item 0943001, "Water For Dust Control." It shall not be applied in any manner or in quantities that could potentially cause flooding or erosion. This work will be paid for in accordance with Item 0943001, "Water For Dust Control."

Item 0939001, "Sweeping For Dust Control" and Item 0943001, "Water For Dust Control" will only be paid for when the dust conditions are a result of the Trenching and Backfilling work required for the installation of the new storm drainage culvert and the construction of the stormwater detention basin.

26. STREET CLEANING

The Contractor shall be responsible for sweeping on all streets designated to receive asphalt (including Permanent Pavement Repairs). Any minor handwork caused by unexpected weather conditions shall be corrected by the Contractor just prior to the placement of the bituminous concrete material.

27. TACK COAT

A tack coat of CRS-I or Rs-1 shall be applied to pavement surfaces prior to the application of the initial bituminous mixture at a residual asphalt rate of 0.03 to 0.05 gal/sy.

The tack coat shall be applied only when the existing pavement is dry. The tack coat shall be applied only when the atmospheric temperature in the shade is over 50 degrees F. and when the temperature has not been below 35 degrees F. within the last 12 hours.

Tack coat does not need to be applied between the binder course and the surface course if the time between placement of both courses does not exceed 5 (five) calendar days. If the time span between the placement of the binder and surface course is greater than five days, a tack coat must be applied.

All surfaces shall be cleaned of all loose aggregate particles, dust, and foreign matter prior to placing the tack coat and the overlay.

Tack coat will not be measured for payment. However, the cost of which should be included within the unit prices bid for the various Bituminous Concrete Items.

Tack coat will be placed on all surfaces prior to paving unless waived by the Engineer.

28. BITUMINOUS CONCRETE PAVEMENT RESTORATIONS

The Contractor shall repair pavement which has been damaged or removed

during the course of construction using the appropriate bituminous concrete (HMA) mixtures and thickness in accordance with the Contract Documents and the Pavement Restoration Schedule on page 10 of 18 of the Contract Drawings. The locations where there are permanent full depth trench repairs called for shall also be cracked sealed.

The Contractor will be responsible for the satisfactory disposal of all excess material from the streets including broken asphalt. There will be no payment for this work.

The Contractor should be aware that some sub-surface areas may contain stones of various sizes and he shall be responsible for their removal and disposal.

29. BITUMINOUS CONCRETE PAVEMENT TRENCH REPAIR

The Contractor shall repair pavement which has been damaged or removed during the course of construction in accordance with the specifications of Item 407, using the appropriate bituminous mixtures and thickness as indicated in the plans and specifications. Temporary trench repair shall be as specified below:

A.) PERMANENT FULL DEPTH TRENCH REPAIR

Soundview Avenue is classified as a Minor Arterial road.

B.) TEMPORARY TRENCH REPAIR

The trench in Aviation Court shall be temporarily repaired. The temporary trench repair shall be as specified below.

- 1.) 12" Process Aggregate Base (shall be paid for as part of Item 0406005A, "3" Temporary Pavement Repair (Aviation Court)."
- 2.) 3" Bituminous Concrete as indicated in Item 0406005A, "3" Temporary Pavement Repair (Aviation Court)" of this specification (shall be paid under Item 0406005A, "3" Temporary Pavement Repair (Aviation Court))."

The Contractor will be responsible for the satisfactory disposal of all excess material from the streets including broken asphalt. There will be no payment for this work.

The Contractor should be aware that some sub-surface areas may contain stones and cobblestones of various sizes and he shall be responsible for their removal and disposal.

The Contractor shall be responsible for the maintenance of the temporary

pavement on Aviation Court for one year. The City under a separate Contract shall apply final pavement to Aviation Court at a later date.

30. SAWCUTTING BITUMINOUS CONCRETE PAVEMENT

The Contractor neatly line cut vertically the edges of the excavation vertically one foot beyond the undisturbed earth and at no time be less than the trench limit plus two feet and prepare the excavated area to receive a sufficient depth of bituminous concrete to allow for replacement of the existing pavement structure that was removed. There will be no separate for sawcutting the trenches. This work should be included in the unit price bid per square yard for Item 0406005A, "3" Temporary Pavement Repair (Aviation Court)," Item 0406006A, "5" Temporary Pavement Repair (Soundview Avenue)" or Item 0406006A, "Permanent Pavement Repair (Soundview Avenue)," depending upon the location and type of work being done.

31. TEMPORARY PAVEMENT

The Contractor shall maintain temporary pavement installed as part of the project for the duration of the project.

32. HMA ADJUSTMENT COST

Any reference to the Hot Mix Asphalt (HMA) Adjustment Cost will not be used on this project.

33. OTHER CONTRACTORS

The Contractor is hereby notified that from time to time there may be other contractors (e.g.: those employed by utility companies in relocating services) who require access within the construction site and who require to perform their own work while the main contractor is in possession of the site. Due to the circumstances of this project, this is unavoidable and the contractor is notified that his cooperation is required. Regular meetings will be held with all parties requiring such access and every effort will be made to avoid disruptions to critical activities.

34. SUBSURFACE INFORMATION

At the time of the opening of bids, each Bidder will be presumed to have inspected the site for the proposed work to be completed and to have read and be thoroughly familiar with the Contract Documents.

Bidders are notified that it is obligatory upon them to obtain by their own means information which they may require as to the existing physical conditions, and, in particular, as to subsurface and ground water conditions.

A General Scope of Work is included within the Bid Documents for the

Contractor's information.

Each bidder should visit and investigate the site and fully acquaint themselves with the existing conditions relating to construction, materials, quantities, labor, and traffic. The Bidders should also familiarize themselves with the facilities involved, the difficulties and restrictions affecting the performance of the contract.

35. SUPPORT OF EXISTING UTILITIES

The Contractors attention is called to the fact that utilities exist on the streets within this project. The sanitary sewers, water mains and gas mains in the area of this project are extremely old and brittle and must be supported properly during construction. Pursuant to Item 0205000, "Trench Excavation" of the appropriate classification, the Contractor is required to support all utilities including, but not limited to storm drains, sanitary sewer mains and laterals, water lines and services, gas mains and services, electric lines and all other feeds to buildings, as well as utility poles, impacted by this project. There will be no direct payment made for this work, the cost shall be included in the unit price bid for Item 0205000, "Trench Excavation" of the appropriate classification.

36. ITEM 1300001A - SUPPORT OF EXISTING UTILITY POLES

There are overhead wires on the existing utility poles in certain areas of this project and the Contractor is required to support and/or protect the utilities impacted by this project. Prior to digging within 4' of any Utility Pole, the Contractor shall contact the Utility Company that owns the pole to schedule for the support of the pole by the owner Utility Company during construction. The Contractor shall coordinate this work with each of the respective Utility Companies. If the Utility Company charges for this work (Labor and/or Truck Charge) it will be paid for from the allowance under Item 1300001A, "Support Of Existing Utility Poles." There will be no payment from the allowance if the Utility Company does not charge the Contractor for its services.

Utility Company Contacts:

Eversource - Electric – James Calabrese – Senior Consultant - (203) 845-3664

Frontier - Communications - Robert Shepard – Telecommunications Specialist - (203) 383-6626

37. RELOCATION OF EXISTING UTILITIES

Work under this Item shall consist of the relocation of any existing utilities when required to resolve conflicts caused by the installation of the new storm drainage system components (storm sewer pipes, storm water junction structures, manholes, catch basins, etc.) to allow for the successful completion of this

project. The Contractor shall only perform this work with the prior approval of the Engineer. The work under this Item will be paid from the allowance under Item 1000000A, "Relocation Of Existing Utilities" in accordance with Section 109-04 (Extra And Force Account Work) of the General Provisions of this specification on a Time and Materials basis. All Utility Relocation work under this Item will be required to meet the requirements (materials and construction methods) of the particular Utility that is being relocated. There will be no payment under this Item for utilities that have to be relocated and/or are damaged due to the Contractors negligence. There will be no payment from the allowance if a Utility Company does not charge the Contractor for the relocation of their facility, such as a service lateral.

38. DEMOLITION OF EXISTING DRIVEWAYS, CURBS AND SIDEWALKS

If either a concrete or a bituminous concrete driveway, sidewalk or curb needs to be cut back for the installation of the new storm drainage system in the locations shown on the plans or as directed by the Engineer, the Contractor shall saw cut a neat line (**NOT** with a jackhammer) and separate it clearly from the adjacent sidewalk, driveway or curb at the edge of the limits of the trench excavation. The Contractor shall take preventative measures to protect all adjacent driveway, sidewalk, pavement and/or curbing that is to remain; as well as any retaining or decorative walls from damage during construction. Any damage shall be repaired with equal or better material at no cost to the City. Prior to the start of construction, the Contractor shall inspect the site and report any existing damage to the adjacent properties or structures in writing to the Engineer. The City is only responsible to pay for driveways, sidewalks and curbs affected by the installation of the new storm drainage system to the pavement repair payment limits as shown on the standard details. The Contractor is responsible for the repair of driveways, sidewalks and/or curbs that are damaged or negatively affected due to the Contractor's negligence. There will be no separate payment made for any of the demolition work mentioned above. It will be paid for as part of associated sidewalk, driveway or curb Items listed in the Itemized Proposal for this project.

39. BELGIUM BLOCK PLANTER CURB OR RAILROAD TIES INSTALLED BY PRIVATE PROPERTY OWNERS

Any Belgium Block Planter curb or Railroad Ties that were installed by private property owners and are being removed to install new bituminous curb or concrete curb at the locations indicated on the Contract Drawings or as directed by the Engineer shall be neatly placed on the corner of the adjoining property that it was removed from if the property owner would like to keep the material, except at the locations where it is called out to be reset on the Contract Drawings. If the property owner does not want to keep the material, the Contractor shall remove it from the project site and dispose of it in a legal manner. There will be no additional payment for this work. The cost shall be included in the cost of Item 815001, "Bituminous Concrete Lip Curbing."

40. PRE-CONSTRUCTION INSPECTIONS

Copies of pre-construction inspections, including pre-blast inspections, shall be provided to the respective property owner and the City prior to any construction.

41. FURNISHING AND PLACING TOPSOIL AND TRUF ESTABLISHMENT

Furnishing and Placing Topsoil and Turf Establishment shall be applied to any existing grass areas disturbed during construction, or as directed by the Engineer. The topsoil shall be spread uniformly to a depth of at least six inches (6") unless otherwise directed by the Engineer. The topsoil shall not be spread when it is wet or frozen and in accordance with these specifications. This work shall be paid for under Item 0944003A, "Furnishing and Placing Topsoil" and Item 0950005A, "Turf Establishment (Modified)." The pay limits for Item 944001, "Furnishing and Placing Topsoil" and Item 950005A, "Turf Establishment (Modified)" shall be an additional two feet (2'-0") on each side of the trench width pay limit, or two feet (2'-0") past the areas that are disturbed as a direct result of the installation of new storm drainage system components.

42. CATCH BASIN GRATE ELEVATIONS AND MANHOLE RIM ELEVATIONS

The proposed catch basin grate elevations and manhole rim elevations were established using contours and elevations based upon the North American Horizontal Datum 1983 (NAHD 1983) and the North American Vertical Datum 1988 (NAVD 1988). This information has been supplemented with survey information prepared Milone & MacBroom, Inc., Cheshire, CT 06410. The catch basin grates and manhole rims should be set at grade in the field so that positive drainage is established. Storm water should drain freely into the catch basins and not run around them.

43. TRENCH EXCAVATION

Trench excavation for the installation of the outlet control structure, catch basins, manholes and storm drainage culverts shall include the removal and legal disposal of any abandoned gas, water, drainage or other utility pipes, etc. There will be no extra payment for this work. It will be measured in accordance with Item 0205000, "Trench Excavation," of the appropriate classification. The internal volume of the pipes will not be measured for payment.

44. SPECIALTY ITEMS

The Department has designated the following Item(s) as "Specialty Items":

Item 0406005A	3" Temporary Pavement Repair (Aviation Court)
Item 0406006A	5" Temporary Pavement Repair (Soundview Avenue)
Item 0406007A	Permanent Pavement Repair (Soundview Avenue)
Item 0815001	Bituminous Concrete Lip Curbing
Item 980002A	Project Survey and Stakeout

Item 1000000A	Relocation of Existing Utilities
Item 1210102	4" Yellow Epoxy Resin Pavement Markings
Item 1300.0100	Support of Existing Utility Poles

45. TREE PROTECTION – EXISTING TREES AND SHRUBS

The Contractor shall exercise care in his construction procedures to protect all existing trees and shrubs which are not in direct conflict with his excavations. Tree protection for existing trees shall be installed in accordance with the Contract Drawings. Prior to the commencement of work, the Engineer and the Contractor shall inspect the site to determine the extent of clearing and grubbing and the specific locations in which special tree protection is required. City trees may only be removed after they have been properly posted by the City for removal in accordance with Item 0201001A, "Clearing and Grubbing."

46. PROJECT SURVEY AND STAKEOUT

The Contractor will have to have the location of the City Right-Of-Way on the north, east and west sides of Aviation Court staked out to confirm that the installation of the new storm drainage infrastructure facilities related to this project are being installed within the City Right-Of Way, and not on private property. There will be no additional payment for this work. The cost shall be included in the unit price bid for Item 0980002A, "Project Survey and Stakeout."

47. MAINTENANCE OF STORM DRAINAGE FLOWS DURING CONSTRUCTION

The Contractor shall be responsible for maintaining storm drainage flows at all times during construction of the project. The Contractor shall be responsible for providing temporary transition piping to carry storm drainage flows from the newly constructed storm drainage system to the existing storm drainage system in case of rain. The transition piping shall be capable of carrying all the flow from the newly installed storm drainage system to the existing storm drainage system without any of the flow bypassing the end of the newly installed pipe and causing the open trench to become flooded, or the bedding material under the newly installed pipe to be washed away therefore, compromising the structural stability of the newly installed pipe. In the case that this does occur, the Contractor shall be responsible for repairing the installation of the new pipe or drainage structures that was damaged to the standards called for in the Construction Documents, to the satisfaction of the Engineer and at no cost to the City. The transition piping will be installed at the end of every work day and left in place until work commences again. There will be no direct or separate payment for this work. The cost of the work shall be included in the cost of the other bid items including all labor, materials, or any other costs associated with the execution of this work.

48. MANHOLE – 48" DIAMETER

The cost of the Class "C" Concrete fill to form the inverts in the Manholes shall be included in the price bid for Item 0507493, "Manhole – 48" Diameter. There

will be no additional payment for the labor or materials to complete this work.

49. PIPE CONNECTIONS TO EXISTING CATCH BASIN

The proposed pipe connections to the existing Type "C" Catch Basin Doublegrate - Type II at the west corner of the intersection of Soundview Avenue with Windsor Place will be paid for in accordance with Item 0507105A, "Connection To Existing Manhole, Catch Basin or Drywell."

50. STAGING AREAS

The Contractor will not be allowed to store materials for this project on private property or within the City Right-of-Way. The Contractor will not be allowed to set up a field office for this project due to the nature of the residential areas where the project takes place. The Contractor is responsible for providing sanitation facilities on site for their employees.

51. STONE WALL FENCE

This Item consists of the reconstruction of approximately 30± L.F. of stone wall on the east side of the proposed gravel access drive along the property line of the Fodor Farm parcel of property and 7 Pogany Street that has previously been destroyed by flooding. It shall be paid for under Item 0905001A, "Stone Wall Fence." Rebuilding of the wall shall be done using the existing stone from the damaged portion of the wall as much as possible. Supplemental material shall match the character of the stone in the existing portion of the wall that is to remain.

52. UTILITIES

The following list of Utility Companies and contact persons may be used for the convenience of the Contractor.

Mr. Jim Calabrese
Eversource Electric
9 Tindall Avenue
Norwalk, CT 06851
Office: (203) 845-3664

Mr. Al Dias
Eversource Gas
11 Harbor Avenue
Norwalk, CT 06850
Office: (203) 854-6450

Mr. Michael Kirner
Frontier
Outside Network Engineering

10 Willard Road
Norwalk, CT 06851
Office: (203) 853-5387
Cell: (203) 219-8041

Mr. Robert Shepard
Frontier
Telecommunications Specialist
Office: (203) 383-6626

Mr. Tom Villa
South Norwalk Electric and Water (SNEW)
Director of Water Operations
164 Water Street
Norwalk, CT 06854
Office: (203) 762-7884 Ext. 4301

Mr. Paul Spinelli
Cablevision
28 Cross Street
Norwalk, CT 06851
Office: (203) 750-5629

53. TEST PIT INFORMATION

Test pits were excavated on April 15, 2016 at the locations indicated on the Site Layout Plan, Sheet 3 of 18 of the Contract Drawings. The results have also been included on the Site Layout Plan, Sheet 3 of 18. Excavation and backfill for any additional test pits required by the Engineer during the duration of this project shall comply with, and be paid for under the provisions of either Item 0205001A, "Trench Excavation (0' – 4' Deep)" or Item 0205003A, "Trench Excavation (0' – 10' Deep)" of the appropriate classification.

54. CONTRACTOR TRAINING REQUIREMENT FOR 10-HOUR OSHA CONSTRUCTION SAFETY AND HEALTH COURSE

In accordance with Connecticut General Statute 31-53b and Public Act No. 08-83, the Contractor is required to furnish proof that any person performing the work of a mechanic, laborer or worker pursuant to the classifications of labor under section 31-53, has completed a course of at least ten hours in duration in construction safety and health approved by the Federal Occupational Safety and Health Administration or, has completed a new miner training program approved by the Federal Mine Safety and Health Administration in accordance with 30 CFR 48 or, in the case of telecommunications employees, has completed at least ten hours of training in accordance with 29 CFR 1910.268.

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 years prior to the 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 Department of Transportation on which the employee's name first appears.

Any employee required to complete a construction safety and health course as required that has not completed the course, shall have a maximum of fourteen (14) days to complete the course. If the employee has not been brought into compliance, they shall be removed from the project until such time as they have completed the required training.

This section does not apply to employees of public service companies, as defined in section 16-1 of the 2008 supplement to the General Statutes, or drivers of commercial motor vehicles driving the vehicle on the public works project and delivering or picking up cargo from public works projects provided they perform no labor relating to the project other than the loading and unloading of their cargo.

The internet website for the federal Occupational Safety and Health Training Institute is <http://www.osha.gov/fso/ote/training/edcenters>.

Additional information regarding this statute can be found at the Connecticut Department of Labor website, <http://www.ctdol.state.ct.us/wgwkstnd/wgemenu.htm>.

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

55. SUBMITTALS FOR IMPORTED AGGREGATES

In accordance with the requirements in these special provisions and the CT DOT Form 816, specifically the Materials Section, the contractor is hereby notified of the requirement to provide submittals which include, but may not be limited to, tests on the gradation, abrasion and soundness of the aggregate materials proposed for use on this project. The tests must be current and based on a specific source location/pile. No material shall be imported until the Engineer issues a written approval. The Contractor shall also provide testing and documentation of the imported and stockpiled material to confirm consistency with the approved submittals and compliance with these specifications.

INSURANCE RIDER

The Contractor shall provide and maintain insurance coverage related to its services in connection with the Project in compliance with the following requirements.

The insurance required shall be written for not less than the scope and limits of insurance specified hereunder, or required by applicable federal, state and/or municipal law, regulation or requirement, whichever coverage requirement is greater. It is agreed and understood that the scope and limits of insurance specified hereunder are minimum requirements and shall in no way limit or preclude the City from requiring additional limits and coverage to be provided under the Contractor's policies.

A. Minimum Scope and Limits of Insurance:

Workers' Compensation insurance: With respect to all operations the Contractor performs, it shall carry workers' compensation insurance in accordance with the requirements of the laws of the State of Connecticut, and employer's liability limits of One Hundred Thousand Dollars (\$100,000.00) coverage for each accident, One Hundred Thousand Dollars (\$100,000.00) coverage for each employee by disease, Five Hundred Thousand Dollars (\$500,000.00) policy limit coverage for disease.

Commercial General Liability: With respect to all operations the Contractor performs it shall carry Commercial General Liability insurance providing for a total limit of One Million Dollars (\$1,000,000.00) coverage per occurrence for all damages arising out of bodily injury, personal injury, property damage, products/completed operations, and contractual liability coverage for the indemnification obligations arising under this Agreement. The annual aggregate limit shall not be less than Two Million Dollars (\$2,000,000.00).

Automobile Liability: With respect to each owned, non-owned, or hired vehicles the Contractor shall carry Automobile Liability insurance providing One Million Dollars (\$1,000,000.00) coverage per accident for bodily injury and property damage. If the contractor is a Hazardous Waste Hauler (trucker) or responsible for the removal of hazardous materials, then Automobile Liability in the amount of Five Million Dollars (\$5,000,000.00) combined single limit is required.

Environmental Liability: If applicable based on the Contractor's

Scope of Work, the Contractor is required to provide environmental and remediation insurance in the amount of Five Million Dollars (\$5,000,000.00) per claim limit and Five Million Dollars (\$5,000,000.00) annual aggregate limit. The policy shall be written on a follow form coverage wording to its underlying Schedule of insurance.

Errors and Omissions/Professional Liability: With respect to any damage caused by an error, omission or any negligent or wrongful act of the Contractor or any subcontractor or subconsultant in connection with any professional services performed under this Contract the Contractor shall carry One Million Dollars (\$1,000,000.00) coverage per claim.

"Tail" Coverage: If any of the required liability insurance is on a "claims made" basis, "tail" coverage will be required at the completion of the Project for a duration of twenty-four (24) months, or the maximum time period reasonably available in the marketplace. Contractor shall furnish certification of "tail" coverage as described or continuous "claims made" liability coverage for twenty-four (24) months following Project completion. Continuous "claims made" coverage will be acceptable in lieu of "tail" coverage, provided its retroactive date is on or before the effective date of this Contract. If continuous "claims made" coverage is used, Contractor shall be required to keep the coverage in effect for a duration of not less than twenty-four (24) months from the date of final completion of the Project.

Acceptability of Insurers: The Contractor's policies shall be written by insurance companies licensed to do business in the State of Connecticut, with an AM Best rating of A-VII, or otherwise acceptable to the City.

Subcontractors: The Contractor shall require all subcontractors to provide the same "minimum scope and limits of insurance" as required herein, with the exception of Errors and Omissions/Professional Liability insurance, unless Errors and Omissions/Professional Liability insurance is applicable to the Work performed by the subcontractor. All Certificates of Insurance shall be provided to the City's Corporation Counsel as required herein.

Aggregate Limits: Any aggregate limits must be declared to and be approved by the City. It is agreed that the Contractor shall notify the City whenever fifty percent (50%) of the aggregate limits are eroded during the required coverage period. If the

aggregate limit is eroded for the full limit, the Contractor agrees to reinstate or purchase additional limits to meet the minimum limit requirements stated herein. Any premium for such shall be paid by the Contractor.

Deductibles and Self-Insured Retentions: Any deductible or self-insured retention must be declared to and approved by the City. All deductibles or self-insured retentions are the sole responsibility of the Contractor to pay and/or to indemnify.

Notice of Cancellation or Nonrenewal: Each insurance policy required shall be endorsed to state that coverage shall not be suspended, voided, cancelled, or reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the City. Notwithstanding this requirement, the CONTRACTOR is primarily responsible for providing such written notice to the CITY thirty (30) days prior to any policy change or cancellation that would result in a change of the amount or type of coverage provided. In the event of any such change the CONTRACTOR shall provide comparable substitute coverage so that there is no lapse in applicable coverage or reduction in the amount of coverage available to the CITY related to the CONTRACTOR's services.

Waiver of Governmental Immunity: Unless requested otherwise by the City, the Contractor and its insurer shall waive governmental immunity as defense and shall not use the defense of governmental immunity in the adjustment of claims or in the defense of any suit brought against the City.

Additional Insured: The liability insurance coverage, except Errors and Omissions, Professional Liability, or Workers' Compensation, if included, required for the performance of the Project shall include the City as an Additional Insured with respect to the Contractor's activities to be performed under this Contract. Coverage shall be primary and non-contributory with any other insurance and self-insurance.

Certificate of Insurance: As evidence of the insurance coverage required by this Contract, the Contractor shall furnish Certificate(s) of Insurance to Corporation Counsel's Office prior to the Contractor's commencement of services under this Contract. The Certificate(s) will specify all parties who are endorsed on the policy as Additional Insureds (or Loss Payees). The Certificates and endorsements for each insurance policy are to be signed by a person authorized by the insurer to bind coverage on its behalf. Renewals of expiring Certificates shall be filed

thirty (30) days prior to expiration. The City reserves the right to require complete, certified copies of all required policies at any time.

All insurance documents required should be mailed to the City of Norwalk Corporation Counsel, P. O. Box 798, Norwalk, Connecticut 06856-0798.

Waiver of requirements: The Corporation Counsel may vary these insurance requirements at Corporation Counsel's sole discretion if Corporation Counsel determines that the City's interests will be adequately protected by the provision of different types or other amounts of coverage.

DPW PROJECT NO. DRG2016-2

**STORM DRAINAGE IMPROVEMENTS AT FODOR FARM, AVIATION COURT AND
SOUNDVIEW AVENUE
CITY OF NORWALK, CONNECTICUT**

LIST OF CONTRACT DRAWINGS

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2	BASELINE LAYOUT PLAN & GENERAL NOTES
3	SITE LAYOUT PLAN
4 - 5	SITE PROFILES
6	CROSS SECTIONS
7 - 8	MISCELLANEOUS DETAILS
9 - 18	CITY OF NORWALK AND CONN DOT DETAILS

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TECHNICAL SPECIFICATIONS INDEX SPECIAL PROVISIONS

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PROJECT NO. DRG2016-2

**STORM DRAINAGE IMPROVEMENTS AT FODOR FARM, AVIATION COURT AND
SOUNDVIEW AVENUE
CITY OF NORWALK, CONNECTICUT**

The following is a list of specification Items of work that directly reference Conn DOT Form 816 Specifications.

<u>ITEM NUMBER</u>	<u>ITEM DESCRIPTION</u>	<u>CONN DOT FORM 816 SECTION NUMBER</u>
0202003	Earth Excavation	2.02
0202102	Rock Excavation	2.02
0213100	Granular Fill	2.13
0219001	Sedimentation Control System	2.19
0507001	Type "C" Catch Basin	5.07
0507022	Type "C" Catch Basin Double Grate – Type II	5.07
0507201	Type "CL" Catch Basin	5.07
0507254	Type "C" Catch Basin Double Grate – Type II Top	5.07
0507493	Manhole – 48" Diameter	5.07
0651657	15" Corrugated P.E. Pipe (Smooth Interior)	6.51
0651658	18" Corrugated P.E. Pipe (Smooth Interior)	6.51
0651719	12" Ductile Iron Pipe	6.51
0651723	18" Ductile Iron Pipe	6.51
0651734	14" Ductile Iron Pipe	6.51
0703012	Modified Riprap	7.03
0755014	Geotextile (Separation – High Survivability)	7.55
0815001	Bituminous Concrete Lip Curbing	8.15

0913003	4' Polyvinyl Chloride Chain Link Fence - Black	9.13
0913003	12' Polyvinyl Chloride Chain Link Double Gate 4' High – Black	9.13
0939001	Sweeping For Dust Control	9.39
0943001	Water For Dust Control	9.43
1210102	4" Yellow Epoxy Resin Pavement Markings	12.10

INTRODUCTION TO THE SPECIAL PROVISIONS

The State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 816, 2004, as revised by all Supplemental Specifications, most recently dated January 2016, (otherwise referred to collectively as "Form 816") is hereby made part of this contract. The Standard Specifications as defined below shall apply to the various items of work which constitute the construction contemplated under this Contract except as amended, supplemented or replaced by the Special Provisions of this Contract and as described herein.

Within the Standard Specifications and Special Provisions of this Contract, the following definitions shall apply:

1. Standard Specifications: Shall mean the State of Connecticut Department of Transportation, Bureau of Highways, "Standard Specifications for Roads, Bridges and Incidental Construction, Form 816, dated 2004 and supplements, most recently dated January 2016.

CTDOT, District, State, Department, Commissioner
City of Norwalk or its Engineer, Construction Manager, Inspector or other authorized representative or agent of the Owner.

Inspector/Engineer
Engineer, Construction Manager, Inspector or other authorized representative or agent of the Owner.

Laboratory
Contractor responsible for conducting and paying for all testing required. Laboratory shall be CTDOT approved.

2. Applicable Safety Code: Shall mean the latest edition including any and all amendments, revisions, and additions thereto of the Federal Department of Labor, Occupational Safety and Health Administration's "Occupational Safety and Health Standards" and "Safety and Health Regulations for Construction", the State of Connecticut Labor Department, "Construction Safety Code", or State of Connecticut "Building Code", whichever is the more stringent for the applicable requirement.
3. Items: Reference within the text of these Specifications to Items without a number but a title only, are Special Provision Items within this Contract. Sections or Articles referred to with a number refer to the Standard Specifications defined above.
4. Local Regulatory Agency(ies): is defined as the governing body or authority

having jurisdiction over or responsibility for a particular activity within the Scope of this Contract. They may be as specifically defined within the Special Conditions or Special Provisions, otherwise, the Contractor shall be responsible to determine same in the local area of the Contract and should be cognizant of the limit of jurisdiction within the project area.

5. These Specifications, where used in the text of the Special Provision Items, shall mean the Special Provisions of this Contract.

Payment will only be made for items in the Itemized Proposal. Other items may be included in the Standard or Technical Specifications, but payment for those items not listed in the Itemized Proposal will be included in the cost of other items of work. Items listed in the Itemized Proposal may have alphanumeric designations consistent with applicable sections or articles in the Standard or Technical Specifications.

In the case of any conflicts between the Special Provisions, Plans, and Standard Specifications, the order of governance in order of descending authority shall be as follows:

- 1.) Special Provisions
- 2.) Plans
- 3.) Standard Specifications

ITEM 201001A

CLEARING AND GRUBBING

Work under this item shall conform to the requirements of Conn DOT Form 816, Section 2.01, amended as follows:

DESCRIPTION:

Section 2.01.01: Add the following.

The work of this item shall also include the removal and disposal of trees in conflict with the proposed improvements and the removal of the stone rubble wall at Station 4+00 Rt., as called out on the plans. This item shall also include the removal and resetting of signs as required for construction or as ordered by the Engineer. The removal and resetting, in-kind, of the belgium block landscape edging along Soundview Avenue shall also be included in this item.

CONSTRUCTION METHODS:

Section 2.01.03: Add the following.

Prior to removal of the five trees identified on the drawings, the Contractor shall notify City personnel to have trees "Posted" in accordance with City requirements. No cutting of the trees shall be done until a notice to proceed with the cutting is received from the Department of Public Works.

ITEM 0205001A
ITEM 0205002A
ITEM 0205003A
ITEM 0205004A

TRENCH EXCAVATION (0' - 4' DEEP)
ROCK IN TRENCH EXCAVATION (0' - 4' DEEP)
TRENCH EXCAVATION (0' - 10' DEEP)
ROCK IN TRENCH EXCAVATION (0' - 10' DEEP)

Work under this item shall conform to the requirements of Conn DOT Form 816, Section 2.05, amended as follows:

DESCRIPTION:

Section 2.05.01: Add the following:

This item shall also include the support of existing underground utilities for storm drainage installations; not limited to those laterals indicated on the plans, but inclusive of all utilities encountered.

MATERIALS:

Material and methods used to support existing underground utilities must be in accordance with the utility company's requirements as dictated by the owner of the utility being supported.

CONSTRUCTION METHODS:

Section 2.05.03: Add the following:

TRENCH AND EXCAVATION SUPPORT SYSTEMS:

- A. The Contractor shall provide a support system as necessary and in a manner that complies with the applicable Safety Code. The system shall be adequate to support earth and groundwater pressures; accommodate traffic; permit access to adjacent occupied properties; protect adjacent buildings, pavements, structures and all existing utilities; provide an opening of proper depth and width in which to install the proposed pipes and other underground structures; and protect his workmen, employees of the Owner and Engineer, and the public, from death or injury from bank failure, earth collapse or earth movement of any nature. Generally, all trenches and excavations over 5 feet in depth (or as otherwise dictated by OSHA), any other unstable excavations or excavations in unstable material, shall be protected against the hazard of collapse.

The Contractor shall be entirely and solely responsible for the adequacy and

ITEM 0205001A
ITEM 0205002A
ITEM 0205003A
ITEM 0205004A

TRENCH EXCAVATION (0' - 4' DEEP)
ROCK IN TRENCH EXCAVATION (0' - 4' DEEP)
TRENCH EXCAVATION (0' - 10' DEEP)
ROCK IN TRENCH EXCAVATION (0' - 10' DEEP)

sufficiency of the system and of all steel sheet piling, timber sheet piling, steel plates, bracing, shoring, underpinning, coffer-damming, etc. The Contractor shall assume the entire responsibility for damages due to injury to persons or damage to adjacent pavements and public and private property (including but not limited to the Work under construction, existing buildings, facilities, etc.) if such injury or damage results directly from said Contractor's failure to install an adequate and sufficient support system.

The support system may be left-in-place at the option of the Contractor to serve his own interest, to protect existing facilities, the Work built or to be built under this Contract, or for the safety of the public, etc., at no cost to the Owner.

It is expressly understood and agreed that removing or leaving-in-place the support system, shall not relieve the Contractor from any responsibility for any loss or damage whatever due to omission of or failure of the system.

The Contractor may, with the approval of the Engineer, lay back slopes in accordance with the provisions of the applicable Safety Code in order to avoid the necessity for a support system or limiting the quantity thereof. However, in the case of trenches, the toe of this slope will not be lower than one (1) foot above the top of the pipe to be installed. A level bench of at least two (2) feet in width shall be maintained between the toe of the sloped section and vertical trench excavation for pipes with an outside diameter of six (6) feet, a minimum four (4) foot bench shall be provided.

If the Contractor chooses to lay back slopes to avoid or limit the necessity for a support system, the payment limits for trench excavation will not be increased, and all additional work will be done without added compensation.

Portable trench boxes or sliding trench shields designed solely for the protection of personnel is not a support system for utilities. The support system must be designed to support the undisturbed face of the trench or excavation.

- B. Bracing, shoring, sheeting and other supports, shall be in conformance with the requirements of the applicable Safety Code.

All steel sheet piles shall be continuous and interlocking with materials conforming to the provisions of ASTM Specification A-328 or equal.

- C. Unless expressly authorized by the Engineer, sheeting shall be advanced ahead of the excavation. If it is necessary to excavate below the sheeting to facilitate its

ITEM 0205001A	TRENCH EXCAVATION (0' - 4' DEEP)
ITEM 0205002A	ROCK IN TRENCH EXCAVATION (0' - 4' DEEP)
ITEM 0205003A	TRENCH EXCAVATION (0' - 10' DEEP)
ITEM 0205004A	ROCK IN TRENCH EXCAVATION (0' - 10' DEEP)

Page 2 of 4

advancement, care shall be taken to prevent voids behind the sheeting but if the voids are formed, they shall be promptly filled with approved material and compacted to the satisfaction of the Engineer.

Pilot cuts for trenches/excavations shall not exceed five (5) feet at any time.

The Engineer may reduce the depth of the pilot cut should the soil and subsurface conditions warrant such action. Sheet piling must be driven by drop hammer or other methods approved in writing by the Engineer below the area of the pilot cut. Driving of sheet piling above the pilot cut is subject to the directions of the Engineer. The Engineer may direct the Contractor to use other types of equipment, and to revise the procedure during the excavation of the pilot cut and the driving of the sheet piling should it be found necessary to do so.

Vibratory driving hammers may be used when specifically authorized by the Engineer.

If sheeting is to be removed, the backfilling shall proceed (1) simultaneously with the withdrawal of sheeting and as each layer is compacted, or (2) up to each set of rangers and braces; the rangers and braces will be removed; the backfilling will proceed up to the next set of rangers and braces, etc. up to the top of the excavation. Alternate sections of sheeting from the left side and right side of the trench/area shall be removed and the cavity remaining therefrom shall be jetted thoroughly by high pressure water, starting at the toe of the sheeting and being drawn to the surface. Sand shall be inserted with the jetting process. Where the bottom of the excavation is not free draining material (some areas of organic material or miscellaneous fill) or where granular backfill is not available or ordered by the Engineer, the jetting shall be very carefully done with a minimum amount design revisions, relocations and/or adjustment. No work shall be started within these areas of conflict until authorized by the Engineer.

METHOD OF MEASUREMENT:

Section 2.05.04: Add the following:

Trench excavation support systems and support of existing underground utilities for storm drainage installations will not be measured for payment and shall be included in the cost of the appropriate "Trench Excavation" item.

ITEM 0205001A	TRENCH EXCAVATION (0' - 4' DEEP)
ITEM 0205002A	ROCK IN TRENCH EXCAVATION (0' - 4' DEEP)
ITEM 0205003A	TRENCH EXCAVATION (0' - 10' DEEP)
ITEM 0205004A	ROCK IN TRENCH EXCAVATION (0' - 10' DEEP)

Page 3 of 4

BASIS OF PAYMENT:

Section 2.05.05: Add the following:

Trench excavation support systems and support of existing underground utilities for storm drainage installations will not be measured for payment and shall be included in the cost of the appropriate "Trench Excavation" item.

ITEM 0205001A	TRENCH EXCAVATION (0' - 4' DEEP)
ITEM 0205002A	ROCK IN TRENCH EXCAVATION (0' - 4' DEEP)
ITEM 0205003A	TRENCH EXCAVATION (0' - 10' DEEP)
ITEM 0205004A	ROCK IN TRENCH EXCAVATION (0' - 10' DEEP)

ITEM 0210100A

ANTI-TRACKING PAD

DESCRIPTION:

Work under this item shall consist of furnishing, installing, maintaining and removing a crushed stone anti-tracking pad on filter fabric and returning to the original condition upon completion at the location and details shown on the plans or ordered by the Engineer.

MATERIALS:

Materials for this work shall conform to the requirements of Article M.01.01, No.3 for crushed stone, and Article M.08.01-26 for geotextile filter fabric.

CONSTRUCTION METHODS:

Clear area of anti-tracking pad of all vegetation and excavate to a minimum depth of 6".

Place geotextile filter fabric over the full width and length of excavated area and cover with No. 3 crushed stone to a depth of no less than 6".

The anti-tracking pad shall be uniformly graded to produce the entry and exit path to the site for all construction equipment. The pad shall be maintained of sufficient grading and stone surface to capture all soils and sediment from equipment tires prior to such exiting from the site.

Stone shall be replenished or replaced as necessary or as ordered by the Engineer to assure sufficient capture of sediment at the construction site. Any sediment tracked off the site shall be immediately cleaned, swept and removed by the Contractor at no cost to the City.

METHOD OF MEASUREMENT:

This work will be measured for payment by the number of square yards of accepted anti-tracking pad completed as shown on the plans or ordered by the Engineer.

BASIS OF PAYMENT:

This work will be paid for at the contract unit price per square yard for "Anti-Tracking Pad," which price shall include furnishing, placing, maintaining, removing all anti-tracking pad materials and returning location back to the original condition upon completion, equipment, tools and labor incidental thereto, as well as cleaning, sweeping

any sediment tracked off site. Clearing and grubbing required to install anti-tracking pad shall be paid under item "Clearing and Grubbing".

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
0210100A	Anti-Tracking Pad	S.Y.

ITEM 0219011A

SEDIMENTATION CONTROL AT CATCH BASIN

Work under this item shall conform to the requirements of Conn DOT Form 816, Section 2.19, amended as follows:

DESCRIPTION:

This work will consist of furnishing, placing and maintaining inlet sediment control devices (sacks) at all catch basins that are tributary to drainage from the project area. It shall also include maintenance of the sacks for replacement of the sacks if in need of repair and for emptying and disposal of accumulated debris.

MATERIALS:

The sediment control device shall be manufactured from a specially designed woven polypropylene geotextile sewn by a double needle machine, using a high strength nylon thread. The sediment control device shall be manufactured by one of the following or an approved equal:

Siltsack®

SI Geosolutions:

www.sigeosolutions.com

(800)621-0444

Dandy Sack™

Dandy Products Inc.

P.O. Box 1980

Westerville, Ohio 43086

Phone: 800-591-2284

Fax: 740-881-2791

Email: dlc@dandyproducts.com

Website: www.dandyproducts.com

FLeXstorm Inlet Filters

Inlet & Pipe Protection

24137 W. 111th St - Unit A

Naperville, IL 60564

Telephone: (866) 287-8655

Fax: (630) 355-3477

The sediment control device will be manufactured to fit the opening of the catch basin or drop inlet. The sediment control device will have the following features: two dump straps attached at the bottom to facilitate the emptying of sack and lifting loops as an integral part

of the system to be used to lift sack from the basin. The sediment control device shall have a restraint cord approximately halfway up to keep the sides away from the catch basin walls, this cord is also a visual means of indicating when the sediment control device should be emptied. Once the strap is covered with sediment, the sediment control device should be emptied, cleaned and placed back into the basin.

CONSTRUCTION METHODS:

Installation, removal, and maintenance shall be per manufacturer instructions and recommendations.

METHOD OF MEASUREMENT:

Sedimentation Control at Catch Basin will be measured as each installed, maintained, accepted, and removed. There will be no separate measurement for maintenance or replacement associated with this item.

BASIS OF PAYMENT:

Payment for this item of work shall be made at the unit price each for each catch basin where sediment control system devices have been installed and maintained throughout the duration of the project. The price bid each shall include costs for all materials, equipment, tools and labor incidental to the installation, maintenance, replacement, removal and disposal of the systems. No separate payment will be made for the disposal of debris.

<u>Item No.</u>	<u>Description</u>	<u>Pay Unit</u>
0219011A	Sedimentation Control at Catch Basin	EA.

ITEM #0406005A
ITEM #0406006A
ITEM #0406007A

3" TEMPORARY PAVEMENT REPAIR (AVIATION COURT)
5" TEMPORARY PAVEMENT REPAIR (SOUNDVIEW AVENUE)
PERMANENT PAVEMENT REPAIR (SOUNDVIEW AVENUE)

Description:

The work under this item shall consist of the replacement of bituminous concrete pavement as indicated on the plans for trench repair and where directed by the Engineer. The work for these items includes sawcutting, removal of existing pavement and curbing, excavation, backfilling, disposal of surplus material, formation of subgrade, processed aggregate base, tack coat and bituminous concrete as shown on the plans.

Materials:

Bituminous concrete shall conform to the provisions of Sections 4.06 and M.04 of the Special Provisions for Marshall Method Mix Design.

Material for Tack Coat shall conform to the provisions of Sections 4.06 and M.04 of the Special Provisions.

Processed aggregate base shall conform to the provisions of Section M.05.01 of the Standard Specifications.

Construction Methods:

The edges of the excavation shall be line cut vertically one foot beyond the undisturbed earth and at no time be less than the trench limit plus two feet. The Contractor shall prepare the excavated area to receive a sufficient depth of bituminous concrete to allow replacement in kind of the existing pavement to the original depth and type of pavement material, or as ordered by the Engineer.

Excavation, grading and formation of subgrade shall be in accordance with the provisions of Section 2.02.03 and 2.09.03 of the standard Specifications.

Processed Aggregate Base shall be placed and compacted in accordance with Section 3.04.03 of the Standard Specifications.

Bituminous concrete courses and tack coat shall be installed in accordance with Section 4.06.03 of the Special Provisions for Marshall Method Mix Design.

ITEM 0406005A
ITEM 0406006A
ITEM 0406007A

3" TEMPORARY PAVEMENT REPAIR (AVIATION COURT)
5" TEMPORARY PAVEMENT REPAIR (SOUNDVIEW AVENUE)
PERMANENT PAVEMENT REPAIR (SOUNDVIEW AVENUE)

Method of Measurement:

This work will be measured by the actual number of square yards of completed bituminous concrete pavement repaired, only to the limits shown on the plans and details.

Basis of Payment:

This work will be paid for at the contract unit price per square yard for "3" Temporary Pavement Repair (Aviation Court)", "5" Temporary Pavement Repair (Soundview Avenue)" and "Permanent Pavement Repair (Soundview Avenue)", complete in place, which shall include sawcutting, all removal of existing pavement, excavation, backfill, removal of existing curbing, disposal of surplus material, formation of subgrade, processed aggregate base, bituminous concrete, material for tack coat and all equipment, tools labor and materials incidental thereto.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0406005A	3" Temporary Pavement Repair (Aviation Court)	S.Y.
0406006A	5" Temporary Pavement Repair (Soundview Avenue)	S.Y.
0406007A	Permanent Pavement Repair (Soundview Avenue)	S.Y.

ITEM 0406005A	3" TEMPORARY PAVEMENT REPAIR (AVIATION COURT)
ITEM 0406006A	5" TEMPORARY PAVEMENT REPAIR (SOUNDVIEW AVENUE)
ITEM 0406007A	PERMANENT PAVEMENT REPAIR (SOUNDVIEW AVENUE)

SECTION 4.06

BITUMINOUS CONCRETE

Section 4.06 is being deleted in its entirety and replaced with the following:

4.06.01—Description

4.06.02—Materials

4.06.03—Construction Methods

4.06.04—Method of Measurement

4.06.05—Basis of Payment

4.06.01—Description: Work under this section shall include the production, delivery and placement of a non-segregated, smooth and dense bituminous concrete mixture brought to proper grade and cross section. This section shall also include the method and construction of longitudinal joints. The Contractor shall furnish ConnDOT with a Quality Control Plan (QCP) as described in Article 4.06.03.

The terms listed below as used in this specification are defined as:

Bituminous Concrete: A concrete material that uses a bituminous material (typically asphalt) as the binding agent and stone and sand as the principal aggregate components. Bituminous concrete may also contain any of a number of additives engineered to modify specific properties and/or behavior of the concrete material. For the purposes of this Specification, references to bituminous concrete apply to all of its sub-categories, for instance those defined on the basis of production and placement temperatures, such as hot-mix asphalt (HMA) or warm-mix asphalt (WMA), or those defined on the basis of composition, such as those containing polymer-modified asphalt (PMA).

Course: A lift or multiple lifts comprised of the same bituminous concrete mixture placed as part of the pavement structure.

Density Lot: All material placed in a single lift and as defined in Article 4.06.03.

Disintegration: Wearing away or fragmentation of the pavement. Disintegration will be evident in the following forms: Polishing, weathering-oxidizing, scaling, spalling, raveling, potholes or loss of material.

Dispute Resolution: A procedure used to resolve conflicts resulting from discrepancies between the Engineer and the Contractor's density results that may affect payment.

Hot Mix Asphalt (HMA): A bituminous concrete mixture typically produced at 325°F.

Lift: An application of a bituminous concrete mixture placed and compacted to a specified thickness in a single paver pass.

Polymer Modified Asphalt (PMA): A bituminous concrete mixture containing a polymer modified asphalt binder in accordance with contract specifications. All PMA mixtures shall incorporate a qualified warm mix technology.

Production Lot: All material placed during a continuous daily paving operation.

Quality Assurance (QA): All those planned and systematic actions necessary to provide confidence that a product or facility will perform as designed.

Quality Control (QC): The sum total of activities performed by the vendor (Producer, Manufacturer, and Contractor) to ensure that a product meets contract specification requirements.

Superpave: A bituminous concrete mix design used in mixtures designated as "S*" Where "S" indicates Superpave and * indicates the sieve related to the nominal maximum aggregate size of the mix.

Segregation: A non-uniform distribution of a bituminous concrete mixture in terms of gradation, temperature, or volumetric properties.

Warm Mix Asphalt (WMA): A bituminous concrete mixture that can be produced and placed at reduced temperatures than HMA using a qualified additive or technology.

4.06.02—Materials: All materials shall conform to the requirements of Section M.04.

1. Materials Supply: The bituminous concrete mixture must be from one source of supply and originate from one Plant unless authorized by the Engineer. Bituminous Concrete plant QCP requirements are defined in Section M.04.

2. Recycled Materials: Reclaimed Asphalt Pavement (RAP), Crushed Recycled Container Glass (CRCG), Recycled Asphalt Shingles (RAS), or crumb rubber (CR) from recycled tires may be incorporated in bituminous concrete mixtures in accordance with Section M.04 and Project Specifications. CRCG and RAS shall not be used in the surface course.

4.06.03—Construction Methods:

1. Material Documentation: All vendors producing bituminous concrete must have their truck-weighting scales, storage scales, and mixing plant automated to provide a detailed ticket.

Delivery tickets shall include the following information:

- a. State of Connecticut printed on ticket.
- b. Name of producer, identification of plant, and specific storage bin (silo) if used.
- c. Date and time of day.
- d. Mixture Designation; Mix type and level Curb mixtures for machine-placed curbing must state "curb mix only."
- e. If RAP is used, the plant printouts shall include the RAP dry weight, percentage and daily moisture content.
- f. If RAS is used, the plant printouts shall include the RAS dry weight and percentage daily moisture content.
- g. The delivery ticket for all mixes produced with Warm Mix Technology must indicate the additive name, and the injection rate (water or additive) incorporated at the HMA plant. The delivery ticket for all mixes produced with pre-blended WMA additive must indicate the name of the WMA Technology.
- h. Net weight of mixture loaded into truck (When RAP and/or RAS is used the moisture content shall be excluded from mixture net weight).
- i. Gross weight (Either equal to the net weight plus the tare weight or the loaded scale weight).
- j. Tare weight of truck – Daily scale weight.
- k. Project number, purchase order number, name of Contractor (if Contractor other than Producer).
- l. Truck number for specific identification of truck.
- m. Individual aggregate, Recycled Materials, and virgin asphalt high/target/low weights. For drum plants and silo loadings, the plant printouts shall be produced at 5 minute intervals maintained by the vendor for a period of three years after the completion of the project.
- n. For every mixture designation the running daily total delivered and sequential load number.

The net weight of mixture loaded into the truck must be equal to the cumulative measured weight of its components.

The Contractor must notify the Engineer immediately if, during the production day, there is a malfunction of the weighing or recording system in the automated plant or truck-weighing scales. Manually written tickets containing all required information will be allowed for one hour, but for no longer, provided that each load is weighed on State-approved scales. At the Engineer's sole discretion, trucks may be approved to leave the plant if a State inspector is present to monitor weighing. If such a malfunction is not fixed within forty-eight hours, mixture will not be approved to leave the plant until the system is fixed to the Engineer's satisfaction. No damages will be considered should the State be unable to provide an inspector at the plant.

The State reserves the right to have an inspector present to monitor batching and /or weighing operations.

2. Transportation of Mixture: Trucks with loads of bituminous concrete being delivered to State projects must not exceed the statutory or permitted load limits referred to as gross vehicle weight (GVW). The Contractor shall furnish a list of all vehicles and allowable weights transporting mixture.

The State reserves the right to check the gross and tare weight of any delivery truck. A variation of 0.4 percent or less in the gross or tare weight shown on the delivery ticket and the certified scale weight shall be considered evidence that the weight shown on the delivery ticket is correct. If the gross or tare weight varies from that shown on the delivery ticket by more than 0.4 percent, the Engineer will recalculate the net weight. The Contractor shall take action to correct discrepancy to the satisfaction of the Engineer.

If a truck delivers mixture to the project and the ticket indicates that the truck is overweight, the load will not be rejected but a "Measured Weight Adjustment" will be taken in accordance with Article 4.06.04.

The mixture shall be transported from the mixing plant in trucks that have previously been cleaned of all foreign material and that have no gaps through which mixture might inadvertently escape. The Contractor shall take care in loading trucks uniformly so that segregation is minimized. Loaded trucks shall be tightly covered with waterproof covers acceptable to the Engineer. Mesh covers are prohibited. The front and rear of the cover must be fastened to minimize air infiltration. The Contractor shall assure that all trucks are in conformance with this specification. Trucks found not to be in conformance shall not be allowed to be loaded until re-inspected to the satisfaction of the Engineer.

Truck body coating and cleaning agents must not have a deleterious effect on the transported mixture. The use of solvents or fuel oil, in any concentration, is strictly prohibited for the coating of the inside of truck bodies. When acceptable coating or agents are applied, truck bodies shall be raised immediately prior to loading to remove any excess agent in an environmentally acceptable manner.

3. Paving Equipment: The Contractor shall have the necessary paving and compaction equipment at the project site to perform the work. All equipment shall be in good working order and any equipment that is worn, defective or inadequate for performance of the work shall be repaired or replaced by the Contractor to the satisfaction of the Engineer. During the paving operation, the use of solvents or fuel oil, in any concentration, is strictly prohibited as a release agent or cleaner on any paving equipment (i.e., rollers, pavers, transfer devices, etc.).

Refueling of equipment is prohibited in any location on the paving project where fuel might come in contact with bituminous concrete mixtures already placed or to be placed. Solvents for use in cleaning mechanical equipment or hand tools shall be stored clear of areas paved or to be paved. Before any such equipment and tools are cleaned, they shall be moved off the paved or to be paved area; and they shall not be returned for use until after they have been allowed to dry.

Pavers: Each paver shall have a receiving hopper with sufficient capacity to provide for a uniform spreading operation and a distribution system that places the mix uniformly, without segregation. The paver shall be equipped with and use a vibratory screed system with heaters or burners. The screed system shall be capable of producing a finished surface of the required evenness and texture without tearing, shoving, or gouging the mixture. Pavers with extendible screed units as part of the system shall have auger extensions and tunnel extenders as necessary. Automatic screed controls for grade and slope shall be used at all times unless otherwise authorized by the Engineer. The controls shall automatically adjust the screed to compensate for irregularities in the preceding course or existing base. The controls shall maintain the proper transverse slope and be readily adjustable, and shall operate from a fixed or moving reference such as a grade wire or floating beam.

Rollers: All rollers shall be self-propelled and designed for compaction of bituminous concrete. Rollers types shall include steel-wheeled, pneumatic or a combination thereof and may be capable of operating in a static or dynamic mode. Rollers that operate in a dynamic mode shall have drums that use a vibratory or oscillatory system or combination of. The vibratory system achieves compaction through vertical amplitude forces. Rollers with this system shall be equipped with indicators that provide the operator with amplitude, frequency and speed settings/readouts to measure the impacts per foot during the compaction process. The oscillatory system achieves compaction through horizontal shear forces. Rollers with this system shall be equipped with frequency indicators. Rollers can operate in the dynamic mode using the oscillatory system on concrete structures such as bridges and catch basins if at the lowest frequency setting.

Pneumatic tire rollers shall be self-propelled and equipped with wide-tread compaction tires capable of exerting an average contact pressure from 60 to 90 pounds per square inch uniformly over the surface, adjusting ballast and tire inflation pressure as required. The Contractor shall furnish evidence regarding tire size; pressure and loading to confirm that the proper contact pressure is being developed and that the loading and contact pressure is uniform for all wheels.

Lighting: For paving operations, which will be performed during hours of darkness, the paving equipment shall be equipped with lighting fixtures as described below, or with approved lighting fixtures of equivalent light output characteristics. Lighting shall maximize the illumination on each task and minimize glare to passing traffic. The

Contractor shall provide generators on rollers and pavers of the type, size, and wattage, to adequately furnish electric power to operate the specified lighting equipment. The lighting options and minimum number of fixtures are listed in Tables 4.06-1 and 4.06-2:

TABLE 4.06-1: Paver Lighting

Option	Fixture Configuration	Fixture Quantity	Requirement
1	Type A	3	Mount over screed area
	Type B (narrow) or Type C (spot)	2	Aim to auger and guideline
	Type B (wide) or Type C (flood)	2	Aim 25 feet behind paving machine
2	Type D Balloon	2	Mount over screed area

TABLE 4.06-2: Roller Lighting

Option	Fixture Configuration*	Fixture Quantity	Requirement
1	Type B (wide)	2	Aim 50 feet in front of and behind roller
	Type B (narrow)	2	Aim 100 feet in front of and behind roller
2	Type C (flood)	2	Aim 50 feet in front of and behind roller
	Type C (spot)	2	Aim 100 feet in front of and behind roller
3	Type D Balloon	1	Mount above the roller

*All fixtures shall be mounted above the roller.

Type A: Fluorescent fixture shall be heavy-duty industrial type. Each fixture shall have a minimum output of 8,000 lumens. The fixtures shall be mounted horizontally, and be designed for continuous row installation.

Type B: Each floodlight fixture shall have a minimum output of 18,000 lumens.

Type C: Each fixture shall have a minimum output of 19,000 lumens.

Type D: Balloon light: Each balloon light fixture shall have a minimum output of 50,000 lumens, and emit light equally in all directions.

4. Test Section: The Engineer may require the Contractor to place a test section whenever the requirements of this specification or Section M.04 are not met.

The Contractor shall submit the quantity of mixture to be placed and the location of the test section for review and acceptance by the Engineer. The equipment used in the construction of a passing test section shall be used throughout production.

If a test section fails to meet specifications, the Contractor shall stop production, make necessary adjustments to the job mix formula, plant operations, or procedures for placement and compaction. The Contractor shall construct test sections, as allowed by the Engineer, until all the required specifications are met. All test sections shall also be subject to removal as set forth in Article 1.06.04.

5. Transitions for Roadway Surface: Transitions shall be formed at any point on the roadway where the pavement surface deviates, vertically, from the uniform longitudinal profile as specified on the plans. Whether formed by milling or by bituminous concrete mixture, all transition lengths shall conform to the criteria below unless otherwise specified.

Permanent Transitions: A permanent transition is defined as any transition that remains as a permanent part of the work. All permanent transitions, leading and trailing ends shall meet the following length requirements:

- a) Posted speed limit is greater than 35 MPH: 30 feet per inch of vertical change (thickness)
- b) Posted speed limit is 35 MPH or less: 15 feet per inch of vertical change (thickness).
- c) Bridge Overpass and underpass transition length will be 75 feet either
 - (1) Before and after the bridge expansion joint, or
 - (2) Before or after the parapet face of the overpass.

In areas where it is impractical to use the above described permanent transition lengths the use of a shorter permanent transition length may be permitted when approved by the Engineer.

Temporary Transitions: A temporary transition is defined as a transition that does not remain a permanent part of the work. All temporary transitions shall meet the following length requirements:

- a) Posted speed limit is greater than 50 MPH
 - (1) Leading Transitions = 15 feet per inch of vertical change (thickness)
 - (2) Trailing Transitions = 6 feet per inch of vertical change (thickness)
- b) Posted speed limit is 40, 45, or 50 MPH
 - (1) Leading and Trailing = 4 feet per inch of vertical change (thickness)
- c) Posted speed limit is 35 MPH or less
 - (1) Leading and Trailing = 3 feet per inch of vertical change (thickness)

Note: Any temporary transition to be in-place over the winter shutdown period or during extended periods of inactivity (more than 14 calendar days) shall conform to the greater than 50 MPH requirements shown above.

6. Spreading and Finishing of Mixture: Prior to the placement of the bituminous concrete, the underlying base course shall be brought to the plan grade and cross section within the allowable tolerance. Immediately before placing the mixture, the area to be surfaced shall be cleaned by sweeping or by other means acceptable to the Engineer. The bituminous concrete mixture shall not be placed whenever the surface is wet or frozen. The Engineer will verify the mix temperature by means of a probe or infrared type of thermometer. A probe type thermometer, verified by the Department on an annual basis, must be used in order to reject a load of mixture based on temperatures outside the range stated in the placement QCP.

Placement: The bituminous concrete mixture shall be placed and compacted to provide a smooth, dense surface with a uniform texture and no segregation at the specified thickness and dimensions indicated in the plans and specifications.

When unforeseen weather conditions prevent further placement of the mix, the Engineer is not obligated to accept or place the bituminous concrete mixture that is in transit from the plant.

In advance of paving, traffic control requirements shall be set up daily, maintained throughout placement, and shall not be removed until all associated work including density testing is completed.

The Contractor shall inspect the newly placed pavement for defects in the mixture or placement before rolling is started. Any deviation from standard crown or section shall be immediately remedied by placing additional mixture or removing surplus mixture. Such defects shall be corrected to the satisfaction of the Engineer.

Where it is impractical due to physical limitations to operate the paving equipment, the Engineer may permit the use of other methods or equipment. Where hand spreading is permitted, the mixture shall be placed by means of suitable shovels and other tools, and in a uniformly loose layer at a thickness that will result in a completed pavement meeting the designed grade and elevation.

Placement Tolerances: Each lift of bituminous concrete placed at a uniform specified thickness shall meet the following requirements for thickness and area. Any pavement exceeding these limits shall be subject to an adjustment or removal. Lift tolerances will not relieve the Contractor from meeting the final designed grade. Lifts of specified non-uniform thickness, i.e. wedge or shim course, shall not be subject to thickness and area adjustments.

- a) Thickness- Where the total thickness of the lift of mixture exceeds that shown on the plans beyond the tolerances shown in Table 4.06-3, the longitudinal limits of such variation including locations and intervals of the measurements will be documented by the Engineer for use in calculating an adjustment in accordance with Article 4.06.04.

TABLE 4.06-3: Thickness Tolerances

Mixture Designation	Lift Tolerance
S1	+/- 3/8 inch
S0.25, S0.375, S0.5	+/- 1/4 inch

Where the thickness of the lift of mixture is less than that shown on the plans beyond the tolerances shown in Table 4.06-3, the Contractor, with the approval of the Engineer, shall take corrective action in accordance with this specification.

- b) Area- Where the width of the lift exceeds that shown on the plans by more than the specified thickness of each lift, the longitudinal limits of such variation including locations and intervals of the measurements will be documented by the Engineer for use in calculating the adjustment in Article 4.06.04.
- c) Delivered Weight of Mixture - When the delivery ticket shows that the truck exceeds the allowable gross weight for the vehicle type the quantity of tons representing the overweight amount will be documented by the Engineer for use in calculating an adjustment in accordance with Article 4.06.04.

Transverse Joints: All transverse joints shall be formed by saw-cutting a sufficient distance back from the previous run, existing bituminous concrete pavement or bituminous concrete driveways to expose the full thickness of the lift. A brush of tack coat shall be used on any cold joint immediately prior to additional bituminous concrete mixture being placed.

Tack Coat Application: Immediately before application, the area to be tacked shall be cleaned by sweeping or by other means acceptable to the Engineer. A thin uniform coating of tack coat shall be applied to the pavement immediately before overlaying and be allowed sufficient time to break (set) prior to any paving equipment or haul vehicles driving on it. All surfaces in contact with the bituminous concrete that have been in place longer than 3 calendar days shall have an application of tack coat. The tack coat shall be applied by a non-gravity pressurized spray system that results in uniform overlapping coverage at an application rate of 0.03 to 0.05 gallons per square yard for a non-milled surface and an application rate of 0.05 to 0.07 gallons per square yard for a milled surface. For areas where both milled and un-milled surfaces occur, the tack coat shall be an application rate of 0.03 to 0.05 gallons per square yard. The Engineer must

approve the equipment and the method of measurement prior to use. The material for tack coat shall not be heated in excess of 160°F and shall not be further diluted.

Compaction: The Contractor shall compact the mixture to an average density between **92.0 and 97.0 percent**, as stated in Article 4.06.03, and eliminate all roller marks without displacement, shoving, cracking, or aggregate breakage.

When placing a lift with a specified thickness less than one and one-half (1 ½) inches, or a wedge course, the Contractor shall provide a minimum rolling pattern as determined by the development of a compaction curve. The procedure to be used shall be documented in the Contractor's QCP for placement and demonstrated on the first day of placement.

The use of the vibratory system on concrete structures is prohibited. When approved by the Engineer, the Contractor may operate a roller using an oscillatory system at the lowest frequency setting.

If the Engineer determines that the use of compaction equipment in the dynamic mode may damage highway components, utilities, or adjacent property, the Contractor shall provide alternate compaction equipment. The Engineer may allow the Contractor to operate rollers in the dynamic mode using the oscillatory system at the lowest frequency setting.

Rollers operating in the dynamic mode shall be shut off when changing directions.

These allowances will not relieve the Contractor from meeting pavement compaction requirements. Compaction testing, as well as other testing required by the Engineer, shall be performed in accordance with CT DOT Form 816.

Surface Requirements: The pavement surface of any lift shall meet the following requirements for smoothness and uniformity. Any irregularity of the surface exceeding these requirements shall be corrected by the Contractor.

- a) Smoothness- Each lift of the surface course shall not vary more than ¼ inch from a Contractor-supplied 10 foot straightedge. For all other lifts of bituminous concrete, the tolerance shall be ⅜ inch. Such tolerance will apply to all paved areas.
- b) Uniformity- The paved surface of the mat and joints shall not exhibit segregation, rutting, cracking, disintegration, flushing or vary in composition as determined by the Engineer.

7. Longitudinal Joint Construction Methods: The Contractor shall use Method I- Notched Wedge Joint (see Figure 4.06-1) when constructing longitudinal joints where lift

thicknesses are between 1½ and 3 inches, except for S1mixes. Method II Butt Joint (see Figure 4.06-2) shall be used for lifts less than 1½ inches or greater than 3 inches, and S1mixes. During placement of multiple lifts of bituminous concrete, the longitudinal joint shall be constructed in such a manner that it is located at least 6 inches from the joint in the lift immediately below. The joint in the final lift shall be at the centerline or at lane lines. Each longitudinal joint shall maintain a consistent offset from the centerline of the roadway along its entire length. The difference in elevation between the two faces of any completed longitudinal joint shall not exceed ¼ of an inch in any location.

Method I - Notched Wedge Joint:

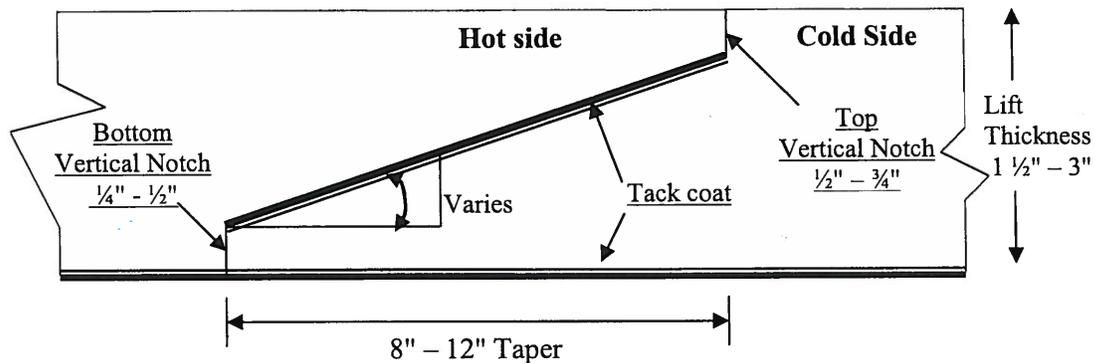


FIGURE 4.06-1: Notched Wedge Joint

A notched wedge joint shall be constructed as shown in Figure 4.06-1 using a device that is attached to the paver screed and is capable of independently adjusting the top and bottom vertical notches. The device shall have an integrated vibratory system.

The taper portion of the wedge joint must be placed over the longitudinal joint in the lift immediately below. The top vertical notch must be located at the centerline or lane line in the final lift. The requirement for paving full width "curb to curb" as described in Method II may be waived if addressed in the QC plan and approved by the Engineer.

The taper portion of the wedge joint shall be evenly compacted using equipment other than the paver or notch wedge joint device.

The taper portion of the wedge joint shall not be exposed to traffic for more than 5 calendar days. The pavement surface under the wedge joint must have an application of tack coat material. Prior to placing the completing pass (hot side), an application of tack coat must be applied to the exposed surface of the tapered section; regardless of time elapsed between paver passes. The in-place time allowance described in Sub article 4.06.03-7 does not apply to joint construction.

Any exposed wedge joint must be located to allow for the free draining of water from the road surface.

The Engineer reserves the right to define the paving limits when using a wedge joint that will be exposed to traffic.

If Method I, Notched Wedge Joint cannot be used on lifts between 1.5 and 3 inches, Method III Butt Joint may be substituted according to the requirements below for "Method III – Butt Joint with Hot Pour Rubberized Asphalt Treatment."

Method II - Butt Joint:

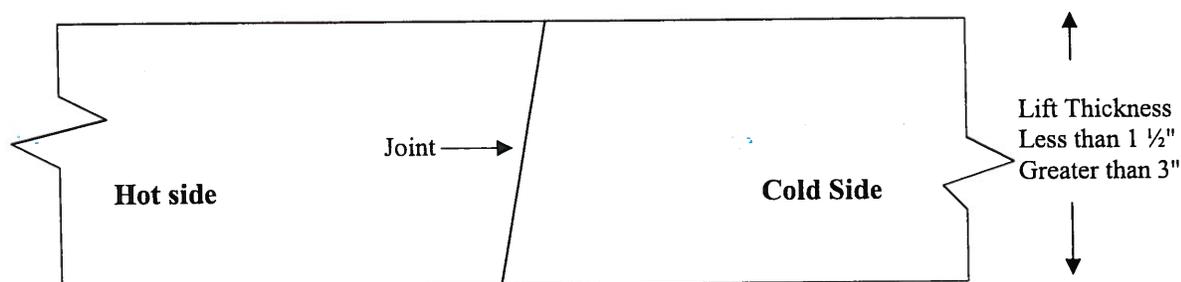


FIGURE 4.06-2: Butt Joint

When adjoining passes are placed, the Contractor shall utilize equipment that creates a near vertical edge (refer to Figure 4.06-2). The completing pass (hot side) shall have sufficient mixture so that the compacted thickness is not less than the previous pass (cold side). The end gate on the paver should be set so there is an overlap onto the cold side of the joint.

The Contractor shall not allow any butt joint to be incomplete at the end of a work shift unless otherwise allowed by the Engineer. When using this method, the Contractor is not allowed to leave a vertical edge exposed at the end of a work shift and must complete paving of the roadway full width "curb to curb."

Method III- Butt Joint with Hot Poured Rubberized Asphalt Treatment: If Method I Wedge Joint cannot be used due to physical constraints in certain limited locations; the contractor may submit a request in writing for approval by the Engineer, to utilize Method III Butt Joint as a substitution in those locations. There shall be no additional measurement or payment made when the Method III Butt Joint is substituted for the Method I Notched Wedge Joint. When required by the contract or approved by the Engineer, Method III (see Figure 4.06-3) shall be used.

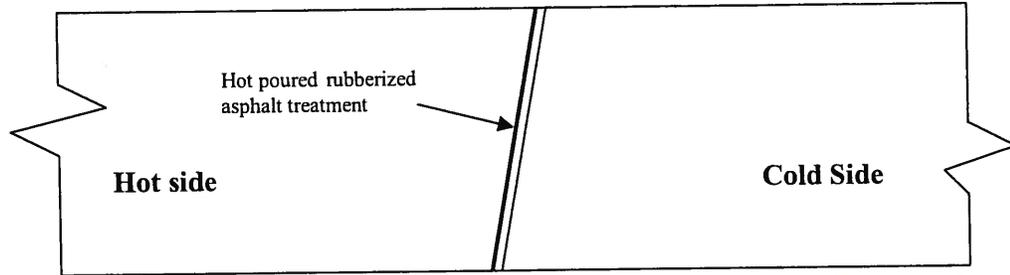


FIGURE 4.06-3: Butt Joint with Hot Poured Rubberized Asphalt Treatment

All of the requirements of Method II must be met with Method III. In addition, the longitudinal vertical edge must be treated with a rubberized joint seal material meeting the requirements of ASTM D 6690, Type 2. The joint sealant shall be placed on the face of the "cold side" of the butt joint as shown above prior to placing the "hot side" of the butt joint. The joint seal material shall be applied in accordance with the manufacturer's recommendation so as to provide a uniform coverage and avoid excess bleeding onto the newly placed pavement.

8. Contractor Quality Control (QC) Requirements:

The Contractor shall be responsible for maintaining adequate quality control procedures throughout the production and placement operations. Therefore, the Contractor must ensure that the materials, mixture and work provided by Subcontractors, Suppliers and Producers also meet contract specification requirements.

This effort must be documented in Quality Control Plans and address the actions, inspection, or sampling and testing necessary to keep the production and placement operations in control, to determine when an operation has gone out of control and to respond to correct the situation in a timely fashion.

The Standard QCP for production shall consist of the quality control program specific to the production facility.

There are three components to the QCP for placement: a Standard QCP, a Project Summary Sheet that details project specific information, and if applicable a separate Extended Season Paving Plan as required in Section 9 "Temperature and Seasonal Requirements."

The Standard QCP for both production and placement shall be submitted to the Department for approval each calendar year and at a minimum of 30 days prior to production or placement.

Production or placement shall not occur until all QCP components have been approved by the Engineer.

Each QCP shall include the name and qualifications of a Quality Control Manager (QCM). The QCM shall be responsible for the administration of the QCP, and any modifications that may become necessary. The QCM shall have the ability to direct all Contractor personnel on the project during paving operations. All Contractor sampling, inspection and test reports shall be reviewed and signed by the QCM prior to submittal to the Engineer. The QCPs shall also include the name and qualifications of any outside testing laboratory performing any QC functions on behalf of the Contractor.

Approval of the QCP does not relieve the Contractor of its responsibility to comply with the project specifications. The Contractor may modify the QCPs as work progresses and must document the changes in writing prior to resuming operations. These changes include but are not limited to changes in quality control procedures or personnel. The Department reserves the right to deny significant changes to the QCPs.

QCP for Production: Refer to Section M.04.03-1.

QCP for Placement: The Standard QCP, Project Summary Sheet, and Extended Season Paving Plan shall conform to the format provided by the Engineer. The format is available at http://www.ct.gov/dot/lib/dot/documents/dconstruction/pat/qcp_outline_hma_placement.pdf.

The Contractor shall perform all quality control sampling and testing, provide inspection, and exercise management control to ensure that bituminous concrete placement conforms to the requirements as outlined in its QCP during all phases of the work. The Contractor shall document these activities for each day of placement.

The Contractor shall submit complete field density testing and inspection records to the Engineer within 48 hours in a manner acceptable to the Engineer.

9. Temperature and Seasonal Requirements: Paving, including placement of temporary pavements, shall be divided into two seasons, "In-Season" and "Extended-Season". In-Season paving occurs from May 1 – October 14, and Extended Season paving occurs from October 15- April 30. The following requirements shall apply unless otherwise authorized or directed by the Engineer:

- Bituminous concrete mixes shall not be placed when the air or sub base temperature is below 40°F regardless of the season.
- Should paving operations be scheduled during the Extended Season, the Contractor must submit an Extended Season Paving Plan for the project that addresses minimum delivered mix temperature considering WMA, PMA or other additives, maximum paver speed, enhanced rolling patterns and the method to balance mixture delivery and placement operations. Paving during Extended Season shall not commence until the Engineer has approved the plan.

10. Density Testing of Bituminous Concrete: The Contractor shall monitor and confirm density utilizing a nuclear density gauge of all bituminous concrete placed daily regardless of the quantity. Testing shall be performed by a NETTCP certified HMA Paving Inspector from a certified independent CT testing laboratory. The minimum frequency of testing shall be as follows.

Sub-Lots for Density Testing		
Daily Production Tons	MAT Number of Sub-Lots	JOINT Number of Sub-Lots/ Joint
Less than 500	1 per 100	1per 100
500 to 1,500	10	5
Greater than 1,500	20	10

The Contractor shall submit complete laboratory certified test reports and accurate density inspection reports to the Owner within 48 hours following the daily paving operations. The documents shall be submitted in a manner acceptable to the Owner.

11. Acceptance Inspection, Sampling and Testing: Inspection, sampling, and testing to be used by the Engineer shall be performed at the minimum frequency specified in Section M.04 and stated herein.

Sampling for acceptance shall be established using ASTM D 3665, or a statistically based procedure of random sampling approved by the Engineer.

Plant Material Acceptance: The Contractor shall provide the required acceptance sampling, testing and inspection during all phases of the work in accordance with Section M.04. The Department will perform verification testing on the Contractor's acceptance test results. Should binder content, theoretical maximum density (Gmm), or air void results exceed the specified tolerances in the Department's current QA Program for Materials, Acceptance and Assurance Testing Policies and Procedures, the Department will investigate to determine an assignable cause. Contractor test results for a subject lot or sub lot may be replaced with the Department's results for the purpose of assessing adjustments. The verification procedure is included in the Department's current QA Program for Materials.

Density Acceptance: The Engineer will perform all density testing in accordance with these specifications.

12. Density Dispute Resolution Process: The Contractor and Engineer will work in partnership to avoid potential conflicts and to resolve any differences that may arise during quality control or acceptance testing for density. Both parties will review their sampling and testing procedures and results and share their findings. If the Contractor disputes the Engineer's test results, the Contractor must submit in writing a request to

initiate the Dispute Resolution Process within 7 calendar days of the notification of the test results. No request for dispute resolution will be allowed unless the Contractor provides quality control results within the timeframe described in Sub article 4.06.03-9 supporting its position. No request for Dispute Resolution will be allowed for a Density Lot in which any core was not taken within the required 5 calendar days of placement. Should the dispute not be resolved through evaluation of existing testing data or procedures, the Engineer may authorize the Contractor to obtain a new set of core samples per disputed lot. The core samples must be extracted no later than 14 calendar days from the date of Engineer's authorization.

The number and type (mat, joint, or structure) of the cores taken for dispute resolution must reflect the number and type of the cores taken for acceptance. The location of each core shall be randomly located within the respective original sub lot. All such core samples shall be extracted and filled using the procedure outlined in Article 4.06.03. The results from the dispute resolution cores shall be added to the results from the acceptance cores and averaged for determining the final in-place density value.

13. Corrective Work Procedures: Any portion of the completed pavement that does not meet the requirements of the specification shall be corrected at the expense of the Contractor. Any corrective courses placed as the final wearing surface shall match the specified lift thickness after compaction.

If pavement placed by the Contractor does not meet the specifications, and the Engineer requires its replacement or correction, the Contractor shall:

- a) Propose a corrective procedure to the Engineer for review and approval prior to any corrective work commencing. The proposal shall include:
 - Limits of pavement to be replaced or corrected, indicating stationing or other landmarks that are readily distinguishable.
 - Proposed work schedule.
 - Construction method and sequence of operations.
 - Methods of maintenance and protection of traffic.
 - Material sources.
 - Names and telephone numbers of supervising personnel.
- b) Perform all corrective work in accordance with the Contract and the approved corrective procedure.

14. Protection of the Work: The Contractor shall protect all sections of the newly finished pavement from damage that may occur as a result of the Contractor's operations for the duration of the Project. Prior to the Engineer's authorization to open the pavement to traffic, the Contractor is responsible to protect the pavement from damage.

15. Cut Bituminous Concrete Pavement: Work under this item shall consist of making a straight-line cut in the bituminous concrete pavement to the lines delineated on the plans or as directed by the Engineer. The cut shall provide a straight, clean, vertical face with no cracking, tearing or breakage along the cut edge.

4.06.04—Method of Measurement:

Measurement for payment shall be in accordance with Item 0406005A – 3" Temporary Pavement Repair (Aviation Court), Item 0406006A – 5" Temporary Pavement Repair (Soundview Avenue) and Item 0406007A - Permanent Pavement Repair (Soundview Avenue).

4.06.05—Basis of Payment:

Measurement for payment shall be in accordance with Item 0406005A – 3" Temporary Pavement Repair (Aviation Court), Item 0406006A – 5" Temporary Pavement Repair (Soundview Avenue) and Item 0406007A - Permanent Pavement Repair (Soundview Avenue).

ITEM 0507105A CONNECTION TO EXISTING MANHOLE, CATCH BASIN OR DRYWELL

Work under this item shall conform to the requirements of Conn DOT Form 816, Section 5.07, amended as follows:

DESCRIPTION:

Section 5.07.01: Delete the entire section and add the following.

Under this section, the Contractor shall install new storm drainage piping into and connecting to existing storm drainage structures including manholes and catch basins. Pipe connections shall be made in conformity with the lines, grades and dimensions and details shown on the plans or as ordered or in accordance with the provisions of this section.

CONSTRUCTION METHODS:

Section 5.07.03: Add the following.

For connections to existing structures, the contractor shall expose the outside of the structure where the invert of the new pipe will penetrate the structure wall. The inside diameter of the pipe shall be drawn on the exterior wall for inspection by the Engineer. The Engineer will determine appropriateness of the connection at the time based upon location, proximity to other storm drain lines and frames, and corners of the catch basin. Once approved, the Contractor shall precut with an approved abrasive blade the diameter of the hole to be cut into the structure. They shall leave sufficient room around the perimeter of the pipe to allow for the installation of bricks and mortar to make a good tight seal. Following the cutting off flush of the pipe inside the structure, the contractor shall mortar the entire brick and mortar surface to make it smooth.

METHOD OF MEASUREMENT:

Section 5.07.04: Delete the entire paragraph and add the following.

Connection to existing manholes and/or catch basins will be measured for payment per each structure connected to, regardless of the number of pipes.

BASIS OF PAYMENT:

Section 5.07.05: Delete the entire section and add the following.

This work will be paid for at the contract unit price each for "Connection to Existing Manhole and/or Catch Basin", complete in place, which price shall include all materials, tools, equipment and labor incidental thereto.

ITEM 0507190A

OUTLET CONTROL STRUCTURE

Work under this item shall conform to the requirements of Conn DOT Form 816, Section 5.07, amended as follows:

DESCRIPTION:

Section 5.07.01: Add the following:

This item shall also include furnishing and installing outlet control structures in conformity to the lines, grades, dimensions and details shown on the plans or as ordered by the Engineer, and accepted.

METHOD OF MEASUREMENT:

Section 5.07.04: Add the following:

This work shall be measured for payment per each outlet control structure furnished and installed, complete and accepted. Pipe and underdrain connections will not be measured for payment.

BASIS OF PAYMENT:

Section 5.07.05: Add the following:

Outlet Control Structures shall be paid for at the contract unit price per each "Outlet Control Structure" complete in place, which price shall include all materials, equipment, tools and labor incidental thereto. The cost for pipe and underdrain connections shall be included in the unit price bid.

<u>Pay Item</u>	<u>Description</u>	<u>Pay Unit</u>
0507190A	Outlet Control Structure	EA.

ITEM 0606001A

CEMENT RUBBLE MASONRY

Work under this item shall conform to the requirements of Conn DOT Form 816, Section 6.06, amended as follows:

DESCRIPTION:

Section 6.06.01: Add the following:

The work under this item shall also include the removal, stockpiling and re-use of existing stones for the cement rubble masonry wall.

MATERIALS:

Section 6.06.02: Add the following:

Existing stones shall be carefully removed and used to reconstruct the cement rubble masonry wall after completion of the proposed construction. If the existing stones are damaged during removal, stones for this work shall be of the same type as those used in the construction of the existing cement rubble masonry wall. Provide a sample of the proposed stone to the Engineer for approval prior to beginning construction. All efforts shall be made to provide stones that closely match the existing stones.

CONSTRUCTION METHODS:

Section 6.06.03: Add the following

If repairing an existing cement rubble masonry wall, the final cement rubble masonry wall shall be installed at the same dimensions of the disturbed wall and shall be flush with sections that remain undisturbed in the existing wall.

PAYMENT:

Section 6.06.05: Replace with the following:

Cement rubble masonry will be paid for at the contract unit price per cubic yard for "Cement Rubble Masonry" complete in place, which price shall include removal of the existing cement rubble masonry wall, stone material if existing stones are damaged during removal, materials, equipment, tools, labor and work incidental thereto. It shall also include all necessary excavation, refilling and disposal of surplus material.

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
0606001A	Cement Rubble Masonry	C.Y.

ITEM 0651001A

BEDDING MATERIAL

Work under this item shall conform to the requirements of Conn DOT Form 816, Section 6.51, amended as follows:

MATERIALS:

Section 6.51.02: Delete the paragraph and add the following.

Pipes of the type indicated on the plans and joint sealant shall conform to the requirements of Article M.08.01. Bedding material shall consist of broken stone or crushed gravel conforming to Article M.01.01, ¾" size gradation table. Bedding material stone quality, soundness and loss due to abrasion shall conform to Article M.02.04.

Gravel fill shall conform to the requirements of Article M.02.01.

ITEM 0751700A

CURTAIN DRAIN – SMOOTH INTERIOR

Work under this item shall conform to the requirements of Conn DOT Form 816, Section 7.51, amended as follows:

DESCRIPTION:

Section 7.51.01: Replace with the following:

This item shall consist of furnishing and installing new 6” perforated high density polyethylene corrugated pipe with a smooth interior that is pervious to water and/or materials for constructing curtain drain pipes of the type, size and length called for on the plans or as ordered. They shall be installed in a trench that is also wrapped in a geotextile fabric as per the detail drawing at the locations and to the lines and grades designated on the plans, or as directed by the Engineer, and in conformity with these specifications and backfilled with pervious material. The curtain drain pipe shall be encased in a protective wrap/envelope consisting of a synthetic geotextile material that is intended to screen soil particles and sediment and prevent clogging of the curtain drain. It shall also include all connections and joints to new or existing curtain drain pipes, storm drainage catch basins, manholes, inlets, headwalls, and other appurtenances as may be required to complete the work.

This item shall also include the furnishing and installation of all wyes, elbows, tees, and perforated end caps as detailed on the plans and as approved by the Engineer.

MATERIALS:

Section 7.51.02: Add the following:

Curtain Drain Pipe: The materials for this work shall be ADS N-12 (Dual Wall) perforated pipe as manufactured by Advanced Drainage Systems, Inc. with a smooth interior conforming to the requirements of ASTM F 667 and AASHTO M 252 or an approved equal conforming to the requirements of Article M.08.01 as amended. The specific kind and size of pipe shall be as indicated on the plans or in these special provisions. The curtain drain pipe shall have a protective covering as specified in the Geotextile section below. The perforations in the pipe shall be in accordance with AASHTO Class 1 perforation patterns.

Wyes, Elbows and Tees: The materials for this work shall be ADS N-12 (Dual Wall) solid pipe with a smooth interior conforming to the requirements of ASTM F 667 and AASHTO M 252 or an approved equal conforming to the requirements of Article M.08.01 as amended. The specific kind of wye, elbow and horizontally oriented tee shall be as indicated on the plans or in these special provisions. The wyes, elbows and

tees shall have a protective covering as specified in the Geotextile section below.

Geotextile: The curtain drain pipe shall be encased in an ADS Sock, Mirafi 140S or Supac 5NP Filter Fabric, or an approved equal conforming to the requirements of M.08.01.26 as amended. The trench for the curtain drain pipe shall also be encased in Mirafi 140S or Supac 5NP Filter Fabric, or an approved equal conforming to the requirements of M.08.01.26 as amended.

Bedding Material: Bedding material specified for backfilling the trench shall conform to the requirements of Item 0651001A, "Bedding Material."

CONSTRUCTION METHODS:

Section 7.51.03: Add the following:

The pipe shall be unloaded and handled with reasonable care. Trenches must be excavated in such a manner as to insure that the sides will be stable under all working conditions. Trench walls shall be sloped or supported in conformance with all standards of safety. Only as much trench as can be safely maintained shall be opened. All trenches shall be backfilled as soon as practicable, but no later than the end of each working day.

Unless otherwise directed by the Engineer, all new curtain drain pipe shall be installed in Bedding Material in accordance with the details as shown on the plans and in conformance with these specifications.

The trench shall be excavated to the required depth, the bottom of which shall be graded to the elevation of the bottom of the bedding material or to afford a uniform firm bearing for the curtain drain throughout its entire length, whichever the case may be. When rock is encountered, it shall be excavated to not less than 12 inches below the bottom of the curtain drain, and this depth shall be refilled with bedding material which shall be thoroughly compacted.

Where the nature of the foundation is poor, the poor material shall be removed and replaced with a layer of bedding of such depth as the Engineer may direct; or special construction of the character shown on the plans special provisions or as ordered by the Engineer, may be employed.

Normally, the placement of the curtain drain shall start at the downstream end and progress upstream. All curtain drain shall be carefully laid, true to the lines and grades given.

The entire length of the curtain drain pipe shall be encased in Geotextile. If the pipe is

wrapped with geotextile fabric instead of coming from the manufacturer with a protective wrap/envelope, the fabric shall have the seams lapped and welded or bonded. Where the seams of the geotextile fabric are not welded or bonded, they shall be lapped to a minimum width equal to the diameter of the pipe for a 6 inch pipe and larger, and a minimum of 6 inches for a smaller pipe. Geotextile fabric shall also be placed around the bedding material placed in the trench around the curtain drain pipe for the entire length of the curtain drain in accordance with the plans and details. The fabric shall be overlapped on the top, a minimum of the entire width of the trench.

METHOD OF MEASUREMENT:

Section 7.51.04: Add the following:

This work will be measured for payment by the actual number of linear feet of "Curtain Drain" of the size and type specified, completed, accepted and measured in place along the invert or flow line to the outside face of manholes or other drainage structures.

Wyes, elbows, tees, perforated end caps, geotextile and bedding Material will not be measured for payment and shall be included in the cost of the "Curtain Drain – Smooth Interior."

BASIS OF PAYMENT:

Section 7.51.05: Replace with the following:

This work will be paid for at the contract unit price for the actual number of linear feet of "Curtain Drain – Smooth Interior" of the size and type specified, completed and accepted in place which price shall include excavation, backfill, all wyes, elbows, tees, end caps, joint sealants, geotextile encasement for the curtain drain pipe as well as for the bedding material around the pipe, connection to existing drainage systems, materials, equipment, labor, tools and incidentals necessary to complete the work.

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
0751700A	Curtain Drain – Smooth Interior	L.F.

ITEM 0905001A

STONE WALL FENCE

Work under this item shall conform to the requirements of Conn DOT Form 816, Section 9.05, amended as follows:

DESCRIPTION:

Section 9.05.01: Add the following:

The work under this item shall also include the removal, stockpiling and re-use of existing stones to rebuild the stone wall fence.

MATERIALS:

Section 9.05.02: Add the following:

Existing stones shall be carefully removed and used to reconstruct the stone wall fence after completion of the proposed construction. If the existing stones are damaged during removal, stones for this work shall be of the same type as those used in the construction of the existing stone wall fence. Provide a sample of the proposed stone to the Engineer for approval prior to beginning construction. All efforts shall be made to provide stones that closely match the existing stones.

CONSTRUCTION METHODS:

Section 9.05.03: Add the following:

The top of the wall shall be capped with suitable stones not larger than those used on the existing wall. If repairing an existing stone wall fence, the final stone wall fence shall be installed at the same dimensions of the disturbed wall and shall be flush with sections that remain undisturbed in the existing wall.

PAYMENT:

Section 9.05.05: Replace with the following:

This work will be paid for at the contract unit price per linear foot for "Stone Wall Fence," complete in place, which price shall include removal and resetting of the existing stone wall fence, stone material if existing stones are damaged during removal, all materials, equipment, tools, labor and work incidental thereto; also all necessary excavation, refilling and disposal of surplus material.

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
0905001A	Stone Wall Fence	L.F.
ITEM 0905001A	STONE WALL FENCE	Page 1 of 1

ITEM 0906203A

SPLIT RAIL FENCE

DESCRIPTION:

Work under this item shall consist of furnishing and installing pressure treated wood posts rail and fence at the locations given on the plans and in accordance with the dimensions and details shown on the plans, or as ordered by the Engineer.

SUBMITTALS:

The Contractor shall submit shop drawings and product data prior to placing order and receipt of materials for this item.

MATERIALS:

- a. All lumber shall conform to Voluntary Product Standard PS-70 and be certified according to applicable standard grading and dressing rules and shall bear the official grade and/or trademark of the association under whose rules it is produced.
- b. Wood: See details for post, rail and picket nominal dimensions. All wood shall be #2 Southern Yellow Pine (Southern Pine Inspection Bureau Grading), or equal. All wood to be new, solid, sound, and surface dry with a maximum moisture content of 19%. All wood shall be clearly marked with the official grading information.
- c. Treatment: All wood shall be 0.40 pressure treated with Koppers Wolman CCA Salt Treatment to AWPI Standard LP-22 or equal.
- d. Concrete shall be minimum compressive strength of 4,000 psi at 28 days.

CONSTRUCTION METHODS:

The fence and posts shall be installed per the manufacturer's instructions.

The posts shall be set in holes dug in thoroughly compacted soil and set in concrete per the detail. Holes shall be hand dug when posts are within five (5) feet a utility line. Poles shall be plumb and such that rails, once installed, will be parallel to the ground below.

Should rock or boulders be encountered in making the excavation, this material shall be removed so as to make a hole of sufficient size to set the posts to the normal depth as called for on the plan.

The posts shall be spaced as shown on the plans, set plumb and normally with the front face at a uniform distance from the edge of the traveled way.

The rail shall be mounted on the post as shown on the plans. The rail members shall be accurately cut so as to provide even bearing over entire surface of joints. No shimming of any kind will be allowed in making joints nor will open joints be accepted. All exposed edges of posts shall be chamfered.

METHOD OF MEASUREMENT:

This work shall be measured for payment by the number of linear feet of rail measured along the top of the rail from end to end.

BASIS OF PAYMENT:

Payment for these items will be at the contract unit price bid per linear foot for "Split Rail Fence," complete in place, which price shall include all pressure treatment, materials, equipment, tools, and labor incidental to the installation of the completed and accepted rail/fence.

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
0906203A	Split Rail Fence	L.F.

ITEM 0922001A
ITEM 0922501A

BITUMINOUS CONCRETE SIDEWALK
BITUMINOUS CONCRETE DRIVEWAY

DESCRIPTION:

This Item shall consist of a Bituminous Concrete Surfaced Sidewalk or Driveway constructed on a processed aggregate base course in the locations and to the dimensions and details shown on the plans or as ordered and in accordance with these specifications.

MATERIALS:

Materials for this work shall conform to the following requirements:

1. Processed Aggregate Base Course shall conform to the requirements of Section 3.04 of Form 816.
2. Bituminous Concrete Surface: Materials for this surface shall conform to the requirements of Section M.04, Class 2 of the Special Provisions.

CONSTRUCTION DETAILS

1. Excavation: Excavation, including removal of any existing sidewalk, or driveway, shall be made to the required depth below the finished grade, as shown on the plans or as directed. All soft and yielding material shall be removed and replaced with suitable material.
2. Forms: When the bituminous concrete is spread by hand, forms shall be used. Forms shall be of metal or wood, straight, free from warp and of sufficient strength to resist springing from the impact of the roller. If made of wood, they shall be of 2 inch surfaced plank except that at sharp curbs thinner material may be used; if made of metal, they shall be of an approved section. All forms shall be of a depth equal to the depth of the sidewalks or driveways and shall be securely staked, braced, and held firmly to the required line and grade. All forms shall be cleaned and oiled each time they are used.
3. Base Course: Processed Aggregate Base for the base course shall be uniformly spread upon the subgrade to the required depth and thoroughly compacted with a roller weighing not less than 500 pounds.
4. Bituminous Concrete Surface: This surface shall be constructed in accordance with the requirements of "Bituminous Concrete" Item in these specifications, will be followed, except that the material may be spread by hand and thoroughly

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BITUMINOUS CONCRETE SIDEWALK
BITUMINOUS CONCRETE DRIVEWAY

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compacted by multiple passes of a roller weighing not less than 500 pounds

5. Backfilling and Removal of Surplus Material: The sides of the sidewalk or driveway shall be backfilled with suitable material thoroughly compacted and finished flush with the top of the sidewalk or driveway. All surplus material shall be removed and the site left in a neat and presentable condition to the satisfaction of the Engineer. In sections inaccessible to the roller, the base course, surface course and backfill shall be hand-tamped with tampers weighing not less than 12 pounds, the face of which shall not exceed 50 square inches in area.

MEASUREMENT:

The quantity to be paid for will be measured by the actual number of square yards of "Bituminous Concrete Sidewalk" or "Bituminous Concrete Driveway" furnished in accordance with the Contract Drawings and Specifications and incorporated in the work.

PAYMENT:

The unit price bid per square yard shall include sawcutting, excavation, processed aggregate base, preparation of the subgrade and furnishing of all materials including the bituminous concrete, all equipment and labor necessary to complete the work as specified on the plans or as directed by the Engineer.

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
0922001A	Bituminous Concrete Sidewalk	S.Y.
0922501A	Bituminous Concrete Driveway	S.Y.

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ITEM 0922503A

GRAVEL DRIVEWAY

DESCRIPTION:

This item shall consist of excavating, removing, and disposing of existing gravel, concrete or bituminous concrete and installing, reconstructing and/or repairing gravel driveways with processed aggregate to the contract limit line or locations shown on the plans in accordance with these specifications.

MATERIALS:

Materials for this work shall conform to the following requirements:

Gravel for driveways shall be processed aggregate and shall conform to the requirements of Article 3.05.02 of the Standard Specification.

CONSTRUCTION METHODS:

Excavation, including removal of any existing driveway shall be made to the required depth below the finished grade, as shown on the plans. All soft and yielding material shall be removed and replaced with suitable material.

Processed aggregate for the gravel driveways shall be uniformly spread to the required depth and thoroughly compacted with a roller with a mass of not less than 500 pounds.

The sides of the driveway shall be backfilled with suitable material thoroughly compacted and finished flush with the top of the driveway. All surplus material shall be removed and the site left in a neat and presentable condition to the satisfaction of the Engineer. In sections inaccessible to the roller, the base course, surface course and backfill shall be hand-tamped with tampers weighing not less than 12 pounds, the face of which shall not exceed 50 square inches in area.

METHOD OF MEASUREMENT:

This work will be measured for payment by the actual number of square yards of complete and accepted gravel driveway installed.

BASIS OF PAYMENT:

This work will be paid for at the contract unit price per square yard for "Gravel Driveway," complete in place, which price shall include all excavation as specified above, backfill, disposal of surplus material, processed aggregate, and all equipment, tools, labor and materials incidental thereto.

<u>Pay Item</u>	<u>Description</u>	<u>Pay Unit</u>
0922503A	Gravel Driveway	S.Y.

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ITEM 0944003A

FURNISHING AND PLACING TOPSOIL

Work under this item shall conform to the requirements of Conn DOT Form 816, Section 9.44, amended as follows:

DESCRIPTION:

Section 9.44.01: Amend with the following:

Replace "4 in (100 mm)" with "6 in". This item shall also include stockpiling and disposal of excess topsoil on site.

CONSTRUCTION METHODS:

Section 9.44.03:

Paragraphs 2 and 3: Replace in their entirety with:

The areas on which topsoil is to be placed shall be graded to a reasonably true surface and cleaned of all stones, brickbats, and other kinds of rubbish. After areas have been brought to proper subgrade and approved by the Engineer, topsoil shall be spread to a compacted depth of 6 inches, with due allowance made for settlement. All stones, roots, debris, sod, weeds, and other undesirable material shall be removed from the topsoil. After shaping and grading, all trucks and other equipment shall be excluded from the topsoiled area to prevent excessive compaction. The Contractor shall perform such work as required to provide a friable surface for seed germination and plant growth prior to seeding.

During hauling and spreading operations, the Contractor shall immediately remove any material dumped or spilled on roadways, pavements or other areas not intended for topsoil.

Add the following:

Wherever subgrade material is sand, gravel or other very pervious material, and elsewhere as required by the Engineer, the Contractor shall consult the Engineer to decide on treatment of subgrade before placing the topsoil.

Placement of topsoil shall be performed only when it can be followed within a

reasonable time by seeding, sodding, planting and mulching.

Resupplying of topsoil to eroded or settled areas to finish grade shall be the responsibility of the Contractor. Care shall be taken not to damage lawn area in the replacement of topsoil.

All excess topsoil shall remain the property of the Owner. If the topsoil remains after spreading required amounts, it shall be stockpiled and disposed of at the location(s) directed by the Town.

CONSTRUCTION METHODS:

Section 9.44.03: Add the following:

The cost for stockpiling and disposing of excess topsoil shall be included in the cost of this item.

ITEM 0950005A

TURF ESTABLISHMENT (MODIFIED)

The work shall conform to Standard Specification Form 816 Section 9.50, amended as follows:

MATERIAL:

Section 9.50.02: Replace with the following:

The materials for this work shall conform to the requirements of Section M.13 *except that the Seed Mixtures in M.13.04 shall be replaced with the following Seed Mixture:*

<u>Percent by Weight</u>	<u>Common Name</u>	<u>Scientific Name</u>
15-20	<i>Kentucky Bluegrass</i>	<i>Poa pratensis</i>
15-30	<i>Pennlawn Red Fescue</i>	<i>Festuca rubra</i>
10-30	<i>Chewing Fescue</i>	<i>Festuca rubra</i>
20-55	<i>Manhattan Ryegrass</i>	<i>Lolium perenne</i>

CONSTRUCTION METHODS:

Section 9.50.03.3: Add with the following:

Rate of application shall be 225 lbs per acre.

ITEM 0950006A **NEW ENGLAND EROSION CONTROL / RESTORATION MIX**

Description:

The work included in this item shall consist of providing an accepted stand of native plants by furnishing and placing seed as shown on the plans or as directed by the Engineer. Mix is appropriate for areas that do not hold standing water. Many of the plants in this mix can tolerate infrequent inundation, but not constant flooding.

Materials:

The materials for this work shall conform to the requirements of Section 9.50 of Standard Specification Form 816. The following mix shall be used for this item:

Seed Mix: In order to preserve and enhance the diversity, the source for seed mixtures shall be locally obtained within the Northeast USA including New England, New York, Pennsylvania, New Jersey, Delaware, or Maryland.

Species: Virginia Wild Rye, (*Elymus virginicus*), Creeping Red Fescue, (*Festuca rubra*), Little Bluestem, (*Schizachyrium scoparium*), Big Bluestem, (*Andropogon gerardii*), Fox Sedge, (*Carex vulpinoidea*), Switch Grass, (*Panicum virgatum*), Rough Bentgrass, (*Agrostis scabra*), New England Aster, (*Aster novae-angliae*), Boneset, (*Eupatorium perfoliatum*), Grass Leaved Goldenrod, (*Euthamia graminifolia*), Green Bulrush, (*Scirpus atrovirens*), Blue Vervain, (*Verbena hastata*), Soft Rush, (*Juncus e&usus*), Wool Grass, (*Scirpus cyperinus*).

Construction Methods:

Construction Methods shall be those established as agronomically acceptable and feasible and that are approved by the Engineer. Rate of application shall be 35 lbs/acre - 1,250 sq. ft./lb. The mix may be applied by hand, by mechanical spreader, or by hydro-seeder. After sowing, lightly rake, roll or cultipack to insure good seed-to-soil contact. Best results are obtained with a Spring or late Summer seeding. Late Fall and Winter dormant seeding requires an increase in the application rate. The seed shall be mulched with a light mulching of clean, weed-free straw.

Method of Measurement:

This work will be measured for payment by the number of square yards of surface area of accepted established plants as specified or by the number of square yards of surface area of seeding actually covered and as specified.

Basis of Payment:

This work will be paid for at the contract unit price per square yard for "New England Erosion Control / Restoration Mix" which price shall include all materials, maintenance, equipment, tools, labor, and work incidental thereto.

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
095006A	New England Erosion Control / Restoration Mix	S.Y.

ITEM 0950007A**NEW ENGLAND WILDLIFE / CONSERVATION MIX****Description:**

The work included in this item shall consist of providing an accepted stand of native plants by furnishing and placing seed as shown on the plans or as directed by the Engineer. Mix is appropriate for areas that do not hold standing water and is designed to be a no maintenance seeding, and is appropriate for cut and fill slopes.

Materials:

The materials for this work shall conform to the requirements of Section 9.50 of Standard Specification Form 816. The following mix shall be used for this item:

Seed Mix: In order to preserve and enhance the diversity, the source for seed mixtures shall be locally obtained within the Northeast USA including New England, New York, Pennsylvania, New Jersey, Delaware, or Maryland. Other proposed mixtures must be approved by the Project Engineer.

SPECIES: Virginia Wild Rye, (*Elymus virginicus*), Little Bluestem, (*Schizachyrium scoparium*), Big Bluestem, (*Andropogon gerardii*), Creeping Red Fescue, (*Festuca rubra*), Switch Grass, (*Panicum virgatum*), Partridge Pea, (*Chamaecrista fasciculata*), Deer Tongue, (*Panicum clandestinum*), Indian Grass, (*Sorghastrum nutans*), Ox Eye Sunflower, (*Heliopsis helianthoides*), Common Milkweed, (*Asclepias syriaca*), Spotted Joe Pye Weed, (*Eupatorium maculatum*), Grass Leaved Goldenrod, (*Euthamia graminifolia*), Blue Vervain, (*Verbena hastata*), New England Aster, (*Aster novae-angliae*), Early Goldenrod, (*Solidago juncea*).

Construction Methods:

Construction Methods shall be those established as agronomically acceptable and feasible and that are approved by the Engineer. Rate of application shall be 25 lbs/acre – 1,750 sq. ft./lb. The mix may be applied by hand, by mechanical spreader, or by hydro-seeder. After sowing, lightly rake, roll or cultipack to insure good seed-to-soil contact.

Method of Measurement:

This work will be measured for payment by the number of square yards of surface area of accepted established plants as specified or by the number of square yards of surface area of seeding actually covered and as specified.

Basis of Payment:

This work will be paid for at the contract unit price per square yards for "New England Wildlife / Conservation Mix" which price shall include all materials, maintenance, equipment, tools, labor, and work incidental thereto.

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
0950007A	New England Wildlife / Conservation Mix	S.Y.

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TRAFFICMEN (MUNICIPAL POLICE OFFICER)
TRAFFICMEN (UNIFORMED FLAGGER)

DESCRIPTION:

Under this item the Contractor shall provide the services of Trafficpersons of the type and number, and for such periods, as the Engineer approves for the control and direction of vehicular traffic and pedestrians. Traffic persons requested solely for the Contractor's operational needs will not be approved for payment.

CONSTRUCTION METHOD:

Prior to the start of operations on the project requiring the use of Trafficpersons, a meeting will be held with the Contractor, Trafficperson agency or firm, Engineer, and State Police, if applicable, to review the Trafficperson operations, lines of responsibility, and operating guidelines which will be used on the project. A copy of the municipality's billing rates for Municipal Police Officers and vehicles, if applicable, will be provided to the Engineer prior to start of work.

On a weekly basis, the Contractor shall inform the Engineer of their scheduled operations for the following week and the number of Trafficpersons requested. The Engineer shall review this schedule and approve the type and number of Trafficpersons required. In the event of an unplanned, emergency, or short term operation, the Engineer may approve the temporary use of properly clothed persons for traffic control until such time as an authorized Trafficperson may be obtained. In no case shall this temporary use exceed 8 hours for any particular operation.

If the Contractor changes or cancels any scheduled operations without prior notice of same as required by the agency providing the Trafficpersons, and such that Trafficperson services are no longer required, the Contractor will be responsible for payment at no cost to the Department of any show-up cost for any Trafficperson not used because of the change. Exceptions, as approved by the Engineer, may be granted for adverse weather conditions and unforeseeable causes beyond the control and without the fault or negligence of the Contractor.

Trafficpersons assigned to a work site are to only take direction from the Engineer.

Trafficpersons shall wear a high visibility safety garment that complies with OSHA, MUTCD, ASTM Standards and the safety garment shall have the words "Traffic Control" clearly visible on the front and rear panels (minimum letter size 2 inches (50 millimeters). Worn/faded safety garments that are no longer highly visible shall not be

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TRAFFICMEN (MUNICIPAL POLICE OFFICER)
TRAFFICMEN (UNIFORMED FLAGGER)

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used. The Engineer shall direct the replacement of any worn/faded garment at no cost to the City.

A Trafficperson shall assist in implementing the traffic control specified in the Maintenance and Protection of Traffic contained elsewhere in these specifications or as directed by the Engineer. Any situation requiring a Trafficperson to operate in a manner contrary to the Maintenance and Protection of Traffic specification shall be authorized in writing by the Engineer.

Trafficpersons shall consist of the following types:

1. Uniformed Law Enforcement Personnel: Law enforcement personnel shall wear the high visibility safety garment provided by their law enforcement agency. If no high visibility safety garment is provided, the Contractor shall provide the law enforcement personnel with a garment meeting the requirements stated for the Uniformed Flaggers' garment.

Law Enforcement Personnel may also be used to conduct motor vehicle enforcement operations in and around work areas as directed and approved by the Engineer.

Municipal Police Officers: Uniformed Municipal Police Officers shall be sworn Municipal Police Officers or Uniformed Constables who perform criminal law enforcement duties from the Municipality in which the project is located. Their services will also include an official Municipal Police vehicle when requested by the Engineer. Uniformed Municipal Police Officers will be used on non-limited access highways. If Uniformed Municipal Police Officers are unavailable, other Trafficpersons may be used when authorized in writing by the Engineer.

Uniformed Municipal Police Officers and requested Municipal Police vehicles will be used at such locations and for such periods as the Engineer deems necessary to control traffic operations and promote increased safety to motorists through the construction sites.

2. Uniformed Flagger: Uniformed Flaggers shall be persons who have successfully completed flagger training by the American Traffic Safety Services Association (ATSSA), National Safety Council (NSC) or other programs approved by the Engineer. A copy of the Flagger's training certificate shall be provided to the Engineer before the Flagger performs any work on the project. Uniformed Flaggers shall conform to Chapter 6E, Flagger Control, in the Manual of Uniformed Traffic Control Devices (MUTCD) and shall wear high-visibility safety apparel, use a STOP/SLOW paddle that is at least 18 inches (450 millimeters) in width with letters at least 6 inches (150 millimeters) high.

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TRAFFICMEN (MUNICIPAL POLICE OFFICER)
TRAFFICMEN (UNIFORMED FLAGGER)

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The paddle shall be mounted on a pole of sufficient length to be 6 feet (1.8 meters) above the ground as measured from the bottom of the sign.

Uniformed Flaggers will only be used on non-limited access highways to control traffic operations when authorized in writing by the Engineer.

METHOD OF MEASUREMENT:

Services of Trafficpersons will be measured for payment by the actual number of hours for each person rendering services approved by the Engineer. These services shall include, however, only such trafficpersons as are employed within the limits of construction, project right of way of the project or along detours authorized by the Engineer to assist the motoring public through the construction work zone. Services for continued use of a detour or bypass beyond the limitations approved by the Engineer, for movement of construction vehicles and equipment, or at locations where traffic is unnecessarily restricted by the Contractor's method of operation, will not be measured for payment.

Trafficpersons shall not work more than twelve hours in any one 24 hour period. In case such services are required for more than twelve hours, additional Trafficpersons shall be furnished and measured for payment. In cases where the Trafficperson is an employee on the Contractor's payroll, payment under the item "Trafficperson (Uniformed Flagger)" will be made only for those hours when the Contractor's employee is performing Trafficperson services.

Travel time will not be measured for payment for services provided by Uniformed Municipal Police Officers or Uniformed Flaggers.

Mileage fees associated with Trafficperson services will not be measured for payment.

Safety garments and STOP/SLOW paddles will not be measured for payment.

PAYMENT:

Trafficpersons will be paid in accordance with the schedule described herein. There will be no direct payment for safety garments or STOP/SLOW paddles. All costs associated with furnishing safety garments and STOP/SLOW paddles shall be considered included in the general cost of the item.

1. Uniformed Law Enforcement Personnel: The sum of money shown on the Estimate and in the itemized proposal as "Estimated Cost" for this work will be

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TRAFFICMEN (MUNICIPAL POLICE OFFICER)
TRAFFICMEN (UNIFORMED FLAGGER)

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considered the bid price even though payment will be made as described below. The estimated cost figure is not to be altered in any manner by the bidder. Should the bidder alter the amount shown, the altered figures will be disregarded and the original price will be used to determine the total amount for the contract.

The Department will pay the Contractor its actual costs for "Trafficperson (Municipal Police Officer)" plus an additional 5% as reimbursement for the Contractor's administrative expense in connection with the services provided.

The invoice must include a breakdown of each officer's actual hours of work and actual rate applied. Mileage fees associated with Trafficperson services are not reimbursable expenses and are not to be included in the billing invoice. The use of a municipal police vehicle authorized by the Engineer will be paid at the actual rate charged by the municipality. Upon receipt of the invoice from the municipality, the Contractor shall forward a copy to the Engineer. The invoice will be reviewed and approved by the Engineer prior to any payments. *Eighty (80%) of the invoice will be paid upon completion of review and approval. The balance (20%) will be paid upon receipt of cancelled check or receipted invoice, as proof of payment.* The rate charged by the municipality for use of a uniformed municipal police officer and/or a municipal police vehicle shall not be greater than the rate it normally charges others for similar services.

2. Uniformed Flagger: Uniformed flaggers will be paid for at the contract unit price per hour for "Trafficperson (Uniformed Flagger)", which price shall include all compensation, insurance benefits and any other cost or liability incidental to the furnishing of the trafficpersons ordered.

<u>Item No.</u>	<u>Description</u>	<u>Pay Unit</u>
0970006A	Trafficmen (Municipal Police Officer)	Allowance
0970007A	Trafficmen (Uniformed Flagger)	Hrs.

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TRAFFICMEN (MUNICIPAL POLICE OFFICER)
TRAFFICMEN (UNIFORMED FLAGGER)

ITEM 0971001A

MAINTENANCE AND PROTECTION OF TRAFFIC

DESCRIPTION:

Section 9.71.01: Supplement with the following:

The Contractor shall maintain and protect traffic in accordance with the current edition of "The Manual on Uniform Traffic Control Devices (MUTCD), Part VI", The portions of streets over which traffic is maintained shall be kept in such condition that traffic will be safely and adequately accommodated. Sidewalks outside the limits of construction are to be kept free of excavated materials, tools, machinery and other subjects that will impede or endanger pedestrian traffic. The Contractor shall keep all passageways reasonably smooth, properly drained and in well-maintained, suitable conditions in order to provide minimal disturbance to pedestrian and vehicle traffic during construction.

The Contractor shall furnish, erect, light and maintain such signs, barricades, drums, cones, flashers and warning lights as needed or directed by the Engineer, for the regulation and protection of traffic and pedestrians around the work site. Such signs, barricades, drums, cones, flashers and warning lights shall be used to safely and adequately keep pedestrians, including handicapped persons, and vehicles from equipment, materials, obstacles, excavations, and newly constructed structures. Flagmen shall be provided for the regulation and protection of traffic or pedestrians, as needed or directed.

The Contractor shall be required to provide and/or relocate any required roadway safety measures (e.g. Construction Barricades, Traffic Cones, Drums, etc.) as shown on the plans or as directed by the Engineer or City. The costs for these items will not be measured for payment and shall be included in the cost of this item.

The Contractor shall install temporary pavement markings, as required, when shifting traffic per CTDOT's Construction Traffic Control plans contained herein, or as ordered by the Engineer.

The Contractor shall sweep areas as required and/or directed by the Engineer, which shall be paid for under separate items.

At no time, unless otherwise approved by the Engineer, shall the Contractor close or cause to be closed any portion of roadways beyond what is stipulated herein, or on the plans, as necessary to perform the work.

Temporary no parking signage will be provided by the City for installation by the Contractor so that cars will not be parked within proposed work areas.

The Contractor must adhere to the City's noise ordinance and will only be allowed to work between 7:00 a.m. to 7:00 p.m., Monday through Friday. No work will be allowed on weekends without specific prior written approval from the Engineer. The City of Norwalk

Noise Ordinance restricts operation of heavy equipment outside the hours of 7:00 a.m. to 7:00 p.m.

The Contractor shall be allowed to halt traffic for a period of time not to exceed 10 minutes for the purpose of performing necessary work, as approved by the Engineer, between the hours of **9:00 a.m. and 3:00 p.m.** If more than one 10-minute period is required, the Contractor shall allow all stored vehicles to proceed through the work area prior to the next stoppage.

Aviation Court and Soundview Avenue

The Contractor shall maintain and protect a minimum of one lane of traffic in each direction, each lane on a paved travel path not less than 11 feet in width.

Excepted therefrom will be those periods, during the allowable periods, when the Contractor is actively working, at which time the Contractor shall maintain and protect at least an alternating one-way traffic operation, on a paved travel path not less than 11 feet in width. The length of the alternating one-way traffic operation shall not exceed 300 feet and there shall be no more than one alternating one-way traffic operation within the project limits without prior approval of the Engineer.

Commercial and Residential Driveways and Parking Lots

The Contractor shall maintain access to and egress from all driveways and parking lots within or adjacent to the project area unless the Contractor has first negotiated alternate arrangements with the property owners or as otherwise noted on the plans. If a temporary closure of a driveway is necessary, the Contractor shall coordinate with the owner to determine the time period of the closure. The contractor shall provide temporary graded surfaces where required, which shall consist of subbase, processed aggregate base, granular fill, or other suitable materials approved by the Engineer.

CONSTRUCTION METHODS:

Section 9.71.03: Supplement with the following:

General

The Contractor is required to delineate any raised structures within the roadway and sidewalk, so that the structures are visible day and night, unless there are specific contract plans and provisions to temporarily lower these structures prior to the completion of work.

When the Contractor is excavating adjacent to the roadway, the Contractor shall provide a 3-foot shoulder between the work area and travel lanes, with traffic drums spaced every 50 feet, unless Temporary Precast Concrete Barrier is used. At the end of the workday, if the vertical drop-off exceeds 3 inches, the Contractor shall provide a temporary traversable slope of 4:1 or flatter that is acceptable to the Engineer. If applicable, when

an existing sign is removed, it shall be either relocated or replaced by a new sign during the same working day.

The Contractor shall not store any material on-site which would present a safety hazard to motorists or pedestrians (e.g. fixed object or obstruct sight lines).

The field installation of a signing pattern shall constitute interference with existing traffic operations and shall not be allowed, except during the allowable periods.

Existing Signing

The Contractor shall maintain all existing overhead and side-mounted signs throughout the project limits during the duration of the project. The Contractor shall temporarily relocate signs and sign supports as many times as deemed necessary, and install temporary sign supports if necessary and as directed by the Engineer.

Signing Patterns

The Contractor shall erect and maintain all signing patterns in accordance with the traffic control plans contained herein. Proper distances between advance warning signs and proper taper lengths are mandatory.

Pavement Markings -Non-Limited Access Multilane Roadways

Secondary and Local Roadways:

During construction, the Contractor shall maintain all pavement markings on paved surfaces on all roadways throughout the limits of the project.

Interim Pavement Markings:

The Contractor shall install painted pavement markings, which shall include centerlines, shoulder edge lines, lane lines (broken lines), lane-use arrows, and stop bars, on each intermediate course of bituminous concrete pavement and on any milled surface by the end of the work day/night. If the next course of bituminous concrete pavement will be placed within seven days, shoulder edge lines are not required. The painted pavement markings will be paid under the appropriate items.

If the Contractor will install another course of bituminous concrete pavement within 24 hours, the Contractor may install Temporary Plastic Pavement Marking Tape in place of the painted pavement markings by the end of the work day/night. These temporary pavement markings shall include centerlines, lane lines (broken lines) and stop bars; shoulder edge lines are not required. Centerlines shall consist of two 4 inch wide yellow markings, 2 feet in length, side by side, 4 to 6 inches apart, at 40-foot intervals. No passing zones should be posted with signs in those areas where the final centerlines have not been established on two-way roadways. Stop bars may consist of two 6 inch wide white markings or three 4 inch wide white markings placed side by side. The Contractor shall remove and dispose of the Temporary Plastic Pavement Marking Tape when another course of bituminous concrete pavement is installed. The cost of furnishing, installing and removing the Temporary Plastic Pavement Marking Tape shall

be at the Contractor's expense.

Final Pavement Markings:

The Contractor should install painted pavement markings on the final course of bituminous concrete pavement by the end of the work day/night. If the painted pavement markings are not installed by the end of the work day/night, then Temporary Plastic Pavement Marking Tape shall be installed as described above and the painted pavement markings shall be installed by the end of the work day/night on Friday of that week.

If Temporary Plastic Pavement Marking Tape is installed, the Contractor shall remove and dispose of these markings when the painted pavement markings are installed. The cost of furnishing, installing and removing the Temporary Plastic Pavement Marking Tape shall be at the Contractor's expense.

The Contractor shall install permanent Epoxy Resin Pavement Markings in accordance with Section 12.10 entitled "Epoxy Resin Pavement Markings, Symbols, and Legends" after such time as determined by the Engineer.

TRAFFIC CONTROL DURING CONSTRUCTION OPERATIONS

The following guidelines shall assist field personnel in determining when and what type of traffic control patterns to use for various situations. These guidelines shall provide for the safe and efficient movement of traffic through work zones and enhance the safety of work forces in the work area.

TRAFFIC CONTROL PATTERNS

Traffic control patterns shall be used when a work operation requires that all or part of any vehicle or work area protrudes onto any part of a travel lane or shoulder. For each situation, the installation of traffic control devices shall be based on the following:

- Speed and volume of traffic
- Duration of operation
- Exposure to hazards

Traffic control patterns shall be uniform, neat and orderly so as to command respect from the motorist.

In the case of a horizontal or vertical sight restriction in advance of the work area, the traffic control pattern shall be extended to provide adequate sight distance for approaching traffic.

If a lane reduction taper is required to shift traffic, the entire length of the taper should be installed on a tangent section of roadway so that the entire taper area can be seen by the motorist.

Any existing signs that are in conflict with the traffic control patterns shall be removed, covered, or turned so that they are not readable by oncoming traffic.

When installing a traffic control pattern, a Buffer Area should be provided and this area shall be free of equipment, workers, materials and parked vehicles.

Traffic control patterns will not be required when vehicles are on an emergency patrol type activity or when a short duration stop is made and the equipment can be contained within the shoulder. Flashing lights and appropriate trafficperson shall be used when required.

Although each situation must be dealt with individually, conformity with the typical traffic control plans contained herein is required. In a situation not adequately covered by the typical traffic control plans, the Contractor must contact the Engineer for assistance prior to setting up a traffic control pattern.

PLACEMENT OF SIGNS

Signs must be placed in such a position to allow motorists the opportunity to reduce their speed prior to the work area. Signs shall be installed on the same side of the roadway as the work area. On multi-lane divided highways, advance warning signs shall be installed on both sides of the highway. On directional roadways (on-ramps, off-ramps, one-way roads), where the sight distance to signs is restricted, these signs should be installed on both sides of the roadway.

ALLOWABLE ADJUSTMENT OF SIGNS AND DEVICES SHOWN ON THE TRAFFIC CONTROL PLANS

The traffic control plans contained herein show the location and spacing of signs and devices under ideal conditions. Signs and devices should be installed as shown on these plans whenever possible.

The proper application of the traffic control plans and installation of traffic control devices depends on actual field conditions.

Adjustments to the traffic control plans shall be made only at the direction of the Engineer to improve the visibility of the signs and devices and to better control traffic operations. Adjustments to the traffic control plans shall be based on safety of work forces and motorists, abutting property requirements, driveways, side roads, and the vertical and horizontal curvature of the roadway.

The Engineer may require that the traffic control pattern be located significantly in advance of the work area to provide better sight line to the signing and safer traffic operations through the work zone.

Table I indicates the minimum taper length required for a lane closure based on the posted speed limit of the roadway. These taper lengths shall only be used when the

recommended taper lengths shown on the traffic control plans cannot be achieved.

TABLE I – MINIMUM TAPER LENGTHS

POSTED SPEED LIMIT MILES PER HOUR	MINIMUM TAPER LENGTH IN FEET FOR A SINGLE LANE CLOSURE
30 OR LESS	180
35	250
40	320
45	540
50	600
55	660
65	780

SECTION 1. WORK ZONE SAFETY MEETINGS

- 1.a) Prior to the commencement of work, a work zone safety meeting will be conducted with representatives of DOT Construction, Connecticut State Police (Local Barracks), Municipal Police, the Contractor (Project Superintendent) and the Traffic Control Subcontractor (if different than the prime Contractor) to review the traffic operations, lines of responsibility, and operating guidelines which will be used on the project. Other work zone safety meetings during the course of the project should be scheduled as needed.
- 1.b) A Work Zone Safety Meeting Agenda shall be developed and used at the meeting to outline the anticipated traffic control issues during the construction of this project. Any issues that can't be resolved at these meetings will be brought to the attention of the District Engineer and the Office of Construction. The agenda should include:
- Review Project scope of work and time
 - Review Section 1.08, Prosecution and Progress
 - Review Section 9.70, Trafficpersons
 - Review Section 9.71, Maintenance and Protection of Traffic
 - Review Contractor's schedule and method of operations.
 - Review areas of special concern: ramps, turning roadways, medians, lane drops, etc.
 - Open discussion of work zone questions and issues
 - Discussion of review and approval process for changes in contract requirements as they relate to work zone areas

SECTION 2. GENERAL

- 2.a) If the required minimum number of signs and equipment (i.e. one High Mounted

Internally Illuminated Flashing Arrow for each lane closed, two TMAs, Changeable Message Sign, etc.) are not available; the traffic control pattern shall not be installed.

- 2.b) The Contractor shall have back-up equipment (TMAs, High Mounted Internally Illuminated Flashing Arrow, Changeable Message Sign, construction signs, cones/drums, etc.) available at all times in case of mechanical failures, etc. The only exception to this is in the case of sudden equipment breakdowns in which the pattern may be installed but the Contractor must provide replacement equipment within 24 hours.
- 2.c) Failure of the Contractor to have the required minimum number of signs, personnel and equipment, which results in the pattern not being installed, shall not be a reason for a time extension or claim for loss time.
- 2.d) In cases of legitimate differences of opinion between the Contractor and the Inspection staff, the Inspection staff shall err on the side of safety. The matter shall be brought to the District Office for resolution immediately or, in the case of work after regular business hours, on the next business day.

SECTION 3. INSTALLING AND REMOVING TRAFFIC CONTROL PATTERNS

- 3.a) Lane Closures shall be installed beginning with the advanced warning signs and proceeding forward toward the work area.
- 3.b) Lane Closures shall be removed in the reverse order, beginning at the work area, or end of the traffic control pattern, and proceeding back toward the advanced warning signs.
- 3.c) Stopping traffic may be allowed:
 - As per the contract for such activities as blasting, steel erection, etc.
 - During paving, milling operations, etc. where, in the middle of the operation, it is necessary to flip the pattern to complete the operation on the other half of the roadway and traffic should not travel across the longitudinal joint or difference in roadway elevation.
 - To move slow moving equipment across live traffic lanes into the work area.
- 3.d) Under certain situations when the safety of the traveling public and/or that of the workers may be compromised due to conditions such as traffic volume, speed, roadside obstructions, or sight line deficiencies, as determined by the Engineer and/or State Police, traffic may be briefly impeded while installing and/or removing the advanced warning signs and the first ten traffic cones/drums only. Appropriate measures shall be taken to safely slow traffic. If required, traffic slowing techniques may be used and shall include the use of Truck Mounted Impact Attenuators (TMAs) as appropriate, for a minimum of one mile in advance

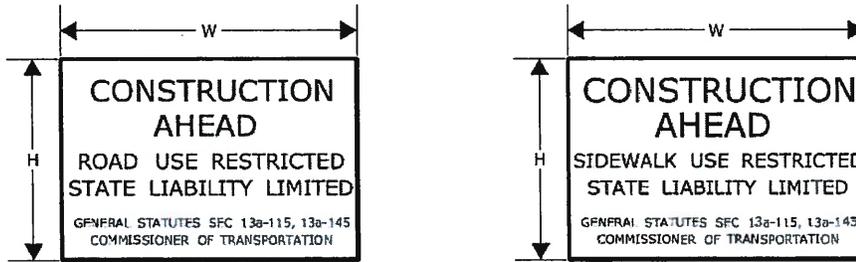
of the pattern starting point. Once the advanced warning signs and the first ten traffic cones/drums are installed/removed, the TMAs and sign crew shall continue to install/remove the pattern as described in Section 4c and traffic shall be allowed to resume their normal travel.

- 3.e) The Contractor must adhere to using the proper signs, placing the signs correctly, and ensuring the proper spacing of signs.
- 3.f) Prior to installing a pattern, any conflicting existing signs shall be covered with an opaque material. Once the pattern is removed, the existing signs shall be uncovered.

SECTION 4. USE OF TRAFFIC DRUMS AND TRAFFIC CONES

- 6.a) Traffic drums shall be used in place of traffic cones in traffic control patterns that are in effect for more than a 36-hour duration.
- 6.b) Typical spacing of traffic drums and/or cones shown on the Traffic Control Plans in the Contract are maximum spacings and may be reduced to meet actual field conditions as required.

SERIES 16 SIGNS



		W	H
16-E	80-1605	84" x 60"	
16-H	80-1608	60" x 42"	
16-M	80-1613	30" x 24"	

		W	H
16-S	80-1619	48" x 30"	

THE 16-S SIGN SHALL BE USED ON ALL PROJECTS THAT REQUIRE SIDEWALK RECONSTRUCTION OR RESTRICT PEDESTRIAN TRAVEL ON AN EXISTING SIDEWALK.

SERIES 16 SIGNS SHALL BE INSTALLED IN ADVANCE OF THE TRAFFIC CONTROL PATTERNS TO ALLOW MOTORISTS THE OPPORTUNITY TO AVOID A WORK ZONE. SERIES 16 SIGNS SHALL BE INSTALLED ON ANY MAJOR INTERSECTING ROADWAYS THAT APPROACH THE WORK ZONE. ON LIMITED-ACCESS HIGHWAYS, THESE SIGNS SHALL BE LOCATED IN ADVANCE OF THE NEAREST UPSTREAM EXIT RAMP AND ON ANY ENTRANCE RAMP PRIOR TO OR WITHIN THE WORK ZONE LIMITS.

THE LOCATION OF SERIES 16 SIGNS CAN BE FOUND ELSEWHERE IN THE PLANS OR INSTALLED AS DIRECTED BY THE ENGINEER.

SIGNS 16-E AND 16-H SHALL BE POST-MOUNTED.

SIGN 16-E SHALL BE USED ON ALL EXPRESSWAYS.

SIGN 16-H SHALL BE USED ON ALL RAMP, OTHER STATE ROADWAYS, AND MAJOR TOWN/CITY ROADWAYS.

SIGN 16-M SHALL BE USED ON OTHER TOWN ROADWAYS.

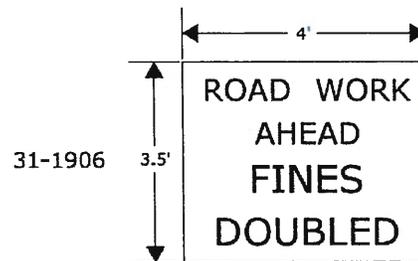
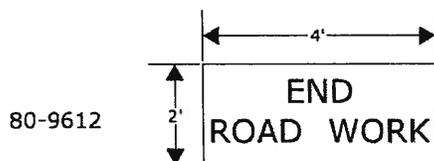
REGULATORY SIGN "ROAD WORK AHEAD, FINES DOUBLED"

THE REGULATORY SIGN "ROAD WORK AHEAD FINES DOUBLED" SHALL BE INSTALLED FOR ALL WORK ZONES THAT OCCUR ON ANY STATE HIGHWAY IN CONNECTICUT WHERE THERE ARE WORKERS ON THE HIGHWAY OR WHEN THERE IS OTHER THAN EXISTING TRAFFIC OPERATIONS.

THE "ROAD WORK AHEAD FINES DOUBLED" REGULATORY SIGN SHALL BE PLACED AFTER THE SERIES 16 SIGN AND IN ADVANCE OF THE "ROAD WORK AHEAD" SIGN.

"END ROAD WORK" SIGN

THE LAST SIGN IN THE PATTERN MUST BE THE "END ROAD WORK" SIGN.



SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
REQUIRED SIGNS

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED Charles S. Harlow
2012.06.05 11:36:43-04:00
PRINCIPAL ENGINEER

NOTES FOR TRAFFIC CONTROL PLANS

1. IF A TRAFFIC STOPPAGE OCCURS IN ADVANCE OF SIGN (A), THEN AN ADDITIONAL SIGN (A) SHALL BE INSTALLED IN ADVANCE OF THE STOPPAGE.
2. SIGNS (AA), (A), AND (D) SHOULD BE OMITTED WHEN THESE SIGNS HAVE ALREADY BEEN INSTALLED TO DESIGNATE A LARGER WORK ZONE THAN THE WORK ZONE THAT IS ENCOMPASSED ON THIS PLAN.
3. SEE TABLE 1 FOR ADJUSTMENT OF TAPERS IF NECESSARY.
4. IF THIS PLAN REMAINS IN CONTINUOUS OPERATION FOR MORE THAN 36 HOURS, THEN TRAFFIC DRUMS SHALL BE USED IN PLACE OF TRAFFIC CONES.
5. ANY LEGAL SPEED LIMIT SIGNS WITHIN THE LIMITS OF A ROADWAY / LANE CLOSURE AREA SHALL BE COVERED WITH AN OPAQUE MATERIAL WHILE THE CLOSURE IS IN EFFECT, AND UNCOVERED WHEN THE ROADWAY / LANE CLOSURE IS RE-OPENED TO ALL LANES OF TRAFFIC.
6. IF THIS PLAN REMAINS IN CONTINUOUS OPERATION FOR MORE THAN 36 HOURS, THEN ANY EXISTING CONFLICTING PAVEMENT MARKINGS SHALL BE ERADICATED OR COVERED, AND TEMPORARY PAVEMENT MARKINGS THAT DELINEATE THE PROPER TRAVELPATHS SHALL BE INSTALLED.
7. DISTANCES BETWEEN SIGNS IN THE ADVANCE WARNING AREA MAY BE REDUCED TO 100' ON LOW-SPEED URBAN ROADS (SPEED LIMIT < 40 MPH).
8. IF THIS PLAN IS TO REMAIN IN OPERATION DURING THE HOURS OF DARKNESS, INSTALL BARRICADE WARNING LIGHTS - HIGH INTENSITY ON ALL POST-MOUNTED DIAMOND SIGNS IN THE ADVANCE WARNING AREA.
9. A CHANGEABLE MESSAGE SIGN SHALL BE INSTALLED ONE HALF TO ONE MILE IN ADVANCE OF THE LANE CLOSURE TAPER.
- 10 SIGN (P) SHALL BE MOUNTED A MINIMUM OF 7 FEET FROM THE PAVEMENT SURFACE TO THE BOTTOM OF THE SIGN.

TABLE 1 - MINIMUM TAPER LENGTHS

POSTED SPEED LIMIT (MILES PER HOUR)	MINIMUM TAPER LENGTH FOR A SINGLE LANE CLOSURE
30 OR LESS	180' (55m)
35	250' (75m)
40	320' (100m)
45	540' (165m)
50	600' (180m)
55	660' (200m)
65	780' (240m)

METRIC CONVERSION CHART (1" = 25mm)

ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC
12"	300mm	42"	1050mm	72"	1800mm
18"	450mm	48"	1200mm	78"	1950mm
24"	600mm	54"	1350mm	84"	2100mm
30"	750mm	60"	1500mm	90"	2250mm
36"	900mm	66"	1650mm	96"	2400mm



SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN NOTES

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

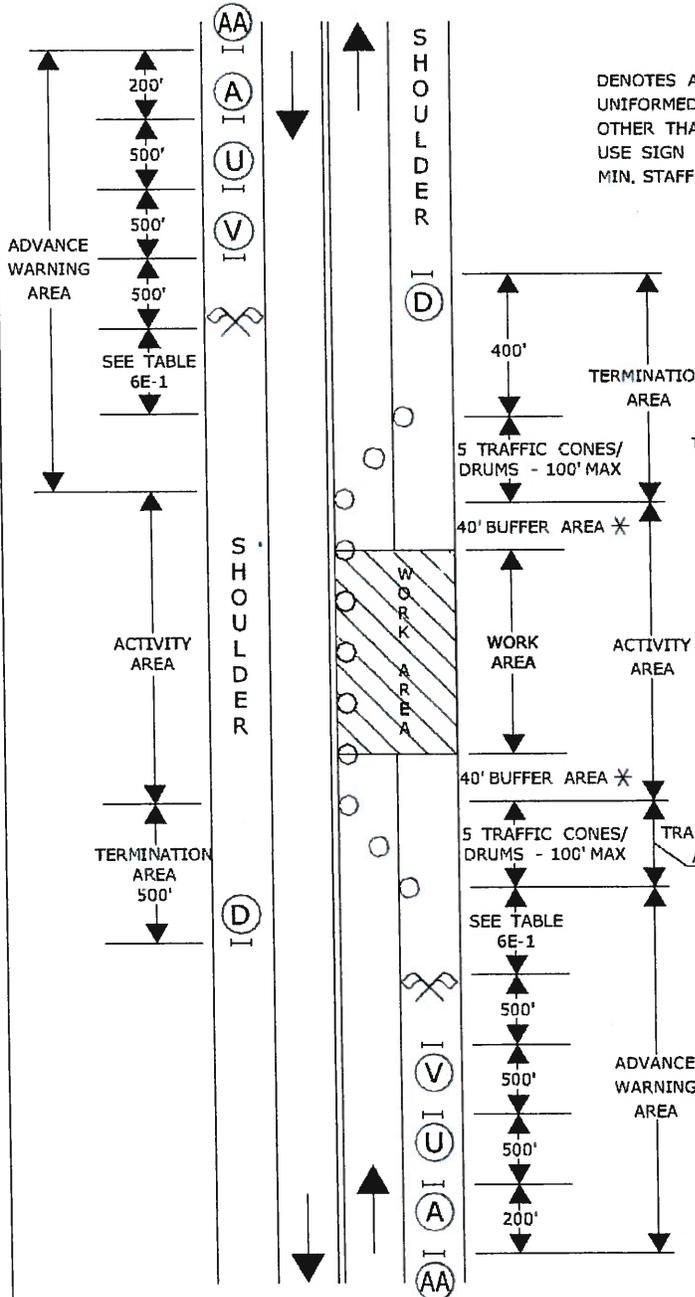
APPROVED

Charles S. Harlow
PRINCIPAL ENGINEER

Charles S. Harlow
2012.06.05 15:50:35-04:07

WORK IN TRAVEL LANE AND SHOULDER TWO LANE HIGHWAY ALTERNATING ONE-WAY TRAFFIC OPERATIONS

SIGN FACE
108 SQ. FT. (MIN.)

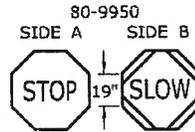
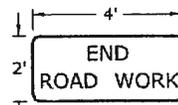


DENOTES APPROXIMATE LOCATION OF
UNIFORMED FLAGGER. TRAFFICPERSON
OTHER THAN POLICE OFFICERS SHALL
USE SIGN 80-9950 MOUNTED ON A 6'
MIN. STAFF.

FROM THE MUTCD
(2009 EDITION)
Table 6E-1 Stopping Sight Distance
as a Function of Speed

Speed (mph)	Distance (ft)
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495

(D) 80-9612



(V) 80-9803



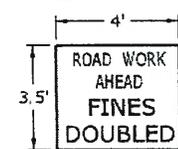
(U) 80-9834



(A) 80-9603



(AA) 31-1906



- TRAFFIC CONE OR TRAFFIC DRUM
- ✱ OPTIONAL ⊗ TRAFFIC DRUM — PORTABLE SIGN SUPPORT
- ← HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW



CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 13 - SHEET 1 OF 2
SEE NOTES 1, 2, 4, 6, 7, 8

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED Charles S. Harlow
2012.06.05 15:56:23-04:00
PRINCIPAL ENGINEER

WORK IN TRAVEL LANE AND SHOULDER TWO LANE HIGHWAY ALTERNATING ONE-WAY TRAFFIC OPERATIONS

SIGN FACE
108 SQ. FT. (MIN.)

HAND SIGNAL METHODS TO BE USED BY UNIFORMED FLAGGERS

THE FOLLOWING METHODS FROM SECTION 6E.07, FLAGGER PROCEDURES, IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," SHALL BE USED BY UNIFORMED FLAGGERS WHEN DIRECTING TRAFFIC THROUGH A WORK AREA. THE STOP/SLOW SIGN PADDLE (SIGN NO. 80-9950) SHOWN ON THE TRAFFIC STANDARD SHEET TR-1220 01 ENTITLED, "SIGNS FOR CONSTRUCTION AND PERMIT OPERATIONS" SHALL BE USED.

A. TO STOP TRAFFIC

TO STOP ROAD USERS, THE FLAGGER SHALL FACE ROAD USERS AND AIM THE STOP PADDLE FACE TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. THE FREE ARM SHALL BE HELD WITH THE PALM OF THE HAND ABOVE SHOULDER LEVEL TOWARD APPROACHING TRAFFIC.



B. TO DIRECT TRAFFIC TO PROCEED

TO DIRECT STOPPED ROAD USERS TO PROCEED, THE FLAGGER SHALL FACE ROAD USERS WITH THE SLOW PADDLE FACE AIMED TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. THE FLAGGER SHALL MOTION WITH THE FREE HAND FOR ROAD USERS TO PROCEED.



C. TO ALERT OR SLOW TRAFFIC

TO ALERT OR SLOW TRAFFIC, THE FLAGGER SHALL FACE ROAD USERS WITH THE SLOW PADDLE FACE AIMED TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. TO FURTHER ALERT OR SLOW TRAFFIC, THE FLAGGER HOLDING THE SLOW PADDLE FACE TOWARD ROAD USERS MAY MOTION UP AND DOWN WITH THE FREE HAND, PALM DOWN.



- TRAFFIC CONE OR TRAFFIC DRUM
- * OPTIONAL ⊗ TRAFFIC DRUM — PORTABLE SIGN SUPPORT
- ◀ HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW



SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 13 - SHEET 2 OF 2
SEE NOTES 1, 2, 4, 6, 7, 8

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

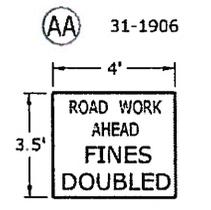
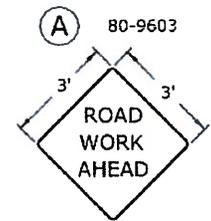
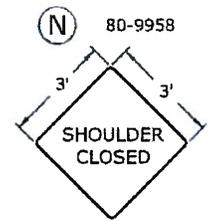
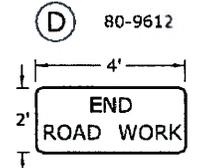
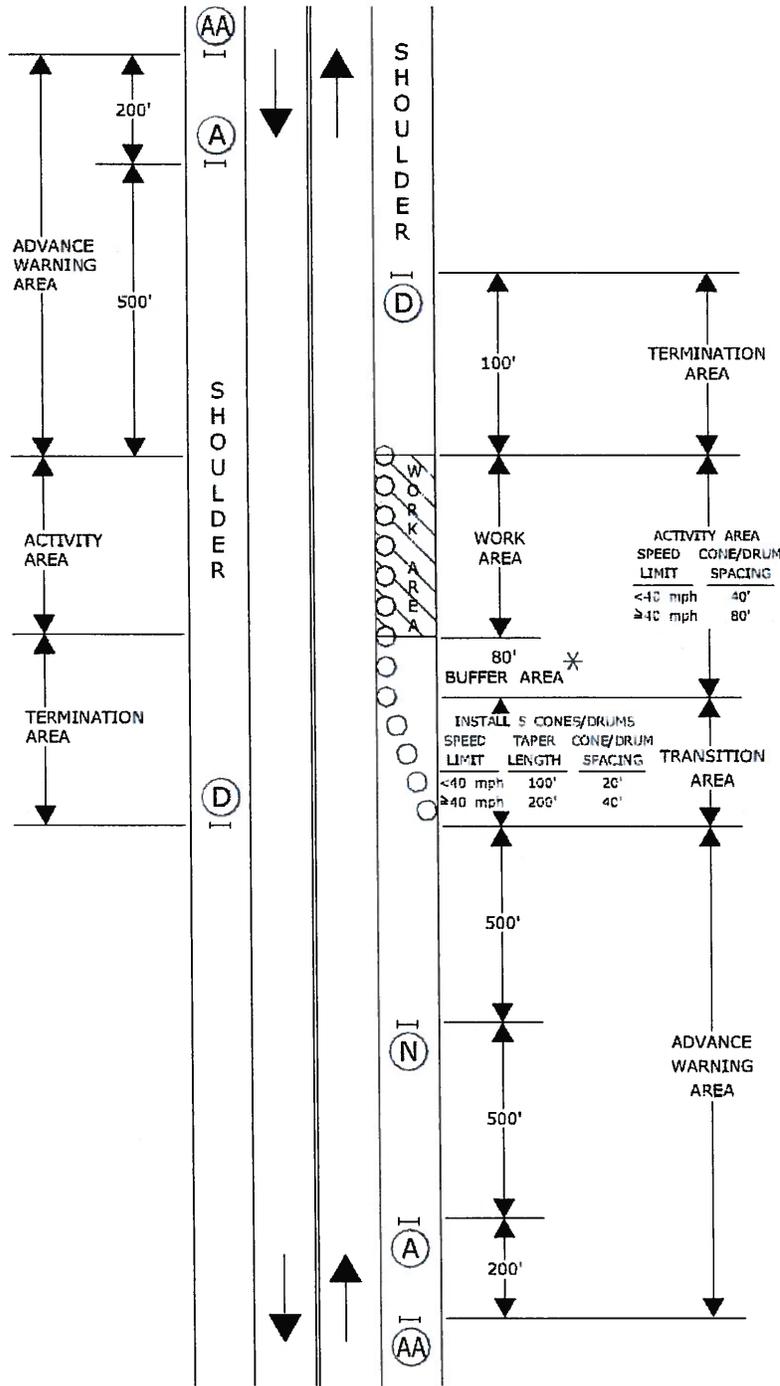
APPROVED

PRINCIPAL ENGINEER

Charles S. Harlow
2012.06.05 15:55:45-04'00"

WORK IN SHOULDER - TWO LANE HIGHWAY

SIGN FACE
71 SQ. FT (MIN.)



- TRAFFIC CONE OR TRAFFIC DRUM
- * OPTIONAL ⊗ TRAFFIC DRUM → PORTABLE SIGN SUPPORT
- ← HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW



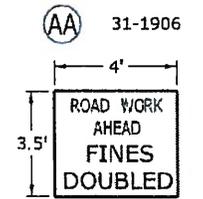
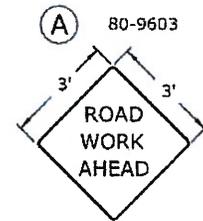
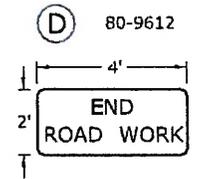
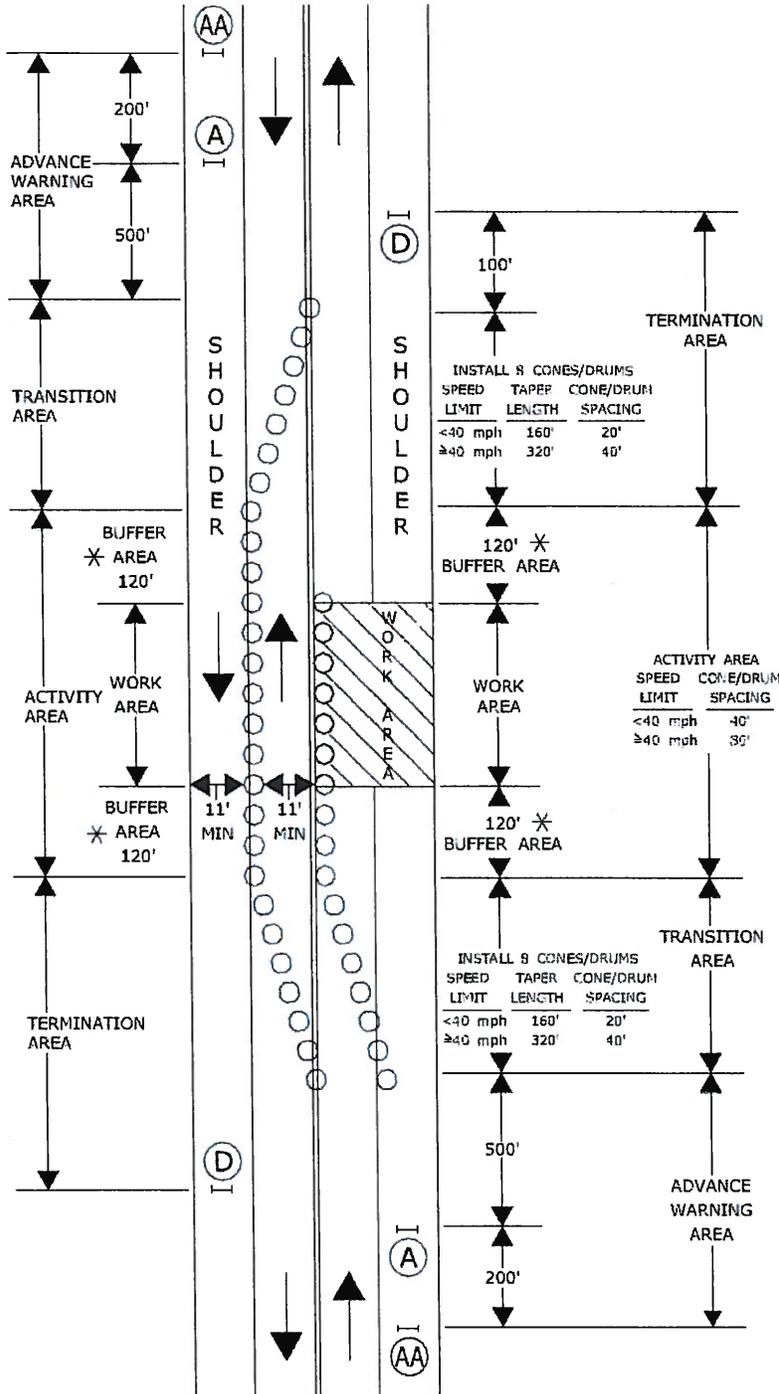
CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 14
SEE NOTES 1, 2, 4, 7, 8

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED  Charles S. Harlow
2012.06.05 15:56:09-04:00
PRINCIPAL ENGINEER

WORK IN TRAVEL LANE AND SHOULDER TWO LANE HIGHWAY

SIGN FACE
62 SQ. FT (MIN.)



- TRAFFIC CONE OR TRAFFIC DRUM
- * OPTIONAL ⊗ TRAFFIC DRUM — PORTABLE SIGN SUPPORT
- ← HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW



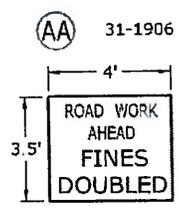
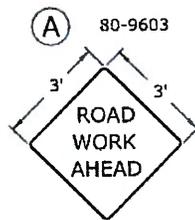
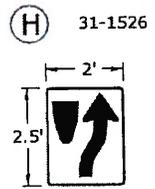
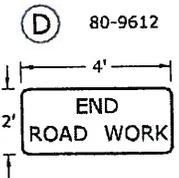
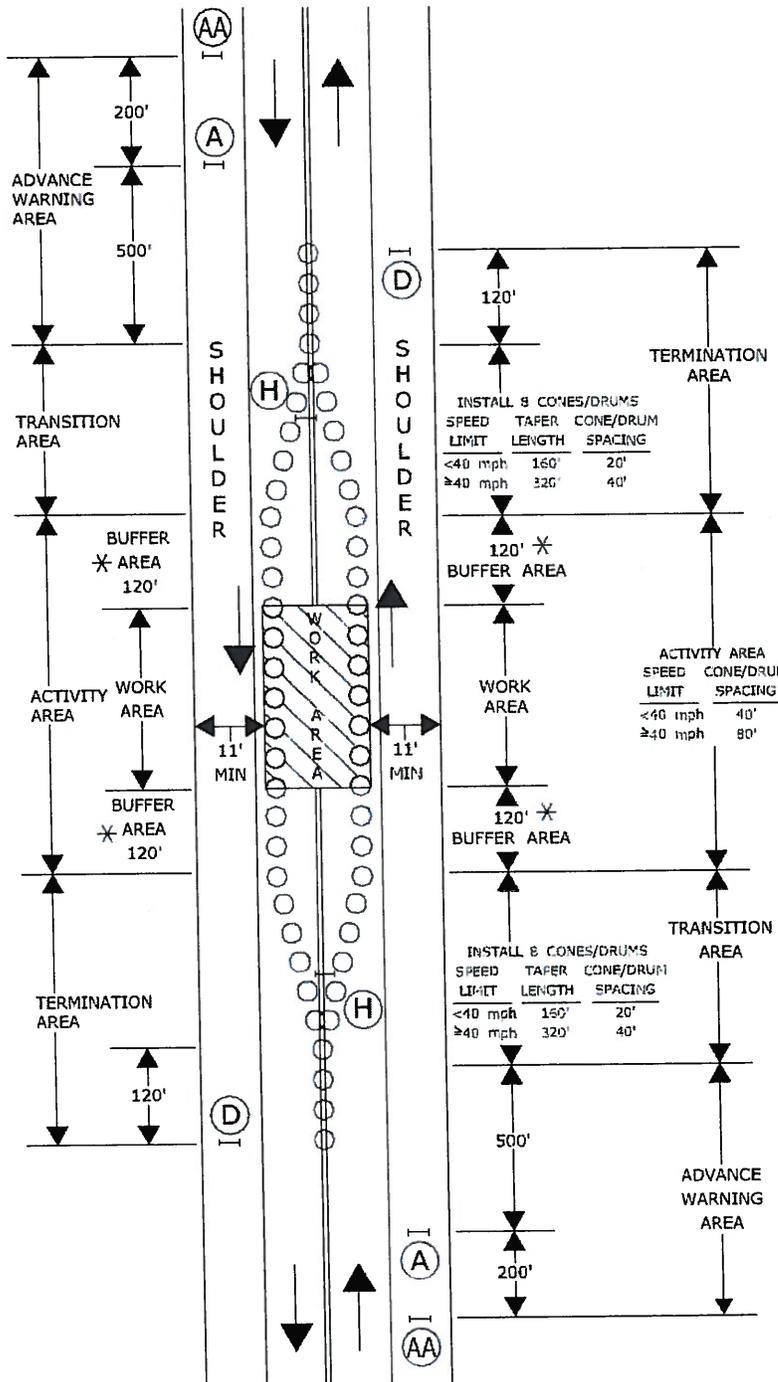
CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 15
SEE NOTES 1, 2, 4, 6, 7, 8

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED Charles S. Harlow
PRINCIPAL ENGINEER
2012.06.05 15:56:29-04:00

WORK IN MIDDLE OF ROADWAY TWO LANE HIGHWAY

SIGN FACE
72 SQ. FT (MIN.)



INSTALL 8 CONES/DRUMS

SPEED LIMIT	TAPER LENGTH	CONE/DRUM SPACING
<40 mph	160'	20'
≥40 mph	320'	40'

ACTIVITY AREA

SPEED LIMIT	CONE/DRUM SPACING
<40 mph	40'
≥40 mph	80'

INSTALL 8 CONES/DRUMS

SPEED LIMIT	TAPER LENGTH	CONE/DRUM SPACING
<40 mph	160'	20'
≥40 mph	320'	40'

- TRAFFIC CONE OR TRAFFIC DRUM
- * OPTIONAL ⊗ TRAFFIC DRUM — PORTABLE SIGN SUPPORT
- ◁ HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW



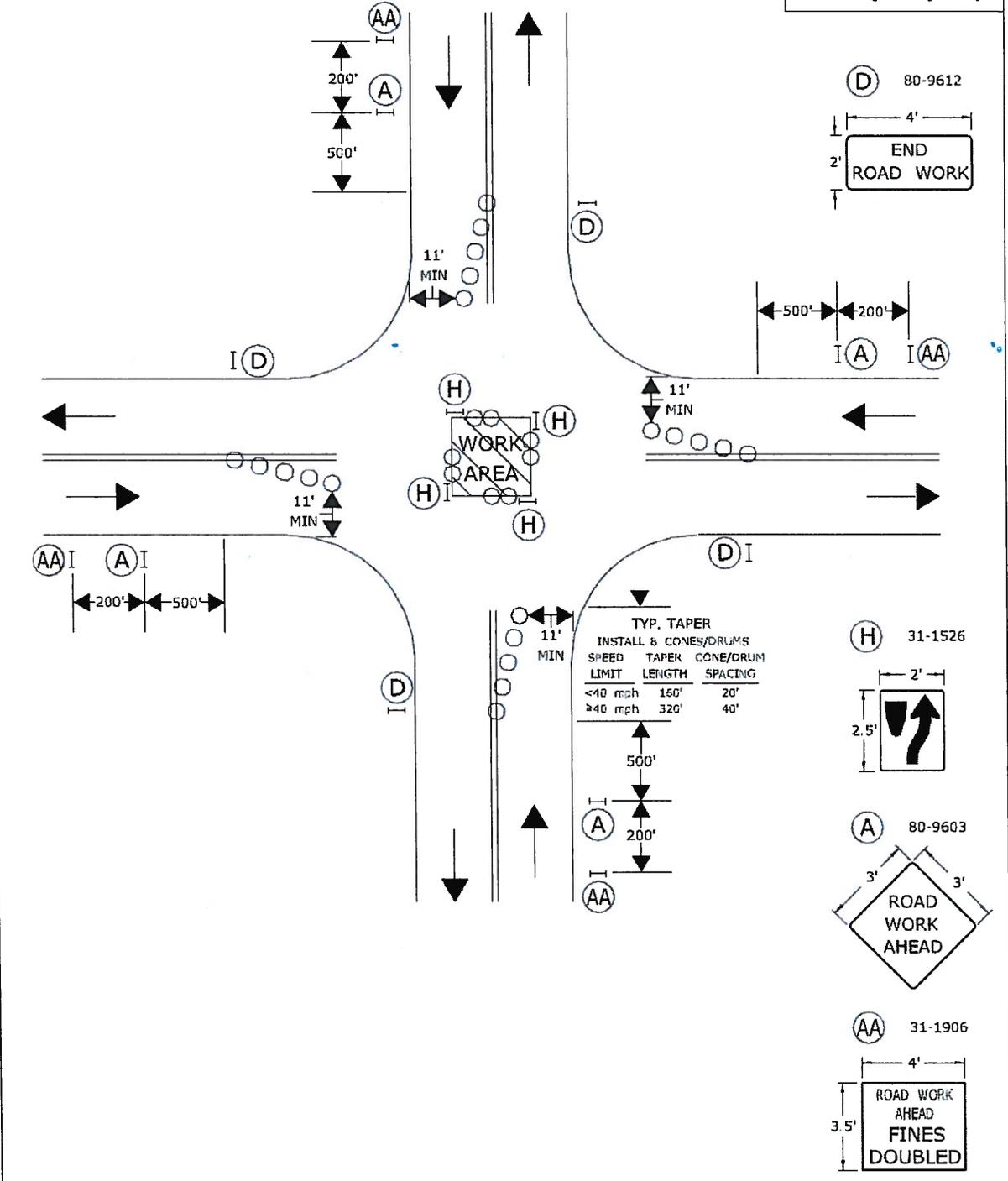
CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 16
SEE NOTES 1, 2, 4, 6, 7, 8

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED Charles S. Harrow
2012.08.05 15:56:51-04:00
PRINCIPAL ENGINEER

WORK IN MIDDLE OF ROADWAY AT INTERSECTION

SIGN FACE
144 SQ. FT (MIN.)



TYP. TAPER
INSTALL & CONES/DRUMS

SPEED LIMIT	TAPEK LENGTH	CONES/DRUM SPACING
<40 mph	160'	20'
≥40 mph	320'	40'

- TRAFFIC CONE OR TRAFFIC DRUM
- * OPTIONAL ⊗ TRAFFIC DRUM — PORTABLE SIGN SUPPORT
- ← HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW



CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 17
SEE NOTES 1, 2, 4, 6, 7, 8

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED: *[Signature]*
Charles S. Harlow
2012.06.05 15:57:16-04:30
PRINCIPAL ENGINEER

BASIS OF PAYMENT:

Section 9.71.05: Supplement with the following:

The contract lump sum price for "Maintenance and Protection of Traffic" shall also include furnishing, installing, and removing the material for the temporary traversable slope (4H:1V) in those areas where a longitudinal dropdown exists. It shall also include furnishing, installing, and removing the material for the temporary transition in those areas where a transverse dropdown exists.

The contract lump sum price for "Maintenance and Protection of Traffic" shall also include temporarily relocating existing signs and sign supports as many times as deemed necessary and furnishing, installing, and removing temporary sign supports and foundations if necessary during construction of the project.

The contract lump sum price for "Maintenance and Protection of Traffic" shall also include the cost of maintaining access to all driveways and parking lots and temporary graded surfaces, as required. Temporary graded surfaces shall consist of subbase, processed aggregate base, granular fill, or other suitable materials approved by the Engineer.

The contract lump sum price for "Maintenance and Protection of Traffic" shall also include the cost to furnish, install and relocate Traffic Cones, Drums, Construction Barricades, Barricade Warning Lights, Temporary Precast Concrete Barrier Curb and Construction Signs as shown on the Construction Traffic Control plans contained herein or as directed by the Engineer or City.

The contract lump sum price for "Maintenance and Protection of Traffic" shall also include the cost to furnish and install temporary pavement markings as shown on the Construction Traffic Control plans contained herein or as directed by the Engineer or City.

ITEM 975004A

MOBILIZATION AND PROJECT CLOSEOUT

Work under this item shall conform to the requirements of Conn DOT Form 816, Section 9.75, amended as follows:

BASIS OF PAYMENT:

Section 9.75.05: Add the following.

The maximum price bid for this item shall not be greater than 3% of the total price bid for the entire project.

ITEM 0980002A

PROJECT SURVEY AND STAKEOUT

DESCRIPTION:

Under this work the Contractor shall do all necessary surveying required to construct all elements of the project as shown on the plans and specified in the proposal and specifications. This shall include but shall not be limited to stakeout, layout, and elevations for the roadway, structures, forms, pile layouts and appurtenances as shown and required consistent with the current practice of the Department, and shall be performed by competently qualified personnel under the direction of a Land Surveyor, licensed in the State of Connecticut and acceptable to the Director. The stakeout survey shall proceed immediately following the award of the contract and shall be expeditiously progressed to completion in a manner and at a rate satisfactory to the Engineer. The Contractor shall keep the Engineer fully informed as to the progress of the stakeout survey.

In addition, under this Item, the Contractor shall furnish a set of record plans by updating a copy of the contract drawings, both "red-line" and digital format, to show "As-Built" conditions in accordance with these specifications and as directed by the Engineer.

All instruments, equipment, stakes and any other material necessary to perform the work satisfactorily, shall be provided by the Contractor.

All stakes used shall be of a type approved by the Engineer. It shall be the Contractor's responsibility to maintain these stakes in their proper position and location at all times.

CONSTRUCTION DETAILS:

PROJECT SURVEY AND STAKEOUT

The Contractor shall trim trees, brush and other interfering objects, not inconsistent with the plans, from survey lines in advance of all survey work to permit accurate and unimpeded work by his stakeout survey crews and the Department's cross-section survey crews.

The location and length shown on the plans for culverts shall be considered to be approximate. The ordered length of culverts will be determined by the Engineer after the Contractor accurately stakes the proposed culvert in the planned location as approved by the Engineer and after appropriate and necessary engineering study.

The exact position of all work shall be established from control points, base line transit points or other points of similar nature and/or modified by the Engineer. Any error, apparent discrepancy or absence of data shown or required for accurately

accomplishing the stakeout survey shall be referred to the Engineer for interpretation or furnishing when such is observed or required.

The Contractor shall place two offset stakes or references at each center line station and at such immediate locations as the Engineer may direct. From computations and measurements made by the Contractor, these stakes shall be clearly and legibly marked with the correct centerline station number, offset and cut or fill so as to permit the establishment of the exact center line location and elevation during construction. If markings become faded or blurred for any reason, the markings shall be restored by the Contractor at the request of the Engineer. He shall locate and place all cut, fill, slope, fine grade or other stakes and points, as the Engineer may direct for the proper progress of the work. All control points shall be properly guarded and flagged for easy identification.

Drainage structures shall be staked out by the Contractor at the locations and elevations shown on the plans or specified by the Engineer.

The Contractor shall also accurately establish the centerline of bearings for bridge abutments and piers, by setting special hubs or reference points as directed by the Engineer, so located and protected to insure their remaining undisturbed until such time as they are no longer needed. The Contractor shall accurately mark the location of anchor bolts to be installed, establish the elevation of bearing surfaces and check bearing plates to insure installation at their exact elevation. Before the erection of structural steel is started the Contractor shall verify by accurate field measurements the locations, both vertically and horizontally, of all bearings and shall assume full responsibility for the fabricated structural steel fitting the substructure as constructed.

All required Right-of-Way and easement limits shall be established, staked and referenced by the Contractor concurrent with the Construction stakeout survey. Right-of-Way and easement limits shall be staked by or under the direction of, a Licensed Land Surveyor. The Contractor shall supply proof to the Engineer that such work is being performed by or supervised by a Licensed Land Surveyor.

Permanent Survey Marker locations shall be established and referenced by the Contractor.

The Contractor shall be responsible for the accuracy of his work and shall maintain all reference points, stakes, etc. throughout the life of the contract. Damaged or destroyed points, bench marks or stakes, or any reference points made inaccessible by the progress of the construction shall be replaced or transferred by the Contractor. Any of the above points which may be destroyed or damaged shall be transferred by the Contractor before they are damaged or destroyed. All control points shall be referenced by ties to acceptable objects and recorded. Any alterations or revisions in the ties shall be so noted and the information furnished to the Engineer immediately. All stakeout survey work shall be referenced to the center line shown on the Plans. All

computations necessary to establish the exact position of the work from control points, shall be made and preserved by the Contractor. All computations, survey notes and other records necessary to accomplish the work shall be neatly made. Such computations, survey notes and other records shall be made available to the Engineer upon request and shall become the property of the City and delivered to the Engineer not later than the date of acceptance of the Contract.

The Engineer may check all or any portion of the stakeout survey work or notes made by the Contractor. Any necessary correction to the work shall be made immediately by the Contractor. Such checking by the Engineer shall not relieve the Contractor of any responsibility for the accuracy or completeness of his work.

Prior to the final cross-section survey of the project by the Engineer, the Contractor shall reestablish center line or base line points and stationing as required by the Engineer.

The Contractor will not be required or permitted to take the pre-construction or final cross-sections that are used for payment purposes.

During the progress of the construction work the Contractor will be required to furnish all of the surveying and stakeout incidental to the proper location by line and grade for each phase of the work. For paving and any other operations requiring extreme accuracy, the Contractor will re-stake with pins or other acceptable hubs located directly adjacent to the work at a spacing directed by the Engineer.

Any existing stakes, iron pins, survey monuments or other markers defining property lines which may be disturbed during construction, shall be properly tied in to fixed referenced points before being disturbed and accurately reset in their proper position upon completion of the work.

Just prior to completion of the Contract, the Contractor shall reestablish if necessary and re-tie all control points as permanently as possible and to the satisfaction of the Engineer.

All work, both in the field and in the office, shall be under the direct supervision of a Land Surveyor, licensed in the State of Connecticut. The Land Surveyor shall be required to seal, date and sign each of the "As-Built" plans. These "As-Built" drawings must be submitted at the same time as the request for final payment. No final payment will be considered unless accompanied by "As-Built" drawings.

During the progress of the construction work the Contractor will be required to furnish all of the surveying and stakeout incidental to the proper location by line and grade for each phase of the work. For paving and any other operations requiring extreme accuracy, the Contractor will re-stake with pins or other acceptable hubs located directly adjacent to the work at a spacing directed by the Engineer.

Any existing stakes, iron pins, survey monuments or other markers defining property lines which may be disturbed during construction, shall be properly tied in to fixed referenced points before being disturbed and accurately reset in their proper position upon completion of the work.

Just prior to completion of the Contract, the Contractor shall reestablish if necessary and re-tie all control points as permanently as possible and to the satisfaction of the Engineer.

AS-BUILT DOCUMENTS

Prior to the commencement of work required under this Item, the contractor shall arrange a meeting to discuss the procedures for preparation of the As-Built documents. The Contractor shall be required to furnish a paper As-built record plan and an AutoCAD 2008 .dwg or later drawing file. Original bid .dwg drawing files will be furnished to the Contractor.

The As-Built record plans indicate all field changes to project plans and location of rock elevations, groundwater levels and soil conditions.

The words Record Plans shall be emblazoned in at least 1" high letters across the top of the first sheet of the contract plans.

The contract plans shall contain a blank box located in the lower left-hand corner of the front sheet. The box shall be completed by the Contractor and contain the following information:

1. Contract Number
2. Contractor's Name
3. Date of Award
4. Completion Date
5. Final Contract Dollar Amount
6. City Inspector

The Estimate of Quantities Tables, if one exists, shall be updated for Record Plan purposes. Any additional Items added to the Contract by Orders on Contract shall be shown in the Tables.

All Permanent Survey Markers and Right of Way Markers must be shown on the Plan. They must be labeled and include the station and offset. Permanent Survey markers must also be shown on the sheet showing base line and center-line ties.

Ties to all centerline controls, which are not monumented with a permanent survey marker, must be shown.

The contract drawings have a blank 1" high box provided in the lower right hand corner of each sheet. This box is to be used to record the type of revisions made on that sheet.

Sheets that require no change should be so noted in the lower right hand corner, "No As-Built Revisions".

Any sheet which requires modifications to indicate field changes should be indicated as such by the words "As-Built" written above the Title Box.

The Contractor shall be responsible for the care and preparation of the record drawings during the course of construction.

The original lines or lettering should not be erased when making corrections.

All work on the Record Plans is to be done in red ink. No entries should be made on the backs of the Record Plans.

Line revisions should be made by using lines which stand out clearly. No shading is allowed.

All lettering must be done using 1/8" minimum height letters to provide clarity copying and microfilming.

Revisions to the notes and written matter on the drawings should be made by crossing out the original and inserting the revision as close to the original as is possible without impairing the legibility. New lettering should be similar in size (1/8" minimum) and spacing to the original lettering so that it will be legible.

When sheets are added to the contract, these sheets should be added to the index in the plans.

All computations, survey notes and other records necessary to accomplish the work shall be neatly made. Such computations, survey notes and other records shall be made available to the Engineer upon request and shall become the property of the City and delivered to the Engineer not later than the date of acceptance of the Contract.

The Contractor shall be responsible for obtaining all the necessary field information which is required to be shown on the "As-Built" Documents. Information obtained by the City is for its own use and is not intended to substitute for the information required in these specifications.

MEASUREMENT AND PAYMENT:

Payment will be made at the lump sum price bid for this work.

The price bid shall include the cost of furnishing all labor, equipment, instruments and other material necessary to satisfactorily complete the project survey and stakeout and the preparation and submission of the as-built documents.

Monthly payments will be made under this work in proportion to the amount of work done as determined by the Engineer.

Included shall be the cost of all field work by the Licensed Land Surveyor, drafting and furnishing the City with the necessary information and all else necessary to satisfactorily complete the work in accordance with the specifications.

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
0980002A	Project Survey and Stakeout	L.S.

ITEM 1000000A

RELOCATION OF EXISTING UTILITIES

DESCRIPTION:

The work under this item shall consist of the relocation of any existing Utilities when required to resolve conflicts caused by the installation of the new sanitary sewer system (sewer mains or sewer laterals) or the new storm drainage system (headwalls, culverts or drainage structures) to allow for the successful completion of this project. This work shall only be done with the prior approval of the Engineer.

MATERIALS:

All utility relocation work performed under this Item shall be required to meet the requirements for materials of the Company that owns the particular Utility facility that is being relocated.

CONSTRUCTION:

The Contractor shall coordinate for the relocation of any Utility facility that has to be relocated to resolve conflicts caused by the installation of the new sanitary sewer system (sewer mains or sewer laterals) or the new storm drainage system (headwalls, culverts or drainage structures). All Utility relocation work performed under this Item shall be required to meet the requirements for construction methods of the Company that owns the particular Utility facility that is being relocated.

MEASUREMENT AND PAYMENT:

The work under this Item shall be paid for from an allowance for "Relocation of Existing Utilities" in accordance with Section 109-04 "Extra And Force Account Work" of the General Provisions of this specification on a Time and Materials basis. This will only apply if the work is done with the prior approval of the Engineer. This price shall include all materials meeting the requirements of the Utility Company facility being relocated, equipment including Utility Company trucks, tools and labor incidental thereto. There will be no payment from the allowance under this Item for Utilities that have to be relocated and/or are damaged due to the Contractors negligence.

<u>Item No.</u>	<u>Description</u>	<u>Pay Unit</u>
1000000A	Relocation of Existing Utilities	Allowance

ITEM 1300001A

SUPPORT OF EXISTING UTILITY POLES

DESCRIPTION:

The work under this item shall consist of the adequate support of the existing Utility Poles by the Utility Company that owns the pole and all associated coordination. The Contractor shall be responsible for coordinating and scheduling such work in a timely manner.

MATERIALS:

The materials required for this work such as trucks or other equipment required to adequately support the pole and any equipment on the pole (wires, transformers or risers), shall be supplied by the Utility Company that owns the pole.

CONSTRUCTION:

The Contractor shall coordinate for the support of any Utility Pole within four feet (4') of the excavation for the installation of the storm sewer. The Utility Pole in question shall be supported by personnel from the Utility Company that owns the pole using equipment belonging to that Utility Company.

MEASUREMENT AND PAYMENT:

This work shall be paid for from an allowance for "Support Of Existing Utility Poles" based upon invoices from the Utility Companies for use of their equipment and labor plus 10 percent for overhead and profit. This will only apply if there is a charge by the Utility Company for their services. This price shall include all Utility Company materials, equipment (trucks), tools and labor incidental thereto. There will be no payment from the allowance if the Utility Company does not charge the Contractor for its services.

<u>Pay Item</u>	<u>Description</u>	<u>Pay Unit</u>
1300001A	Support of Existing Utility Poles	Allowance

SECTION M.04 - BITUMINOUS CONCRETE

Section M.04 is being deleted in its entirety and replaced with the following:

M.04.01—Bituminous Concrete Materials and Facilities

M.04.02—Mix Design and Job Mix Formula (JMF)

M.04.03—Production Requirements

M.04.01—Bituminous Concrete Materials and Facilities: Each source of material, and facility or plant used to produce and test bituminous concrete must be qualified on an annual basis by the Engineer. Test Procedures and Specifications referenced herein are in accordance with the latest AASHTO and ASTM Standard Test Procedures and Specifications. Such references when noted with an (M) have been modified by the Engineer and are detailed in Table M.04.03-7.

The Contractor shall submit to the Engineer all sources of coarse aggregate, fine aggregate, mineral filler, PG binder, and if applicable any additives such as but not limited to anti-strip, warm mix, and polymer modifiers. The Contractor shall submit a Safety Data Sheet (SDS) for each grade of binder, and additive to be used on the Project. The Contractor shall not change any material sources without prior approval of the Engineer.

An adequate quantity of each size aggregate, mineral filler, bitumen, and additives, shall be maintained at the bituminous concrete plant site at all times while the plant is in operation to ensure that the plant can consistently produce bituminous concrete mixtures that meet the job mix formula (JMF) as specified in Article M.04.02. The quantity of such material shall be reviewed by the Engineer on an individual plant basis and is dependent upon the plant's daily production capacity. A total quantity of any material on site that amounts to less than one day's production capacity may be cause for the job mix formula to be rejected.

1. Coarse Aggregate:

- a. **Requirements:** The coarse aggregate shall consist of clean, hard, tough, durable fragments of crushed stone or crushed gravel of uniform quality. Aggregates from multiple sources of supply must not be mixed or stored in the same stockpile.
- b. **Basis of Approval:** The request for approval of the source of supply shall include a washed sieve analysis in accordance with AASHTO T 27. The G_{sa}, G_{sb}, and P_{wa} shall be determined in accordance with AASHTO T 85. The coarse aggregate must not contain more than 1% crusher dust, sand, soft disintegrated

pieces, mud, dirt, organic and other injurious materials. When tested for abrasion using AASHTO T 96, the aggregate loss must not exceed 40%. When tested for soundness using AASHTO T 104 with a magnesium sulfate solution, the coarse aggregate must not have a loss exceeding 10% at the end of 5 cycles.

For all bituminous mixtures, materials shall also meet the coarse aggregate angularity criteria as specified in Tables M.04.02-2 thru M.04.02-4 for blended aggregates retained on the #4 sieve when tested according to ASTM D 5821. The amount of aggregate particles of the coarse aggregate blend retained on the #4 sieve that are flat and elongated shall be determined in accordance with ASTM D 4791 and shall not exceed 10% by weight when tested to a 5:1 ratio, as shown in Tables M.04.02-2 thru M.04.02-4.

2. Fine Aggregate:

- a. **Requirements:** The fine aggregate from each source quarry/pit deposit shall consist of clean, hard, tough, rough-surfaced and angular grains of natural sand; manufactured sand prepared from washed stone screenings; stone screenings, slag or gravel; or combinations thereof, after mechanical screening or manufactured by a process approved by the Engineer. The Contractor is prohibited from mixing two or more sources of fine aggregate on the ground for the purpose of feeding into a plant.

All fine aggregate shall meet the listed criteria shown in items #1 thru #7 of Table M.04.01-1. Table M.04.01-1 indicates the quality tests and criteria required for all fine aggregate sources. Individually approved sources of supply shall not be mixed or stored in the same stockpile. The fine aggregates must be free from injurious amounts of clay, loam, and other deleterious materials.

For Superpave mixtures, in addition to the above requirements, the fine aggregate angularity shall be determined by testing the materials passing the #8 sieve in accordance with AASHTO T 304, Method A. Qualification shall be based on the criteria listed in Tables M.04.02-2 thru M.04.02-4. The fine aggregate shall also be tested for clay content as a percentage contained in materials finer than the #8 sieve in accordance with AASHTO T 176.

TABLE M.04.01-1: Fine Aggregate Criteria by Pit/Quarry Source

Item	Title	AASHTO Protocol(s)	Criteria
1	Grading	T 27 & T 11	100% Passing 3/8 inch 95% Passing the #4 min.
2	Absorption	T 84	3% maximum
3	Plasticity limits	T 90	0 or not detectable
4	L.A. Wear	T 96	50% maximum(fine agg. particle size # 8 and above)
5	Soundness by Magnesium Sulfate	T 104	20% maximum @ 5 cycles
6	Clay Lumps and Friable Particles	T 112	3% maximum
7	Deleterious Material	As determined by the Engineer	Organic or inorganic calcite, hematite, shale, clay or clay lumps, friable materials, coal-lignite, shells, loam, mica, clinkers, or organic matter (wood, etc.). -Shall not contain more than 3% by mass of any individual listed constituent and not more than 5% by mass in total of all listed constituents.
8	Petrographic Analysis	ASTM C 295	Terms defined in Section M.04.01-2c.

b. Basis of Approval: A Quality Control Plan for Fine Aggregate (QCPFA) provided by the Contractor shall be submitted for review and approval for each new source documenting how conformance to Items 1 through 7 as shown in Table M.04.01-1 is monitored. The QCPFA must be resubmitted any time the process, location or manner of how the fine aggregate (FA) is manufactured changes, or as requested by the Engineer. The QCPFA must include the locations and manufacturing processing methods. The QCPFA for any source may be suspended by the Engineer due to the production of inconsistent material.

The Contractor shall submit all test results to the Engineer for review. The Contractor shall also include a washed sieve analysis in accordance with AASHTO T 27/T 11. Any fine aggregate component or final combined product shall have 100% passing the 3/8 inch sieve and a minimum of 95% passing the # 4. The G_{sa} , G_{sb} , and P_{wa} shall be determined in accordance with AASHTO T 84.

The Contractor will be notified by the Engineer if any qualified source of supply fails any portion of Table M.04.01-1. One retest will be allowed for the Contractor to make corrections and/or changes to the process. If, upon retest, the material does not meet the requirements of items 1-7, additional testing will be required in accordance with item 8.

The Contractor may provide a Petrographic analysis of the material performed by a third party acceptable to the Engineer at its' own expense. The Contractor shall submit the results of the analysis with recommended changes to the manufacturing process to the Engineer. The Contractor shall submit fine aggregate samples for testing by the Engineer after the recommended changes have been made.

The Contractor may request the use of such fine aggregate on select project(s) for certain applications of bituminous concrete pavement. Such material will be monitored for a period no less than 48 months, at no cost to the State. Terms of any evaluation and suitable application will be determined by the Engineer.

3. Mineral Filler:

- a. Requirements: Mineral filler shall consist of finely divided mineral matter such as rock dust, including limestone dust, slag dust, hydrated lime, hydraulic cement, or other accepted mineral matter. At the time of use it shall be freely flowing and devoid of agglomerations. Mineral filler shall be introduced and controlled at all times during production in a manner acceptable to the Engineer.
- b. Basis of Approval: The request for approval of the source of supply shall include the location, manufacturing process, handling and storage methods for the material. Mineral filler shall conform to the requirements of AASHTO M 17.

4. Performance Graded Asphalt Binder:

- a. General:
 - i. Liquid PG binders shall be uniformly mixed and blended and be free of contaminants such as fuel oils and other solvents. Binders shall be properly heated and stored to prevent damage or separation.
 - ii. The blending at mixing plants of PG binder from different suppliers is strictly prohibited. Contractors who blend PG binders will be classified as a supplier and will be required to certify the binder in accordance with AASHTO R 26(M). The binder shall meet the requirements of AASHTO M 332 and shall be graded or verified in accordance with AASHTO R 29. The Contractor shall

submit a Certified Test Report and bill of lading representing each delivery in accordance with AASHTO R 26(M). The Certified Test Report must also indicate the binder specific gravity at 77°F; rotational viscosity at 275°F and 329°F and the mixing and compaction viscosity-temperature chart for each shipment.

- iii. The Contractor shall submit the name(s) of personnel responsible for receipt, inspection, and record keeping of PG binder materials. Contractor plant personnel shall document specific storage tank(s) where binder will be transferred and stored until used, and provide binder samples to the Engineer upon request. The person(s) shall assure that each shipment (tanker truck) is accompanied by a statement certifying that the transport vehicle was inspected before loading and was found acceptable for the material shipped and that the binder will be free of contamination from any residual material, along with two (2) copies of the bill of lading.
- iv. Basis of Approval: The request for approval of the source of supply shall list the location where the material will be manufactured, and the handling and storage methods, along with necessary certification in accordance with AASHTO R 26(M). Only suppliers/refineries that have an approved "Quality Control Plan for Performance Graded Binders" formatted in accordance with AASHTO R 26(M) will be allowed to supply PG binders to Department projects.

b. Neat Performance Grade (PG) Binder:

- i. PG binder shall be classified by the supplier as a "Neat" binder for each lot and be so labeled on each bill of lading. Neat PG binders shall be free from modification with: fillers, extenders, reinforcing agents, adhesion promoters, thermoplastic polymers, acid modification and other additives such as re-refined motor oil, and shall indicate such information on each bill of lading and certified test report.
- ii. The asphalt binder shall be PG 64S-22.

c. Modified Performance Grade (PG) Binder:

Unless otherwise noted, the asphalt binder shall be Performance Grade PG 64E-22 asphalt modified solely with a Styrene-Butadiene-Styrene (SBS) polymer. The polymer modifier shall be added at either the refinery or terminal and delivered to the bituminous concrete production facility as homogenous blend. The stability of the modified binder shall be verified in accordance with ASTM D7173 using the Dynamic Shear Rheometer (DSR). The DSR $G^*/\sin(\delta)$ results from the top and bottom sections of the ASTM D7173 test shall not differ by more than 10%. The results of ASTM D7173

shall be included on the Certified Test Report. The binder shall meet the requirements of AASHTO M 332 (including Appendix X1) and AASHTO R 29.

d. Warm Mix Additive or Technology:

- i. The warm mix additive or technology must be listed on the NEAUPG Qualified Warm Mix Asphalt (WMA) Technologies List at the time of bid, which may be accessed online at http://www.neaupg.uconn.edu/wma_info.html.
- ii. The warm mix additive shall be blended with the asphalt binder in accordance with the manufacturer's recommendations.
- iii. The blended binder shall meet the requirements of AASHTO M 332 and shall be graded or verified in accordance with AASHTO R 29 for the specified binder grade. The Contractor shall submit a Certified Test Report showing the results of the testing demonstrating the binder grade. In addition, it must include the grade of the virgin binder, the brand name of the warm mix additive, the manufacturer's suggested rate for the WMA additive, the water injection rate (when applicable) and the WMA Technology manufacturer's recommended mixing and compaction temperature ranges.

5. Emulsified Asphalts:

a. General:

- i. Emulsified asphalts shall be homogeneous and be free of contaminants such as fuel oils and other solvents. Emulsions shall be properly stored to prevent damage or separation.
- ii. The blending at mixing plants of emulsified asphalts from different suppliers is strictly prohibited. Contractors who blend emulsified asphalts will be classified as a supplier and will be required to certify the emulsion in accordance with AASHTO PP 71. The emulsified asphalt shall meet the requirements of AASHTO M 140(M) or AASHTO M 208 as applicable.

b. Supplier Approval:

- i. The request for approval of the source of supply shall list the location where the material is manufactured, the handling and storage methods, and certifications in accordance with AASHTO PP 71. Only suppliers that have an approved "Quality Control Plan for Emulsified Asphalt" formatted in accordance with AASHTO PP 71 will be allowed to supply emulsified asphalt to Department projects.
- ii. The supplier shall submit to the Division Chief a Certified Test Report representing each lot in accordance with AASHTO PP 71. The Certified Test Report shall include test results for each specified requirement for the grade

delivered and shall also indicate the density at 60°F. Additionally, once a month one split sample for each emulsified asphalt grade shall be submitted.

c. Basis of Approval

- i. Each shipment of emulsified asphalt delivered to the project site shall be accompanied with the corresponding SDS and Certified Test Report listing Saybolt viscosity, residue by evaporation, penetration of residue, and weight per gallon at 60°F.
- ii. Anionic emulsified asphalts shall conform to the requirements of AASHTO M-140(M). Materials used for tack coat shall not be diluted and meet grade RS-1 or RS-1H. When ambient temperatures are 80°F and rising, grade SS-1 or SS-1H may be substituted if permitted by the Engineer.
- iii. Cationic emulsified asphalt shall conform to the requirements of AASHTO M-208. Materials used for tack coat shall not be diluted and meet grade CRS-1. The settlement and demulsibility test will not be performed unless deemed necessary by the Engineer. When ambient temperatures are 80°F and rising, grade CSS-1 or CSS-1H may be substituted if permitted by the Engineer.

6. Reclaimed Asphalt Pavement (RAP):

- a. Requirements: RAP shall consist of asphalt pavement constructed with asphalt and aggregate reclaimed by cold milling or other removal techniques approved by the Engineer. For bituminous concrete mixtures containing RAP, the Contractor shall submit a JMF in accordance with Article M.04.02 to the Engineer for review.
- b. Basis of Approval: The RAP material will be accepted on the basis of one of the following criteria:
 - i. When the source of all RAP material is from pavements previously constructed on Department projects, the Contractor shall provide a materials certificate listing the detailed locations and lengths of those pavements and that the RAP is only from those locations listed.
 - ii. When the RAP material source or quality is not known, the Contractor shall test the material and provide the following information along with a request for approval to the Engineer at least 30 calendar days prior to the start of the paving operation. The request shall include a material certificate stating that the RAP consists of aggregates that meet the specification requirements of sub articles M.04.01-1 through 3 and that the binder in the RAP is substantially free of solvents, tars and other contaminants. The Contractor is prohibited from using unapproved material on Department projects and shall take necessary action to prevent contamination of approved RAP stockpiles.

Stockpiles of unapproved material shall remain separate from all other RAP materials at all times. The request for approval shall include the following:

1. A 50-pound sample of the RAP to be incorporated into the recycled mixture.
2. A 25-pound sample of the extracted aggregate from the RAP.
3. A statement that RAP material has been crushed to 100% passing the ½ inch sieve and remains free from contaminants such as joint compound, wood, plastic, and metals.

7. Crushed Recycled Container Glass (CRCG):

- a. Requirements: The Contractor may propose to use clean and environmentally-acceptable CRCG in an amount not greater than 5% by weight of total aggregate.
- b. Basis of Approval: The Contractor shall submit to the Engineer a request to use CRCG. The request shall state that the CRCG contains no more than 1% by weight of contaminants such as paper, plastic and metal and conform to the following gradation:

CRCG Grading Requirements	
<u>Sieve Size</u>	<u>Percent Passing</u>
3/8-inch	100
No. 4	35-100
No. 200	0.0-10.0

8. Joint Seal Material:

- a. Requirements: Joint seal material shall be a hot-poured rubber compound intended for use in sealing joints and cracks in bituminous concrete pavements. Joint seal material must meet the requirements of ASTM D 6690 – Type 2.

9. Recycled Asphalt Shingles (RAS)

- a. Requirements: RAS shall consist of processed asphalt roofing shingles from post-consumer asphalt shingles or from manufactured shingle waste. The RAS material under consideration for use in bituminous concrete mixtures must be

certified as being asbestos free and shall be entirely free of whole, intact nails. The RAS material shall meet the requirements of AASHTO MP 23.

The producer shall test the RAS material to determine the asphalt content and the gradation of the RAS material. The producer shall take necessary action to prevent contamination of RAS stockpiles.

10. Plant Requirements:

- a. Mixing Plant and Machinery: The mixing plant used in the preparation of the bituminous concrete shall comply with AASHTO M 156/ASTM D 995 for a Batch Plant or a Drum Dryer Mixer Plant, and be approved by the Engineer.
- b. Storage Silos: For all mixes, the Contractor may use silos for short-term storage of Superpave mixtures with prior notification and approval of the Engineer. A silo must have heated cones and an unheated silo cylinder if it does not contain a separate internal heating system. Prior approval must be obtained for storage times greater than those indicated. When multiple silos are filled, the Contractor shall discharge one silo at a time. Simultaneous discharge of multiple silos is not permitted.

<u>Type of silo cylinder</u>	<u>Maximum storage time for all classes (hr)</u>	
	HMA	WMA/PMA
Open Surge	4	Mfg Recommendations
Unheated – Non-insulated	8	Mfg Recommendations
Unheated – Insulated	18	Mfg Recommendations
Heated – No inert gas	TBD by the Engineer	

- c. Documentation System: The mixing plant documentation system shall include equipment for accurately proportioning the components of the mixture by weight and in the proper order, controlling the cycle sequence and timing the mixing operations. Recording equipment shall monitor the batching sequence of each component of the mixture and produce a printed record of these operations on each delivery ticket, as specified herein. Material feed controls shall be automatically or manually adjustable to provide proportions within the tolerances listed below for any batch size.

An asterisk (*) shall be automatically printed next to any individual batch weight(s) exceeding the tolerances in ASTM D 995 section 8.7.3. The entire batching and mixing interlock cut-off circuits shall interrupt and stop the automatic batching operations when an error exceeding the acceptable tolerance occurs in proportioning.

There must be provisions so that scales are not manually adjusted during the printing process. In addition, the system shall be interlocked to allow printing only when the scale has come to a complete rest. A unique printed character (m) shall automatically be printed on the truck and batch plant printout when the automatic batching sequence is interrupted or switched to auto-manual or full manual during proportioning. For each day's production, each project shall be provided a clear, legible copy of these recordings on each delivery ticket.

- d. Aggregates: The Contractor shall ensure that aggregate stockpiles are managed to provide uniform gradation and particle shape, prevent segregation and cross contamination in a manner acceptable to the Engineer. For drum plants only, the Contractor shall determine the percent moisture content at a minimum, prior to production and half way through production.
- e. Mixture: The dry and wet mix times shall be sufficient to provide proper coating (minimum 95% as determined by AASHTO T 195(M)) of all particles with bitumen and produce a uniform mixture.

The Contractor shall make necessary adjustments to ensure all types of bituminous concrete mixtures contain no more than 0.5% moisture throughout when tested in accordance with AASHTO T 329.

- f. RAP: The Contractor shall indicate the percent of RAP, the moisture content (as a minimum determined twice daily prior to production and halfway through production), and the net dry weight of RAP added to the mixture on each delivery ticket. For each day of production, the production shall conform to the job mix formula and RAP percentage and no change shall be made without the prior approval of the Engineer.
- g. Asphalt Binder: The last day of every month, a binder log shall be submitted when the monthly production for the Department exceeds 5000 tons. Blending of PG binders from different suppliers or grades at the bituminous concrete production facility is strictly prohibited.
- h. Warm mix additive: For mechanically foamed WMA, the maximum water injection rate shall not exceed 2.0% water by total weight of binder and the water injection rate shall be constantly monitored during production.
- i. Field Laboratory: The Contractor shall furnish the Engineer an acceptable field laboratory at the production facility to test bituminous concrete mixtures during production. The field laboratory shall have a minimum of 300 square feet, have a

potable water source and drainage in accordance with the CT Department of Public Health Drinking Water Division, and be equipped with all necessary testing equipment as well as with a PC, printer, and telephone with a dedicated hard-wired phone line. In addition, the PC shall have a high speed internet connection with a minimum upstream of 384 Kbps and a functioning web browser with unrestricted access to <https://ctmail.ct.gov>. This equipment shall be maintained in clean and good working order at all times and be made available for use by the Engineer.

The laboratory shall be equipped with a suitable heating system capable of maintaining a minimum temperature of 65°F. It shall be clean and free of all materials and equipment not associated with the laboratory. Windows shall be installed to provide sufficient light and ventilation. During summer months adequate cooling or ventilation must be provided so the indoor air temperature shall not exceed the ambient outdoor temperature. Light fixtures and outlets shall be installed at convenient locations, and a telephone shall be within audible range of the testing area. The laboratory shall be equipped with an adequate workbench that has a suitable length, width, and sampling tables, and be approved by the Engineer.

The field laboratory testing apparatus, supplies, and safety equipment shall be capable of performing all tests in their entirety that are referenced in AASHTO R 35, *Standard Practice for Superpave Volumetric Design for Hot-Mix Asphalt (HMA)* and AASHTO M 323, *Standard Specification for Superpave Volumetric Mix Design*. In addition, the quantity of all equipment and supplies necessary to perform the tests must be sufficient to initiate and complete the number of tests identified in Table M.04.03-2 for the quantity of mixture produced at the facility on a daily basis. The Contractor shall ensure that the Laboratory is adequately supplied at all times during the course of the project with all necessary testing materials and equipment.

The Contractor shall maintain a list of laboratory equipment used in the acceptance testing processes including but not limited to, balances, scales, manometer/vacuum gauge, thermometers, gyratory compactor, clearly showing calibration and/or inspection dates, in accordance with AASHTO R 18. The Contractor shall notify the Engineer if any modifications are made to the equipment within the field laboratory. The Contractor shall take immediate action to replace, repair, and/or recalibrate any piece of equipment that is out of calibration, malfunctioning, or not in operation.

M.04.02—Mix Design and Job Mix Formula (JMF)

1. Curb Mix:

- a. **Requirements:** When curb mix is specified, the Contractor shall develop a bituminous concrete mix design that includes a JMF consisting of target values for gradation, binder content and air voids as shown in Table M.04.02-1. The Contractor may use RAP in 5% increments up to a maximum of 30% provided a new JMF is accepted by the Engineer.
- b. **Basis of Approval:** The Contractor shall submit to the Engineer a request for approval of the JMF annually in accordance with one of the methods described herein. Prior to the start of any paving operations, the JMF must be accepted by the Engineer, and the Contractor must demonstrate the ability to meet the accepted JMF. Additionally, the fraction of material retained between any two consecutive sieves shall not be less than 4%.

The Contractor shall test the mixture for compliance with the submitted JMF and Table M.04.02-1. The maximum theoretical density (Gmm) will be determined by AASHTO T 209. If the mixture does not meet the requirements, the JMF shall be adjusted within the ranges shown in Table M.04.02-1 until an acceptable mixture is produced.

An accepted JMF from the previous operating season may be acceptable to the Engineer provided that there are no changes in the sources of supply for the coarse aggregate, fine aggregate, recycled material (if applicable) and the plant operation had been consistently producing acceptable mixture.

The Contractor shall not change sources of supply after a JMF has been accepted. Before a new source of supply for materials is used, a new JMF shall be submitted to the Engineer for approval.

**TABLE M.04.02 – 1:
Master Ranges for Curb Mix Mixtures**

Notes: (a) Compaction Parameter 50gyration N_{des} . (b) The percent passing the #200 sieve shall not exceed the percentage of bituminous asphalt binder determined by AASHTO T 164 or AASHTO T 308.		
Mix	Curb Mix	Production Tolerances from JMF target
Grade of PG Binder content %	PG 64S-22 6.5 - 9.0	0.4
Sieve Size		
# 200	3.0 – 8.0 (b)	2.0
# 50	10 - 30	4
# 30	20 - 40	5
# 8	40 - 70	6
# 4	65 - 87	7
1/4"		
3/8 "	95 - 100	8
1/2 "	100	8
3/4"		8
1"		
2"		
Additionally, the fraction of material retained between any two consecutive sieves shall not be less than 4%		
Mixture Temperature		
Binder	325°F maximum	
Aggregate	280-350° F	
Mixtures	265-325° F	
Mixture Properties		
VOIDS %	0 – 4.0 (a)	

2. Superpave Design Method – S0.25, S0.375, S0.5, and S1

- a. Requirements: The Contractor or its representative shall design and submit Superpave mix designs annually for approval. The design laboratory developing the mixes shall be approved by the Engineer. The mix design shall be based on the specified Equivalent Single-Axle Loads (ESAL). Each bituminous concrete mix type must meet the requirements shown in Tables M.04.02-2 thru Table M.04.02-5 and in accordance with AASHTO M 323 and AASHTO R 35. The mix design shall include the nominal maximum aggregate size and a JMF consisting of target values for gradation and bitumen content for each bituminous concrete mix type designated for the project.

The contractor shall provide test results with supporting documentation from an AASHTO Materials Reference Laboratory (AMRL) with the use of NETTCP Certified Technicians for the following tests:

1. Aggregate consensus properties for each type & level, as specified in Table M.04.02-3 and the specific gravity data.
2. Extracted aggregates from RAP aggregate, when applicable, consensus properties for each type & level, as specified in Table M.04.02-3 and the specific gravity data.
3. New mixes shall be tested in accordance with AASHTO T 283(M) *Standard Method of Test for Resistance of Compacted Hot-Mix Asphalt (HMA) to Moisture-Induced Damage*, (TSR). The compacted specimens may be fabricated at a bituminous concrete facility and then tested at an AMRL accredited facility.

The AASHTO T 283(M) test results, specimens, and corresponding JMF sheet (Form MAT-429s) shall be submitted by the Contractor for review.

In addition, minimum binder content values apply to all types of bituminous concrete mixtures, as stated in Table M.04.02-5. For mixtures containing RAP, the virgin production and the anticipated proportion of binder contributed by the RAP cannot be less than the total permitted binder content value for that type nor the JMF minimum binder content.

- i. Superpave Mixture (virgin): For bituminous concrete mixtures that contain no recycled material, the limits prescribed in Tables M.04.02-2 thru Table M.04.02-5 apply. The Contractor shall submit a JMF, on a form provided

by the Engineer, with the individual fractions of the aggregate expressed as percentages of the total weight of the mix and the source(s) of all materials to the Engineer for approval. The JMF shall indicate the corrected target binder content and applicable binder correction factor (ignition oven or extractor) for each mix type by total weight of mix. The mineral filler (dust) shall be defined as that portion of blended mix that passes the #200 sieve by weight when tested in accordance with AASHTO T 30. The dust-to-effective asphalt (D/Pbe) ratio shall be between 0.6 and 1.2 by weight. The dry/wet mix times and hot bin proportions (batch plants only) for each type shall be included in the JMF.

The percentage of aggregate passing each sieve shall be plotted on a 0.45 power gradation chart and shall be submitted for all bituminous concrete mixtures. This chart shall delineate the percentage of material passing each test sieve size as defined by the JMF. The percentage of aggregate passing each standard sieve shall fall within the specified control points as shown in Tables M.04.02-2 thru Table M.04.02-5. A change in the JMF requires that a new chart be submitted.

- ii. Superpave Mixtures with RAP: Use of approved RAP may be allowed with the following conditions:
 - RAP amounts up to 15% may be used with no binder grade modification.
 - RAP amounts up to 20% may be used provided a new JMF is approved by the Engineer. The JMF submittal shall include the grade of virgin binder added. The JMF shall be accompanied by a blending chart and supporting test results in accordance with AASHTO M 323 Appendix X1, or by test results that show the combined binder (recovered binder from the RAP, virgin binder at the mix design proportions, warm mix asphalt additive and any other modifier if used) meets the requirements of the specified binder grade.
 - Two representative samples of RAP shall be obtained. Each sample shall be split and one split sample shall be tested for binder content in accordance with AASHTO T 164 and the other in accordance AASHTO T 308.

Unless approved by the Engineer, RAP material shall not be used with any other recycling option.

- iii. Superpave Mixtures with RAS: Use of RAS may be allowed solely in HMA S1 mixtures with the following conditions:

- RAS amounts up to 3% may be used.
 - RAS total binder replacement up to 15% may be used with no binder grade modification.
 - RAS total binder replacement up to 20% may be used provided a new JMF is approved by the Engineer. The JMF submittal shall include the grade of virgin binder added. The JMF shall be accompanied by a blending chart and supporting test results in accordance to AASHTO M 323 appendix X1 or by test results that show the combined binder (recovered binder from the RAP, virgin binder at the mix design proportions, warm mix asphalt additive and any other modifier if used) meets the requirements of the specified binder grade.
 - Superpave Mixtures with RAS shall meet AASHTO PP 78 design considerations. The RAS asphalt binder availability factor (F) used in AASHTO PP 78 Equation 2 shall be 0.85.
- iv. Superpave Mixtures with CRCG: In addition to the requirements in M.04.02 – 2 a through c, for bituminous concrete mixtures that contain CRCG, the Contractor shall submit a materials certificate to the Engineer stating that the CRCG complies with requirements stated in Article M.04.01, as applicable. Additionally, 1% hydrated lime, or other accepted non-stripping agent, shall be added to all mixtures containing CRCG. CRCG material shall not be used with any other recycling option.
- b. Basis of Approval: On an annual basis, the Contractor shall submit to the Engineer any bituminous concrete mix design, and JMF anticipated for use on Department projects. Prior to the start of any paving operations, the mix design and JMF must be approved by the Engineer. Bituminous concrete mixture supplied to the project without an approved mix design and JMF will be rejected. The following information must be included in the mix design submittal:
- i. Gradation, consensus properties and specific gravities of the aggregate, RAP, and RAS.
 - ii. Average asphalt content of the RAP and RAS by AASHTO T 164.
 - iii. Source of RAP and RAS and percentage to be used.
 - iv. Warm mix Technology and manufacturer's recommended additive rate and tolerances.
 - v. TSR test report, and, if applicable, anti-strip manufacturer and recommended dosage rate.
 - vi. Mixing and compaction temperature ranges for the mix with and without the warm-mix technology incorporated.

vii. JMF ignition oven correction factor by AASHTO T 308.

The JMF shall be accepted if the Plant mixture and materials meet all criteria as specified in Tables M.04.02-2 thru Table M.04.02-5. If the mixture does not meet the requirements, the contractor shall adjust the JMF within the ranges shown in Tables M.04.02-2 thru Table M.04.02-5 until an acceptable mixture is produced. All equipment, tests, and computations shall conform to the latest AASHTO R 35 and AASHTO M 323.

Any JMF, once approved, shall only be acceptable for use when it is produced by the designated plant, it utilizes the same component aggregates and binder source, and it continues to meet all criteria as specified herein, and component aggregates are maintained within the tolerances shown in Table M.04.02-2.

The Contractor shall not change any component source of supply including consensus properties after a JMF has been accepted. Before a new source of materials is used, a revised JMF shall be submitted to the Engineer for approval. Any approved JMF applies only to the plant for which it was submitted. Only one mix with one JMF will be approved for production at any one time. Switching between approved JMF mixes with different component percentages or sources of supply is prohibited.

- c. Mix Status: Each facility will have each type of bituminous concrete mixture evaluated based on the previous year of production, for the next construction paving season, as determined by the Engineer. Based on the rating a type of mixture receives it will determine whether the mixture can be produced without the completion of a PPT. Ratings will be provided to each bituminous concrete producer annually prior to the beginning of the paving season.

The rating criteria are based on compliance with Air Voids and Voids in Mineral Aggregate (VMA) as indicated in Table M.04.03-3: *Superpave Master Range for Bituminous Concrete Mixture Production*, and are as follows:

Criteria A: Based on Air Voids. Percentage of acceptance results with passing air voids.

Criteria B: Based on Air Voids and VMA. The percentage of acceptance results with passing VMA, and the percentage of acceptance results with passing air voids, will be averaged.

The final rating assigned will be the lower of the rating obtained with Criteria A or Criteria B.

Ratings are defined as:

“A” – Approved:

A rating of “A” is assigned to each mixture type from a production facility with a current rating of 70% passing or greater.

“PPT” – Pre-Production Trial:

Rating assigned to each mixture type from a production facility when:

1. there are no passing acceptance production results submitted to the Department from the previous year;
2. there is a source change in one or more aggregate components from the JMF on record by more than 10% by weight;
3. there is a change in RAP percentage;
4. the mixture has a rating of less than 70% from the previous season;
5. a new JMF not previously submitted.

Bituminous concrete mixtures rated with a “PPT” cannot be shipped or used on Department projects. A passing “PPT” test shall be performed with NETTCP certified personnel on that type of mixture by the bituminous concrete producer and meet all specifications (Table M.04.02-2 Table M.04.02-5) before production shipment may be resumed.

Contractors that have mix types rated as “PPT” may use one of the following methods to change the rating to an “A.”

Option A: Schedule a day when a Department inspector can be at the facility to witness a passing “PPT” test or,

Option B: When the Contractor or their representative performs a “PPT” test without being witnessed by an inspector, the Contractor shall submit the test results and a split sample including 2 gyratory molds, 5,000 grams of boxed bituminous concrete for binder and gradation determination, and 5,000 grams of cooled loose bituminous concrete for Gmm determination for verification testing and approval. Passing verifications will designate the bituminous concrete type to be on an “A” status. Failing verifications will require the contractor to submit additional trials.

Option C: When the Contractor or their representative performs a "PPT" test without being witnessed by a Department inspector, the Engineer may verify the mix in the Contractor's laboratory. Passing verifications will designate the bituminous concrete type to be an "A" status. Failing verifications will require the Contractor to submit additional trials.

When Option (A) is used and the "PPT" test meets all specifications, the "PPT" test is considered a passing test and the rating for that mix is changed to "A". When the "PPT" test is not witnessed, the "PPT" Option (B) or (C) procedure must be followed. If the "PPT" Option (B) procedure is followed, the mixtures along with the test results must be delivered to the Materials Testing Lab. The test results must meet the "C" tolerances established by the Engineer. The tolerance Table is included in the Department's current QA Program for Materials, Acceptance and Assurance Testing Policies and Procedures.

"U" – No Acceptable Mix Design on File:

Rating assigned to a type of mixture that does not have a JMF submitted, or the JMF submitted has not been approved, or is incomplete. A mix design or JMF must be submitted annually seven (7) days prior in order to obtain an "A," or "PPT" status for that mix. A "U" will be used only to designate the mix status until the mix design has been approved, and is accompanied with all supporting data as specified. Bituminous concrete mixtures rated with a "U" cannot be used on Department projects.

TABLE M.04.02-2: Superpave Master Range for Bituminous Concrete Mixture Design Criteria

Sieve	S0.25		S0.375		S0.5		S1	
	Min (%)	Max (%)						
inches								
2.0	-	-	-	-	-	-	-	-
1.5	-	-	-	-	-	-	100	-
1.0	-	-	-	-	-	-	90	100
3/4	-	-	-	-	100	-	-	90
1/2	100	-	100	-	90	100	-	-
3/8	97	100	90	100	-	90	-	-
#4	-	90	-	90	-	-	-	-
#8	32	67	32	67	28	58	19	45
#16	-	-	-	-	-	-	-	-
#30	-	-	-	-	-	-	-	-
#50	-	-	-	-	-	-	-	-
#100	-	-	-	-	-	-	-	-
#200	2.0	10.0	2.0	10.0	2.0	10.0	1.0	7.0
Pb ⁽¹⁾	-	-	-	-	-	-	-	-
VMA ⁽²⁾ (%)	16.0 ± 1		16.0 ± 1		15.0 ± 1		13.0 ± 1	
VA (%)	4.0 ± 1		4.0 ± 1		4.0 ± 1		4.0 ± 1	
Gse	JMF value		JMF value		JMF value		JMF value	

Notes: ⁽¹⁾ Minimum Pb as specified in Table M.04.02-5. ⁽²⁾ Voids in Mineral Aggregates shall be computed as specified in AASHTO R 35. ⁽³⁾ Control point range is also defined as the master range for that mix. ⁽⁴⁾ Dust is considered to be the percent of materials passing the #200 sieve. ⁽⁵⁾ For WMA, lower minimum aggregate temperature will require Engineer's approval. ⁽⁶⁾ For WMA and PMA, the mix temperature shall meet manufacturer's recommendations.

Gmm	JMF ± 0.030	JMF ± 0.030	JMF ± 0.030	JMF ± 0.030	JMF ± 0.030
Dust/Pbe ⁽⁴⁾	0.6 – 1.2	0.6 – 1.2	0.6 – 1.2	0.6 – 1.2	0.6 – 1.2
Agg. Temp ⁽⁵⁾	280 – 350°F	280 – 350°F	280 – 350°F	280 – 350°F	280 – 350°F
Mix Temp ⁽⁶⁾	265 – 325°F	265 – 325°F	265 – 325°F	265 – 325°F	265 – 325°F
Design TSR	> 80%	> 80%	> 80%	> 80%	> 80%
T-283	Minimal, as determined by the Engineer				

TABLE M.04.02-3: Superpave Master Range for Consensus Properties of Combined Aggregate Structures

<p>Notes: (1) If less than 25 % of a given layer is within 4 inches of the anticipated top surface, the layer may be considered to be below 4 inches for mixture design purposes.</p>					
Traffic Level	Design ESALs (80 kN)	Coarse Aggregate Angularity ⁽¹⁾ ASTM D 5821	Fine Aggregate Angularity ⁽⁷⁾ AASHTO T 304	Flat and Elongated Particles ASTM D 4791	Sand Equivalent AASHTO T 176
-----	(million)			> # 4	-----
1*	< 0.3	55/- -	40	10	40
2	0.3 to < 3.0	75/- -	40	10	40
3	≥ 3.0	95/90	45	10	45
	Design ESALs are the anticipated project traffic level expected on the design lane, projected over a 20 year period, regardless of the actual expected design life of the roadway.	Criteria presented as minimum values. 95/90 denotes that a minimum of 95% of the coarse aggregate, by mass, shall have one fractured face and that a minimum of 90% shall have two fractured faces.	Criteria presented as minimum percent air voids in loosely compacted fine aggregate passing the #8 sieve.	Criteria presented as maximum Percent by mass of flat and elongated particles of materials retained on the #4 sieve, determined at 5:1 ratio.	Criteria presented as minimum values for fine aggregate passing the #8 sieve.

*** NOTE: Level 1 for use by Towns and Municipalities ONLY.**

TABLE M.04.02-4: Superpave Master Range for Traffic Levels and Design Volumetric Properties

Traffic Level	Design ESALS (million)	Number of Gyration by Superpave Gyrotory Compactor			Percent Density of Gmm from HMA/WMA specimen			Voids Filled with Asphalt (VFA) Based on Nominal mix size – inch			
		Nini	Ndes	Nmax	Nini	Ndes	Nmax	0.25	0.375	0.5	1
1*	< 0.3	6	50	75	≤ 91.5	≤ 96.0	≤ 98.0	70 - 80	70 - 80	70 - 80	67 - 80
2	0.3 to < 3.0	7	75	115	≤ 90.5	≤ 96.0	≤ 98.0	65 - 78	65 - 78	65 - 78	65 - 78
3	≥ 3.0	8	100	160	≤ 90.0	≤ 96.0	≤ 98.0	73 - 76	73 - 76	65 - 75	65 - 75

*** NOTE: Level 1 for use by Towns and Municipalities ONLY.**

**TABLE M.04.02– 5:
Superpave Minimum Binder Content by Mix Type and Level**

Mix Type	Level	Binder Content Minimum ⁽¹⁾
S0.25	1*	5.6
S0.25	2	5.5
S0.25	3	5.4
S0.375	1*	5.6
S0.375	2	5.5
S0.375	3	5.4
S0.5	1*	5.0
S0.5	2	4.9
S0.5	3	4.8
S1	1*	4.6
S1	2	4.5
S1	3	4.4

* NOTE: Level 1 for use by Towns and Municipalities ONLY.

M.04.03— Production Requirements:

1. Standard Quality Control Plan (QCP) for Production:

The QCP for production shall describe the organization and procedures which the Contractor shall use to administer quality control. The QCP shall include the procedures used to control the production process, to determine when immediate changes to the processes are needed, and to implement the required changes. The QCP must detail the inspection, sampling and testing protocols to be used, and the frequency for each.

Control Chart(s) shall be developed and maintained for critical aspect(s) of the production process as determined by the Contractor. The control chart(s) shall identify the material property, applicable upper and lower control limits, and be updated with current test data. As a minimum, the following quality characteristics shall be included in the control charts: percent passing #4 sieve, percent passing #200 sieve, binder content, air voids, Gmm and VMA. The control chart(s) shall be used as part of the quality control system to document variability of the bituminous concrete production process. The control chart(s) shall be submitted to the Engineer the first day of each month.

The QCP shall also include the name and qualifications of a Quality Control Manager. The Quality Control Manager shall be responsible for the administration of the QCP, including compliance with the plan and any plan modifications.

The Contractor shall submit complete production testing records to the Engineer within 24 hours in a manner acceptable to the Engineer.

The QCP shall also include the name and qualifications of any outside testing laboratory performing any QC functions on behalf of the Contractor. The QCP must also include a list of sampling & testing methods and frequencies used during production, and the names of all Quality Control personnel and their duties.

Approval of the QCP does not imply any warranty by the Engineer that adherence to the plan will result in production of bituminous concrete that complies with these specifications. The Contractor shall submit any changes to the QCP as work progresses.

2. Acceptance Sampling & Testing Methods:

i. General:

Acceptance samples of mixtures shall be obtained from the hauling vehicles and tested by the Contractor at the facility during each day's production.

The Contractor shall submit all acceptance tests results to the Engineer within 24 hours or prior to the next day's production. All acceptance test specimens and supporting documentation must be retained by the Contractor. Verification testing will be performed by the Engineer in accordance with the Department's QA Program for Materials. Labeled Acceptance test specimens shall be retained at the production facilities and may be disposed of with the approval of the Engineer. All Quality Control specimens shall be clearly labeled and separated from the Acceptance specimens.

Should the Department be unable to verify the Contractor's acceptance test result(s) due to a failure of the Contractor to retain acceptance test specimens or supporting documentation, the Contractor shall review its quality control plan, determine the cause of the nonconformance and respond in writing within 24 hours to the Engineer describing the corrective action taken at the plant. In addition, the Contractor must provide supporting documentation or test results to validate the subject acceptance test result(s). The Engineer may invalidate any positive adjustments for material corresponding to the acceptance test(s). Failure of the Contractor to adequately

address quality control issues at a facility may result in suspension of production for Department projects at that facility.

Contractor personnel performing acceptance sampling and testing must be present at the facility prior to, during, and until completion of production, and be certified as a NETTCP HMA Plant Technician or Interim HMA Plant Technician and be in good standing. Production of material for use on State projects must be suspended by the Contractor if such personnel are not present.

Technicians found by the Engineer to be non-compliant with NETTCP or Department policies may be removed by the Engineer from participating in the acceptance testing process for Department projects until their actions can be reviewed.

Anytime during production that testing equipment becomes inoperable, production can continue for a maximum of 1 hour. The Contractor shall obtain box sample(s) in accordance with Table M.04.03-1 to satisfy the daily acceptance testing requirement for the quantity shipped to the project. The box sample(s) shall be tested once the equipment issue has been resolved to the satisfaction of the Engineer. Production beyond 1 hour may be considered by the Engineer. Production will not be permitted beyond that day until the subject equipment issue has been resolved.

ii. Curb Mix Acceptance Sampling and Testing Procedures:

Curb Mixes shall be tested by the Contractor at a frequency of one test per every 250 tons of cumulative production, regardless of the day of production.

When these mix designs are specified, the following acceptance procedures and AASHTO test methods shall be used:

TABLE M.04.03 – 2: Curb Mix Acceptance Test Procedures

Protocol	Reference	Description
1	AASHTO T 30(M)	Mechanical Analysis of Extracted Aggregate
2	AASHTO T 168	Sampling of Bituminous Concrete
3	AASHTO T 308	Binder content by Ignition Oven method (adjusted for aggregate correction factor)
4	AASHTO T 209(M)	Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures
5	AASHTO T 312	Superpave Gyrotory molds compacted to N_{des}
6	AASHTO T 329	Moisture Content of Hot-Mix Asphalt (HMA) by Oven Method

a. Determination of Off-Test Status:

- i. The test results of AASHTO T 308 and T 30(M) will be used to determine if the mixture is within the tolerances shown in Table M.04.02-1. Curb Mixtures are considered "off test" when the test results indicate that any single value for bitumen content or gradation are not within the tolerances shown in Table M.04.02-1 for that mixture. If the mix is "off test", the Contractor must take immediate actions to correct the deficiency and a new acceptance sample shall be tested on the same day or the following day of production.
- ii. When multiple plants and silos are located at one site, mixture supplied to one project is considered as coming from one source for the purpose of applying the "off test" status.
- iii. The Engineer may cease supply from the plant when test results from three consecutive samples are not within the JMF tolerances or the test results from two consecutive samples not within the master range indicated in Table M.04.02-1 regardless of production date.

b. JMF Changes

- i. If a test indicates that the bitumen content or gradation are outside the tolerances, the Contractor may make a single JMF change as allowed by the Engineer prior to any additional testing. A JMF change shall include the date and name of the Engineer that allowed it. Consecutive test results outside the requirements of Table M.04.02-1 JMF tolerances may result in rejection of the mixture.

- ii. Any modification to the JMF shall not exceed 50% of the JMF tolerances indicated in Table M.04.02-1 for any given component of the mixture without approval of the Engineer. When such an adjustment is made to the bitumen, the corresponding production percentage of bitumen shall be revised accordingly.

iii. Superpave Mix Acceptance Sampling and Testing Procedures:

The hauling vehicle from which samples are obtained shall be selected using stratified – random sampling based on the total estimated tons of production in accordance with ASTM D 3665, except that the first test shall be randomly taken from the first 151 tons or as directed by the Engineer. The Engineer may request a second acceptance test within the first sub lot. One acceptance test shall always be performed in the last sub-lot based on actual tons of material produced.

The number of sub lots/acceptance tests is based on the total production per day as indicated in Table M.04.03-1. Quantities of the same type/level mix per plant may be combined daily for multiple state projects to determine the number of sub lots. The Engineer may direct that additional acceptance samples be obtained to represent materials actually being delivered to the project.

The payment adjustment for air voids and liquid binder will be calculated per sub lot as described in Section 4.06.

An acceptance test shall not be performed within 150 tons of production from a previous acceptance test unless approved by the Engineer. Quality Control tests are not subject to this restriction. Unless otherwise tested, a minimum of one (1) acceptance test shall be performed for every four days of production at a facility for each type/level mix (days of production may or may not be consecutive days).

**TABLE M.04.03 – 1:
Superpave Acceptance Testing Frequency per Type/Level/Plant**

Daily quantity produced in tons (lot)	Number of Sub Lots/Tests
0 to 150	0, Unless requested by the Engineer
151 to 600	1
601 to 1,200	2
1,201 to 1,800	3
1,801 or greater	1 per 600 tons or portions thereof

When the Superpave mix design is specified, the following acceptance and AASHTO test procedures shall be used:

TABLE M.04.03– 3: Superpave Acceptance Testing Procedures

Protocol	Reference	Description
1	AASHTO T 168	Sampling of bituminous concrete
2	AASHTO R 47	Reducing samples to testing size
3	AASHTO T 308	Binder content by Ignition Oven method (adjusted for aggregate correction factor)
4	AASHTO T 30	Gradation of extracted aggregate for bituminous concrete mixture
5	AASHTO T 312	⁽¹⁾ Superpave Gyratory molds compacted to N_{des}
6	AASHTO T 166	⁽²⁾ Bulk specific gravity of bituminous concrete
7	AASHTO R 35	⁽²⁾ Air voids, VMA
8	AASHTO T 209(M)	Maximum specific gravity of bituminous concrete (average of two tests)
9	AASHTO T 329	Moisture content of Production bituminous concrete

Notes: ⁽¹⁾ One set equals two six-inch molds. Molds to be compacted to N_{max} for PPTs and to N_{des} for production testing. The first subplot of the year will be compacted to N_{max} ⁽²⁾ Average value of one set of six-inch molds.

If the average corrected Pb content differs by 0.3% or more from the average bituminous concrete facility production delivery ticket in five (5) consecutive tests regardless of the production date (moving average), the Contractor shall immediately investigate, determine an assignable cause and correct the issue. When two consecutive moving average differences are 0.3% or more, the Engineer may require a new aggregate correction factor.

The test specimen must be ready to be placed in an approved ignition furnace for testing in accordance with AASHTO T 308 within thirty minutes of being obtained from the hauling vehicle and the test shall start immediately after.

The Contractor shall perform moisture susceptibility (TSR) testing annually for all design levels of HMA-, WMA-, and PMA- S0.5 plant-produced mixtures, in accordance with the latest version of AASHTO T 283(M).

If any material source changes from the previous year, or during the production season, a mix design TSR as well as a production TSR is required for the new

mixture. The AASHTO T 283(M) test shall be performed at an AASHTO Materials Reference Laboratory (AMRL) by NETTCP Certified Technicians. The test results and specimens shall be submitted to the Engineer for review. This shall be completed within 30 days from the start of production. Superpave mixtures that require anti-strip additives (either liquid or mineral) shall continue to meet all requirements specified herein for binder and bituminous concrete. The Contractor shall submit the name, manufacturer, percent used, technical datasheet and SDS for the anti-strip additive (if applicable) to the Engineer. In addition, compaction of samples shall be accomplished utilizing an accepted Superpave Gyratory Compactor (SGC), supplied by the Contractor. The SGC shall be located at the facility supplying mixture to the project.

a. Determination of Off-Test Status:

- i. Superpave mixes shall be considered "*off test*" when any Control Point Sieve, VA, VMA, and Gmm values are outside of the limits specified in Table M.04.03-4 and the computed binder content (Pb) established by AASHTO T308 or as documented on the vehicle delivery ticket is below the minimum binder content stated in sub article M.04.02-5. Note that further testing of samples or portions of samples not initially tested for this purpose cannot be used to change the status.
- ii. Any time the bituminous concrete mixture is considered Off-test:
 1. The Contractor shall notify the Engineer (and project staff) when the plant is "*off test*" for a type of mixture. When multiple plants and silos are located at one site, mixture supplied to one project is considered as coming from one source for the purpose of applying the "*off test*" determination.
 2. The Contractor must take immediate actions to correct the deficiency, minimize "*off test*" production to the project, and obtain an additional Process Control (PC) test after any corrective action to verify production is in conformance to the specifications. A PC test will not be used for acceptance and is solely for the use of the Contractor in its quality control process.

- b. Cessation of Supply for Superpave Mixtures with no Payment Adjustment: Production of bituminous concrete shall cease for the Project from any plant that consistently fails to produce mixture that meets the JMF and volumetric properties. The quantity of Superpave mixtures shipped to the project that is "off-test" will not be adjusted for deficient mixtures.

A Contractor shall cease to supply mixture from a plant when:

1. Bituminous concrete mixture is “off test” on three (3) consecutive tests for any combination of VMA or Gmm, regardless of date of production.
2. Bituminous concrete mixture is “off test” on two (2) consecutive tests for the Control Point sieves in one day’s production.

Following cessation, the Contractor shall immediately make necessary material or process corrections and run a Pre-Production Trial (PPT) for that type of mixture. Use of that type of mixture from that plant will be prohibited on the Project until the Contractor has demonstrated the ability to produce acceptable mixture from that facility. When the Contractor has a passing test and has received approval from the Engineer, the use of that mixture to the Project may resume.

- c. Cessation of Supply for Superpave Mixtures with Payment Adjustment: Production of bituminous concrete shall cease for the Project from any plant that consistently fails to produce mixture that meets the Superpave minimum binder content by mix type and level listed in Table M.04.02-5. The quantity of Superpave mixtures shipped to the project that is “off-test” will be adjusted for deficient mixtures in accordance with Section 4.06.

A Contractor shall cease to supply mixture from a plant when:

1. The binder content (Pb) is below the requirements of Table M.04.02-5 on the ignition oven test result after two (2) consecutive tests, regardless of the date of production.
2. The air voids (VA) is outside the requirements of Table M.04.03-4 after three (3) consecutive tests, regardless of the date of production.

Following cessation, the Contractor shall immediately make necessary material or process corrections and run a Pre-Production Trial (PPT) for that type of mixture. Use of that type of mixture from that plant will be prohibited on the Project until the Contractor has demonstrated the ability to produce acceptable mixture from that facility. When the Contractor has a passing test and has received approval from the Engineer, the use of that mixture to the Project may resume.

- d. JMF Changes for Superpave Mixture Production: It is understood that a JMF change is effective from the time it was submitted forward and is not retroactive to the previous test or tests. JMF changes are permitted to allow for trends in aggregate and mix properties but every effort shall be employed by the Contractor to minimize this to ensure a uniform and dense pavement. A revised JMF submittal shall include the date and name of the Engineer that allowed it.

JMF changes are only permitted prior to or after a production shift for all bituminous-concrete types of mixtures and only when they:

- i. Are requested in writing and pre-approved by the Engineer.
- ii. Are based on a minimum of a two test trend.
- iii. Are documented with a promptly submitted revised JMF on the form provided by the Engineer.
- iv. A revised JMF submittal shall include the date and name of the Engineer that allowed it.

No change will be made on any aggregate or RAP consensus property or specific gravity unless the test is performed at an AASHTO Materials Reference Laboratory (AMRL) by NETTCP Certified Technicians.

A JMF change shall be submitted every time the plant target RAP and/or bin percentage deviates by more than 5% and/or the plant target binder content deviates by more than 0.15% from the active JMF.

TABLE M.04.03-4: Superpave Master Range for Bituminous Concrete Mixture Production

Sieve	S0.25		S0.375		S0.5		S1		Tolerances	
	Min(%)	Max(%)	Min(%)	Max(%)	Min(%)	Max(%)	Min(%)	Max(%)	From JMF Targets ⁽⁴⁾	±Tol
1.5	-	-	-	-	-	-	100	-	-	
1.0	-	-	-	-	-	-	90	100	-	
3/4	-	-	-	-	100	-	-	90	-	
1/2	100	-	100	-	90	100	-	-	-	
3/8	97	100	90	100	-	90	-	-	-	
#4	-	90	-	90	-	-	-	-	-	
#8	32	67	32	67	28	58	19	45	-	
#16	-	-	-	-	-	-	-	-	-	
#200	2.0	10.0	2.0	10.0	2.0	10.0	1.0	7.0	-	
Pb ⁽²⁾	-	-	-	-	-	-	-	-	-	note (2)
VMA (%)	16.0	-	16.0	-	15.0	-	13.0	-	1.0	
VA (%)	4.0	-	4.0	-	4.0	-	4.0	-	1.0	
Gmm	JMF value	-	JMF value	-	JMF value	-	JMF value	-	0.030	
Agg. Temp ⁽⁵⁾	280 – 350F	-	280 – 350F	-	280 – 350F	-	280 – 350F	-	-	
Mix Temp ⁽⁶⁾	265 – 325 F ⁽¹⁾	-	265 – 325 F ⁽¹⁾	-	265 – 325 F ⁽¹⁾	-	265 – 325 F ⁽¹⁾	-	-	
Prod. TSR	N/A	-	N/A	-	>80%	-	N/A	-	-	
T-283 Stripping	N/A	-	N/A	-	Minimal as determined by the Engineer	-	N/A	-	-	

Notes: (1) 300°F minimum after October 15. (2) Minimum Pb as specified in Table M.04.02-5 (3) Control point range is also defined as the master range for that mix. (4) JMF tolerances shall be defined as the limits for production compliance. VA & Pb payment is subject to adjustments, as defined in sub-article 4.06.04 - 2. (5) For WMA, lower minimum aggregate temperature will require Engineer's approval. (6) For WMA and/or polymer modified asphalt, the mix temperature shall meet manufacturer's recommendations. In addition, for WMA, the maximum mix temperature shall not exceed 325°F once the WMA technology is incorporated.

**TABLE M.04.03– 5:
JMF Tolerances for Application
of Positive Adjustments**

Notes: (1) Only for S1 mixes. (2) Only for S0.5 and S1 mixes.	
Sieve	Tolerances
	From JMF Targets
inches	±Tol
3/4	9 ⁽¹⁾
1/2	9 ⁽¹⁾
3/8	9 ⁽²⁾
#4	8
#8	7
#16	6
#200	3
Pb	0.4

**TABLE M.04.03– 6:
Superpave Master Range for Traffic Levels and Design Volumetric Properties**

Traffic Level	Design ESALs	Number of Gyration by Superpave Gyratory Compactor	
	(million)	Nini	Ndes
1*	< 0.3	6	50
2	0.3 to < 3.0	7	75
3	≥3.0	8	100

* NOTE: Level 1 for use by Towns and Municipalities ONLY.

**TABLE M.04.03-7:
Modifications to Standard AASHTO and ASTM Test Specifications and
Procedures**

AASHTO Standard Specification	
Reference	Modification
M 140	Emulsified Asphalt grade RS-1H shall meet all the requirements of the emulsified asphalt grade RS-1 except for the penetration requirement of the residue that will change from 100 to 200 penetration units (0.1 mm) to 40 to 90 penetration units (0.1 mm).
AASHTO Standard Method of Test	
Reference	Modification
T 30	Section 7.2 thru 7.4 Samples are not routinely washed for production testing
T 168	<p>Samples are taken at one point in the pile. Samples from a hauling vehicle are taken from only one point instead of three as specified.</p> <p>Selection of Samples: Sampling is equally important as the testing, and the sampler shall use every precaution to obtain samples that are truly representative of the bituminous mixture.</p> <p>Box Samples: In order to enhance the rate of processing samples taken in the field by construction or maintenance personnel the samples will be tested in the order received and data processed to be determine conformance to material specifications and to prioritize inspections by laboratory personnel.</p>
T 195	Section 4.3 only one truck load of mixture is sampled. Samples are taken from opposite sides of the load.
T 209	<p>Section 7.2 The average of two bowls is used proportionally in order to satisfy minimum mass requirements.</p> <p>8.3 Omit Pycnometer method.</p>
T 283	When foaming technology is used, the material used for the fabrication of the specimens shall be cooled to room temperature, and then reheated to the manufactures recommended compaction temperature prior to fabrication of the specimens.
T 331	6.1 Cores are dried to a constant mass prior to testing using a core-dry machine.

AASHTO Standard Recommended Practices	
Reference	Modification
R 26	<p>Quality Control Plans must be formatted in accordance with AASHTO R 26, certifying suppliers of performance-graded asphalt binders, Section 9.0, Suppliers Quality Control Plan, and "NEAUPG Model PGAB QC Plan."</p> <ol style="list-style-type: none"> 1. The Department requires that all laboratory technician(s) responsible for testing PG-binders be certified or Interim Qualified by the New England Transportation Technician Certification Program (NETTCP) as a PG Asphalt Binder Lab Technician. 2. Sampling of asphalt binders should be done under the supervision of qualified technician. NECTP "Manual of Practice," Chapter 2 Page 2-4 (Key Issues 1-8). 3. A copy of the Manual of Practice for testing asphalt binders in accordance with the Superpave PG Grading system shall be in the testing laboratory. 4. All laboratories testing binders for the Department are required to be accredited by the AASHTO Materials Reference Laboratory (AMRL). 5. Sources interested in being approved to supply PG-binders to the Department by use of an "in-line blending system," must record properties of blended material, and additives used. 6. Each source of supply of PG-binder must indicate that the binders contain no additives used to modify or enhance their performance properties. Binders that are manufactured using additives, modifiers, extenders etc., shall disclose the type of additive, percentage and any handling specifications/limitations required. 7. All AASHTO M 320 references shall be replaced with AASHTO M 332. 8. Each year, in April and September, the supplier shall submit test results for two BBR testing at two different temperatures in accordance with AASHTO R 29. <p>Suppliers shall provide AASHTO M 332 testing results and split samples at a minimum of once per lot.</p>

APPENDIX

APPENDIX INDEX

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EXHIBIT 1

DEPARTMENT OF REVENUE SERVICES
FORM AU-766 GUARANTEE BOND
(OUT OF STATE CONTRACTORS)

Form AU-766 Guarantee Bond

Purpose: A nonresident contractor working in Connecticut and a surety company licensed to do business in Connecticut use **Form AU-766** to post a guarantee bond with the Department of Revenue Services (DRS) for a specific project in the state. The guarantee bond ensures all taxes due to the State of Connecticut from the contractor are paid to DRS. Read the instructions on the reverse side before you complete this form. If you need help, call **860-541-7538**, Monday through Friday, during business hours.

Part I: Nonresident Contractor Information		
Name	Connecticut Tax Registration No.	
Address (Street or PO Box, City, State, and ZIP Code)		
Part II: Person Doing Business With a Nonresident Contractor Information		
Name	Connecticut Tax Registration No., Federal ID No., or SSN	
Address (Street or PO Box, City, State, and ZIP Code)		
Part III: Surety Company Information		
Name	Bond No.	Amount of Bond
Address (Street or PO Box, City, State, and ZIP Code)		
Part IV: Project Information <input type="checkbox"/> Check the box if this bond is for a change order.		
Physical Location of Project (Street, City or Town)		Name of Project
Commencement Date	Completion Date for Nonresident Contractor	Total Contract Price or Amount of Change Order
<p>Conditions of the obligation for the project detailed above:</p> <ul style="list-style-type: none"> • The nonresident contractor has entered into a contract related to real property at a Connecticut location. • The nonresident contractor and the surety company are posting a bond of 5% of the total contract price, including any change orders and add-ons, with DRS to ensure that all taxes that become due and owing during the period of the contract will be paid. • A bond must be posted within 120 days of the commencement of the contract or 30 days after the completion of the contract, whichever is earlier. • If the nonresident contractor pays all taxes, interest, and penalties within three years from the last day of the month succeeding the reporting period in which the contractor posted the bond, the bond expires; otherwise the obligation remains in full force. • This bond jointly and severally binds the nonresident contractor and the surety company, their heirs, executors, administrators, successors, and assigns for payment of this obligation. 		
<p>Nonresident Contractor Declaration: I, the nonresident contractor named above or its authorized agent, declare under the penalty of law that I have examined Form AU-766 and, to the best of my knowledge and belief it is true, complete, and correct. I understand the penalty for willfully delivering a false document or return to DRS is a fine of not more than \$5,000, or imprisonment for not more than five years, or both.</p>		
Print Name		Title
Authorized Signature		Date
<p>Surety Company Declaration: I, an authorized agent of the surety company named above, declare under the penalty of law that I have examined this Form AU-766 and, to the best of my knowledge and belief it is true, complete, and correct. I understand the penalty for willfully delivering a false document or return to DRS is a fine of not more than \$5,000, or imprisonment for not more than five years, or both.</p>		
Print Name		Seal:
Title		
Authorized Signature		Date

General Instructions

A nonresident contractor and a surety company licensed to do business in Connecticut must execute **Form AU-766, Guarantee Bond**, to post a guarantee bond with the Department of Revenue Services (DRS) for a specific project in Connecticut. A power of attorney for the person signing the bond on behalf of the surety company **must** be attached to the bond, carry the corporate seal of the surety company, and bear the same date as the execution date of the bond.

A nonresident contractor has the option of filing a guarantee bond or a cash bond instead of the customer making a deposit with DRS under Conn. Gen. Stat. §12-430(7)(B). Under this option, the nonresident contractor has 120 days from the commencement of the contract or 30 days after the completion of the contract, whichever is earlier, to file a guarantee bond or a cash bond (Form AU-72) with DRS.

Return Form AU-766 to: Department of Revenue Services
Discovery Unit
25 Sigourney Street
Hartford CT 06106-5032

See **Special Notice 2005(12), Nonresident Contractor Bonds and Deposits**, for more information.

Nonresident contractor means a contractor who does not maintain a regular place of business in Connecticut.

Regular place of business means:

- Any bona fide office, factory, warehouse, or other space in Connecticut at which a contractor is doing business in its own name in a regular and systematic manner; **and**
- Which place is continuously maintained, occupied, and used by the contractor in carrying on its business through its employees regularly in attendance to carry on the contractor's business in the contractor's own name.

A regular place of business **does not include**:

- A place of business for a statutory agent for service of process or a temporary office whether or not it is located at the site of construction;
- Locations used by the contractor only for the duration of the contract, such as short-term leased offices, warehouses, storage facilities, or facilities that do not have full time staff with regular business hours; **or**
- An office maintained, occupied, and used by a person affiliated with a contractor.

Contract price means the total contract price, including deposits, amounts held as retainage, costs for any change orders, or charges for add-ons.

Person doing business with a nonresident contractor means any person who makes payments of the contract price to a nonresident contractor, and includes, but is not limited to property owners, governmental, charitable or religious entities, and resident or nonresident general contractors or subcontractors. An owner or tenant of residential real property is not a person doing business with a nonresident contractor and is not required to comply with the provisions of Conn. Gen. Stat. §12-430(7). However, the nonresident contractor doing business with such an owner or tenant must comply with the bond requirements under Conn. Gen. Stat. §12-430(7)(F).

Commencement of the contract means the time when the nonresident contractor signs the contract, but, in any event, occurs no later than when the work under the contract actually starts. If a change order is made after the commencement of the original contract, the change order commences when it is signed by the nonresident contractor, but, in any event, occurs no later than when the work under the change order actually starts.

Completion of the contract means the time when the nonresident contractor makes the final periodic billing for the contract. The final periodic billing may be due before payment of any retainage becomes due. If a change order is made after the final periodic billing for the original contract, the change order is complete when the nonresident contractor bills for the change order.

Residential real property means real property used exclusively for residential purposes and consisting of three or fewer dwelling units in one of which the owner or tenant resides.

Any bond that bears an erasure or alteration, regardless of its nature, must have the change authenticated by a notation in the margin. The notation should describe the correction and be signed in the name of the surety company by the officer who executed the bond and must bear the corporate seal of the surety company.

Specific Instructions

Part I: Enter the name and complete address of the nonresident contractor furnishing the bond. Include the nonresident contractor's Connecticut tax registration number. The name and address of the nonresident contractor appearing on the bond must agree with the name and address on **Form REG-1, Business Taxes Registration Application**, filed with DRS. (If the information originally provided on Form REG-1 is now incorrect, you must notify the DRS Registration Unit in writing of the correct information.) If the nonresident contractor is a corporation, the corporate name appearing on the bond must be the same shown in the records of the Office of the Secretary of State, or similar agency of another state if the nonresident contractor is not a Connecticut corporation.

Part II: Enter the name and complete address of the person doing business with the nonresident contractor. If the nonresident contractor is the general contractor, enter the name and address of the owner or tenant of the property who has entered the contract. If the nonresident contractor is a subcontractor, enter the name and address of the general contractor.

Enter the Connecticut tax registration number of the person doing business with the nonresident contractor. If the person doing business with the nonresident contractor does not have a Connecticut tax registration number, enter that person's Federal Employer Identification Number or Social Security Number.

Part III: Enter the name and complete address of the surety company that guarantees this bond. Include the bond number.

Part IV: Check the box if the deposit is for a change order occurring after the bond for the initial contract was furnished to DRS.

Enter the name of the project and the complete address including the street address and the city or town where the project is physically located.

Enter the commencement date of this project or change order.

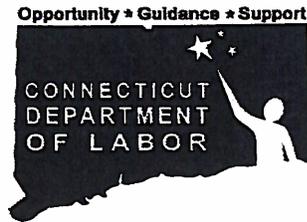
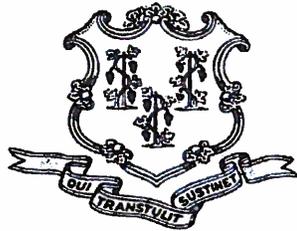
Enter the date by which the nonresident contractor is expected to complete work on this project or change order.

Enter, in words and figures, the total amount to be paid to the nonresident contractor under the contract. Indicate if this amount is an estimate.

Declarations: An authorized representative for the nonresident contractor and the surety company must sign and date the declaration on Form AU-766. The name of the nonresident contractor and the surety company must be exactly as it appears on the bond. The corporate seal of the surety company must be affixed by its signature on Form AU-766.

EXHIBIT 2

SECTION 102-18 PREVAILING WAGE LABOR RATES AND OTHER DEPARTMENT OF LABOR INFORMATION



THIS IS A PUBLIC WORKS PROJECT

Covered by the

PREVAILING WAGE LAW

CT General Statutes Section 31-53

**If you have QUESTIONS regarding your wages
CALL (860) 263-6790**

Section 31-55 of the CT State Statutes requires every contractor or subcontractor performing work for the state to post in a prominent place the prevailing wages as determined by the Labor Commissioner.

Sec. 31-53b. Construction safety and health course. New miner training program. Proof of completion required for mechanics, laborers and workers on public works projects. Enforcement. Regulations. Exceptions. (a) Each contract for a public works project entered into on or after July 1, 2009, by the state or any of its agents, or by any political subdivision of the state or any of its agents, described in subsection (g) of section 31-53, shall contain a provision requiring that each contractor furnish proof with the weekly certified payroll form for the first week each employee begins work on such project that any person performing the work of a mechanic, laborer or worker pursuant to the classifications of labor under section 31-53 on such public works project, pursuant to such contract, has completed a course of at least ten hours in duration in construction safety and health approved by the federal Occupational Safety and Health Administration or, has completed a new miner training program approved by the Federal Mine Safety and Health Administration in accordance with 30 CFR 48 or, in the case of telecommunications employees, has completed at least ten hours of training in accordance with 29 CFR 1910.268.

(b) Any person required to complete a course or program under subsection (a) of this section who has not completed the course or program shall be subject to removal from the worksite if the person does not provide documentation of having completed such course or program by the fifteenth day after the date the person is found to be in noncompliance. The Labor Commissioner or said commissioner's designee shall enforce this section.

(c) Not later than January 1, 2009, the Labor Commissioner shall adopt regulations, in accordance with the provisions of chapter 54, to implement the provisions of subsections (a) and (b) of this section. Such regulations shall require that the ten-hour construction safety and health courses required under subsection (a) of this section be conducted in accordance with federal Occupational Safety and Health Administration Training Institute standards, or in accordance with Federal Mine Safety and Health Administration Standards or in accordance with 29 CFR 1910.268, as appropriate. The Labor Commissioner shall accept as sufficient proof of compliance with the provisions of subsection (a) or (b) of this section a student course completion card issued by the federal Occupational Safety and Health Administration Training Institute, or such other proof of compliance said commissioner deems appropriate, dated no earlier than five years before the commencement date of such public works project.

(d) This section shall not apply to employees of public service companies, as defined in section 16-1, or drivers of commercial motor vehicles driving the vehicle on the public works project and delivering or picking up cargo from public works projects provided they perform no labor relating to the project other than the loading and unloading of their cargo.

(P.A. 06-175, S. 1; P.A. 08-83, S. 1.)

History: P.A. 08-83 amended Subsec. (a) by making provisions applicable to public works project contracts entered into on or after July 1, 2009, replacing provision re total cost of work with reference to Sec. 31-53(g), requiring proof in certified payroll form that new mechanic, laborer or worker has completed a 10-hour or more construction safety course and adding provision re new miner training program, amended Subsec. (b) by substituting "person" for "employee" and adding "or program", amended Subsec. (c) by adding "or in accordance with Federal Mine Safety and Health Administration Standards" and setting new deadline of January 1, 2009, deleted former Subsec. (d) re "public building", added new Subsec. (d) re exemptions for public service company employees and delivery drivers who perform no labor other than delivery and made conforming and technical changes, effective January 1, 2009.

Informational Bulletin

THE 10-HOUR OSHA CONSTRUCTION SAFETY AND HEALTH COURSE

(applicable to public building contracts entered into *on or after July 1, 2007*, where the total cost of all work to be performed is at least \$100,000)

- (1) This requirement was created by Public Act No. 06-175, which is codified in Section 31-53b of the Connecticut General Statutes (pertaining to the prevailing wage statutes);
- (2) The course is required for public building construction contracts (projects funded in whole or in part by the state or any political subdivision of the state) entered into on or after July 1, 2007;
- (3) It is required of private employees (not state or municipal employees) and apprentices who perform manual labor for a general contractor or subcontractor on a public building project where the total cost of all work to be performed is at least \$100,000;
- (4) The ten-hour construction course pertains to the ten-hour Outreach Course conducted in accordance with federal OSHA Training Institute standards, and, for telecommunications workers, a ten-hour training course conducted in accordance with federal OSHA standard, 29 CFR 1910.268;
- (5) The internet website for the federal OSHA Training Institute is http://www.osha.gov/fso/ote/training/edcenters/fact_sheet.html;
- (6) The statutory language leaves it to the contractor and its employees to determine who pays for the cost of the ten-hour Outreach Course;
- (7) Within 30 days of receiving a contract award, a general contractor must furnish proof to the Labor Commissioner that all employees and apprentices performing manual labor on the project will have completed such a course;
- (8) Proof of completion may be demonstrated through either: (a) the presentation of a *bona fide* student course completion card issued by the federal OSHA Training Institute; *or* (2) the presentation of documentation provided to an employee by a trainer certified by the Institute pending the actual issuance of the completion card;
- (9) Any card with an issuance date more than 5 years prior to the commencement date of the construction project shall not constitute proof of compliance;

- (10) Each employer shall affix a copy of the construction safety course completion card to the certified payroll submitted to the contracting agency in accordance with Conn. Gen. Stat. § 31-53(f) on which such employee's name first appears;
- (11) Any employee found to be in non-compliance shall be subject to removal from the worksite if such employee does not provide satisfactory proof of course completion to the Labor Commissioner by the fifteenth day after the date the employee is determined to be in noncompliance;
- (12) Any such employee who is determined to be in noncompliance may continue to work on a public building construction project for a maximum of fourteen consecutive calendar days while bringing his or her status into compliance;
- (13) The Labor Commissioner may make complaint to the prosecuting authorities regarding any employer or agent of the employer, or officer or agent of the corporation who files a false certified payroll with respect to the status of an employee who is performing manual labor on a public building construction project;
- (14) The statute provides the minimum standards required for the completion of a safety course by manual laborers on public construction contracts; any contractor can exceed these minimum requirements; and
- (15) Regulations clarifying the statute are currently in the regulatory process, and shall be posted on the CTDOL website as soon as they are adopted in final form.
- (16) Any questions regarding this statute may be directed to the Wage and Workplace Standards Division of the Connecticut Labor Department via the internet website of <http://www.ctdol.state.ct.us/wgwkstnd/wgemenu.htm>; or by telephone at (860)263-6790.

THE ABOVE INFORMATION IS PROVIDED EXCLUSIVELY AS AN EDUCATIONAL RESOURCE, AND IS NOT INTENDED AS A SUBSTITUTE FOR LEGAL INTERPRETATIONS WHICH MAY ULTIMATELY ARISE CONCERNING THE CONSTRUCTION OF THE STATUTE OR THE REGULATIONS.

November 29, 2006

Notice

To All Mason Contractors and Interested Parties Regarding Construction Pursuant to Section 31-53 of the Connecticut General Statutes (Prevailing Wage)

The Connecticut Labor Department Wage and Workplace Standards Division is empowered to enforce the prevailing wage rates on projects covered by the above referenced statute.

Over the past few years the Division has withheld enforcement of the rate in effect for workers who operate a forklift on a prevailing wage rate project due to a potential jurisdictional dispute.

The rate listed in the schedules and in our Occupational Bulletin (see enclosed) has been as follows:

Forklift Operator:

- **Laborers (Group 4) Mason Tenders** - operates forklift solely to assist a mason to a maximum height of nine feet only.

- **Power Equipment Operator (Group 9)** - operates forklift to assist any trade and to assist a mason to a height over nine feet.

The U.S. Labor Department conducted a survey of rates in Connecticut but it has not been published and the rate in effect remains as outlined in the above Occupational Bulletin.

Since this is a classification matter and not one of jurisdiction, effective January 1, 2007 the Connecticut Labor Department will enforce the rate on each schedule in accordance with our statutory authority.

Your cooperation in filing appropriate and accurate certified payrolls is appreciated.

STATUTE 31-55a

- SPECIAL NOTICE -

To: All State and Political Subdivisions, Their Agents, and Contractors

Connecticut General Statute 31-55a - Annual adjustments to wage rates by contractors doing state work.

Each contractor that is awarded a contract on or after October 1, 2002, for (1) the construction of a state highway or bridge that falls under the provisions of section 31-54 of the general statutes, or (2) the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public works project that falls under the provisions of section 31-53 of the general statutes shall contact the Labor Commissioner on or before July first of each year, for the duration of such contract, to ascertain the prevailing rate of wages on an hourly basis and the amount of payment or contributions paid or payable on behalf of each mechanic, laborer or worker employed upon the work contracted to be done, and shall make any necessary adjustments to such prevailing rate of wages and such payment or contributions paid or payable on behalf of each such employee, effective each July first.

- The prevailing wage rates applicable to any contract or subcontract awarded on or after October 1, 2002 are subject to annual adjustments each July 1st for the duration of any project which was originally advertised for bids on or after October 1, 2002.
- Each contractor affected by the above requirement shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.
- It is the **contractor's** responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's Web Site. The annual adjustments will be posted on the Department of Labor Web page: www.ctdol.state.ct.us. For those without internet access, please contact the division listed below.
- The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project. All subsequent annual adjustments will be posted on our Web Site for contractor access.

Any questions should be directed to the Contract Compliance Unit, Wage and Workplace Standards Division, Connecticut Department of Labor, 200 Folly Brook Blvd., Wethersfield, CT 06109 at (860)263-6790.

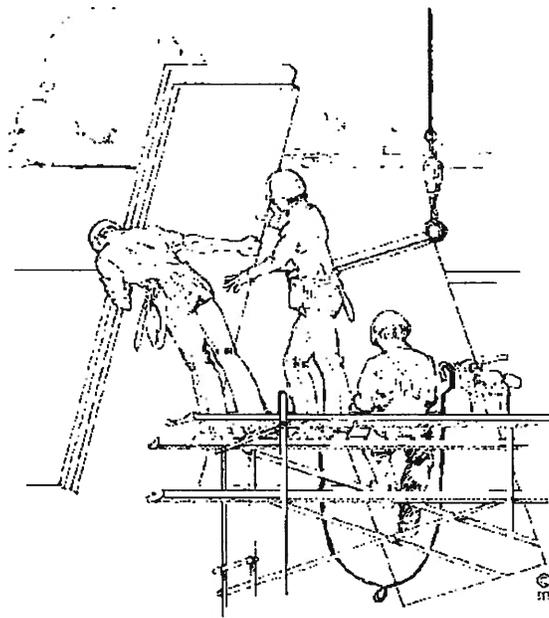
~NOTICE~

TO ALL CONTRACTING AGENCIES

Please be advised that Connecticut General Statutes Section 31-53, requires the contracting agency to certify to the Department of Labor, the total dollar amount of work to be done in connection with such public works project, regardless of whether such project consists of one or more contracts.

Please find the attached "Contracting Agency Certification Form" to be completed and returned to the Department of Labor, Wage and Workplace Standards Division, Public Contract Compliance Unit.

 Inquiries can be directed to (860)263-6543.



CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION
CONTRACT COMPLIANCE UNIT

CONTRACTING AGENCY CERTIFICATION FORM

I, _____, acting in my official capacity as _____,
authorized representative title

for _____, located at _____,
contracting agency address

do hereby certify that the total dollar amount of work to be done in connection with

_____, located at _____,
project name and number 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: Connecticut Department of Labor
Wage & Workplace Standards Division
Contract Compliance Unit
200 Folly Brook Blvd.
Wethersfield, CT 06109

Date Issued: _____

CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION

CONTRACTORS WAGE CERTIFICATION FORM
Construction Manager at Risk/General Contractor/Prime Contractor

I, _____ of _____
Officer, Owner, Authorized Rep. Company Name

do hereby certify that the _____
Company Name

Street

City

and all of its subcontractors will pay all workers on the

Project Name and Number

Street and City

the wages as listed in the schedule of prevailing rates required for such project (a copy of which is attached hereto).

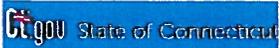
Signed

Subscribed and sworn to before me this _____ day of _____, _____.

Notary Public

Return to:
Connecticut Department of Labor
Wage & Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

Rate Schedule Issued (Date): _____



Governor Dannel P. Malloy

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CERTIFIED PAYROLL FORM WWS - CPI

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In accordance with [Connecticut General Statutes, 31-53](#) Certified Payrolls with a statement of compliance shall be submitted monthly to the contracting agency.

Note: Once you have downloaded these forms and are ready to print them out, set the print function on your PC to the horizontal print orientation.

Note2: Please download both the Payroll Certification for Public Works Projects **and** the Certified Statement of Compliance for a complete package. The Certified Statement of Compliance appears on the same page as the Fringe Benefits Explanation page.

Announcement: The Certified Payroll Form WWS-CPI can now be completed on-line!

- [Certified Payroll Form WWS-CPI](#) (PDF, 727KB)
- [Sample Completed Form](#) (PDF, 101KB)

200 Folly Brook Boulevard, Wethersfield, CT 06109 / Phone: 860-263-6000

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***FRINGE BENEFITS EXPLANATION (P):**

Bona fide benefits paid to approved plans, funds or programs, except those required by Federal or State Law (unemployment tax, worker's compensation, income taxes, etc.).

Please specify the type of benefits provided:

- 1) Medical or hospital care _____
- 2) Pension or retirement _____
- 3) Life Insurance _____
- 4) Disability _____
- 5) Vacation, holiday _____
- 6) Other (please specify) _____

CERTIFIED STATEMENT OF COMPLIANCE

For the week ending date of _____,

I, _____ of _____, (hereafter known as Employer) in my capacity as _____ (title) do hereby certify and state:

Section A:

1. All persons employed on said project have been paid the full weekly wages earned by them during the week in accordance with Connecticut General Statutes, section 31-53, as amended. Further, I hereby certify and state the following:

- a) The records submitted are true and accurate;
- b) The rate of wages paid to each mechanic, laborer or workman and the amount of payment or contributions paid or payable on behalf of each such person to any employee welfare fund, as defined in Connecticut General Statutes, section 31-53 (h), are not less than the prevailing rate of wages and the amount of payment or contributions paid or payable on behalf of each such person to any employee welfare fund, as determined by the Labor Commissioner pursuant to subsection Connecticut General Statutes, section 31-53 (d), and said wages and benefits are not less than those which may also be required by contract;
- c) The Employer has complied with all of the provisions in Connecticut General Statutes, section 31-53 (and Section 31-54 if applicable for state highway construction);
- d) Each such person is covered by a worker's compensation insurance policy for the duration of his employment which proof of coverage has been provided to the contracting agency;
- e) The Employer does not receive kickbacks, which means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided directly or indirectly, to any prime contractor, prime contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a prime contractor in connection with a subcontractor relating to a prime contractor; and
- f) The Employer is aware that filing a certified payroll which he knows to be false is a class D felony for which the employer may be fined up to five thousand dollars, imprisoned for up to five years or both.

2. OSHA~The employer shall affix a copy of the construction safety course, program or training completion document to the certified payroll required to be submitted to the contracting agency for this project on which such persons name first appears.

 (Signature) (Title) Submitted on (Date)

*****THIS IS A PUBLIC DOCUMENT***
DO NOT INCLUDE SOCIAL SECURITY NUMBERS**

[New] In accordance with Section 31-55b(a) of the C.G.S. each contractor shall provide a copy of the OSHA 10 Hour Construction Safety and Health Card for each employee, to be attached to the first certified payroll on the project.

PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS

Connecticut Department of Labor
Wage and Workplace Standards Division
200 Folly Brook Blvd.
Waterbury, CT 06109

WEEKLY PAYROLL

PAYROLL NUMBER	Week-Ending Date	PROJECT NAME & ADDRESS	PERSON/WORKER ADDRESS AND SECTION	APPR RATE %	M	T	W	TH	F	S	Total ST Hours	Total O/T Hours	GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	TOTAL DEDUCTIONS			GROSS PAY FOR THIS PREVAILING RATE JOB	CHECK # AND NET PAY		
														FICA	WITH-HOLDING	WITH-HOLDING				
SUBCONTRACTOR NAME & ADDRESS														WORKER'S COMPENSATION INSURANCE CARRIER						
XYZ Corporation 2 Main Street Yanik, CT 06388														Travelers Insurance Company POLICY # #BAC8888928 EFFECTIVE DATE: 1/1/09 EXPIRATION DATE: 12/31/09						
PERSON/WORKER ADDRESS AND SECTION	Week-Ending Date	PROJECT NAME & ADDRESS	WORK CLASSIFICATION	APPR RATE %	DAY AND DATE							Total ST Hours	Total O/T Hours	GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	FICA	WITH-HOLDING	WITH-HOLDING	GROSS PAY FOR THIS PREVAILING RATE JOB	CHECK # AND NET PAY	
					S	M	T	W	TH	F	S									
HOURS WORKED EACH DAY														TYPE OF FRINGE BENEFITS Per Hour 1 through 6 (see back)	GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	FICA	WITH-HOLDING	WITH-HOLDING	GROSS PAY FOR THIS PREVAILING RATE JOB	CHECK # AND NET PAY
1	9/26/09	DOT 105-296, Route 82	Electrical Lineman E-1 1234567	8	8	8	8	8	8	8	40	0	\$ 30.75	\$ 1,582.80				\$ 1,582.80	#123	
			Owner OSHA 123456											\$ 8.82					\$ xxx.xx	
			Electrical Apprentice OSHA 234567	8	8	8	8	8	8	8	40	0	\$ 19.99	\$ 1,464.80				\$ 1,464.80	#124	
			Project Manager											\$ 16.63					\$ xxx.xx	
			Project Manager	8							8	0	\$	\$ 1,500.00				\$ 1,500.00	#125	
														\$					xxx.xx	

7/13/2009
WWS-CPI

*SEE REVERSE SIDE

PAGE NUMBER 1 OF 2

OSHA 10 - ATTACH CARD TO 1ST CERTIFIED PAYROLL

***FRINGE BENEFITS EXPLANATION (P):**

Bona fide benefits paid to approved plans, funds or programs, except those required by Federal or State Law (unemployment tax, worker's compensation, income taxes, etc.).

Please specify the type of benefits provided:

- 1) Medical or hospital care Blue Cross 4) Disability _____
- 2) Pension or retirement _____ 5) Vacation, holiday _____
- 3) Life Insurance Utopia 6) Other (please specify) _____

CERTIFIED STATEMENT OF COMPLIANCE

For the week ending date of 9/26/09.

I, Robert Craft of XYZ Corporation, (hereafter known as Employer) in my capacity as Owner (title) do hereby certify and state:

Section A:

1. All persons employed on said project have been paid the full weekly wages earned by them during the week in accordance with Connecticut General Statutes, section 31-53, as amended. Further, I hereby certify and state the following:

- a) The records submitted are true and accurate;
- b) The rate of wages paid to each mechanic, laborer or workman and the amount of payment or contributions paid or payable on behalf of each such employee to any employee welfare fund, as defined in Connecticut General Statutes, section 31-53 (h), are not less than the prevailing rate of wages and the amount of payment or contributions paid or payable on behalf of each such employee to any employee welfare fund, as determined by the Labor Commissioner pursuant to subsection Connecticut General Statutes, section 31-53 (d), and said wages and benefits are not less than those which may also be required by contract;
- c) The Employer has complied with all of the provisions in Connecticut General Statutes, section 31-53 (and Section 31-54 if applicable for state highway construction);
- d) Each such employee of the Employer is covered by a worker's compensation insurance policy for the duration of his employment which proof of coverage has been provided to the contracting agency;
- e) The Employer does not receive kickbacks, which means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided directly or indirectly, to any prime contractor, prime contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a prime contractor in connection with a subcontractor relating to a prime contractor; and
- f) The Employer is aware that filing a certified payroll which he knows to be false is a class D felony for which the employer may be fined up to five thousand dollars, imprisoned for up to five years or both.

2. OSHA-The employer shall affix a copy of the construction safety course, program or training completion document to the certified payroll required to be submitted to the contracting agency for this project on which such employee's name first appears.

Robert Craft owner 10/2/09
 (Signature) (Title) Submitted on (Date)

Section B: Applies to CONNDOT Projects ONLY

That pursuant to CONNDOT contract requirements for reporting purposes only, all employees listed under Section B who performed work on this project are not covered under the prevailing wage requirements defined in Connecticut General Statutes Section 31-53.

Robert Craft owner 10/2/09
 (Signature) (Title) Submitted on (Date)

Note: CTDOL will assume all hours worked were performed under Section A unless clearly delineated as Section B WWS-CP1 as such. Should an employee perform work under both Section A and Section B, the hours worked and wages paid must be segregated for reporting purposes.

*****THIS IS A PUBLIC DOCUMENT***
 DO NOT INCLUDE SOCIAL SECURITY NUMBERS**



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OCCUPATIONAL CLASSIFICATION BULLETIN

The Connecticut Department of Labor has the responsibility to properly determine "job classification" on prevailing wage projects covered under C.G.S. Section 31-53.

Note: This information is intended to provide a sample of some occupational classifications for guidance purposes only. It is not an all-inclusive list of each occupation's duties. This list is being provided only to highlight some areas where a contractor may be unclear regarding the proper classification.

Below are additional clarifications of specific job duties performed for certain classifications:

- **ASBESTOS WORKERS**
 - Applies all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems.
- **ASBESTOS INSULATOR**
 - Handle, install apply, fabricate, distribute, prepare, alter, repair, dismantle, heat and frost insulation, including penetration and fire stopping work on all penetration fire stop systems.
- **BOILERMAKERS**
 - Erects hydro plants, incomplete vessels, steel stacks, storage tanks for water, fuel, etc. Builds incomplete boilers, repairs heat exchanges and steam generators.
- **BRICKLAYERS, CEMENT MASONS, CEMENT FINISHERS, MARBLE MASONS, PLASTERERS, STONE MASONS, PLASTERERS. STONE MASONS, TERRAZZO WORKERS, TILE SETTERS**
 - Lays building materials such as brick, structural tile and concrete cinder, glass, gypsum, terra cotta block. Cuts, tools and sets marble, sets stone, finishes concrete, applies decorative steel, aluminum and plastic tile, applies cements, sand, pigment and marble chips to floors, stairways, etc.
- **CARPENTERS, MILLWRIGHTS. PILEDRIVERMEN. LATHERS. RESILEINT FLOOR LAYERS, DOCK BUILDERS, DIKERS, DIVER TENDERS**
 - Constructs, erects, installs and repairs structures and fixtures of wood, plywood and wallboard. Installs, assembles, dismantles, moves industrial machinery. Drives piling into ground to provide foundations for structures such as buildings and bridges, retaining walls for earth embankments, such as cofferdams. Fastens wooden, metal or rockboard lath to walls, ceilings and partitions of buildings, acoustical tile layer, concrete form builder. Applies firestopping materials on fire resistive joint systems only. Installation of curtain/window walls only where attached to wood or metal studs. Installation of insulated material of all types whether blown, nailed or attached in other ways to walls, ceilings and floors of buildings. Assembly and installation of modular furniture/furniture systems. Free-standing furniture is not covered. This includes free standing: student chairs, study top desks, book box desks, computer furniture, dictionary stand, atlas stand, wood shelving, two-position information access station, file cabinets, storage cabinets, tables, etc.
- **CLEANING LABORER**
 - The clean up of any construction debris and the general cleaning, including sweeping, wash down, mopping, wiping of the construction facility, washing, polishing, dusting, etc., prior to the issuance of a certificate of occupancy falls under the *Labor classification.*
- **DELIVERY PERSONNEL**
 - If delivery of supplies/building materials is to one common point and stockpiled there, prevailing wages are not required. If the delivery personnel are involved in the distribution of the material to multiple locations within the construction site then they would have to be paid prevailing wages for the type of work performed: laborer, equipment operator, electrician, ironworker, plumber, etc.
 - An example of this would be where delivery of materials is made to a building and the delivery personnel distribute the

drywall from one "stockpile" location to further sub-locations on each floor. Distribution of material around a construction site is the job of a laborer/tradesman and not a delivery personnel.

- **ELECTRICIANS**

- Install, erect, maintenance, alteration or repair of any wire, cable, conduit, etc., which generates, transforms, transmits or uses electrical energy for light, heat, power or other purposes, including the Installation or maintenance of telecommunication, LAN wiring or computer equipment, and low voltage wiring. ***License required per Connecticut General Statutes: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9.**

- **ELEVATOR CONSTRUCTORS**

- Install, erect, maintenance and repair of all types of elevators, escalators, dumb waiters and moving walks. ***License required by Connecticut General Statutes: R-1,2,5,6.**

- **FORK LIFT OPERATOR**

- Laborers Group 4) Mason Tenders - operates forklift solely to assist a mason to a maximum height of nine (9) feet only.
- Power Equipment Operator Group 9 - operates forklift to assist any trade, and to assist a mason to a height over nine (9) feet.

- **GLAZIERS**

- Glazing wood and metal sash, doors, partitions, and 2 story aluminum storefronts. Installs glass windows, skylights, store fronts and display cases or surfaces such as building fronts, interior walls, ceilings and table tops and metal store fronts. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers which requires either a blended rate or equal composite workforce.

- **IRONWORKERS**

- Erection, installation and placement of structural steel, precast concrete, miscellaneous iron, ornamental iron, metal curtain wall, rigging and reinforcing steel. Handling, sorting, and installation of reinforcing steel (rebar). Metal bridge rail (traffic), metal bridge handrail, and decorative security fence installation. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers which requires either a blended rate or equal composite workforce. Insulated metal and insulated composite panels are still installed by the Ironworker.

- **INSULATOR**

- Installing fire stopping systems/materials for "Penetration Firestop Systems": transit to cables, electrical conduits, insulated pipes, sprinkler pipe penetrations, ductwork behind radiation, electrical cable trays, fire rated pipe penetrations, natural polypropylene, HVAC ducts, plumbing bare metal, telephone and communication wires, and boiler room ceilings. Past practice using the applicable licensed trades, Plumber, Sheet Metal, Sprinkler Fitter, and Electrician, is not inconsistent with the Insulator classification and would be permitted.

- **LABORERS**

- Acetylene burners, asphalt rakers, chain saw operators, concrete and power buggy operator, concrete saw operator, fence and guard rail erector (except metal bridge rail (traffic), metal bridge handrail, and decorative security fence installation.), hand operated concrete vibrator operator, mason tenders, pipelayers (installation of storm drainage or sewage lines on the street only), pneumatic drill operator, pneumatic gas and electric drill operator, powermen and wagon drill operator, air track operator, block paver, curb setters, blasters, concrete spreaders.

- **PAINTERS**

- Maintenance, preparation, cleaning, blasting (water and sand, etc.), painting or application of any protective coatings of every description on all bridges and appurtenances of highways, roadways, and railroads. Painting, decorating, hardwood finishing, paper hanging, sign writing, scenic art work and drywall hanging+ for any and all types of building and residential work.

- **LEAD PAINT REMOVAL**

- Painter's Rate
 1. Removal of lead paint from bridges.
 2. Removal of lead paint as preparation of any surface to be repainted.
 3. Where removal is on a Demolition project prior to reconstruction.
- Laborer's Rate
 1. Removal of lead paint from any surface NOT to be repainted.
 2. Where removal is on a *TOTAL* Demolition project only.

- **PLUMBERS AND PIPEFITTERS**

- Installation, repair, replacement, alteration or maintenance of all plumbing, heating, cooling and piping. ***License required per Connecticut General Statutes: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2 S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4.**

- **POWER EQUIPMENT OPERATORS**

- Operates several types of power construction equipment such as compressors, pumps, hoists, derricks, cranes, shovels, tractors, scrapers or motor graders, etc. Repairs and maintains equipment. ***License required, crane operators only, per Connecticut General Statutes.**

- **ROOFERS**

- Covers roofs with composition shingles or sheets, wood shingles, slate or asphalt and gravel to waterproof roofs, including preparation of surface. (tear-off and/or removal of any type of roofing and/or clean-up of any and all areas where a roof is to be relaid)

- **SHEETMETAL WORKERS**

- Fabricate, assembles, installs and repairs sheetmetal products and equipment in such areas as ventilation, air-conditioning, warm air heating, restaurant equipment, architectural sheet metal work, sheetmetal roofing, and aluminum gutters. Fabrication, handling, assembling, erecting, altering, repairing, etc. of coated metal material panels and composite metal material panels when used on building exteriors and interiors as soffits, fascia, louvers, partitions, wall panel siding, canopies, cornice, column covers, awnings, beam covers, cladding, sun shades, lighting troughs, spires, ornamental roofing, metal ceilings, mansards, copings, ornamental and ventilation hoods, vertical and horizontal siding panels, trim, etc. The sheet metal classification also applies to the vast variety of coated metal material panels and composite metal material panels that have evolved over the years as an alternative to conventional ferrous and non-ferrous metals like steel, iron, tin, copper, brass, bronze, aluminum, etc. Insulated metal and insulated composite panels are still installed by the Iron Worker. Fabrication, handling, assembling, erecting, altering, repairing, etc. of architectural metal roof, standing seam roof, composite metal roof, metal and composite bathroom/toilet partitions, aluminum gutters, metal and composite lockers and shelving, kitchen equipment, and walk-in coolers.

- **SPRINKLER FITTERS**

- Installation, alteration, maintenance and repair of fire protection sprinkler systems. ***License required per Connecticut General Statutes: F-1,2,3,4.**

- **TILE MARBLE AND TERRAZZO FINISHERS**

- Assists and tends the tile setter, marble mason and terrazzo worker in the performance of their duties.

- **TRUCK DRIVERS**

- **Definitions:**

- 1) "Site of the work" (29 Code of Federal Regulations (CFR) 5.2(l)(b) is the physical place or places where the building or work called for in the contract will remain and any other site where a significant portion of the building or work is constructed, provided that such site is established specifically for the performance of the contract or project;
 - (a) Except as provided in paragraph (l) (3) of this section, job headquarters, tool yards, batch plants, borrow pits, etc. are part of the "site of the work"; provided they are dedicated exclusively, or nearly so, to the performance of the contract or project, and provided they are adjacent to "the site of work" as defined in paragraph (e)(1) of this section;
 - (b) Not included in the "site of the work" are permanent home offices, branch plant establishments, fabrication plants, tool yards etc, of a contractor or subcontractor whose location and continuance in operation are determined wholly without regard to a particular State or political subdivision contract or uncertain and indefinite periods of time involved of a few seconds or minutes duration and where the failure to count such time is due to consideration justified by industrial realities (29 CFR 785.47)
- 2) "Engaged to wait" is waiting time that belongs to and is controlled by the employer which is an integral part of the job and is therefore compensable as hours worked. (29 CFR 785.15)
- 3) "Waiting to be engaged" is waiting time that an employee can use effectively for their own purpose and is not compensable as hours worked. (29 CFR 785.16)
- 4) "De Minimus" is a rule that recognizes that unsubstantial or insignificant periods of time which cannot as a practical administrative matter be precisely recorded for payroll purposes, may be disregarded. This rule applies only where there are uncertain and indefinite periods of time involved of a short duration and where the failure to count such time is due to consideration justified by worksite realities. For example, with respect to truck drivers on prevailing wage sites, this is typically less than 15 minutes at a time.

- **Coverage of Truck Drivers on State or Political subdivision Prevailing Wage Projects**

- **Truck drivers are covered** for payroll purposes under the following conditions:
 - Truck Drivers for time spent working on the site of the work.
 - Truck Drivers for time spent loading and/or unloading materials and supplies on the site of the work, if such time is not de minimus
 - Truck drivers transporting materials or supplies between a facility that is deemed part of the site of the work and the actual construction site.
 - Truck drivers transporting portions of the building or work between a site established specifically for the performance of the contract or project where a significant portion of such building or work is constructed and the physical places where the building or work outlined in the contract will remain.

For example: Truck drivers delivering asphalt are covered under prevailing wage while "engaged to wait" on the site and when directly involved in the paving operation, provided the total time is not "de minimus"

- Truck Drivers **are not** covered in the following instances:
 - Material delivery truck drivers while off “the site of the work”
 - Truck Drivers traveling between a prevailing wage job and a commercial supply facility while they are off the “site of the work”
 - Truck drivers whose time spent on the “site of the work” is de minimus, such as under 15 minutes at a time, merely to drop off materials or supplies, including asphalt.

These guidelines are similar to U.S. Labor Department policies. The application of these guidelines may be subject to review based on factual considerations on a case by case basis.

For example:

- Material men and deliverymen are not covered under prevailing wage as long as they are not directly involved in the construction process. If, they unload the material, they would then be covered by prevailing wage for the classification they are performing work in: laborer, equipment operator, etc.
- Hauling material off site is not covered provided they are not dumping it at a location outlined above.
- Driving a truck on site and moving equipment or materials on site would be considered covered work, as this is part of the construction process.

Any questions regarding the proper classification should be directed to:

*Public Contract Compliance Unit
Wage and Workplace Standards Division
Connecticut Department of Labor
200 Folly Brook Blvd, Wethersfield, CT 06109
(860) 263-6543*

**Connecticut Department of Labor
Wage and Workplace Standards Division
FOOTNOTES**

- Please Note: If the “Benefits” listed on the schedule for the following occupations includes a letter(s) (+ a or + a+b for instance), refer to the information below.

Benefits to be paid at the appropriate prevailing wage rate for the listed occupation.

If the “Benefits” section for the occupation lists only a dollar amount, disregard the information below.

**Bricklayers, Cement Masons, Cement Finishers, Concrete Finishers, Stone Masons
(Building Construction) and
(Residential- Hartford, Middlesex, New Haven, New London and Tolland Counties)**

- a. Paid Holiday: Employees shall receive 4 hours for Christmas Eve holiday provided the employee works the regularly scheduled day before and after the holiday. Employers may schedule work on Christmas Eve and employees shall receive pay for actual hours worked in addition to holiday pay.

Elevator Constructors: Mechanics

- a. Paid Holidays: New Year’s Day, Memorial Day, Independence Day, Labor Day, Veterans’ Day, Thanksgiving Day, Christmas Day, plus the Friday after Thanksgiving.
- b. Vacation: Employer contributes 8% of basic hourly rate for 5 years or more of service or 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.

Glaziers

- a. Paid Holidays: Labor Day and Christmas Day.

**Power Equipment Operators
(Heavy and Highway Construction & Building Construction)**

- a. Paid Holidays: New Year’s Day, Good Friday, Memorial day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday. Holidays falling on Saturday may be observed on Saturday, or if the employer so elects, on the preceding Friday.

Ironworkers

- a. Paid Holiday: Labor Day provided employee has been on the payroll for the 5 consecutive work days prior to Labor Day.

Laborers (Tunnel Construction)

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. No employee shall be eligible for holiday pay when he fails, without cause, to work the regular work day preceding the holiday or the regular work day following the holiday.

Roofers

- a. Paid Holidays: July 4th, Labor Day, and Christmas Day provided the employee is employed 15 days prior to the holiday.

Sprinkler Fitters

- a. Paid Holidays: Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day, provided the employee has been in the employment of a contractor 20 working days prior to any such paid holiday.

Truck Drivers

(Heavy and Highway Construction & Building Construction)

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas day, and Good Friday, provided the employee has at least 31 calendar days of service and works the last scheduled day before and the first scheduled day after the holiday, unless excused.

Project: Storm Drainage Improvements At Fodor Farm, Aviation Court And Soundview Avenue

**Minimum Rates and Classifications
for Heavy/Highway Construction**

**Connecticut Department of Labor
Wage and Workplace Standards Division**

ID#: H 22383

By virtue of the authority vested in the Labor Commissioner under provisions of Section 31-53 of the General Statutes of Connecticut, as amended, the following are declared to be the prevailing rates and welfare payments and will apply only where the contract is advertised for bid within 20 days of the date on which the rates are established. Any contractor or subcontractor not obligated by agreement to pay to the welfare and pension fund shall pay this amount to each employee as part of his/her hourly wages.

Project Number: DRG2016-2

Project Town: Norwalk

FAP Number:

State Number:

Project: Storm Drainage Improvements At Fodor Farm, Aviation Court And Soundview Avenue

CLASSIFICATION	Hourly Rate	Benefits
01) Asbestos/Toxic Waste Removal Laborers: Asbestos removal and encapsulation (except its removal from mechanical systems which are not to be scrapped), toxic waste removers, blasters. **See Laborers Group 5 and 7**		
1) Boilermaker	33.79	34% + 8.96
1a) Bricklayer, Cement Masons, Cement Finishers, Plasterers, Stone Masons	33.48	28.76
2) Carpenters, Piledrivermen	32.00	24.42

Project: Storm Drainage Improvements At Fodor Farm, Aviation Court And Soundview Avenue

2a) Diver Tenders	32.00	24.42
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3) Divers	40.46	24.42
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03a) Millwrights	32.47	24.84
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4) Painters: (Bridge Construction) Brush, Roller, Blasting (Sand, Water, etc.), Spray	46.95	20.15
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4a) Painters: Brush and Roller	32.02	20.15
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4b) Painters: Spray Only	35.02	20.15
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4c) Painters: Steel Only	34.02	20.15
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Project: Storm Drainage Improvements At Fodor Farm, Aviation Court And Soundview Avenue

4d) Painters: Blast and Spray	35.02	20.15
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4e) Painters: Tanks, Tower and Swing	34.02	20.15
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5) Electrician (Trade License required: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9)	38.02	23.75+3% of gross wage
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6) Ironworkers: Ornamental, Reinforcing, Structural, and Precast Concrete Erection	35.22	31.99 + a
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7) Plumbers (Trade License required: (P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2) and Pipefitters (Including HVAC Work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4 G-1, G-2, G-8, G-9)	40.62	29.71
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---LABORERS---

8) Group 1: Laborer (Unskilled), Common or General, acetylene burner, concrete specialist	28.55	18.90
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Project: Storm Drainage Improvements At Fodor Farm, Aviation Court And Soundview Avenue

9) Group 2: Chain saw operators, fence and guard rail erectors, pneumatic tool operators, powdermen 28.80 18.90

10) Group 3: Pipelayers 29.05 18.90

11) Group 4: Jackhammer/Pavement breaker (handheld); mason tenders (cement/concrete), catch basin builders, asphalt rakers, air track operators, block paver, curb setter and forklift operators 29.05 18.90

12) Group 5: Toxic waste removal (non-mechanical systems) 30.55 18.90

13) Group 6: Blasters 30.30 18.90

Group 7: Asbestos/lead removal, non-mechanical systems (does not include leaded joint pipe) 29.55 18.90

Group 8: Traffic control signalmen 16.00 18.90

Project: Storm Drainage Improvements At Fodor Farm, Aviation Court And Soundview Avenue

Group 9: Hydraulic Drills	29.30	18.90
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----LABORERS (TUNNEL CONSTRUCTION, FREE AIR). Shield Drive and
Liner Plate Tunnels in Free Air.----

13a) Miners, Motormen, Mucking Machine Operators, Nozzle Men, Grout Men, Shaft & Tunnel Steel & Rodmen, Shield & Erector, Arm Operator, Cable Tenders	32.22	18.90 + a
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13b) Brakemen, Trackmen	31.28	18.90 + a
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----CLEANING, CONCRETE AND CAULKING TUNNEL----

14) Concrete Workers, Form Movers, and Strippers	31.28	18.90 + a
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15) Form Erectors	31.60	18.90 + a
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Project: Storm Drainage Improvements At Fodor Farm, Aviation Court And Soundview Avenue

---ROCK SHAFT LINING, CONCRETE, LINING OF SAME AND TUNNEL
IN FREE AIR:---

16) Brakemen, Trackmen, Tunnel Laborers, Shaft Laborers	31.28	18.90 + a
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17) Laborers Topside, Cage Tenders, Bellman	31.17	18.90 + a
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18) Miners	32.22	18.90 + a
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---TUNNELS, CAISSON AND CYLINDER WORK IN COMPRESSED
AIR: ---

18a) Blaster	38.53	18.90 + a
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19) Brakemen, Trackmen, Groutman, Laborers, Outside Lock Tender, Gauge Tenders	38.34	18.90 + a
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Project: Storm Drainage Improvements At Fodor Farm, Aviation Court And Soundview Avenue

20) Change House Attendants, Powder Watchmen, Top on Iron Bolts 36.41 18.90 + a

21) Mucking Machine Operator 39.11 18.90 + a

----TRUCK DRIVERS----(*see note below)

Two axle trucks 28.83 21.39 + a

Three axle trucks; two axle ready mix 28.93 21.39 + a

Three axle ready mix 28.98 21.39 + a

Four axle trucks, heavy duty trailer (up to 40 tons) 29.03 21.39 + a

Project: Storm Drainage Improvements At Fodor Farm, Aviation Court And Soundview Avenue

Four axle ready-mix	29.08	21.39 + a
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Heavy duty trailer (40 tons and over)	29.28	21.39 + a
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Specialized earth moving equipment other than conventional type on-the road trucks and semi-trailer (including Euclids)	29.08	21.39 + a
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----POWER EQUIPMENT OPERATORS----

Group 1: Crane handling or erecting structural steel or stone, hoisting engineer (2 drums or over), front end loader (7 cubic yards or over), Work Boat 26 ft. & Over, Tunnel Boring Machines. (Trade License Required)	38.55	23.55 + a
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Group 2: Cranes (100 ton rate capacity and over); Excavator over 2 cubic yards; Piledriver (\$3.00 premium when operator controls hammer); Bauer Drill/Caisson. (Trade License Required)	38.23	23.55 + a
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Group 3: Excavator/Backhoe under 2 cubic yards; Cranes (under 100 ton rated capacity), Gradall; Master Mechanic; Hoisting Engineer (all types of equipment where a drum and cable are used to hoist or drag material regardless of motive power of operation), Rubber Tire Excavator (Drott-1085 or similar); Grader Operator; Bulldozer Fine Grade (slopes, shaping, laser or GPS, etc.). (Trade License Required)	37.49	23.55 + a
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Project: Storm Drainage Improvements At Fodor Farm, Aviation Court And Soundview Avenue

Group 4: Trenching Machines; Lighter Derrick; Concrete Finishing Machine; CMI Machine or Similar; Koehring Loader (Skooper)	37.10	23.55 + a
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Group 5: Specialty Railroad Equipment; Asphalt Paver; Asphalt Spreader; Asphalt Reclaiming Machine; Line Grinder; Concrete Pumps; Drills with Self Contained Power Units; Boring Machine; Post Hole Digger; Auger; Pounder; Well Digger; Milling Machine (over 24" Mandrell)	36.51	23.55 + a
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Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller.	36.51	23.55 + a
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Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	36.20	23.55 + a
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Group 7: Asphalt Roller; Concrete Saws and Cutters (ride on types); Vermeer Concrete Cutter; Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24" and Under Mandrel).	35.86	23.55 + a
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Group 8: Mechanic, Grease Truck Operator, Hydroblaster, Barrier Mover, Power Stone Spreader; Welder; Work Boat under 26 ft.; Transfer Machine.	35.46	23.55 + a
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Group 9: Front End Loader (under 3 cubic yards), Skid Steer Loader regardless of attachments (Bobcat or Similar); Fork Lift, Power Chipper; Landscape Equipment (including hydroseeder).	35.03	23.55 + a
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Project: Storm Drainage Improvements At Fodor Farm, Aviation Court And Soundview Avenue

Group 10: Vibratory Hammer, Ice Machine, Diesel and Air Hammer, etc. 32.99 23.55 + a

Group 11: Conveyor, Earth Roller; Power Pavement Breaker (whiphammer), Robot Demolition Equipment. 32.99 23.55 + a

Group 12: Wellpoint Operator. 32.93 23.55 + a

Group 13: Compressor Battery Operator. 32.35 23.55 + a

Group 14: Elevator Operator; Tow Motor Operator (Solid Tire No Rough Terrain). 31.21 23.55 + a

Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator. 30.80 23.55 + a

Group 16: Maintenance Engineer/Oiler 30.15 23.55 + a

Project: Storm Drainage Improvements At Fodor Farm, Aviation Court And Soundview Avenue

Group 17: Portable asphalt plant operator; portable crusher plant operator; portable concrete plant operator. 34.46 23.55 + a

Group 18: Power Safety Boat; Vacuum Truck; Zim Mixer; Sweeper; (minimum for any job requiring CDL license). 32.04 23.55 + a

**NOTE: SEE BELOW

----LINE CONSTRUCTION----(Railroad Construction and Maintenance)----

20) Lineman, Cable Splicer, Technician 45.43 6.25% + 20.70

21) Heavy Equipment Operator 40.89 6.25% + 18.56

22) Equipment Operator, Tractor Trailer Driver, Material Men 38.62 6.25% + 17.99

Project: Storm Drainage Improvements At Fodor Farm, Aviation Court And Soundview Avenue

23) Driver Groundmen 24.99 6.25% + 11.81

23a) Truck Driver 34.07 6.25% + 16.60

---LINE CONSTRUCTION---

24) Driver Groundmen 30.92 6.5% + 9.70

25) Groundmen 22.67 6.5% + 6.20

26) Heavy Equipment Operators 37.10 6.5% + 10.70

27) Linemen, Cable Splicers, Dynamite Men 41.22 6.5% + 12.20

Project: Storm Drainage Improvements At Fodor Farm, Aviation Court And Soundview Avenue

28) Material Men, Tractor Trailer Drivers, Equipment Operators

35.04

6.5% + 10.45

Project: Storm Drainage Improvements At Fodor Farm, Aviation Court And Soundview Avenue

Welders: Rate for craft to which welding is incidental.

**Note: Hazardous waste removal work receives additional \$1.25 per hour for truck drivers.*

***Note: Hazardous waste premium \$3.00 per hour over classified rate*

ALL Cranes: When crane operator is operating equipment that requires a fully licensed crane operator to operate he receives an extra \$3.00 premium in addition to the hourly wage rate and benefit contributions:

1) Crane handling or erecting structural steel or stone; hoisting engineer (2 drums or over)

2) Cranes (100 ton rate capacity and over) Bauer Drill/Caisson

3) Cranes (under 100 ton rated capacity)

Crane with 150 ft. boom (including jib) - \$1.50 extra

Crane with 200 ft. boom (including jib) - \$2.50 extra

Crane with 250 ft. boom (including jib) - \$5.00 extra

Crane with 300 ft. boom (including jib) - \$7.00 extra

Crane with 400 ft. boom (including jib) - \$10.00 extra

All classifications that indicate a percentage of the fringe benefits must be calculated at the percentage rate times the "base hourly rate".

Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work site ratio shall not be less than one full-time journeyman instructing and supervising the work of each apprentice in a specific trade.

~Connecticut General Statute Section 31-55a: Annual Adjustments to wage rates by contractors doing state work ~

The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.

Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.

It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.

The annual adjustments will be posted on the Department of Labor's Web page: www.ct.gov/dol.

The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project.

All subsequent annual adjustments will be posted on our Web Site for contractor access.

Contracting Agencies are under no obligation pursuant to State labor law to pay any increase due to the annual adjustment provision.

Project: Storm Drainage Improvements At Fodor Farm, Aviation Court And Soundview Avenue

Effective October 1, 2005 - Public Act 05-50: any person performing the work of any mechanic, laborer, or worker shall be paid prevailing wage

All Person who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.

All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)

Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

~~Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clause (29 CFR 5.5 (a) (1) (ii)).

Please direct any questions which you may have pertaining to classification of work and payment of prevailing wages to the Wage and Workplace Standards Division, telephone (860)263-6790.

EXHIBIT 3

CITY OF NORWALK GENERAL CONDITIONS FOR CONSTRUCTION

SECTION 4
CITY OF NORWALK
GENERAL CONDITIONS FOR CONSTRUCTION

Rev. 06/21/2013

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SECTION 101 DEFINITIONS AND TERMS

Wherever in these specifications or in other Contract Documents the following terms or pronouns in place of them are used, the intent and meaning shall be interpreted as follows:

ABBREVIATIONS wherever the following abbreviations are used in these specifications or on the plans, they are to be construed the same as the respective expressions represented:

A.A.N.	American Association of Nurserymen
A.A.R.	American Association of Railroads
A.A.S.H.T.O.	American Association of State Highway and Transportation Officials
A.I.A.	American Institute of Architects
A.I.S.I.	American Iron and Steel Institute
A.N.S.I.	American National Standards Institute, Inc.
A.R.E.A.	American Railway Engineering Association
A.S.C.E.	American Society of Civil Engineers
A.S.M.E.	American Society of Mechanical Engineers
A.S.T.M.	American Society for Testing & Materials
A.W.W.A.	American Water Works Association
A.W.S.	American Welding Society
M.U.T.C.D.	Manual of Uniform Traffic Control Devices
S.A.E.	Society of Automotive Engineers
S.S.P.C.	Steel Structures Painting Council

ADDENDA: Written instruments issued prior to the opening of bids which clarify, correct or change the Contract Documents.

AWARD: The decision of the Department to accept the bid of the lowest responsible bidder for the Work, subject to the execution and approval of a satisfactory Contract therefor; the provisions of proper bonds to secure the performance thereof, and full payment to all suppliers of labor and materials therefor. The fulfillment of such other conditions as may be specified or otherwise required by law.

BID: The offer of the bidder to perform the Work on the Project for a specified price. An executed bid form will be submitted in accordance with the established bidding procedure as a formal bid response.

BID DEPOSIT: The security furnished by the bidder with its bid for a project, as guaranty it will enter into a Contract for the Work at the price bid if its bid is accepted.

BIDDER: An individual, firm or corporation formally that submits a Bid for the Work contemplated acting directly or through a duly authorized representative.

CALENDAR DAY: Every day shown on the calendar.

CITY: When used, means the City of Norwalk, represented by the Department of Public Works through the Director.

CONTRACT or AGREEMENT: The written agreement between the City of Norwalk and the Contractor specifying the terms and conditions for the performance of the Work and the furnishing of labor and materials in connection with a specific Project.

CONTRACT BOND: The approved form of security, executed by the Contractor and its Surety or Sureties, guaranteeing complete execution of the Work specified in the Contract Documents and all supplemental agreements pertaining thereto, and the payment of all legal debts pertaining to the construction of the Project.

CONTRACT DOCUMENTS: The Contract Documents shall include the advertisement for bid or proposal; the Contractor's bid or proposal response; the written Contract including all bonds and insurance certificates; the City of Norwalk General Conditions for Construction; Connecticut Department of Transportation Form 816 or latest edition as amended; technical and special specifications; the Project plans; State Labor Department minimum wage rates (if applicable); any addenda to specifications issued prior to the date of bid opening; and all provisions required by law to be inserted in the Contract whether actually inserted or not.

CONTRACT ITEM (PAY ITEM): A specifically described unit of Work for which a price is provided in the Contract Documents.

CONTRACTOR: The individual, firm or corporation undertaking the execution of the Work under the terms of the Contract Documents and acting directly or indirectly or through any agents, representatives or employees.

CORPORATION COUNSEL: The Legal representative of the City of Norwalk and its authorized representatives.

DEPARTMENT: The City of Norwalk Department of Public Works, acting by and through, the Director of Public Works or his authorized representative.

ENGINEER OR ENGINEER-IN-CHARGE: The Engineer representing the Department of Public Works and having direct supervision of the execution of the Contract Documents under the direction of the Director.

EQUIPMENT: All machinery and equipment, together with the necessary supplies for upkeep and maintenance, and also tools and apparatus necessary for the proper construction and acceptable completion of the Work.

EXTRA WORK: An item of Work not provided for in the intended scope of the Contract Documents as awarded, but found essential to the satisfactory completion of the Project.

FINAL AGREEMENT: Written agreement between the City of Norwalk, Department of Public Works, and the Contractor, stating the total amount of Work done by the Contractor and the total value of such Work under and according to the terms of the Contract Documents.

FINAL ESTIMATE: A certified listing of final quantities, amounts of each item and total cost of the completed Work specified in the Agreement, the amounts paid to the Contractor under the Contract Documents, any deductions not included in the Final Agreement and the amount of the final payment due the Contractor therefor.

FORM 816: State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 816, as may be revised by the most current supplemental specifications, or latest edition will be incorporated as part of the Contract Documents.

HIGHWAY: The entire strip of land comprising the public roadway and bounded by the right-of-way lines.

INSPECTOR: The Department of Public Works representative whose duty it is to supervise or inspect methods and materials relating to work both on and off the site of the Project.

ORDER ON CONTRACT: Written order issued by the Director covering contingencies, Extra Work, deductions, increases or decreases and additions, alterations or omissions to the Project plans or specifications.

NOTICE OF AWARD: The written notice by the Department to the apparent successful bidder stating that, upon compliance with the conditions precedent enumerated therein, within the time specified, the City will sign and deliver the Contract Agreement.

NOTICE TO PROCEED: A written notice given by the Department to the Contractor fixing the date on which the Contractor shall start to perform its obligations under the Contract Documents.

PARTIAL OR MONTHLY ESTIMATES: Payments to the Contractor for such portions of the Work satisfactorily performed.

PLANS: All official drawings or reproductions of drawings pertaining to the Work or to any structure connected therewith.

PROJECT: All labor and materials necessary to accomplish the Work identified in the Plans and Specifications and required to be performed under one or more contract.

PROPOSAL FORM: The approved form on which the Department requires formal bids to be prepared and submitted for the Work.

REASONABLY CLOSE CONFORMITY: Reasonably close conformity means compliance with reasonable and customary manufacturing and construction tolerances where working tolerances are not specified. Where working tolerances are specified, reasonably close conformity means compliance with such working tolerances. Without detracting from the complete and absolute discretion of the Engineer to insist upon such tolerances as establishing reasonably close conformity, the Engineer may accept variation beyond such tolerances as reasonably close conformity where they will not materially affect the quality or utility of the Work and will be in the best interests of the City.

RIGHT-OF-WAY OR R.O.W.: A general term denoting land, property or interest therein, usually in a strip, acquired for or devoted to a highway.

ROADBED: The graded portions of a highway within top and side slopes, prepared as a foundation for the pavement structure and shoulders.

ROADWAY: The portion of highway included between the outside edges of the shoulders.

ROAD SECTION: That portion of a highway included between the top of slope in cut and the bottom of slope in fill.

SHOP DRAWINGS: All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for the Contractor to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a manufacturer, fabricator, supplier or distributor and submitted by the Contractor to illustrate material or equipment for some portions of the Work.

SHOULDER: The portion of the roadway contiguous with the traveled way for accommodation of stopped vehicles, for emergency use, and for lateral support of base and surface courses.

SITE: The specific area adjacent to and including the area upon which the Work is to be performed. Generally such area may be considered as defined by the right of way or property made available to the Contractor for construction operations.

SPECIAL NOTES: Special directions, provisions, or requirements peculiar to the project under construction.

STANDARD SPECIFICATIONS: The body of directions, requirements, etc. contained in this present volume, together with all documents of any description and agreements made (or to be made), pertaining to the methods or manner of performing the Work or to the quantities and quality as shown by the test records of accepted materials to be furnished under a Contract.

STRUCTURES: Bridges, culverts, catch basins, drop inlets, retaining walls, cribbing, manholes, end walls, buildings, sewers, service pipes, under drains, foundation drains and other features which may be encountered in the Work and not otherwise classed herein.

SUBCONTRACTOR: Any individual, firm or corporation to whom the Contractor, with the written consent of the Department, sublets any part of the Project Work.

SURETY: The corporate body bound with and for the Contractor, for the full and complete performance of the Contract, and for the payment of all debts, pertaining to the Work.

UTILITY: A publicly, privately or cooperatively owned agency or agencies operated by one or more persons or corporations for public service.

WORK: Work shall be understood to mean the furnishing of all labor, materials, equipment and other incidentals necessary or convenient to the successful completion of the Project and the carrying out of all the duties and obligations imposed by the Contract Documents.

WORK DAY: A calendar day, exclusive of Sundays and City recognized legal holidays, on which weather and other conditions not under the control of the Contractor, will permit construction operations to proceed for the major part of the day on the principal item or items of Work which would normally be in progress at that time.

SECTION 102 BIDDING REQUIREMENTS AND CONDITIONS

§102-01 LOCATION OF OFFICES

Persons desiring to make a bid shall use the proposal blank prepared by the Department for each individual Contract. The time for which bids will be received will be found in the published notice calling for bids. Any bid received after the time specified in the published notice shall not be accepted. Detailed plans of the Work/Project may be examined at the Office of the Department of Public Works, 125 East Avenue, Room 225, Norwalk, Connecticut.

§102-02 BIDS

Each Bid must be submitted on the official Bid form, which is furnished by the Department. All blank spaces in the Bid form must be filled in as noted, and no change shall be made to the Bid form or in the items mentioned therein.

Bids that are illegible or that contain any omissions, erasures, alterations, additions, items not called for in the itemized Bid, that contain irregularities of any kind, or otherwise do not comply with the applicable requirements may be rejected as informal. The request for bids or proposals does not necessarily contemplate an award based solely on price. Rather, the City reserves the right to reject any or all proposals/bids or any portion thereof for any reason as it may determine to be in its own best interests. (See Section 103-01)

The bidder shall sign in the space provided in the Bid form. An officer of a corporation or a member of a partnership representing the Bidder shall sign after the word "By" under the name of the Contractor. The same procedure shall apply to the proposal of a joint venture by two or more Bidders; however, if the signature is by an agent or attorney-in-fact for the joint venturers, then the Bid shall be accompanied by four (4) authenticated copies of the evidence of his authority to act on behalf of all of the joint venturers.

The envelopes containing the bids must be sealed, addressed to the City Clerk, City of Norwalk, City Hall, 125 East Avenue, P.O. Box 5125, Norwalk, Connecticut 06856-5125, and shall be plainly marked on the outside with the Contractor's name and title of the bid. If forwarded by mail, the sealed envelope containing the bid, and marked as directed above, must be enclosed in another sealed envelope addressed in the same manner and shall preferably be sent by Registered Mail.

§102-03 BID REQUIREMENTS AND RESTRICTIONS

Each Bid shall specify the exact gross sum, in the manner hereafter described, for which the Work will be performed according to the plans and specifications and any addenda to the specifications, together with a unit price for each of the separate items as called for. The lowest bid shall be determined by the Director on the basis of the gross sum for which the entire Work will be performed, arrived at by a correct computation of all the items specified in the Bid at the unit prices stated there. The Director reserves the right to reject any Bid in which unit bid prices appear, in his judgment, to constitute an unbalanced Bid for the Work. Once a Bid is submitted it may not be changed, corrected or revised in any way.

Any Bid may be deemed informal which does not contain prices set opposite each of the several items for which there is a quantity exhibited in the itemize Bid or which shall in any manner fail to conform to the conditions of the published notice inviting proposals. The unit prices and gross sum Bid shall be indicated in words and figures. In case the amount shown in words and its equivalent in figures do not agree, the written words may, in the discretion of the Director, be considered binding.

§102-04 BIDDER RESPONSIBILITY FOR SITE INFORMATION

The bidder shall review all information provided by the City regarding the Project, all existing site and other related conditions. The bidder is advised that, while such information is given in good faith by the City, the City cannot ensure its sufficiency and accuracy and that such information is intended solely for reference purposes. The bidder is responsible to verify the status of all existing structures, equipment, systems and site conditions to obtain all information needed to properly perform the Work under the Project. The bidder shall examine the Contract Documents and the site of the Work and is responsible for being fully informed from personal examination of the same regarding the quantities, character, location and other conditions affecting the Work to be performed, including the existence of poles, wires, pipes, ducts, conduits, and other facilities and structures of municipal and other public service corporations on, over, or under the site. The bidder will make no claim against the City by reliance upon any estimates, tests or other representations made by any officer or agent of the City with respect to the Work to be performed under the Contract. Particular attention is called to special notes and special specifications in the bid which may contain Contract requirements at variance with standard plans and specifications.

§102-05 STATEMENT OF NON COLLUSION

By submission of the bid each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bidder each party certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:

- A. The prices in this bid have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor.

- B. Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and

- C. No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

§102-06 SUBSURFACE INFORMATION

Boring logs and other subsurface information made available for the inspection of bidders were obtained with reasonable care and recorded in good faith by the Department.

The soil and rock descriptions shown are as determined by a visual inspection of the samples from the various explorations unless otherwise noted. The observed water

levels and/or water conditions indicated are as recorded at the time of the exploration. These levels and/or conditions may vary considerably, with time, according to the prevailing climate, rainfall and other factors.

The locations of utilities or other underground man-made features were ascertained with reasonable care and recorded in good faith from various sources, including the records of municipal and other public service corporations, and therefore the location of known utilities may only be approximate.

Subsurface information is made available to bidders in good faith and for reference purposes only in order that they may have access to the same information utilized by the City for design and estimating purposes. Such information is not intended as a substitute for personal investigations, interpretations and judgment of the bidder. Rather, each bidder is responsible for verifying such information and obtaining all additional information necessary to properly perform the Work under the Contract Documents.

§102-07 INTERPRETATIONS AND ADDENDA

All questions about the meaning or intent of the Contract Documents shall be submitted to the Department in writing. In order to receive consideration, questions must be received by the Department at least ten days prior to the date fixed for the receipt of bids. Any interpretations of questions so raised which in the opinion of the Department require interpretations, will be issued by a written Addenda mailed, emailed or delivered to all parties recorded by the Department as having received the proposal blank prepared by the Department for the individual Contract no later than three days prior to the date fixed for opening of bids. The Department will not be responsible for oral interpretations or clarifications which anyone presumes to make on its behalf.

In addition, the Department may issue such written Addenda as may be necessary to clarify, correct or change the Contract Documents.

The Bidder shall acknowledge receipt of the Addenda in the space provided in the Bid form and further acknowledge that the provisions of each Addendum have been included in the preparation of the bid.

§102-08 MODIFICATION OR WITHDRAWAL OF BID

No modification to or explanation of any bid in any form, shall be accepted after the Bid has been deposited with the Norwalk City Clerk. No Bid shall be withdrawn or cancelled before the time designated for publicly opening, except upon such conditions as the Director may deem to be necessary. No Bid shall be withdrawn or cancelled after the time designated for opening such Bids publicly.

If the Bid is made by a firm, the name and place of residence of each member of the firm shall be given. If made by a corporation, the names of the president, secretary and

treasurer shall be given. If made by a partnership, the names of the partners shall be given.

§102-09 BID DEPOSIT

Every Bid must be accompanied by a certified check or bank cashier's check or bid bond payable to the City of Norwalk in the amount of fifteen (15) percent of the total bid amount. Said checks or bid bonds will be returned to the unsuccessful bidders upon the Award of the Contract.

§102-10 CONTRACT CLAUSES REQUIRED FOR PUBLIC PROJECTS

The execution of the Contract by the Contractor binds it to the following specific agreements:

- A. This Contract may not be assigned by the Contractor or its rights, title or interest assigned, transferred, conveyed, sublet or disposed of without the previous consent, in writing, of the Director.
- B. It is understood that the City is dependent upon receiving authorized appropriations or budgeted funds for this Project. The Contract for Work on the Project therefore, shall be deemed binding only to the extent of money being made available to the City for the performance of the Work thereunder. No liability on account of such Work shall be incurred by the City beyond monies available for the purpose thereof.
- C. It is hereby agreed that all applicable provisions of the Labor Laws of the State of Connecticut shall be carried out in the performance of Work under the Contract Documents.
- D. The relationship of the Contractor to the City is that of an independent Contractor. Accordingly, said Contractor, covenants and agrees that it will conduct itself consistent with such status, that it will neither hold itself out as nor claim to be an officer or employee of the City by reason hereof, and that it will not, make any claim, demand or application to or for any right or privilege applicable to an officer or employee of the City, including, but not limited to worker's compensation coverage, unemployment insurance benefits, social security coverage, or retirement membership or credit.
- E. The Contractor and anyone employing services for Work in connection with this Project shall not discriminate in any employment or work related practices.

§102-11 OTHER CONTRACTS

The City reserves the right to let other contracts in connection with the Work to be performed on the Project. Therefore, the Contractor may not have exclusive occupancy of the territory within or adjacent to limits of the Site.

The Contractor will be required to cooperate with all other Contractors and the owners of the various utilities in and around the Site and to coordinate and arrange the sequence of his work to conform with the progressive operations of such other work. Cooperation and adjustments with the Contractors already engaged and to be engaged upon the Site is essential to properly coordinate the construction efforts of all Contractors, Utility Owners, and Subcontractors engaged in the Work within and adjacent to the construction area of this Project.

In case of interference with the operations of the Utility Owners and other Contractors, the Director will be the sole judge of the rights of each Contractor and the sequence of Work necessary to expedite the completion of the entire Project. In all cases, the Director's decision shall be accepted as final.

§102-12 FORMS

The form and terms of Contract and bonds shall be that provided by the City of Norwalk, Corporation Counsel.

§102-13 ENGINEERING CHARGES

When the Work embraced in the Contract Documents is not completed on or before the date specified, engineering and inspection expenses incurred by the Department upon the Work, including engineering and inspection expenses incurred on the Work by railroad companies, from the completion date originally fixed in the Contract to the actual date of completion of the Work may be charged to the Contractor and may be deducted by the Department from the final monies due the Contractor. Consideration of any Extra Work or Order on Contract added to the original contract amount, as well as extenuating circumstances beyond the control of the Contractor, will be given due consideration by the Department before assessing engineering and inspection charges against the Contractor. Such charges will be assessed, however, in cases where the Work has been unduly delayed by the Contractor without acceptable reasons, or due to inefficient operations, or any other reason for which the Department determines the Contractor liable.

§102-14 EXEMPTION FROM TAX

Purchases made by the City of Norwalk are exempt from payment of Federal Taxes, and State of Connecticut Sales and Use Taxes. Such taxes must not be included in the bid price of any item or materials permanently incorporated into the Work or furnished to the City under the Contract.

§102-15 CHANGES IN AMOUNT OF BID

All unit prices, lump sums, etc. listed in the Bid, are firm and not subject to change for one hundred twenty (120) days from the day Bids are opened.

§102-16 SPECIAL SPECIFICATIONS AND NOTES

The schedule of liquidated damages, the list designated by the City as "Specialty Items" and specific Contract Special Notes and Requirements, will be listed in this location of the Specifications.

§102-17 SAMPLE FORM OF AGREEMENT

**CITY OF NORWALK
CONTRACT FOR CONSTRUCTION SERVICES
WITH «VendorName»
«Project»**

This Contract entered into this _____ day of _____, 20____, by the **CITY OF NORWALK**, a municipal corporation organized and existing under the laws of the State of Connecticut (hereinafter referred to as "CITY"), acting by and through «ContractAuthorizer», its «ContractAuthorizerTitle», duly authorized, and «VendorName», a corporation organized and existing under the laws of the State of Connecticut with an office and principal place of business located at «VendorAddress1» «VendorAddress2», «VendorCity», «VendorState»«VendorZip», acting herein by «VendorAuthorizer», its «VendorAuthorizerTitle», duly authorized (hereinafter the "CONTRACTOR").

WITNESSETH: That the CITY and CONTRACTOR, for the consideration hereinafter named, agree as follows:

ARTICLE 1. WORK TO BE DONE

The CONTRACTOR shall (a) furnish all the materials, machinery, implements, tools, labor, services, and other items of every kind (the "Work") using its best skill and attention required to perform and complete in the most substantial and workmanlike manner the project generally identified as «Project» (hereinafter the "Project").

The Work shall be performed in strict compliance with the City of Norwalk Department of Public Works General Provisions; the general and technical specifications and conditions of Contract; the Project Plans; Special Conditions and Addenda; State Labor Department minimum wage rates; any addenda to the specifications; and all requirements of the Contract Documents, as defined herein.

The CITY will compensate the CONTRACTOR for the satisfactory completion of the Project and of all of the CONTRACTOR's duties, obligations and responsibilities under this Contract, subject to additions and deductions as herein provided, the total sum of _____ (\$_____.00) in the manner set forth herein and the Contract Documents.

The Project shall be performed in accordance with the true intent and meaning of the Contract Documents without any expense of any nature whatsoever to the CITY exceeding the compensation stated herein. The CONTRACTOR's Work hereunder shall be overseen by Daniel J. Deering IV, its duly authorized President.

The CONTRACTOR hereby represents that it has carefully examined and understands all of the terms and requirements of the Contract Documents, has

investigated the nature, locality and site of the Project (the Site) and the conditions and difficulties under which it is to be performed and that it enters into this Contract on the basis of its own examination, investigation and evaluation of such and not in reliance on any opinions or representations of the CITY or any third party, including any officer, agent, servant or employee thereof.

ARTICLE 2. ADMINISTRATION OF CONTRACT BY CITY

The Work to be performed under this Contract shall be administered on behalf of the CITY by the Director of Public Works, referred to as the "Director." The CONTRACTOR acknowledges and agrees that any instructions, reviews, advice, approvals or directives rendered to it by the Director or his designated representative consistent with the Contract Documents are authorized on behalf of the CITY. However, notwithstanding the above, no advice, directive or other recommendation or request by the CITY shall give rise to liability or responsibility on the CITY's part for any portion of the Work, nor shall it relieve the CONTRACTOR of its responsibilities hereunder.

ARTICLE 3. DOCUMENTS FORMING THE CONTRACT

The Contract Documents shall be deemed to include the Bid Documents, including Addendum No. _____, dated _____; the CONTRACTOR's bid response, dated _____; this written Contract, including all bonds and insurance certificates; the City of Norwalk Department of Public Works General Provisions; the general and technical specifications and conditions for the Project; the Project plans; Special Conditions and Addenda; State Labor Department minimum wage rates (if applicable); any addenda to the specifications; and all provisions required by law to be inserted in this Contract, whether or not physically inserted.

This Contract will supersede any agreement or Contract form that may have been included in the bid specifications, which form was included for information purposes only, and any writings or documents not incorporated herein by specific reference. This Contract, together with the other Contract Documents are all intended to supplement and complement each other and shall, to the fullest extent possible, be so construed and interpreted. If, however, any provision of this Contract irreconcilably conflicts with any provision of the other Contract Documents, the provision imposing a greater obligation on the CONTRACTOR shall govern.

ARTICLE 4. EXAMINATION OF DOCUMENTS AND SITE

The CONTRACTOR confirms that it has carefully examined the Project Site, as well as its surrounding territory. As a result, the CONTRACTOR acknowledges that it is fully informed regarding all existing conditions, both natural and manmade, as well as all such above grade, at grade and subsurface conditions that may in any way affect the Work to be done and labor and materials to be furnished for the proper completion of the Project, including, by way of example, the existence of poles, wires, pipes, ducts,

conduits and other facilities and structures of municipal and public service corporations on, over or under the Project site. The CONTRACTOR further acknowledges that it has secured such information by personal investigation, research, and inquiry into all reasonably available data concerning the actual Site and has not relied upon the estimates or records of the CITY; and that it will make no claim against the CITY by reason of reliance on any such estimates, tests, information, data or representations made by any officer, agent, representative or employee of the CITY, or for costs incurred as a result thereof.

In addition, the CONTRACTOR agrees that, prior to starting any part of the Work, it shall carefully study and compare the various drawings, plans and other Contract Documents relative to that portion of the Work in order to facilitate construction and determine whether inconsistencies or conflicts exist.

ARTICLE 5. DATE OF COMPLETION

The CONTRACTOR further agrees that it will begin the Project herein described within ten (10) days of the date hereof, unless written instruction from the Director is given to begin at a different date. The CONTRACTOR shall diligently and continuously prosecute and complete the same and coordinate its Work with all other work being performed on the Project according to any schedules that may be issued from time to time during the Project and any other scheduling requirements listed in the Contract Documents, so as not to delay, impede, obstruct, hinder or interfere with the commencement, progress or completion of any part of the Project and so that the Project shall be entirely completed no later than _____ (the "Completion Date"), unless such Completion Date is extended by written notice signed by the Director.

THE CONTRACTOR ACKNOWLEDGES THAT TIME IS OF THE ESSENCE IN TERMS OF COMPLETION OF THE CONTRACTOR'S WORK HEREUNDER.

No extension beyond this date of completion shall be effective unless in writing signed by the Director. Any extension shall be for such time and upon such terms and conditions as may be set by the Director, which may include charges for professional services, engineering and inspection expenses incurred, (including expenses incurred by railroad companies on contracts which affect a railroad right of way) as a result. Notice of application for any extension shall be filed with the Director at least fifteen (15) days prior to the date of completion set forth above.

The CONTRACTOR shall work during such days and times as required by the CITY so as not to interfere with its use or operation of the Site. However, if the CITY deems it necessary, it may direct the CONTRACTOR to work overtime. If so directed, the CONTRACTOR shall work overtime and, provided that it is not in default under any of the terms or provisions of this Contract or of other Contract Documents, the CITY will pay the CONTRACTOR for such actual additional wages paid directly for such overtime work, if any, at rates which have been approved by the CITY.

The CONTRACTOR shall contribute to and cooperate with the development of the Project schedules and other efforts to achieve timely completion of the Work. The CONTRACTOR shall be required to provide information for the scheduling of the times and sequence of operations required in order for its Work to meet the CITY's overall schedule requirements and it shall continuously monitor the Project schedule so as to be fully familiar with the timing, phasing and sequence of operations of the Work and of any other work performed by others on the Project. The CONTRACTOR shall diligently execute the Work in accordance with the requirements of the Project schedule including any revisions thereto.

In the event the CONTRACTOR is delayed, obstructed, hindered or interfered with in the commencement, prosecution or completion of the Work by any cause including, but not limited to, any act, omission, neglect, negligence or default of the CITY or of anyone employed by it, or by any other contractor or subcontractor on the Project, or by damage caused by fire or other casualty or by any other cause beyond the control of and not due to any fault, neglect, act or omission of the CONTRACTOR, its officers, agents, employees, subcontractors or suppliers, the CONTRACTOR's exclusive remedy shall be an extension of time for a period equivalent to the time lost by reason of any and all of the aforesaid causes. Provided, however, that the CONTRACTOR shall not be entitled to any such extension of time unless the CONTRACTOR (1) notifies the CITY in writing of the cause or causes of such delay, obstruction, hindrance or interference within forty-eight (48) hours of the commencement thereof and (2) demonstrates that it could not have anticipated or avoided such delay, obstruction, hindrance or interference and has used all available means to minimize the consequences thereof. Notwithstanding the foregoing, if any of the Contract Documents are at variance with granting such time extension, then the provisions of such documents shall control.

In no event shall the CONTRACTOR be entitled to money damages or an adjustment to the sum payable hereunder by virtue of any such delay.

In the event of a delay in the progress of the Work or disruption of, hindrance, obstruction, or interference with the Work due to any fault, neglect, action or omission of the CONTRACTOR or any of its officers, agents, servants, employees, subcontractors or suppliers which results in any additional cost, expense, liability or damage to the CITY including, legal fees and disbursements incurred by the CITY (whether incurred in defending claims arising from such delay or in seeking reimbursement or indemnity from the CONTRACTOR and/or its surety hereunder or otherwise) or any damages or additional costs or expenses for which the CITY may or shall become liable, no extension of time shall be granted and the CONTRACTOR (and its surety) shall be liable to compensate the CITY for and indemnify it against all such costs, expenses, damages and liability. In addition, the CONTRACTOR shall not only fulfill all of its obligations imposed by this Contract at its own cost and expense, but also work such overtime as may be necessary to make up for all time lost in the performance of the Work and of the Project. Should the CONTRACTOR fail to make up for the time lost by reason of such delay, the CITY shall have the right to hire other contractors to work

overtime, if needed, and to take whatever other action it deems necessary to avoid delay in the completion of the Work and of the Project. The cost and expense of such overtime and/or such other action, including all other consequential damages and expenses, shall be borne by the CONTRACTOR hereunder.

ARTICLE 6. CONTINGENCIES, EXTRA WORK, AND CHANGES

Whenever the CITY determines that, for any reason deemed to be in the best interests of the Project, the scope of Work or plans for the Project should be revised to provide for changes, deletions, contingencies, additional or extra work, it may issue a Change Order to the CONTRACTOR. Once the CITY has issued and signed a written Change Order in its standard form, the CONTRACTOR shall forthwith comply with the specifications of such Change Order. In such event, allowances for additions and/or deductions to the prices listed in the bid documents will be made commensurate with such changes in the scope or extent of the Work. Any such action by the CITY shall not constitute grounds for a claim by the CONTRACTOR for damages, loss of anticipated profits, or for costs resulting from any variations between the approximate quantities and quality of Work contemplated in the bid documents and as built.

All changes, additions or omissions in the Work ordered in writing by the CITY shall be deemed to be a part of the Work hereunder and shall be performed and furnished in strict accordance with all of the terms and provisions of the Contract Documents based on a negotiated cost for the Work and materials. The CONTRACTOR shall be responsible for keeping its surety informed of all such modifications to this Contract. The obligations of CONTRACTOR's surety shall not be reduced, waived or adversely affected by the issuance of such Change Orders, additions or deductions and the CITY shall not be required to inform the surety of the same or to obtain the consent of the surety to such modifications.

Payment for any unforeseen Work and/or changes shall be made as provided for in the Standard Specifications.

ARTICLE 7. MEANS AND METHODS

The CONTRACTOR shall supervise and direct the Work using its best skill and attention in order to perform and complete the Project according to the Contract Documents in a timely and workmanlike manner. The CONTRACTOR shall be responsible for safeguarding the Site and all adjacent property from damage and for implementing all reasonable and necessary construction means, methods, techniques, sequences and procedures for safety precautions, protection against vandalism, and compliance with fire insurance rating bureau procedures, in connection with the performance of the Work. CONTRACTOR further assumes responsibility for all actions and omissions of its agents, employees, subcontractors, suppliers and all of their respective agents, employees and any other person performing any part of the Work.

ARTICLE 8. NO COLLUSION OR FRAUD

The CONTRACTOR hereby agrees that all persons interested as principal or principals in the bid or proposal submitted by the CONTRACTOR for this Project are named therein; that this Contract has been secured without any connection with any person or persons other than those named; that this Contract was secured without collusion or fraud; and that neither any officer nor employee of the CITY, nor any member of the immediate family of any such person, has or will have a financial interest in the performance of this Contract, in the supplies, Work or business to which it relates, or in any portion of the profits thereof.

ARTICLE 9. ESTIMATES AND PAYMENT

As the Project progresses in accordance with the Contract and in a manner that is satisfactory to the CITY, the CITY hereby agrees to make payments to the CONTRACTOR, based upon the unit prices set out in the Contract Documents. The procedure for processing payments is as follows: on or before the last day of each month the CONTRACTOR shall submit to the CITY, in the form required by the CITY, a written Application For Payment showing the value of the Work performed and in place as of that date. From this amount shall be deducted all previous payments and all charges for services, materials, equipment and other items chargeable to the CONTRACTOR. The balance of such Application must be approved by the CITY and should represent the value of Work done and material furnished in accordance with the terms and conditions of this Contract during the preceding month. The CONTRACTOR shall be paid ninety-five (95%) percent of such amount. The five (5) percent retained shall be held by the CITY until final completion and acceptance of all Work covered by this Contract; compliance by the CONTRACTOR with all of its responsibilities hereunder including the provision of signed waivers of lien from CONTRACTOR, its subcontractors and suppliers; and the making of all payments due all subcontractors and material suppliers in connection with the Project. Nothing herein shall modify or limit detailed payment provisions contained in the Contract Documents and approved by the Director.

Prior to commencing the Work, the CONTRACTOR shall submit to the CITY a detailed Schedule of Values showing the breakdown of the total Contract price into its various parts for approval. The CITY may modify the Schedule of Values, or may require additional information or a more detailed breakdown of costs, subject to their final approval. All Applications for Payments will thereafter be submitted according to the approved payment Schedule.

The CITY reserves the right to advance the date of any payment (including the final payment) under this Contract if, in its judgment, it becomes desirable to do so.

The CONTRACTOR agrees that, if and when requested to do so by the CITY, it shall furnish such information, evidence and substantiation as the CITY may require with respect to the nature and extent of all obligations incurred by the CONTRACTOR

for or in connection with the Work, all payments made by the CONTRACTOR thereon, and the amounts remaining unpaid and the reasons therefor.

The CONTRACTOR warrants that: (1) title to Work, materials and equipment covered by an Application for Payment will pass to the CITY either by incorporation in construction or upon receipt of any payment for the same by the CONTRACTOR, whichever occurs first; (2) Work, materials and equipment covered by Applications for Payment shall be free and clear of liens, claims, security interests or encumbrances; and (3) no Work, materials or equipment covered by an Application for Payment shall be acquired by the CONTRACTOR, or any other entity or person performing any Work at the Site or furnishing materials or equipment for the Project, subject to an agreement or arrangement under which any interest therein or an encumbrance thereon is retained by the seller of such or is otherwise imposed by the CONTRACTOR or such other entity or person.

With each Application For Payment the CONTRACTOR shall certify to the CITY that the Work, for which payment is requested, has been fully completed in accordance with the Contract Documents; that all amounts owed to any subcontractor and subconsultant for Work or materials covered by all previous progress payments have been paid in full; and that the CONTRACTOR has no claim outstanding against the CITY related to this, or any previous progress payment, except any such claim as has been previously served by way of a detailed, verified statement upon the CITY prior to the filing of such Application For Payment. If requested to do so, the CONTRACTOR will file signed Waivers of Lien with each Application for Payment in a form satisfactory to the CITY.

The CONTRACTOR's refusal to accept any payment as tendered shall constitute a waiver of any right to interest thereon.

It is further agreed that so long as the CONTRACTOR fails to comply with any lawful or proper direction concerning the Work or material given by or on behalf of the Director, the CONTRACTOR shall not be entitled to have any estimate made for the purpose of payment. No such estimate shall be rendered until the CONTRACTOR fully and satisfactorily complies with all such directions.

If any of the following occurs: (1) a claim or lien is made or filed with or against the CITY, the Project, or the Project funds by any person claiming that the CONTRACTOR or any subcontractor or other person under subcontract has failed to make payment for any labor, services, materials, equipment, taxes or other items or obligations furnished or incurred for or in connection with the Work; (2) there is evidence of such nonpayment or of any claim or lien for which, if established, the CITY might become liable and which is chargeable to the CONTRACTOR; (3) the CONTRACTOR or any subcontractor or other person under subcontract causes damage to the Work or to any other work on the Project; (4) or if the CONTRACTOR fails to perform or is otherwise in default under any of the terms or provisions of this Contract, the CITY shall have the right to retain from any payment then due or thereafter to become due an

amount which it deems sufficient to (i) satisfy, discharge and/or defend against any such claim or lien or any action which may be brought or judgment which may be recovered thereon, (ii) make good any such nonpayment, damage, failure or default, and (iii) compensate the CITY for and indemnify and hold it harmless against any and all actual or potential losses, liabilities, damages, costs and expenses, including legal fees and disbursements, which may be sustained or incurred in connection therewith. The CITY shall have the right to apply and charge against the CONTRACTOR so much of the amount retained as may be required for the foregoing purposes. If the amount is insufficient therefor, the CONTRACTOR shall be liable for the difference and promptly pay the same to the CITY. No person shall have any right or claim by reason of the CITY's failure or refusal to withhold monies. No interest shall be payable by the CITY on any amounts withheld under this provision.

This provision is not intended to limit or in any way prejudice any other right of the CITY.

The parties understand and acknowledge that no payment (final or otherwise) made under or in connection with this Contract shall be conclusive evidence of the proper performance of the Work or of this Contract, in whole or in part, and no such payment shall be construed to be an acceptance of defective, faulty or improper work or materials nor shall it release the CONTRACTOR from any of its obligations under this Contract; nor shall entrance upon and use of the Site by the CITY constitute acceptance of the Work or any part thereof.

If, in the judgment of the Director, the Project is "substantially," although not entirely, completed, and in this event the withholding of the retained percentage would be an injustice to the CONTRACTOR, the Director may, provided that he receives certification that the essential items in the Contract have been completed in accordance with the terms of the Contract, include in the final account such uncompleted items. The CITY will pay the CONTRACTOR therefor at the item prices in the Contract upon the CONTRACTOR's depositing with the Director a certified check drawn upon a legally incorporated bank or trust company equal to at least double the value of such uncompleted Work. The deposit may be used by the Director to complete the uncompleted portion of the Contract and any unused portion may be returned to the CONTRACTOR upon its satisfactory completion of the uncompleted Work within a specified number of working days after it has been notified to proceed.

ARTICLE 10. PAYMENT TO SUBCONTRACTORS AND SUPPLIERS

The CONTRACTOR shall, within thirty (30) days after its receipt of payment from the CITY, pay all amounts due any supplier or subcontractor, whether for labor performed or materials furnished hereunder, when such labor or materials have been included in a requisition submitted by the CONTRACTOR and paid by the CITY.

The CONTRACTOR shall include in each of its contracts and subcontracts hereunder a provision requiring each contractor or subcontractor to pay all amounts due

any of its own subcontractors, (second tier subcontractors), whether for labor performed or materials furnished, within thirty (30) days after such contractor or subcontractor is paid by the CONTRACTOR an amount that includes payment for labor or materials furnished by such second tier subcontractor.

ARTICLE 11. FINAL PAYMENT

Final payment and payment of any amounts retained shall not become due until the following conditions precedent have been met: (1) the CITY accepts the Project and approves of all the Work performed hereunder; (2) the CONTRACTOR submits the following documents satisfactory to the CITY (a) certification that all payrolls, bills for materials, labor and equipment, and all other indebtedness connected with the Project, for which the CITY or CITY's property might be liable, have been paid or otherwise satisfied and that there are no claims, obligations, or liens outstanding or unsatisfied for labor, services, materials, equipment or other items performed, furnished or incurred for or in connection with the Work; (b) written consent of surety, if applicable; (c) a certificate confirming that insurance required by the Contract Documents is to remain in force for the required period of time following completion of the Work; (d) a satisfactory two (2) year maintenance bond posted with the CITY ensuring the Project for a period of one (2) years from the date of final completion; (e) the CONTRACTOR provides all required certifications that all products and materials comply with applicable specifications and have been properly installed and/or incorporated into the Project including all applicable manufacturers' warranties for same; (f) any other information and documentation establishing payment or satisfaction of all outstanding obligations, to the extent and in such form as may be designated by the CITY, such as, by way of example only, receipts, releases and waivers of liens, including the execution and delivery by the CONTRACTOR, in a form satisfactory to the CITY, of a general release running to and in favor of the CITY; (g) all required Certified Payrolls acceptable to the State of Connecticut Department of Labor; and (h) all Change Orders with sufficient backup/documentation acceptable to the CITY. Should any claim be made or other obligation arise after final payment is made, the CONTRACTOR shall refund to the CITY all expenses paid by the CITY to satisfy, discharge or defend against any such claim, obligation or lien or any action brought or judgment recovered thereon and all costs and expenses, including legal fees and disbursements, incurred in connection therewith.

If the CONTRACTOR cannot, for reasonable cause not of its own fault, furnish any such information or documentation required by the CITY, the CONTRACTOR may furnish a bond satisfactory to the CITY promising to indemnify the CITY against any Project related, outstanding obligation. If any lien remains unsatisfied after final payments are made by the CITY, the CONTRACTOR shall reimburse the CITY for moneys the CITY may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

Final payment being tendered by the CITY shall constitute a waiver of claims by the CITY except those arising from:

- A. unsettled liens;
- B. faulty or defective Work or materials;
- C. failure of the Work or materials to comply with requirements of the Contract Documents; or
- D. terms of special warranties provided by the CONTRACTOR, its suppliers, or its subcontractors, or within the Contract Documents.
- E. Claims arising after the authorization of any payment.

Acceptance by the CONTRACTOR, or anyone claiming by or through it, of any interim or final payment hereunder shall constitute and operate as a release of the CITY from any and all claims of any liability or responsibility to the CONTRACTOR for anything done to, furnished for, relating to or in connection with the Project hereunder, and for any act, neglect, default on the part of the CITY or any of its officers, agents, or employees unless the CONTRACTOR serves a detailed and verified statement of claim upon the CITY prior to the acceptance of such payment. Such statement shall specify the items and details upon which the claim is based and any claim shall be limited to such items. The CONTRACTOR's refusal to accept the final payment as tendered shall constitute a waiver of any right to interest thereon.

ARTICLE 12. FINAL ACCEPTANCE OF WORK

When, in the opinion of the Director, the CONTRACTOR has fully performed all the required Work under this Contract and any Change Orders issued for the Project to the CONTRACTOR, the Director shall recommend the acceptance of the Work so completed. If the recommendation is accepted, the CITY shall thereupon notify the CONTRACTOR in writing of such acceptance, and copies of such acceptance shall be sent to other interested parties. However, the CITY has the right to reject the whole or any portion of the Work should it be found or known to be inconsistent with the terms of the Contract Documents or otherwise improper. All certifications upon which partial payments may have been made, being merely estimates, are subject to correction in the final determination or upon final payment.

ARTICLE 13. SAFETY

The CONTRACTOR agrees that it is responsible for preventing accidents and ensuring safety of all persons engaged in the Project or in the vicinity of the Work including members of the general public. The CONTRACTOR shall comply with all laws, ordinances, rules, regulations, codes, standards, orders, notices and requirements concerning safety applicable to the Work, including, among others, the Federal Occupational Safety and Health Act of 1970, as amended, and all standards, rules, regulations and orders which have been or shall be adopted or issued thereunder, and with all safety standards established during the progress of the Work.

The CONTRACTOR shall at all times provide sufficient, safe and proper facilities for the inspection of the Work by the CITY and its authorized representatives in the field, at shops or at any other place where materials or equipment for the Work are in the

course of preparation, manufacture, treatment or storage. The CONTRACTOR shall, immediately upon receiving written notice from the CITY, stop any part of the Work which is deemed unsafe and proceed to take down all portions of the Work and remove all materials whether worked or unworked, that may be noted as unsound, defective or improper or as in any way failing to conform to this Contract or the Plans, Specifications or other Contract Documents. The CONTRACTOR, at its own cost and expense, shall replace the same with proper and satisfactory Work and materials and make good all Work damaged or destroyed by or as a result of such unsound, defective, improper or nonconforming Work or materials or by the taking down, removal or replacement thereof. The CONTRACTOR agrees that it shall not have nor make any claim for costs, damages, delays or extensions of time arising out of such stoppages. Should the CONTRACTOR neglect to take such corrective measures, the CITY may do so at the cost and expense of the CONTRACTOR and may deduct the cost thereof from any payments due or to become due to the CONTRACTOR.

Notwithstanding the foregoing, CONTRACTOR shall at all times be responsible for ensuring the safety of all persons and property at the Site, regardless of any action or failure to act on the part of the CITY. Nothing set forth herein, nor any action or failure to act by the CITY, shall relieve the CONTRACTOR of its obligations and responsibilities with regard to safety and safeguarding of the Site and all persons and property thereon or adjacent thereto.

ARTICLE 14. COMPLIANCE WITH GOVERNMENTAL LAW AND REGULATIONS

The CONTRACTOR shall comply with all applicable laws, codes and regulations governing the Work and the Project, including any and all special requirements of the Contract Documents and shall require the same of its Trade Contractors and Subcontractors. In addition, all Trade Contractors and Subcontractors working on the Project shall have, throughout the period of the Work, valid State of Connecticut Department of Consumer Protection issued licenses to do business according to the current, applicable regulations.

A. Equal Employment Opportunity and Affirmative Action

The CONTRACTOR agrees to abide by the provisions of State of Connecticut Executive Orders Numbers 3 and 17 and Presidential Executive Orders Numbers 11246, 11375 and 11063.

The CONTRACTOR further agrees and warrants that in the performance of this Contract 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, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness -unless it is shown by the CONTRACTOR 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. The CONTRACTOR 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, intellectual disability, mental disability or physical disability including, but not limited to, blindness -unless it is shown by the CONTRACTOR that such disability prevents performance of the work involved. The terms stated in this paragraph shall be defined as set forth in Connecticut General Statutes Section 4a-60(d).

The CONTRACTOR shall not permit any coercion, intimidation, threatening or interference with any individual in the exercise or enjoyment of, or on account of his or her having exercised or enjoyed, or on account of his or her having aided or encouraged any other individual in the exercise or enjoyment of, any right granted or protected by state or federal laws, including without limitation, the Americans with Disabilities Act.

The CONTRACTOR agrees to comply with any request of the Connecticut Commission on Human Rights and Opportunities to provide information and permit access to pertinent books, records and accounts concerning its employment practices and procedures.

The CONTRACTOR agrees and warrants that it will make good faith efforts to employ minority business enterprises as contractors, subcontractors and suppliers of materials on or related to the Project. For purposes of this paragraph the term "minority business enterprise" shall be defined as set forth in Connecticut General Statutes Section 4a-60(e).

The CONTRACTOR will cause the foregoing provisions to be inserted in all trade contracts and subcontracts for any Work related to the Project or covered by this Contract so that such provisions will be binding upon each trade contractor and subcontractor.

B. In addition, CONTRACTOR shall comply and shall require its trade contractors and subcontractors who perform any Work in connection with the Project to comply with all current, applicable terms of the following, as the same may be amended from time to time:

- The Civil Rights Act of 1964, as amended;
- Federal Labor Standards (29 CFR Parts 3, 5 and 5a);
- Davis Bacon Act;
- Copeland "Anti-Kickback" Act (18 USC 874), as supplemented in the Department of Labor Regulations (20 CFR - Part 3);
- Flood Disaster Protection Act (PL 93-291);
- Hatch Act (Title 4 USC Chapter 15);
- Section 504 of the Rehabilitation Act of 1973;
- The Americans With Disabilities Act;

C. Prevailing Wage Requirements. This Contract shall be subject to the Connecticut State Prevailing Wage regulations and requirements and applicable prevailing wage rates- as such may be amended or revised from time to time; and

The CONTRACTOR shall comply, at its own cost, with all such applicable prevailing wage rate regulations, as the same may be revised or amended from time to time. Under no circumstances shall the CONTRACTOR be entitled to any additional payment or any increase in the costs, fees or expenses payable by the CITY hereunder, based on any increase in the cost of compliance with applicable regulations, requirements or any increase in the applicable, prevailing wage rates.

D. State Labor and Employment Regulations

Pursuant to Connecticut General Statutes, Section 31-52a, the following provision shall be incorporated into this Contract and each subcontract hereunder insofar as this Contract or any such subcontract relates to a public works project, including, but not limited to, construction, remodeling or repairing of any public facility or structure (except public buildings covered by Section 31-52), site preparation or improvement, appurtenances or highways, or the preparation or improvement of any land or waterway on or in which a structure is situated or to be constructed: In the employment of mechanics, laborers or workmen to perform the work specified herein, preference shall be given to residents of the State who are, and continuously for at least six (6) months prior to the date hereof have been, residents of this State, and if no such person is available then to residents of other states.

Pursuant to Connecticut General Statutes, Section 31-53, the following provision shall be incorporated into this Contract and each subcontract hereunder for work relating to the construction of a public works project where the total cost of all Work to be performed in connection with the Project is Four Hundred Thousand Dollars (\$400,000.00) or more, or for work relating to the remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public works project if the total cost of all work to be performed in connection with such project is One Hundred Thousand Dollars (\$100,000.00) or more:

The wages paid on an hourly basis to any person performing the work of any mechanic, laborer or worker on the Work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such person to any employee welfare fund, as defined in subsection (i) of Section 31-53 of the Connecticut General Statutes, shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the CITY of Norwalk. Any contractor who is not obligated by Contract to make payment or contribution on behalf of such persons to any such employee welfare fund shall pay to each mechanic, laborer or worker as part of such person's wages the amount of payment or contribution for such person's classification on each pay day.

In the event that the CITY determines that any mechanic, laborer or workman employed by the CONTRACTOR or any subcontractor directly on the Site for the Work contemplated hereunder has been or is being paid a rate of wages less than that required to be paid, as stated herein, the CITY may, by written notice to the CONTRACTOR, terminate the CONTRACTOR's right to proceed with the Work hereunder or such part of the Work for which there has been a failure to pay the required wages. In the event of such termination, the CITY may prosecute the Work to completion by Contract or otherwise and the CONTRACTOR and its sureties shall be liable to the CITY for all costs incurred thereby in excess of the compensation to be paid under this Contract. Each employer subject to the provisions of Section 31-53 of the Connecticut General Statutes shall comply with the applicable requirements at its own cost and expense and shall not be entitled to any additional payment or increase in its fees payable hereunder as a result of or due to the cost of compliance.

ARTICLE 15. RIGHT TO SUSPEND WORK OR TERMINATE CONTRACT

A. If, at any time, the CITY determines that the Work hereunder is not being performed according to the Contract, or for the best interest of the CITY or should the CONTRACTOR at any time refuse or neglect to supply a sufficient number of skilled workers or materials of the proper quality and quantity; or fail in any respect to prosecute the Work with promptness and diligence; or cause by any act or omission the stoppage, impede, obstruct, hinder or delay of or interference with or damage to the Work of any other contractors or subcontractors on the Project; or fail in the performance of any of the terms and provisions of this Contract or of the other Contract Documents; or should there be filed by or against the CONTRACTOR a petition in bankruptcy or for an arrangement or reorganization; or should the CONTRACTOR become insolvent or be adjudicated a bankrupt or go into liquidation or dissolution, either voluntarily or involuntarily or under a court order, or make a general assignment for the benefit of creditors, or otherwise acknowledge insolvency -- then in any of such events, each of which shall constitute a default hereunder on the CONTRACTOR's part, the CITY shall have the right, in addition to all other rights and remedies provided by this Contract and the other Contract Documents or by law, to temporarily suspend the execution of the Work by the CONTRACTOR and proceed with the Work under its own direction in accordance with the Contract specifications and in such manner as the Director determines to be in the best interests of the CITY or, the CITY may terminate the CONTRACTOR's employment under this Contract while it is in progress, and thereupon proceed with the Project in such manner and by such process as it determines to be in the best interest of the Project. In any of the foregoing events, the CONTRACTOR shall not be entitled to receive any further payment under this Contract until the Work shall be wholly completed to the satisfaction of the CITY, as evidenced by written acceptance signed by the Director. All costs, expenses, losses and damages, including attorneys' fees, and all other charges incurred by the CITY for the completion of the Work as a result shall be charged to the CONTRACTOR and deducted by the CITY from any monies due or payable or to become due or payable hereunder. Such costs and expenses shall include not only the cost of completing the Work to the satisfaction of the CITY and of performing and furnishing all labor, services, materials,

equipment, and other items required therefor, but also all losses, damages, costs and expenses, (including legal fees and disbursements incurred in connection with procurement, in defending claims arising from such default and in seeking recovery of all such costs and expenses from the CONTRACTOR and/or its surety), and disbursements sustained, incurred or suffered by reason of or resulting from the CONTRACTOR's default. If such costs and expenses and other charges exceed the amount stated herein, such excess amount shall be charged to and promptly paid by the CONTRACTOR to the CITY. In computing the amounts chargeable to the CONTRACTOR, the CITY shall not be held to a basis of the lowest prices for which the completion of the Project or any part thereof might have been accomplished, but the CONTRACTOR shall be liable for all sums actually paid or expenses actually incurred in affecting prompt completion of the Project hereunder. The rights described herein are in addition to any other rights and remedies provided by law. Should the CITY reactivate the performance of the Project, in whole or in part, within one (1) year from the time of suspension, any fees paid to the CONTRACTOR pursuant to this Contract shall be applied as payment on the fees as set forth in the Contract at the time of reactivation. Should reactivation occur after a period of suspension exceeding one (1) year but not sooner, the CONTRACTOR and the CITY may renegotiate the Contract based upon current conditions or may unilaterally elect to terminate the Contract.

Termination or suspension under this section shall not give rise to any claim against the CITY for damages or compensation in addition to that provided hereunder.

ARTICLE 16. INTERPRETATION OF PLANS/SHOP DRAWINGS

The Work shall be performed and furnished under the direction and to the satisfaction of the CITY and, where appropriate, its Architect or Engineer. The CONTRACTOR shall be responsible for identifying any ambiguity in, or difference in interpretation of the plans, specifications or other Contract Documents, or between or among any of them, and immediately submitting the issue to the CITY, which will transmit the same to the responsible professional designer (i.e., Professional Engineer or Architect) who shall resolve the same. Any decision in relation thereto shall be final and conclusive upon the parties. The CITY will furnish to the CONTRACTOR any additional information and Plans as may be prepared to further describe the Work and the CONTRACTOR shall conform to and abide by the same.

Notwithstanding the dimensions on the Plans, Specifications and other Contract Documents it shall be the obligation and responsibility of the CONTRACTOR to take such measurements as will insure the proper matching and fitting of the Work covered by this Contract with contiguous work. The CONTRACTOR shall prepare and submit to the Director such shop drawings as may be necessary to describe completely the details and construction of the Work. Approval of such shop drawings shall not relieve the CONTRACTOR of its obligation to perform the Work according to the Plans, Specifications, the Special Conditions, Addenda and all other Contract Documents, nor of its responsibility for the proper matching and fitting of the Work with contiguous work and the coordination of the Work with other work being performed on the Site, which

obligation and responsibility shall continue until completion and acceptance of the Project.

The CONTRACTOR's submission of a shop drawing shall constitute the CONTRACTOR's representation that it has reviewed the submission for accuracy and compliance with all Contract Documents and that, wherever engineering is required to be performed, same has been performed by a qualified and licensed engineer which shall have responsibility therefor.

Should the proper and accurate performance of the Work hereunder depend upon the proper and accurate performance of other work not covered by this Contract, the CONTRACTOR shall carefully examine such other work, determine whether it is in fit, ready and suitable condition for the proper and accurate performance of the Work hereunder, use all means necessary to discover any defects in such other work, and before proceeding with the Work hereunder, report promptly any such improper conditions and defects to the CITY in writing and allow the CITY a reasonable time to have such improper conditions and defects remedied.

ARTICLE 17. REJECTED WORK AND MATERIAL

In the event the CITY finds that the materials furnished, the finished Project or the Work performed hereunder by the CONTRACTOR, for any reason, does not conform with the requirements of the Contract Documents including any performance and Project specifications and has resulted or will result in an inferior or unsatisfactory product, the materials or Work shall be removed and replaced or otherwise corrected, to the satisfaction of the CITY, by and at the expense of the CONTRACTOR.

The CONTRACTOR agrees that it shall at once remove from the Site at its own expense all Work or material which may be rejected by the CITY and replace the same with Work or material satisfactory to the CITY. All Work shall be in a first class and satisfactory condition at the time of final acceptance.

ARTICLE 18. LAWS, PERMITS, AND LICENSES

The CONTRACTOR shall observe all Federal, State, and local laws and regulations and shall procure all necessary licenses and permits, pay all charges and fees, and give all notices necessary and incident to the due and lawful prosecution of the Work hereunder without any additional charge or expense to the CITY. CONTRACTOR shall be responsible for and shall correct, at its sole cost and expense, any violation thereof resulting from or in connection with the performance or failure to perform the Work. The CONTRACTOR shall at any time upon demand furnish such proof as the CITY may require showing such compliance and the correction of such violations. The CONTRACTOR agrees to save harmless and indemnify the CITY, its officers and employees, from and against any and all loss, injury, claims, actions, proceedings, liability, damages, fines, penalties, costs and expenses, including legal fees and disbursements, caused or occasioned directly or indirectly by the

CONTRACTOR's failure to comply with any of said laws, ordinances, rules, regulations, standards, orders, notices or requirements or to correct such violations therefor in connection with the performance of Work.

ARTICLE 19. EQUAL EMPLOYMENT OPPORTUNITY

The CONTRACTOR agrees and warrants that in the performance of this Contract it will not discriminate or permit discrimination in any manner prohibited by the laws of the United States or of the State of Connecticut against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, gender, sexual orientation, mental retardation or physical disability, including, but not limited to, blindness, unless it is shown by the CONTRACTOR that such disability prevents performance of the work involved. The CONTRACTOR further agrees to take affirmative action to insure that applicants with job-related qualifications are fairly employed and that employees are treated in a fair and nondiscriminatory manner.

The CONTRACTOR agrees to provide the Commission on Human Rights and Opportunities with such information requested by the Commission concerning its employment practices and procedures.

The CONTRACTOR will cause the foregoing provisions to be inserted in all subcontracts for any of the Work covered by this Contract so that such provisions will be binding upon each subcontractor.

ARTICLE 20. SUCCESSORS AND ASSIGNS

This Contract shall bind the successors, assigns and representatives of the parties hereto. Notwithstanding the foregoing, this Contract may not be assigned by the CONTRACTOR nor shall the CONTRACTOR's rights, title or interest herein or hereto be assigned, transferred, conveyed, sublet, or disposed of without the previous written consent of the Director.

ARTICLE 21. RESPONSIBILITY FOR THE SITE

At all times throughout the performance of this Contract and until final acceptance of the Work hereunder, the CONTRACTOR shall be in control of and responsible for the Site and for any loss or damage to the Work to be performed and furnished under this Contract, however caused. This shall include responsibility for loss of or damage to materials, tools, equipment, appliances or other personal property owned, rented or used by the CONTRACTOR or anyone employed by it in the performance of the Work, however caused. Accordingly, the CONTRACTOR shall, at its own cost and expense, (1) keep the Site free at all times from all waste materials, packaging materials and other rubbish accumulated in connection with the execution of its Work, (2) clean and remove from its own Work and from all contiguous work of others any soiling, staining, mortar, plaster, concrete or dirt caused by the execution of

its Work and make good all defects resulting therefrom, (3) at the completion of its Work in each area, perform such cleaning as may be required to leave the area "broom clean," and (4) at the entire completion of its Work, remove all of its tools, equipment, scaffolds, shanties and surplus materials. Should the CONTRACTOR fail to perform any of the foregoing to the CITY's satisfaction, the CITY shall have the right to perform and complete such Work itself or through others and charge the cost thereof to the CONTRACTOR.

ARTICLE 22. INSURANCE

The CONTRACTOR agrees to obtain at its own cost and expense all insurance required by the attached Insurance Rider and to keep the same in continuous effect for a period of two (2) years following the date on which the Director indicates the termination of the CONTRACTOR's responsibilities hereunder. Before commencing the Project, the CONTRACTOR shall furnish the CITY's Corporation Counsel a certificate of insurance, and shall thereafter provide renewal certificates, as appropriate, evidencing such coverage written by a company or companies acceptable to the CITY. Each insurance certificate shall be endorsed to name the City of Norwalk as an additional insured party and shall provide that the insurance company providing coverage shall notify the CITY by certified mail at least thirty (30) days prior to the effective termination of or any change in the policy or policies coverage. No change in the coverage provided hereunder shall be made without the prior written approval of the Director.

ARTICLE 23. INDEMNIFICATION

A. The CONTRACTOR expressly agrees to that it shall at all times indemnify, defend and save harmless and that it shall require its own contractors, subcontractors, officers, agents, principals, representatives, consultants and employees to indemnify, defend and save harmless the City of Norwalk and its respective officers, agents and employees, from and against any and all demands; claims; damages; losses; litigation; financial costs and expenses, including counsel's fees; and compensation related to personal injuries (including death), any damage to property, real or personal, and any other loss, expense or aggravement directly or indirectly arising out of, related to or connected with this Contract Project and the Work to be performed hereunder by the CONTRACTOR, its employees, agents, subcontractors, material suppliers, or anyone directly or indirectly employed by any of them. The CONTRACTOR shall and does hereby assume and agree to pay for the defense of all such claims, demands, suits, proceedings and litigation. The provisions of this paragraph shall survive the expiration or early termination of this Contract; shall be separate and independent of any other provision or requirement of this Contract; and shall not be limited by reason of any insurance coverage provided hereunder. The CITY may withhold from any payment due or to become due to the CONTRACTOR an amount sufficient in its judgment to protect and indemnify the CITY, its officers, agents, servants and employees from and against any and all such claims and liabilities described above.

B. With respect to State funded or Administered Construction Projects, the CONTRACTOR agrees to indemnify and hold harmless the State, its officers, representatives, agents, servants, employees, successors and assigns from and against any and all (1) Claims arising, directly or indirectly, in connection with this Agreement or the Project or Work contemplated hereunder, including the acts of commission or omission (collectively, the "Acts") of the CONTRACTOR or the CONTRACTOR's officers, agents, employees, servants or consultants (Contractor's Parties); and (2) liabilities, damages, costs, and expenses including but not limited to, attorneys' and other professionals' fees, arising directly or indirectly, in connection with any action, suit, claim, demand, investigation or proceeding or any kind, pending or threatened, whether mature or unmature and, contingent, known or unknown at law or in equity in any forum, acts of the CONTRACTOR or the Contractor's Parties this Agreement, or any work hereunder, including but not limited to, design errors or omissions and failures to make necessary arrangements for utility work.

The CONTRACTOR and the Contractor's Parties' duties under this section shall remain fully in effect and binding in accordance with the terms and conditions of this Agreement and any extension thereof, without being lessened or compromised in any way, even where the CONTRACTOR and the Contractor's Parties are alleged or found to have merely contributed in part to the actions or omissions giving rise to the Claims and/or where the State or CITY is alleged or is found to have contributed to the actions or omissions giving rise to the Claims.

The CONTRACTOR and the Contractor's Parties shall carry and maintain at all times during the term of this Agreement, and during the time that any provisions survive the term of this Agreement, sufficient general liability insurance to satisfy its obligations under this Agreement. The CONTRACTOR and the Contractor's Parties shall name the CITY and the State of Connecticut as additional insureds on the policy. The CITY and the State shall be entitled to recover under the insurance policy even if a body of competent jurisdiction determines that either the CITY or the State is or was contributorily negligent.

Nothing in this provision, or elsewhere in this CONTRACT, shall be deemed to relieve the CONTRACTOR of its duty to defend the CITY or any Indemnified Party, as specified in this Contract, pending a determination of the respective liabilities of the CONTRACTOR, the CITY, or any Indemnified Party, by legal proceeding or agreement.

In furtherance to but not in limitation of the indemnity provisions in this Contract, CONTRACTOR hereby expressly and specifically agrees that its obligation to indemnify, defend and save harmless as provided in this Contract shall not in any way be affected or diminished by any statutory or constitutional immunity it enjoys from suits by its own employees or from limitations of liability or recovery under workers' compensation laws.

ARTICLE 24. SUBCONTRACTING AND ASSIGNMENTS

The CONTRACTOR shall not subcontract any portion of the Work to be performed hereunder unless the prior written consent of the Director is given for both the Work to be subcontracted and the subcontractor to perform the same.

In the event that the CITY approves of the hiring of subcontractors or subconsultants to pursue the Project, the CONTRACTOR agrees to cooperate as fully as possible with the CITY and any and all such subcontractors and subconsultants in the interests of the Project. The CONTRACTOR shall be as fully responsible to the CITY for the acts and omissions of its subcontractors and subconsultants as it is for the acts and omissions of its direct employees and shall require any subcontractor or subconsultant approved by the CITY to agree in a written Contract to observe and be bound by all obligations and conditions of this Contract to which CONTRACTOR is bound hereby including the requirements regarding insurance and indemnification.

Each subcontract agreement shall preserve and protect the rights of the CITY and the Project Architect/Design Engineer, under the Contract Documents with respect to the Work to be performed by the subcontractor so that the subcontracting thereof will not prejudice such rights, and shall allow the subcontractor, unless specifically provided otherwise, the benefits of all rights, remedies and redress against the CONTRACTOR that the CONTRACTOR has against the CITY pursuant to the Contract Documents.

Nor shall CONTRACTOR assign, sell, transfer, delegate or encumber any rights, duties or obligations arising under this Contract including, but not limited to, any right to receive payments hereunder, without the prior written consent of the CITY in its sole discretion. The giving of any such consent to a particular assignment shall not dispense with the necessity of such consent to any further or other assignments. In the event CONTRACTOR assigns, sells, encumbers or otherwise transfers its rights to any monies due or to become due under this Contract as security for any loan, financing or other indebtedness (herein "Assignment"), notification to the CITY of such Assignment must be sent by certified mail, return receipt requested, and the Assignment shall not be effective as against the CITY until the CITY provides its written consent to such Assignment.

The CONTRACTOR agrees that any such Assignment or subcontract shall not relieve the CONTRACTOR of any of its agreements, duties, responsibilities or obligations under this Contract and the other Contract Documents and shall not create a contractual relationship or a third party beneficiary relationship of any kind between the CITY and assignee or transferee. CONTRACTOR further agrees that all of the CITY's defenses and claims arising out of this Contract with respect to any Assignment are reserved unless expressly waived in writing by a duly authorized corporate officer. The CONTRACTOR hereby agrees to indemnify, defend and hold harmless the CITY from and against any and all loss, cost, expense or damages that the CITY has or may sustain or incur in connection with such Assignment.

ARTICLE 25. WARRANTY

The CONTRACTOR hereby warrants to the CITY that all of the Work shall be in conformance with the Plans, Specifications, and all Contract Documents and shall be of good quality and free from any faults and defects.

The CONTRACTOR shall remove, replace and/or repair at its own expense and at the convenience of the CITY any portion of the Work, materials or equipment which, at any time up until two (2) years from the date of final acceptance of the Work hereunder, the Architect or the CITY shall condemn as unsound, defective or improper or as in any way failing to conform to this Contract or the plans, specifications or other Contract Documents, and the CONTRACTOR, at its own cost and expense, shall replace the same with proper and satisfactory Work, materials and/or equipment.

Without limiting the generality of the foregoing, the CONTRACTOR warrants to the CITY that all materials and equipment furnished under this Contract will be of first class quality and new, unless otherwise required or permitted by the other Contract Documents; that the Work performed and materials used pursuant to this Contract will be free from any defects and that the Work will conform with the requirements of the Contract Documents. Work not conforming to such requirements, not of the prescribed quality, or not capable of meeting the CITY's performance specifications, including substitutions not properly approved and authorized, shall be considered defective and must be removed and replaced by CONTRACTOR at its own cost and expense. All warranties contained in this Contract and in the Contract Documents shall be in addition to and not in limitation of all other warranties or remedies required and/or arising pursuant to applicable law.

ARTICLE 26. NOTICE OF CLAIMS

Claims by either party must be in writing and sent within thirty (30) days following the occurrence of an event giving rise to the claim or within thirty (30) days after the claimant first acquires knowledge of or information concerning the claim, whichever occurs later to the extent that such knowledge or information could not have been reasonably obtained earlier. Claims must be made in writing and sent to the other party at the address(es) listed herein and shall describe the nature of the claim, the events or circumstances that gave rise to the claim with reasonable detail, and the amount thereof to the best of the claimant's information.

ARTICLE 27. LIQUIDATED DAMAGES

It is understood by the parties that timely completion of the Project is essential. Failure of the CONTRACTOR to complete the Project by the date stated herein will result in the CITY and the public incurring damages, additional costs and inconveniences that would be impossible or extremely difficult to accurately quantify at the time. Therefore, the parties agree that, if the CONTRACTOR fails to satisfactorily complete the Project hereunder within the time specified or within any extension of time

that may have been allowed, there shall be deducted from any monies due or that may become due the CONTRACTOR, the sum of _____ **AND NO CENTS (\$____.00)** for each and every calendar day, including Saturdays and legal holidays, that the Project remains incomplete in accordance with Article 5 of this Contract. This sum shall not be imposed as a penalty, but as liquidated damages due the CITY from the CONTRACTOR by reason of the damages incurred, inconvenience and additional costs and expenses to the public together with other problems suffered as a result of any such delay thereby occasioned.

ARTICLE 28. GENERAL PROVISIONS

A. This Contract shall be deemed binding only to the extent that sufficient funds are available and appropriated to the CITY for payment in accordance with the terms hereof and no liability on account of this Contract shall be incurred by the CITY beyond such moneys as are properly made available and appropriated for the Project.

B. The relationship of the CONTRACTOR to the CITY is that of an independent CONTRACTOR. The CONTRACTOR covenants and agrees that it will conduct itself consistent with such status; that it will neither hold itself nor any of its employees or agents out as nor claim to be an officer, agent, or employee of the CITY by reason hereof; and that it will not, neither for itself nor on behalf of any of its employees, agents, or subcontractors, by reason hereof, make any claim, demand or application to or for any right or privilege applicable to an officer or employee of the CITY, including, but not limited to, workers' compensation coverage, unemployment insurance benefits, social security coverage, or retirement membership or credit.

C. The CONTRACTOR hereby certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal or state department or agency. Should the CONTRACTOR be unable to certify the above statement, it shall attach a certified statement explaining such to this Contract. The CONTRACTOR further agrees to include the foregoing certification in any subcontract or purchase order, which it may enter into in furtherance of the Work contemplated hereunder.

D. No member of the governing body of the CITY, and no other officer, employee, or agent of the CITY, shall have any personal interest, direct or indirect, in this Contract, except as permitted by the Code of Ethics of the City of Norwalk; and the CONTRACTOR covenants that no person having such interest shall be employed in the performance of this Contract.

E. This Contract shall be construed in accordance with the laws of the State of Connecticut, and any action at law in connection herewith shall be brought in the Superior Court of the State of Connecticut, Judicial District Stamford/Norwalk.

F. The CONTRACTOR shall comply with all applicable laws, ordinances and codes of any governmental body having jurisdiction over any matter related to this Contract or the services to be performed hereunder, and shall commit no trespass on any private property in performing any of the Work embraced herein.

G. This Contract when fully executed and approved, incorporates and constitutes all the understandings of the parties hereto, supersedes any and all agreements, communications, representations, and negotiations either oral or written, between the parties, and all commitments made by the parties prior to the execution of this Contract with respect to the subject matter hereof, whether oral or written, and shall not be released, amended or modified in any way unless by a written instrument signed by the parties hereto.

H. If any provision of this Contract is held invalid, the balance of the provisions of this Contract shall not be affected thereby if the balance of the provisions of this Contract would then continue to conform to the requirements of applicable laws.

I. Each and every provision and clause required by law to be inserted in this Contract shall be deemed to be inserted herein and the Contract shall be read and enforced as though such provisions and clauses were included herein. If, through mistake or otherwise, any such provision is not inserted or is not correctly inserted, then upon the written consent of the parties, this Contract shall forthwith be physically amended to make such insertion.

J. **Remedies are nonexclusive.** No right, power, remedy or privilege of the CITY shall be construed as being exhausted or discharged by the exercise thereof in one or more instances, and it is agreed that each and all of said rights, powers, remedies or privileges shall be deemed cumulative and additional and not in lieu or exclusive or any other right, power, remedy or privilege available to the CITY at law or in equity.

K. All notices of any nature referred to in this Contract shall be in writing and sent by registered or certified mail, postage prepaid, to the respective addresses set forth below or to such other addresses as the respective parties hereto may designate in writing:

To the City:

_____, Director
Public Works Department
125 East Avenue, P.O. Box 5125
Norwalk, Connecticut 06856-5125

With copies to:

Office of Corporation Counsel
125 East Avenue, P.O. Box 798
Norwalk, Connecticut 06856-0798

To the Contractor:

L. The CONTRACTOR represents to the CITY as follows:

(i) that the CONTRACTOR is a legally existing corporation under the laws of its respective states of incorporation and has not previously filed, nor is presently contemplating filing, nor has received notice of a petition of, nor contemplates receiving notice of a petition of, bankruptcy, liquidation, receivership or any other action for the protection of creditors or debtors;

(ii) that the CONTRACTOR has the financial resources to perform this Contract and that it is not the subject of any litigation or action, pending or threatened, regarding this Contract or which, if resulting in an adverse decision, would affect its ability to perform its duties under this Contract;

(iii) that it has, and has exercised, the required corporate power and authority and has complied with all applicable legal requirements necessary to adopt, execute and deliver this Contract and to assume the responsibilities and obligations created hereunder; and

(iv) that this Contract is duly executed and delivered by an authorized corporate officer, in accordance with such officer's powers to bind the CONTRACTOR hereunder, and constitutes a valid and binding obligation enforceable in accordance with its terms, conditions and provisions.

M. The CITY of Norwalk's hiring practices strive to comply with all applicable federal regulations regarding employment eligibility and employment practices. Thus, all individuals and entities seeking to do work for the CITY are expected to comply with all applicable laws, governmental requirements and regulations, including the regulations of the United States Department of Justice pertaining to employment eligibility and employment practices. The CITY reserves the right at its discretion, but does not assume the obligation to require proof of valid citizenship or, in the alternative, proof of a valid green card for each person employed in the performance of work or services for the City of Norwalk. By reserving this right the CITY does not assume any obligation or responsibility to enforce or ensure compliance with the applicable laws and/or regulations. By signing this Contract the CONTRACTOR hereby certifies to the City of Norwalk that it is in compliance with all applicable regulations and laws governing employment practices.

N. The Contract and its attached exhibits include applicable State of Connecticut and federal governmental requirements that the Contractor must comply with and must require its subcontractors, consultants, and consulting engineer, as applicable, to comply with. The Contractor hereby acknowledges that such requirements

are subject to revision by the state or federal governmental authorities from time to time during the Contract term and that by entering into a Contract with the City, the Contractor agrees to be subject to such revised requirements and changes of law as in effect at any given time and, as a result thereof, shall perform any additional obligations with respect to the particular Project, throughout the term of its applicable Contract. The Contractor shall observe all Federal, State and Local Laws, Ordinances, policies, practices and regulations. In addition, the Contractor agrees to promptly procure all necessary approvals, licenses and permits, pay all charges and fees, and give all notices necessary and incident to the due and lawful prosecution of the work.

O. Conflict. In case of a conflict between the provisions of the Contract any State and federal requirements, or any specification, guide, manual, policy, or requirement of the Contract Documents, or other publication referenced in the Master Agreement, the provision containing additional details or more stringent requirements will control. In case of the Contractor's inability to determine the controlling provision or where it is not possible to comply with the requirements of multiple provisions, the City shall have the right to determine, in its sole discretion, which provision applies. The Contractor shall promptly request in writing the City's determination upon the Contractor's inability to determine the controlling provision or upon becoming aware of any such conflict. This provision shall survive the expiration or termination of the Contract.

P. Revision to State/Federal Manuals. With respect to any referenced guide, manual, policy, document, or other publication noted in the Contract and noted to be subject to revision throughout the term of the Contract, the Contractor agrees to comply with the version of the document or publication that is in effect on the date of the Contract.

Q. Review of Municipality's Activities. The Contractor shall cooperate fully with the City and permit the City, or other state or federal authority, as applicable, to review, at any time during the Work, all activities performed by the Contractor with respect to any Work under this Contract. Upon request of the City, the Contractor shall timely furnish all documents related to the Work so that the City may evaluate the Contractor's activities with respect to the Project, including, but not limited to, its performance of the Work pursuant to this Contract, and applicable law.

IN WITNESS WHEREOF, this Contract has been executed in four (4) counterparts by the CITY, acting by and through its Mayor, who has caused the seal of his office to be affixed hereto, and the CONTRACTOR has duly executed this Contract on the day and year first above written.

Signed, Sealed and Delivered
in the Presence of:

CITY OF NORWALK

Witness

By: _____

**Its Mayor
Duly Authorized**

Witness

Date Signed: _____

Signed, Sealed and Delivered
in the Presence of:

«VendorName»

Witness

By: _____

**Its
Duly Authorized**

Witness

Date Signed: _____

**(Affix corporate seal if a
corporation.)**

**APPROVED AS TO FORM:
OFFICE OF CORPORATION COUNSEL**

By: _____

**APPROVED AS TO
AVAILABILITY OF FUNDS:**

By: _____
Comptroller

Date: _____

SECTION 103 AWARD AND EXECUTION OF CONTRACT

§103-01 AWARD OF CONTRACT

Award of Contract will be made only to the lowest responsible bidder as will best promote the public interest. The City reserves the right to reject any or all Bids or any portion thereof, or, to award to other than the low bidder, to waive minor informalities, to advertise for new bids, or to proceed to do the Work otherwise, if, in its opinion, the best interests of the City will thereby be promoted.

If requested by the City, the bidder must present evidence of experience, ability and financial standing, as well as a statement as to equipment.

§103-02 EXECUTION OF CONTRACT

The person or persons whose Bid is accepted will be required to execute the written Contract provided by the Corporation Counsel and to comply in all respects with the insurance coverage and bonding requirements relating to the Contract within ten days of the date of the delivery of the Contract form by the Corporation Counsel. In case of failure or refusal on the part of the bidder to deliver the duly executed Contract to the Corporation Counsel within the ten day period herein mentioned, the amount of the bid deposit made will be forfeited to the City of Norwalk.

The Contractor agrees that he will conduct his operations in compliance with all the laws, and regulations of the United States, the State of Connecticut, the City of Norwalk. All costs due to compliance with the above described laws, regulations, and ordinances shall be included in the prices bid for Contract Items unless otherwise provided for in the Contract.

§103-03 RIGHT TO SUSPEND WORK AND CANCEL CONTRACT

If at any time during the prosecution of the Work the Director of Public Works determines that the Work upon the Contract is not being performed according to the Contract Documents or in accordance with the best interests of the City, the execution of the Work by the Contractor may be temporarily suspended by the Director, who may then proceed with the Work under his own direction in such manner as will accord with the Contract Documents and be for the best interests of the City; or he may terminate the Contractor's employment under the Contract while it is in progress, and thereupon proceed with the Work, in affirmance of the Contract, by a new Contract negotiated or publicly let, by the use of his own forces, by calling upon the surety to complete the Work in accordance with the plans and specifications or by a combination of any such methods. If the cost of completing the Contract exceeds the price for which it was originally awarded, such costs shall be charged to and paid by the Contractor or its surety.

Whenever the City determines to suspend or stop work under the Contract, a written notice sent by mail to the Contractor at his address and to the sureties at their respective addresses, shall be sufficient notice of its action.

§103-04 BONDS

The Contractor shall procure and maintain without any expense to the City and until final acceptance of the Work the following:

A. **FAITHFUL PERFORMANCE BOND.** A bond in the form acceptable to the Corporation Counsel with sufficient sureties, to ensure that the Contractor will perform the Work in accordance with the terms of the Contract and with the plans and specifications, therefore, and that the same will be completed within the time prescribed in the Contract;

B. **LABOR AND MATERIAL BOND.** A bond in a form acceptable to the Corporation Counsel guaranteeing prompt payment of all monies due all persons supplying the Contractor or a Subcontractor with labor or materials employed or used in carrying out the Work. The bond shall inure to the benefit of the persons supplying such labor or materials.

C. **MAINTENANCE BOND.** See Section 109-15.

D. **AMOUNT OF BONDS.** The amounts of the Faithful Performance Bond and Labor and Material Bond shall each be 100% of the amount of the Contract price.

E. All bonds shall be submitted to the office of the Norwalk Corporation Counsel for review at least five days prior to the scheduled signing of a Contract. No work on the Contract shall commence until such bonds have been properly completed and submitted.

§103-05 LIQUIDATED DAMAGES

Time is of the essence for the Project. The Contractor is expected to perform the Work within the time limitations set out in the Contract Documents, with due allowance being made for any extensions of time made in accordance with the provisions herein set out. In the event that the Contractor shall not so perform, it shall be liable to the City for liquidated damages in accordance with that specified in the Contract, for each calendar day that the Contractor is in default of completion. The City will deduct the liquidated damages from any amount due or that may become due to the Contractor, or to collect the liquidated damages for the Contractor or its surety.

SECTION 104 SCOPE OF WORK

§104-01 WORK REQUIRED

The Contractor shall be required to perform all Work enumerated under the different items of the Contract and to protect all adjoining property, all Utilities and existing roadway facilities within the Right-of-Way/Site and to repair or replace any such properties, Utilities and facilities damaged or destroyed by him or his employees in performing the Work, both within and adjacent to the Right-of-Way/Site.

The Contractor's attention is directed to the fact that during the life of this Contract the owners and operators of Utilities may make changes in their facilities within the limits of or adjacent to this Contract which may be both temporary and permanent. The Contractor shall be responsible for the coordination of the Work of his various Subcontractors. Their respective operations shall be arranged and conducted so that delays will be avoided. Where the Work of the Contractor, or Subcontractors, overlaps or dovetails with that of other Contractors, materials shall be delivered and operations conducted so as to carry on the Work continuously in an efficient and workmanlike manner.

Delays or oversights on the part of the Contractor or Subcontractors or Utility owners in getting any or all of their Work properly done, thereby requiring the cutting, removing and replacing of Work already in place, shall not be the basis of a claim by the Contractor or request by the Contractor for extra compensation. Such Work will be performed at the cost and expense of the offending Contractor, Subcontractor or Utility owners.

§104-02 ALTERATIONS AND OMISSIONS

The Work shall be performed in accordance with the true intent and meaning of the Contract Documents without any further expense of any nature whatsoever to the City other than the consideration named therein.

The City reserves the right, at any time during the progress of the Work, to alter the plans or omit any portion of the Work as it may deem reasonably necessary for the public interest. In such event, allowances will be made for additions and deductions in compensation at the prices named in the bid for this Work and shall not constitute grounds for any claim by the Contractor for damages, loss of anticipated profits, or for any variations between the approximate quantities and the quantities of the Work as done.

§104-03 CONTINGENCIES, EXTRA WORK, DEDUCTIONS

Whenever the Director of Public Works determines that from any unforeseen cause the terms of any Contract should be altered to provide for changes, contingencies or Extra Work, he may issue an Order on Contract to the Contractor who shall forthwith proceed

with the performance of the Work and the furnishing of the materials and equipment necessary for its accomplishment in accordance with the pertinent specifications. No such Extra Work shall be commenced or undertaken until the Director has issued a signed, written Order on Contract.

No instruction or Extra Work, either written or verbal, shall be construed as an order for changes unless it be in the form of a written Order on Contract bearing the signed approval of the Director.

Payment for unforeseen Work shall be made as provided for in §109-04 "EXTRA AND FORCE ACCOUNT WORK."

§104-04 CLOSING OF HIGHWAY

The legal closing of a roadway and/or street to public travel in the manner provided by the Code of the City of Norwalk will be accomplished by the Director of Public Works when requested. All roadways are not closed during highway construction operations.

When a highway, roadway or street is legally closed and public travel diverted therefrom adequate warning, danger and direction signs and lights shall be erected and maintained by the Contractor to properly and reasonably protect the public by day and by night. Suitable barricades shall also be erected at the ends of such closed sections of roadways and large signs displayed indicating such closure. All signs, barricades and other traffic control devices used shall conform to the Manual on Uniform Traffic Control Devices for Streets and Highways as approved and amended.

§104-05 RESTRICTED USE OF HIGHWAY

Pursuant to the Contract, the Director may, when it is determined to be necessary, place restrictions in the use of any particular section of roadway under construction.

The Director will therefore cause signs indicating such restrictions to be placed at such points as he deems necessary for the safe use of the roadway, as restricted. The traveling public and the Contractor must observe and comply with these restrictions as posted, except that the Contractor may be allowed greater latitude with respect to size and weight of construction equipment. The size and weight of construction equipment used within the Contract limits will be limited to that which is suitable and practical for the operation at hand so as not to injure or cause damage to the Work that is being done or to that portion of the old roadway that is to be retained as part of the completed Contract.

The Engineer's determination shall control. The Contractor may therefore utilize such equipment which does not exceed the legal weights outlined in the Vehicle and Traffic laws of the State of Connecticut without specific approval. Loads in excess of the legal weights will not be permitted on any structure, on any new pavements, or on any resurfacing Contract, except as provided under §105-12, "Construction Equipment".

§104-06 CLEANING UP

During the Project the Contractor shall maintain the Site in a clean, orderly and safe condition at all times. Upon completion of the Work, the Site shall be neatly cleaned up and restored according to the Engineer's directions, so that the Site shall be left in a neat and orderly condition.

Any salvaged material not specified to be disposed of otherwise, shall become the property of the Contractor and removed from the Site.

§104-07 METHODS AND EQUIPMENT

Where particular methods or equipment are specifically required in these specifications, the Contractor may apply in writing to the Engineer for authorization to use alternate methods and equipment to provide the same results. Such alternates may be used only after favorable recommendation by the Engineer and the written approval of the Director. When, in the opinion of the Engineer, satisfactory results are not being obtained using the Contractor's alternate methods and equipment, the methods and/or equipment shall be immediately modified to produce satisfactory results in accordance with the requirements of the Director.

SECTION 105 CONTROL OF THE WORK

§105-01 STOPPING WORK

The Director may stop by written order any Work or any part of the Work under the Contract if the methods or conditions are such that unsatisfactory Work might result, or if improper material or workmanship is being used.

§105-02 ORDERS TO FOREMEN

Whenever the Contractor or its superintendent is not present on any part of the Work where it may be desired to give directions, orders will be given by the Engineer or his representative and shall be received and obeyed by the person in charge of the particular Work for which the orders are given. All foremen shall be acceptable to the City. The Director has the right to accept or reject anyone proposing to serve as foreman on the Project.

§105-03 ACCURACY OF PLANS AND SPECIFICATIONS

The detail plans and specifications for the Contract have been prepared with care and are intended to show as clearly as is practicable the Work required to be done. The Contractor must realize, however, that construction details cannot always be accurately anticipated and that in executing the Work, field conditions may require reasonable modifications in the details of plans and quantities of Work involved. Work under all

items in the Contract Documents must be carried out to meet these field conditions to the satisfaction of the Engineer and in accordance with his instructions and the Contract specifications.

The Contractor shall take no advantage of any apparent error or omission in the plans or specifications. In the event the Contractor discovers an error or omission in the plans or specifications, it shall immediately notify the Engineer in writing. The Engineer will then make corrections and interpretations as may be deemed necessary for fulfilling the intent of the plans and specifications.

§105-04 CONFORMITY WITH PLANS AND SPECIFICATIONS

All Work performed and all materials furnished shall be in reasonably close conformity with the lines, grades, cross sections, dimensions and material requirements, including tolerances, shown on the plans or indicated in the specifications.

Plan dimensions and Contract specification values are to be considered as the target value to be strived for and complied with as the design value from which any deviations are allowed. It is the intent of the specifications that the materials and workmanship shall be uniform in character and shall conform as nearly as realistically possible to the prescribed target value or to the middle portion of the tolerance range. The purpose of the tolerance range is to accommodate occasional minor variations from the median zone that are unavoidable for practical reasons. When a maximum or minimum value is specified, the production and processing of the material and the performance of the Work shall be so controlled that material or Work will not be preponderantly of borderline quality or dimension.

In the event the Engineer finds the materials or the finished product in which the materials are used not within reasonably close conformity with the plans and specifications but that reasonably acceptable Work has been produced, he shall then make a determination whether the Work is reasonably satisfactory and, on that basis shall be accepted and remain in place. In this event, the Engineer will document the basis of acceptance by Contract modification which will provide for an appropriate adjustment in the Contract price for such Work or materials as he deems necessary to conform to his determination based on engineering judgment.

In the event the Engineer finds that the materials, the finished product in which the materials are used, or the Work performed is not in reasonably close conformity with the plans and specifications and has resulted in an inferior or unsatisfactory product, the Work or materials shall be removed and replaced or otherwise corrected by and at the expense of the Contractor.

§105-05 PROJECT RECORDS

The Engineer is required to keep project records in accordance with the standard procedures in force at the time the project is started. The Contractor is invited to review these procedures with the Engineer if he so desires.

§105-06 INTERPRETATION OF PLANS

In case of any difference in the interpretation of the plans, specifications or maps, or between them, the matter must be immediately submitted to the Director of Public Works, who shall adjust the same, and his decision shall be final and conclusive.

§105-07 SUSPENSION, POSTPONEMENT OR TERMINATION OF CONTRACT

A. Suspension, Postponement or Termination by the City.

(1) For Convenience. The City, at its sole discretion, may suspend, postpone, or terminate a Project and its Contract for convenience or as a result of any Contract termination by or loss of funding from any third party source such as the state or federal government. To effectuate such a suspension, postponement or termination, the City will give the Contractor twenty (20) days prior notice, and such action shall in no event be deemed a breach of the Contract by the City.

(2) For Cause. As a result of the Contractor's breach of the Contract or failure of the Contractor, its subcontractor, consultant, consulting engineer, or any combination of the foregoing to perform the Work required on any particular Project to the City's satisfaction in accordance with the Contract Documents, the City may suspend, postpone or terminate the Contract for cause by giving the Contractor ten (10) days notice, provided that the Contractor fails to cure, or begin to cure, the breach or failure, to the satisfaction of the City in its sole discretion, within such cure period that the City may, in its sole discretion, set forth in the notice. Such notice shall specify the extent to which performance of Work under the Contract is being suspended, postponed or terminated and the date upon which such actions shall be effective. Termination for cause by the City will not prejudice the right of the City to pursue any of its remedies for breach, including recovery of any compensation paid to the Contractor prior to termination for cause.

B. Funding of Acceptable Work. Upon suspension, postponement, or termination in accordance with subsection (a) the City may compensate the Contractor for its expenditures, if any, up to the percentage of acceptable Work completed as of the date of termination, in accordance with the following:

(1) The City, may, at its sole discretion, reimburse the Contractor at the Contract unit prices (as specified in the bid documents) for the actual number or units of Contract items completed prior to the effective date of termination, or as may be agreed

by the parties for items of Work partially completed, provided the City finds the Work to be acceptable. If the Work is not acceptable, the City may withhold payment to the Contractor at its sole discretion. No claim for loss of overhead or anticipated profits that may be asserted by the Contractor or its subcontractors, consultants or consulting engineer will be allowed or funded as a reimbursable Project cost.

(2) When the volume of Work completed, as of the termination date, is not sufficient to reimburse the Contractor under Contract unit prices (as specified in the bid documents) for its related expenses, the City, at its sole discretion, may reimburse the Contractor for such expenses depending on the availability of additional funding.

(3) Materials obtained by the Contractor or its subcontractor for the Project that have been inspected, tested as required, and accepted by the City, and that have not been incorporated into the Work may be purchased from the Contractor at actual cost as shown by receipted bills. To this cost shall be added all actual costs for delivery at such points of delivery as may be designated by the City, as shown by actual cost records. The Contractor will be reimbursed by the City for such costs of the material and the City, at its sole discretion, will determine which material will become the property of the City.

(4) If the City or other applicable governmental authority deems any of the Work that the Contractor performed, or engaged a subcontractor to perform on its behalf, to be unacceptable, then upon demand by the City or other applicable governmental authority the Contractor shall promptly return, in whole or in part, to the City or other applicable governmental authority the funding that, prior to the effective date of termination, was disbursed to the Contractor to fund that unacceptable Work.

C. Termination of a specific Project shall not relieve the Contractor or its subcontractor, consultant, or consulting engineer of its responsibilities for the Work completed as of the termination date, nor shall it relieve the Contractor or any subcontractor or its surety of its obligations concerning any claims arising out of the Work performed on the Project prior to the termination date or any obligations existing under bonds or insurance required by this or any other agreement with the City.

§105-08 COOPERATION BY THE CONTRACTOR

The Contractor shall give his constant personal attention to the Work while it is in progress or he shall (with the approval of the Director) place it in charge of a competent, professional and reliable superintendent, who shall have authority to act for the Contractor and who shall be acceptable to the Engineer. The Contractor shall, at all times, employ labor and equipment which shall be sufficient to prosecute the several classes of Work to full completion in the manner and time specified. All workmen must have sufficient skill and experience to properly perform the Work assigned them. All workmen engaged on special or skilled Work shall have had sufficient experience in such Work to properly and satisfactorily perform it and operate the equipment involved. Any person employed by the Contractor whom the Engineer may deem incompetent or unfit

to perform the Work shall be at once discharged, and shall not be again employed. In case the Contractor disagrees with the Engineer regarding the discharge of such employees, the matter may be reviewed by the Director, and his decision shall be accepted as final.

§105-09 WORK AFFECTING RAILROADS

All Work on any project affecting a Railroad Company's property, right of way facilities shall be carried out under the joint supervision of the Department and the Railroad Company in a manner satisfactory to both these agencies.

§105-10 STAKEOUT

The Contractor shall perform all layout Work necessary for the satisfactory execution of the construction as shown on the Contract Drawings and all cost in connection therewith shall be included in the Unit Prices Bid unless a specific Item is listed in the Bid Form.

The Contractor shall employ competent personnel and all Work shall be subject to the approval of the Engineer.

The Contractor shall be held responsible for the protection and safeguarding of all control points and benchmarks set by the Engineer. Any replacement or re-establishment of control points or benchmarks by the Engineer, shall be at the expense of the Contractor.

§105-11 REMOVAL OF UNSATISFACTORY WORK

Wherever or whenever the Director shall consider it necessary to remove any portion of the Work executed under this Contract for inspection or for any other purpose, no payment shall be made for such removal or for replacement of the Work to satisfactory condition in case such inspection shows that the Work was not constructed in accordance with the terms of the Contract Documents; nor shall payment be made for the removal or replacement of any Work which may itself be satisfactory, but the removal of which is necessary for the replacement of unsatisfactory Work.

But if such inspection shows that the Work was constructed in accordance with the terms of the Contract, payment shall be made for the removal and replacement at fair and reasonable prices for the Work performed under an Order on Contract.

All Work shall be in a first-class and satisfactory condition in compliance with the Contract Documents at the time of the acceptance of the completed Project.

§105-12 CONSTRUCTION EQUIPMENT

It is the intent of these specifications to permit the use of the most efficient equipment that is consistent with conditions at the time of use. It is, however, anticipated that seasonal or weather conditions combined with the nature of the terrain or character of

the site will often require the use of lighter and smaller equipment that might be used under optimum conditions.

Construction equipment exceeding the maximum axle loading allowable by law shall not be operated on or across any segment of pavement or structure, which is to be retained as part of the ultimate section without specific authorization in writing by the Engineer. This authorization shall indicate specifically the limits within which such equipment with over legal axle loads shall operate, frequency of such over loads and any other limiting factors consistent with conditions.

If the Engineer determines that the use of heavy equipment on portions of the road section other than pavement, on any part of or all of a Contract, is having or will result in detrimental effects on the finished roadway he will so notify the contractor in writing and shall indicate the maximum weight and/or axle load for any equipment that may be used for any specific operation or location.

§105-13 CONSTRUCTION EQUIPMENT IDENTIFICATION

All construction equipment used for compaction purposes shall be marked by means of an identification plate or other approved means indicating:

- A. Name.
- B. Model.
- C. Weight (Net and Ballast)
- D. Year of Manufacture.

This means of identification shall be permanently attached to the equipment, shall not be altered in any manner and shall be legible at all times.

§105-14 DISPUTED WORK

If the Contractor is of the opinion that any work ordered to be done as Contract Work by the Engineer is Extra Work, and not Contract Work, or that any order of the Engineer violates the provisions of the Contract, the Contractor shall promptly notify the Director and the Engineer in writing of his contentions with respect thereto, and the Director shall make a finding thereon which shall be accepted by all parties as final. The Work shall, in the meantime, be progressed by the Contractor as required and ordered. During the progress of such disputed work the Contractor and Engineer shall keep daily records and make reports of all labor, material and equipment used in connection with such Work and the cost thereof as specified in §109-04 "EXTRA AND FORCE ACCOUNT WORK."

If the Director determines that the work in question is Contract Work, and not Extra Work, and that the order complained of is proper, he shall direct the Contractor to continue the disputed Work and the Contractor must promptly comply. The Contractor's right to file a claim for extra compensation or damages will not be affected in any way by

his complying with the directions of the Director, provided the Contractor continues to keep and furnish the Engineer with Force Account Reports as specified in §109-04.

If the Director determines that such Work is Extra Work, and not Contract Work, or that the order complained of is not proper, then the Director shall have prepared, if necessary, an Order on Contract covering such Work. This will be done as soon after the determination as is practical. Adjustments in Contract items or the addition of new items to the Contract necessitated by any such determination may be made up until the time the final agreement is submitted for payment provided that all the requirements of this subsection, "Disputed Work" and the section entitled §104-03 "CONTINGENCIES, EXTRA WORK, DEDUCTIONS," are complied with.

In the event the Contractor fails to furnish force account reports, such failure shall constitute a waiver of any claim of payment for disputed Work other than for payment at Contract unit prices for the Work performed.

§105-15 CONTRACTOR'S RESPONSIBILITY FOR WORK

The Contractor is responsible for carrying out the provisions of the Contract Documents at all times, regardless of whether an authorized inspector is present or not. Any Work or item that is, at any time, found to be out of specifications or not in compliance with the plans shall be subject to such corrective measures as are directed in writing by the Engineer.

Additionally, the Contractor shall reimburse the City for all construction and other costs related to the Project that result from or arise out of the errors or omissions of the Contractor, its subcontractors, agents, employees, or consultants including but not limited to errors or omissions related to the inadequate inspection, Contract administration or construction activities. The costs to be reimbursed will include all amounts attributable to Contractor's errors or omissions, as determined by the City. This provision will survive the termination or expiration of the Contract, and the final acceptance of the Work or Project.

§105-16 CLEARING AND GRUBBING

When no price for ITEM 201, "Clearing and Grubbing," is asked for on the Bid form, the cost of the Work as shown on the Contract Drawings shall be included in the cost of other Items and no direct payment for "Clearing and Grubbing" will be made.

§105-17 PREPARATION OF SUBGRADE

When no price for ITEM 209, "Preparation of Subgrade" is asked for on the Bid form, the cost of the Work as shown on the Contract Drawings shall be included in the cost of other Items and no direct payment for "Preparation of Subgrade" will be made.

§105-18 MAINTENANCE AND PROTECTION OF TRAFFIC

When no price for ITEM 971, "Maintenance and Protection of Traffic," is asked for on the Bid form, the cost of the Work as shown on the Contract Drawings shall be included in the cost of other Items and no direct payment for "Maintenance and Protection of Traffic" will be made.

SECTION 106 CONTROL OF MATERIALS

§106-01 SOURCE OF SUPPLY AND QUALITY REQUIREMENTS

All materials used in the Work shall meet the quality requirements described in the Material Detail Section of the specifications unless the same are altered by specific notes shown upon the plans, or in the Bid.

It shall be the responsibility of the Contractor to advise the Engineer of the sources of proposed materials sufficiently in advance of their use.

Immediately upon award of the Contract, the Contractor shall furnish in writing to the Engineer the sources of supply, types of all items and kinds of materials, which he proposes to use in the Work. No change shall be made in the sources of supply or kinds of materials or in the type of any item except upon written approval by the Engineer.

§106-02 STORAGE OF MATERIALS

Materials shall be so stored as to insure the preservation of their quality and fitness for the Work. Stored materials, even though accepted before storage, shall be inspected prior to their use in the Work and shall meet the requirements of the Contract at the time of their use.

§106-03 CERTIFICATIONS

The Contractor shall furnish at his own expense and upon request of the Engineer a certified test report, materials certificate and certificate of compliance for all items and materials incorporated into the Work.

These documents shall be forwarded to the Engineer. In addition, a copy of the certified test report and materials certification shall be forwarded to the Project Site.

Materials requiring such documentation may be conditionally incorporated in the Work prior to receipt of a certified test report and a materials certificate; however, payment for such incorporated materials will not be made prior to receipt of the required documentation which shows that the material meet the requirements of the specifications.

If the reports and certificates show the material conditionally incorporated in the Work does not meet the requirements of the specifications, such material shall be removed and replaced with material which does meet the requirements, at no cost or expense to the City.

A certified test report is a document containing a list of the dimensional, chemical, metallurgical, electrical and physical results obtained from an actual test of the materials involved, and shall certify that the materials meet the requirements of the plans and specifications, and shall also include the following information:

1. Item number and description of material;
2. Date of Manufacture;
3. Date of Testing;
4. Name of organization to whom the material is consigned;
5. Quantity of material represented, such as batch, lot, group, etc.;
6. Means of identifying the consignment, such as label, marking, lot
7. Date and method of shipment;
8. Name of organization performing tests.

The certified test report shall be signed by an authorized and responsible agent for the organization manufacturing the material, and it shall be notarized.

A Material Certificate is a document certifying that the materials, components and equipment furnished, conform to all requirements of the plans and specifications. The document shall also include the following information:

1. Project to which the material is consigned;
2. Name of Contractor to whom material is supplied;
3. Item number and description of material;
4. Quantity of material represented by the certification;
5. Means of identifying the consignment, such as label, marking, lot number, etc.;
6. Date and method of shipment.

The material certificate shall be signed by an authorized and responsible agent for the organization supplying the material, and shall be notarized.

A Certificate of Compliance is a document certifying that the materials, components and equipment covered by the previously submitted certified test report and materials certificate, have been installed in the Work and that they conform to all the requirements of the plans and specifications. The following information shall also be required on the document:

1. Project number;
2. Item number and description of material;
3. Quantity represented by the certificate;
4. Name of manufacturer.

The certificate of compliance shall be signed by an authorized and responsible agent for the prime Contractor, and shall be notarized.

§106-04 WARRANTIES, GUARANTEES AND INSTRUCTION SHEETS

Manufacturers' warranties and guarantees furnished for materials used in the Work and instruction sheets and parts lists supplied with materials shall be delivered to the Engineer prior to acceptance of the Work, and shall be written so as to provide to the City the benefit of their protections.

§106-05 EQUIVALENTS

The requirements for apparatus, articles, or materials shall be specified, if feasible, in generic terms, which afford competition for equivalent products or items. When no generic specification can be found or devised, a minimum of at least three, if available, known acceptable trade names or proprietary products shall be provided for the Contractor's benefit and to afford the desired competition.

The Director shall be the judge of the qualifications of the products and will determine all questions regarding the conformance of any item with the specifications.

§106-06 DOMESTIC MATERIALS

Preference will be given to articles or materials manufactured or produced within the United States, conditions of quality and price with duty being equal. Unless otherwise stated in the Bid or on the plans, it will be understood that only domestic articles or materials will be used on the job.

§106-07 SHOP DRAWINGS

After checking and verifying all field measurements, the Contractor shall submit to the Engineer for review and approval, copies of all Shop Drawings, which shall have been identified, checked by and stamped with the approval of the Contractor as the Engineer may require. The data shown on the Shop Drawings shall be complete with respect to dimensions, design criteria, materials of construction and all other necessary data to enable the Engineer to review the information as required.

The Contractor shall also submit to the Engineer for review and approval with such promptness as to cause no delay in the Work, all samples required by the Specifications. All samples shall have been checked by and stamped with the approval of the Contractor, identified clearly as to material, manufacturer, any pertinent catalogue numbers and the use for which intended.

At the time of each submission, the Contractor shall be responsible for notifying the Engineer in writing calling the Engineer's attention to all deviations that the Shop Drawings or samples may have from the requirements of the Specifications.

The Engineer will review and approve with reasonable promptness Shop Drawings and samples, but the Engineer's review and approval shall be only for conformance with the design concept of the Project and for compliance with the information given in the Specifications and shall not extend to means, methods, sequences, techniques or procedures of construction or to safety precautions or programs incident thereto. The review and approval of a separate item as such shall not indicate approval of the assembly in which the item functions. The Contractor shall make all corrections required by the Engineer and shall return the required number of corrected copies of Shop Drawings and resubmit new samples for review and approval. The Contractor shall direct specific attention in writing to revisions other than the corrections called for by the Engineer on previous submittals. The Contractor's stamp of approval on any Shop Drawing or sample shall constitute a representation to the Engineer that the Contractor has either determined and verified all quantities, dimensions, field construction criteria, materials, catalogue numbers, and similar data or assumes full responsibility for doing so, and that the Contractor has reviewed or coordinated each Shop Drawing or sample with the requirements of the Work and the Specifications.

Where a Shop Drawing or sample is required by the Specifications, no related Work shall be commenced until the submittal has been reviewed and approved by the Engineer.

The Engineer's review and approval of Shop Drawings or samples shall not relieve the Contractor from responsibility for any deviations from the Specifications unless the Contractor has in writing called the Engineer's attention to such deviation at the time of submission and the Engineer has given written concurrence and approval to the specific deviation, nor shall any concurrence and approval by the Engineer relieve the Contractor from responsibility for errors or omissions in the Shop Drawings or samples.

SECTION 107

LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

§107-01 LAWS, PERMITS AND LICENSES

A. The Contract and its attached exhibits include applicable State of Connecticut and federal governmental requirements with which the Contractor, its subcontractors, consultants, and subconsultants must comply. The Contractor hereby acknowledges that such requirements are subject to revision by the state or federal governmental authorities from time to time during the Contract term and that, by entering into a Contract with the City, the Contractor agrees to be subject to such revised requirements and changes of law as may be in effect at any given time and, as a result thereof, shall perform any additional obligations that may arise with respect to the Project, throughout the term of its applicable Contract. The Contractor shall observe all Federal, State and Local Laws, Ordinances, policies, practices and regulations. In

addition, the Contractor agrees to promptly procure all necessary approvals, licenses and permits, pay all charges and fees, and give all notices necessary and incident to the due and lawful prosecution of the Work.

B. Conflict. In case of a conflict between the provisions of the Contract and any state and federal requirements, or any specification, guide, manual, policy, or requirement of the Contract Documents, or other publication referenced in the Master Agreement, the provision containing additional details or more stringent requirements will control. In case of the Contractor's inability to determine the controlling provision or where it is not possible to comply with the requirements of multiple provisions, the City shall have the right to determine, in its sole discretion, which provision applies. The Contractor shall promptly request in writing the City's determination upon the Contractor's inability to determine the controlling provision or upon becoming aware of any such conflict. This provision shall survive the expiration or termination of the Contract.

C. Revision to State/Federal Manuals. With respect to any referenced guide, manual, policy, document, or other publication noted in the Contract, the Contractor agrees to comply with the version of the document or publication that is in effect on the date of the Contract.

D. Review of Municipality's Activities. The Contractor shall cooperate fully with the City and permit the City, or other state or federal authority, as applicable, to review, at any time during the Project, all activities performed by the Contractor with respect to any Work under this Contract. Upon request of the City, the Contractor shall timely furnish all documents related to the Work so that the City may evaluate the Contractor's activities with respect to the Project, including, but not limited to, its performance of the Work pursuant to this Contract, and applicable law.

§107-02 PATENTED DEVICES, MATERIALS AND PROCESSES

It is mutually understood and agreed that the Contract prices are to include all royalties and costs arising from patents, trademarks, and copyrights in any way involved in the Work. Whenever the Contractor is required or desires to use any design, device, material or process covered by letters, patent or copyright, the Contractor shall indemnify, defend and save harmless the City, its officers and employees from any and all claims for infringement by reason of the use of any such patented design, device, material or process, and shall indemnify the said City for any costs, expenses and damages which it may be obliged to pay, by reason of any such infringement, at any time.

§107-03 FEDERAL AID

In all Contracts in which the Federal Government participates financially, or which are designated as Federal-Aid contracts, the Contractor shall conform in all respects in accordance with the true intent and meaning of each and all of the requirements

contained in the "required Provisions for all Federal Aid contracts," a copy of which will be incorporated in each Bid for contracts so classified. When any of such Federal Provisions are in conflict with any other provisions of the Contract Documents, the Federal Provisions shall prevail and take precedence.

§107-04 SANITARY CODE

The Contractor shall provide and maintain in a neat and sanitary condition such accommodations for the use of his employees as may be necessary to comply with the requirements and regulations of the State and local Department of Health and any other entity having jurisdiction over such matters.

§107-05 SAFETY AND HEALTH REQUIREMENTS

The Contractor shall conduct the Work at all times in such a manner as to insure the least possible obstruction to traffic. The convenience of the general public and of the residents along and adjacent to the roadway shall be provided for in an adequate and satisfactory manner as the Engineer may direct.

All equipment and materials shall be placed or stored in such locations so as not to be or to create the danger of becoming a hazard to the traveling public. No section of road shall be closed to the public except by permission of the Director of Public Works.

In addition to the requirements of the Maintenance and Protection of Traffic Item, the Contractor shall take all precautions necessary and reasonable for the protection of all persons, including employees of both the Contractor and the Department, and for protection of property until the Contractor is notified in writing of the satisfactory completion of the construction Work.

The safety provisions of applicable laws, building, construction and fire safety codes and the latest edition of the "Construction Safety Code, State of Connecticut, Labor Department", approved by the State Labor Commissioner, shall be complied with at all times. A copy of the latest edition of the "Construction Safety Code, State of Connecticut Labor Department" shall be made available by the Contractor for reference at all times in the Contractor's field office.

The Contractor shall furnish to the Engineer on project two copies of all report of each accident on the Project or contingent to the prosecution of the project which involves personal injury requiring treatment by a doctor or loss of time. He shall also furnish to the Engineer two copies of all accident reports involving public liability or property damage. These reports shall be on forms acceptable to the Engineer.

The authority vested in the Engineer under §105-01, "STOPPING WORK", is hereby extended to the effect that he may suspend the Work of the Contractor when the latter does not comply with the above-mentioned precautions or fails to provide adequate

protection to allow for inspection of the Work without jeopardy to the safety of the Engineer or his authorized representatives.

Nothing herein shall be construed to relieve the Contractor from responsibility for the prosecution of the Work, nor the responsibility for damage claims as stated in §107-08, "DAMAGE."

When the use of explosives is necessary for the prosecution of the Work, the Contractor shall use the utmost care so as not to endanger life or property, including new Work, and shall comply fully with §107-01," LAWS, PERMITS AND LICENSES."

The Contractor shall schedule his work in such a manner as to avoid the use of explosives in close proximity to new or existing structures. He shall at all times take adequate protective measures and shall be responsible for any damage, which may result from blasting operations.

The Contractor shall notify each public utility company having structures in proximity to the site of the Work, and others who may be affected, of his intention to use explosives; and such notice shall be given sufficiently in advance to enable the companies, the Contractor and others to take such steps as they deem necessary to protect utilities and property from possible injury. Such notice shall not relieve the Contractor of responsibility for any damage resulting from his blasting operation.

§107-06 INSURANCE

Before the Contract is executed and prior to commencement of Work thereunder, the Contractor will be required to take out and maintain at its sole cost and expense insurance coverage in compliance with the required types and amounts specified by the City and to file with the Corporation Counsel a certificate of insurance, executed by an insurance company satisfactory to the Corporation Counsel and in an acceptable form. The policies shall name the City of Norwalk as an additional insured party. Below is a sample of the City's requirements for insurance coverage. The types and amounts of coverage will vary for each project depending on the particular scope of work and the risk involved.

A. The insurance coverage shall be written for not less than the scope and limits specified hereunder or required by applicable federal, state and/or municipal law, regulation or requirement, whichever coverage requirement is greater. It is agreed and understood that the scope and limits of insurance specified hereunder are minimum requirements and shall in no way limit or preclude the City from requiring additional limits and coverages to be provided for the Project.

B. Minimum Scope and Limits of Insurance:

Workers' Compensation insurance: With respect to all operations the Contractor performs, it shall carry workers' compensation insurance in accordance with the

requirements of the laws of the State of Connecticut, including employer's liability limits of One Hundred Thousand Dollars (\$100,000) coverage for each accident, One Hundred Thousand Dollars (\$100,000) coverage for each employee by disease, and Five Hundred Thousand Dollars (\$500,000) policy limit coverage for disease.

Commercial General Liability: With respect to all operations the Contractor performs it shall carry Commercial General Liability insurance providing for a total limit of One Million Dollars (\$1,000,000) coverage per occurrence for all damages arising out of bodily injury, personal injury, property damage, products/completed operations, and contractual liability coverage for the indemnification obligations arising under this Agreement. The annual aggregate limit shall not be less than Two Million Dollars (\$2,000,000).

Automobile Liability: With respect to each owned, non-owned, or hired vehicles the Contractor shall carry Automobile Liability insurance providing One Million Dollars (\$1,000,000) coverage per accident for bodily injury and property damage. If the Contractor is a Hazardous Waste Hauler (trucker) or responsible for the removal of hazardous materials, then Automobile Liability in the amount of Five Million Dollars (\$5,000,000) combined single limit is required.

Umbrella/Excess Liability: With respect to all operations the Contractor performs, the insurance limits required can be provided with a combination of Umbrella or Excess Liability insurance that would "follow form" of the underlying required terms and conditions.

Environmental Liability: For projects involving environmental activities, for example, the handling, monitoring or remediation of hazardous materials, the Contractor shall provide environmental and remediation insurance in the amount of Five Million Dollars (\$5,000,000) per claim limit and Five Million Dollar (\$5,000,000) aggregate limit per occurrence. The policy shall be written on a follow form coverage wording to its underlying schedule of insurance.

Errors and Omissions/Professional Liability: With respect to any damage caused by an error, omission or any negligent or wrongful act of the Contractor or any subcontractor or subconsultant in connection with any professional services performed under this Agreement the Contractor shall carry One Million Dollars (\$1,000,000) coverage per claim.

Railroad's Protective Public Liability And Property Damage Liability: When the Project involves work on, over or under the right of way of any railroad company, and such railroad has no scheduled passenger service, the Contractor shall carry, with respect to the operations it performs and those performed on its behalf by subcontractors, for and in behalf of the railroad company, regular Protective Public Liability insurance providing for a limit of not less than One Million Five Hundred Thousand Dollars (\$1,500,000) for all damages arising out of bodily injury to or death of one person, and, subject to a total or aggregate limit of not less than Two Million Dollars

(\$2,000,000) for all damages arising out of bodily injury to or death of two or more persons in any one accident or occurrence.

When the Project requires Work to be done within twenty-five (25) feet of the railroad right-of-way or State Department of Transportation-owned rail property, the Contractor shall carry Railroad Protective Liability Insurance with coverage limits of not less than Two Million Dollars (\$2,000,000) per occurrence for all damages arising out of any one accident or occurrence in connection with bodily injury or death or injury to or destruction of property, and, subject to that limit per accident, an aggregate limit of Six Million Dollars (\$6,000,000) for all injuries to persons or property during the policy period, and with all entities falling within any of the following listed categories as named insured parties: (i) the owner of the railroad right-of-way; (ii) the owner of any railcar licensed or permitted to travel within that affected portion of railroad right-of-way; (iii) the operator of any railcar licensed or permitted to travel within that affected portion of the railroad right-of-way; (iv) the City and State Department of Transportation; and (v) any other party with an insurable interest. If such insurance is required, the Contractor, its subcontractors, consultants and subconsultants shall obtain and submit the minimum coverage indicated above to the City prior to the commencement of the Work and shall maintain coverage until the Work is accepted by the City.

The Contractor shall also carry regular Protective Property Damage Liability insurance providing for a limit of not less than five hundred thousand (\$500,000) dollars for all damages arising out of injury to or destruction of property in any one accident or occurrence and, subject to that limit per accident, and a total (or aggregate) limit of not less than one million (\$1,000,000) dollars for all damages arising out of injury to or destruction of property during the policy period.

Valuable Papers Coverage: Until the Work has been completed and accepted by the City, and all original documents or data have been returned to the City, the Contractor shall maintain Valuable Papers coverage providing coverage in the amount of Fifty Thousand Dollars (\$50,000) regardless of the physical location of the insured items. This insurance will assure the City that all records, papers, statistics and other data or documents will be re-established, recreated or restored if made unavailable by fire, theft, or any other cause. The Contractor, its subconsultant and subcontractors, consultants, as applicable, shall retain in its possession duplications of all products of its Work under the Contract if and when it is necessary for the originals to be removed from its Work under the Contract, and if and when necessary for the originals to be removed from its possession during the time that this policy is in force.

"Tail" Coverage: If any of the required liability insurance is on a "claims made" basis, "tail" coverage will be required at the completion of the Project for a duration of twenty-four (24) months, or the maximum time period reasonably available in the marketplace. Contractor shall furnish certification of "tail" coverage as described or continuous "claims made" liability coverage for twenty-four (24) months following Project completion. Continuous "claims made" coverage will be acceptable in lieu of "tail" coverage, provided its retroactive date is on or before the effective date of this

Agreement. If continuous "claims made" coverage is used, Contractor shall be required to keep the coverage in effect for a duration of not less than twenty-four (24) months from the date of final completion of the Project.

C. **Acceptability of Insurers:** The Contractor's policies shall be written by insurance companies licensed to do business in the State of Connecticut, with an AM Best rating of A-VII, or otherwise acceptable to the City.

D. **Subcontractors:** The Contractor shall require all subcontractors to provide the same "minimum scope and limits of insurance" as required herein, with the exception of Errors and Omissions/Professional Liability insurance, unless Errors and Omissions/Professional Liability insurance is applicable to the Work performed by the subcontractors. All Certificates of Insurance shall be provided to the City's Corporation Counsel as required herein.

E. **Aggregate Limits:** All aggregate limits must be declared to and be approved by the City. The Contractor shall notify the City whenever fifty percent (50%) of the aggregate limits are eroded during the required coverage period. If the aggregate limit is eroded for the full limit, the Contractor agrees to reinstate or purchase additional limits to meet the minimum limit requirements stated herein. Any premium for such shall be paid by the Contractor.

F. **Deductibles and Self-Insured Retentions:** Any deductible or self-insured retention must be declared to and approved by the City. All deductibles or self-insured retentions are the sole responsibility of the Contractor to pay and/or to indemnify.

G. **Notice of Cancellation or Nonrenewal:** Each insurance policy required shall be endorsed to state that coverage shall not be suspended, voided, cancelled, or reduced in coverage or in limits before the expiration date except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the City. Notwithstanding this requirement, the Contractor is primarily responsible for providing such written notice to the CITY thirty (30) days prior to any policy change or cancellation that would result in a change of the amount or type of coverage provided. In the event of any such change the Contractor shall provide comparable substitute coverage so that there is no lapse in applicable coverage or reduction in the amount of coverage available to the CITY related to the Contractor's services.

H. **Waiver of Governmental Immunity:** Unless requested otherwise by the City, the Contractor and its insurer shall waive governmental immunity as defense and shall not use the defense of governmental immunity in the adjustment of claims or in the defense of any suit brought against the City.

I. **Additional Insured:** The liability insurance coverage, except Errors and Omissions, Professional Liability, and Workers' Compensation, if included, required for the performance of the Project shall include the City and, for State funded Projects, the

State of Connecticut, as Additional Insureds with respect to the Contractor's activities to be performed under this Agreement. Coverage shall be primary and non-contributory with any other insurance and self-insurance. Additionally, in the event the Contractor, subcontractor, inspection consultant, consulting engineer, or subconsultant, as applicable, secures excess umbrella liability insurance to meet the minimum coverage requirements for Commercial General Liability or Automobile Liability Insurance coverage, the City and the State Department of Transportation (if applicable) must be named as an additional insured on that policy.

J. **Certificate of Insurance:** As evidence of the insurance coverage required by this Agreement, the Contractor shall furnish Certificate(s) of Insurance to Corporation Counsel's Office prior to the Contractor's commencement of services under this Agreement. The Certificate(s) will specify all parties who are endorsed on the policy as Additional Insureds (or Loss Payees). The Certificates and endorsements for each insurance policy are to be signed by a person authorized by the insurer to bind coverage on its behalf. Renewals of expiring Certificates shall be filed thirty (30) days prior to expiration. The City reserves the right to require complete, certified copies of all required policies at any time.

All insurance documents required should be mailed to the City of Norwalk Corporation Counsel, 125 East Avenue, P. O. Box 798, Norwalk, Connecticut 06856-0798.

K. **Waiver of requirements:** The Corporation Counsel may vary these insurance requirements at Corporation Counsel's sole discretion if Corporation Counsel determines that the City's interests will be adequately protected by the provision of different types or other amounts of coverage.

L. **Update to Minimum Insurance Limit Requirements:** The minimum insurance coverage limits set forth herein are subject to increase by the City, at its sole discretion, from time to time during the term of the Contract. The City will provide the Contractor with any updated minimum insurance coverage limits required for the particular Project. The Contractor agrees to comply with such updated minimum insurance coverage limit requirements for the particular Project.

M. **Blasting:** When explosives are to be used in the prosecution of the Work, the insurance required above shall also contain provisions for protection, in the amounts stated, against damage claims due to the use of explosives.

§107-07 PRESERVATION OF PROPERTY

The Contractor shall at all times protect and preserve all public and private property, including all existing vegetation, existing landscape features and monuments within, along and adjacent to the highway right-of-way. The Contractor shall use every precaution necessary and perform the Work as specified, in a manner approved by the Engineer, to prevent damage, injury, pollution or destruction; shall protect all trees and other woody plants which are to remain; shall take special care to protect the natural

vegetation and surroundings including all natural drainageways, ponds, lakes, wetlands, woods and fields; shall store materials in such a manner as to prevent leaching which would be injurious to soils and plants; shall repair all injuries to woody plants which are to remain by approved horticultural methods; and shall scarify and compact solid and regrade as directed to restore the property to a natural condition.

The Contractor shall also use suitable precaution as necessary to prevent damage to pipes, conduits and other underground structures, and protect carefully from disturbance or damage all land monuments and property marks (until an authorized agent has witnessed or otherwise referenced their location) and shall not remove them until directed to do so by the Director/Engineer.

Where the soil over root area of trees to be preserved has been compacted, it shall be restored by proper cultivation as directed by the Engineer to a condition to permit the entrance of water and the proper aeration of roots.

The Contractor shall exercise care in implementing its construction procedures in order to protect all trees and shrubs, which are not directly and unavoidably in conflict with its excavations. Prior to the commencement of Work, the Engineer and the Contractor shall inspect the Site to determine the extent of clearing and grubbing and the specific locations in which tree protection is required.

§107-08 DAMAGE

All damage, direct or indirect, of whatever nature resulting from the performance of the Work or resulting to the Work during its progress from whatever cause, including omissions and supervisory acts of the City, shall be borne and sustained by the Contractor, and all Work shall be solely at its risk until it has been finally inspected and accepted by the City except that:

A. Payment shall be made to the Contractor for the repair or replacement of the following completed permanent elements of the roadway, for which the Contractor is responsible, and which may be damaged by public traffic other than that of the Contractor's:

Guide Rail, Guide Posts, Bridge Railing, Median Barrier, Curbs, Permanent Barricades, Fencing, Light Poles and Appurtenances, Delineators, Signs and Sign Structures, and Traffic Signal Equipment.

Work for which there is no bid item will be paid for at an agreed price or by means of force account. Payment will not be made for repair or replacement in any way connected with untimely failure of any portion of the highway under public traffic, and the determination regarding this matter shall be made by the Director, taking into consideration the normal life and the amount of normal wear of the element involved. This provision does not relieve the Contractor of the responsibility for maintenance and protection of traffic for the Project or of the responsibility of having a wholly complete and acceptable job at the time of final inspection and acceptance of the entire Project.

Payment for such damage shall be made only after the Contractor has demonstrated to the satisfaction of the Director that the Contractor has made every reasonable effort to collect the costs from the person or persons responsible for the damage.

B. The Contractor shall not be responsible for damages resulting from faulty designs as shown by the plans and specifications nor the damages resulting from willful acts of City officials or employees and nothing in this paragraph or in this Contract shall create or give to third parties any claim or right of action against the Contractor, the City beyond such as may legally exist irrespective of this paragraph or Contract.

The Contractor shall indemnify, defend and save harmless the City, its agents, servants and employees from all suits, actions, damages and financial costs of every name and description resulting from the Work and the City may retain such monies from any amount due the Contractor as may be necessary to satisfy any claim or potential claim for damages against the City. The Contractor's obligations under this paragraph shall not be deemed waived by the failure of the City to retain the whole or any part of such monies due the Contractor, nor shall such obligation be deemed limited or discharged by the enumeration or procurement of any insurance coverage for damages imposed by law upon the Contractor, Subcontractor or the City.

§107-09 RESTORATION

All areas outside of the right of way or Project Site and those within the right of way but outside of the Work limits, except as noted in the following text, that is in any way disturbed, used by, or serving as a source of material for the Contractor, shall be promptly restored to a pleasing and acceptable condition as specified and as satisfactory to the Engineer.

The Contractor shall obtain the written approval of the Engineer for the use of any specific area before any Work in such area is begun, except as noted in the following text. Where deemed necessary by the Engineer, the Contractor shall submit, as part of the request for approval, a grading plan. Such a plan shall not be given if, in the opinion of the Engineer, the area is not suited to acceptable restoration or if serious or permanent ecological damage is foreseeable. This specification applies to areas such as, but not limited to, borrow pits or areas, spoil or waste areas, haul roads, storage areas, batching areas, equipment storage areas, shop areas and all similar areas. These provisions do not apply to areas that have been or are being used by the Contractor as its established and permanent headquarters and equipment pool sites; or to commercial gravel pits, commercial quarries, public disposal areas; and all similar areas.

In general, the restoration shall include:

A. The removal of all equipment and parts, junk, rubbish, excess materials and debris of all kind;

B. Clean up as required, grading as shown, if a grading plan has been prepared; or grading so as to blend into the surrounding ground forms, to the satisfaction of the Engineer;

C. Scarification of storage yards, batching sites, haul roads, etc., to the depth determined by the Engineer as necessary to support vegetation.

D. The removal and regrading of temporary roads or areas as required by the Engineer;

E. The repair or removal of damaged trees and the fertilizing, seeding and mulching of the areas as provided for in the Contract or as directed by the Engineer.

All of this restoration shall be accomplished prior to acceptance of the Project except that work of restoring Contractor's Work areas may be done after the official acceptance of the Project but must be completed prior to the final release of retained funds.

Since the extent of such area to be restored and the use and treatment during construction is within the discretion of the Contractor, within the limitations and requirements outlined, no payment will be made for any labor, material or equipment necessary for the restoration of these areas. The cost of the Work shall be included in the amount bid for other items of Work. Any Work done shall, in general, be in accordance with the Department's specifications for similar items of Work and/or as specified by the Engineer.

In the event the Contractor carries on any operation on the referenced areas without written approval of the Engineer no payment will be made for any item in the Contract involved in any way with any operation on the unapproved area.

§107-10 SOIL EROSION, WATER AND AIR POLLUTION ABATEMENT

The Contractor shall schedule and conduct its operations in such a way as to minimize erosion of soils and to prevent silting and muddying of streams, rivers, irrigation systems, impoundments, lakes, wetlands, reservoirs, etc. and lands adjacent to or affected by the Work. Construction of drainage facilities and performance of other Contract Work which will contribute to the control of erosion and sedimentation shall be carried out in conjunction with earthwork operations or as soon thereafter as practicable. The area of bare soil exposed at any one time by construction operations shall be kept to a minimum.

Whenever the Contractor's operations, carried out in accordance with the approved schedule, result in a situation where temporary erosion control measures not shown on the plans, must be taken and these measures are approved or ordered by the Engineer, the Contractor shall conduct this Work in accordance with the provisions of Section 107-10, "Soil Erosion, Water and Air Pollution Abatement."

A. In carrying out erosion control measures, the Contractor will be guided by, controls which shall include but not be limited to the following: Frequent fording of live streams will not be permitted; therefore, temporary bridges or other structures shall be used wherever an appreciable number of stream crossings are necessary. Unless otherwise approved in writing by the Engineer, mechanized equipment shall not be operated in live streams.

B. When work areas are located in or adjacent to live streams, such areas shall be separated from the main stream by a dike or other barrier to keep sediment from entering a flowing stream. Care shall be taken during the construction and removal of such barriers to minimize the muddying of a stream.

C. All waterways shall be cleared as soon as practicable of false work, piling, debris or other obstructions placed during construction operations and not part of the finished Work. Ditches which are filled or partly inoperative before the Contractor stops work for any day, and shall be maintained in a condition satisfactory to the Engineer for the duration of the Project.

D. Water from aggregate washing or other operations containing sediment shall be treated by filtration, settling basin or other means sufficient to reduce the sediment content to not more than that of the stream into which it is discharged.

E. Pollutants such as fuels, lubricants, bitumens, raw sewage and other harmful materials shall not be discharged into or near rivers, streams, wetlands and impoundments or into natural or man-made channels leading thereto. Wash water or waste from concrete mixing operations shall not be allowed to enter live streams.

F. All applicable regulations of fish and wildlife agencies and statutes relating to the prevention and abatement of pollution shall be complied with in the performance of the Contract.

The Contractor shall at all times exercise every reasonable precaution to safeguard the air resources of the State by controlling or abating air pollution as set forth in the regulations of the Connecticut Department of Energy and Environmental Protection and the Federal Clean Air Act regulations. These measures shall include the control and abatement of dust, fumes, mist, smoke, vapor, gas, aerosol, other particulate matter, odorous substances or any combination thereof arising from the construction operations, hauling storage or manufacture of materials.

The Contractor shall take measures to control the noise intensity to comply with the prescribed ratings as set forth by the regulations of the Department of Environmental Protection, the Occupational Safety and Health Administration and any other agencies of the City, State or Federal Government.

When it becomes necessary, the Engineer will inform the Contractor of unsatisfactory construction procedures and operations insofar as erosion control, water and air pollution

are concerned. If the unsatisfactory construction procedures and operations are not corrected promptly, the Engineer may suspend the performance of any or all of other construction until the unsatisfactory condition has been corrected.

§107-11 FURNISHING RIGHT OF WAY

The Department will secure all rights of way in advance of construction. Any exceptions will be indicated prior to the award of the Contracts.

The Contractor shall not enter upon any parcel until the proper rights of entry have been obtained.

If certain parcels of land within the Project area are being or are to be acquired by the City and until so acquired, the Contractor shall not enter upon or work in or on said parcels of land until authorized in writing to do so by the City. Before commencing Work under this Contract, the Contractor shall ascertain from the City the location of said parcels of land and the status of such acquisitions.

The Contractor's proposed construction schedule shall be so arranged that the failure of the City to acquire such parcels shall in no way delay the start of construction under this Contract.

As the construction proceeds, if the Work need be suspended or delayed by reason of the aforesaid or by any act or omission of the City, or because the City does not own or has not obtained possession of or has not the right to enter upon land on which the Work is to be performed, or because of any act or omission of any employee or agent of the City or of any other Contractor performing work for the City, and by reason of the foregoing the Contractor is not able to complete the Work under this Contract within the time specified, and is not at fault, an extension of time for completion will be granted by the City upon proper application for such extension by the Contractor to the Engineer in accordance with the provisions of the Contract relating thereto. None of the foregoing shall constitute a breach of the Contract on the part of the City.

No right to charges or claims for damages, or additional compensation, shall inure to or be made by the Contractor against the City or any other contractor for any delays or hindrances for any cause whatever, during the progress of the Work or any portion thereof embraced in this Contract, such delays or hindrances will be compensated for by an extension of time as above provided.

The easement locations as shown on the plans are for informational purposes only, the successful bidder shall be supplied with the appropriate documents to adequately establish, stake and reference the easement limits concurrently with the construction stakeout survey.

§107-12 LABOR REQUIREMENTS

All contracts for the construction remodeling or repairing of any public building shall be subject to the following provisions:

A. In the employment of labor to perform the Work specified herein, preference shall be given to citizens of the state, who are, and continuously for at least three months prior to the date hereof have been, residents of the labor market areas, as established by the labor commissioner of the State of Connecticut, in which such Work is to be done, and if no such qualified person is available, then to citizens who have continuously resided in the county in which the Work is to be performed (Fairfield County) for at least three months prior to the date hereof, and then to citizens of the state who have continuously resided in the state at least three months prior to the date of this Contract. In no event shall these provisions be deemed to abrogate or supersede, in any manner, any provision regarding residency requirements contained in any collective bargaining agreement to which the contractor is a party. (General Statutes 31-52). All contracts for the construction, remodeling or repairing of any public facility, structure, except public buildings covered by Conn. Gen. Stats, Section 31-52 (as noted above) Site preparation, or Site improvement, appurtenances or highways or in preparation or improvement of any land or waterway on or in which a structure is situated or to be constructed, shall be subject to the following provisions:

“In the employment mechanics, laborers or workmen to perform the Work specified herein, preference shall be given to residents of the state who are, and continuously for at least six months prior to the date hereof have been, residents of this state, and if no such person is available then to residents of other states.”

B. All contracts in connection with a public works project, except for public works buildings as described above, are required to contain the following provisions:

In the employment of mechanical laborers or workmen to perform the Work specified herein, preference shall be given to residents of the state who are, and continuously for at least six months prior to the date of the Contract have been residents of this state, and if no such person is available then the residents of other states, provided that this provision shall not apply where its application shall abrogate or supersede any provision regarding residence requirements in a collective bargaining agreement to which the Contractor is a party (General Statutes 31-53).

All contracts for the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration, or repair of any public works project shall contain the following provision when (1) the cost of new construction of any public works project is \$400,000 or more; or (2) the total cost of all Work to be performed by all Contractors and subcontractors in connection with any alteration, repair, remodeling, refinishing, refurbishing or rehabilitation of any public works project is \$100,000 or more:

The wages paid on an hourly basis to any person performing the work of any mechanic, laborer or worker on the Work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such person to any employee welfare fund described in Section 31-53 (i) of the Connecticut General Statutes, shall be at a rate equal to the rate customary or prevailing for the same Work in the same trade or occupation in the City of Norwalk. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such persons to any such employee welfare fund shall pay to each mechanic, laborer or worker as part of such person's wages the amount of payment or contribution for such person's classification on each payday. (General Statutes 31-53(a))

C. Each employer shall (1) keep, maintain and preserve such records relating to the wages and hours worked by each person performing the Work of any mechanic, laborer and worker and a schedule of the occupation or work classification at which each person performing the Work of any mechanic, laborer or worker on the Project is employed during each work day and week in such manner and form as the Labor Commissioner establishes to assure the proper payments due to such persons or employee welfare funds regardless of any contractual relationship alleged to exist between the contractor and such person; and (2) submit monthly to the City by mail, first class postage prepaid, a certified payroll that shall consist of a complete copy of such records accompanied by a statement signed by the employer that indicates (a) such records are correct; (b) the rate of wages paid to each person performing the work of any mechanic, laborer or worker and the amount of payment or contributions paid or payable on behalf of each such person to any employee welfare fund, as defined in subsection (i) of this section, are not less than the prevailing rate of wages and the amount of payment or contributions paid or payable on behalf of each such person to any employee welfare fund, as determined by the Labor Commissioner pursuant to subsection (d) of this section, and not less than those required by the Contract to be paid; (c) the employer has complied with the provisions of Section 31-53; (d) each such person is covered by a workers' compensation insurance policy for the duration of such person's employment, which shall be demonstrated by submitting to the City the name of the workers' compensation insurance carrier covering each such person, the effective and expiration dates of each policy and each policy number; (e) the employer does not receive kickbacks, as defined in 41 USC 52, from any employee or employee welfare fund; and (f) pursuant to the provisions of Conn. Gen. Stats. Section 53a-157a, the employer is aware that filing a certified payroll which the employer knows to be false is a class D felony for which the employer may be fined up to five thousand dollars, imprisoned for up to five years, or both. This subsection shall not be construed to prohibit a general contractor from relying on the certification of a lower tier subcontractor, provided the general contractor shall not be exempted from the provisions of section 53a-157a if the general contractor knowingly relies upon a subcontractor's false certification. The certified payroll shall be considered a public record and every person shall have the right to inspect and copy such records in accordance with the provisions of the Connecticut Freedom of Information Act.

NOTE: Prevailing wage rates are fixed by the State Labor Commissioner. The most recent wage rate schedule will be obtained and attached to the Contract.

§107-13 GUARDING AND PROTECTION

The Contractor shall be responsible for guarding and protecting open and unattended excavations and other potentially hazardous locations in and adjacent to areas with and around the Site that are lawfully frequented by any person. Such guarding and protection shall consist of any one, or a combination of the following:

1. A substantial fence or barricade, not less than four (4) feet in height and mounted on satisfactory supports spaced at intervals of not more than ten (10) feet. Warning signs reading "DANGER-KEEP OUT" shall be mounted on the fence or barricade, as required by the Engineer, at no more than one hundred (100) foot intervals. The signs shall be 16"X24" with five (5) inch black letters on a white background. All fences, barricades and warning signs shall be furnished, erected, relocated, maintained and removed as required.

2. A forty-eight (48) inch extension of the trench sheeting above the ground surface adjacent to the excavation.

3. A substantial covering over the excavation. Where it is possible that vehicles will move over such covering, the covering shall be of sufficient strength to withstand the loading.

There will be no measurement for payment for this Work, however, the cost of such guarding and protection shall be included in the other unit prices bid.

§107-14 NONDISCRIMINATION

The CONTRACTOR agrees and warrants that, in the performance of this Contract, 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, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness -unless it is shown by the CONTRACTOR 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. The CONTRACTOR 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, intellectual disability, mental disability or physical disability including, but not limited to, blindness -unless it is shown by the CONTRACTOR that such disability prevents performance of the work involved. The terms stated in this paragraph shall be defined as set forth in Connecticut General Statutes Section 4a-60(d).

The CONTRACTOR shall not permit any coercion, intimidation, threatening or interference with any individual in the exercise or enjoyment of, or on account of his or her having exercised or enjoyed, or on account of his or her having aided or encouraged any other individual in the exercise or enjoyment of, any right granted or protected by state or federal laws, including without limitation, the Americans with Disabilities Act.

The CONTRACTOR agrees to comply with any request of the Connecticut Commission on Human Rights and Opportunities to provide information and permit access to pertinent books, records and accounts concerning its employment practices and procedures.

The CONTRACTOR agrees and warrants that it will make good faith efforts to employ minority business enterprises as contractors, subcontractors and suppliers of materials on or related to the Project. For purposes of this paragraph the term "minority business enterprise" shall be defined as set forth in Connecticut General Statutes Section 4a-60(e).

The CONTRACTOR will cause the foregoing provisions to be inserted in all trade contracts and subcontracts for any Work related to the Project or covered by this Contract so that such provisions will be binding upon each trade contractor and subcontractor.

The Contractor agrees to comply with each provision of this section and sections 46a-68d, 46a-68e and 46a-68f of the General Statutes and with each regulation or relevant order issued by said commission pursuant thereto.

The Contractor agrees to provide the Commission on Human Rights and Opportunities with such information as may be requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor as relate to the provisions of this section and section 46a-56 of the general statutes.

The Contractor shall include the foregoing provisions in every subcontract or purchase order entered into in order to fulfill any obligation of this Contract and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the commission.

SECTION 108 PROSECUTION AND PROGRESS

§108-01 START AND PROGRESS OF WORK

After filing the necessary bonds and certificates of insurance with the Corporation Counsel and before starting the Work the Contractor shall submit to the Engineer for review an outline of his proposed methods and manner of executing the Work, including

sequences of operation and a time schedule of performing the same. The Engineer shall perform the Work in accordance with all approved schedules and methods.

When requested by the Engineer, the Contractor shall furnish weekly work schedules indicating number of personnel, kind of equipment and location and nature of the Work to be performed.

§108-02 DATE OF COMPLETION AND CLOSING

All Work to be performed under the Contract shall be completed within the time stated in the Contract or within such extended time for completion as may be granted in writing by the Director.

Whenever the Engineer shall deem it necessary that any portion or certain portions of the Work shall progress in any particular manner or that any such portion or portions of the Work shall be completed pursuant to a certain sequence or schedule, the Contractor shall punctually comply with the related instructions, dates and periods of time.

The extent of the Contractor's compliance with the provisions under this heading will be considered as relevant in any future determination of a Contract award for any project under the supervision of the Department.

If, during the progress of the Work, it should become necessary because of lateness of the season, to stop the Work, then the Contractor shall open proper drainage ditches, erect temporary structures where necessary, prepare the project so that there will be a minimum interference with traffic, set up and maintain a competent organization, as directed by the Engineer, to keep the Project in first class condition for traffic, and take every precaution to prevent any damage or unreasonable deterioration of the Work during the time it is closed.

§108-03 FAILURE TO COMPLETE WORK ON TIME

For each calendar day that any portion of the Work remains incomplete after the date specified for the completion Work in the Contract, an amount per calendar day will be deducted from any money due the Contractor, not as a penalty but as liquidated damages as stated in the Contract.

Permitting the Contractor to continue and finish the Work or any part of it after the time fixed for its completion or after the date to which the time for completion may have been extended, will in no way operate as a waiver on the part of the City of any of the rights under the Contract.

The Director of Public Works has the discretion to waive any portions of the liquidated damages as may accrue if he deems the Work is in such condition as to be safe and convenient for use by the public, and that the City has suffered no damages or monetary loss due to the Contractor's actions or omissions.

The assessing of liquidated damages shall be in addition to Engineering Charges as provided for in §102-13, "ENGINEERING CHARGES," of these specifications.

§108-04 EXTENSION OF TIME

Delays which affect the scheduled completion date of the Project and are attributable to interference by contractors and utility owners, delays by railroad companies in progressing related Work, special requirements or actions by City, State and Federal agencies and other public bodies not anticipated in the Contract Documents, and unusually severe storms of extended duration or impact shall be compensated for solely by the granting of an extension of time by the Director of Public Works to complete the Work without engineering charges. Time necessary for reviews of shop drawings, for field changes to meet actual conditions, and delays incurred by seasonal and weather limitations should be anticipated and are neither compensatory nor eligible for extensions of time.

Where extra costs have been incurred by the Contractor and can be demonstrated to be directly due to delays caused by acts of the City, not in accord with the Contract requirements, the Contractor may apply for reimbursement of such costs as are necessary to effectuate the prompt completion of the Work via the initiation of procedures specified in §105-14, "DISPUTED WORK." The substantiated necessary costs of such delays which may be considered for reimbursement shall be limited to costs resulting from orders by the City to stop Work for reasons other than provided in the Contract Documents and for the unavailability of right-of-way parcels for such an extended period beyond that indicated in the Contract Documents that the Contractor's progress on the Project as a whole is significantly affected.

The Contractor's unit price Bids amounts for the various items of the Contract shall include the additional cost of doing the Work under this Contract caused by not having a clear Site for the Work, by interference by other contractors and necessary utility work and by the other non-compensatory delays described above and being required to open certain sections of the Work before the entire Work is completed.

§108-05 SUBLETTING OR ASSIGNING THE CONTRACT

The Contractor shall perform with its own organization Contract Work amounting to not less than fifty (50) percent of the original total Contract price, except that any items designated by the City as "Specialty Items" so performed may be deducted from the original total Contract price before computing the amount of Work required to be performed by the Contractor with its own organization.

1. "Its own organization" shall be construed to include only workers employed and paid directly by the Contractor and equipment owned or rented by it, with or without operators. The cost of furnishing and supplying materials to a subcontractor for installation by the subcontractor shall not be considered as work with "his own organization."

2. "Specialty Items" shall be construed to be limited to work that requires specialized knowledge, craftsmanship or equipment not ordinarily available in contracting organizations qualified to bid on the Contract as a whole and in general are to be limited to minor components of the overall Contract.

SECTION 109 MEASUREMENT AND PAYMENT

§109-01 PAYMENTS ON CONTRACT

Payments to the Contractor for Work satisfactorily performed will be made monthly as set out in the Contract Documents. The Director may impose such requirements and request such supporting documents and information as he deems necessary to process the request. No monthly estimate will be rendered unless the value of the Work completed equals five (5) percent of the Contract Amount or one thousand dollars, whichever is the lesser. Semi-monthly estimates may be rendered provided the value of the Work performed in a two week interval is in excess of fifty thousand dollars or if, in the opinion of the Director, it is to the best interests of the City to do so.

§109-02 EXTRA AND FORCE ACCOUNT WORK

For projects administered by Connecticut Department of Transportation and funded with Federal or State funds, Extra or Force Account Work will be reimbursed per Articles 1.09.03 and 1.09.04 contained in the latest edition of the Connecticut Department of Transportation Form 816.

For all other projects, reimbursement will be as follows:

CONTRACT ITEM CHARGES

When an Order on Contract provides for similar items of work or materials, which increase or decrease the itemized quantity or scope of Work provided for in the original Contract Documents, the price to be paid therefor, shall not exceed the unit bid price for such items.

NEW ITEM CHARGES

1. Agreed Prices for new items of Work or materials may be incorporated in the Order on Contract as the Director may deem them to be just and fair and beneficial to the City. These prices will be used in computing the final estimate.

Agreed prices must be supported by a complete price analysis in the Order on Contract. The analysis will be based on an estimated breakdown of charges listed in the following paragraph 2, "Force Account Charges," unless some other basis is approved by the Director.

2. Force Account Charges

A. Contractor Charges - Where there are no applicable unit prices for Extra Work ordered and agreed prices cannot be readily established or substantiated, the Contractor shall be paid the actual and reasonable cost of the following:

- 1) Necessary materials (including cost of transportation to the Site). All materials used, if acquired by direct purchase, must be covered by bills or acceptable invoices. All prices on used material incorporated in either temporary or permanent Work shall be billed at fair value, less than the original cost when new. A reasonable salvage credit shall be given for all salvageable material recovered. Salvage value of substantial material recovered must be determined jointly by the Contractor and the Engineer.
- 2) Necessary, director labor charges. Each class of labor shall be billed separately at actual payroll rates. Average rates based on different class or labor, will not be accepted.
- 3) Payments required to be made to labor organizations under existing labor agreements.
- 4) Equipment and Plant rentals, other than small tools:
 - a) Contractor owned Equipment and Plant. The base hourly rates for Contractor owned equipment and plant shall be the rates as listed in the current, "Rental Rate Blue Book," as published by Dataquest Incorporated of San Jose, California as of the time the Work is done.

The daily rate per hour shall apply when the equipment is specifically assigned to the Work by the Engineer for a period of 7 consecutive calendar days or less.

The weekly rate per hour shall apply when the assigned time exceeds 7 consecutive calendar days.

The monthly rate per hour shall apply when the assigned time exceeds 21 consecutive calendar days.

The number of hours to be paid for shall be the number of hours that the equipment or plant is actually used on a specified force account Job.

Equipment used by the Contractor shall be specifically described and be of suitable size and capacity required for the Work to be performed. In the event the Contractor elects to use equipment of a higher rental value than that suitable for the Work, payment will be made at the rate applicable to the suitable equipment. The equipment actually used and the suitable equipment paid for will be recorded as a part of the record for force account work. The Engineer shall determine the suitability of the equipment. If there is a differential in the rate of pay of the operator of oversize or higher rate equipment, the rate paid for the operator will likewise be that for the suitable equipment.

In the event that a rate is not established in the "Rental Rate Blue Book" for a particular piece of equipment or plant, the Director shall establish a rate for that piece of equipment or plant that is consistent with its cost and use.

It is mutually understood that the base rates for all Contractor owned equipment shall include all incidental and maintenance costs except labor necessary to operate the equipment. In addition, the base rates shall include all costs, equipment and labor, of moving equipment or plant on to and away from the work site.

b) Rented Equipment and Plant. In the event that the Contractor does not own a specific type of equipment and must obtain it by rental at a higher rate than provided for in the formulas noted above, he shall be paid the actual daily rental rate for the equipment for the time that the equipment is actually used to accomplish the Work, plus the cost of moving the equipment on to and away from the job.

5) A. Profit and Overhead. The Contractor will be paid an amount equal to twenty percent (20%) of the following as profit and overhead:

a) Total Material Costs (Bare Cost - F.O.B.)

b) Total Direct Labor Costs (Actual hours worked multiplied by regular hourly wage rate).

B. Overhead is not billed separately, but is a component of the Profit and Overhead payment described above. Overhead includes the following:

a) Premium on Bond;

b) Premium on Insurance required by the City other than Workmen's Compensation Insurance, Public liability and property damage insurance, unemployment insurance, Federal retirement benefits, other payroll taxes such reasonable charges that are paid by the contractor pursuant to written agreement with his employees;

c) All salary and expenses of executive officers, supervising officers or supervising employees;

d) All clerical or stenographic employees;

e) All charges for minor equipment, such as small tools, including shovels, picks, axes, saws, bars, sledges, lanterns, jacks, cables, pails, wrenches, etc. and other miscellaneous supplies and services;

f) All drafting room accessories such as paper, tracing cloth, blue printing, etc.

C. Subcontractor Charges - When the Work is performed by a subcontractor, the Contractor shall be paid the actual and reasonable cost of such subcontracted Work as outlined above in Items 1 through 5 under subsection A, Contractor Charges, but a maximum charge for profit and overhead paid to both Contractor and subcontractor shall be a total of twenty-five(25) percent of costs.

D. Force Account Report - Payment for force account work will be made on the basis of the following reports.

1) The Contractor will deliver to the Engineer a daily summary of FORCE ACCOUNT WORK done on the Contract. This summary on 8 1/2" X 11" paper will be delivered to the Engineer not later than closing time on the day following that for which the Work is reported.

The summary shall contain:

a) A list of materials used indicating the amount, and nature of each material. The cost (if known) should also be included. This must be later documented by proper receipts;

b) A list of equipment used indicating the number of hours used and kind, type and size of equipment;

c) A list of personnel by name, including the hours worked, and labor classification at which they were used on the force account work and the location by station or stations of the Work proposed;

d) A statement of the Work accomplished by force account for that day;

e) This summary will be dated and signed by the Contractor's authorized representative and the Inspector;

f) The Contract number and other identification as well as the name of the Contractor shall appear on the statement;

g) The Inspector will make any notation, remarks or comments on this form that may assist in final payments.

2) Within 5 calendar days after the end of each pay period the Contractor shall deliver to the Engineer a FORCE ACCOUNT SUMMARY OF LABOR used on the Work which shall include the name, hourly rate of pay, hours worked, fringe benefits and/or items as shown on the actual payroll.

3) On completion of the specific force account work the Contractor shall within 10 calendar days, deliver to the Engineer, a FORCE ACCOUNT SUMMATION wherein all materials, equipment and labor charges are shown and totaled together with such other expenditures as are concerned with the Force Account item. This summation shall be dated and signed by the Contractor's authorized representative and the Inspector.

§109-03 PROGRESS PAYMENTS

Unless otherwise specified in the method of payment for a particular item, no payment will be made for an item of work until its completion in accordance with Specifications.

§109-04 PAYMENT OF ESTIMATES

As the Work progresses in accordance with the Contract and in a manner that is satisfactory to the City, the City shall once in each month and on such days as it may fix, make an estimate of the quantity of Work done and of material which has actually been put in place in accordance with the terms and conditions of the Contract Documents, during the preceding month, and compute the value thereof and pay to the Contractor the monies due.

§109-05 NO ESTIMATE ON CONTRACTOR'S NON-COMPLIANCE

It is understood that so long as any lawful or proper direction concerning the Work or material given by the Director, or his representative, shall remain uncomplied with, the Contractor shall not be entitled to have any estimate made for the purpose of payment, nor shall any estimate be rendered on account of work done or material furnished until such lawful or proper direction has been fully and satisfactorily complied with.

§109-06 FINAL ACCEPTANCE OF WORK

When in the opinion of the Engineer, the Contractor has fully performed the Work under the Contract, he shall recommend to the Director of Public Works the acceptance of the Work so completed. If the Director accepts the recommendation of the Engineer, he shall thereupon notify the Contractor of such acceptance, and copies of such acceptance shall be sent to other interested parties.

§109-07 UNCOMPLETED WORK AGREEMENT

Whenever a Contract shall, in the judgment of the Director, be substantially completed and in his judgment the withholding of the retained percentage would be an injustice to the Contractor, the Director may, provided that the Engineer certifies that the essential items in the Contract Documents have been completed in accordance with the terms of the Contract and the provisions of §109-10, "FINAL AGREEMENT" direct the Engineer to include in the final account such uncompleted items and pay therefore at the item prices in the Contract upon the Contractor's depositing with the Director a certified check drawn upon a legally incorporated bank or trust company equal to at least double the

value of such uncompleted Work. The deposit may be used by the Director to complete the uncompleted portion of the Contract and shall be returned to the Contractor if he completes the uncompleted portions within a specified number of working days after he has been notified to proceed with the Work.

§109-08 FINAL AGREEMENT

The final agreement will not be drawn and finalized until all Work required under the Contract Documents has been satisfactorily completed and materials have been rendered, considered, and if agreed to, made a part of such final agreement. Work remaining to be accomplished under an uncompleted Work agreement, shall be considered as completed Work for the purpose of the final agreement.

§109-09 FINAL ESTIMATE

The Director will approve a final estimate for final payment based on the final agreement as prepared and approved by the Engineer, less previous payments and any and all deductions authorized to be made by the Director under the Contract.

§109-10 FINAL PAYMENT

After the final acceptance of the Work, the Engineer shall prepare a final estimate of the Work done from actual measurements and computations relating to the same, and shall compute the value of such Work under and according to the terms of the Contract. This estimate shall be certified to as to its correctness by the Project Inspector. Upon approval of such final estimate by the Engineer, it shall be submitted to the Director for final approval. The right, however, is hereby reserved to the Director to reject the whole or any portion of the final estimate, should the said certificate of the Inspector be found or known to be inconsistent with the terms of the estimate or otherwise improperly given. All certificates upon which partial payments may have been made being merely estimates, shall be subject to correction in the final certificate or final estimate.

§109-11 ACCEPTANCE OF FINAL PAYMENT

The acceptance by the Contractor, or by anyone claiming by or through the Contractor, of final payment shall constitute and operate as a release for the City from any and all claims of any liability to the Contractor for anything theretofore done or furnished for or relating to or arising out of the Work done thereunder, and for any prior act, neglect, default on the part of the City or any of its officers, agents, or employees unless the Contractor serves a detailed and verified statement of claim upon the Department not later than 40 days after the mailing of such final payment. Such statement shall specify the items and details upon which the claim will be based and any such claim shall be limited to such items. Should the Contractor refuse to accept the final payment as tendered, it shall constitute a waiver of any right to interest thereon.

§109-12 CONTRACTOR'S COST RECORDS

The Contractor shall maintain records of all payrolls and of the details that comprise his total cost pursuant to any of the provisions under §104-03, "CONTINGENCIES, EXTRA WORK, DEDUCTIONS," and he shall, at any time within 3 years following the date of acceptance of the Project, make such records available, upon request therefore, to the Department for review and audit, if deemed necessary by the Director. In case all or a part of such records are not made available, the Contractor understands and agrees that any items not supported by reason of such unavailability of the records shall be disallowed, or if payment therefore has already been made, the Contractor shall, upon demand in writing by the Director, refund to the Department the amount so disallowed.

§109-13 MAINTENANCE BOND

The Contractor shall secure a maintenance bond of a face value equal to twenty-five percent (25%) of the final Contract amount in a company approved by the Corporation Counsel guaranteeing his work for a period of two (2) years from the date of final acceptance by the Director. The Work shall be left in perfect condition at completion and neither the final payment or agreement shall relieve the Contractor of the responsibility for its negligence or faulty materials or workmanship within the extent and period provided herein, and upon written notice the Contractor shall remedy any defects due thereto and pay all expenses for any damage to other work resulting therefrom.

The Contractor shall notify the Engineer in writing one (1) year after the acceptance of the job by the Director. At that time the Contractor and Engineer will make a field inspection of the Project area, and the Contractor will correct any deficiencies that may exist.

The Contractor will notify the Engineer in writing sixty (60) days before the expiration of the maintenance bond and again the Engineer and Contractor will inspect the Project area for deficiencies.

End of Section