

Company Name – _____

**REQUEST FOR RESPONSE
BID NO: 5063**

Department of Public Works Project No: F07-12C



**WILLIE WARE SPRAYPOOL & PLAYGROUND
AREA IMPROVEMENTS
697 WINDSOR STREET
HARTFORD, CONNECTICUT**

DEADLINE: 2:00 P.M., Thursday, July 1, 2010

Carita Rozie
Principal Administrative Analyst
rozic001@hartford.gov

INVITATION TO RESPOND

PROJECT NUMBER:	BIDNO: 5063
CONTRACT NUMBER	F07-12C
DEADLINE :	2:00 PM, JULY 1, 2010
BID TITLE :	WILLIE WARE SPRAY POOL AND PLAYGROUND AREA IMPROVEMENTS
SITE LOCATION:	697 WINDSOR STREET, HARTFORD, CONNECTICUT

The City of Hartford is soliciting proposals for the [Willie Ware Spray Pool and Playground Area Improvements](#) Project. This Contract is for [a new water line, water and electrical connections for a new spray pool, landscaping, seating areas, walkways, paving, fencing and a basketball court.](#)

Below is an outline of some of the requirements that apply specifically to this project. These requirements are discussed in greater detail in Section 3, General Information.

BID INFORMATION (if not attached) is available upon receipt of this invitation over the Internet at http://www.das.state.ct.us/Purchase/Portal/Portal_Home.asp. Drawings associated with this bid, if not included within the bid documents can be viewed at <http://www.merrittgraphics.com/>. Click on the PlanWell link, select "Public PlanRoom", then select this project. Hard copies may be purchased from Merritt Graphics. Fees to purchase sets are non-refundable and will be posted on the site.

Additionally, plans may be ordered by calling Merritt Graphics at 800.344.4477 and requesting an order form.

Adobe Acrobat reader may be required to view some of this information. If you do not have this software you may download it for free from Adobe. A link to the Adobe site is provided on the internet bid page.

Businesses without internet access equipment, may contact the Procurement Services Department at 860.757.9610 for any Bid information. Our fax number is 860.722.6607.

A PRE-BID Conference will be held on Tuesday, June 22, 2010 at 10:30 A.M at the Willie Ware Recreation Center, 697 Windsor Street, Hartford, Connecticut. All prospective Bidders are requested to meet at the Recreation Center. Bidding Contractors are requested to attend this pre-bid conference or make other arrangements to visit the site. Contact Carita Rozie at 757-9614 for further information.

Bidders will be required to provide:

- [10%](#) bid bond, cashier's or certified check with your response (see Standard Instructions). NOTE: The City of Hartford is now providing contractors with the [option](#) of submitting an electronic Bid Bond through the Surety2000 website.

Surety 2000 is an Internet-based surety processing, verification and security system, developed in cooperation with the surety industry. Contractors and Surety Agents may contact Surety 2000 at: 1-800-660-3263 or by going to www.surety2000.com for more information.

- Performance and Payment bonds for 100% of the project upon award if the contract value exceeds \$50,000.00 (see Standard Instructions).
- Copies of current Federal, State and City certifications as applicable.

SPECIAL NOTES:

- A. Questions related to this project must be received in writing 72 hours in advance of the response submittal deadline. We strongly recommend that prospective Candidates review specifications early in the solicitation process and submit all questions at one time. Written questions are to be sent to the buyer whose name appears on the invitation via email.
- B. A Bidder, as a condition of receiving the award of this contract, will be required to comply with Chapter 2, Article X, (Equal Employment Opportunity) of the Municipal Code and the "Greater Hartford Affirmative Action Plan".
- C. A delinquent tax status will result in disqualifying a Bidder.
- D. A Bidder receiving an award will be required to provide proof of its current standing with the Connecticut Secretary of State's Office (see Response Section, Bidder's Qualifications).
- E. The DAS Contractor Prequalification Program (Public Act 03-215) requires all contractors to prequalify "before they can bid on any construction, alteration, remodeling, repair or demolition of any public building (does not apply to road construction), for work by the state or a municipality, estimated to cost more than \$500,000 and which is funded in whole or in part with state funds. This project is subject to the state prequalification provisions if indicated in the "Construction Contract Summary Sheet" located at the front of this document. Information and application forms related to this program are located on the internet at: http://www.das.state.ct.us/Business_Svs/PreQual/Prequal.asp.

PLAN HOLDERS LISTS are available from Merritt Graphics' PlanWell site located at <http://www.merrittgraphics.com/>. Lists of Bidders having picked up bid documents will not be provided over the phone.

If, after review of the bid documents, your firm is interested in performing the services specified, provide the information and documentation requested, sign and return the complete document, along with your detailed response, to Procurement Services by the due date. We would appreciate the courtesy of promptly advising us if you do not intend to respond. For any questions contact Carita Rozie @ 860.757.9614 or email @ rozic001@hartford.gov.

CONSTRUCTION PROJECT SUMMARY SHEET

RFR NUMBER:	BIDNO: 5063
CONTRACT NUMBER	F07-12C
BID TITLE :	WILLIE WARE SPRAY POOL AND PLAYGROUND AREA IMPROVEMENTS

ESTIMATED CONSTRUCTION COST: \$185,000

CONTRACT TYPE: OPEN COMPETITIVE WITH W/MBE % GOAL
 SMALL MINORITY BUSINESS ENTERPRISE SET ASIDE
 SMALL CONTRACTOR SET ASIDE

STATE OF CONNECTICUT PREQUALIFICATION REQUIRED: YES NO

PERCENTAGE OF MBE/WBE PARTICIPATION REQUIRED: 15%

FEDERAL WAGE RATE REQUIREMENTS: YES NO

STATE WAGE RATE REQUIREMENTS: YES NO

HARTFORD BASED BIDDER ADVANTAGE: APPLICABLE NON-APPLICABLE

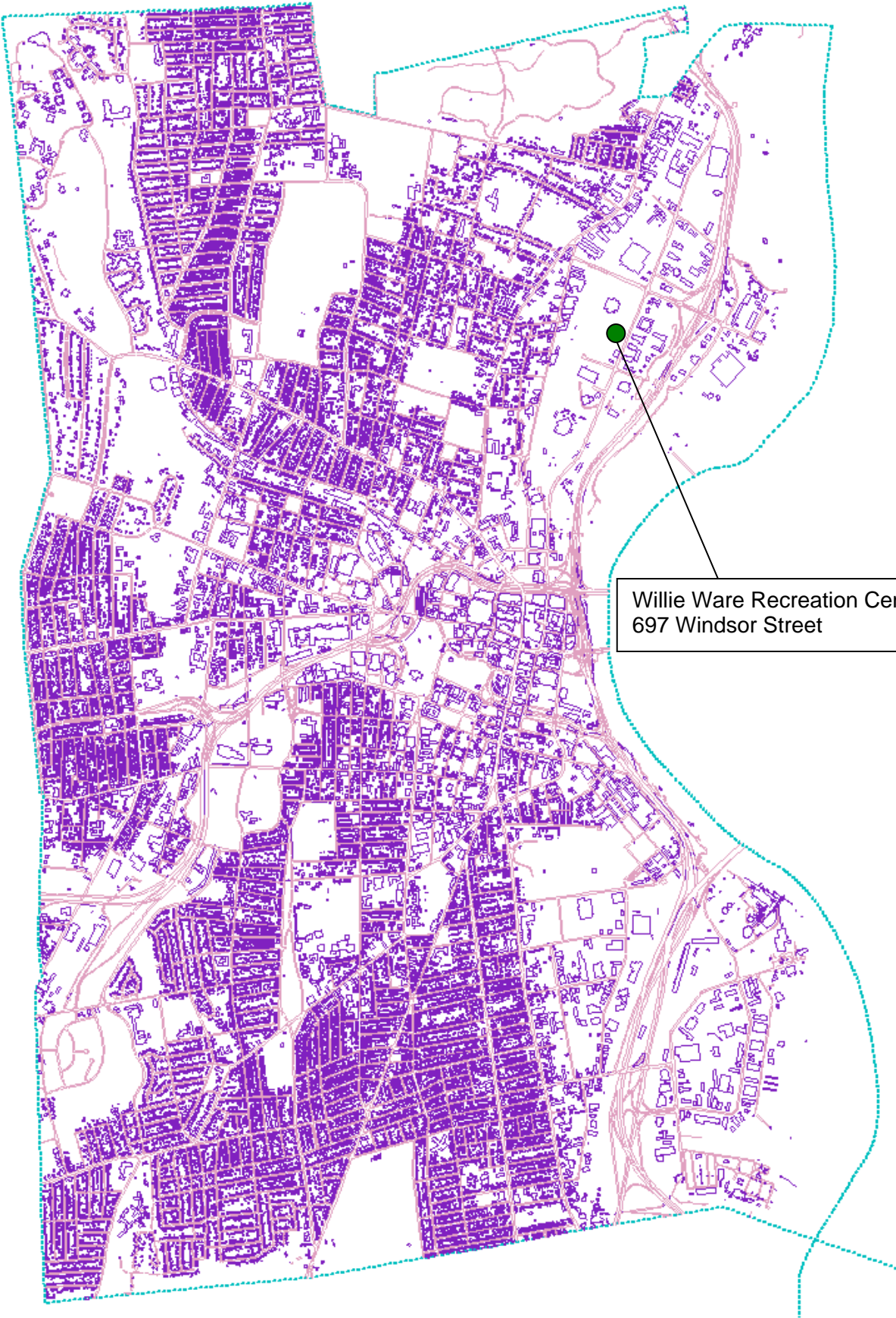
PLANS AVAILABLE AS PART OF BID DOCUMENTS: YES NO

SPECIAL INSURANCE REQUIREMENTS: YES NO

CALENDAR DAYS ALLOWED FOR CONTRACT WORK: WORK MUST BE SUBSTANTIALLY COMPLETE WITHIN 90 CALENDAR DAYS.

LIQUIDATED DAMAGES FOR LATE COMPLETION: \$1,000 PER DAY

DISCLAIMER: THIS SHEET IS PROVIDED FOR GENERAL INFORMATION ONLY AND IS SOLELY INTENDED TO ASSIST BIDDERS IN UNDERSTANDING THE GENERAL SCOPE OF WORK. BIDDERS MUST REFER TO SPECIFIC CONTRACT SECTIONS FOR DETAILS. IN THE EVENT OF A CONFLICT, THE PROJECT AND CONTRACT SPECIFICATIONS SHALL TAKE PRECEDENCE OVER THIS CONTRACT SUMMARY SHEET.



Willie Ware Recreation Center,
697 Windsor Street

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Invitation To Respond

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SECTION 1.0
RESPONSE FORMS

Responses are to be delivered to:

**Hartford City Hall, Procurement Services,
550 Main Street, Suite 100
Hartford, Ct. 06103.**

no later than the deadline date and time. Be sure to indicate the request number, name, and opening time in the spaces provided. Mark the original response package as "ORIGINAL" on the front cover. See Section 3.1 for more information.

Response Check List

(NOTE: This Check List may not contain every response item for every solicitation. It is the Responder's responsibility to ensure submittal of all required response information.)

- Response Signature form completed (Section 1.1)
- Response pricing completed (Section 1.2)
- Statement of Qualifications completed (Section 1.3)
- Certified by the City as an Equal Employment Opportunity Employer
http://www.hartford.gov/human_relations/ohr2.0/MWBE_Certification.htm
- Current in taxes and other fees owed to the City?
- Acknowledged Addenda (Section 1.1)
- Satisfy Living Wage requirements for service contracts where local labor pool is used
<http://www.hartford.gov/purchasing/Documents.htm>
- Bid bond (if required in the Invitation To Respond)
- Current with State's Pre-Qualification Requirements?
http://www.das.state.ct.us/Purchase/redirect_Pregual.asp
- Satisfy the Minority Utilization requirement (indicated on the Summary page, usually page 2 of the bid documents) and completed the forms (found at the end of Section 1)
- The electronic files, from which you printed your hard copy proposal, are to be emailed to the buyer within one hour **AFTER** the deadline for submitting hard copy responses. See section 3.1 E

Electronic Bid Bonds

* If a bid bond is required and you choose to submit an electronic bid bond, please be advised that upon signing your bid with the digital signature you are also signing the Bid Bond. All legal obligations associated with the bid bond will be validated upon signing of the bid with the digital signature.

1.1 RESPONSE SIGNATURE FORM – Willie Ware Spraypool & Playground Area Improvements – RFR #5063, DPW Project # F07-12C

Company Name -		
Address -		
Phone -	Fax -	Email -
Manager -		Fed ID#

The undersigned hereby declares that he/she or they are thoroughly familiar with the specifications, the various sites, the City’s requirements, and the objectives for each element of the project item or service and understands that in signing this proposal all right to plead any misunderstanding regarding the same is waived. The undersigned further understands and agrees that he will furnish and provide 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 carry out the contract and to accept in full compensation therefore the amount of the contract as agreed to by the Contractor and the City.

The undersigned hereby declares that no reason or persons other than those named herein are interested in this proposal, which is made without any connection with any other person or persons making any proposal for the same work and is in all respects fair and without collusion or fraud; that no person acting for or employed by the City of Hartford is directly or indirectly interested therein, or in the supplies or works to which it relates, or will receive any part of the profit or any commission there from in any manner which is unethical or contrary to the best interest of said City of Hartford.

The undersigned additionally declares that they are not debarred or suspended, or otherwise excluded from, or ineligible for, participation in City of Hartford, State of Connecticut or federally funded projects (Executive Order 12549).

The undersigned certifies under penalty of false statement that the information provided in this response is true.

Delivery / Initiate Services:		Calendar days after receipt of contract.	
Bid Security provided by	For electronic bonds enter bond number otherwise check the appropriate box	<u>Electronic Bond #</u>	
		<input type="checkbox"/> Bond (hard copy)	<input type="checkbox"/> Certified Check
EEO Certification Status (check one) See General Information for Preparing a Response paragraph 3.10		<input type="checkbox"/> Current and on file	<input type="checkbox"/> EEO form attached
DAS Prequalified Contractor? (non highway construction projects >\$500,000 see: http://www.das.state.ct.us/)		<input type="checkbox"/> Certificate attached	<input type="checkbox"/> Update Statement attached
Insurance Agent Name -		Tel.-	
Submitted by -			
Printed name and title		Date	

(Authorized Agent of Company)

The above signatory acknowledges receipt of the following addenda issued during the bidding period and understands that they are a part of the bidding documents (if applicable):

Addendum #	.	Dated	.	Addendum #	.	Dated	.
Addendum #	.	Dated	.	Addendum #	.	Dated	.

1.2 RESPONSE PRICING

BASE BID and ALTERNATES

<p>BASE BID as shown on the contract drawings and in the specifications including the \$15,000 allowance (see section 01020).</p>	<p>\$</p>
<p>Base Bid in words (if submitting a handwritten response)</p>	
<p>Alternate #1 – Add to the Base Contract Sum the cost to remove the existing fencing and gates and furnish and install new 4-foot high 6 gauge chain link fencing and gates along the east property line as specified and shown on the Construction Drawings.</p>	<p>\$</p>
<p>Alternate #2 – Add to the Base Contract Sum the cost to remove the existing service drive pavement and base, bollards and existing steps on east side of building and furnish and install new bituminous concrete road pavement, bollards, concrete steps and handrails and concrete pavement as specified and shown on the Construction Drawings.</p>	<p>\$</p>

1.3 STATEMENT OF QUALIFICATIONS

Please answer the following questions regarding your company's past performance. Attach a financial statement or other supportive documentation. Failure to reply to this instruction may be regarded as justification for rejecting a bid.

1. Number of years in business - _____ DUNS Number: _____
2. Number of personnel employed Part time - _____, Full time - _____,

3. List six contracts of this type/size your firm has completed within the last three years:

Project	Date	Contact Person	Phone No.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

4. DAS CONTRACTOR PREQUALIFICATION	You certify that there has been no substantial change in your financial position or corporate structure since your most recent prequalification certificate was issued or renewed, other than those changes noted in the update statement (attached).	YES	NO
		<input type="checkbox"/>	<input type="checkbox"/>

5. ORGANIZATIONAL STRUCTURE OF BIDDER (check which applies)	<input type="checkbox"/> general partnership
	<input type="checkbox"/> limited partnership
	<input type="checkbox"/> limited liability corporation
	<input type="checkbox"/> limited liability partnership,
	<input type="checkbox"/> corporation doing business under a trade name
	<input type="checkbox"/> individual doing business under a trade name
	<input type="checkbox"/> other (specify)

6. STATUS OF THE BUSINESS AND ITS CURRENT STANDING WITH THE SECRETARY OF STATE'S OFFICE; e.g., are all required filings current and in good standing or has the entity been withdrawn or canceled See General Information for Responding paragraph 3.17	<u>Connecticut corporations</u> - Will the Secretary of State be able to issue a Certificate of Good Standing within 30 days of the bid opening?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	<u>Out-of -State corporations</u> - Do you have a valid license to do business in the State of Connecticut? If a license is not required for the services being provided have you filed with the Connecticut Secretary of State?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

7. Is your local organization an affiliate of a parent company? If so, Indicate the principal place of business of your company and the name of the agent for service <u>if different from what has been indicated on the response form:</u>				
Business Name	.			
Address	.			
City	.	State	.	Zip
Name of Agent	.			

NOTE: In the case of a Limited Liability Corporation or a Limited Liability Partnership a certified copy of the Articles of Organization certified as valid and in effect as of the date of the bid opening will be required within 30 days of the bid opening.

A listing of the corporate officers, in the case of a corporation; the general or managing partners, in the case of a partnership; or the managers and members in the case of either a limited liability partnership or company will be required within 30 days of the bid opening.

8. Your company may be asked to submit the following information relative to your company's financial statements prior to receiving an award. This information will not be part of the public bidding record and will remain confidential if it is submitted via an email that requests confidentiality or it hand delivered, in a separate sealed envelop marked "Confidential."

All information should be supported with appropriate audited financials.

- a. Book Value (Total Assets (-) Total Liabilities)
- b. Working Capital (Current Assets (-) Current Liabilities)
- c. Current Ratio (Current Assets/Current Liabilities)
- d. Debt to Equity Ratio (Long Term Debt/Shareholder's Equity)
- e. Return on Assets (Net Income/Total Assets)
- f. Return on Equity (Net Income/Shareholder's Equity)
- g. Return on Invested Capital (Net Income/Long Term Debt = Shareholders' Equity)

9. Taxpayer's Identification Number:

Respondents must provide their Taxpayer Identification Number on the response form (Fed ID#). Award recipients, whether an individual, proprietor, partnership or a non-profit corporation or organization must file the Internal Revenue Service Form W-9, Request for Taxpayer Identification Number and Certification with the City. Copies of this form are available at: <http://www.hartford.gov/purchasing/documents.htm>

Additional information may be requested subsequent to your responding to this solicitation.

1.4 SUBCONTRACTOR INFORMATION

Forms labeled Section 1.4 are provided below to accommodate the Base Bid (or Lump Sum) and alternates (if called for) in this Request for Response (RFR).

The information provided below applies to: (Check one box as appropriate)

Base Bid	Alternate 1	Alternate 2	Alternate 3	Alternate 4	Alternate 5
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1.4 SUBCONTRACTOR INFORMATION

If subcontractors are to be used, indicate the firm name, address, portion or section of work the subcontractor will be performing, the subcontract value, percentage of base bid and if the subcontractor is a City certified W/MBE business.

Bidder agrees to subcontract the portion of the work stipulated below to W/MBE businesses. A copy of the contract between the bidder and the subcontractor will be required prior to award of the contract.

Note: The provisions of section 3 and 4 of public act 03-215, Prequalification now applies to subcontractors.

Trade or Nature of Work	Business Name and Address	W/MBE √	% of Base Bid	Subcontract \$ Value
		<input type="checkbox"/>		
		<input type="checkbox"/>		
		<input type="checkbox"/>		
		<input type="checkbox"/>		
		<input type="checkbox"/>		
TOTAL SUBCONTRACT VALUE				
TOTAL W/MBE SUBCONTRACT VALUE				

Subcontract % to total project %

W/MBE Subcontract % to total project %

Additional information may be requested subsequent to your responding to this bid request.

The information provided below applies to: (Check one box as appropriate)

Base Bid	Alternate 1	Alternate 2	Alternate 3	Alternate 4	Alternate 5
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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If subcontractors are to be used, indicate the firm name, address, portion or section of work the subcontractor will be performing, the subcontract value, percentage of base bid and if the subcontractor is a City certified W/MBE business.

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Trade or Nature of Work	Business Name and Address	W/MBE √	% of Base Bid	Subcontract \$ Value
		<input type="checkbox"/>		
		<input type="checkbox"/>		
		<input type="checkbox"/>		
		<input type="checkbox"/>		
		<input type="checkbox"/>		
TOTAL SUBCONTRACT VALUE				
TOTAL W/MBE SUBCONTRACT VALUE				

Subcontract % to total project %

W/MBE Subcontract % to total project %

Additional information may be requested subsequent to your responding to this bid request.

The information provided below applies to: (Check one box as appropriate)

Base Bid	Alternate 1	Alternate 2	Alternate 3	Alternate 4	Alternate 5
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1.4 SUBCONTRACTOR INFORMATION

If subcontractors are to be used, indicate the firm name, address, portion or section of work the subcontractor will be performing, the subcontract value, percentage of base bid and if the subcontractor is a City certified W/MBE business.

Bidder agrees to subcontract the portion of the work stipulated below to W/MBE businesses. A copy of the contract between the bidder and the subcontractor will be required prior to award of the contract.

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Trade or Nature of Work	Business Name and Address	W/MBE √	% of Base Bid	Subcontract \$ Value
		<input type="checkbox"/>		
		<input type="checkbox"/>		
		<input type="checkbox"/>		
		<input type="checkbox"/>		
		<input type="checkbox"/>		
TOTAL SUBCONTRACT VALUE				
TOTAL W/MBE SUBCONTRACT VALUE				

Subcontract % to total project %

W/MBE Subcontract % to total project %

Additional information may be requested subsequent to your responding to this bid request.

1.5. Bidder's EEO Status and Report

As a condition of doing business with the City the selected respondent must be certified by the City as an Equal Employment Opportunity Employer. Certifications must be renewed annually. If your firm is not currently certified you may obtain the required forms on-line at: <http://www.hartford.gov/purchasing/documents.htm> and submit completed forms with your response. To check the current status of your EEO certification contact the Office of Human Relations, 860.543.8595, fax 860.722.6486 or email: LRuiz@hartford.gov.

Response Summaries:

Response summaries will be available over the Internet, to those that responded, at http://www.das.state.ct.us/Purchase/Portal/Portal_Home.asp. This summary information will be available anytime after 5:00 PM on the opening date and time. Results will not be provided over the phone.

SPECIAL PROVISIONS AND TECHNICAL SPECIFICATIONS

**SECTION 01010
SUMMARY OF WORK**

PART 1—GENERAL

1.01 RELATED DOCUMENTS

- A. The General Documents, as listed on the Table of Contents, and applicable parts of Section 02000, GENERAL REQUIREMENTS, shall be included in and made a part of this Section.
- B. Examine all Contract Documents and all other Sections of the Specifications for requirements therein affecting the work of this trade.

1.02 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within Section 02000, GENERAL REQUIREMENTS, which are hereby made a part of this Section of the Specifications.

1.03 WORK UNDER THIS CONTRACT

- A. The General Contractor shall be prime contractor and shall assume all related responsibilities specified herein and shown on the Contract Documents.
- B. The work under the contract shall include but not be limited to the following elements. Refer to all sections of the specifications and all Contract Documents for complete understanding of the scope of work.
 - 1. Obtain all necessary permits prior to construction.
 - 2. Establish equipment and materials storage areas.
 - 3. Contact and coordinate all work with utility companies.
 - 4. Remove existing pavements, fencing, bollards and other existing site amenities.
 - 5. Remove existing spray pool and associated water lines. Locate and cap existing drain line for future connection.
 - 6. Grade site as per contract plans.
 - 7. Install new water line from street to building.
 - 8. Install new utility lines from building to service spray pool.
 - 9. Install precast vault and concrete pad for spray pool equipment.
 - 10. Construct concrete apron around perimeter of spray pool.
 - 11. Coordinate all construction activities with spray pool installer.
 - 12. Furnish and install pavements, concrete steps and handrails.
 - 13. Furnish and install all site amenities, i.e. benches, backstops, drinking fountain, trash receptacles and fencing.
 - 14. Loam and seed all areas indicated on the plans.
 - 15. Loam and seed all disturbed areas coincidental with the work.

1.04 EXAMINATION OF SITE

- A. The bidders are expected to examine and to be thoroughly familiar with all Contract Documents and with the conditions under which work will be carried out. The Owner will not be responsible for errors, omissions and/or charges for extra work arising from General Contractor or Subcontractor's failure to familiarize themselves with the Contract Documents or existing conditions. By submitting a bid, the bidder agrees and warrants that he has had the opportunity to examine the site and the contract documents, that he is familiar with the conditions and requirements of both and where they require, in any part of the work, a given result to be produced, that the contract documents are adequate and that he will produce the required results.

1.05 CONTRACT METHOD

- A. Work under this contract shall be one lump sum price, for the scope of work as described in these specifications and shown on the Contract Documents. Add alternates shall be as described in Section 01030, ALTERNATES if included.

1.06 SUMMARY REFERENCE

- A. The work can be summarized by reference to requirements of the various contract documents, which in turn make reference to the requirements of other applicable provisions which control or influence the work; and these references can be summarized but not necessarily limited to:
1. Executed Owner-Contractor Agreement bound herewith.
 2. General Conditions which are bound herewith.
 3. Drawings which are listed on a "List of Drawings" and bound herewith.
 4. Specification Sections which are bound herewith.
 5. Addenda and Modifications to the Contract Documents which have been either Bound herewith or distributed by transmittal subsequent to the binding hereof.
 6. Governing Regulations which have a bearing on the performance of the work; copies can be obtained from or reviewed at the local, State or Federal Agency responsible for the regulation in each case.
 7. Submittals, copies of which are retained by the Contractor at the site.
 8. Miscellaneous elements of information having a bearing on performance of the work, such as weather forecasts and reports of general trade union negotiations; copies must be obtained by the Contractor through normal channels of information.

1.07 WORK SEQUENCE

- A. The General Contractor shall be responsible for scheduling his work activities, and work sequence, to facilitate any simultaneous work of constructing the site. Work shall be fully coordinated to ensure that the contract is completed in a timely manner. Contractor will be responsible to provide monthly project schedules to Owner or Owner's representative ensuring project completion within the contracted time frame.

- B. The Contractor is advised that a spray pool project including installation of a new spray pool and associated equipment is planned to be underway during the same time frame as this contract. The Contractor shall be responsible to coordinate all Willie Ware Recreation Center Site Improvements with the activities of the spray pool contractor. Project schedules and construction shall be coordinated as necessary. Due to the interwoven nature of the site improvements with that of the spray pool installation it will be imperative for the Contractor to coordinate all activities, schedules, and sequencing with those of the spray pool installer. The Contractor shall not be paid for any additional work or materials required due to a lack of proper coordination or proper construction sequencing.
- C. The Contractor is responsible for reviewing all work that needs to be completed for the project prior to the start of construction. The Contractor shall order all items that have the potential to be long lead items as early as possible in order to avoid impacts to the construction schedule. The Contractor shall be solely responsible for the delay in construction schedule that results from a delay in ordering materials.

1.08 CONTRACTOR USE OF PREMISES / WORK LIMITS

- A. The Contractor(s) performing the work for the contract shall coordinate with the owner, or owner's representative, for the confirmation of storage areas, stockpile areas, and sequence of work. The contractor shall obey all laws within Connecticut. Generally and specifically this includes all work described in this Division 1 Section and all other Sections of this Specification and all other Contract Documents.

1.09 SITE RESTRICTIONS

- A. Do not encroach on surrounding areas in any way. Public sidewalks and park walkways must be kept open, operational and free of construction hazards during construction.
- B. The Contractor shall not impede the access or use of the existing playscape that is located within the Recreation Center unless prior arrangements are approved by the City of Hartford.
- C. Adhere to the provisions of the City of Hartford Noise Ordinance.
- D. The contractor shall develop and submit a construction phasing and schedule plan for city approval within 15 days of being awarded the contract. The construction sequencing must satisfy the following terms:
 - 1. The Contractor must ensure that all temporary public access routes are handicap accessible and are maintained as such at all times.

1.10 WAGE RATES

- A. Federal wage rates shall apply to this project.

1.11 COORDINATION AND INTENT

- A. The General Contractor shall be responsible for incorporating into his contract bid all necessary work activities, time factors, and cost implications that may occur as a result of coordination activities.
- B. It is the intent of the specifications and drawings to call for finished work, ready for use. Except where otherwise stated in these specifications or on the plans, all materials, equipment, and apparatus shall be new and of first-class quality.
- C. Any apparatus, material, or work not shown in the Drawings, but mentioned in the specifications, or vice versa, or any incidental accessories, or minor details not shown, but necessary to make the work complete in all respects, even if not particularly specified, shall be provided by the Contractor without additional expense to the Owner.
- D. The locations of all items shown on the drawings or called for in the specifications that are not definitely fixed by dimensions are approximate only. The exact locations necessary to secure the best conditions and result must be determined at the project and shall have the approval of the Owner's Representative before being installed. Do not scale drawings.
- E. The Contractor is advised that a spray pool project including installation of a new spray pool and associated equipment is planned to be underway during the same time frame as this contract. The Contractor shall be responsible to coordinate all Willie Ware Recreation Center Site Improvements with the activities of the spray pool contractor. Project schedules and construction shall be coordinated as necessary. Due to the interwoven nature of the site improvements with that of the spray pool installation it will be imperative for the Contractor to coordinate all activities, schedules, and sequencing with those of the spray pool installer. The Contractor shall not be paid for any additional work or materials required due to a lack of proper coordination or proper construction sequencing.

1.12 FIELD ENGINEERING

- A. Provide field engineering services; establish grades, lines and levels, by use of recognized engineering survey practices. Survey layout and control shall be performed by a Connecticut Licensed Land Surveyor or Engineer.

1.13 LAWS, ORDINANCES, PERMITS AND FEES

- A. The Contractor shall give all necessary notices, obtain all permits, file all necessary plans, prepare all documents and obtain all required Certificates of Inspection for his work and deliver same to Owner's Representative before request for acceptance and final payment for work.
 - 1. Fees for all permits, which are issued by the City of Hartford Public Works and/or Licenses and Inspections, are waived except for the fee to be paid to Licenses and Inspections for the State Education Fee of \$0.22 per \$1,000.00 and a \$25 permit fee.

- B. The Contractor shall include in the work, without extra cost to Owner, any labor, materials, services, apparatus, drawings, (in addition to contract drawings and documents) in order to comply with all applicable laws, ordinances, rules and regulations whether or not shown on Drawings and/or specified.
- C. All materials furnished and all work installed shall comply with the rules and recommendations of the National Board of Fire Underwriters, with all requirements of Local Utility companies, with the recommendations of Fire Insurance Rating organization having jurisdiction, and with requirements of all governmental departments having jurisdiction.

1.14 REFERENCE STANDARDS

- A. For products specified by association or trade standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. The date of the standard is that in effect as of the bid date, except when a specific date is specified.

1.15 PROJECT MEETINGS

- A. Project meetings shall be held on a basis subject to the discretion of the Owner and/or Owner's Representative. The Contractor's attendance at these meetings is mandatory and is required in order to resolve construction issues and present project updates.

1.16 PERMITS, INSPECTION AND TESTING REQUIRED BY GOVERNING AUTHORITIES

- A. If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any portion of the work to be inspected, tested or approved, the General Contractor shall give the Owner's Representative and such Authority timely notice of its readiness so the Owner's Representative may observe such inspection and testing.
- B. General Contractor shall bear all costs associated with the acquisition of and compliance with all fees and permits required for the work, unless otherwise provided for herein.

1.17 CUTTING, CORING, PATCHING, UNLESS OTHERWISE INDICATED

- A. The General Contractor shall do all cutting, coring, fitting and patching of his work that may be required to make its several parts come together properly and fit it to receive or be received by work of Subcontractors shown upon all Contract Documents and Specifications.
- B. Expense caused by defective or ill timed work shall be borne by party responsible at no additional expense to the Owner.
- C. The General Contractor shall not endanger any work by cutting, coring, excavating, or otherwise altering the work and shall not cut or alter the work of any or other Subcontractor without the consent of the Resident Engineer.

- D. Where field cutting and coring are authorized or directed, the General Contractor shall provide adequate reinforcement of the weakened area in such form as is approved by the Resident Engineer.

1.18 DEBRIS REMOVAL

- A. The Contractor shall remove all debris from the job site on a daily basis.
- B. Contractor shall not store debris or stockpile materials that in any way restrict the use of driveway or dwelling to the property. The Contractor shall immediately remove any materials from storage locations if requested to do so by the Owner or Owner's Representative. Such moves shall be made at the sole expense of the Contractor.

1.19 FIELD MEASUREMENTS

- A. Although care has been taken to ensure their accuracy, the dimensions shown for existing items and structures are not guaranteed. It is the responsibility of the General Contractor to verify these dimensions in the field before fabricating any construction component. No claims for extra payment due to incorrect dimensions will be considered.
- B. The General Contractor shall take responsibility for determining means and methods necessary to schedule and install materials and equipment in the proper locations. No additional compensation will be allowed for partial demolition and subsequent patching necessary to install large or ill-timed equipment, materials and or components.

1.20 SUPERVISION OF WORK

- A. The Contractor shall be held directly responsible for the correct installation of all work performed under this Contract. He must make good repair, without expense to the Owner of any part of the work which may become inoperative on account of leaving the work unprotected or unsupervised during the construction of the system or which may break or give out in any manner by reason of poor workmanship, defective materials or any lack of space to allow for expansion, contraction of the work during a period of one year from date of final acceptance of the work by the Owner.

1.21 SAFETY REGULATIONS

- A. These Contract Documents, and the construction hereby contemplated shall be governed at all times by applicable provision of all Federal and State laws.

1.22 PHASING AND PRIORITIES

- A. Attention is drawn to the interlocking nature of much of the Work. The General Site Contractor shall have the responsibility for coordinating the scheduling and sequencing of all of the work to ensure the project schedule is met. Any issues or conflicts that occur as part of this coordination effort that affect the overall project schedule or the ability of the General Site Contractor to complete the work shall be immediately reported to the City and the Engineer.

- B. The Contractor is advised that a spray pool project including installation of a new spray pool and associated equipment is planned to be underway during the same time frame as this contract. The Contractor shall be responsible to coordinate all Willie Ware Recreation Center Site Improvements with the activities of the spray pool contractor. Project schedules and construction shall be coordinated as necessary. Due to the interwoven nature of the site improvements with that of the spray pool installation it will be imperative for the Contractor to coordinate all activities, schedules, and sequencing with those of the spray pool installer. The Contractor shall not be paid for any additional work or materials required due to a lack of proper coordination or proper construction sequencing.
- C. Pay careful attention to work scheduling and give careful thought to the sequencing of the work so that all work is performed expeditiously in the appropriate order. Demonstrate on the construction schedule specified in this Specification, how related work is to be phased.
- D. To expedite construction progress on this project, the General Contractor shall order all material immediately after the approval of Shop Drawings and shall obtain a fixed date of delivery to the project site for all materials ordered which shall not impede or otherwise interfere with construction progress.
- E. The Contractor is responsible for reviewing all work that needs to be completed for the project prior to the start of construction. The Contractor shall order all items that have the potential to be long lead items as early as possible in order to avoid impacts to the construction schedule. The Contractor shall be solely responsible for the delay in construction schedule that results from a delay in ordering materials.

1.23 PROTECTION OF PROPERTY

- A. The General Contractor shall save the Owner harmless from all claims arising from the use of public streets, sidewalks, and adjoining property for construction purposes.
- B. Keep all access roads and walks clear of debris, materials, construction plant and equipment during site operation. Repair all elements and the like where disturbed by site operation and leave them in as good or better condition after completion of the work as before operation started.
- C. Protect everything on the premises from injury by water, frost, wind, fire, accident or other cause, and any interference.

1.24 EXISTING UTILITIES/DIG-SAFE NOTIFICATION

- A. Contractor shall notify public and private utility companies as required by law in advance of construction so that existing utilities may be accurately located and identified by the appropriate agency or utility.

1.25 TIME LIMIT

- A. The following schedule shall apply to the work of this Contractor:

The Contractor shall be SUBSTANTIALLY COMPLETE with all work of this contract within 90 calendar days.

1.26 PROJECT SIGN

- A. The Contractor shall erect a Project Sign at one (1) location as directed by the city. The project sign should be located so as not to require relocation during construction. Proposed location and proposed text and face of sign shall be approved by the Owner's Representative. Contractor shall submit a Shop Drawing illustrating scaled image of sign face for approval by Owner's Representative. Sign shall be 6' x 8' and shall include:
 - a. City of Hartford
 - b. Mayor Eddie Perez
 - c. City Seal
 - d. Willie Ware Spray Pool And Playground Area Improvements F07-12C
 - e. The name of the Contractor
 - f. The name of the Consultants

- B. The sign shall remain on-site until Project Closeout and shall be removed at the completion of the project.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION 01010

**SECTION 01020
ALLOWANCES**

PART 1—GENERAL

1.01 RELATED DOCUMENTS

- A. The General Documents, as listed on the Table of Contents, and applicable parts of Section 02000, GENERAL REQUIREMENTS, shall be included in and made a part of this Section.
- B. Examine all Contract Documents and all other Sections of the Specifications for requirements therein affecting the work of this trade.

1.02 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within Section 02000, GENERAL REQUIREMENTS, which are hereby made a part of this Section of the Specifications.

1.03 SUMMARY

- A. This Section includes administrative and procedural requirements governing allowances.
 - 1. A Contingency Allowance is hereby established. In all cases, this allowance includes installation if applicable. Allowance has been established in lieu of additional requirements. Additional requirements will be issued by Contingency Authorization (CA).
- B. Types of allowances include the following:
 - 1. Contingency allowances.

1.04 CONTINGENCY ALLOWANCES

- A. Use the contingency allowance only as directed by Owner's Representative for Owner's purposes and only by Contingency Authorizations that indicate amounts to be charged to the allowance.
- B. Contractor's overhead, profit and related costs for products and equipment ordered by Owner under the contingency allowance area included in the allowance and are not part of the Contract Sum. These costs include delivery, installation, taxes, insurance, equipment rental, and similar costs.
- C. Contingency Authorizations authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit margins.
- D. At Project Closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.02 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.03 SCHEDULE OF ALLOWANCES

- A. Contingency Allowance No. 1: Include \$15,000 (Fifteen thousand dollars) as a contingency allowance for this project.

END OF SECTION 01020

**SECTION 01030
ALTERNATES**

PART 1—GENERAL

1.01 RELATED DOCUMENTS

- A. The General Documents, as listed on the Table of Contents, and applicable parts of Section 02000, GENERAL REQUIREMENTS, shall be included in and made a part of this Section.
- B. Examine all Contract Documents and all other Sections of the Specifications for requirements therein affecting the work of this trade.

1.02 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within Section 02000, GENERAL REQUIREMENTS, which are hereby made a part of this Section of the Specifications.

1.03 REQUIREMENTS

- A. Add Alternate No. 1
 - 1 The Contractor shall remove existing fencing and gate and shall furnish and install 4-foot high 6 gauge chain link fence and gate along the east property line as specified and where shown on the Construction Drawings. This alternate shall include all necessary materials, labor, and incidentals needed to complete the tasks defined above.
- B. Add Alternate No. 2
 - 1 The Contractor shall remove existing service drive pavement and base, bollards and existing steps on east side of building and furnish and install bituminous concrete road pavement, bollards, new concrete steps and handrails and concrete pavement as specified and where shown on the Construction Drawings. This alternate shall include all necessary materials, labor, and incidentals needed to complete the tasks defined above.

END OF SECTION 01030

SECTION 02000

SITWORK INSTRUCTIONS

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DEFINITIONS:

- A. State Specifications Definitions:

"State Specifications" referred to herein means the "State of Connecticut Department of Transportation Standard Specifications Form 816, for Roads, Bridges and Incidental Construction" dated 2004, and "Supplement". The word "Engineer" appearing in the Standard Specifications shall be construed to mean the Architect. Article dealing with the basis of payment shall be considered inapplicable to this Contract.

- B. AASHTO:

Reference to AASHTO refers by number, letter, or both, to the latest standard or tentative standard of the American Association of State Highway and Transportation Officials as to material specification or methods of testing, whichever the case may be.

- C. ASTM:

Reference to ASTM refers by number, letter, or both, to the latest standard or tentative standard of the American Society of Testing and Materials as to material specifications or methods of testing, whichever the case may be.

1.03 ORDER OF CONSTRUCTION:

- A. All work under this division shall be adapted to the progress and order of construction of other work under the project, and to this end the Contractor shall carry out this part of the work in such an order as the Architect may direct.
- B. Erosion and sedimentation controls to be installed prior to the start of any construction.
- C. The work shall be scheduled to install all utilities, related structures, and other subsurface site work before beginning the subgrades for paved and seeded areas.

- D. The Contractor shall exercise all necessary care to cause no damage to subsurface improvements and shall restore to its previous condition any such work damaged by his operation, at his own expense.
- E. Any and all areas outside the contract limit lines that may be disturbed during the progress of the work shall be restored as directed by the Architect to their original condition at the Contractor's expense.

1.04 PRESERVATION OF SURVEY POINTS:

- A. The Contractor shall carefully protect from disturbance or damage, all land monuments until an authorized agent has witnessed or otherwise referenced their locations, and shall not remove or destroy them without proper authorization from the Owner.

1.05 PROTECTION OF PROPERTY:

- A. The work under this Contract shall be executed in such a manner that no damage or injury will occur to the public, to all properties and structures off or on the site which may be in any way affected by the operations under the Contract, to streets, paving, gas, water, electrical or any other pipes, mains, conduits, overhead utility wires, and to all other property. Should any damage or injury be caused by the Contractor, or anyone in his employ, or by the work under this Contract, the Contractor shall, at his own expense, make good such damage and assume all responsibility for such without cost to the Owner.

1.06 TEMPORARY EASEMENTS:

- A. Obtain consent of adjoining property owners regarding need for temporary easements or any other manner of physical encroachment.

1.07 SURVEYING AND LAYOUT OF WORK:

- A. Surveying (including verification of finish grading), layout of project and utility easements shall be by a competent State of Connecticut-registered Surveyor employed by the Contractor. Submit Surveyor's name, Registration Number and certificate of insurance prior to start of any construction.

1.08 SUBSURFACE STRUCTURES AND UTILITIES:

- A. Available information of the location of existing substructures and utilities has been collected from various sources but the results of the investigations shown on the drawings are not guaranteed to be accurate or complete.

- B. The Contractor shall make all supplemental investigations including exploratory excavations, by hand digging, as he deems necessary to uncover and determine the exact locations of utilities and structures and shall have no claims for damages due to encountering subsurface structures or utilities in locations other than shown on the drawings, or which are made known to the Contractor prior to construction operations. Any damage to the existing utilities and any other costs arising out of said excavation or by reason thereof shall be the Contractor's sole responsibility.
- C. In compliance with the State of Connecticut Public Act No. 77-350. "An Act Concerning Excavations Near Underground Utility Facilities", the Contractor shall not start any kind of excavation and/or blasting or rock activity near the location of any kind or public utility facility without having first ascertained the location of all such utilities in the area. The Contractor shall notify the Connecticut Underground Utilities Protection Authority (CUUPA), "CALL BEFORE YOU DIG" (Toll Free # 1-800-922-4455) at least two (2) full days in advance (excluding Saturday, Sunday and Holidays), but no more than two (2) weeks before starting any such work. Such notice shall include the name, address and telephone number of the person/agency performing the work, the date, location and type of excavation.

1.09 MAINTENANCE OF EXISTING LAWNS:

- A. All existing lawn areas within the contract limits that are not disturbed by new construction shall be maintained by the Contractor of this project, by mowing; no grass in lawn areas shall be allowed to exceed six inches in height before mowing.

PART 2 PRODUCTS

Not used in this Section.

PART 3 EXECUTION

Not used in this Section.

END OF SECTION

SECTION 02015

EARTH AND ROCK EXCAVATION

DEFINITIONS AND UNIT PRICES

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 INCLUDED IN THIS SECTION:

- A. Unit Prices for extra work required in excavating and filling.

1.03 RELATED WORK:

- A. Section 02202 - Rock Removal.
- B. Section 02220 - Site Earthwork.
- C. Section 02225 - Trenching.

1.04 USE OF UNIT PRICES:

- A. Contractor shall comply with requirements of the General Conditions to establish any claim for additional compensation.
- B. Contractor shall include applicable unit prices in his breakdown of costs.

1.05 MEASUREMENTS:

- A. Unit prices given are for work measured in place. Truck measure shall not be acceptable.

1.06 UNIT PRICE ALLOWANCES:

- A. For additional work, each price given below includes the allowance for all costs, overhead and profit for all parties involved in the work.

1.07 PURPOSE:

- A. This section includes administrative and procedural requirements for the following unit prices and provisions are to be included in and become part of this Contract to be used in evaluating additions to or deductions from the work called for in the specifications and/or plans.

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1. Unless otherwise specified elsewhere in these documents, Contractors are to assume that all excavation is earth; however, if unspecified rock is encountered, it will be paid for at the given unit prices listed in paragraph "E". Rock prices are net in that allowances for reduced quantities of earth are also included in the unit prices. The prices given include all costs for overhead, profit and rock surveys.
2. Wherever rock to be excavated is encountered, the Contractor shall strip or expose the rock to such an extent that in the Owner's opinion the necessary measurements can be taken. The Contractor shall provide the Owner with a survey by a licensed surveyor indicating top of rock elevations at points of intersection on a rectilinear grid with lines spaced sufficiently close to show accurately the rock surface contours. At the Owner's option, an additional survey may be furnished by the Owner from a licensed surveyor.
3. If the conditions of the excavation work indicated are clearly of a special nature, the Contractor may ask the Owner for reconsideration of the established unit prices and if granted, the unit prices will not apply, and prices will be negotiated.

B. Definitions – Earth and Rock Excavation:

1. "Earth" – is defined, as excavation shall include removal of all materials other than 'water' and 'rock'.
2. "Rock" – is defined as a boulder of 1 cubic yard or more in volume (1/2 cubic yard for a boulder in trenches), and rock in definite ledge formation and masonry structures of one cubic yard or more in volume, the removal of which requires the use of mechanical equipment or use of explosives. Rock removed by scarification or ripping method is considered as a separate classification under paragraph 4, subparagraph 4.1.1.
3. "Original Grade" – is defined as being the grade which exists at the time of Contract Award.
4. "Rough Grade" – is defined as being the completed surface of required excavations greater than 13' in width.
5. "Mass" – excavation is to be considered as an open area whose minimum horizontal dimensions exceeds 13'.
6. "Trench" – is defined as excavation is defined as the removal of material from areas 13 feet or less in its minimal horizontal dimensions and below the elevation of rough grade or original grade, whichever is lower.

C. Procedures:

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1. **Rock Excavation in Trenches: Basis for Horizontal Measurement:**
 - a. **Horizontal Measurements:** Will be taken between the vertical planes as defined below.
 - b. **The Minimum Width of Trenches in Rock:** Will be taken as 3'-0".
 - c. **Excavation For Walls Or Piers With Footings:** The measurements will be taken parallel to and one foot outside of the edges of the concrete footings as called for in the plans (i.e. for 4'-0" footing, rock will be taken as 6'-0" in width).
 - d. **Excavation For Walls or Piers Without Footings:** The limits of the excavation will be 1'-6" outside of the line of concrete at bottom as shown or called in for the plans (i.e. for a wall with a bottom thickness of 1'-0", the width of the trench will be considered to be 4'-0"). "Caissons are excluded from these measurements).
 - e. **Excavation for Pipe Lines:** Will be measured at 2'-0" more than the nominal inside diameter of the pipe but in no case less than 3'-0" wide.
 - f. **Excavation for Tanks, Vaults, Manholes, Pits, Etc.:** Will be measured as 2'-0" greater in both length and width or diameter than the actual exterior dimensions of the structures and this excavation is considered to be trench only if any measured horizontal dimension is 13' or less.
 - g. **No allowance will be made for rock removed beyond the above limits.**

2. **Rock Excavation in Trenches – Basis for Vertical Measurement:**
 - a. **To determine depth of trench,** vertical measurements will be taken from original grade or rough grade, (whichever is applicable), to the bottom of required excavation. These measurements will define the maximum depths for payments.
 - b. **To determine quantity of rock in trench,** vertical measurements will be taken from the top of rock as encountered in the trench to 12" below the bottom of required rock excavation. Any over excavation below the required elevation shall be filled with concrete or other material as specified at no cost to the Owner.
 - c. **No allowance will be made for rock removed beyond the above limits.**

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3. Earth Excavation in Trenches – Basis of Measurement: (Horizontal & Vertical):

The basis of measurements and allowance limit for earth excavation in trenches is identical to that indicated for rock excavation in trenches, except that there will be no allowance for 12" below the required elevation. In addition the following will prevail:

- a. Maximum allowable widths for earth excavation in trenches without shoring:

Trench Depth – Classification	Add to Nominal ID of Pipe Or To Footing Width
0 ft. – 6 ft.	3 ft.
Over 6 ft. – 10 ft.	5 ft.
Over 10 ft. – 15 ft.	7 ft.
Below 15 ft. deep the width of the trench shall be based on the individual case. The final depth of trench will determine the actual width for payment.	

- b. If shoring is required the measurement shall be taken between the exterior walls of the shoring not to exceed 4' plus the I.D. of the pipe (for all depths).
- c. To determine quantity of earth in trench, vertical measurements will be taken from the original or rough grade to actual bottom of earth excavation required.

4. Unit prices – Earth and Rock Excavation (Basis for Payment): Prices include backfill with excavated material if it is suitable. Prices also include all excavation and disposal of all surplus or unsuitable material. Where replacement with the excavated material is prohibited or a particular backfill material is specified, the cost of the delivered replacement material in a volume equal to the above excavation pay limits minus the volume of the items installed in the trench shall be paid for a prior negotiated price. Prices do not include costs of shoring and dewatering but do include sloping for sides of excavation. Payment and credit amounts shall be determined in the following manner: Widths and depths of trench excavation as indicated. The total quantity of earth or rock excavation encountered in each depth payment category shall be paid for at its respective unit price as shown below. For example, in a 15' trench the first 6' will be paid for at the 0'-6' price; the next 4' will be paid for at the over 6'-10' price and the next 5' will be paid for at the over 10'-15' price. Thus three different price brackets will prevail.

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a. EARTH EXCAVATION – HAND UNIT \$ ADD \$ DEDUCT

(1)	In trenches - 0' - 6'	C.Y.	36.00	28.80
(2)	In trenches below 6' deep,			prices must be negotiated before work is started.

b. EARTH EXCAVATION – MACHINE UNIT \$ ADD \$ DEDUCT

(1)	Open Area - All Depths	C.Y.	18.81	15.05
(2)	In Trenches:			
	0' - 4' deep	C.Y.	14.27	11.40
	Over 0' - 10' deep	C.Y.	19.71	15.75
	Over 0' - 15' deep	C.Y.	35.00	28.00
	Over 0' - 20' deep	C.Y.	75.00	60.00

c. ROCK EXCAVATION UNIT \$ ADD \$ DEDUCT

(1)	Open areas, rock removed by ripping (any amount) net rock	C.Y.	103.50	82.80
(2)	Open areas, with explosives, net rock --			
	Total Quantity up to 100	C.Y.	126.00	100.80
	Total Quantity up to 1,000	C.Y.	60.00	48.00
	Total Quantity over 1,000	C.Y.	28.00	22.40
(3)	In trenches, boulders, remove by machine	C.Y.	45.00	36.00
(4)	In trenches, ripping of rock by machine	C.Y.	105.00	84.00

d. ROCK EXCAVATION (Cont'd) UNIT \$ ADD \$ DEDUCT

(5)	In trenches, with explosives, net rock 0' - 4' deep	C.Y.	95.60	76.50
(6)	In trenches, with explosives, net rock 0' - 10' deep	C.Y.	125.00	100.00

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(7)	In trenches, with explosives, net rock, 0' - 15' deep	C.Y.	150.00	120.00
(8)	In trenches, with explosives, net rock, over 15' - 20' deep	C.Y.	200.00	160.00
(9)	In trenches, with explosives, net rock over 20' deep,	prices must be negotiated before work is started.		
(10)	Jack Holes (for hydraulic lift/elevators)	L.F.	95.00	76.00
(11)	Open or mass areas if explosives are prohibited, net rock	C.Y.	125.00	100.00
(12)	Trench excavation if explosives are prohibited, net rock/with rock splitters and Jackhammer or Hoe Ram	C.Y.	150.00	120.00

PART 2 PRODUCTS

Not used in this Section.

PART 3 EXECUTION

Not used in this Section.

END OF SECTION

SECTION 02025

WARNING MARKINGS

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. The Contractor shall provide and install warning markings for all new underground facilities.

1.03 RELATED WORK:

- A. Other specification sections which directly relate to the work of this section include, but are not limited to, the following:

1. Storm.
2. Sanitary.
3. Water.
4. Communications.
5. Electric.
6. Gas.
7. Oil.
8. Steam.
9. Compressed Air.
10. Radioactive Materials.

1.04 SUBMITTALS:

- A. The Contractor shall submit the following samples, certifications or test results prior to use on the project.
 1. Product data for tapes, including detectable depth information.

PART 2 PRODUCTS

2.01 MATERIALS:

- A. 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 the specific requirements of the utility which owns the facility.

- B. All tape, unless otherwise directed by the specific utility, shall be detectable to a depth of a least two feet with a commercial radio type metal locator.

- C. Assigned colors are:
 - 1. Green - Storm and sanitary sewers and drainage systems including force mains and other non-hazardous materials.
 - 2. Blue - Water.
 - 3. Orange - Communication lines or cables, including but not limited to telephone, telegraph, fire signals, cable television, civil defense, data systems, electronic controls and other instrumentation.
 - 4. Red - Electric power lines, electric power conduits and other electric power facilities, traffic signals and appurtenances and illumination facilities.
 - 5. Yellow - Gas, oil petroleum products, steam, compressed air, compressed gases and all other hazardous materials except water.
 - 6. Brown - Other.
 - 7. Purple - Radioactive materials.

PART 3 EXECUTION

- 3.01 In conformance with Section 16-345 of the Regulations of the Department of Public Utility Control, the Contractor shall install a warning tape located a minimum of twelve (12) inches above all conduits, wires, cables, utility pipes, drainage pipes, underdrains or other facility.

END OF SECTION

SECTION 02110

CLEARING OF SITE

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. Site demolition work.

1.03 RELATED WORK:

- A. Other specification sections which directly relate to the work of this section include, but are not limited to, the following:
 - 1. Section 02220 - Site Earthwork.
 - 2. Section 02112 - Tree Protection.

PART 2 PRODUCTS

Not used in this Section.

PART 3 EXECUTION

3.01 SITE DEMOLITION WORK:

- A. This section includes all labor, materials, equipment, and appliances required to complete the entire demolition work. Demolition is limited to those items as noted on the plans. The clearing and prompt removal and disposal of all rubbish and debris shall be in accordance with the requirements of the Municipality.
- B. Obtain all permits as required.
- C. Provide protection for all shrubs, trees, lawns, landscape work, walks, roads, drives, adjacent buildings, and equipment, both on and off the property and in adjacent roads and streets.
- D. The Contractor shall provide, erect, and maintain such fences, planking, bridges, bracing, shoring, lights, barricades, warning signs and guards as necessary for the protection of streets, sidewalks, adjoining property and the general public during the performance of the work.

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- E. The Contractor shall not close or obstruct any public street, sidewalk, alley or passageway, nor store equipment or materials thereon without permits from and the notification of the proper authorities. Public access and egress for emergency equipment to any building must be maintained at all times during construction. The Contractor must coordinate schedules with the property Owner's Representative or Officials.
- F. All operations shall be conducted with minimum interference to both vehicular and pedestrian traffic, in accordance with the provisions of Section 11 of the Connecticut State Demolition Code.
- G. Before starting work, the Contractor shall ascertain that all utility branches or main connections, such as water, gas, and electricity have been disconnected in accordance with the municipality and the regulations of the utility concerned. No wires, conduits, pipes or other connections shall be removed until the applicable services have been disconnected as herein described above. All utility disconnections with the exception of the sewers and drain work described below, shall be done by the appropriate subcontractor in accordance with appropriate utility regulations (if applicable), plans and specifications.
- H. It shall be the responsibility of the Contractor to protect and preserve in operating conditions, all utilities adjacent to and traversing the project site, protect manholes including frames and covers, valve boxes and other appurtenances. Damage to any utility due to work under this contract shall be repaired to the satisfaction of the Owner, at the Contractor's expense.
- I. All materials, rubbish, and debris shall be promptly removed from the premises.
- J. Accumulation of same will not be permitted.
- K. No blasting will be permitted on the project site except upon written permission from the Owner.

END OF SECTION

SECTION 02112

TREE PROTECTION

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. Protect all trees not designated to be removed, in areas near construction, by boxing or fencing before grading operations start. Protect existing monument where noted on plan.

1.03 RELATED WORK:

- A. Other specification sections which directly relate to the work of this section include, but are not limited to, the following:
 - 1. Section 02220 - Site Earthwork.
 - 2. Section 02110 - Clearing of Site.

PART 2 PRODUCTS

2.01 MATERIALS:

- A. Boxing shall consist of simple but durable fence around the tree. It shall consist of 2 inch x 2 inch x 7 foot posts set no more than 10 feet on center with three stringers (1 inch x 6 inches) per side. Height shall be approximately 4 feet. Fence shall be constructed a minimum of 8 feet from base of tree unless otherwise noted on the plans.
- B. Fencing shall consist of 4 foot high snow fencing wired to 8 foot steel fence stakes driven a minimum of 3 feet into the ground. Fencing shall be installed a minimum of 8 feet from base of tree or trees to be protected unless otherwise noted on the plans.

PART 3 EXECUTION

- 3.01 Install tree protection using either method described in Part 2 above.

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- 3.02 Trees damaged shall be repaired by an approved tree surgeon. Any tree removed erroneously, or damaged beyond satisfactory repair, shall be replaced with the same species 5 inches in caliper, which shall be balled, burlapped and platformed.
- 3.03 No material shall be stored or any construction activities carried on within 15 feet of any tree that is to be saved.
- 3.04 Provide protection around existing monument until construction is completed.

END OF SECTION

SECTION 02115

SILTATION CONTROL

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. Provide and maintain silt control fence and mud rack for control of runoff of silt until paving has been installed and a satisfactory stand of grass has been established.

1.03 RELATED WORK:

- A. Other specification sections which directly relate to the work of this section include, but are not limited to, the following:
 - 1. Section 02110 - Clearing of Site.
 - 2. Section 02220 - Site Earthwork.

1.04 SUBMITTALS:

- A. The Contractor shall submit the following samples, certifications or test results prior to use on the project.
 - 1. Filter fabric material certification for silt fence.
 - 2. Certification of mud rack aggregate.
 - 3. Geotextile fabric material certification for mud rack.

PART 2 PRODUCTS

2.01 MATERIALS FOR HAY BALE CONTROL:

- A. Standard size bales of hay or straw having no loose or decomposed baling twine.
- B. Stakes shall be 2 inches x 2 inches x 3 feet long, pointed on one end.

2.02 MATERIALS FOR SILT CONTROL FENCE:

- A. Stakes shall be 2 inches x 2 inches x 5 feet long, pointed on one end.

- B. Wire fabric shall be 4 x 4 hogwire or chicken wire.
- C. Filter fabric shall be MIRAFI-100X or "ENVIROFENCE" as manufactured by Mirafi Construction Products, 365 South Holland Drive, Pendergrass, GA 30567, (888)795-0808, or approved equal, resistant to sunlight exposure.

2.03 MATERIALS FOR MUD RACK:

- A. Stone shall be 2 1/2 to 3 inch trap rock conforming to Section M.02 of the State Specifications, where applicable. Reclaimed aggregate is not an acceptable material for this item.
- B. Geotextile fabric to be MIRAFI-600X, or approved equal.

PART 3 EXECUTION

3.01 SILT CONTROL FENCE:

- A. Construct in accordance with the detail.

3.02 MUD RACK:

- A. Grade and compact area to receive mud rack.
- B. Place geotextile fabric on grade prior to placement for stone.
- C. Place stone to depth as detailed.

3.03 MAINTENANCE:

- A. Maintain the silt control fence by re-staking, tightening, adjusting or replacing, as required.
- B. Remove build-up of silt when silt is to 1/2 height of any erosion control barrier.
- C. When silt control fence is no longer required, remove and repair the area to conform to site plan.

END OF SECTION

SECTION 02202

ROCK REMOVAL

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. Rock removal as herein described shall be measured and removed as directed by the Architect.

1.03 RELATED WORK:

- A. Other specification sections which directly relate to the work of this section include, but are not limited to, the following:
 - 1. Section 02015 - Earth and Rock Excavation, Definitions and Unit Prices.
 - 2. Section 02220 - Site Earthwork.

PART 2 PRODUCTS

Not applicable.

PART 3 EXECUTION

- 3.01 The Contractor is to assume that all excavation is earth and that in the event rock is encountered, it will be paid for at the given unit prices established in the "Earth and Rock Excavation Definition and Unit Prices" section of these specifications. Rock prices are net in that allowances for reduced quantities are also included in the unit prices.
- 3.02 Refer to Section 02015 of these specifications for "Earth and Rock Excavation Definition and Unit Prices".

END OF SECTION

SECTION 02210

TOPSOILING

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. Work consists of stripping and stockpiling of existing on-site topsoil and/or furnishing, placing and shaping topsoil in areas shown on the plans.

1.03 RELATED WORK:

- A. Other specification sections which directly relate to the work of this section include, but are not limited to, the following:
 - 1. Section 02220 - Site Earthwork.
 - 2. Section 02936 - Seeding.

1.04 SUBMITTALS:

- A. The Contractor shall submit the following samples, certifications or test results prior to use on the project.
 - 1. Fertilizing and liming requirements as determined by an approved testing laboratory for existing topsoil and each source of borrow topsoil.
 - 2. Mechanical analysis, including percentage of organic matter content, as determined by an approved testing laboratory for existing topsoil and each source of borrow topsoil.

PART 2 PRODUCTS

2.01 TOPSOIL:

- A. Refer to Subarticle M.13.01-1 of the State Specifications for material requirements of topsoil.

- B. The topsoil shall be loose, friable, and reasonably free of admixtures of subsoil; and free from refuse, stumps, roots, brush, weeds, rocks, and stones 1/2 inch in overall dimensions. Topsoil shall be mechanically screened to remove any stones or debris having a dimension greater than 1/2 inch. The topsoil shall also be free from any material that will prevent the formation of a suitable seedbed or prevent seed germination and plant growth.
- C. The Contractor shall notify the Architect of the location from which he proposes to furnish topsoil to the project at least 15 calendar days prior to delivery, if he needs additional topsoil.
- D. The topsoil and its source shall be inspected and approved by the Architect before the material is delivered to the project. Any material delivered to the project which does not meet specifications, or which has become mixed with undue amounts of subsoil during any operation at the source or during placing or spreading, will be rejected and shall be replaced by the Contractor with acceptable material at no extra cost to the Owner.

2.02 ON-SITE TOPSOIL:

- A. Topsoil shall meet standards of item 2.01 above.

PART 3 EXECUTION

3.01 STRIPPING OF TOPSOIL:

- A. Strip all topsoil of acceptable quality from within the contract limit line where construction work occurs. Acceptable quality shall meet the standards of 2.01 above. Special attention shall be taken where stripping operations meet areas of existing trees to avoid damage to tree root systems. Areas to be regraded or resurfaced shall be stripped of topsoil without the admixture of subsoil; protect the stockpile against loss and the admixture of debris. Do not strip topsoil in a muddy or frozen condition.
- B. Procedure for topsoil stripping shall be as follows:
 - 1. Contractor shall thoroughly shred existing turf by mechanical means (i.e., heavy duty power tiller) so as to thoroughly shred all clumps of turf, or shall strip and remove all turf.
 - 2. Topsoil shall then be stripped with care to keep admixture of subsoil to a minimum.
 - 3. Topsoil shall not be removed from the property, but shall be stored in neat soil banks, and shall be available for use as required under this Section.
 - 4. Protect stockpile of topsoil by seeding with Annual Rye grass, and surround topsoil with erosion control geotextile fencing.

3.02 PLACEMENT OF TOPSOIL:

- A. Topsoil shall not be removed from the property until construction is completed.
- B. The areas on which topsoil is to be placed shall be graded to a reasonably true surface. Topsoil shall then be spread and shaped to the lines and grades shown on the plans, or as directed by the Architect. The topsoil is to be placed 6 inches deep in lawn areas after settlement of material has taken place. All stones, roots, debris, sod, weeds and other undesirable material shall be removed. 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. Do not place topsoil in a muddy or frozen condition.
- C. Refer to Section 02936 - Seeding for incorporation of soil additives as determined by testing.
- D. During hauling and spreading operations, the Contractor shall immediately remove any material dumped or spilled on pavement areas.
- E. It shall be the Contractor's responsibility to restore to the line, grade and surface all eroded areas with approved material and to keep topsoiled areas in acceptable condition until the completion of the construction work.
- F. Refer to Section 9.44.03 of the State Specifications for additional construction methods of topsoil installation.

END OF SECTION

SECTION 02220

SITE EARTHWORK

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. Excavation, filling, furnishing additional fill if required, compaction and/or disposal off site of all sand, clay, gravel, broken stone, limestone, soft shale, soft slate or sandstone, loose or decomposed rock, boulders of less than 1 cubic yard in volume and all other material necessarily excavated and not otherwise classified under this Specification. Rock or ledge of such consistency that it can be moved by bulldozer or other equipment shall be included under mass earth.
- B. This section includes all labor, materials, equipment and services required to complete all excavation, fill and grading as shown on drawings and/or herein specified including, but not necessarily limited to, the following:
 - 1. Rough grading and filling to grade.
 - 2. Compaction control.

1.03 RELATED WORK:

- A. Other specification sections which relate to the work of this section include, but are not limited to, the following:
 - 1. Section 02202 - Rock Removal.
 - 2. Section 02210 - Topsoiling.
 - 3. Section 02225 - Trenching.

1.04 SUBMITTALS:

- A. The Contractor shall submit the following samples, certifications, or test results prior to use on the project.
 - 1. Bank-run gravel sieve analysis.

2. Processed aggregate certification of compliance from supplier and sieve analysis.
3. Pervious material sieve analysis.

PART 2 PRODUCTS

2.01 MATERIALS:

- A. Pervious material shall conform to Article M.02.05 of the State Specifications, except reclaimed aggregate is not an acceptable material for this item.
- B. Common fill:
 1. Material needed in addition to that available from construction operations shall be obtained from borrow pits or other deposits approved by Architect.
 2. All material, whether from the excavations or from borrow, shall be of such nature that after it has been placed and properly compacted, it will make a dense, stable fill.
 3. It shall not contain vegetation, masses of roots, individual roots more than 18 inches long or more than 1/2 inch in diameter, stones over 8 inches in diameter, porous matter, organic matter, bituminous concrete, asphalt material, concrete, brick, tile, demolition debris, polymers, or other materials which can be considered to be debris.
- C. Processed aggregate shall conform to Section M.05.01 of the State Specifications, except reclaimed aggregate is not an acceptable material for this item.
- D. Bank-run gravel shall conform to M.02.02, except it shall meet Grading "A" of M.02.06 of the State Specifications, except reclaimed aggregate is not an acceptable material for this item.

PART 3 EXECUTION

3.01 LOCATION OF FILL MATERIALS:

- A. Pervious backfill shall be used for backfilling around drainage structures where detailed on the plans.
- B. Common fill shall be used for fill and grading.
- C. Processed aggregate under pavements shall be deposited in layers as detailed on the plans.
- D. Bank-run gravel under paved areas where noted on the plans.

3.02 ROUGH GRADING AND FILLING:

- A. The Contractor shall include in his contract the cost for supplying all pervious backfill and additional common fill, as required, and grading all fill.
- B. Material frozen in lumps or subject to decomposition or caving shall not be used in fill or backfill. All fill used shall require the approval of the Architect.
- C. All backfill and fill shall be placed in layers not to exceed 12 inches after compaction, 8 inches under pavements. Processed aggregate, when placed, shall be in 4 inch lifts. The entire area of each layer shall be compacted with the appropriate type of roller or compactor or combination thereof until a layer of the required minimum density has been produced.
- D. If after full compliance with the requirements of these specifications with regard to excavation, placement and compaction procedures, a stable embankment has not been obtained, the Contractor shall proceed to perform such corrective work as is necessary to produce a stable embankment. See Section 02220, 3.03 for compaction.
- E. Do all cutting, filling, backfilling and grading necessary to bring the area to the following subgrades after compaction and settlement.
 - 1. For pavements: to underside of the base as indicated on the drawings.
 - 2. For seeded areas: to 6 inches below finished grades except as otherwise noted on the plans.
- F. All subgrades in areas to be paved which cannot be properly compacted shall be removed and replaced with approved material, and be compacted in accordance with Section 02220, 3.03 of these specifications.
- G. Maintain subgrades in properly drained conditions until surface improvements are placed. All necessary well-pointing and/or pumping shall be performed and maintained at the Contractor's expense.
- H. Remove all debris, paper and deleterious materials from excavations before backfilling.
- I. Slope ground away from building and grade entire area outside of the building to a smooth, uniform surface. Grades not otherwise indicated shall be of uniform levels or slopes between points where grades are given or between such points and existing finished grades. Round all abrupt changes in slopes. Should figures for finished spot grades conflict with finished contours shown on the plan, consult the Architect for clarification.
- J. Backfill around drainage structures with pervious backfill, compacted, 6 inch layers to subgrade.

- K. Complete the rough grading operations after utilities have been installed and all materials, rubbish and debris are removed from the site. Leave subgrade for site improvements and lawn areas clean and at required grades.
- L. Material for subgrade in both cut and fill sections shall be approved by the Architect. Any soft or spongy areas shall be removed and replaced with properly compacted, as herein specified, firm bearing material. Any fill material placed by the Contractor which cannot be stabilized and compacted as specified shall be removed and replaced by the Contractor at his expense. Replacement of soft spongy material in areas of cut which cannot be stabilized and compacted as specified shall be paid for at the unit prices as established in Section 02015. The Architect shall be notified before any such material is removed and the quantity of fill required must be agreed upon in writing by the Architect, Owner and Site Contractor before it is replaced in the excavated areas.
- M. Restore, without extra cost to Owner, existing pavements that may be opened in performance of the work under this Section in manner prescribed by the authorities having jurisdiction.
- N. Disposal of Material: Material under this contract which is not the property of the Owner shall be disposed of off the site at the Contractor's expense. This includes excess earth, rock and topsoil unless noted otherwise.

3.03 SOIL COMPACTION AND CONTROL:

- A. Construction Methods: After deposition of fill or backfill in layers, previously described, compact to the following percent optimum density:
 - 1. The dry density, after compaction under pavement, shall not be less than 95% of the dry density for that soil when tested in accordance with AASHTO T-180, Method D. In this test, materials retained on the three-quarters sieve shall be replaced with material retained on the No. 4 sieve, as noted as an option in the specifications for this test.
 - 2. The dry density after compaction, in lawn areas, shall not be less than 85% of the dry density for that soil when tested in accordance with AASHTO T-180, Method D. In this test, materials retained on the three-quarters sieve shall be replaced with material retained on the No. 4 sieve, as noted as an option in the specifications for this test.
- B. Field Tests:
 - 1. One modified Proctor Density Test for each source of fill material performed in accordance with AASHTO T-180.
 - 2. Standard field density tests each of an accuracy of plus or minus one percent.

3. The above tests will be paid for by the Owner.
4. The Architect will direct when field density tests shall be made.
5. All required recompaction and retesting shall be at the Contractor's expense.
6. It shall be the Contractor's responsibility to notify the Architect and Testing Laboratory when each layer of fill is to be in place and ready for testing. The Contractor shall allow ample time for testing. If any fill is placed in excess of 16 inches without testing it shall be subject to removal. Sieve analysis shall be at the Contractor's expense.
7. No subsequent layer shall be placed until the specified compaction is obtained for the previous layer.

3.04 FIELD QUALITY CONTROL:

- A. As the earthwork process proceeds, the Architect will determine where and how many compaction tests will be taken. Tests to be paid for by the Owner.
- B. Additional tests at the Contractor's expense will be required if, in the opinion of the Architect, the failure rate justifies it.
- C. Work which is shown not to be in conformance with specification requirements will be replaced at the Contractor's expense. Contractor shall pay for retesting of areas which fail.
- D. The Contractor shall coordinate and schedule all testing as work progresses. Any scheduled tests which are canceled but billed for shall be paid by the Contractor.

END OF SECTION

SECTION 02225

TRENCHING

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. Work under this item shall consist of trenching, backfilling and satisfactory disposal of all surplus excavated material, the removal of which is necessary for the proper installation of the following:
 - 1. The installation of pipe, drainage structures, water lines and service pipes.
 - 2. The removal of water lines and appurtenances.
 - 3. The removal of miscellaneous items such as pipelines.

1.03 RELATED WORK:

- A. Other specification sections which directly relate to the work of this section include, but are not limited to, the following:
 - 1. Section 02015 - Earth and Rock Excavation, Definitions and Unit Prices.
 - 2. Section 02220 - Site Earthwork.
 - 3. Section 02720 - Storm Drainage.
 - 4. Section 02775 - Water Distribution.

1.04 SUBMITTALS:

- A. The Contractor shall submit the following samples, certifications or test results prior to use on the project.
 - 1. Sieve analysis of bedding material.
 - 2. Sieve analysis of granular fill.

PART 2 PRODUCTS

2.01 MATERIALS:

- A. Bedding material shall be sand or sandy soil, all of which passes a 3/8 inch sieve, and not more than 10 percent passing a No. 200 sieve. When ground water is encountered, the Engineer may allow 3/4 inch stone conforming to Section M.01 of the State Specifications to be used in lieu of sand or sandy soil.
- B. Granular fill shall conform to M.02.01 of the State Specifications, except reclaimed aggregate is not an acceptable material for this item.

PART 3 EXECUTION

- 3.01 Unless otherwise shown, provide separate trenches for each utility. Lay piping, conduit or cable in open trench except when Engineer gives permission for tunneling. Maintain ready access for fire fighting apparatus.
- 3.02 Width of trench: Excavate trenches to sufficient width for proper installation of the work, but the maximum width, at an elevation 1 foot above the pipe shall be the inside diameter plus 2 feet for pipes less than 30 inches in diameter and plus 3 feet for pipes 30 inches and greater.
- 3.03 Grading Trench Bottoms: Grade the bottom of trenches evenly to insure uniform bearing for full length of all pipes. Cut holes as necessary for joints and joint making. Excavate to at least 6 inches below the pipe at all points.
- 3.04 When soft or otherwise unsuitable material is encountered at low excavation limits, the depth of excavation below the pipe and structures shall be increased to a depth as specified by the Engineer.
- 3.05 Install pipe in bedding material with a thickness directly under the pipe of 6 inches and preshaped to a height of 10 percent total height of the pipe. After the pipe has been installed, the trench shall be backfilled with bedding material to a height of 25 percent of the total height of the pipe for pipes 12 inches and larger and to 6 inches over the pipe for smaller sized lines. Backfill to subgrade. Above the bedding material may be existing material provided that no unsuitable material nor material with stones 3 1/2 inches in greatest dimension be used, unless specified otherwise in that particular utility section. Refer to site utility drawings for further requirements.
- 3.06 Trenches shall be backfilled only after pipe has been inspected and approved and locations of pipes and appurtenances have been recorded on the "As-Built" Drawings.

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- 3.07 Backfill for trenches located in paved areas shall be approved granular fill. This backfill shall be deposited and spread in uniform, parallel layers not exceeding 6 inches in thickness before compaction. Before the next layer is placed, each layer shall be firmly compacted. Above the bedding material may be existing material provided that no unsuitable material nor material with stones 3 1/2 inches in greatest dimension be used, unless specified otherwise in that particular utility section. Refer to site utility drawings for further requirements.
- 3.08 Backfill for trenches located in new lawns or repaired lawns, may be compacted with existing material, if acceptable to the Engineer, unless otherwise shown on the drawings.
- 3.09 Backfill material shall be free from large or frozen lumps, wood or other extraneous material.
- 3.10 The Contractor shall keep trenches free from standing water at all times until permanent work is in place. All necessary well- pointing and/or pumping shall be performed and maintained at the Contractor's expense.
- 3.11 The Contractor shall provide, install, maintain and remove all shoring, bracing and other items necessary to retain banks or excavations and prevent cave-ins and displacement of adjoining ground. Shoring and bracing shall be entirely independent of footings.
- 3.12 Where rock in trench is encountered, refer to Section 02202 in all applicable respects.
- 3.13 Limit of excavation for structures and footings to be 1 foot outside outer walls, and as nearly vertical as possible.

END OF SECTION

SECTION 02513

BITUMINOUS CONCRETE ROAD PAVEMENT

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. Work consists of a bank run gravel sub-base, processed aggregate base, bituminous concrete binder course and surface course, conforming to the lines, grade, compacted thickness and typical cross section as shown on the plans.

1.03 RELATED WORK:

- A. Other specification sections which directly relate to the work of this section include, but are not limited to, the following:
 - 1. Section 02220 - Site Earthwork.

1.04 SUBMITTALS:

- A. The Contractor shall submit the following samples, certifications or test results prior to use on the project.
 - 1. Sieve analysis for bank-run gravel.
 - 2. Sieve analysis and product certification for processed aggregate.
 - 3. Product certification for bituminous concrete binder and surface courses.

PART 2 PRODUCTS

2.01 MATERIALS:

- A. Bank-run gravel shall conform to Article M.02.03, and "Grading A" of Article M.02.06, of the State Specifications, except reclaimed aggregate is not an acceptable material for this item.
- B. Processed aggregate for processed base course shall conform to Article M.05.01 of the State Specifications in all applicable respects, except reclaimed aggregate is not an acceptable material for this item.

- C. The material for the bituminous concrete mixture, sources of supply, formula for the job mix, job mix tolerance, approval of job mix formula and the control of the mixture shall conform to the requirements of Section M.04 of the State Specifications.
- D. Bituminous binder course gradation shall conform with "Class 1" in Section M.04 of the State Specifications.
- E. Bituminous concrete surface course shall conform to "Class 2" in Section M.04 of the State Specifications.

PART 3 EXECUTION

3.01 SUBGRADE:

- A. Prepare the subgrade for pavement, as detailed on the plans, below and parallel to the finished grade after compaction.

3.02 CONSTRUCTION:

- A. The methods employed in performing the work and all equipment, tools, machinery and other plant used in handling materials and executing any part of the work shall conform to all the requirements of Article 3.02.04 for construction of the sub-base, Article 3.04.03 for construction of the base and Article 4.06.03 for construction of pavement; State Specifications except as noted below:
 - 1. Daily samples of completed work will not normally be required; such samples shall be furnished by the Contractor only upon specific request of the Architect, in which case the Contractor shall remove the samples as directed and replace with the new material equal to that in adjacent areas.
 - 2. The surface of the finished base shall not vary by more than 1/4 inch from a 10 foot straight edge applied parallel to the center line of the base.

3.03 FIELD QUALITY CONTROL:

- A. The Owner shall select and retain an independent testing laboratory to provide compaction tests. Compaction tests will be provided for all areas to be paved prior to completing work over the compacted area. Minimum number of tests required, unless directed otherwise by the Architect, is one per each 5,000 square feet of area of pavement.
- B. Additional tests at the Contractor's expense will be required if, in the opinion of the Architect, the failure rate justifies it.
- C. Work which is shown not to be in conformance with specification requirements will be replaced at the Contractor's expense. Contractor shall pay for retesting of areas which fail.

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- D. The Contractor shall coordinate and schedule all testing as work progresses. Any scheduled tests which are canceled but billed for shall be paid by the Contractor.

END OF SECTION

SECTION 02518

HARD SURFACE PLAY AREA PAVEMENT

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. The Contractor shall furnish all labor, equipment, material and operations necessary for, and reasonably incidental to, the work of play area pavement construction, in accordance with the drawings and as specified herein, including but not necessarily limited to, the following:
 - 1. Paving and Base Construction.
 - 2. Painted Lines.

1.03 RELATED WORK:

- A. Other specification sections which directly relate to the work of this section include, but are not limited to, the following:
 - 1. Section 02220 - Site Earthwork.

1.04 SUBMITTALS:

- A. The Contractor shall submit the following samples, certifications or test results prior to use on the project.
 - 1. Sieve analysis for processed aggregate.
 - 2. Product certification for bituminous concrete binder and surface courses.
 - 3. Sieve analysis and sample of crushed stone filler.
 - 4. Product data for paint.

PART 2 PRODUCTS

2.01 MATERIALS:

- A. Processed aggregate for processed base course shall conform to Article M.05.01 of the State Specifications in all applicable respects, except reclaimed aggregate is not an acceptable material for this item.
- B. The material for the bituminous concrete mixture, sources of supply, formula for job mix, job mix tolerances, approval of job mix formula and the control of the mixture shall conform to the requirements of Section M.04 of the State Specifications. Base Course gradation shall conform with "Class 1" in Section M.04 of the State Specifications, except that the liquid bitumen content shall be no less than 6.5%. Surface course shall conform to "Class 2" of the State Specifications, except that the liquid bitumen content shall be no less than 6.5%.
- C. Filler: Crushed stone filler shall consist of sound, tough, durable particles containing not more than 3% of silt or crusher dust by weight (AASHTO-Method T-11). They shall be so graded that 100% passes 5/8 inch sieve and not less than 70% shall be retained on No. 50 sieve. Submit 1 cubic foot sample and certified analysis, prior to delivery.
- D. Paint color for new painted lines shall be white unless otherwise specified, conforming to article M.07.20 of the State Specifications.

PART 3 EXECUTION

3.01 CONSTRUCTION METHODS:

- A. On prepared subgrade compacted to maximum density, place processed aggregate to depths shown on the drawings and as detailed.
- B. Rolling for the base shall be done with a self propelled, 10 ton steel wheel roller making longitudinal passes from the edges to the center and with each successive pass, overlapping the first by 1/2 the width of the rear wheel. All depressions and settlements shall be filled and brought to proper grade.
- C. Rolling for the base shall continue until the aggregates are firmly interlocked, and the surface is true and unyielding and every part of the surface has received compression from the roller wheels.
- D. Processed aggregate base shall be thoroughly bound by spreading filler material over the surface and working it thoroughly into the interstices between the larger aggregates by brooming or other approved methods.

- E. Rolling of filler course shall continue until a smooth even and thoroughly bound surface is achieved, which provides the true plane parallel to finish grade required by the spot grades given on the plan. The Contractor shall have his engineer verify the accuracy of the grades including the pitches and slopes intended to produce the designed playing surface. Deviations from these grades will not be permitted.
- F. Bituminous courses shall be placed as herein before specified in thickness required by the drawings and details.
- G. The Contractor's engineer shall constantly check grades as material is placed and rolled to insure true planes are being achieved.
- H. Test roll surface with 10 foot straight edge in all directions and correct all deviations while material is hot. Deviations of more than 1/8 inch shall be unacceptable.
- I. Special care shall be taken to insure smooth and imperceptible joints, blending uniformly to achieve a continuous playing surface. Infra-red heating devices shall be employed when temperature of material in place falls below 150 degrees F.
- J. Finished surface shall be dense, free from "bird baths" of any depth and irregularities or porous areas of any description.

3.02 FIELD QUALITY CONTROL:

- A. The Owner shall select and retain an independent testing laboratory to provide compaction tests. Compaction tests will be provided for all areas to be paved prior to completing work over the compacted area. Minimum number of tests required, unless directed otherwise by the Architect, is one per each 5,000 square feet of area of pavement.
- B. Additional tests at the Contractor's expense will be required if, in the opinion of the Architect, the failure rate justifies it.
- C. Work which is shown not to be in conformance with specification requirements will be replaced at the Contractor's expense. Contractor shall pay for retesting of areas which fail.
- D. The Contractor shall coordinate and schedule all testing as work progresses. Any scheduled tests which are canceled but billed for shall be paid by the Contractor.

3.03 PAINTED LINES:

- A. Over clean color coating apply white painted lines 2 inches wide and centered on snapped stringlines.
- B. Lettering should be applied in same manner.

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- C. Protect adjacent areas from splattering.

END OF SECTION

SECTION 02521

PRECAST CONCRETE PAVERS ON CONCRETE BASE

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. Work consists of a processed traprock base; concrete pavement; 3/4 inch mortar bed; and concrete pavers conforming to line, grade and typical cross-section as shown on the plans.

1.03 RELATED WORK:

- A. Other specification sections which directly relate to the work of this section include, but are not limited to, the following:
 - 1. Section 02220 - Site Earthwork.
 - 2. Section 02528 - Concrete Pavement.

1.04 SUBMITTALS:

- A. The Contractor shall submit the following samples, certifications or test results prior to use on the project.
 - 1. Product data and test panel approximately 4 feet square for Architect's approval prior to installation of any concrete pavers.
 - 2. Sieve analysis for processed traprock.
 - 3. Concrete mix design.
 - 4. Mortar mix design for setting bed.

PART 2 PRODUCTS

2.01 MATERIALS:

- A. Concrete pavers to be "Uni-Decor" 2 3/8 inches thick as manufactured by Pavers by Ideal, 232 Lexington Street, Waltham, MA 02452, (800)444-7287, or approved equal. Color to be "autumn blend".

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- B. Processed traprock shall be as specified in Article M.05.01 of the State Specifications, except reclaimed aggregate is not an acceptable material for this item.
- C. Expansion joints shall be 3/8 inch with premolded asphaltic expansion joint filler.
- D. Concrete shall conform to Class "F", Section M.03.01 of the State Specifications, except air content to be 6 percent. Concrete shall be 4,000 psi after 28 days.
- E. Reinforcing, where noted on plans, shall conform to Article M.06.01 of the State Specifications.
- F. Provide two 3/4 inch diameter, 2 foot long dowels (smooth) at each expansion joint. Wrap "free end" of dowel in tar paper or heavy grease to prevent adhesion.
- G. Setting bed to be 3/4 inch moist mortar consisting of 3 parts clean sharp mortar sand (ASTM C144) and 1 part non-staining Portland Cement.
- H. Joints to be a dry mixture of 3 parts sand, and 1 part non-staining Portland Cement. Joints to be 1/4 inch wide.
- I. Sealer to be "Paver Seal-SB" as manufactured by Addiment Incorporated, P. O. Box 47520, Atlanta, GA 30362, (770)446-6250, or approved equal.

PART 3 EXECUTION

3.01 CONSTRUCTION METHODS:

- A. Refer to Section 02528 for installation of concrete pavement.
- B. Set concrete pavers on 3/4 inch moist mortar bed, sprinkling water on pavers to maintain moisture. Only screed enough mortar that can be covered with pavers in one day.
- C. Pavers should be swept with joint filler to within one-half of their depth the same day they are placed. Thoroughly wet pavement with water until the joint material has consolidated. Follow same procedure next day until joints are flush with top of pavers. Surface plane shall not vary more than 1/8 inch when checked with a 10-foot straight edge.
- D. Apply two (2) coats of sealer as per manufacturer's instructions.

3.02 FIELD QUALITY CONTROL:

- A. The Contractor shall select, retain, and pay for an independent testing laboratory to provide compaction tests. Compaction tests will be provided for all areas to be paved prior to completing work over the compacted area. Minimum number of tests required, unless directed otherwise by the Architect, is one per each 1,000 square feet of area of pavement.
- B. Additional tests at the Contractor's expense will be required if, in the opinion of the Architect, the failure rate justifies it.
- C. Work which is shown not to be in conformance with specification requirements will be replaced at the Contractor's expense. Contractor shall pay for retesting of areas which fail.
- D. The Contractor shall coordinate and schedule all testing as work progresses. Any scheduled tests which are canceled but billed for shall be paid by the Contractor.

END OF SECTION

SECTION 02528

CONCRETE PAVEMENT

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. Work under this section shall consist of the preparation and placement of concrete for concrete pavement on the prepared base course where located and as detailed on the plans.

1.03 RELATED WORK:

- A. Other specification sections which directly relate to the work of this section include, but are not limited to, the following:
 - 1. Section 02220 - Site Earthwork.

1.04 SUBMITTALS:

- A. The Contractor shall submit the following samples, certifications or test results prior to use on the project.
 - 1. Sieve analysis for processed aggregate.
 - 2. Concrete mix design.
 - 3. Product data on expansion joint materials.
 - 4. Product data and sample of detectable warning tile.

PART 2 PRODUCTS

2.01 MATERIALS:

- A. Processed aggregate shall conform to Article M.05.01 of the State Specifications, except reclaimed aggregate is not an acceptable material for this item.
- B. Concrete shall conform to Class "F", Section M.03.01 of the State Specifications, except air content to be 6 percent. Concrete shall be 4,000 psi after 28 days.

- C. Reinforcing, where noted on plans, shall conform to Article M.06.01 of the State Specifications.
- D. Concrete pavement (on grade) shall have a 3/8 inch premolded asphaltic expansion joint filler where noted on plans, separating all noted panels and between panels and curbs if poured-in-place curbs are specified. Concrete at these expansion joints shall not be edged. Trim premolded expansion joint filler with sharp chisel 1/4 inch below the concrete surface.
- E. Detectable warning tiles shall be Inline Dome - Paver Tiles as manufactured by ADA Solutions, Inc., 1 Survey Circle, 2nd Floor, N. Billerica, MA 01862, telephone (800)372-0519, fax (978)262-9125, or approved equal.

PART 3 EXECUTION

3.01 PREPARATION:

- A. Prepare the subgrades for concrete as detailed on the plans, parallel to finish grade after compaction.

3.02 CONSTRUCTION METHODS:

- A. Install processed aggregate base to compacted thickness as noted on the plans, and to Section 3.04.03 of the State Specifications.
- B. Concrete pavement shall be of width and extent shown on the plans.
- C. Subgrades shall be parallel to finish grade, to depth specified on the plans.
- D. Refer to Article 4.01.03 of the State Specifications for Construction Methods.
- E. Concrete pavement (on grade) shall have a 3/8 inch expansion joint where noted on plans, separating all noted panels and between panels, curbs if poured-in-place curbs are specified and where concrete panels abut vertical surfaces (i.e., steps, walls).
- F. Paving shall have a broom finish, unless otherwise noted on the drawing. Tamp and screed concrete to grade and section, bringing sufficient mortar to the surface for finishing and give broomed finish before concrete sets, perpendicular to line of travel or as indicated on the plans. Edges of panels shall have a tooled radius, but the flat surface shall have the tooled marks removed by brooming.

- G. Inline Dome - Paver Tiles to be used on all new curb ramp locations. The panels shall be pressed into place in the freshly poured concrete. Follow manufacturer's installation procedures.
1. The physical characteristics of the concrete shall be as specified in the Contract Documents while maintaining a slump range of 4-7 to permit the solid placement of the Paver Tile in the wet cement. An overly wet mix will cause the tiles to float.
 2. The concrete shall be poured and finished level, true and smooth to the required dimensions prior to the placement of the tile.
 3. The Paver Tiles shall be tamped or vibrated into the fresh concrete to ensure that the field level (base of truncated domes) of the tile is flush to the adjacent walking surface. The tolerance for elevation differences between the tile and the adjacent surface is 1/16 inch.
 4. Following the placement, the tile elevation should be checked to the adjacent surface with a straight edge. The tile elevation should be consistent with the Contract Drawings and Specifications. Any required adjustments must be made prior to the time when the concrete begins to set.
 5. During and after the tile installation and the concrete curing stage, no walking or external forces can be placed on the tile. The area must be protected from pedestrian traffic until concrete is cured.
 6. Clean all debris or concrete off of the face of the tile prior to the curing of the materials.
- H. Provide 5/8 inch diameter, 12 inch long dowels (smooth), 12 inches on center at all expansion joints and where concrete pavement abuts building foundation at all door openings unless otherwise noted on the plans. Wrap "Free End" of dowel in tar paper or heavy grease to prevent adhesion to either slab or foundation.

3.03 FIELD QUALITY CONTROL:

- A. The Owner shall select and retain an independent testing laboratory to provide compaction tests of base. Compaction tests will be provided for all areas to be paved prior to completing work over the compacted area. Minimum number of tests required, unless directed otherwise by the Architect, is one per each 1,000 square feet of area of pavement.
- B. Additional tests at the Contractor's expense will be required if, in the opinion of the Architect, the failure rate justifies it.

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- C. Work which is shown not to be in conformance with specification requirements will be replaced at the Contractor's expense. Contractor shall pay for retesting of areas which fail.
- D. The Contractor shall coordinate and schedule all testing as work progresses. Any scheduled tests which are canceled but billed for shall be paid by the Contractor.

END OF SECTION

SECTION 02545

CONCRETE STEPS

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. Work under this section consists of installing poured-in-place concrete steps as detailed and where located on the plans.

1.03 RELATED WORK:

- A. Other specification sections which directly relate to the work of this section include, but are not limited to, the following:
 - 1. Section 02220 - Site Earthwork.
 - 2. Section 02548 - Metal Handrails.

1.04 SUBMITTALS:

- A. The Contractor shall submit the following samples, certifications or test results prior to use on the project.
 - 1. Concrete mix design.
 - 2. Sieve analysis for processed aggregate.
 - 3. Product data on nosings.

PART 2 PRODUCTS

- 2.01 Concrete shall conform to Class "F", Section M.03.01 of the State Specifications, except air content to be 6 percent. Concrete shall be 4,000 psi after 28 days.
- 2.02 Processed aggregate for processed base course shall conform to Article M.05.01 of the State Specifications in all applicable respects, except reclaimed aggregate is not an acceptable material for this item.
- 2.03 Reinforcing: Refer to Article M.06.01 of the State Specifications.

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- 2.04 For all exterior concrete steps, provide 3 inch wide nosing the total width of the stair tread. Nosing shall be Style AX with cross-hatched surface, aluminum as manufactured by Safe-T-Metal Company, Inc., P. O. Box 1182, Syracuse, NY 13201, (800)886-7238, or approved equal.

PART 3 EXECUTION

- 3.01 Refer to Article 6.02.03 of the State Specifications for reinforcing steel.
- 3.02 Refer to Article 5.06.03 of the State Specifications for concrete.

END OF SECTION

SECTION 02548

METAL HANDRAILS

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Requirements of Division I, apply to the work specified in this section.

1.02 DESCRIPTION OF WORK:

- A. Handrails.

1.03 RELATED WORK:

- A. Section 02549 – Handrail Painting.

1.04 STRUCTURAL REQUIREMENTS:

- A. Railing assembly, wall rails, and attachments to resist force in any direction of 300 pounds at any point without damage or permanent set.

1.05 SUBMITTALS:

- A. The Contractor shall submit the following samples, certifications or test results prior to use on the project.
 - 1. Product certification for primer.
 - 2. Layout for handrail prior to fabrication.

PART 2 PRODUCTS

2.01 MATERIALS:

- A. Rolled Steel Structural Sections ASTM A36-84a.
- B. Other Steel Sections and Plate: Commercial Quality Low carbon steel.
- C. Threaded Fasteners: ASTM A307-86, galvanized.
- D. Primer:
 - 1. Galvanized Steel: DeVoe Mirrolac galvanized metal primer #13201.
 - 2. Field touch up of galvanized materials: Z.R.C. gold galvanizing materials.

2.02 FABRICATION:

- A. Welding shall conform to the requirements of the AWS. Grind exposed welds smooth.
- B. After Work is fabricated, peen or upset bolt threads to prevent loosening.
- C. Grind rough edges smooth.
- D. Hot dip galvanize all products for exterior locations after fabrication. Conform to the requirements of ASTM A386, 2.0 oz. per square foot.
- E. Prepare galvanized metals for priming as follows:
 - 1. Remove obvious deposits of grease and oil first.
 - 2. Flood with white vinegar, wet entire surface; let stand for five minutes, repeat three times.
 - 3. Remove vinegar residue with clean rags and clear water.
 - 4. Dry surfaces with clean rags.
 - 5. Clean entire surface by flooding with clean mineral spirits and wiping dry with clean cloths. Repeat once.
- F. Apply primer in thickness recommended by manufacturer. Do not over thin. Avoid runs, sags, and holidays. Brush primer into cracks and joints.
 - 1. Allow primer to dry 72 hours before handling or shipping.

PART 3 EXECUTION

3.01 SCHEDULE:

A. Handrails, Guards:

1. Steel Pipe Railings: Provide new steel railings. Railings shall be fabricated from (nominal 1-1/4 inch) 1.6-inch outside diameter pipe. Railing shall be constructed of standard weight pipe. Provide railing, plates, anchors, wall brackets and other accessories and appurtenances required for a complete installation. Construct steel sections as shown. Tee and cross connections shall be mitered and/or coped and joined by continuous fillet welds ground flush and smooth. Make splices in concealed locations where possible, with splice pieces of bar stock secured inside the section with flat head countersunk screws through the bottom of the railing. Joints shall be flush and tight between sections. Bend units carefully to required shapes without crimping or otherwise damaging sections. Wall rails shall be returned to wall and capped. Ease and round all exposed sharp edges. Hot dip galvanize exterior assemblies and assemblies in mechanical spaces. Prime paint all on galvanized assemblies.

END OF SECTION

SECTION 02549

HANDRAIL PAINTING

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. Preparation and painting of all exterior materials.

1.03 RELATED WORK:

- A. Other specification sections which directly relate to the work of this section include, but are not limited to, the following:
 - 1. Section 02548 - Metal Handrails.

1.04 REFERENCES:

- A. ANSI/ASTM D16 - Definitions of Terms Relating to Paint, Varnish, Lacquer, and related products.

1.05 DEFINITIONS:

- A. Conform to ANSI/ASTM D16 for interpretation of terms used in this Section.

1.06 QUALITY ASSURANCE:

- A. Product Manufacturer: Company specializing in manufacturing quality paint and finish products with three years' experience.
- B. Applicator: Company specializing in commercial painting and finishing with three years' experience.

1.07 REGULATORY REQUIREMENTS:

- A. All paint and finishes shall conform to ANSI A66.1 - 1964, "Specifications to Minimize Hazards to Children from Residual Coating Materials".

1.08 SUBMITTALS:

- A. The Contractor shall submit the following prior to use on the project:
 - 1. Product data for all finishing products.
 - 2. Manufacturer's application instructions.

1.09 DELIVERY, STORAGE, AND HANDLING:

- A. Deliver products to site under provisions of Section 01600.
- B. Store and protect products under provisions of Section 01600.
- C. Deliver products to site in sealed and labeled containers; inspect to verify acceptance.
- D. Container labeling to include manufacturer's name, type of paint, brand name, brand code, coverage, surface preparation, drying time, clean up, color designation, and instructions for mixing and reducing.
- E. Store paint materials at minimum ambient temperature of 45 degrees Fahrenheit and a maximum of 90 degrees Fahrenheit, in a well-ventilated area, unless required otherwise by manufacturer's instructions.
- F. Take precautionary measures to prevent fire hazards and spontaneous combustion.

1.10 ENVIRONMENTAL REQUIREMENTS:

- A. Do not apply exterior coatings during rain or snow, or when relative humidity is above 50 percent, unless required otherwise by manufacturer's instructions.
- B. Minimum Application Temperature for Varnish Finishes: 65 degrees Fahrenheit for interior or exterior, unless required otherwise by manufacturer's instructions.
- C. Provide lighting level of 80 foot candles measured mid-height at substrate surface.
- D. Protection: Cover or otherwise protect finish work of other trades and surfaces not being painted concurrently or not to be painted.

1.11 EXTRA STOCK:

- A. Provide a one-gallon container of each type finish paint and wood treatment to Owner. Do not provide extra stock of primers.
- B. Label each container with color locations, in addition to the manufacturer's label.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS:

- A. Except as otherwise specified, materials shall be the products of the following manufacturers:
 - 1. ICI Paint Stores
 - 2. Olympic
 - 3. PPG Industries
 - 4. Benjamin Moore Co.
 - 5. Pratt & Lambert
 - 6. Sherwin Williams
 - 7. Tnemec
- B. Materials selected for coating systems for each type surface shall be the product of a single manufacturer.

2.02 MATERIALS:

- A. Products specified are as manufactured by ICI, unless otherwise indicated. Similar products of acceptable manufacturers listed in Article 2.01 may be furnished in lieu of those listed. Contractor shall list products of other manufacturers on this schedule, provide product data, and be responsible for compatibility of each system and substrate.
- B. Coatings:
 - 1. Ready mixed, except field-catalyzed coatings.
 - 2. Process pigments to a soft paste consistency, capable of being readily and uniformly dispersed to homogeneous coatings.
 - 3. Good flow and brushing properties, capable of drying or curing free of streaks and sags.
- C. Accessory Materials: Linseed oil, shellac, turpentine, paint thinners and other materials not specifically indicated but required to achieve the finish specified, of commercial quality.

PART 3 EXECUTION

3.01 INSPECTION:

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.

3.02 PREPARATION:

- A. Correct minor defects and clean surfaces which affect work of this Section.
- B. Unprimed Galvanized Steel:
 - 1. Remove obvious deposits of grease and oil.
 - 2. Flood with white vinegar, wet entire surface, let stand five minutes, repeat three times.
 - 3. Remove vinegar residue with clean rags and water.
 - 4. Dry surface with clean rags.
 - 5. Clean entire surface by flooding with clear mineral spirits and wiping dry with clean cloths, repeat one more time.
 - 6. Apply etching primer.

3.03 PROTECTION:

- A. Protect elements surrounding the work of this Section from damage or disfiguration.
- B. Remove damage to other surfaces caused by work of this Section.
- C. Furnish drop cloths, shields, and protective methods to prevent spray or droppings from disfiguring other surfaces.
- D. Remove empty paint containers from site.

3.04 APPLICATION:

- A. Apply products in accordance with manufacturer's instructions.
- B. Do not apply finishes to surfaces that are not dry.
- C. Apply each coat to uniform finish.

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- D. Apply each coat of paint slightly darker than preceding coat unless otherwise approved.
- E. Sand lightly and vacuum and/or wipe with tack cloths between coats to achieve required finish.
- F. Allow applied coat to dry before next coat is applied.

3.05 CLEANING:

- A. As Work proceeds, promptly remove paint where spilled, splashed, or spattered.
- B. During progress of Work, maintain premises free of unnecessary accumulation of tools, equipment, surplus materials and debris.
- C. Collect cotton waste, cloths, and material which may constitute a fire hazard, place in closed metal containers and remove daily from site.

3.06 PAINT SCHEDULE:

- A. Exterior Galvanized Metal: (Gloss) paints scheduled are manufactured by ICI, equal materials from the listed manufacturers are acceptable.
 - 1. Primer: 4160 DeVguard - one (1) coat.
 - 2. Finish: 2158 Ultra-Hide - two (2) coats (Bronze).

END OF SECTION

SECTION 02550

PIPE BOLLARD

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. Furnish all materials and labor necessary to construct bollards where located and as detailed on the plans.

1.03 RELATED WORK:

- A. Other specification sections which directly relate to the work of this section include, but are not limited to, the following:

- 1. Section 02513 - Bituminous Concrete Road Pavement.

1.04 SUBMITTALS:

- A. The Contractor shall submit the following samples, certifications or test results prior to use on the project.

- 1. Certification of pipe.
- 2. Concrete mix design.
- 3. Paint color sample.

PART 2 PRODUCTS

2.01 MATERIALS:

- A. Pipe for standard bollards shall be 6.625 inches O.D. conforming to ASTM A 500, with a wall thickness of 0.280 inch.
- B. Cap shall be forged steel type "C" weld-on end cap, as manufactured by R & B Wagner, Inc., P. O. Box 423, Butler, WI 53007-0423, (888)243-6914, or approved equal. Continuous weld entire circumference of joint. Grind all welds smooth.
- C. Concrete shall conform to Class "F", Section M.03.01 of the State Specifications, except air content to be 6 percent. Concrete shall be 4,000 psi after 28 days.

- D. Paint to be low gloss exterior bronze enamel metal paint.

PART 3 EXECUTION

3.01 CONSTRUCTION METHODS:

- A. Set post as detailed, 3 feet exposed.
- B. Post shall be painted with low gloss exterior bronze enamel metal paint.

END OF SECTION

SECTION 02563

CHAIN LINK FENCE

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. The Contractor shall furnish and install complete, chain link fencing where located on the plans and as herein described including chain link fence, framework, gates and fittings.

1.03 SUBMITTALS:

- A. The Contractor shall submit the following samples, certifications or test results prior to use on the project.
 - 1. Shop drawings with sufficient product data to assure compliance to specification.

PART 2 PRODUCTS

2.01 MATERIALS:

- A. Fabric: Chain link fabric shall be aluminum coated steel conforming to ASTM A 491. Fabric shall be woven from 6 gauge (coated size) wire in 2 inch mesh and shall be knuckled at the upper and lower selvages.
- B. Line Posts: Line posts shall be 2-3/8 inch O. D. standard weight galvanized pipe with minimum bending strength of 201 pounds under a 6 foot cantilever load coated with 2.0 ounces of hot dipped zinc in accordance with ASTM A 120.
- C. Top and Brace Rail: Top and brace rail shall be 1.66 inch O. D. standard weight galvanized pipe with minimum vertical bending strength of 202 pounds on 10 foot span coated with 2.0 ounces of hot dipped zinc in accordance with ASTM A 120. Top rail couplings 6 inches minimum in length shall be spaced at maximum 21 foot centers. Fabric tie wire shall be spaced at 24 inch maximum centers.

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- D. Terminal Posts: All end, corner and pull posts shall be 2-7/8 inch O. D. galvanized standard weight pipe with minimum bending strength of 381 pounds on 6 foot cantilever load coated with 2.0 ounces of hot dipped zinc in accordance with ASTM A 120. Gate posts shall be of the following sizes for single swing gates or one leaf of double swing gates:

Leaf Width	Gate Post	Lbs/Lin. Ft.
Up to 6'	2-7/8" O. D. Pipe	5.79
Over 6' to 13'	4" O. D. Pipe	9.11
Over 13' to 18'	6-5/8" O. D. Pipe	18.97
Over 18'	8-5/8" O. D. Pipe	28.55

- E. Gates: Gate frames shall be tubular shaped, 1.90 inches outside diameter with welded or steel fitted corners. Braces and trusses shall be furnished when necessary.
- F. Gate Latch: Commercial forked type capable of retaining gate in closed position and having provision for padlock. Latch shall permit operation from either side of gate.
- G. Gate Keeper: Provide keeper for each gate leaf. Gate keeper shall consist of mechanical device for securing free end of gate when in full open position.
- H. Double Gates: Provide drop rod to hold inactive leaf. Provide gate stop pipe to engage center drop rod. Provide locking device and padlock eyes as an integral part of latch, requiring one padlock for locking both gate leaves. Padlock is provided by Owner.
- I. Bottom Tension Wire: Shall be No. 7 gauge aluminum coated spring coil or crimped wire. Minimum weight of aluminum coating shall be 0.40 ounces per square foot of wire surface. Tension wire shall be stretched taut from terminal to terminal post and securely fastened to each intermediate post 6 inches above the grade line. Tension wire shall be attached to the fence fabric with aluminum hog rings every 24 inches.
- J. Tie Wires: Tie wires shall be minimum 9 gauge aluminum or 11 gauge galvanized steel, spaced 12 inches on center.
- K. Concrete shall conform to Class "F", Section M.03.01 of the State Specifications, except air content to be 6 percent. Concrete shall be 4,000 psi after 28 days.

PART 3 EXECUTION

3.01 CONSTRUCTION METHODS:

- A. Post Spacing: Posts shall be evenly spaced in the line of fence, no further apart than 10 feet on center.
- B. Installation: Shall be made in a workmanlike manner by skilled mechanics experienced in erection of this type of fence. The fence shall be erected on line and to grade as indicated on the plans. All posts to be set 36 inches deep in a 48 inch deep concrete footing. Diameter of the footing shall be a minimum of 14 inches for terminal and gate posts and 12 inches for line posts.
- C. The fabric shall be stretched to proper tension between terminal posts and securely fastened to the framework members. The bottom of the fabric shall be held as uniformly as practical to the finished grade, not to exceed 2 inches.
- D. Clean Up: Upon the completion of the installation, all debris created by the installation shall be removed from the premises of the Owner or disposed of as directed by the Architect.

END OF SECTION

SECTION 02574

BASKETBALL BACKSTOPS

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. Provide and install basketball backstops where indicated on the plans.

1.03 RELATED WORK:

- A. Other specification sections which directly relate to the work of this section include, but are not limited to, the following:
 - 1. Section 02518 - Hard Surface Play Area Paving.

1.04 SUBMITTALS:

- A. The Contractor shall submit the following samples, certifications or test results prior to use on the project.
 - 1. Concrete mix design.
 - 2. Product data for basketball backstops.

PART 2 PRODUCTS

2.01 MATERIALS:

- A. Basketball backstops shall be Ultimate Fixed height Series model No. BA 874-BK with perforated steel, graffiti-resistant white powder coated, aluminum backboard as manufactured by Bison, Inc., 603 L Street, Lincoln, NE 68508, (800) 247-7668, or approved equal.
- B. Concrete shall conform to Class "F", Section M.03.01 of the State Specifications, except air content to be 6 percent. Concrete shall be 4,000 psi after 28 days.

PART 3 EXECUTION

3.01 FOOTING:

- A. Concrete footing shall be 3 feet-0 inches in diameter by 4 feet-0 inches deep.

3.02 BACKSTOP:

- A. Install backstop as per manufacturer's specifications.

END OF SECTION

SECTION 02679

BENCHES AND TABLES

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. Contractor shall provide and install benches and tables where noted on the plans.

1.03 RELATED WORK:

- A. Other specification sections which directly relate to the work of this section include, but are not limited to, the following:

- 1. Section 02528 - Concrete Pavement.

1.04 SUBMITTALS:

- A. The Contractor shall submit the following samples, certifications or test results prior to use on the project.

- 1. Product data for benches and tables.
- 2. Concrete mix certification.

PART 2 PRODUCTS

2.01 BENCH:

- A. Benches shall be as manufactured by UltraPlay, 1675 Locust Street, Red Bud, IL 62278, (800) 458-5872, or approved equal.

- 1. Backless benches shall be part #958-V6, surface mount with vandal resistant fasteners. See plan for quantity. Color to be selected by Owner.
- 2. Benches with backs shall be part #954-V6, surface mount with vandal resistant fasteners. See plan for quantity. Color to be selected by Owner.
- 3. Team benches shall be part #942-V8, inground mount. See plan for quantity. Color to be selected by Owner. Footing to be as specified by manufacturer.

2.02 TABLES:

- A. Tables shall be as manufactured by UltraPlay, 1675 Locust Street, Red Bud, IL 62278, (800) 458-5872, or approved equal.
 - 1. Tables to be part #338S-RVD, inground mount. See plan for quantity. One table to be ADA handicap accessible. Color to be selected by Owner. Footing to be as specified by manufacturer.

2.03 FOOTINGS:

- A. Concrete shall conform to Class "F", Section M.03.01 of the State Specifications, except air content to be 6 percent. Concrete shall be 4,000 psi after 28 days.

PART 3 EXECUTION

3.01 PLACEMENT:

- A. Benches shall be secured in place as specified by the manufacturer.

END OF SECTION

SECTION 02694

LITTER RECEPTACLES

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. Contractor shall provide and install trash receptacles where noted on the plans.

1.03 RELATED WORK:

- A. Other specification sections which directly relate to the work of this section include, but are not limited to, the following:
 - 1. Section 02528 - Concrete Pavement.

1.04 SUBMITTALS:

- A. The Contractor shall submit the following samples, certifications or test results prior to use on the project.
 - 1. Product data for trash receptacles.
 - 2. Concrete mix certification.

PART 2 PRODUCTS

2.01 BENCH:

- A. Trash receptacles shall be Item No. CFTR-003 as manufactured by Custom Fabrication, Inc., 2903 NY Route 7, P.O. Box 431, Harpursville, New York 13767, (607) 693-3223, or approved equal.
- B. Trash receptacles to have bonnet top welded in place and hinged lockable side door.
- C. See plan for quantity.
- D. Color to be selected by Owner.

- E. Concrete for footings shall conform to Class "F", Section M.03.01 of the State Specifications, except air content to be 6 percent. Concrete shall be 4,000 psi after 28 days.

PART 3 EXECUTION

3.01 PLACEMENT:

- A. Trash receptacles shall be secured in place as specified by the manufacturer.
- B. Trash receptacles shall be secured in place with concrete footings as specified by the manufacturer.

END OF SECTION

SECTION 02695

DRINKING FOUNTAIN

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. Contractor shall provide and install drinking fountain where noted on the plans.

1.03 RELATED WORK:

- A. Other specification sections which directly relate to the work of this section include, but are not limited to, the following:
 - 1. Section 02528 - Concrete Pavement.
 - 2. Section 02720 – Storm Drainage.
 - 3. Section 02775 – Water Distribution.

1.04 SUBMITTALS:

- A. The Contractor shall submit the following samples, certifications or test results prior to use on the project.
 - 1. Product data for water fountain.
 - 2. Concrete mix certification.

PART 2 PRODUCTS

2.01 DRINKING FOUNTAIN:

- A. Drinking fountain to be Model 440 SM as manufactured by Most Dependable Fountains, Inc., 5705 Commander Drive P.O. Box 587, Arlington, TN 38002-0587, (800) 552-6331, or approved equal.
- B. Fountain to have optional 10" SSsurface carrier.
- C. Fountain to be secured with vandal resistant fasteners.
- D. Fountain to have hose bib with secured access door.

PART 3 EXECUTION

3.01 Installation to be completed in accordance with manufacturer's specifications.

END OF SECTION

SECTION 02720

STORM DRAINAGE

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. This section includes building storm drain piping and structures from pipe termination 5 feet outside the building and drainage of paved and landscaped areas of the project site to municipal sewers or other discharge system or method.
 - 1. The Contractor shall provide all materials, equipment, labor and apparatus necessary for the complete installation and development for proper operation of the storm drainage as shown on the Contract Plans and as specified herein.

1.03 RELATED WORK:

- A. Other specification sections which directly relate to the work of this section include, but are not limited to, the following:
 - 1. Section 02025 - Warning Markings.
 - 2. Section 02202 - Rock Removal.
 - 3. Section 02220 - Site Earthwork.
 - 4. Section 02225 - Trenching.

1.04 SUBMITTALS:

- A. The Contractor shall submit the following samples, certifications or test results prior to use on the project.
 - 1. Product data indicating pipe and pipe fittings.
 - 2. Product data for drainage structure frame and grate, and manhole frame and cover.
 - 3. Product data for precast structures.
 - 4. Product data for geotextile.

PART 2 PRODUCTS

2.01 MATERIALS:

- A. Polyvinyl Chloride Pipe (PVC) shall conform to the requirements of ASTM D 3034, SDR 35, with rubber compression gasket on bell and spigot.
- B. The materials used for the construction of all storm drainage structures shall conform to Article M.08.02 of the State Specifications.
- C. Pervious material shall conform to M.02.05 of the State Specifications.
- D. Where "Connecticut Standard Structures" are specified by type, the frame and grate shall conform to the requirements shown on the plans.
- E. Lawn inlet frame and grate and manhole frame and cover are to be cast iron as manufactured by Campbell Foundry Company, Harrison, New Jersey, or approved equal. See plans and details for size and type.
- F. Non-woven geotextile shall conform to Article M.08.01-26 of the State Specifications. It shall also meet the following minimum standards:

<u>Fabric Property</u>	<u>Min. Standard Value</u>	<u>Unit</u>	<u>Test Method</u>
Grab Tensile Strength	120	lbs.	ASTM D 4632
Grab Tensile Elongation	50	%	ASTM D 4632
Trapezoid Tear Strength	50	lbs.	ASTM D 4533
Mullen Burst Strength	240	psi	ASTM D 3786
Permeability Coef.	.22	cm-sec	ASTM D 4491
Ultra-Violet Stability	70	%	ASTM D 4355
Permittivity	1.5	sec ⁻¹	ASTM D 4491
Puncture	70	lbs.	ASTM D 4833
Flow Rate	120	gals/min/ft ²	ASTM D 4491

- G. Mortar shall comply with Article M.11.04 of the State Specifications.
- H. Ladder rungs for manhole access to precast unit shall conform to AASHTO M199 (ASTM C 478). Those portions of aluminum ladder rungs embedded in concrete shall be given one coat of zinc chromate paint conforming to Federal Specification TT-P645 or equivalent. Cast iron shall conform to the requirements of AASHTO M105, Class 25 for the frames and Class 30 for grates.
- I. Precast concrete vault shall be heavy-duty, H-20 loading to the dimensions as detailed. Exterior of structure to be water proofed to prevent any infiltration of water.

PART 3 EXECUTION

3.01 SPECIAL REQUIREMENTS:

- A. Before beginning work, the Contractor shall check, in the field, existing grades and layout as shown on the drawings and report any discrepancies which will affect the work of this contract to the Architect. Commencement of work will be implied to mean acceptance. No adjustment will be made for discrepancies discovered after work has begun.

3.02 ORDER OF CONSTRUCTION:

- A. To assure proper drainage during construction operations, upon award of contract and prior to commencing any earth moving operations, the Contractor shall submit to the Architect for approval his schedule of operations and proposed working procedures to implement erosion and sediment control and to maintain drainage during construction.

3.03 PREPARATION:

- A. Remove large stones or other hard matter which could damage drainage or impede consistent backfilling or compaction.

3.04 INSTALLATION:

- A. In general, drainage shall be away from the building and continuous to the systems so indicated on the drawings by contours and/or finished grades.
- B. All structures and lines shall be constructed in accordance with details on the drawings or according to State Specifications and/or the local City requirements, each where applicable.
- C. Lawn Inlets:
 - 1. Construct in accordance with 5.07.03 of the State Specifications.
 - 2. Set castings at temporary grades to provide drainage during construction.
 - 3. Reset tops when final grading is being done.
 - 4. Set tops in full mortar bed true to lines and grades necessary.
 - 5. A 4 inch PVC pipe weep hole shall be provided in all lawn inlets, placed at the top of the outflow pipe in structures with sumps. Non-woven geotextile fabric shall be placed over the outside of the weep hole, and a 6 inch thickness of 3/8 inch stone shall be placed around the fabric. The pipe shall have a 2 percent slope toward the inside of the structure.

6. Every third vertical mortar joint in the upper brick course shall be without mortar to serve as a weep. Cover openings with non-woven geotextile fabric on outside of structure.

D. Piping:

1. Construct in accordance with Article 6.51.03 of the State Specifications.
2. Joints for all pipe shall be made as per Section 2.01 of this specification section.
3. Refer to Section 02225 - TRENCHING for trench excavation.
4. Any unsuitable material that has been removed as specified under trench excavation shall be replaced with material as specified herein.
5. Refer to Section 02225 - TRENCHING for pipe bedding procedures.
6. Refer to Section 02225 - TRENCHING for backfilling procedures.

E. Precast Concrete Vault:

1. Install precast concrete vault where noted on the drawings. Coordinate installation with spray pool installation.

3.05 CLEAN-UP:

- A. Keep drainage structures and piping free of sand, silt, trash or other materials at all times.
- B. All storm structures shall be cleaned prior to project acceptance.

3.06 AS-BUILT DRAWINGS:

- A. As work progresses, record on one set of plans all changes and deviations from contract drawings in size, line and grade. Make sufficient measurements to locate the work completed. Record on the plans any uncharted locations of utilities encountered during installation of the storm drainage system (denote utility type, size, material, etc.). Deliver the plans to the Architect.

END OF SECTION

SECTION 02775

WATER DISTRIBUTION

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. This Section includes all labor, materials and equipment required to complete the following:
 - 1. 4" Water service from tapping valve to building, as indicated on dwg SME-1
 - 2. Valves, valve boxes and related fittings.

1.03 RELATED WORK:

- A. Other specification sections which directly relate to the work of this section include, but are not limited to, the following:
 - 1. Section 02025 - Warning Markings.
 - 2. Section 02202 - Rock Removal.
 - 3. Section 02220 - Site Earthwork.
 - 4. Section 02225 - Trenching.

1.04 SUBMITTALS:

- A. The Contractor shall submit the following samples, certifications or test results prior to use on the project.
 - 1. Product data for pipe, fittings, valves and valve boxes.
 - 2. Product data for hydrant.

1.05 SPECIAL REQUIREMENTS:

- A. Before commencing work, field-check the existing elevations and topography shown on the plan. Report any discrepancies which will affect the work of this contract to the Architect in writing. Commencement of work will be implied to mean acceptance. No adjustments will be made for discrepancies brought to the Architect's attention after work has begun.
- B. The Contractor shall carefully protect from disturbance or damage all land monuments until an authorized agent has witnessed or otherwise referenced their location, and shall not remove or destroy them without proper authorization from the Architect.
- C. Existing buried utilities are indicated in the vicinity of new construction. The Contractor shall examine all contract drawings and available information and drawings of the existing building. Take care to avoid damage to, or interruption of, utilities scheduled to remain.
- D. Make all necessary arrangements with the Local Water Authority for providing tapping valve and sleeve, on existing water main.
- E. Should unexpected soil or subsurface conditions or discrepancies between plans and layout work occur, contact the Architect before proceeding with any work in the area.
- F. Protect open excavations with fencing, warning lights, and/or other suitable safeguards.
- G. Contractor shall include in his Bid all fees required for installing and connecting water distribution system.

PART 2 PRODUCTS

2.01 STANDARDS:

- A. Materials shall be in accordance with the specifications of the American Water Works Association (AWWA) and the American National Standards Institute (ANSI).

2.02 MATERIALS:

- A. Ductile Iron Pipe:
 - 1. Pipe shall be cement lined Ductile-Iron Pipe conforming to ANSI/AWWA C151/A21.51-91.

2. All pipes shall be Class 54.
3. All pipes shall be lined with double-thickness, cement-mortar in accordance with ANSI/AWWA C104/A21.4-95.
4. All pipes shall have push-on joints employing a single elongated grooved rubber gasket all as specified in ANSI/AWWA C111/A21.11-95.
5. All pipes shall be coated inside and outside with an approved bituminous material accordance with Section 4.12 of ANSI/AWWA C104.
6. The grade of the ductile iron shall be 60-42-10.
7. All pipes shall be marked Section 51-10. of ANSI/AWWA C151/A21.51-81.

B. Gray Iron or Ductile Iron Fittings:

1. Gray iron or ductile iron fittings shall conform to ANSI/AWWA C110/A21.10-93.
2. All fittings shall be lined with double-thickness, cement-mortar in accordance with ANSI/AWWA C104/A21.4-95. Section 4.8.2 except sleeves, caps, and plugs.
3. All fittings shall have rubber gasketed joints as specified in ANSI/AWWA C111/A21.11-95.
4. All fittings shall have mechanical joints as specified in ANSI/AWWA C111/A21.11-95.
5. All fittings shall be coated inside and outside with an approved bituminous material accordance with Section 4.12 of ANSI/AWWA C104.

C. Copper Tubing:

1. Water pipe smaller than 4 inches shall be hard drawn copper tubing conforming to ASTM B 88 Standard Specification for Seamless Copper Water Tubing, Type K.
2. Fittings shall be compression type approved by the Local Water Authority and conforming to ASTM B62 and AWWA C 800-66.

- D. Gate Valves 4 inch to 12 inch:
1. Gate valves sized 4 inch to 12 inch shall be either Double-Disc type conforming to ANSI/AWWA C500-80 or Resilient-Seated type conforming to ANSI/AWWA C509-80.
 2. Valves shall have mechanical joint ends conforming to ANSI/AWWA C111/21.11-80. All joint accessories shall be furnished with each valve.
 3. Bolts and nuts for connecting O-ring seal plates and bonnet to body shall either be copper-silicon alloy or stainless steel.
 4. Valves shall be furnished with O-ring seals utilizing two O-rings.
 5. The direction that the valve will open shall be as directed by the Local Water Authority.
- E. Valves 1-1/2 inch and smaller shall be standard, brass body, roundway, ground key stops, with T-heads, as manufactured by Nibco, Kennedy or Pratt & Cady. Furnish two suitable keys.
- F. Curb Cocks: shall be bronze body ball valves with T-heads. Furnish 2 operating handles.
- G. Cast Iron Valve Boxes: shall be two-piece sliding type.

PART 3 EXECUTION

3.01 STORAGE:

- A. All pipes shall be handled and stored in such manner as to avoid deformation or other injury thereto. No pipe shall be placed within pipe of larger size. Pipe and fittings shall be stored on sills above storm drainage level.

3.02 CONSTRUCTION:

- A. Pipe Laying: the interior of the pipe shall be clean and joint surfaces wiped clean and dry when the pipe is lowered into the trench. Each pipe, fitting and valve shall be lowered into the trench carefully and laid true to line and without abrupt change in grade. The depth of cover below finished grade shall be not less than 4-1/2 feet. Water or dirt shall not be allowed to enter the pipe after laying. A water-tight plug shall be inserted in the open end of the pipe when pipe installations are not in progress. Pipe shall be handled and installed in compliance with the manufacturer's published directions.

- B. If blocks are placed under the pipe while laying, they shall be removed so that pipe bears on the trench bottom for its full length. Backfill shall be tamped firmly around the sides of the pipe and with special care under valves and fittings.
- C. Lean-mix concrete thrust blocks shall be installed between the disturbed trench face and bends to prevent pipe movement. Where soil is not firm, approved tie rods and collars shall be provided in lieu of concrete thrust blocks and painted with coal-tar pitch varnish after placing.
- D. Before setting each valve, the Contractor shall examine the valve to assure that the interior is clean and test opening and closing. Valves and stops shall be set with stems plumb and at the exact locations shown on the plans. Valves and boxes shall be plumb with tops at finished grade.
- E. Before joints are covered, the pipe shall be filled with water, opening a faucet or providing other outlets as necessary for expelling air.

3.03 TESTING:

- A. After pipe has been laid, the joints completed and the trench partially backfilled, leaving the joints exposed for examination, the newly laid piping, or any valved section of piping, shall, unless otherwise specified, be subjected to hydrostatic pressure test of 150 pounds per square inch for one hour. Defective pipes, joints, fittings, valves and hydrants disclosed in the pressure test shall be replaced by the Contractor with sound material and the test shall be repeated until the test results are satisfactory to the Local Water Authority. Where an actual visible inspection of each joint cannot be made, because of the necessity of immediate backfilling, suitable means shall be provided by the Contractor for determining the quantity of water lost by leakage under normal operating pressure. Allowable leakage shall be within the limits of Table 3, Section 13 of AWWA Standard 0600-64.

3.04 DISINFECTION OF WATER MAINS:

- A. After testing of the new water mains is complete and the work has been approved by the Local Water Authority, the Contractor shall disinfect the new mains with water containing not less than 50 parts per million of chlorine in accordance with AWWA C601-54.

3.05 AS-BUILT DRAWINGS:

- A. As work progresses, record on one set of plans all changes and deviations from contract drawings in size, line and grade. Make sufficient measurements to locate the work completed. Deliver the plans to the Architect.

END OF SECTION

SECTION 02936

SEEDING

PART 1 GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK:

- A. The work included in this item shall consist of providing an accepted uniform stand of established perennial turf grasses by furnishing and placing fertilizer, seed and mulch on all areas to be treated as shown on the plans.

1.03 RELATED WORK:

- A. Other specification sections which directly relate to the work of this section include, but are not limited to, the following:

- 1. Section 02210 - Topsoiling.

1.04 SUBMITTALS:

- A. The Contractor shall submit the following samples, certifications or test results prior to use on the project.
 - 1. Fertilizer: Form for Affidavit (On Official Stationery of Supplier) certifying compliance with State and Federal regulations and Standards of the Association of Official Agricultural Chemists.
 - 2. Seed: Form for Affidavit (On Official Stationery of Supplier) certifying compliance with State and Federal regulations and testing provisions of the Association of Official Seed Analysts for each shipment of seed for this project.
 - 3. Product data for mulch.

PART 2 PRODUCTS

2.01 MATERIALS:

- A. All materials furnished in accordance with the requirements of this specification shall be delivered, where applicable, in sealed, unbroken packages bearing the brand and maker's name and shall be stored on platforms and be properly covered to protect them from the weather and damage.

- B. Limestone (calcium carbonate): Containing minimum of 80% calcium and magnesium carbonates, Certified analysis 100% to pass #10 mesh sieve, 90% to pass #100 mesh sieve, 50% to pass #200 sieve.

- C. Fertilizer: Commercial composite fertilizer, uniform in composition, dry and free flowing. It shall bear the manufacturer's guaranteed statement of analysis which shall be 18-24-12 for original fertilization and 24-0-11 or 24-5-11 for refertilization with 50% organic nitrogen. Any fertilizer which becomes caked or otherwise damaged, rendering it unsuitable for use, will not be accepted.

- D. Seed: Of the previous year's crop. Weed seed content not to exceed 1% by weight. Seed shall conform to requirements of the following table:

<u>Name</u>	<u>Proportion by Weight</u>	<u>Percent Purity</u>	<u>Percent Germination</u>
Kentucky Blue	40	85	80
Creeping Red Fescue	40	98	85
Perennial Rye Fiesta II	20	98	90

- E. Water: Potable.

- F. Mulch: Pure wood and paper fiber consisting of:
 - organic material 99% ±1%
 - moisture content 12% ±3%
 - wood fiber 70% minimum
 - paper fiber 30% maximum
 - ash content 1.0% ±1%
 - pH range 4.8 ±2
 - tacking agent 3 3.0% minimum
 - water holding capacity 1200% minimum,
 as manufactured by Profile Products LLC, 750 Lake Cook Road, Suite 440, Buffalo Grove, IL 60089, (800)207-6457, or approved equal.

PART 3 EXECUTION

3.01 INSPECTION:

- A. Verify that prepared soil base is ready to receive the work of this Section.
- B. Beginning of installation means acceptance of existing site conditions.

3.02 PREPARATION OF TOPSOIL:

- A. Architect shall review prepared topsoil immediately prior to seeding, for grade consistency and removal of stones.
- B. Harrow or rake the topsoil to a depth of 3 inches.
- C. Remove debris and stones having any dimension greater than 1/2 inch.
- D. Limestone as required by topsoil testing shall be uniformly applied to the surface and thoroughly worked into the upper 2 inches of topsoil.
- E. Fertilizer additives as determined by topsoil testing shall be uniformly applied to the surface and thoroughly worked into the upper 2 inches of topsoil.
- F. Rake finish surface smooth.

3.03 RATE OF APPLICATION:

<u>Materials</u>	<u>Rate</u>
Limestone	as determined by testing
Fertilizer	as determined by testing
Seed	6 pounds per 1,000 square feet
Refertilizing	20 pounds per 1,000 square feet
Mulch	3:1 to 2:1 slopes - 2,500 pounds per acre 4:1 to 3:1 slopes - 2,000 pounds per acre Flat to 4:1 slopes - 1,500 pounds per acre

3.04 SEEDING:

- A. Sow grass seed, applying half the quantity in one direction and the remaining quantity at right angles to it.
- B. Do not sow seed on a windy day or when the ground is frozen, wet or otherwise non-tillable.

- C. Cover seed with a thin layer of topsoil by raking or dragging. Hydro-mulch with pure wood and cellulose fiber.

Special care should be taken not to get hydro-mulch on trees, fences, pavements, buildings, etc. Any overspray shall be cleaned immediately.

- D. Under this specification, hydro-seeding is not acceptable unless by written approval of the Architect. Fertilizer for hydroseeding should be 19-19-19.

3.05 SEEDING SEASON:

- A. The calendar dates for seeding shall be:

1. Spring - March 15 to June 15
2. Fall - August 15 to October 15

- B. All disturbed soil areas shall be treated during the seeding season.

1. Areas at final grade: Permanent seeding will be accomplished.
2. Areas not to be brought to final grade for an extended period of time. Temporary seeding shall be perennial rye-grass (*Lolium perenne*) at the rate specified in Sub-article 9.50.03-3 of the State Specifications.
3. During "out-of-season" periods, unseeded areas shall be treated in accordance with Section 2.10, Water Pollution Control, of the State Specifications. "Out-of-season" treatments shall be removed prior to seeding unless otherwise directed by the Architect.

3.06 MAINTENANCE:

- A. Maintain a moist seed bed at all times. Water seed bed so that the topsoil is wet to a depth of 2 inches. Apply one complete coverage to the seeded area in an 8 hour period.
- B. Protect the seed bed with barricades, if necessary, to keep all traffic off the area.
- C. After the grass has appeared, reseed all areas which have failed to show a uniform stand of grass.
- D. Maintain all seeded areas until acceptance. Maintenance includes any or all of the following, whichever are necessary:
1. Regrading.
 2. Refertilizing.
 3. Reseeding.

4. Watering.
 5. Weeding.
 6. Rolling.
 7. Mowing.
- E. Mowing: When average height of grass becomes 4 inches, mow to the height of 2-1/2 inches. Remove heavy clippings. Mowing to continue until acceptance.
- F. Second fertilization shall be done either:
1. the following Spring after a Fall seeding, or
 2. in the Fall after a Spring seeding.

Notify the Architect in writing when this is to be done.

3.07 INSPECTION AND ACCEPTANCE OF SEEDED AREAS:

- A. Submit written notice requesting inspection by the Architect at least 10 days prior to the anticipated date.
- B. No seeded areas will be inspected for acceptance:
1. Prior to 60 days from date of seeding.
 2. Prior to the completion of two mowings.
- C. A satisfactory stand of grass which is acceptable is defined as consisting of a uniform stand of at least 60% established permanent grass species. An acceptable stand of grass will be determined by the Architect.
- D. Pre-emergence crabgrass control chemicals shall be spread according to manufacturer's specifications on all lawn areas the Spring following seeding. Tupersan is an acceptable material. Other materials shall be approved by the Architect before use.

END OF SECTION

SECTION 3

GENERAL INFORMATION FOR PREPARATION AND DELIVERY OF A RESPONSE

Rev. 050809

Definitions:

Bid or Proposal refers to any form of solicitation the City may use such as a Request for Bids (RFB), Request for Proposals (RFP) or request for Response (RFR).

Candidate or Respondent refers to an individual or company who is considering or has submitted a response to a solicitation. This is also commonly referred to as "bidder."

City refers to the City of Hartford, the Hartford Public Schools and any other governmental entity participating in the RFR process and/or resulting award(s).

Provider refers to the Candidate or Candidates who receive an award and who enter into a contract with the City.

3.1 HOW TO RESPOND: Supply the required information on and along with the response form. An explicit agent of your organization must sign the response form and any supplementary proposal document and *submit it to the address indicated in Section 1.0 – Response Checklist.*

Mark the original response package as "ORIGINAL" on the front cover. We will open the response upon receipt if this information is not provided on the face of the envelope. In this case the City cannot be held responsible for the confidentiality of the response.

A. Do not wait until the due day to begin to prepare your response. Preparing your response early helps avoid issues related to computer equipment or Internet access malfunction. It is the Candidate's responsibility to ensure that responses are received in their entirety, on time and at the required location.

B. Reserve

C. A certified check or bid bond, *when required*, will be specified in the Invitation to Respond and must accompany your response in the amount indicated. Certified checks will be returned to all unsuccessful Candidates upon the awarding of the contract. The successful Candidate's surety shall be held pending receipt of payment and performance bonds and execution of contract.

Bonds may be delivered via an electronic bid bond service such as Surety 2000, (www.surety2000.com) scanned and attached to your on-line submission*, mailed or hand delivered. *If you elect to scan and attach your bond to an on-line submission, the original surety documents must be delivered to the address in (F) below within one working day of the response deadline.

If your response is not accompanied by a bond, certified check or proof that a valid bond has been obtained at the RFR opening it may be rejected.

If you manage a **small business** and have difficulty obtaining bonds (or just haven't done it before) help is available from the Small Business Administration (SBA) through "The Surety Bond Guarantee Program." One of the bonding companies working with this program is Suggs & Associates in Windsor, CT. For more information go to www.sba.gov, choose "Services." Then select "Financial Assistance" and click on "Surety Bond."

D. The successful Candidate may be required to furnish a performance bond and payment bonds, each for the full contract amount, prior to execution of a contract and/or performance under Purchase Orders. Indicate the cost for these bonds, to be added to the contract sum on the response form. For 3.1, C & D:

Surety Companies must be listed on the current Federal Register, licensed in the State of Connecticut and have an underwriting limitation exceeding the value of the project with no more than 5% of capital in surplus tied to any one risk.

Banks must have a branch office in Connecticut with insurance provided by the FDIC.

E. *The electronic files, from which you printed your hard copy proposal, are to be emailed to the buyer identified at the bottom of the Invitation to Respond within one hour **AFTER** the deadline for submitting hard copy responses.* Email transmission of these documents is not encrypted and locked so if you transmit this information before the hard copy response

deadline it may be viewed prematurely. The City is not responsible for the confidentiality of information transmitted via fax, email or other electronic means.

You may convert Word documents to pdf files (in fact we would prefer this). Excel worksheets however may not be submitted as pdf files.

The purpose of submitting these files is to reduce duplicate data entry and shorten the time needed for City staff to create the response summary. These electronic files will not serve as a substitute for the hard copy response that must be submitted by the RFR deadline.

Failure to follow these guidelines may be just cause for rejection of the response.

3.2 CORRECTION OR WITHDRAWAL OF BIDS; CANCELLATION OF AWARDS. Correction or withdrawal of inadvertently erroneous bids, including corrections to pricing if the accurate price can be derived from the bid response submitted prior to the bid deadline, before or after award, or cancellation of awards of Contracts or Purchase Orders based on such mistakes, shall be permitted with the approval, in writing, of the Procurement Manager.

3.3 QUANTITIES AND/OR USAGES: Quantities and/or usages are estimates only and in no way represent a commitment and/or intent to purchase the estimated amount. Actual quantities and delivery points may vary. The City reserves the right to order all quantities that may be needed, at the contract price, during the contract term regardless of the estimates provided in this RFR.

3.4 QUESTIONS & ADDENDA: Supplementary information, if issued, will be placed on the State of Connecticut, DAS website http://www.das.state.ct.us/Purchase/Portal/Portal_Home.asp. Candidates are responsible for obtaining all addenda related to this RFR. Candidates are advised to check for any addenda a minimum of twenty-four hours in advance of the response deadline.

Questions related to this project must be received in writing 72 hours in advance of the response submittal deadline. We strongly recommend that prospective Candidates review specifications early in the solicitation process and submit all questions at one time. Written questions are to be sent to the buyer whose name appears on the invitation to bid via email.

Responses shall be in writing, posted, in the form of an addendum on the State of Connecticut, DAS website http://www.das.state.ct.us/Purchase/Portal/Portal_Home.asp.

All communications related to this project are to be directed through the Department managing the RFR. This is the Department listed for receipt of responses in Section 1.0. In most cases this will be the Procurement Services Department. *Candidates found to be communicating with City or School staff outside of Procurement Services (or the Department indicated in Section 1.0) will have their response rejected.* The City of Hartford, the Public Schools, or its agents shall not be responsible for any oral instructions or interpretations given to a Candidate.

3.5 CRITERIA FOR AWARD: This Request for Response (RFR) does not necessarily contemplate an award based solely on price. Rather, the City reserves its rights to accept or reject any or all responses or any portion thereof that it may determine to be in its own best interests, for whatever reason.

3.6 QUALIFICATIONS OF CANDIDATES OFFERING A RESPONSE: The City may make such investigations as deemed necessary to determine the ability of the Candidate to perform the work and the degree to which any Candidate meets the criteria for award listed herein.

Each Candidate agrees to furnish the City any additional information requested.

If this RFR is set-aside for award to a small, minority or women owned business enterprise you must receive certification prior to award. This program is described in Sec. 2-660 of the Hartford Municipal Code and can be found at:

<http://www.hartford.gov/purchasing/Documents.htm>. Qualified business, not currently certified, may obtain application forms from:

http://www.hartford.gov/human_relations/ohr2.0/MWBE%20Certification.htm.

3.7 THE REQUEST FOR RESPONSE (RFR) PROCESS: Solicitations are advertised as required by law. The City may also send invitations to businesses as it deems appropriate. Placement on a vendor mailing list or a history of having received invitations in the past or having received prior contract awards in no way obligates the City to continue any form of direct notification. At the discretion of the Procurement Manager the City may remove vendors from the mailing list for whatever reason including a poor performance history or failure to respond to previous invitations.

3.8 CONTRACTING: The City reserves the right to require the successful Candidate to execute a contract in a format supplied by the City. The terms and conditions of the contract to be signed upon the award of the RFR will supersede any inconsistent provision of the RFR documents. If the Candidate receiving a full or partial award fails to execute a contract as required, they shall be liable for, and agree to pay, on demand, the difference between the price bid and the price for which such contract is subsequently re-awarded, including the administrative cost of reissuing the contract. These costs will be recovered through the bid bond, if submitted, and any remaining sums due will be paid by the Candidate.

The award of any contract is subject to the following conditions and contingencies:

- (a) The approval of such governmental agencies as may be required by law.
- (b) The appropriation of adequate funds by the proper agencies.
- (c) Compliance with all applicable laws, regulation, ordinances and codes of the United States, the State of Connecticut and the City of Hartford. Sections of Hartford's Code which are most often applicable such as Living Wage for services and Set-aside program for Small and Minority business enterprises are posted at: <http://www.hartford.gov/purchasing/documents.htm>. The entire City Code is available at off the City's Home page: <http://www.hartford.gov>.
- (d) The selected Candidate must be current in all tax or any other monetary obligation owed to the City of Hartford.
- (e) The selected Candidate must have a current EEO certification (see section 3.10) on file with the City.
- (f) If the Candidate is a corporation or other legal business entity, it must have a current license to do business in the State of Connecticut that is on file with the Connecticut Secretary of State's office, or it must be organized under the laws of the State of Connecticut and current in terms of its required filings.

In the event the intention of this bid is to create a term contract for on-call construction services and unless otherwise indicated, the duration of the Contract will be one (1) year. Further, Contract terms may be negotiated on award anniversaries. City Ordinance Sec 2-558 (C) allows for a maximum of three Contract extensions provided that the funds are available, approved by the City for this purpose and that the Contractor has established a satisfactory performance record.

Notwithstanding the failure of City to exercise any option to renew this contract for an additional year, the Managing Authority reserves the right to unilaterally extend this contract on a month to month basis for a period not to exceed three (3) months under the same terms and conditions applicable to the preceding contract period.

3.9 CONTRACT DOCUMENTS The Contract documents consist of the Agreement between Owner and Contractor (hereinafter the Agreement), this Request for Response (RFR) and its referenced documents, General and Supplementary Conditions, drawings, any Addenda issued, the Contractor's response to the RFR, other documents listed in the Agreement and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive or (4) a written order for a Minor change in the Work issued by the Design Professional on behalf of the City; the Contract Documents do include other documents such as bidding requirements.

3.10 OBLIGATIONS OF THE CANDIDATE: At the time of the opening of proposals, each Candidate will be presumed to be thoroughly familiar with the City's requirements, and the objectives for each element of the project, item or service. A plea of mistake in the accepted response shall not be available to the Candidate for the recovery of the bid surety or as a defense to any action based upon an accepted response.

3.11 REQUIRED FORMS:

a) Candidate's EEO Report: As a condition of doing business with the City the selected respondent must be certified by the City as an Equal Employment Opportunity Employer. Certifications must be renewed annually. If your firm is not currently certified you may download and complete the required forms from: <http://www.hartford.gov/purchasing/documents.htm>. Submit completed forms with your response. To check the current status of your EEO certification contact the Office of Human Relations, 860.757.9785, fax 860.722.6486 or email: lmacruz@hartford.gov.

If your company employs four (4) or more people, please submit your EEO Policy Statement with your Response.

b) Taxpayer's Identification Number: Every respondent must provide their Taxpayer Identification Number on the response form. Award recipients, whether an individual, proprietor, partnership or a non-profit corporation or organization must file the Internal Revenue Service Form W-9, Request for Taxpayer Identification Number and Certification with the City.

3.12 SITE INSPECTION: Information contained in these documents is provided in good faith only that all Candidates may have access to the same information utilized by the City, and is not intended as a substitute for personal investigations, interpretations and judgment of the Candidate. As information may be approximated or incomplete, Candidates should conduct a thorough inspection or study of existing conditions/equipment. Any discrepancy, or need for clarification must be brought to the attention of the Architect/Engineer prior to the bid opening.

Submission of a bid shall be evidence that the Candidate has examined the site, compared it with the drawings and specifications and satisfied itself of the conditions existing at the site, the storage and handling of materials, and all other matters incidental to the work under this contract.

No additional compensation will be allowed for difficulties which the Candidate could have discovered or reasonably anticipated prior to bidding.

3.13 PREVAILING WAGES: Pursuant to Section 2-559 (B), Required Provisions. Each Agreement for the construction, remodeling or repair of any Infrastructure Facilities shall contain both of the following provisions:

(1) "The wages paid to any mechanic, laborer or workman employed upon the work herein contracted to be done shall be at a rate equal to the prevailing wage rate in the State of Connecticut and or federal government, whichever is applicable, for the same work in the same trade or occupation."

(2) "Each contractor and subcontractor, or an authorized officer or employee, responsible for supervision of the payment of wages shall submit, on a weekly basis within seven (7) days after the regular payment date of the payroll period, to the Director of the Office of Human Relations of the City, a "Weekly Certified Statement of Compliance." Due and timely compliance with this provision shall be a condition precedent to the approval and transmittal of the next and succeeding payments by the city or its authorized officers or agents to the contractor under the terms of this agreement."

3.14 RETAINAGE: When progress payments are being made for items being built or designed, the City may retain 5% of the total project cost until such time as a satisfactory guarantee bond, if required, is posted with the City, or other terms for retainage, as may be specified in the contract for this project, are met.

3.15 ACCEPTABLE BRANDS: The RFR specifications are not intended to limit consideration to the particular service organization or manufacturer from which they were developed. References to brand names or numbers are to be interpreted as establishing a standard of quality and is not to be construed as limiting competition. Brand names used within these specifications shall be presumed to be followed by the words "or approved equal".

Burden of proving a product and/or material as equal to a specific product and/or material by brand name is the responsibility of the Provider.

Final determination as to what is an "or equal" product will be made by the Procurement Manager in conjunction with other City staff. The City will award on the basis of the criteria stated herein, and reserves the right to waive or require compliance with any element of the specifications.

3.16 SAMPLES: Samples are furnished free of charge and may be held for comparison with deliveries. Candidate must arrange for their return if desired.

Samples are assumed to meet, at a minimum, City specifications for quality. All deliveries shall have at least the same quality as the accepted proposal sample. Latent deficiencies will be remedied by the contractor at no additional cost, or loss of service, to the City.

3.17 RESPONSE DEVELOPMENT: Candidates are responsible for all costs and expenses incurred in the preparation of a response and for any subsequent work on the response that is required by the City of Hartford. Any submittal is the property of the City of Hartford and will not be returned.

3.18 REGISTERING WITH THE SECRETARY OF STATE: Generally a foreign (meaning out

of State) corporation or LLC must file with the Secretary of State Office to do business in the state. Foreign Corporations should review Sect. 33-920 of the Connecticut General Statutes. If they do not find that the exemptions apply to them they must file a "Certificate of Authority."

Foreign LLC's are covered under Sections 34-222 to 34-236. If the exemptions (in 34-235) do not apply to them they must file a "Certification of Registration."

Companies may obtain forms and more information from the Secretary of the State web site located at: <http://www.sots.ct.gov/CommercialRecording/Crdindex.html>. Their number is 860.509.6002.

The State of Connecticut General Statutes can be found at: http://search.cga.state.ct.us/dtsearch_pub_statutes.html. Enter the section number with hyphen and in the "In Database(s)" window select "Statutes - Section text."

3.19 TIME PROVISIONS: The content of any response submitted is to remain valid and available to the City for ninety (90) days from the day proposals are due.

3.20. PERFORMANCE BOND AND LABOR & MATERIAL BOND

The successful contractor will be required to submit a Performance Bond and Payment Bond in the amount of 100% of contract award within 10 days of award. Said bonds shall be issued by an Insurance Company and said surety companies must be listed on the current Federal Register, licensed in the State of Connecticut with an underwriting limitation exceeding the value of the project with no more than 5% of capital in surplus tied to any one risk.

3.21. INSURANCE

List the name and address of the bidder's insurance agent as part of the bid. The successful Contractor shall be required to furnish insurance coverage, acceptable to the City, within ten (10) days from notice of award and must name the City as an additional insured on the face of the document. The City's standard insurance requirements are available at <http://www.hartford.gov/purchasing/Documents.htm>. Download document #1007_Construction Insurance Requirements.

3.22 PERFORMANCE EVALUATION

The Contractor understands that during the course of and at the conclusion of the project that the City will evaluate his/her overall performance. Based on information gathered from the City's project management team, the Procurement Manager will assess factors including, but not limited to, quality of work or service, completion record, job supervision, working relationship with other providers, bills for extras, organization, cooperation, worksite cleanliness and compliance with City MBE requirements. The contractor further understands and agrees that this record will be available for public scrutiny both in the project file and on the City's website for a minimum of two years. The contractor will not contest the Procurement Manager's scoring which will be final.

3.23 SUBCONTRACTORS

The Bidder shall not subcontract any portion of the project to be performed unless the prior consent of the City is given for both the work to be subcontracted and the subcontractor to perform the same. The terms and conditions of the underlying contract between the City and Contractor will become part and parcel of the terms and conditions of each subcontract. The identities of subcontractors will be submitted after the bid opening.

For the Lump Sum Bid:

Bidders are required to indicate in the space provided on the response form:

- a. The nature of work to be performed by each subcontractor;
- b. The subcontractor's business name
- c. The dollar amount of the individual subcontract included in the base bid;
- d. The percentage of the value of the subcontract to the base bid;
- e. If the subcontractor is a woman / minority business enterprise currently certified by the City of Hartford.

For the Alternates:

Identify the information outlined in 3.23 a-e for any alternate bid item(s) separately.

3.24. MINORITY BUSINESS UTILIZATION (MBE)

Bidders are required to set-aside for Minority Businesses the portion of work specified in the "Construction Contract Summary" sheet located behind the cover sheet for this bid. Bidders are encouraged to exceed the set-aside requirement specified. The City's Minority Business listing as further described in section 3.6 shall be used by Bidders in selecting minority business contractors.

The sum of all minority business subcontracts shall be equal to or greater than the percentage specified in the "Construction Contract Summary Sheet" regardless of how the bid is awarded (base only or base plus one or more alternates). Failure to comply with the required percentage of minority business utilization will be cause for rejection of bid.

When alternate bid items are included in the proposal, the "Subcontractor Utilization Commitment" form should be completed separately for each alternate bid item.

3.24.1 City Certification Required

Bidders shall utilize Minority subcontractors who hold a current certification by the City of Hartford. Certifications by any other government entity shall not be sufficient to qualify the subcontractor to participate in the City of Hartford's minority business utilization preference program. In selecting its minority subcontractors, Bidder is cautioned to seek documented proof that its subcontractors hold valid certification by the City. Failure to identify City certified Minority Business subcontractors will be cause for rejection of bid.

3.24.2 Percentage of Work to be Performed

Designated MBE's shall perform at least 70% of the work with their own forces and as part of their own operations excluding the manufacture or purchase of proprietary products.

3.24.3. Minority Business Listing

A listing of Minority Businesses holding certification by the City of Hartford is available at http://www.hartford.gov/human_relations/regreportreformat.pdf or in the Office of Human Relations, 550 Main Street, Hartford, CT 06103. The City's listing of minority businesses is comprised of companies whereby at least 51% of the company is owned and operated by one or more of the following group persons: Black Americans, Hispanic Americans, Women, Asian Pacific Americans, Pacific Islanders, American Indians and descendants from the Iberian Peninsula. It should be understood that such listings are made available to assist Bidders in satisfying bid requirements; however, Bidder's selection of a subcontractor is its sole responsibility and all work performed under the contract shall be Bidder's sole responsibility. The City does not sponsor or recommend the selection of any one vendor. Certification by the City of Hartford as a minority business does not imply that the business is qualified to perform the work specified in this bid. The City reserves the right to request alternate minority subcontractors for whatever reason.

3.24.4. Proof of Minority Business Utilization Required

Prior to award of contract, the successful Bidder shall be required to file with the City Engineer

the actual form of subcontract with subcontractor(s) named in at least the minimum dollar value as stated in the "Subcontractor Utilization Commitment" form. The subcontract shall state the percentage of work which will be performed by the MBE with its own forces and as part of its operation. Failure to comply with proof of subcontract within 10 days of notification may result in the rejection of bid and may be cause for forfeiture of Bidders' bid surety. Further, the City reserves the right to monitor the performance and payment of such subcontracts; therefore, upon request by the City, the successful Bidder shall be required to furnish proof of payment to its subcontractors. Failure to comply with such monitoring requirements within ten days of written request will result in the withholding of payment to Bidder

3.24.5 Changes in Subcontractors after Award

The successful Bidder may not change subcontractor(s) after the contract has been let unless and until it has received written approval from the City of Hartford. Any such approval shall be based upon a written request by the Contractor or City, which details performance and/or other issues related to the subcontractor(s).

3.25 EQUAL EMPLOYMENT OPPORTUNITY/AFFIRMATIVE ACTION REQUIREMENTS

General Information

3.25.1 The successful Bidder, as a condition of being awarded this contract shall agree to comply with all contractual Equal Employment Opportunity/Affirmative Action performance requirements as outlined herein. All contractors, sub-contractors, vendors, and labor referral organizations must, as a condition of their participation upon city of Hartford capital construction projects, comply with the provisions of "Chapter 2, Article XII" of the Municipal Code and the "Greater Hartford Affirmative Action Plan" established pursuant thereto. All Bidders are directed to the Proposal section wherein special bid submittal items related to this section are outlined.

3.25.2 The successful Bidder, as requirement of final contract execution will additionally agree to comply with the following provisions:

- a. Sign and submit the document entitled "Equal Employment Opportunity Agreement and Certificate Pursuant To The Execution of a Contract With the City of Hartford, Connecticut".
- b. Sign and submit the document entitled "Affidavit For Becoming Signatory to the Greater Hartford Affirmative Action Plan".
- c. Submit a report of current company employment statistics on the included form. (See Bidding Requirements/Bid Proposal
- d. Submit a copy of company "Equal Employment Opportunity Policy Statement" properly signed by Company official on company letterhead.
- e. Submit an agreement to notify the Hartford Commission on Human Relations as to all employment openings occurring with the company during the pendency of this contract unless otherwise expressly prohibited by collective bargaining agreement (such agreements must be so identified where they exist).

These forms are available on-line at <http://www.hartford.gov/purchasing/Documents.htm> if not included in the Sample Form section.

3.25.3 The successful Bidder further agrees that the requirements as noted in paragraphs 3.25.2, a-e shall likewise apply to all on site construction sub-contractors.

3.25.4 Prior to contract award, the City of Hartford reserves the right to review a Bidders qualifications and ability to comply with the equal employment opportunity/affirmative action program requirements as contained in this bid document.

3.25.5 During the Performance of this contract, the contractor will agree to permit authorized City of Hartford staff to perform on-site project monitoring related to the contractual

equal employment opportunity/affirmative action performance requirements. The prime contractor, additionally agrees on behalf of his/her company and all subcontractors to submit the following reports during while performing under this contract:

- a. Payroll Certification Form within 10 working days of end of reporting month.
- b. Minority/Women Business Enterprise (M/WBE) Payment Status Reports (where applicable) upon request by the Commission on Human Relations.
- c. Status reports as to special training and/or employment residency requirements (where applicable) upon prescribed forms.

3.25.6 The successful Bidder shall agree that neither he/she nor any subcontractors will discharge, expel or otherwise discriminate against any person because he/she has opposed any unfair employment practice or because he/she has filed a complaint or testified or assisted in any proceeding under Section 31-127 of the Connecticut State Statutes. The advertisement of employment opportunities shall be carried out in such manner as not to restrict such employment so as to discriminate against individuals because of their race, creed, color, age, sex, national origin, physical or mental handicap, religion, or sexual orientation except in the case of a bona fide occupational qualification or need.

3.26. EEO/AFFIRMATIVE ACTION REPORT

As a condition of doing business with the City the selected Bidder must be certified by the City as an Equal Employment Opportunity Employer. Certifications must be renewed annually. If your firm is not currently certified you may obtain the required forms on-line at: <http://www.hartford.gov/purchasing/documents.htm> and submit completed forms with your response.

Note that the EEO form contains the Hartford Affirmative Action Plan. The terms and conditions of the Plan are an integral part of the Standard Contract between the City and successful Bidder. A sample report form is included in the "Sample Forms" section of this document. To check the current status of your EEO certification contact the Office of Human Relations, 860.757.9785, fax 860.722.6486 or email: lmacruz@hartford.gov.

3.26.1 Monthly Employment Utilization Report

The successful Bidder shall be required to submit a "Monthly Employment Utilization Report," (the form is provided in this Request for Bid). Bidder agrees to the following goals:

- a minimum of 15% of the total project hours by trade shall be allocated to minority workers.
- a goal of 50% of the total project hours by trade allocated to minority workers.
- a Hartford resident employment goal of 30% by trade.

The EEO Report (available at: <http://www.hartford.gov/purchasing/Documents.htm>), together with the Monthly Employment Utilization report submitted by Contractor will be used to determine compliance with this Affirmative Action Plan. Contractor understands and agrees that its failure to achieve and maintain the minimum minority participation stated herein will be considered a breach of contract.

Specific instructions for completing this form are provided directly on the back of the form. The form shall be submitted to the Human Relations Director, Municipal Building, 550 Main Street, Hartford, CT 06103. Extra copies of the form or assistance in completing the form may be had by calling or visiting the office of the Human Relations Director. It is imperative that this form be submitted on time; failure to do so will be grounds for the City's withholding of all further payments until the forms are received.

END OF SECTION

LABOR COMPLIANCE

Applicability

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

A. 1. (i) Minimum Wages. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1324) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible, place where it can be easily seen by the workers.

(ii) (a) Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(b) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 1215-0140.)

(c) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

(d) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part

of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

2. Withholding. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work, all or part of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

3. (i) Payrolls and basic records. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b)(2)(B) of the Davis-bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been

communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)

(ii) (a) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i) except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this subparagraph for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to HUD or its designee. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149.)

(b) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5 (a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph A.3.(i)(b).

(d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under subparagraph A.3.(i) available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and Trainees.

(i) **Apprentices.** Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who

is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) **Trainees.** Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by

the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(III) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under 29 CFR Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract

6. Subcontracts. The contractor or subcontractor will insert in any subcontracts the clauses contained in subparagraphs 1 through 11 in this paragraph A and such other clauses as HUD or its designee may by appropriate instructions require, and a copy of the applicable prevailing wage decision, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this paragraph.

7. Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act Requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.

10. (i) Certification of Eligibility. By entering into this contract the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be

awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(II) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(III) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1 01 0, Title 18, U.S.C., "Federal Housing Administration transactions", provides in part: "Whoever, for the purpose of . . . influencing in any way the action of such Administration..... makes, utters or publishes any statement knowing the same to be false..... shall be fined not more than \$5,000 or imprisoned not more than two years, or both."

11. Complaints, Proceedings, or Testimony by Employees. No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

B. Contract Work Hours and Safety Standards Act. The provisions of this paragraph B are applicable where the amount of the prime contract exceeds \$100,000. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (1) of this paragraph, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in subparagraph (1) of this paragraph.

(3) Withholding for unpaid wages and liquidated damages. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

C. Health and Safety. The provisions of this paragraph C are applicable where the amount of the prime contract exceeds \$100,000.

(1) No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

(2) The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act, (Public Law 91-54, 83 Stat 96). 40 USC 3701 et seq.

(3) The contractor shall include the provisions of this paragraph in every subcontract so that such provisions will be binding on each subcontractor. The contractor shall take such action with respect to any subcontractor as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

GENERAL DECISION: CT20100016 06/04/2010 CT16

Date: June 4, 2010

General Decision Number: CT20100016 06/04/2010

Superseded General Decision Number: CT20080016

State: Connecticut

Construction Type: Heavy

County: Hartford County in Connecticut.

HEAVY CONSTRUCTION PROJECTS

Modification Number	Publication Date
0	03/12/2010
1	04/30/2010
2	05/07/2010
3	06/04/2010

BRCT0001-012 04/05/2010

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...\$	32.43	20.54

CARP0024-014 05/04/2009

Berlin, Bristol, Burlington, Canton, Marlborough, New Britain, Newington, Plainville and Southington

	Rates	Fringes
CARPENTER, Including Form Work...\$	29.00	17.80

CARP0043-005 05/04/2009

Avon, Bloomfield, East Branby, East Hartford, East Windsor, Enfield, Farmington, Glastonbury, Granby, Hartford, Hartland, Manchester, Rocky Hill, Simsbury, South Windsor, Suffield, West Hartford, Wethersfield, Windsor, Windsor Locks

	Rates	Fringes
CARPENTER, Including Form Work...\$	29.00	17.80

ELEC0035-006 06/01/2009

Entire County excluding Berlin, Bristol, Hartland, New Britain, Newington, Plainville and Southington Townships

	Rates	Fringes
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ELECTRICIAN.....\$ 35.40 19.51

ELEC0090-005 06/01/2009

Berlin, Bristol, New Britain, Newington, Plainville,
Southington Townships

	Rates	Fringes
ELECTRICIAN.....	\$ 34.95	19.50

ELEC0488-005 06/01/2009

Hartland Township

	Rates	Fringes
ELECTRICIAN.....	\$ 34.80	19.80

* ENGI0478-010 04/05/2010

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Asphalt Paver.....	\$ 33.01	18.60+a
Asphalt Roller.....	\$ 32.36	18.60+a
Asphalt Spreader.....	\$ 33.01	18.60+a
Bulldozer (Rough Grade Dozer).....	\$ 32.70	18.60+a
Bulldozer Fine Grade(includes slopes, shaping, laser or gps).....	\$ 33.99	18.60+a
Crane handling or erecting structural steel or stone...\$	35.05	18.60+a
Cranes (100 ton capacity & over).....	\$ 34.73	18.60+a
Cranes (under 100 ton rated capacity).....	\$ 33.99	18.60+a
Drills with self contained power units; Directional driller.....	\$ 33.01	18.60+a
Earth Roller.....	\$ 29.49	18.60+a
Excavator/Backhoe 2 cubic yards and over.....	\$ 34.73	18.60+a
Excavator/Backhoe under 2 cubic yards.....	\$ 33.99	18.60+a
Forklift.....	\$ 31.53	18.60+a
Front End Loader (3 cubic yards up to 7 cubic yards)..\$	32.70	18.60+a
Front End Loader (7 cubic yards or over).....	\$ 35.05	18.60+a
Front End Loader (under 3 cubic yards).....	\$ 31.53	18.60+a

Grader/Blade.....	\$ 33.99	18.60+a
Maintenance Engineer/Oiler..	\$ 26.65	18.60+a
Mechanic.....	\$ 31.96	18.60+a

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.

- b. Crane with boom, including jib, 150 feet - \$1.50 extra .
- Crane with boom, including jib, 200 feet- \$2.50 extra.
- Crane with boom, including jib, 250 feet - \$5.00 extra.
- Crane with boom, including jib, 300 feet - \$7.00 extra.
- Crane with boom, including jib, 400 feet - \$10.00 extra.

IRON0015-007 06/29/2009

	Rates	Fringes
IRONWORKER, STRUCTURAL.....	\$ 32.75	25.08+a

a. PAID HOLIDAY: Labor Day provided employee has been on the payroll for the 5 consecutive work days prior to Labor Day.

* LABO0056-006 04/04/2010

	Rates	Fringes
LABORERS		
GROUP 1.....	\$ 25.00	15.00
GROUP 2.....	\$ 25.25	15.00
GROUP 3.....	\$ 25.50	15.00
GROUP 4.....	\$ 26.00	15.00
GROUP 5.....	\$ 26.75	15.00
GROUP 6.....	\$ 27.00	15.00
GROUP 7.....	\$ 16.00	15.00

LABORERS CLASSIFICATIONS

GROUP 1: Laborers (Unskilled), acetylene burner, concrete specialist

GROUP 2: Chain saw operators, fence and guard rail erectors, pneumatic tool operators and powdermen.

GROUP 3: Pipelayers, Jackhammer/Pavement breaker (handheld), mason tenders/catch basin builders, asphalt rakers, air track operators, block paver and curb setter

GROUP 4: Asbestos/lead removal

GROUP 5: Blasters

GROUP 6: Toxic waste remover

GROUP 7: Traffic control signalman

PAIN0011-013 06/01/2009

	Rates	Fringes
PAINTER		
Brush and Roller.....	\$ 28.17	14.55
Spray Only.....	\$ 31.17	14.55
Steel Only.....	\$ 30.17	14.55

SUCT2002-009 12/16/2008

	Rates	Fringes
IRONWORKER, REINFORCING.....	\$ 27.13	13.57
LABORER: Common or General.....	\$ 21.03	5.30
OPERATOR: Excavator.....	\$ 27.77	7.60
TRUCK DRIVER: 3 Axle & Semi		
- Truck.....	\$ 19.93	7.39

TEAM0064-006 04/04/2010

	Rates	Fringes
TRUCK DRIVER: 4 Axle Truck.....	\$ 28.08	14.53+a

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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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 clauses (29 CFR 5.5(a)(1)(ii)).

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In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have

been determined
to be prevailing.

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WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7).
Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION