

STATE OF DELAWARE  
DEPARTMENT OF TRANSPORTATION



**BID PROPOSAL**

**CONTRACT T201012001**

**SR299, SR 1 TO CATHERINE STREET**

Federal Aid No. ESTP-2015(19)  
CFDA: 20.205

Advertisement Date: December 18, 2020

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**INCLUDED IN THIS DOCUMENT:**

**BID PROPOSAL:**

*GENERAL DESCRIPTION*  
*PROSPECTIVE BIDDERS NOTES*  
*GENERAL NOTICES*  
*PREVAILING WAGES*  
*SPECIAL PROVISIONS*  
*STATEMENTS*  
*QUANTITY SHEET SUMMARY*  
*BREAKOUT SHEETS*

**ADDITIONAL BID PROPOSAL ITEMS:**

**ATTACHED OR POSTED DOCUMENTS:**

*PROJECT PLANS*  
*QUESTIONS & ANSWERS (if posted)*  
*GUARDRAIL END-TREATMENT INFO*

**PAPER BIDDERS CONTACT DELDOT  
FOR BID SUBMITTAL DOCUMENTS:**

*DRUG TESTING AFFIDAVIT*  
*CERTIFICATION FORM*  
*BID BOND FORM*  
*CD FOR BID PRICE ENTRY & PRINTING*

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This Bid Proposal and related documents can be viewed on [bids.delaware.gov](https://bids.delaware.gov) and [bidx.com/de/](https://bidx.com/de/)

**Internet Bids** for Bidders with Bid Express® accounts can be submitted at [BIDX.com/de](https://bidx.com/de/); **OR**;

**Paper Bids with CD** will be received in the Bid Box at the DelDOT Administration Building, Dover, DE;

**ALL BIDS DUE PRIOR TO 2:00 P.M. Local Time, January 26, 2021**

**GENERAL DESCRIPTION**

- A. BIDS DUE:** **January 26, 2021** **PRIOR TO 2:00 P.M. Local Time** – unless changed via Addendum.  
**LOCATION:** Bid Box, at DelDOT Administration Building, 800 South Bay Road, Dover, DE 19901.  
**OR;** Bidders with Bid Express® accounts can submit bids at [BIDX.com/de](http://BIDX.com/de).
- B. PRE-BID MEETING:** No
- C. DBE GOAL:** 13% Disadvantaged Business Enterprise Percent
- D. OJT TRAINEES:** **Three (3)** See Prospective Bidder's Notes and posted OJT Manual for details.
- E. LOCATION:** New Castle County  
 These improvements are more specifically shown on the Location Map(s) of the attached Plans.
- F. DESCRIPTION:** The improvements consist of furnishing all labor and materials for; SR 299 (E. Main St) will be reconstructed and widened to two lanes in each direction with a raised median from SR 1 to Cleaver Farm Road, and a two way center lane turn lane section will be constructed from Cleaver Farm Road to Catherine Street. Other improvements will include new signals, and pedestrian and bicycle infrastructure improvements.
- G. COMPLETION TIME:** All work on this contract must be complete within 909 Calendar Days.  
 The Contract Time includes an allowance for 157 Weather Days.  
 The Department's intent is to issue a Notice to Proceed for work to start on or about June 30, 2021.
- H. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DELAWARE DEPARTMENT OF TRANSPORTATION, AUGUST 2016** apply to this Bid Proposal and Project. The Contractor shall make himself aware of any revisions and corrections (Supplemental Specifications, if any) and apply them to the applicable item(s) of this contract. The Standard and Supplemental Specifications can be viewed [here](#). Units of Measure can be found at 101.04.
- I. ATTACHMENTS:** Included as part of this Bid Proposal are; *Project Plans; Questions & Answers* (if posted); *Addenda, Referenced Documents, Documents Posted with this Bid Proposal;* and *Bid documents mailed to contractors.*
- J. ADDENDA:** All Addenda are posted on the internet at [bids.delaware.gov](http://bids.delaware.gov), and [bidx.com/de/](http://bidx.com/de/) and are included as part of the Bid Proposal. The Bidder is responsible to check the Website as needed to ensure that the Bidder is aware of Addenda that are included in the Bid Proposal. If Addenda are issued, the final Addendum will be posted no later than the end of the day two business days prior to the bid date. Each Addendum number and issue date must be entered on the submitted Certification Form. This original Bid Proposal will not be updated, you must refer to each Addendum.
- K. QUESTIONS:** E-MAIL TO; [dot-ask@delaware.gov](mailto:dot-ask@delaware.gov)  
 Questions regarding this project are to be e-mailed to the above address no less than **six business days** prior to the bid opening date in order to receive a posted response. Please include the Contract number in the subject line. Questions and responses are posted at [bids.delaware.gov](http://bids.delaware.gov), and [bidx.com/de/](http://bidx.com/de/). The date of the final posted Questions and Answers document must be entered on the submitted Certification Form.
- L. ROAD USER COSTS, LIQUIDATED DAMAGES, CONSTRUCTION SEQUENCE NOTES:**  
 The contract drawings and notes provide a sequence of construction for this contract.

CONTRACT LIQUIDATED DAMAGES

**FAILURE TO OPEN PROJECT TO UNRESTRICTED HIGHWAY TRAFFIC VOLUME ON TIME:**

*(continued on following page)*

Interim Road User costs (RUC) for delays in opening lanes along SR 299 will be enforced according to the below chart.

<b>SR 299</b>	
<b>Contractor Damages for Failure to Reopen Lanes</b>	
<b>Time All Lanes Reopened ("Verizon Time")</b>	<b>One Lane Closure</b>
6:00 AM to 6:14 AM	\$200
6:15 AM to 6:29 AM	\$400
6:30 AM to 6:44 AM	\$500
6:45 AM to 6:59 AM	\$700
7:00 AM to 7:14 AM	\$800
7:15 AM to 7:29 AM	\$1,000
7:30 AM to 7:44 AM	\$1,200
7:45 AM to 8:00 AM	\$1,300

Interim Road User costs (RUC) for delays in opening lanes along Silver Lake Road will be enforced according to the below chart.

<b>Silver Lake Road</b>	
<b>Contractor Damages for Failure to Reopen Lanes</b>	
<b>Time All Lanes Reopened ("Verizon Time")</b>	<b>One Lane Closure</b>
6:00 AM to 6:14 AM	\$100
6:15 AM to 6:29 AM	\$200
6:30 AM to 6:44 AM	\$250
6:45 AM to 6:59 AM	\$300
7:00 AM to 7:14 AM	\$400
7:15 AM to 7:29 AM	\$500
7:30 AM to 7:44 AM	\$550
7:45 AM to 8:00 AM	\$600

Interim Road User costs (RUC) for delays in opening lanes along Brick Mill Road will be enforced according to the below chart.

<b>Brick Mill Road</b>	
<b>Contractor Damages for Failure to Reopen Lanes</b>	
<b>Time All Lanes Reopened ("Verizon Time")</b>	<b>One Lane Closure</b>
7:00 AM to 7:14 AM	\$15
7:15 AM to 7:29 AM	\$30
7:30 AM to 7:44 AM	\$45
7:45 AM to 7:59 AM	\$60
8:00 AM to 8:14 AM	\$75
8:15 AM to 8:29 AM	\$100
8:30 AM to 8:44 AM	\$150
8:45 AM to 9:00 AM	\$200

Interim Road User costs (RUC) for delays in opening lanes along SR 299 @ Catherine Street during Phases 8 and 9 will be enforced according to the below chart.

<b>SR 299 @ Catherine Street (Phase 8 and 9)</b>	
<b>Contractor Damages for Failure to Reopen Lanes</b>	
<b>Time All Lanes Reopened ("Verizon Time")</b>	<b>One Lane Closure</b>
6:00 AM to 6:14 AM	\$200
6:15 AM to 6:29 AM	\$300
6:30 AM to 6:44 AM	\$400
6:45 AM to 6:59 AM	\$500
7:00 AM to 7:14 AM	\$600
7:15 AM to 7:29 AM	\$700
7:30 AM to 7:44 AM	\$800
7:45 AM to 8:00 AM	\$900

Interim Road User costs (RUC) for delays in opening lanes along Brick Mill Road @ SR 299 during Phase 2 will be enforced according to the below chart.

<b>Brick Mill Road @ SR 299 (Phase 2)</b>	
<b>Contractor Damages for Failure to Reopen Lanes</b>	
<b>Time All Lanes Reopened ("Verizon Time")</b>	<b>One Lane Closure</b>
7:00 AM to 7:14 AM	\$200
7:15 AM to 7:29 AM	\$300
7:30 AM to 7:44 AM	\$400
7:45 AM to 7:59 AM	\$500
8:00 AM to 8:14 AM	\$600
8:15 AM to 8:29 AM	\$700
8:30 AM to 8:44 AM	\$800
8:45 AM to 9:00 AM	\$900

A RUC of \$900/calendar day will be assessed for each day that the Contractor fails to reopen South Catherine Street after the allowable lane closure period has ended.

A RUC of \$3,200/calendar day will be assessed for each day that the Contractor fails to reopen North Catherine Street after the allowable lane closure period has ended.

A RUC of \$1,800/calendar day will be assessed for each day that the Contractor fails to reopen New Street after the allowable lane closure period has ended.

A RUC of \$4,000/calendar day will be assessed for each day that the Contractor fails to reopen Cleaver Farms Road after the allowable lane closure period has ended.

A RUC of \$700/calendar day will be assessed for each day that the Contractor fails to reopen Dove Run Boulevard after the allowable lane closure period has ended.

A RUC of \$6,000/calendar day will be assessed for each day that the Contractor fails to reopen Willow Grove Mill Drive after the allowable lane closure period has ended.

A RUC of \$31,000/calendar day will be assessed for each day that the Contractor fails to reopen Brick Mill Road after the allowable lane closure period has ended.

**M. PROSPECTIVE BIDDERS NOTES:**

1. **BIDDERS MUST BE REGISTERED** with DelDOT in order to submit a bid. E-Mail [dot-ask@delaware.gov](mailto:dot-ask@delaware.gov) or call (302) 760-2031 to request registration information.

2. **BIDS MUST BE SUBMITTED VIA:**

(a) **Internet** - Bidders with Bid Express® accounts can submit bids at [www.bidx.com/de/](http://www.bidx.com/de/).

**OR:**

(b) **Paper Bid** with supplied CD and printout of Bid Item prices and all required documents and forms.

For paper bids, contact DelDOT at [dot-ask@delaware.gov](mailto:dot-ask@delaware.gov) or (302) 760-2031 to request a CD for bidding, required forms, and instructions. Bidders enter their Bid Item prices onto the supplied CD then print the form and submit the form along with the CD and other required documents prior to the Bid due date and time.

*(CD's cannot be used to submit bids to bidx.com)*

***Do not submit both Internet and Paper Bids. If so, the Internet bid will be rejected.***

3. **SURETY BOND** - Each proposal must be accompanied by a deposit of either surety bond or security for a sum equal to at least 10% of the amount bid.

4. **DRUG TESTING** - Regulation 4104; The state Office of Management and Budget has developed regulations that require Contractors and Subcontractors to implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds pursuant to 29 Del.C. §6908(a)(6). **Refer to the full requirements at the following link:**

<https://regulations.delaware.gov/AdminCode/title19/4000/4100/4104.shtml#TopOfPage>

Note a few of the requirements;

\* **At bid submission** - Each bidder must submit with the bid a single signed affidavit certifying that the bidder and its subcontractors has in place or will implement during the entire term of the contract a Mandatory Drug Testing Program that complies with the regulation *(a blank affidavit form is attached)*;

\* **At least two business days prior to contract execution** - The awarded Contractor shall provide to DelDOT copies of the Employee Drug Testing Program for the Contractor, each participating DBE firm, and all other listed Subcontractors;

\* **Subcontractors** - Contractors that employ Subcontractors on the job site may do so only after submitting a copy of the Subcontractor's Employee Drug Testing Program along with the standard required subcontractor information. A Subcontractor shall not commence work until **DelDOT** has approved the program in writing.

5. **PERFORMANCE-BASED RATING SYSTEM** - 29 Del.C. §6962 (c)(12)(a) requires DelDOT to include a performance-based rating system for contractors. The Performance Rating for each Contractor shall be used as a prequalification to bid at the time of bid. Refer to 'General Notices' for details.

6. **NO RETAINAGE** will be withheld on this contract unless through the Performance-Based Rating System.

7. **EXTERNAL COMPLAINT PROCEDURE** can be viewed on DelDOT's Website, [https://deldot.gov/Business/cr/index.shtml?dc=civil\\_rights\\_eeo](https://deldot.gov/Business/cr/index.shtml?dc=civil_rights_eeo) or request a copy by calling (302) 760-2555.

8. **DBE PROGRAM REQUIREMENTS** (49CFR §26.53(b)(3)(i)(B)) require submission of DBE participation information from the apparent low bidder no later than five (5) calendar days after bid opening,

9. **FLATWORK CONCRETE TECHNICIAN CERTIFICATION TRAINING:**

Section 501.03, 503.03, 505.03, 610.03, 701.03 and 702.03 of the 2016 Standard Specifications require contractors to provide an American Concrete Institute (ACI) or National Ready-Mix Concrete Association (NRMCA) certified concrete flatwork technician to supervise all finishing of flatwork concrete.

**10. BREAKOUT SHEETS MUST BE SUBMITTED WITH YOUR BID DOCUMENTS!**



11. **ON THE JOB TRAINEES.** The program(s) must be submitted online as soon as possible by the apparent low bidder at <https://deldotojt.com>. Award of the Contract will not take place until acceptable On-the-Job (OJT) program plans are received and approved by the Department's Civil Rights Section. Failure of the apparent low bidder to submit acceptable OJT Trainee Programs within ten (10) calendar days of bid opening shall create a rebuttable presumption that the bid is not responsive.

## GENERAL NOTICES

### SPECIFICATIONS :

The Delaware specifications entitled "*Standard Specifications for Road and Bridge Construction August, 2016*", hereinafter referred to as the *Standard Specifications*; the *Supplemental Specifications* to the Standard Specifications effective as of the advertisement date of this Bid Proposal and hereby included by reference; the *Special Provisions*; *Notes on the Plans*; this *Bid Proposal* including referenced documents; any *Addenda* thereto; and any posted *Questions and Answers*; shall govern the work to be performed under this contract. The Contractor shall make itself aware of these specifications, revisions and corrections, and apply them to the applicable item(s) of this contract.

### CLARIFICATIONS :

Under any Section or Item included in the Contract, the Contractor shall be aware that when requirements, responsibilities, and furnishing of materials are outlined in the details and notes on the Plans and in the paragraphs preceding the "Basis of Payment" paragraph in the Standard Specifications or Special Provisions, no interpretation shall be made that such stipulations are excluded because reiteration is not made in the "Basis of Payment" paragraph.

### ATTESTING TO NON-COLLUSION :

The Department requires as a condition precedent to acceptance of bids a sworn statement executed by, or on behalf of, the person, firm, association, or corporation to whom such contract is to be awarded, certifying that such person, firm, association, or corporation has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with such contract. The form for this sworn statement is included in the proposal and must be properly executed in order to have the bid considered.

### QUANTITIES :

The quantities shown are for comparison of bids only. The Department may increase or decrease any quantity or quantities without penalty or change in the bid price.

### PERFORMANCE-BASED RATING SYSTEM

29 Del.C. §6962 (c)(12)(a) requires a Department of Transportation project, excluding a Community Transportation Fund or municipal street aid contract, to include a performance-based rating system. At the time of bid, the Performance Rating for each Contractor shall be used as a prequalification to bid.

Bidders with Performance Rating scores equal to or greater than 85% shall be permitted to bid. Bidders with scores of less than 85% who comply with the retainage requirements of 29 Del.C. §6962 shall be permitted to bid provided the *Agreement to Accept Retainage* (located on the Certification Page) is executed and submitted with the bid. Lack of an executed *Agreement to Accept Retainage* will result in the rejection of the bid by the Department. Successful bidders awarded Department contracts who have no performance history within the last five (5) years will be assigned a provisional Performance Rating of 85% at the date of advertisement.

Notification of Performance Rating. The Department shall post publicly the Performance Rating for all Contractors on the Department's [website](#). DelDOT will complete performance-based evaluations on the construction company contracted by the Department to build the project (the "Contractor"). Provisions to appeal Performance Ratings are described in the regulations. The regulations are set forth in Section 2408 of Title 2, Delaware Administrative Code, found [here](#).

### EQUALITY OF EMPLOYMENT OPPORTUNITY ON PUBLIC WORKS :

Delaware Code, Title 29, Chapter 69, Section 6962, Paragraph (d), Subsection (7) states;

- a. As a condition of the awarding of any contract for public works financed in whole or in part by State appropriation, such contracts shall include the following provisions:

During the performance of this contract, the contractor agrees as follows:

1. The contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex, sexual orientation, gender identity or national origin. The contractor will take positive steps to ensure that applicants are employed and that employees are treated during employment without regard to their race, creed, color, sex, sexual orientation, gender identity or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places available to employees and applicants for employment notices to be provided by the contracting agency setting forth this nondiscrimination clause.
2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, sex, sexual orientation, gender identity or national origin.
3. The contractor will ensure employees receive equal pay for equal work, without regard to sex. Employee pay differential is acceptable if pursuant to a seniority system, a merit system, a system which measures earnings by quantity or quality of production, or if the differential is based on any other factor other than sex.

TAX CLEARANCE :

As payments to each vendor or contractor aggregate \$2,000, the Division of Accounting will report such vendor or contractor to the Division of Revenue, who will then check the vendor or contractor's compliance with tax requirements and take such further action as may be necessary to ensure compliance.

LICENSE :

A person desiring to engage in business in this State as a contractor on a project designated to include federal funds, shall obtain a Delaware business license upon making application to the Division of Revenue. Proof of said license compliance to be made prior to, or in conjunction with, the execution of a contract to which he has been named.

SUBCONTRACTOR LICENSE: 29 DEL. C. §6967:

- (c) Any contractor that enters a public works contract must provide to the agency to which it is contracting, within 30 days of entering such public works contract, copies of all occupational and business licenses of subcontractors and/or independent contractors that will perform work for such public works contract. However, if a subcontractor or independent contractor is hired or contracted more than 20 days after the contractor entered the public works contract the occupational or business license of such subcontractor or independent contractor shall be provided to the agency within 10 days of being contracted or hired.

DIFFERING SITE CONDITIONS:

**SUSPENSIONS OF WORK and SIGNIFICANT CHANGES IN THE CHARACTER OF WORK:**

Differing site conditions: During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before they are disturbed and before the affected work is performed.

Upon written notification, the engineer will investigate the conditions, and if he/she determines that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the contract, an adjustment, excluding loss of anticipated profits, will be made and the contract modified in writing accordingly. The engineer will notify the contractor of his/her determination whether or not an adjustment of the contract is warranted.

No contract adjustment which results in a benefit to the contractor will be allowed unless the contractor has provided the required written notice. No contract adjustment will be allowed under their clause for any effects caused on unchanged work.

Suspensions of work ordered by the engineer: If the performance of all or any portion of the work is suspended or delayed by the engineer in writing for an unreasonable period of time (not originally anticipated, customary or inherent to the construction industry) and the contractor believes that additional compensation and/or contract time is due as a result of such suspension or delay, the contractor shall submit to the engineer in writing a request for adjustment within 7 calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.

Upon receipt, the engineer will evaluate the contractor's request. If the engineer agrees that the cost and/or time required for the performance of the contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the contractor, its suppliers, or subcontractors at any approved tier, and not caused by weather, the engineer will make an adjustment (excluding profit) and modify the contract in writing accordingly. The engineer will notify the contractor of his/her determination whether or not an adjustment of the contract is warranted.

No contract adjustment will be allowed unless the contractor has submitted the request for adjustment within the time prescribed. No contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided for or excluded under any other term or condition of this contract.

Significant changes in the character of work: The engineer reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations shall not invalidate the contract nor release the surety, and the contractor agrees to perform the work as altered.

If the alterations or changes in quantities significantly change the character of the work under the contract, whether or not changed by any such different quantities or alterations, an adjustment, excluding loss of anticipated profits, will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the contractor in such amount as the engineer may determine to be fair and equitable.

The term "significant change" shall be construed to apply only to the following circumstances:

- (A) When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction, or
- (B) When a major item of work, as defined elsewhere in the contract, is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 125 percent of original contract item quantity, or in case of a decrease below 75 percent, to the actual amount of work performed.

CONFLICT WITH FEDERAL STATUTES OR REGULATIONS:

Delaware Code, Title 29, Chapter 69, Section 6904, Paragraph (a):

"If any provision of this subchapter conflicts or is inconsistent with any statute, rule or regulation of the federal government applicable to a project or activity, the cost of which is to be paid or reimbursed in whole or in part by the federal government, and due to such conflict or inconsistency the availability of federal funds may be jeopardized, such provision shall not apply to such project or activity."

FEDERAL LABOR AND EMPLOYMENT REQUIREMENTS

Federal Regulation 23 CFR § 635.117(b) Labor and employment, states:

"No procedures or requirement shall be imposed by any State which will operate to discriminate against the employment of labor from any other State, possession or territory of the United States, in the construction of a Federal-aid project."

CONVICT PRODUCED MATERIALS:

(a) Materials produced after July 1, 1991, by convict labor may only be incorporated in a Federal-aid highway construction project if such materials have been:

- (1) Produced by convicts who are on parole, supervised release, or probation from a prison or
- (2) Produced in a qualified prison facility and the cumulative annual production amount of such materials for use in Federal-aid highway construction does not exceed the amount of such materials produced in such facility for use in Federal-aid highway construction during the 12-month period ending July 1, 1987.

(b) Qualified prison facility means any prison facility in which convicts, during the 12-month period ending July 1, 1987, produced materials for use in Federal-aid highway construction projects.

RIGHT TO AUDIT

The Department shall have the right to audit the books and records of the contractor or any subcontractor under this contract or subcontract to the extent that the books and records relate to the performance of the contract or subcontract. The books and records shall be maintained by the contractor for a period of 3 years from the date of final payment under the prime contract and by the subcontractor for a period of 3 years from the date of final payment under the subcontract (29 Del.C. §6930)

TO REPORT BID RIGGING ACTIVITIES:

The U. S. Department of Transportation (DOT) operates the below toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m. eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

TO REPORT BID RIGGING ACTIVITIES  
CALL 1-800-424-9071

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION  
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY  
(EXECUTIVE ORDER 11246)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

Goals for Minority Participation In  
Each Trade

Goals for Female Participation In  
Each Trade

12.3% (New Castle County)

6.9% (Entire State)

14.5% (Kent & Sussex Counties)

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the Executive Order and the regulations in CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order, and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.
4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is the County specified in the General Description section.

REV. 11-3-80

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY  
CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

1. As used in these specifications:
  - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
  - b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
  - c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
  - d. "Minority" includes:
    - i. Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
    - ii. Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
    - iii. Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
    - iv. American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Program Office or from the Federal procurement contracting offices. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
- a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
  - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
  - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
  - d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
  - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
  - f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
  - g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foreman, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
  - h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
  - i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
  - j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.
  - k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

- l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
  - m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
  - n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
  - o. Document and maintain a record of all solicitations of offers for subcontractors from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
  - p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female work force participating, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
  9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is under utilized).
  10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
  11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
  12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Order of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
  13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
  14. The Contractor shall designate a responsible official to monitor all employment-related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government, and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours

worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

\* \* \* \* \*

### **TRAINING SPECIAL PROVISIONS**

This Training Special Provision supersedes subparagraph 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities", (Attachment 1), and is in implementation of 23 U.S.C. 140(a).

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The contractor shall provide on-the-job training aimed at developing full journeyman in the type of trade or job classification involved.

The number of trainees to be trained under the special provision will be as set forth in the General Description section of this document. In the event the contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this Training Special Provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year apprenticeship or training.

The number of trainees shall be distributed among the work classification on the basis of the contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment. Prior to commencing construction, the contractor shall submit to the Department of Highways and Transportation for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the contractor shall specify the starting time for training in each of the classifications. The contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the Department of Highways and Transportation and the Federal Highway Administration. The Department of Highways and Transportation and the Federal Highway Administration shall approve a program if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid

highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work the classification covered by the program. It is the intention of these provisions that the training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the division office. Some off-site training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the engineer, reimbursement will be made for training persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other sources does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for off-site training indicated above may only be made to the contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training; provides the instruction of the trainee; or pays the trainee's wages during the off-site training period.

No payment shall be made to the contractor if either the failure to provide the required training, or the failure to hire the trainees as a journeyman, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirements of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program. It is not required that all trainees be on board for the entire length of the contract. A contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid a least 60 percent of the appropriate minimum journeymen's rate specified in the contract for the first half of the of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees is an approved existing program are enrolled as trainees on this project. In fact case, the appropriate rates approved by the Department of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provisions.

The contractor shall furnish the trainee a copy of the program he will follow in providing the training.

The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily completed.

The contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

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INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT  
& TRANSPORTATION EQUITY ACT

Recipients of Federal-aid highway funds authorized under Titles I (other than Part B) and V of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), or Titles I, III, and V of the Transportation Equity Act for the 21st Century (TEA-21) are required to comply with the regulations of 49 Code of Federal Regulations (CFR) Part 26 - Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs.

## **DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM SPECIFICATION**

The U.S. Department of Transportation (DOT) requires that the Delaware Department of Transportation continue the established Disadvantaged Business Enterprise (DBE) Program for participation in U.S. DOT programs and that the program follow the final rules as stated in 49 CFR Part 26 and the Department's approved DBE Program plan.

The following definitions apply to this subpart:

Disadvantaged Business Enterprise or DBE means a for-profit small business concern (1) that is at least 51 percent owned by one or more individuals who are both socially and economically disadvantaged or, in the case of a corporation, in which 51 percent of the stock is owned by one or more such individuals; and, (2) whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.

DOT-assisted contract means any contract between a recipient and a contractor (at any tier) funded in whole or in part with DOT financial assistance, including letters of credit or loan guarantees, except a contract solely for the purchase of land.

Good Faith Efforts means efforts to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the program requirement.

Joint Venture means an association of a DBE firm and one or more other firms to carry out a single, for-profit business enterprise, for which the parties combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest.

Race-conscious measure or program is one that is focused specifically on assisting only DBEs, including women-owned DBEs.

Race-neutral measure or program is one that is, or can be, used to assist all small businesses. For the purposes of this part, race-neutral includes gender neutrality.

Small Business concern means, with respect to firms seeking to participate as DBEs in DOT-assisted contracts, a small business concern as defined pursuant to section 3 of the Small Business Act and Small Business Administration regulations implementing it (13 CFR part 121) that also does not exceed the cap on average annual gross receipts specified in 49 CFR §26.65(b).

Socially and economically disadvantaged individuals means any individual who is a citizen (or lawfully admitted permanent resident) of the United States and who is - (1) any individual who a recipient finds to be a socially and economically disadvantaged individual on a case-by-case basis; (2) any individual in the following groups, members of which are rebuttably presumed to be socially and economically disadvantaged:

- (i) Black Americans which includes persons having origins in any of the Black racial groups of Africa;
- (ii) Hispanic Americans which includes persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race;
- (iii) Native Americans which includes persons who are American Indians, Eskimos, Aluets, or Native Hawaiians;
- (iv) Asian-Pacific Americans which includes persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands (Republic of Palau), the Commonwealth of the Northern Marianas Islands, Macao, Fiji, Tonga, Kirbati, Juvalu, Nauru, Federated States of Micronesia, or Hong Kong;
- (v) Subcontinent Asian Americans which includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka;
- (vi) Women;
- (vii) Any additional groups whose members are designated as socially and economically disadvantaged by the SBA, at such time as the SBA designation becomes effective.

DelDOT will establish specific goals for each particular DOT-assisted project which will be expressed as a percentage of the total dollar amount of contract bid. The specific contract goals for this contract are specified in the General Description section of this document.

DelDOT continues to reserve the right to approve DBE subcontractors and all substitutions of DBE subcontractors prior to award and during the time of the contract.

Bidders are required to submit with their bids the completed DBE Program Assurance portion of the Certification document which will state the bidders intent of meeting the goals established for this contract; or in the instance where a contractor cannot meet the assigned DBE Goals for this contract, he/she shall at the time of bid submit documentation required to verify that he/she has made a Good Faith Effort to meet the DBE Goals. Guidance for submitting a Good Faith Effort is identified in the next section and in the DBE Program Plan. Further, the apparent low bidder must submit to DelDOT within five (5) calendar days after the bid opening, executed originals of each and every DBE subcontract to satisfy contract goals consistent with the DBE Program Assurance submitted as part of the bid package.

No contract work shall be performed by a DBE subcontractor until the executed DBE subcontract is approved in writing by DelDOT and the Department has issued the required Notice to Proceed. Any DBE subcontract relating to work to be performed pursuant to this contract, which is submitted to DelDOT for approval, must contain all DBE subcontractor information, the requirements contained in this contract, and must be fully executed by the contractor and DBE subcontractor.

Each contract between the prime contractor and each DBE subcontractor shall at the minimum include the following:

1. All pertinent provisions and requirements of the prime contract.
2. Description of the work to be performed by the DBE subcontractor.
3. The dollar value of each item of work to be completed by the DBE subcontractor and the bid price of each item of work to be completed by the DBE subcontractor.

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### **CRITICAL DBE REQUIREMENTS**

A bid may be held to be non-responsive and not considered if the required DBE information is not provided. In addition, the bidder may lose its bidding capability on Department projects and such other sanctions as the Department may impose. It is critical that the bidder understands:

1. In the event that the bidder cannot meet the DBE goal as set forth in this specification, he/she shall at the time of bid submit to the Department that percentage of the DBE Goal that will be met, if any, on the written and notarized assurance made a part of this contract. The contractor shall also at the time of bid submit all documentation that the contractor wishes to have the Department consider in determining that the contractor made a Good Faith Effort to meet contract DBE Goals. The Department will not accept Good Faith Effort documentation other than on the scheduled date and time of the bid opening. However, the Department may ask for clarification of information submitted should the need arise.
2. A bid which does not contain either a completely executed DBE Program Assurance and/or Good Faith Effort documentation, where appropriate, shall be declared non-responsive and shall not be considered by the Department.
3. Failure of the apparent low bidder to present originals of all DBE subcontracts to substantiate the volume of work to be performed by DBE's as indicated in the bid within five (5) calendar days after the bid opening shall create a rebuttable presumption that the bid is not responsive.
4. Bidders are advised that failure to meet DBE Goals during the term of the contract may subject them to Department sanctions as identified in the DBE Program Plan.

5. In the execution of this contract, the successful bidder agrees to comply with the following contract clauses:

**Prompt Payment:** The prime contractor/consultant receiving payments shall, within 30 days of receipt of any payment, file a statement with the Department on a form to be determined by the Department that all subcontractors furnishing labor or material have been paid the full sum due them at the stage of the contract, except any funds withheld under the terms of the contract as required by Chapter 8, Title 17 of the Delaware Code, annotated and as amended. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of DeIDOT. This clause applies to both DBE and non-DBE subcontractors.

**Retainage:** The prime contractor agrees to return retainage to each subcontractor within 15 calendar days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of DeIDOT. This clause covers both DBE and non-DBE subcontractors. As guidance, once a subcontractor has satisfactorily completed the physical work, and has given to the prime contractor a certified statement that all laborers, lower tier contractors, and materialmen who have furnished labor and materials to the subcontractor have been paid all monies due them, the prime contractor shall return retainage to the subcontractor within 15 calendar days.

6. In the execution of this contract, the successful bidder agrees to comply with the following contract assurance and will include this same language in each subcontractor contract:

"The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such remedy as the recipient deems appropriate." 49 CFR Section 26.13

7. In addition to this specification, bidders must comply with all provisions of the rules and regulations adopted by the U.S. Department of Transportation for DBE participation in U.S. DOT and DeIDOT Programs (49 CFR Part 26) and the Delaware Department of Transportation Disadvantaged Business Enterprise Program Plan; each of which is hereby incorporated and made part of this specification. Bidders are also reminded that they must be responsible and responsive bidders in all other aspects aside from the DBE Program in order to be awarded the contract.

8. In accordance with 49 CFR 26.53(f)(1), DeIDOT requires that a prime contractor not terminate a DBE subcontractor without prior written consent from the DeIDOT Civil Rights Office. This includes, but is not limited to, instances in which a prime contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.

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**GUIDANCE FOR GOOD FAITH EFFORT**

When the DBE Goals established for a contract by DeIDOT are not met, the contractor shall demonstrate good faith efforts to meet the DBE contract goals. The contractor shall demonstrate that the efforts made were those that a contractor actively and aggressively seeking to meet the goals established by DeIDOT would make, given all relevant circumstances. Evidence of this good faith effort will be submitted with the bid at the time of the bid opening.

The contractor is expected to demonstrate good faith efforts by actively and aggressively seeking out DBE participation in the project to the maximum extent, given all relevant circumstances. Following are the kinds of efforts that may be taken but are not deemed to be exclusive or exhaustive and DeIDOT will consider other factors and types of efforts that may be relevant:

1. Efforts made to select portions of the work proposed to be performed by DBEs in order to increase the likelihood of achieving the stated goal. Selection of portions of work are required to at least equal the goal for DBE utilization specified in this contract.
2. Written notification at least ten (10) calendar days prior to the opening of a bid soliciting DBE interest in participating in the contract as a subcontractor or supplier and for specific items of work.

3. Efforts made to obtain and negotiate with DBE firms for specific items of work:
  - a. Description of the means by which firms were solicited (i.e. by telephone, e-mail, written notice, advertisement).
  - b. The names, addresses, telephone numbers of DBE's contacted, the dates of initial contact; and whether initial solicitations of interest were followed-up by contacting the DBEs to determine with certainty whether the DBEs were interested.
  - c. A description of the information provided to DBE firms regarding the plans, specifications and estimated quantities for portions of the work to be performed.
  - d. A statement of why additional agreements with DBE's were not reached in order to meet the projected goal.
  - e. Listing of each DBE contacted but not contracted and the reasons for not entering a contract.
4. Efforts made to assist DBEs that need assistance in obtaining bonding, insurance, or lines of credit required by the contractor.
5. Reasons why certified DBEs are not available or not interested.
6. Efforts to effectively use the services of available disadvantaged community organizations; disadvantaged contractor's groups; local, state and federal DBE assistance offices; and other organizations that provide assistance in recruitment and placement of DBEs.

The following are examples of actions that may not be used as justification by the contractor for failure to meet DBE contract goals:

1. Failure to contract with a DBE solely because the DBE was unable to provide performance and/or payment bonds.
2. Rejection of a DBE bid or quotation based on price alone.
3. Rejection of a DBE because of its union or non-union status.
4. Failure to contract with a DBE because the contractor normally would perform all or most of the work in the contract.

Administrative reconsideration:

Within five (5) days of being informed by DelDOT that it is not responsive because it has not documented sufficient good faith efforts, a bidder may request administrative reconsideration. Bidder should make this request in writing to the following reconsideration official: Director of Finance, DelDOT, 800 Bay Road, Dover, Delaware 19901, and Email a copy to [dot-ask@delaware.gov](mailto:dot-ask@delaware.gov). The reconsideration official will not have played any role in the original determination that the bidder did not document sufficient good faith efforts.

As part of this reconsideration, the bidder will have the opportunity to provide written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so. The bidder will have the opportunity to meet in person with the reconsideration official, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. The final decision made by the reconsideration official will be communicated to the bidder in writing. The result of the reconsideration process is not administratively appealable to the U.S. Department of Transportation.

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**REQUIRED CONTRACT PROVISIONS  
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

**ATTACHMENTS**

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

**I. GENERAL**

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

**II. NONDISCRIMINATION**

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

**1. Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

**2. EEO Officer:** The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

**3. Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

**4. Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

**5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

**6. Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

**7. Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

**8. Reasonable Accommodation for Applicants / Employees with Disabilities:** The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

**9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

**10. Assurance Required by 49 CFR 26.13(b):**

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

**11. Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

### III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

### IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

#### 1. Minimum wages

a. 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 paragraph 1.d. of this section; 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 paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) 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.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, 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. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

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

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

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

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer 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 the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, 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.

c. 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.

d. 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.

## 2. Withholding

The contracting agency 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, the contracting agency may, after written notice to the contractor, 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.

## 3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and 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.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. 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 the contracting agency for transmission to the State DOT, the FHWA 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 section 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 the contracting agency..

(2) 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:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) 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 Regulations, 29 CFR part 3;

(iii) 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.

(3) 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 paragraph 3.b.(2) of this section.

(4) 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.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, 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, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, 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

##### a. Apprentices (programs of the USDOL).

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.

##### b. Trainees (programs of the USDOL).

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 classification of 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.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

**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 shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 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 29 CFR 5.5.

**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 the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

**10. Certification of eligibility.**

a. 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).

b. 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).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

**V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT**

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. 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 he or she is employed on such work to work in excess of forty 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 forty hours in such workweek.

**2. Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (1.) of this section, 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 paragraph (1.) of this section, 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 forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

**3. Withholding for unpaid wages and liquidated damages.** The FHWA or the contracting agency 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 contractor, 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 paragraph (2.) of this section.

**4. Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section 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 paragraphs (1.) through (4.) of this section.

## VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

## VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

## VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

#### **IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

#### **X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

##### **1. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

\* \* \* \* \*

## **2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:**

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

### **2. Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

\* \* \* \* \*

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:**

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

\* \* \* \* \*

**XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**CARGO PREFERENCE ACT**

Requirements in the Federal-aid Highway Program

(a) Agreement Clauses. "Use of United States-flag vessels:

(1) Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available.

(2) Within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a)(1) of this section shall be furnished to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(b) Contractor and Subcontractor Clauses. "Use of United States-flag vessels: The contractor agrees—

(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

NOTE:

*This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.*

\* \* \* \* \*

**BUY AMERICA**

Requirements in the Federal-aid Highway Program

By signing and submitting this proposal, the bidder certifies that:

In accordance with 23 U.S.C, 313 and 23 CFR 635.410, all iron and steel materials permanently incorporated into this project will be produced in the United States and that all manufacturing processes involving these materials will occur in the U.S, except that a minimal amount of foreign steel or iron materials may be used, provided the cost of the foreign materials does not exceed 0.1 percent of the total Contract cost or \$2,500.00, whichever is greater. If such minimal amount of foreign steel is used, the Contractor shall maintain a record of the costs to ensure that the allowable limit is not exceeded. This documentation shall be presented to the Department upon request.

At the Department's request, I/we will provide manufacturer's/supplier's documentation verifying domestic origin as defined in the Specifications. All Materials accepted on the basis of such Certificate of Compliance may be sampled by the Department and tested at any time. Use of Material on the basis of Certificate of Compliance shall not relieve the Contractor of responsibility for incorporating Material in the Project conforming to the requirements of the Contract. Any Material not conforming to such requirements will be subject to rejection whether in place or not. The Department reserves the right to refuse to permit the use of Material on the basis of Certificate of Compliance.

\* \* \* \* \*

## APPENDICES TO THE TITLE VI ASSURANCE

### APPENDIX A

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, (Federal Highway Administration (FHWA), or Federal Transit Authority (FTA) ), as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts and the Regulations, and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration (FHWA), or Federal Transit Authority (FTA) to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Federal Highway Administration (FHWA), or Federal Transit Authority (FTA), as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration (FHWA), or Federal Transit Authority (FTA) may determine to be appropriate, including, but not limited to:
  - withholding payments to the contractor under the contract until the contractor complies;
  - and/or cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through five in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts and the Regulations. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration (FHWA), or Federal Transit Authority (FTA) may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

**APPENDIX E**

During the performance of this contract, the contractor or consultant, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following nondiscrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.

The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970,(42 U.S.C. § 460 I), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);

Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);

Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part27;

The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);

Airport and Airway Improvement Act of 1982,(49 USC §471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);

The Civil Rights Restoration Act of 1987,(PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964,The Age Discrimination Act of 1975and Section 504 of the Rehabilitation Act of 1973,by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);

Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 - 12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;

The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. S 41123) (prohibits discrimination on the basis of race, color, national origin, and sex);

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures nondiscrimination against minority populations by discouraging programs; policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;

Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);

Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

\* \* \* \* \*

## PREVAILING WAGES

Included in this proposal are the minimum wages to be paid various classes of laborers and mechanics as determined by the Department of Labor of the State of Delaware in accordance with Title 29 Del.C. §6960, relating to wages and the regulations implementing that Section.

### REQUIREMENT BY DEPARTMENT OF LABOR FOR SWORN PAYROLL INFORMATION

Title 29 Del.C. §6960 stipulates;

- (b) Every contract based upon these specifications shall contain a stipulation that the employer shall pay all mechanics and laborers employed directly upon the site of the work, unconditionally and not less often than once a week and without subsequent deduction or rebate on any account, the full amounts accrued at time of payment, computed at wage rates not less than those stated in the specifications, regardless of any contractual relationship which may be alleged to exist between the employer and such laborers and mechanics. The specifications shall further stipulate that the scale of wages to be paid shall be posted by the employer in a prominent and easily accessible place at the site of the work, and that there may be withheld from the employer so much of accrued payments as may be considered necessary by the Department of Labor to pay to laborers and mechanics employed by the employer the difference between the rates of wages required by the contract to be paid laborers and mechanics on the work and rates of wages received by such laborers and mechanics to be remitted to the Department of Labor for distribution upon resolution of any claims.
- (c) **Every contract based upon these specifications shall contain a stipulation that sworn payroll information, as required by the Department of Labor, be furnished weekly. The Department of Labor shall keep and maintain the sworn payroll information for a period of 6 months from the last day of the work week covered by the payroll.**

Bidders are specifically directed to note the Department of Labor's prevailing wage regulations implementing §6960 relating to the effective date of the wage rates, at Part VI., Section C., which in relevant part states:

"Public agencies (covered by the provisions of 29 Del.C. §6960) are required to use the rates which are in effect on the date of the publication of specifications for a given project. In the event that a contract is not executed within one hundred twenty (120) days from the date the specifications were published, the rates in effect at the time of the execution of the contract shall be the applicable rates for the project."

### PREVAILING WAGE REQUIREMENTS

It is DelDOT's understanding that the Davis-Bacon Act is not a preemptive statute in the broad sense, and does not preempt or displace State of Delaware prevailing wage requirements.

When a contract for a project contains both Federal Davis-Bacon and State of Delaware prevailing wage standards because of concurrent Federal and State coverage, the employer's minimum wage obligations are determined by whichever standards are higher.

Contractors with questions may contact:

Department of Labor, Division of Industrial Affairs, 4425 N. Market Street, Wilmington, DE 19802  
Telephone (302) 761-8200

<https://dia.delawareworks.com/labor-law/>

STATE OF DELAWARE  
 DEPARTMENT OF LABOR  
 DIVISION OF INDUSTRIAL AFFAIRS  
 OFFICE OF LABOR LAW ENFORCEMENT  
 PHONE: (302) 761-8200

Mailing Address:  
 4425 North Market Street  
 3rd Floor  
 Wilmington, DE 19802

Located at:  
 4425 North Market Street  
 3rd Floor  
 Wilmington, DE 19802

PREVAILING WAGES FOR HIGHWAY CONSTRUCTION EFFECTIVE MARCH 13, 2020

CLASSIFICATION	NEW CASTLE	KENT	SUSSEX
BRICKLAYERS	57.94	57.94	57.94
CARPENTERS	57.07	56.46	44.83
CEMENT FINISHERS	59.27	36.35	28.90
ELECTRICAL LINE WORKERS	29.93	48.35	23.66
ELECTRICIANS	72.49	72.49	72.49
IRON WORKERS	72.84	26.57	28.22
LABORERS	46.12	42.45	41.67
MILLWRIGHTS	17.94	17.41	15.03
PAINTERS	73.29	73.29	73.29
PILEDRIVERS	79.62	26.45	30.00
POWER EQUIPMENT OPERATORS	69.07	44.10	40.40
SHEET METAL WORKERS	25.34	22.61	20.48
TRUCK DRIVERS	38.23	31.44	38.30

CERTIFIED: 08/24/2020 BY:   
 ADMINISTRATOR, OFFICE OF LABOR LAW ENFORCEMENT

**NOTE:** THESE RATES ARE PROMULGATED AND ENFORCED PURSUANT TO THE PREVAILING WAGE REGULATIONS ADOPTED BY THE DEPARTMENT OF LABOR ON APRIL 3, 1992.

CLASSIFICATIONS OF WORKERS ARE DETERMINED BY THE DEPARTMENT OF LABOR. FOR ASSISTANCE IN CLASSIFYING WORKERS, OR FOR A COPY OF THE REGULATIONS OR CLASSIFICATIONS, PHONE (302) ~~761-8200~~ 761-8200

NON-REGISTERED APPRENTICES MUST BE PAID THE MECHANIC'S RATE.

PROJECT: T201012001.01 SR299, SR1 TO CATHERINE STREET, New Castle County



Power Equipment Operators...	\$ 67.07	0.00
SHEET METAL WORKER.....	\$ 24.89	0.00
TRUCK DRIVER.....	\$ 37.52	0.00

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

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

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

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate

changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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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.

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END OF GENERAL DECISION"

Contract T201012001  
SR299, SR1 TO CATHERINE STREET

SPECIAL PROVISIONS

S.P. Code	SPECIAL PROVISION DESCRIPTION
202560-15	CONTAMINATED MATERIAL
401502-15	ASPHALT CEMENT COST ADJUSTMENT
401580-15	RIDE QUALITY OF HOT-MIX PAVEMENT
401699-15	QUALITY CONTROL/QUALITY ASSURANCE OF BITUMINOUS CONCRETE
501526-15	PATTERNED P.C.C., 8"
602502-15	CONVERTING EXISTING CATCH BASIN TO MANHOLE
701500-15	PORTLAND CEMENT CONCRETE CURB, TYPE 1, MODIFIED
701507-15	CURB RETAINING WALL, TYPE 1
705504-15	BRICK ANS/OR BLOCK SIDEWALK
705528-15	TEMPORARY CURB RAMP
706500-15	RIGHT-OF-WAY MARKER, CAPPED REBAR
710504-15	WATER SERVICES
711500-15	ADJUST AND REPAIR EXISTING SANITARY MANHOLE
711501-15	SANITARY SEWER SYSTEM
727510-15	WOOD RAIL FENCE
763501-15	CONSTRUCTION ENGINEERING
763503-15	TRAINEE
763598-15	FIELD OFFICE, SPECIAL I
813500-15	PEDESTRIAN CHANNELIZING BARRICADE SYSTEM
817500-15	PREFORMED THERMOPLASTIC DECORATIVE PAVEMENT SYSTEM
831514-15	FURNISH AND INSTALL 2-1/2" SCHEDULE 80 PVC CONDUIT (TRENCH)
831515-15	FURNISH AND INSTALL 3" SCHEDULE 80 PVC CONDUIT (TRENCH)
831516-15	FURNISH AND INSTALL 4" SCHEDULE 80 PVC CONDUIT (TRENCH)
831523-15	FURNISH AND INSTALL 2" GALVANIZED STEEL CONDUIT (TRENCH)
831545-15	FURNISH AND INSTALL 4" HDPE SDR-13.5 CONDUIT (BORE)
831574-15	FURNISH AND INSTALL SECOND AND SUBSEQUENT ADDITIONAL 4" SCHEDULE 80 PVC CONDUITS IN TRENCH OR OPEN CUT
831578-15	FURNISH AND INSTALL SECOND AND SUBSEQUENT ADDITIONAL 4" HDPE SDR-13.5 CONDUIT IN DIRECTIONAL BORE
834501-15	PARTIAL REMOVAL OF CONCRETE POLE BASES AND CABINET FOUNDATIONS
842502-15	FURNISH AND INSTALL ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 (200 AMP)
850517-15	INSTALLATION OF LUMINAIRE
850520-15	LUMINAIRE (LED), 150 WATTS, HPS EQUIVALENT
850521-15	LUMINAIRE (LED), 250 WATTS, HPS EQUIVALENT
907500-15	TEMPORARY SWALE, TYPE A-1
907510-15	TEMPORARY PIPE PLUG
907512-15	INLET SEAL
908510-15	MOWING

**202560 - CONTAMINATED MATERIAL**

**Description:**

Contaminated Material is defined as solids or liquids (including soil) potentially contaminated with a hazardous substance, requiring special handling and/or disposal per state or federal regulation. This work describes the excavation, removal and treatment/disposal of contaminated materials resulting from project construction including utility and other types of excavation activities in accordance with the locations and notes on the Plans, and as directed by the Engineer or the Department's environmental representative. The Contractor will be notified of the Department's environmental representative at the pre-construction meeting.

**Overview of Costs:**

Potential contaminated solids may affect contractor's costs as follows;

Additional cost to normal excavation requirements:

- Cost of 8 mil plastic for placement under and over solid contaminated material,
- Maintaining the segregated contaminated solids staging area.

Reduced cost to normal excavation requirements:

- Not required to, or charged for, transport of contaminated material from site.
- Not required to, or charged for, disposal of contaminated soil.

Potential contaminated liquids will affect contractor's cost as follows;

Additional cost to normal excavation requirements:

- None

Reduced cost to normal excavation requirements:

- None

**Construction Methods and Responsibilities:**

Contractor's Responsibilities for potential contaminated solids:

The Contractor shall be responsible for providing the appropriate equipment and personnel necessary to excavate, stage, and load contaminated material for off-site disposal, as identified from previous site environmental investigations or identified during construction activities. The work will be performed in accordance with the procedures described in the site specific "Contaminated Material and Water Removal Work Plan" prepared by the Department's environmental representative. The Department will provide a copy of this plan after the project is awarded and before any work begins. The Contractor shall adhere to applicable Occupational Safety and Health standards, Guidelines and/or Laws. This will include compliance with 29 CFR Part 1910.

After award of the Contract, the Contractor shall immediately be responsible for notifying the Department's HAZMAT Program Manager's office (760-2463) for scheduling coordination with the environmental representative. The contractor shall submit a proposed schedule of work to the Department for review and approval prior to any commencement of work on this site. The Contractor is required to perform to a high standard of workmanship to assure protection of workers, local water supplies, and the environment. The Contractor shall coordinate with the utility companies prior to excavation. The Department's environmental representative shall be present during all phases of work associated with the excavation and removal of potentially contaminated material. Payment will not be made for any work done when a Department approved Inspector or environmental representative is not present to provide environmental oversight.

## **Contract No. T201012001**

Specific tasks to be performed by the Contractor will include excavating soil per the project specifications. The Contractor will segregate "contaminated" soil as designated by the Department or their environmental representative, from "clean" soil and place the "contaminated" soil in a designated on-site staging area constructed by the Contractor. At a minimum the staging area needs to be lined with 8-mil plastic and a berm constructed to minimize storm water run-off. The "contaminated" soil will need to be covered by the Contractor at the end of each work day. The Contractor will be responsible for loading contaminated soil onto trucks arranged by the Department's environmental representative on the days the contaminated soil is shipped off-site to a licensed disposal/treatment facility. The Contractor will backfill and compact the excavated area(s) according to the project specifications and payment will be made under that item of the Contract.

### **Department's Responsibilities:**

The Department is responsible for providing and paying; the environmental representative; the transportation of contaminated material for disposal; and the disposal of contaminated material. The "Contaminated Material and Water Removal Work Plan" will identify; the procedures to be used to excavate and stage the contaminated material; the licensed treatment/disposal facility where the Department will ship the contaminated material; the method the material will be transported to the treatment/disposal facility; and any additional health and safety requirements for site personnel. The Department's environmental representative will conduct a health and safety briefing prior to commencement of activities on the sites to insure an understanding of all applicable standards, guidelines, laws, procedures, etc. consistent with the successful completion of this type of activity. The Department's environmental representative will conduct air monitoring during any excavation activities at the site to identify and mitigate fire, explosion and vapor hazards.

The Department's environmental representative shall coordinate the excavation activities with all applicable local, state, and federal environmental regulatory agencies. The Department's environmental representative will also oversee the excavation, removal and treatment/disposal of the material in the designated area(s) and perform such tests as field screening for soil contamination utilizing vapor monitoring techniques and collect soil samples for laboratory analysis to meet the requirements of the treatment/disposal facility, DNREC and/or the USEPA. The Department's environmental representative's personnel will subcontract with the disposal/treatment facility to provide transportation and disposal/treatment of all contaminated materials to be removed as part of the project. The Department's environmental representative is responsible for measuring the quantity of contaminated material removed, via certified scale weights, for the Department's records.

### **Method of Measurement:**

The quantity of contaminated material will not be measured. It will be included in the excavation quantity.

### **Basis of Payment:**

No additional payment will be made for the handling of contaminated material included in the excavation quantities. Contractor's costs for handling contaminated material as described herein are to be included in the standard excavation pay items included in this contract, and will constitute full compensation for excavation, constructing and maintaining the segregated soil staging area, placement of the contaminated soil in the staging area, providing plastic and daily covering of the segregated soil staging area, and loading of contaminated soil for removal by the Department. This item is a contingency item and the Department reserves the right to delete from the Contract. The Contractor shall make no claims for additional compensation because of deletion of the item.

08/14/2017

**401502 - ASPHALT CEMENT COST ADJUSTMENT**

For Sections 304, 401, 402, 403, 404, and 405, payments to the Contractor shall be adjusted to reflect increases or decreases in the Delaware Posted Asphalt Cement Price when compared to the Project Asphalt Cement Base Price, as defined in these Special Provisions.

The Delaware Posted Asphalt Cement Price will be issued monthly by the Department and will be the industry posted price for Asphalt Cement, F.O.B. Philadelphia, Pennsylvania. The link for the posting is [https://deldot.gov/Business/bids/index.shtml?dc=asphalt\\_cement\\_english](https://deldot.gov/Business/bids/index.shtml?dc=asphalt_cement_english).

The Project Asphalt Cement Base Price will be the Delaware Posted Asphalt Cement Price in effect on the date of advertisement.

All deviations of the Delaware Posted Asphalt Cement Price from the Project Asphalt Cement Base Price are eligible for cost adjustment. No minimum increases or decreases or corresponding percentages are required to qualify for cost adjustment.

Actual quantity of asphalt cement qualifying for any Asphalt Cement Cost Adjustment will be computed using the weight of eligible asphalt that is shown on the QA/QC pay sheets as a percentage for the delivered material.

If the mix was not inspected and no QA/QC pay sheet was generated, then the asphalt percentage will be obtained from the job mix formula for that mix ID. The asphalt percentage eligible for cost adjustment shall only be the virgin asphalt cement added to the mix.

There shall be no separate payment per ton cost of asphalt cement. That cost shall be included in the various unit prices bid per ton for those bid items that contain asphalt cement (mentioned above).

The Asphalt cement cost adjustment will be calculated on grade PG 64-22 asphalt regardless of the actual grade of asphalt used.

If the Contractor exceeds the authorized allotted completion time, the price of asphalt cement on the last authorized allotted workday, shall be the prices used for cost adjustment during the time liquidated damages are assessed. However, if the industry posted price for asphalt cement goes down, the asphalt-cement cost shall be adjusted downward accordingly.

**NOTE:**

Application of Asphalt Cement Cost Adjustment requirements as indicated above shall apply only to those contracts involving items related to bituminous base and pavements, and with bitumen, having a total of 1,000 tons or more of hot-mix bid quantity in case of Sections 401, 402 and 403; and 15,000 gallons or more in case of Sections 304, 404 and 405.

12/14/2020

**Contract No. T201012001**

**401580 - RIDE QUALITY OF BITUMINOUS PAVEMENT**

**Description:**

This specification outlines requirements for an acceptable ride surface in addition to requirements established in DelDOT Standard Specifications. The Contractor is responsible for providing smoothness characteristics that meet these requirements. The Contractor is responsible for providing equipment, maintenance of traffic (MOT) as required by the Delaware MUTCD, and performing testing in accordance to this specification. All costs for testing and MOT are incidental to this item. Both the International Roughness Index (IRI) and deviations located within a 10' straightedge are used to characterize smoothness in this Special Provision.

**Definitions:**

*Class 1 Project* - a project that consists of full depth construction. Full depth construction is considered to be when contract documents or modifications provide opportunity for preparation of the subgrade prior to paving.

*Class 2 Project* - a project that consists of a minimum of two smoothness opportunities.

*Class 3 Project* - a project that consists of one smoothness opportunity.

*Deviation* - a hump or depression that exceeds defined tolerances.

*Smoothness Opportunity* - a smoothness opportunity is considered to be any of the following; roadway milling, placement of a leveling course, in-place recycling, or placement of a lift of bituminous concrete. The final wearing surface is considered one smoothness opportunity.

**Equipment:**

The Contractor must have a 10' straightedge available during all paving operations.

The Contractor must also have a high speed or lightweight inertial profiling system that meets requirements of AASHTO M328 capable of collecting data in both wheelpaths simultaneously.

**Contract No. T201012001**

Prior to the start of corrective actions, the Contractor must provide to the Engineer:

1. Manufacturer, Make, and Model of the test system
2. Equipment Owner,
3. Relevant Certifications,
4. Manufacturer Calibration Procedures, and
5. Relevant Operator Training information.

**Testing:**

The Contractor is responsible for testing the pavement surface using an approved inertial profiler in accordance to manufacturer and AASHTO R57 from the start of paving limits to the end of pavement limits. Testing must be performed 3 times in each lane paved in the direction of traffic flow. Testing must be performed within seven (7) days of completion of project paving operations in each location.

The Contractor is responsible for providing information relative to locations that are to be excluded from calculation of the International Roughness Index. These areas must still meet 10' straightedge requirements.

Areas that are to be tested but will be removed prior to IRI analysis are:

1. 50 feet prior to the first bridge deck expansion joint and 50 feet after the last expansion joint if a bridge deck is excluded from smoothness operations.
2. 50' longitudinally from the center of an existing obstruction within the test area such as a manhole, water main, or catch basin that impedes paving operations.
3. 50' longitudinally from transverse joints that separate it from existing pavement not included on this contract.

Areas that are not to be profiled but are still subject to 10' straightedge requirements are:

1. Shoulder areas
2. Parking lots
3. Ramps, Streets, or Acceleration / Deceleration lanes less than 1000' in length.

**Contract No. T201012001**

**Submission Requirements:**

Test results must be submitted to the Engineer within five working days of completion of testing. Results not received within the allotted time frame will be assessed a charge of \$1,000.00 per day at the discretion of the Engineer.

The Contractor is required to submit summary table IRI reports from their test equipment for 1 run for each lane and direction of paving. This report must also include:

1. Profiling Company Name
2. Date of Test
3. Contract Number
4. Location Description
5. Testing Personnel

The Contractor is required to submit ERD files for each of the 3 tests run in each lane and direction of paving to the Engineer for analysis. The Contractor must provide to the Engineer written documentation indicating the start and end of bridges and the center of obstructions relative to the stationing used on the testing that are not subject to IRI analysis.

**Acceptance and Payment:**

Acceptance of the final pavement will be based on Engineer calculated IRI values using ProVAL software upon removal of allowable areas of exemption and the number of deviations found in the pavement surface. The IRI measurements will be calculated in 0.1 mile (528 foot) sections for payment purposes. The average value of the three test runs will be used and the average value will be rounded to the nearest tenth. Payments for each section will be based on estimated tonnage calculated from plan thickness and widths using the average maximum specific gravity ("Rice") for all surface mix used at that location.

Deviations equal to or in excess of 0.25" in 10' are to be corrected at the Contractor's expense or will have a discount charge of \$200.00 per deviation.

$$\text{Estimated Tonnage} = [L * W * T] * \text{Rice} * 62.4 \text{ (lb/ft}^3\text{)} * (0.0005 \text{ tons} / 12 \text{ in.})$$

Where: L = Length Segment (ft.)

W = Lane Width (ft.)

**Contract No. T201012001**

T = Plan Thickness (in.)

$$IRI \text{ Incentive / Disincentive} = \text{Estimated Tonnage} * UP * (PA-100)/100$$

Where: UP = Contract Unit Price (Dollars)

PA = Pay Adjustment (Table A)

The total pay adjustment for paving work performed on each location is:

$$(\sum IRI \text{ adj for each section}) - \text{Total Deviations} * 200$$

It is possible to receive incentive for IRI measurements and a discount charge for excessive deviations on the same project. If a 528' section has an IRI value resulting in a deduction of at least 84% of the section pay, the deviation discount charge for that section is disregarded and the IRI discount charge is the only action taken for that section.

<b>Table A: Payment Adjustments for IRI</b>	
<b>Class 1</b>	
<b>IRI per 0.1 mile Segment (in./mi.)</b>	<b>Pay Adjustment</b>
≤ 50	103%
> 50 and < 145	100+ 0.2(65- IRI)
≥ 145	84%
<b>Class 2</b>	
<b>IRI per 0.1 mile Segment (in./mi.)</b>	<b>Pay Adjustment</b>
≤ 60	106%
> 60 and < 170	100+ 0.2(90- IRI)
≥ 170	84%

**Contract No. T201012001**

Correction to the paving surface, such as diamond grinding with approved equipment, patching, or other measures may be taken at the Contractor's expense and at the Engineers discretion to correct pavement surfaces assessed a discount charge. The Engineer may require corrective actions including remove & replace if the deviation discount charge exceeds 50% of the cost of materials or the IRI pay adjustment is 84%. Deviations must be corrected if it is determined that they are at a height or depth that may create a safety concern.

4/10/2019

**401699 - QUALITY CONTROL/QUALITY ASSURANCE OF BITUMINOUS CONCRETE**

**.01 Description**

This item shall govern the Quality Assurance Testing for supplying bituminous asphalt plant materials and constructing bituminous asphalt pavements and the calculation for incentives and disincentives for materials and construction. The Engineer will evaluate all materials and construction for acceptance. The procedures for acceptance are described in this Section. Include the costs for all materials, labor, equipment, tools, and incidentals necessary to meet the requirements of this specification in the bid price per ton for the bituminous asphalt. Payment to the Contractor for the bituminous asphalt item(s) will be based on the Contract price per ton and the pay adjustments described in this specification.

**.02 Bituminous Concrete Production – Quality Acceptance**

**(a) Material Production - Tests and Evaluations.**

All acceptance tests shall be performed by qualified technicians at qualified laboratories following AASHTO or DeDOT procedures, and shall be evaluated using Quality Level Analysis. The Engineer will conduct acceptance tests. The Engineer will directly base acceptance on the acceptance test results, the asphalt cement quality, the Contractor's QC Plan work, and the comparisons of the acceptance test results to the QC test results. The Engineer may elect to utilize test results of the Contractor in some situations toward judging acceptance.

Supply and capture samples, as directed by the Engineer under the purview of the Engineer from delivery trucks before the trucks leave the production plant. Hand samples to the Engineer to be marked accordingly. The sample shall represent the material produced by the Contractor, and shall be of sufficient size to allow the Engineer to complete all required acceptance tests. The Engineer will direct the Contractor when to capture these samples, on a statistically random, unbiased basis, established before production begins each day based upon the anticipated production tonnage. The captured sample shall be from the Engineer specified delivery truck. The Contractor may visually inspect the specified delivery load during sampling and elect to reject the load. If the contractor elects to reject the specified delivery truck, each subsequent load will be inspected until a visually acceptable load is produced for acceptance testing. All visually rejected loads shall not be sent to a Department project.

The first sample of the production day will be randomly generated by the Engineer between loads 0 and 12 (0-250 tons). Subsequent samples will be randomly generated by the Engineer on 500-ton sub-lots for the production day. Samples not retrieved in accordance with the Contractor's QC plan will be deemed unacceptable and may be a basis for rejection of material produced. Parallel tests or dispute resolution tests will only be performed on material captured at the same time and location as the acceptance test sample. Parallel test samples

## **Contract No. T201012001**

or Dispute Resolution samples will be created by splitting a large sample or obtaining multiple samples that equally represent the material. The Engineer will perform all splitting and handling of material after it is obtained by the Contractor.

The Contractor may retain dispute resolution samples or perform parallel tests with the Engineer on any acceptance sample.

The Engineer will evaluate and accept the material on a lot basis. All the material within a lot shall have the same JMF (mixture ID). The lot size shall be targeted for 2000 tons or a maximum period of three days, whichever is reached first. If the 2000<sup>th</sup> ton target lot size is achieved during a production day, the lot size shall extend to the end of that production day. The Contractor may interrupt the production of one JMF in order to produce different material; this type of interruption will not alter the determination of the size or limits of material represented by a lot. The Engineer will evaluate each lot on a subplot basis. The size for each subplot shall be 100 to 500 tons and testing for the sub lots will be completed on a daily basis. For each subplot, the Engineer will evaluate one sample.

The target size of sub-lots within each lot, except for the first sample of the production day, is equal-sized 500 ton sub lots and will be based upon anticipated production, however, more or fewer sublots, with differing sizes, may result due to the production schedule and conditions. If the actual production is less than anticipated, and it's determined a sample will not be obtained (based upon the anticipated tonnage), a new sample location will be determined on a statistically random, unbiased basis based upon the new actual production. If the actual production is going to be 50 tons or greater over the anticipated sub lot production, a new sample location will be determined on a statistically random, unbiased basis based upon the new actual production. The Engineer will combine the evaluation and test results for all of the applicable sublots in order to evaluate each individual lot.

If the Engineer is present, and the quantity exceeds 25 tons, a statistically random sample will be used for analysis. When the anticipated production is less than 100 tons and greater than 25 tons, and the Engineer is not present, the contractor shall randomly select a sample using the Engineer's random location program. The captured sample shall be placed in a suitable box, marked to the attention of the Engineer, and submitted to the Engineer for testing. A box sample shall also be obtained by the contractor at the same time and will be used as the Dispute Resolution sample if requested by the Engineer. The Contractor shall also obtain one liquid asphalt sample (1 pint) per grade of asphalt used per day and properly label it with all pertinent information.

The Engineer will conduct the following tests in order to characterize the material for the pavement compaction quality and to judge acceptance and the pay adjustment for the material:

- AASHTO T312 - Preparing and Determining the Density of Hot Mix Asphalt (HMA) Specimens by Means of the Superpave Gyratory Compactor
- AASHTO T166, Method C (Rapid Method) - Bulk Specific Gravity of Compacted Hot Mix Asphalt (HMA) Using Saturated Surface Dry Specimens

### **Contract No. T201012001**

- AASHTO T308 - Determining the Asphalt Binder Content of Hot Mix Asphalt (HMA) by the Ignition Method
- AASHTO T30 - Mechanical Analysis of Extracted Aggregate
- AASHTO T209 - Theoretical Maximum Specific Gravity and Density of Hot Mix Asphalt (HMA)
- ASTM D7227 - Standard Practice for Rapid Drying of Compacted Asphalt Specimens using Vacuum Drying Apparatus

#### **(b) Pavement Construction - Tests and Evaluations.**

The Engineer will directly base acceptance on the compaction acceptance test results, and on the inspection of the construction, the Contractor's QC Plan work, ride smoothness as referenced in the contract documents, lift thickness as referenced in the contract documents, joint quality as referenced in the contract documents, surface texture as referenced in the contract documents, and possibly the comparisons of the acceptance test results to the independent test results. For the compaction acceptance testing, the Engineer will sample the work on a statistically random basis, and will test and evaluate the work based on daily production.

Notify the Engineer of any locations within that road segment that may not be suitable to achieve minimum (93%) compaction due to existing conditions prior to paving the road segment. Schedule and hold a meeting in the field with the Engineer in order to discuss all areas that may potentially be applicable to Table 5a before paving starts. Areas that will be considered for Table 5a will be investigated in accordance to the method described in Appendix B. If this meeting is not held prior to paving, no areas will be considered for Table 5a. Areas of allowable exemptions that will not be cored include the following: partial-depth patch areas, driveway entrances, paving locations of less than 100 tons, areas around manholes and driveway entrances, and areas of paving that are under 400 feet in continuous total length and/or 5 feet in width.

The exempt areas around manholes will be a maximum of 4 feet transversely on either side from the center of the manhole, and 20 feet longitudinally on either side from the center of the manhole. The exempt areas around driveway entrances shall be the entire width of the driveway, and 3 feet from the edge of the longitudinal joint next to the driveway. Areas of exemption that will be cored for informational purposes only include: areas where the mat thickness is less than three times the nominal maximum aggregate size as directed by the Engineer, violations of Section 401.08 in the Standard Specifications as directed by the Engineer, and areas shown to contain questionable subgrade properties as proven by substantial yielding under a fully legally loaded truck. Failure to obtain core samples in these areas will result in zero payment for compaction regardless of the exempt status.

The Engineer will evaluate and accept the compaction work on a daily basis. Payment for the compaction will be calculated by using the material production lots as referenced in **.02 Acceptance Plan (a) Material Production - B Tests and Evaluation** and analyzing the compaction results over the individual days covered in the material production lot. The compaction results will be combined with the material results to obtain a payment for this item.

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The minimum size of a compaction lot shall be 100 tons. If the compaction lot is between 101 and 1000 tons, the Engineer shall randomly determine four compaction acceptance test locations. If the compaction lot is between 1001 and 1500 tons, the Engineer shall randomly determine six compaction acceptance test locations. If the compaction lot is between 1501 and 2000 tons, the Engineer shall randomly determine eight compaction acceptance test locations. If the compaction lot is greater than 2000 tons, the Engineer shall randomly determine two compaction acceptance test locations per 500 tons.

If a randomly selected area falls within an Engineer approved exemption area, the Engineer will select one more randomly generated location to be tested per the requirements of this Specification. If that cannot be accomplished, or if an entire location has been declared exempt, the compaction testing shall be performed as per these Specifications but a note will be added to the results that the location was an Engineer approved exempt location.

Testing locations will be a minimum of 1.0 feet from the newly placed longitudinal joint and 50 feet from a new transverse joint.

Cut one six (6) inch diameter core through the full lift depth at the exact location marked by the Engineer. Cores submitted that are not from the location designated by the Engineer will not be tested and will be paid at zero pay.

Notify the Engineer prior to starting paving operations with approximate tonnage to be placed. The Contractor is then responsible for notifying the appropriate Engineer test personnel within 12 hours of material placement. The Engineer will mark core locations within 24 hours of notification. After determination of locations, the Contractor shall complete testing within two operational days of the locations being marked. If the cores are not cut within two operational days, the area in question will be paid at zero pay for compaction testing.

Provide any traffic control required for the structural number investigation, sampling, and testing work at no additional cost to the Department.

Commence coring of the pavement after the pavement has cooled to a temperature of 140°F or less. Cut each core with care in order to prevent damaging the core. Damaged cores will not be tested. Label each core with contract number, date of construction, and number XX of XX upon removal from the roadway. Place cores in a 6-inch diameter plastic concrete cylinder mold or approved substitute for protection. Separate cores in the same cylinder mold with paper. Attach a completed QC test record for the represented area with the corresponding cores. The Engineer will also complete a test record for areas tested for the QA report and provide to Materials & Research. Deliver the cores to the Engineer for testing, processing, and report distribution at the end of each production day.

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Repair core holes per Appendix A, Repairing Core Holes in Bituminous Asphalt Pavements. Core holes shall be filled immediately. Failure to repair core holes at the time of coring will result in zero pay for compaction testing for the area in question.

The Engineer will conduct the following tests on the applicable portion of the cores in order to evaluate their quality:

- AASHTO T166, Method C (Rapid Method) B Bulk Specific Gravity of Compacted Hot Mix Asphalt (HMA) Using Saturated Surface Dry Specimens
- AASHTO T209 - Theoretical Maximum Specific Gravity and Density of Hot Mix Asphalt
- ASTM D7227 - Standard Practice for Rapid Drying of Compacted Asphalt Specimens using Vacuum Drying Apparatus

The Engineer will use the average of the last five test values of the same JMF (mixture ID) material at the production plant in order to calculate the average theoretical maximum specific gravity of the cores. The average will be based on the production days test results and as many test results needed from previous days production to have an average of five samples. If there are less than five values available, the Engineer will use the JMF design value in addition to the available values to calculate the average theoretical maximum specific gravity.

### **.03 Payment and Pay Adjustment Factors.**

The Engineer will determine pay adjustments for the bituminous asphalt item(s) in accordance with this specification. The Engineer will determine a pay adjustment factor for the material produced and a pay adjustment factor for the pavement construction. Pay adjustments for material and construction will be calculated independently. When the pay adjustment calculation for either material or construction falls to zero payment per tables 4, 5, or 5a, the maximum pay adjustment for the other factor will not exceed 100.

Pay Adjustment factors will only be calculated on in place material. Removed material will not be used in payment adjustment calculations.

Material Production Pay Adjustments will be calculated based upon 70% of the contract unit price and calculated according to section .03(a) of this specification. Pavement construction Pay Adjustments will be calculated based upon 30% of the contract unit price and calculated according to section .03(b) of this specification.

#### **(a) Material Production - Pay Adjustment.**

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Calculate the material pay adjustment by evaluating the production material based on the following parameters:

<b>Table 2 - Material Parameter Weight Factors</b>		
<b>Material Parameter</b>	<b>Single Test Tolerance (+/-)</b>	<b>Weight Factor</b>
Asphalt Content	0.4	0.30
#8 Sieve (>=19.0 mm)	7.0	0.30
#8 Sieve (<=12.5 mm)	5.0	0.30
#200 Sieve (0.075mm Sieve)	2.0	0.30
Air Voids (4.0% Target)	2.0	0.10

Using the JMF target value, the single test tolerance (from Table 2), and the test values, the Engineer will use the following steps to determine the material pay adjustment factor for each lot of material:

1. For each parameter, calculate the mean value and the standard deviation of the test values for the lot to the nearest 0.1 unit.
2. For each parameter, calculate the Upper Quality Index (QU):  
$$QU = ((JMF \text{ target}) + (\text{single test tolerance}) - (\text{mean value})) / (\text{standard deviation}).$$
3. For each parameter, calculate the Lower Quality Index (QL):  
$$QL = ((\text{mean value}) - (JMF \text{ target}) + (\text{single test tolerance})) / (\text{standard deviation}).$$
4. For each parameter, locate the values for the Upper Payment Limit (PU) and the Lower Payment Limit (PL) from Table 3 - Quality Level Analysis by the Standard Deviation Method. (Use the column for "n" representing the number of sublots in the lot. Use the closest value on the table when the exact value is not listed).
5. Calculate the PWL for each parameter from the values located in the previous step:  
$$PWL = PU + PL - 100.$$
6. Calculate each parameter's contribution to the payment adjustment by multiplying its PWL by the weight factor shown in Table 2 for that parameter.

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7. Add the calculated adjustments of all the parameters together to determine the Composite PWL for the lot.
8. From Table 4, locate the value of the Pay Adjustment Factor corresponding to the calculated PWL. When all properties of a single test are within the single test tolerance of Table 2, Pay Adjustment factors shall be determined by Column B. When any property of a single test is outside of the Single Test Tolerance parameters defined in Table 2, the Material Pay Adjustment factor shall be determined by Column C.
9. For each lot, determine the final material price adjustment:

Final Material Pay Adjustment =

(Lot Quantity) x (Item Bid Price) x (Pay Adjustment Factor) x 70%. This final pay calculation will be paid to the cent.

In lieu of being assessed a pay adjustment penalty, the Contractor may choose to remove and replace the material at no additional cost to the Department. When the PWL of any material parameter in Table 2 is below 60, the Engineer may require the removal and replacement of the material at no additional cost to the Department. Test results on removed material shall not be used in calculation of future PWL calculations for Mixture ID.

The test results from the Engineer on production that is less than 100 tons will be combined with the two most recently completed Engineer tests with the same Mixture ID to calculate payment for the lot encompassing the single test. If that cannot be accomplished, the approved JMF will be used to calculate payment for the lot encompassing the single test. Payment for previously closed lots will not be affected by the analysis.

When a sample is outside of the allowable single test tolerance for any Materials criteria in Table 2, that sample will be isolated. For payment purposes, the test result of the out of acceptable tolerance sample will be combined with the two previous acceptable samples of the same JMF and analyzed per this specification. The material that is considered out of the acceptable tolerance will only include the material within the represented sub-lot (i.e., a maximum of 500 tons). If the previous acceptable test result is from the previous production day, only the material produced on the second production day will be considered out of tolerance. All future sub lots will not include the isolated test. The pay factors for the out of tolerance sample lot will be calculated using column C of table 4.

If, during production, a QA sample test result does not meet the acceptable tolerances and the Contractors QC sample duplicates the QA sample test result, the Contractor can make an appropriate change to the mixture (within the JMF boundaries), and request to have that sample further isolated. After the Contractor has made appropriate changes, the Contractor will visually inspect each produced load. The first visually acceptable load will be sampled and tested. If that sample test result shows compliance with the specifications, the material that is considered out of the acceptable tolerance will include the material from the previous acceptable test result to the third load after the initially sampled and tested sample. If the sample does not meet the specification requirements,

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the Engineer will no longer accept material. Production may resume when changes have been made and an acceptable sample and test result is obtained.

<b>Table 3 B Quality Level Analysis by the Standard Deviation Method</b>							
<b>PU or PL</b>	<b>QU and QL for An@ Samples</b>						
	<b>n = 3</b>	<b>n = 4</b>	<b>n = 5</b>	<b>n = 6</b>	<b>n = 7</b>	<b>n = 8</b>	<b>n = 9</b>
100	1.16	1.50	1.79	2.03	2.23	2.39	2.53
99	-	1.47	1.67	1.80	1.89	1.95	2.00
98	1.15	1.44	1.60	1.70	1.76	1.81	1.84
97	-	1.41	1.54	1.62	1.67	1.70	1.72
96	1.14	1.38	1.49	1.55	1.59	1.61	1.63
95	-	1.35	1.44	1.49	1.52	1.54	1.55
94	1.13	1.32	1.39	1.43	1.46	1.47	1.48
93	-	1.29	1.35	1.38	1.40	1.41	1.42
92	1.12	1.26	1.31	1.33	1.35	1.36	1.36
91	1.11	1.23	1.27	1.29	1.30	1.30	1.31
90	1.10	1.20	1.23	1.24	1.25	1.25	1.26
89	1.09	1.17	1.19	1.20	1.20	1.21	1.21
88	1.07	1.14	1.15	1.16	1.16	1.16	1.17
87	1.06	1.11	1.12	1.12	1.12	1.12	1.12

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86	1.04	1.08	1.08	1.08	1.08	1.08	1.08
85	1.03	1.05	1.05	1.04	1.04	1.04	1.04
84	1.01	1.02	1.01	1.01	1.00	1.00	1.00
83	1.00	0.99	0.98	0.97	0.97	0.96	0.96
82	0.97	0.96	0.95	0.94	0.93	0.93	0.93
81	0.96	0.93	0.91	0.90	0.90	0.89	0.89
80	0.93	0.90	0.88	0.87	0.86	0.86	0.86
79	0.91	0.87	0.85	0.84	0.83	0.82	0.82
78	0.89	0.84	0.82	0.80	0.80	0.79	0.79
77	0.87	0.81	0.78	0.77	0.76	0.76	0.76
76	0.84	0.78	0.75	0.74	0.73	0.73	0.72
75	0.82	0.75	0.72	0.71	0.70	0.70	0.69
74	0.79	0.72	0.69	0.68	0.67	0.66	0.66
73	0.75	0.69	0.66	0.65	0.64	0.63	0.63
72	0.74	0.66	0.63	0.62	0.61	0.60	0.60
71	0.71	0.63	0.60	0.59	0.58	0.57	0.57
70	0.68	0.60	0.57	0.56	0.55	0.55	0.54
69	0.65	0.57	0.54	0.53	0.52	0.52	0.51

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68	0.62	0.54	0.51	0.50	0.49	0.49	0.48
67	0.59	0.51	0.47	0.47	0.46	0.46	0.46
66	0.56	0.48	0.45	0.44	0.44	0.43	0.43
65	0.52	0.45	0.43	0.41	0.41	0.40	0.40
64	0.49	0.42	0.40	0.39	0.38	0.38	0.37
63	0.46	0.39	0.37	0.36	0.35	0.35	0.35
62	0.43	0.36	0.34	0.33	0.32	0.32	0.32

**Table 3 B Quality Level Analysis by the Standard Deviation Method**

QU and QL for An@ Samples							
PU or PL	n = 3	n = 4	n = 5	n = 6	n = 7	n = 8	n = 9
61	0.39	0.33	0.31	0.30	0.30	0.29	0.29
60	0.36	0.30	0.28	0.27	0.27	0.27	0.26
59	0.32	0.27	0.25	0.25	0.24	0.24	0.24

Table 4 - PWL Pay Adjustment Factors		
PWL	Pay Adjustment Factor (%) Column B	Pay Adjustment Factor (%) Column C
100	+5	0
99	+4	-1
98	+3	-2
97	+2	-3
96	+1	-4
95	0	-5
94	-1	-6
93	-2	-7
92	-3	-8
91	-4	-9
PWL<91	PWL - 100	PWL - 100

**(b) Pavement Construction - Pay Adjustments.**

The Engineer will determine the pavement construction pay adjustment by evaluating the construction of the pavement, based on the following parameter:

- Degree of compaction of the in-place material

Using the test values for the cores, the Engineer will use the following steps to determine the pavement construction pay adjustment for each lot of work.

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1. Calculate the core bulk specific gravity values from the subplot tests values, to the nearest 0.001 unit. Obtain the Theoretical maximum Specific Gravity values from the corresponding laboratory subplot tests.
2. Calculate the Degree of Compaction:  
 Degree of Compaction =  

$$\frac{((\text{Core Bulk Specific Gravity}) / (\text{Theoretical Maximum Specific Gravity})) \times 100\%}{\text{nearest 0.1\%}}$$
3. The average compaction for the sublots shall be averaged together for the compaction level of the lot. The lots compaction test level shall be averaged and recorded to the nearest whole percent.
4. Locate the value of the Payment Adjustment Factor corresponding to the calculated degree of compaction from Table 5 or Table 5a.
5. Determine the pavement construction price adjustment by using the following formula:  

$$\text{Construction Pay adjustment} = (\text{Lot Quantity}) \times (\text{Bid Price}) \times (\text{Pay Adjustment Factor}) \times 30\%.$$

<b>Table 5: Compaction Price Adjustment Highway Locations</b>		
Degree of Compaction (%)	Range	Pay Adjustment Factor (%)
>= 97.0	>= 96.75	-100*
96.5	96.26 – 96.74	-5
96.0	95.75 – 96.25	-3
95.5	95.26 – 95.74	-2
95.0	94.75 – 95.25	0
94.5	94.26 – 94.74	0
94.0	93.75 – 94.25	1
93.5	93.26 – 93.74	3
93.0	92.75 – 93.25	5
92.5	92.26 – 92.74	3
92.0	91.75 – 92.25	0
91.5	91.26 – 91.74	0
91.0	90.75 – 91.25	-5
90.5	90.26 – 90.74	-15
90.0	89.75 – 90.25	-20
89.5	89.26 – 89.74	-25
89.0	88.75 – 89.25	-30

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88.5	88.26 – 88.74	-50
=<88.0	=<88.25	-100*

\* or remove and replace it at Engineer's discretion

**Table 5A: Compaction Price Adjustment Other<sup>1</sup> Locations**

Degree of Compaction	Range	Pay Adjustment Factor (%)
>= 97.0	>= 96.75	-100*
96.5	96.26 – 96.74	-5
96.0	95.75 – 96.25	-3
95.5	95.26 – 95.74	-2
95.0	94.75 – 95.25	0
94.5	94.26 – 94.74	0
94.0	93.75 – 94.25	0
93.5	93.26 – 93.74	1
93.0	92.75 – 93.25	3
92.5	92.26 – 92.74	1
92.0	91.75 – 92.25	0
91.5	91.26 – 91.74	0
91.0	90.75 – 91.25	0
90.5	90.26 – 90.74	0
90.0	89.75 – 90.25	0
89.5	89.26 – 89.74	0
89.0	88.75 – 89.25	-1
88.5	88.26 – 88.74	-3
88.0	87.75 – 88.25	-5
87.5	87.26 – 87.74	-10
87.0	86.75 – 87.25	-15
86.5	86.26 – 86.74	-20
86.0	85.75 – 86.25	-25
85.5	85.26 – 85.74	-30
85.0	84.75 – 85.25	-40
84.5	84.26 – 84.74	-50
=< 84.0	=<84.25	-100*

\* or remove and replace at Engineer's discretion

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<sup>1</sup> This chart is to be used for areas where the structural value of the area to be paved is less than 1.75 as determined by the Engineer. See Appendix B - Method for Obtaining Cores for Determination of Roadway Structure. This chart is applicable to rehabilitation work only; full depth construction will not be considered for Table 5a.

### .04 Dispute Resolution.

Disputes or questions about any test result shall be brought to the attention of the Contractor and the Engineer within two operational days of reported test results. The following dispute resolution procedures will be used.

The Engineer and the Contractor will review the sample quality, the test method, the laboratory equipment, and the laboratory technician. If these factors are not the cause of the dispute, a third party dispute resolution will be used.

Third party resolution testing can be performed at either another Contractor's laboratory, the Engineer's laboratory, or an independent accredited laboratory. Unless otherwise mutually agreed upon by DAPA and the Engineer, the Engineer's qualified laboratory in Dover and qualified personnel shall conduct the necessary testing for third party Dispute Resolution after the Engineer has provided reasonable notice to allow the Contractor to witness this testing.

When disputes over production testing occur, the samples used for Dispute Resolution testing will be those samples the properly captured, labeled, and stored, as described in the second paragraph of the section of these specifications titled **.02 Acceptance Plan, (a) Material Production - Tests and Evaluations**. If no samples are available, the original testing results will be used for payment calculations.

Dispute Resolution samples for air void content will be heated by a microwave oven.

If there is a discrepancy between the Engineer's acceptance test result and the Contractor's test result, the Contractor may ask for the Dispute Resolution sample to be tested. The Contractor may request up to two dispute resolution samples be tested per calendar year without charge. Any additional Dispute Resolution samples run at the Contractors request where the results substantiate the acceptance test result will be assessed a fee of \$125. Any additional Dispute Resolution samples that substantiate the Contractors test result will not be assessed the fee.

When disputes over compaction core test results occur, the Engineer's acceptance core will be used for the dispute resolution sample. The Contractor will be advised on when the testing will occur as referenced above to witness the testing. The results of the dispute resolution testing shall replace all of the applicable disputed test results for payment purposes.

**Appendix A - Repairing Core Holes in Bituminous Asphalt Pavement**

**Description.**

This appendix describes the procedure required to repair core holes in a bituminous concrete pavement.

**Materials and Equipment.**

The following material shall be available to complete this work:

- Patch Material - DelDOT approved High Performance Cold Patch material shall be used.

The following equipment shall be available to complete this work:

- Sponge or other absorbent material - Used to extract water from the hole.
- Compaction Hammer - mechanical (electrical, pneumatic, or gasoline driven) tamping device with a flat, circular tamping face smaller than 6 inches in diameter.

**Construction Method.**

After core removal from the hole, remove all excess water from within the hole, and prevent water from re-entering the hole.

Place the patch material in lifts no greater than 3 inches and compact with mechanical tamping device. If the hole is deeper than 3 inches, use two lifts of approximately equal depths so that optimum compaction is achieved. Make sure that the patch surface matches the grade of the existing roadway. Make every effort to achieve the greatest possible compaction

**Performance Requirements.**

The Engineer will judge the patch on the following basis:

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- The patch shall be well compacted
- The patch surface shall match the grade of the surrounding roadway surface.

**Basis of Payment.**

No measurement or payment will be made for the patching work. The Contractor must gain the Engineer's acceptance of the patching work before the Engineer will accept the material represented by the core.

**Appendix B - Method for Obtaining Cores for Determination of Roadway Structure**

The Contractor is responsible for obtaining cores in areas that they propose are eligible for compaction price adjustments according to Table 5a in this specification. Table 5a is not applicable for new full-depth pavement box construction. Cores submitted for this process shall be obtained according to the following process.

1. Contact Materials & Research (M&R) personnel to determine if information about the area is already available. If M&R has already obtained cores in the location that is being investigated, the contractor may opt to use the laboratory information for the investigation and not core the area on their own.
2. If M&R does not have information concerning the section of the roadway, the contractor needs to contact M&R to arrange for verification of coring operations. Arrangements shall be made to allow for an individual from M&R to be on the site when the cores are obtained. Cores will be turned over to M&R for evaluation.
3. The Contractor is responsible for providing all traffic control and repairing core holes in accordance to 401699 Appendix A - Repairing Core Holes in Bituminous Asphalt Pavements.
4. Cores are to be taken throughout the entire project for the area in question. Cores will be spaced, from the start of the project in increments determined based on field and project specifics. Cores will be evenly distributed throughout the project location. The cores will be taken in the center of the lane in question.

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5. Additional cores may be taken at other locations, if surface conditions indicate that there may be a substantial difference in the underlying section. The location of these cores should be documented and submitted to M&R.
  
6. Cores shall be full depth and include underlying materials. If there is a stone base included in the pavement section, at a minimum 1 core must have information concerning the thickness of the base. This is determined by augering to the subgrade surface.
  
7. The calculations used to determine the structural capacity of the roadway is as follows. If the contractor finds, upon starting the coring process, that the areas are of greater thickness than applicable to Table 5a, they may terminate the coring process on their own and retract the request.

**Structural Number Calculations**

Each pavement box material is assigned a structural coefficient based upon AASHTO design guides. The structural coefficient is used to determine the total strength of the pavement section.

Materials used in older pavement sections are assigned lower structural coefficients to compensate for aging of the materials. The coefficients used to determine the structural number of an existing pavement are:

<b>Existing Material</b>	<b>Structural Coefficient</b>
HMA	0.32
Asphalt Treated Base	0.26
Soil Cement	0.16
Surface Treatment (Tar & Chip)	0.10
GABC	0.14
Concrete	0 - 0.7*



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For the Type C lift the calculation would be:

Newly Placed B	$2.25 * 0.4$	=	0.90
Existing HMA	$2 * 0.32$	=	0.64
GABC	$7 * 0.14$	=	0.98
			<b><u>2.52</u></b>

11/3/14

**501526 - PATTERNED PORTLAND CEMENT CONCRETE PAVEMENT, 8"**

**Description:**

The item shall consist of furnishing all materials and constructing Patterned Portland Cement Concrete Pavement, in accordance with the notes and details on the Plans, as described herein, and as directed by the Engineer.

**Materials:**

Materials shall conform to Subsection 501.02, the requirements of the manufacturer, and these specifications. In case of a conflict, the requirements of the manufacturer shall govern.

The imprinted concrete shall be colored using ready to use dry-shake type hardener and shall be streak free integrands of pigments, include surface conditioning and dispersing agents. The color hardener shall have a sufficient history of use with proven durability and stability. All shake hardener shall be distributed evenly by mechanical spreader.

The dispersing/ releasing agent shall be clear liquid compatible with color hardener. This shall be specifically formulated to prevent bonding of texturing tools to the concrete surfaces. The powdered pigmented dispersing/-releasing agent can be allowed, if this is of the same color as hardener and recommended by the manufacturer.

The imprinted concrete shall be sealed with penetrating sealer of acrylic polymer in the organic solvent having sufficient resistant to discoloration, abrasion, acids and alkalis.

All materials including hardener, dispersing agent, sealer shall be compatible and preferably manufactured by the same manufacturing firm.

The colors shall be as depicted on the Plans. Modifications of color during the sample approval process shall not affect bid prices.

To assure a high quality imprinted/stamped concrete, work should be performed by experience contractor must have minimum 5-year experience dealing with stamped concrete and must be approved by the manufacturer. The contractor shall submit materials source of materials, previous successful history of work to Materials &

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Research for approval. A sample of minimum size of 3'x3' for each pattern of patterned concrete pavement for shall be submitted for color and design approval from the Engineer. Any necessary changes to the color will be directed by the Engineer.

**Construction Methods:**

Construction methods shall conform to the applicable requirements of Subsection 501.03, the recommendations of the manufacturer, and these specifications. In case of a conflict, the requirements of the manufacturer shall govern.

Special concrete mix shall be placed and screened to the proper grade and floated to a uniform surface in the normal manner as per standard specification. The depth of the concrete pavement shall be as noted on the Plans.

Color hardener shall be applied evenly to the concrete while in the plastic, stage of set by dry shake method using a minimum of 60 lbs per 100 sq-ft. It shall be applied in two or more shakes, floated after each and trowel led only after the final floating. The first shake shall consume two third of materials, one third being withheld for the second shake and final touch up. Release agent and sealer shall be applied in accordance with manufacturers instructions.

While concrete is still in plastic stage of set, the imprinting tools shall be applied to make the desired pattern and texture. The patterns shall be as noted on the Plans.

**Method of Measurement:**

The quantity of Patterned P.C.C. Pavement will be measured as the number of square yard completed and accepted.

**Basis of Payment:**

The quantity of Patterned P.C.C. Pavement will be paid for at the contract unit price per square yard. Price and payment will constitute full compensation for furnishing and placing all materials, constructing all joints, curing the concrete, installing seals, imprinting and coloring the surface, removing and replacing rejected concrete pavement, and all labor, equipment, tools, and incidentals required to complete the work.

**602502 - CONVERTING EXISTING CATCH BASIN TO MANHOLE**

**Description:**

This work consists of furnishing all materials and constructing a manhole from an existing catch basin in accordance with the locations, notes and details shown on the Plans, and as directed by the Engineer.

**Materials and Construction Methods:**

Materials and construction methods shall conform to the applicable requirements of Section 602 of the Standard Specifications, and as specified on the Plans.

Portland Cement Concrete shall meet the requirements of Class B, Section 1022 of the Standard Specifications.

**Method of Measurement:**

The quantity of catch basins converted to manholes will be measured as the number of catch basins converted to manholes and accepted.

**Basis of Payment:**

The quantity of catch basins converted to manholes will be paid for at the Contract unit price per each. Price and payment will constitute full compensation for constructing the manhole from the existing catch basin, for all materials including reinforcing steel, cover & frames and for all labor, equipment, tools, and incidentals necessary to complete the item. The cost for salvaging and delivering gratings to the location as specified on the Plans shall be included in the unit price bid for the item.

4/9/2018

**Contract No. T201012001**

**701500 - P.C.C. CURB, TYPE 1, MODIFIED**

In accordance with Section 701 and as indicated for variable height curb.

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
701500	P.C.C. CURB, TYPE 1, MODIFIED	LF

8/31/2018

**Contract No. T201012001**

**701507 - CURB RETAINING WALL, TYPE 1**

**701508 - CURB RETAINING WALL, TYPE 2**

**701509 - CURB RETAINING WALL, TYPE 3**

**Description:**

This Work consists of furnishing all materials and constructing Curb Retaining Wall in accordance with locations, notes, and details on the Plans; the Standard Specifications; the Standard Construction Details; and as directed by the Engineer.

**Materials:**

Materials for Curb Retaining Wall shall conform to the requirements of Sections 610, 611, 612, and 701 of the Standard Specifications, the Plans, and the Standard Construction Details.

**Construction Methods:**

Construction methods for Curb Retaining Wall shall conform to the requirements of Sections 610, 611, 612, and 701 of the Standard Specifications, the Plans, and the Standard Construction Details.

**Method of Measurement:**

The Engineer will measure Curb Retaining Wall as the number of linear feet measured along the linear face of acceptably installed and completed Curb Retaining Wall as specified. Any Curb Retaining Wall showing cracks shall be replaced in sections that have a minimum length of 10 feet, at no cost to the Department.

The Curb Retaining Wall Types 1, 2 and 3 will be measured as indicated in the table below:

<b>ITEM NO.</b>	<b>DESCRIPTION</b>	<b>WALL HEIGHT</b>
701507	CURB RETAINING WALL, TYPE 1	GREATER THAN 12" TO 2'-6"
701508	CURB RETAINING WALL, TYPE 2	GREATER THAN 2'-6" TO 3'-0"
701509	CURB RETAINING WALL, TYPE 3	GREATER THAN 3'-0" TO 3'-6"

**Contract No. T201012001**

**Basis of Payment:**

Price and payment will constitute full compensation for excavation within the template of the Item(s), supplying and placing GABC, compaction, forms and forming, supplying, placing, finishing and curing Portland cement concrete, Class A, epoxy-coated reinforcing steel, expansion, sealing and saw cutting, backfill and backfilling, removal of surplus Materials, removal and replacement of cracked and/or damaged Curb Retaining Wall and for all labor, equipment, tools and incidentals required to complete the Work. Excavation and embankment outside the template of the Item(s) shall be paid under Section 202. Rock removal shall be paid under Section 202. Undercut excavation shall be paid under Section 202. For removal and replacement of curb; P.C.C. removal is paid under Section 211, saw cutting is paid under Section 762 and Bituminous Pavement Patching is paid under Section 402 in addition to the curb Item.

Price and payment for precast will constitute full compensation for excavation within the template of the Item(s), supplying and placing GABC, compaction, backfill and backfilling, for furnishing all Materials, including reinforcing bar, related to the precast units; designing, fabricating and installing the units on site; and for all labor, tools, Equipment and incidentals required to complete the Work. Accessories and associated elements will be incidental to the respective Item.

03/13/2019

**Contract No. T201012001**

**705504 - BRICK AND/OR BLOCK SIDEWALK**

**705506 - BRICK AND/OR BLOCK ROADWAY**

**Description:**

This work consists of furnishing all materials and constructing brick and/or block sidewalk/roadway in accordance with these specifications and in reasonably close conformity with the lines, grades, dimensions, and notes on the Plans and as established by the Engineer.

**Materials:**

The brick/block, referred to as "pavers" elsewhere in this special provision, shall be the shape, style, size and color as specified on the Plans.

1. If the pavers specified are concrete unit pavers, they shall have an average compressive strength of 8000 psi with no single paver having a compressive strength less than 7200 psi at the time of delivery to the project. The pigment loading shall be a minimum of 3% and the pigmentation shall be uniform throughout the paver.
2. If the pavers specified are clay brick, the pavers shall meet the requirements of ASTM C902, Class SX, Type I.

In cases of existing sidewalk, the new pavers shall match the existing bricks in material, color and size, unless noted otherwise on the Plans.

If the Plans are silent regarding pavers, the Contractor shall supply clay brick in a color approved by the Engineer.

Sample pavers shall be submitted for approval and if requested by the Engineer, 3' x 3' sample panels shall be constructed for approval. The edge restraint system shall be as specified on the Plans or as recommended by the paver manufacturer, whichever is stronger.

Sand for bedding shall conform to the requirements of Section 1003 - Fine Aggregate.

**Contract No. T201012001**

Portland Cement Concrete for sidewalk shall conform to the requirements of Section 1022, Class B.

Expansion for sidewalk shall conform to the requirements of Subsection 1042.

**Construction Methods:**

Place concrete for sidewalk to depths shown on plans and construct in accordance with Section 705 of the Standard Specifications.

Install the edge restraint system on the approved base as shown on the Plans where existing conditions do not provide edge restraint.

Spread a leveling course of bedding sand 1 to 1 1/2 inches thick, taking care that moisture is constant and the density is loose until the unit pavers are set and compacted. Place a material such as geotextile, or other approved material at curb joints to prevent sand from bleeding through.

Place pavers in patterns as designated on the Plans. If a joint spacing is not noted on the Plans, place the pavers with a tight joint. Select pavers from 4 or more cubes to blend color and texture variations. Do not use pavers with chips, cracks, discolorations, or other defects. Cut pavers with a motor driven masonry wet saw to provide clean, sharp, unchipped edges. Cut pavers to fit pattern specified and to neatly fit adjoining material.

Vibrate the pavers into the sand leveling course with a low amplitude plate vibrator capable of a 3,500 to 5,000 pound compaction force. Perform at least 3 passes across paving with vibrator. Protect paver face and edges by spreading a cushion of sand over the surface. Be careful not to destroy edges.

Spread dry sand and fill joints immediately after vibrating the pavers into leveling course. Brush and vibrate sand until joints are completely filled, then remove excess sand.

Prior to acceptance, any pavers that are chipped, broken, stained, or damaged shall be replaced at the contractor's expense.

**Method of Measurement:**

The quantity of brick and/or block paving will be measured as the number of square feet of sidewalk and/or roadway completed in-place and accepted.

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**Basis of Payment:**

The quantity of brick and/or block paving will be paid for at the Contract unit price per square foot Price and payment will constitute full compensation for excavation, furnishing and installing portland cement concrete, expansion material, brick pavers, restraint system, bedding sand, geotextile and sand for filling joints and for all labor, equipment, tools, and incidentals necessary to complete the work.

5/10/17

**705528 - TEMPORARY CURB RAMP**

**Description:**

This item shall consist of furnishing, erecting and installing Temporary Curb Ramps at the required location(s) and in accordance with the notes and details on the Plans and as directed by the Engineer.

After the completion of the project, the Temporary Curb Ramps shall become the property of the Contractor and shall be removed from the project site.

**Materials and Construction Methods:**

The Temporary Curb Ramps shall be used as required during maintenance of traffic and pedestrians during construction as directed by the Engineer. Curb ramps must be provided wherever an accessible pedestrian route crosses a curb or experiences a change of grade requiring a temporary curb ramp. The smallest possible slope should be used for all ramps and the maximum slope is 1:12. Transitions from ramps to walks or streets should be flush without abrupt changes. The adjoining landing areas, within three (3) feet of temporary curb ramps, shall not exceed 1:20. Temporary curb ramps must have a minimum width of 36", exclusive of flared sides. Temporary curb ramp surfaces must be stable and slip resistant. Changes in surface level up to 1/4 inch may be vertical without edge treatment. Changes in surface level greater than 1/4 inch must use a ramp. If a curb ramp is located where pedestrians must walk across the ramp or where the ramp is not shielded by handrails or guardrails, it must have flared sides. The maximum slope of the flare shall be 1:10.

The Contractor shall submit the locations of temporary curb ramps to be used during each stage of construction to the Engineer as part of the maintenance of pedestrian access plan for approval. The Engineer shall approve the Temporary Curb Ramp materials including the posts and methods of fabrication prior to installation.

Due to space limitations, the Contractor may be required to move the temporary curb ramps and/or reposition curb ramps from time to time so that adjacent construction activities and pedestrian access can coexist within the project site simultaneously as required. No payment shall be made for such relocation and the cost shall be incidental to the item.

**Method of Measurement:**

Temporary Curb Ramps shall be erected by the Contractor as required with payment to be made on an each (EA) used basis for the duration of the contract for temporary curb ramps actually furnished and used as required and approved by the Engineer.

**Contract No. T201012001**

**Basis of Payment:**

The number of temporary curb ramps measured as described above, shall be paid for at the contract unit price bid per each as required by the Contract. Price and payment shall be full compensation for furnishing, placing, maintaining, repositioning, preparation and cleaning the curb ramp area, removal and disposal of the temporary curb ramps and related accessories, furnishing all labor, materials, equipment, tools and all incidentals necessary to complete the work. Temporary Curb Ramps stolen or damaged shall be replaced at the Contractor's expense.

3/2/17

**Contract No. T201012001**

**706500 - RIGHT-OF-WAY MARKER, CAPPED REBAR**

**Description:**

Furnish necessary materials and labor to set at the locations shown on the Plans, and as directed by the Engineer.

**Materials:**

Provide Right-of-Way Marker, Capped Rebar constructed in accordance with the details shown in the Standard Construction Details using materials specified in:

Bar Reinforcement	Section 611
Aluminum 2" Flat Survey Marker for Rebar	As Submitted and approved by Engineer

**Construction Methods:**

- A. Exact location to be set by a Delaware Professional Land Surveyor in accordance with the plans or as directed by the Engineer;
- B. Place Rebar in a vertical position at depth shown on the plans;
- C. Place Aluminum 2" flat survey marker on rebar taking care not to move the location of the rebar.

**Method of Measurement:**

Right-of-Way Marker, Capped Rebar will be measured as the actual number of Right-of-Way Marker, Capped Rebar set and accepted.

**Basis of Payment:**

The quantity of Right-of-Way Marker, Capped Rebar will be paid for at the Contract unit price per Each. Price and payment will constitute full compensation for furnishing all materials required and setting the Right-of-Way Marker, Capped Rebar by a Delaware Professional Land Surveyor and any incidentals necessary to complete the item. Existing Right-of-Way Marker, Capped Rebar damaged will be replaced as required by Subsection 107.09 of the Standard Specifications and will be repaired, replaced, and set at the Contractor's expense.

8/10/2020

**Contract No. T201012001**

**710504 – WATER SERVICES**

**Description:**

This work consists of furnishing, transporting, installing, and testing the water main, line, laterals, and accessories in accordance with the locations, details and notes on the Contract Documents, and as directed by the Engineer for the Town of Middletown water services. The work shall be performed in accordance with these Special Provisions, DelDOT Standard Specifications, and the requirements of the Manual of Construction Specifications and Details for Roads, Open Space and Utilities of the Town of Middletown. In case of conflict between these Special Provisions, the Specifications of the Town of Middletown, the Standards and Specifications and all other requirements of the Town of Middletown shall prevail.

The Town of Middletown's Specifications can be found at the following website:

<https://middletown.delaware.gov/media/Chapter%2046%20Town%20Specs%20and%20Details.pdf>

**Materials:**

Provide Materials as specified in the following:

Portland Cement Concrete, Class B Section 1022

Backfill, Borrow Type C Section 1001

Stone, Delaware No. 8 Section 1004

All the materials including pipe, fittings, and all other accessories as listed under this Special Provisions, shall conform to the material and quality requirements of the Manual of Construction Specifications and Details for Roads, Open Space and Utilities of the Town of Middletown. The Town of Middletown shall have right to inspect and reject the materials, if his/her specifications requirements are not met. It is recommended that the Contractor contact the Town of Middletown and get himself/herself familiarized with the applicable requirements of the materials required under this Contract before submitting his/her bid.

The Contractor shall be responsible for providing materials including pipe, fittings, and all other appurtenances necessary to make permanent connections to existing utility facilities of whatever material type encountered.

The Contractor shall transport, handle, and store pipe and fittings as recommended by manufacturer. New pipe and fittings that are damaged before or during installation shall be repaired or replaced, as recommended by the manufacturer or required by the Town of Middletown. The costs of such repair or replacement shall be borne by the Contractor and be accomplished prior to proceeding with the project.

The Contractor shall deliver, store and handle other materials as required to prevent damage. Materials that are damaged or lost shall be repaired or replaced by the Contractor at no additional expense to the Town of Middletown or Department.

**Construction Methods:**

The construction of the water main shall be in accordance with the Manual of Construction Specifications and Details for Roads, Open Space and Utilities of the Town of Middletown.

**Method of Measurement and Basis of Payment:**

Price and payment for water service Items includes furnishing, transporting and installing the Materials; adjusting, relocating or repairing the services, testing of the water main system; for repairing leaks and defects, including defects to settlement, connecting to existing water main systems and services; maintaining service as required; excavating; jack and bore installation; disposing of excess excavated Material; backfilling; furnishing Material for backfilling; furnishing and installing concrete thrust blocks, joint restraints, pipe bedding, sheeting and shoring, temporary support of existing Utilities, dewatering; abandoning existing pipes (including flowable fill for any abandoned water pipe greater than 4" diameter), pavement patching, cutting and capping new or existing lines and for all labor, Equipment, tools and necessary incidentals to achieve and accept an operational water main system.

All work associated with abandoning existing pipes will be incidental to Items 1 through 5 on the breakout sheet.

No separate payment shall be made for salvaging or abandoning or removing and disposing of existing water mains and cost for such required work shall be incidental to the respective sizes for installing water main.

A breakout sheet attached to the Proposal lists the different elements of work or materials involved in completing this item. The Contractor shall fill in a unit price for each item and the cost (unit price times the proposed quantity). The Lump Sum cost for Item 710504, shall be derived from the total sum of the cost of all items listed. The breakout sheet shall be attached to the Bid Proposal.

The Department reserves the right to delete from the Contract one or more items listed and the right to add or subtract from the quantity of each item. The total price to be paid will be adjusted in accordance with the Contractor's unit prices as required above. There will be no extra compensation or increase in unit prices in the breakout sheet if such additions and/or deletions are made to the quantities.

All lump sum pay items will be prorated for each pay estimate. A percentage of the lump sum item will be paid, on a monthly basis, based upon the amount of work completed and accepted by the Engineer.

8/10/2020

**711500 - ADJUST AND REPAIR EXISTING SANITARY MANHOLE**

**Description:**

This work consists of adjusting and repairing existing sanitary manholes in accordance with notes and details on the Plans and as directed by the Engineer.

**Materials and Construction Methods:**

Materials and construction methods shall conform to the applicable requirements of Section 711 of the Standard Specifications, and the Standard Specifications of the owner of the sewer system. If there is a conflict between the Department's Specifications and the Specifications of the owner, the latter will prevail.

**Method of Measurement and Basis of Payment:**

The method of measurement and basis of payment for the item shall be made in accordance with Subsections 711.04 and 711.05 of the Standard Specifications.

7/27/2020

**711501 – SANITARY SEWER SYSTEM**

**Description:**

This work consists of furnishing, transporting, providing bypass pumping, installing, backfilling using type C borrow, and testing a sanitary sewer system in accordance with the Contract Documents, these Special Provisions, DeIDOT Standard Specifications, and the requirements of the Manual of Construction Specifications and Details for Roads, Open Space and Utilities of the Town of Middletown. This work includes but is not limited to construction via open trench of gravity sewer, installation of force main and thrust restraints, backfill using type C borrow, installation and adjustment of manholes, bypass pumping, pumping and hauling, gravity laterals, lateral cleanouts, and sewer plugs. In case of any conflict between the notes and details on the Plans; Special Provisions; Standards and Specifications of the Town of Middletown; the Standards and Specifications of the Town of Middletown shall prevail.

The Town of Middletown's Specifications can be found at the following website:

<https://middletown.delaware.gov/media/Chapter%2046%20Town%20Specs%20and%20Details.pdf>

**General Requirements:**

All work shall be subject to inspection and subsequent approval/disapproval of the engineer and the representative of the Town of Middletown; and the contractor shall be required to correct the discrepancies at his/her expense.

Coordinate all sanitary sewer construction activities with the Town of Middletown including, but not limited to, requests for system shutdowns and inspections. Provide the Town of Middletown with reasonable time to respond to requests for information and coordination. Submit (3 weeks prior to beginning any Work) for approval of a plan describing the logical sequence for sanitary sewer shut-downs and tie-ins.

It is of prime importance that the Contractor, in the performance of his/her work, does not disrupt the operation of the existing sanitary sewer facilities in any manner or at any time, without the expressed prior approval of the Town of Middletown. The Contractor shall construct, maintain, and remove following construction temporary bypasses as may be required during construction to maintain sanitary sewer facilities in service. In addition, Contractor shall pump and haul sewage as required to maintain sanitary sewer service. No separate payment will be made for such temporary bypasses or pumping and hauling.

The Contractor shall provide at least two (2) telephone numbers where his designated personnel can be reached 24 hours a day in case of an emergency. The Contractor shall provide temporary lighting for maintenance and repairs at night. The Contractor shall provide adequate standby equipment installed and ready for immediate operation and use in the event of an emergency or breakdown.

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**Materials:**

The requirements for the materials as applicable to the Contract are included in the Specifications of the Town of Middletown. The Contractor shall verify the compatibility of these materials specifications with the Town of Middletown before placing order for the Contract. The Town of Middletown will have right to inspect Materials and reject any Materials that do not meet the applicable standards and specifications. Provide all Materials to complete the Work including pipe, fittings, manholes, cleanouts, fill, plugs, and all other appurtenances necessary to make permanent connections to existing utility facilities of whatever material type encountered.

**Construction Methods:**

The construction of the sanitary sewer system shall be in accordance with the Manual of Construction Specifications and Details for Roads, Open Space and Utilities of the Town of Middletown.

**Method of Measurement and Basis of Payment:**

Price and payment for sanitary sewer system shall be lump sum under item 711501.

Price and payment for sanitary sewer system includes furnishing, transporting, and installing the Materials; testing of the sanitary sewer system; including manholes, cleanouts, and air releases; connecting to existing sanitary sewer systems and services; maintaining service as required; installation of force main and thrust restraints, excavating; disposing of excess excavated Material; backfilling, including Type C borrow required specifically for filling the sewer trench; furnishing Material for backfilling; furnishing and placing warning tape and wire; aggregate pipe bedding, sheeting and shoring, temporary support of existing Utilities, dewatering, furnishing and using tanker trucks for excess flow, constructing and operating a bypass pumping system, temporary bypass pumping and hauling, disposing of excess flow at an approved location; abandoning existing pipes (including flowable fill for any abandoned sewer pipe greater than 4" diameter); pavement patching, cutting and capping new or existing lines and for all labor, Equipment, tools and necessary incidentals to achieve and accept an operational sanitary sewer system.

All work associated with abandoning existing pipes will be incidental to Items 2 and 3 on the breakout sheet.

A breakout sheet attached to the Proposal lists the different elements of work or materials involved in completing this item. The Contractor shall fill in a unit price for each item and the cost (unit price times the proposed quantity). The Lump Sum cost for Item 711501, shall be derived from the total sum of the cost of all items listed. The breakout sheet shall be attached to the Bid Proposal.

8/10/2020

**Contract No. T201012001**

**727510 – WOOD RAIL FENCE**

**Description:**

This work consists of furnishing all materials and constructing a wood rail fence in accordance with the plans, details and these specifications at the locations shown on the Plans or established by the Engineer.

**Materials and Construction Methods:**

All materials such as fence (rails), posts, hardware and accessories shall be new. Concrete shall conform to Section 1022, Class B of the Standard Specifications. The fence materials shall be of Eastern White Pine (*Pinus strobus* L.).

The end and corner posts shall be 4" x 4" and utilize concrete footers; the intermediate posts shall be 3" x 6". Each post shall have concrete footers beginning with the end posts and running the entire length of the section. All concrete footers shall be 14" in diameter and a minimum of 33" deep and encased in a Sonotube.

Lumber shall be treated with a preservative in accordance with current AWPA guidelines for treatment for ground contact and above ground exterior conditions.

The Engineer shall approve the materials of the fence and the layout prior to its installation.

**Method of Measurement:**

The quantity of wood rail fence will be measured by the linear foot along the actual fence constructed and accepted.

**Basis of Payment:**

The quantity of wood rail fence will be paid for at the Contract unit price per linear foot. Price and payment will constitute full compensation for all materials and installing fence, concrete, excavation and backfilling, disposing of the surplus material, for all labor, equipment, tools and incidentals necessary to complete the work.

12/21/17

**763501 - CONSTRUCTION ENGINEERING**

**Description:**

This work consists of construction lay out including; stakes, lines and grades as specified below. Subsection 105.10 Construction Stakes, Lines and Grades of the Standard Specifications is voided.

Based on contract plans and information provided by the Engineer, the Contractor shall stake out right-of-way and easements lines, limits of construction and wetlands, slopes, profile grades, drainage system, centerline or offset lines, benchmarks, structure working points and any additional points to complete the project.

The Engineer will only establish the following:

- (a) Original and final cross-sections for borrow pits.
- (b) Final cross-sections: Top and bottom pay limit elevations for all excavation bid items that are not field measured by Construction inspection personnel. The Contractor shall notify the Engineer when these pay limit elevations are ready and allow for a minimum of two calendar days for the Engineer to obtain the information.
- (c) Line and grade for extra work added on to the project plans.

**Equipment.** The Contractor shall use adequate equipment/instruments in a good working order.

He/she shall provide written certification that the equipment/instrument has been calibrated and is within manufacturer's tolerance. The certification shall be dated a maximum of 9 months before the start of construction. The Contractor shall renew the certification a minimum of every 9 months. The equipment/instrument shall have a minimum measuring accuracy of [3mm+2ppmxD] and an angle accuracy of up to 2.0 arc seconds or 0.6 milligons. If the Contractor chooses to use GPS technology in construction stakeout, the Contractor shall provide the Engineer with a GPS rover and Automatic Level for the duration of the contract. The GPS rover shall be in good working condition and of similar make and model used by the Contractor. The Contractor shall provide up to 8 hours of formal training on the Contractor's GPS system to a maximum of four Engineer's appointees (DELDOT Construction Inspectors). At the end of the contract, the Engineer will return the GPS rover to the Contractor. If any of the equipment/instruments are found to be out of adjustment or inadequate to perform its function, such instrument or equipment shall be immediately replaced by the Contractor to the satisfaction of the Engineer. Choosing to use GPS technology does not give the contractor authority to use machine control.- Construction Engineering (GPS) Machine Control Grading shall only be used if noted in the General Notes in the plan set outlining the available files that will be provided to the Contractor and "the Release for delivery of documents in electronic form to a contractor" are signed by all parties prior to delivery of any electronic files. Only files designated in the General Notes shall be provided to the contractor. If machine control grading is allowed on the project see the "machine

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control" section of this specification. GPS technology and machine control technology shall not be used in the construction of bridges.

**Engineering/Survey Staff.** The Contractor shall provide and have available for the project an adequate engineering staff that is competent and experienced to set lines and grades needed to construct the project. The engineering personnel required to perform the work outlined herein shall have experience and ability compatible with the magnitude and scope of the project. Additionally, the Contractor shall employ an engineer or surveyor licensed in the State of Delaware to be responsible for the quality and accuracy of the work done by the engineering staff. When individuals or firms other than the Contractor perform any professional services under this item, that work shall not be subject to the sub contracting requirements of Subsection 108.01 of the Standard Specifications. The Contractor shall assume full responsibility for any errors and/or omissions in the work of the engineering staff described herein. If construction errors are caused due to erroneous work done under Construction Engineering the Contractor accepts full responsibility, no matter when the error is discovered. Consideration will not be given for any extension of contract time or additional compensation due to delays, corrective work, or additional work that may result from faulty and erroneous construction stakeout, surveying, and engineering required by this specification.

### **Construction Methods:**

#### **Performance Requirements:**

- (a) Construction Engineering shall include establishing the survey points and survey centerlines; finding, referencing, offsetting the project control points; running a horizontal and vertical circuit to verify the precision of given control points. Establishing plan coordinates and elevation marks for culverts, slopes, subbase, subsurface drains, paving, subgrade, retaining walls, and any other stakes required for control lines and grades; and setting vertical control elevations, such as footings, caps, bridge seats and deck screed. The Contractor shall be responsible for the preservation of the Department's project control points and benchmarks. The Contractor shall establish and preserve any temporary control points (traverse points or benchmarks) needed for construction. Any project control points (traverse points) or benchmarks conflicting with construction of the project shall be relocated by the Contractor. The Contractor as directed by the Engineer must replace any or all stakes that are destroyed at any time during the life of the contract. The Contractor shall re-establish centerline points and stationing prior to final cross-sections by the Engineer. The Vertical Control error of closure shall not exceed 0.035 ft times. The Horizontal Control precision ratio shall have a minimum precision of 1:20,000 feet of distance traversed prior to adjustment.
- (b) The Contractor shall perform construction centerline layout of all roadways, ramps and connections, etc. from project control points set by the Engineer. The Contractor using the profiles and typical sections provided in the plans shall calculate proposed grades at the edge of pavement or verify information shown on Grades and Geometric sheets.

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- (c) The Contractor shall advise the Engineer of any horizontal or vertical alignment revisions needed to establish smooth transitions to existing facilities. The Contractor must immediately bring to the attention of the Engineer any potential drainage problem within the project limits. The Engineer must approve any proposed variation in profile, width or cross slope.
  
- (d) The Contractor shall establish the working points, centerlines of bearings on bridge abutments and on piers, mark the location of anchor bolts to be installed, check the elevation of bearing surfaces before and after they are ground and set anchor bolts at their exact elevation and alignment as per Contract Plans. Before completion of the fabrication of beams for bridge superstructures, the Contractor shall verify by accurate field measurements the locations both vertically and horizontally of all bearings and shall assume full responsibility for fabricated beams fitting and bearing as constructed. After beam erection and concurrently with the Department project surveyors or their designated representative, the Contractor shall survey top of beam elevations at a maximum of 10-ft stations and compute screed grades. These shall be submitted to the Engineer for review and approval before the stay in place forms are set. Construction stakes and other reference control marks shall be set at sufficiently frequent intervals to assure that all components of the structure are constructed in accordance with the lines and grades shown on the plans. The Contractor will be responsible for all structure alignment control, grade control and all necessary calculations to establish and set these controls.
  
- (e) The Contractor, using contract plans, shall investigate proposed construction for possible conflicts with existing and proposed utilities. The Contractor shall then report such conflicts to the Engineer for resolution. All stakes for utility relocations, which will be performed by others, after the Notice to Proceed has been given to the Contractor, shall be paid for under item 763597  
  
- Utility Construction Engineering.
  
- (f) The Contractor shall be responsible for the staking of all sidewalk and curb ramp grades in accordance with the plans and the Departments Standard Construction Details. The Contractor shall review the stakeout with the Engineer prior to construction. The Engineer must approve any deviation from plans, Department Standard Construction Details and Specifications in writing. The Contractor shall be responsible for any corrective actions resulting from problems created by adjustments if they fail to obtain such approval.
  
- (g) The Contractor shall be responsible for the staking of all drainage inlets in accordance with the plans and the Department Standard Construction Details. The offsets and top of grate elevations need to be calculated for each type of drainage inlet specified in the contract plans by the Contractor in order to line up the drainage inlet's flow line with the specified curb or ditch flow line as shown in the Contract Documents. The Engineer must approve any deviations from plans, Department Standard Construction Details and Specifications in writing. The Contractor shall be responsible for any corrective actions resulting from problems created by adjustments if they fail to obtain such approval.
  
- (h) If wetland areas are involved and specifically defined on the Plans the following shall apply:

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- i. It is the intent of these provisions to alert the Contractor, that he/she shall not damage or destroy wetland areas, which exist beyond the construction limits. These provisions will be strictly enforced and the Contractor shall advise his/her personnel and those of any Subcontractor of the importance of these provisions.
  - ii. All clearing operations and delineation of wetlands areas shall be performed in accordance with these Special Provisions. Before any clearing operation commences the Contractor shall demarcate wetlands at the Limits of Construction throughout the entire project as shown on the Plans labeled as Limits of Construction or Wetland Delineation to the satisfaction of the Engineer.
  - iii. The material to be used for flagging the limits of construction shall be orange vinyl material with the wording "Wetland Boundary" printed thereon. In wooded areas, the flagging shall be tied on the trees, at approximate 20-foot intervals through wetland areas. In open field and yard areas that have been identified as wetlands, 6 foot posts shall be driven into the ground at approximate 50-foot intervals and tied with the flagging. The flagging shall extend approximately 12 inches in length beyond the post. Posts shall be oak with cross sectional dimensions of 1 ½ inches to 2 inches by 1 ½ inches to 2 inches or ¼ inch rebar.
  - iv. If the flagging has been destroyed and the Engineer determines that its use is still required, the Contractor shall reflag the area at no cost to the Department. If the Contractor, after notification by the Engineer that replacement flagging is needed, does not replace the destroyed flagging within 48 hours, the Engineer may proceed to have the area reflagged. The cost of the reflagging by the Engineer will be charged to the Contractor and deducted from any monies due under the Contract.
  - v. At the completion of construction, the Contractor shall remove all posts and flagging.
  - vi. The Contractor shall be responsible for any damages to wetlands located beyond the construction limits, which occurs from his/her operations during the life of the Contract. The Contractor shall restore all temporarily disturbed wetland areas to their preconstruction conditions. This includes restoring bank elevations, streambed and wetland surface contours and wetlands vegetation disturbed or destroyed. The expense for this restoration shall be borne solely by the Contractor.
- (i) Whenever the Engineer will be recording data for establishment of pay limits, the Contractor will be invited to obtain the data jointly with the Engineer's Survey Crew(s) in order to agree with the information. If the Contractor's representative is not able to obtain the same data, then the information obtained by the Engineer shall be considered the information to be used in computing the quantities in question.

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**Submittals.** All computations necessary to establish the exact position of all work from the control points shall be made and preserved by the Contractor. All computations, survey notes, electronic files, and other records necessary to accomplish the work shall be made available to the Department in a neat and organized manner at any time as directed by the Engineer. The Engineer may check all or any portion of the stakeout survey work or notes made by the Contractor and any necessary correction to the work shall be made as soon as possible. The Contractor shall furnish the Engineer with such assistance as may be required for checking all lines, grades, and measurements established by the Contractor and necessary for the execution of the work. Such checking by the Engineer shall not relieve the Contractor of his/her responsibility for the accuracy or completeness of the work. Copies of all notes must be furnished to the engineer at the completion of the project.

The Contractor shall submit any of the following at the Engineer's request:

- (a) Proposed method of recording information in field books to ensure clarity and adequacy.
- (b) A printout of horizontal control verification, as well as coordinates, differences and error of closure for all reestablished or temporary Control Points.
- (c) A printout of vertical control verification, with benchmark location elevation and differences from plan elevation.
- (d) Sketch of location of newly referenced horizontal control, with text printout of coordinates, method of reference and field notes associated with referencing control - traverse closure report.
- (e) Description of newly established benchmarks with location, elevation and closed loop survey field notes - bench closure report
- (f) All updated electronic and manuscript survey records.
- (g) Stakeout plan for each structure and culvert.
- (h) Computations for buildups over beams, screed grades and overhang form elevations.
- (i) A report showing differences between supplied baseline coordinates and field obtained coordinates, including a list of preliminary input data.
- (j) Any proposed plan alteration to rectify a construction stakeout error, including design calculations, narrative and sealed drawings.
- (k) Baseline for each borrows pit location.
- (l) Detailed sketch of proposed overhead ground mounted signs or signals showing obstructions that may interfere with their installation.
- (m) Copies of cut sheets.

**Machine Control Grading**

This Section of the specification shall only be used if machine control is authorized for use on the project.

**Description:**

This specification contains the requirements for grading operations utilizing Global Positioning Systems (GPS).

Use of this procedure and equipment is intended for grading the subgrade surface; it is not intended for the use in constructing final surface grades.

The Contractor may use any manufacturer's GPS machine control equipment and system that results in achieving the grading requirements outlined in section 202 of the standard specifications. The Contractor shall convert the electronic data provided by the Department into the format required by their system. The Department will only provide the information outlined in this document and no additional electronic data will be provided.

The Contractor shall perform at least one 500 foot test section with the selected GPS system to demonstrate that the Contractor has the capabilities, knowledge, equipment, and experience to properly operate the system and meet acceptable tolerances. The engineer will evaluate and make the determination as to whether additional 500 foot test sections are required. If the Contractor fails to demonstrate this ability to the satisfaction of the Department, the Contractor shall construct the project using conventional surveying and staking methods.

**Materials:**

All equipment required to perform GPS machine control grading, including equipment needed by DeIDOT to verify the work, shall be provided by the Contractor and shall be able to generate end results that are in accordance with the requirements of Division 200 - EARTHWORK of the Standard Specifications.

**Construction:**

A. DeIDOT Responsibilities:

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1. The Department will set initial vertical and horizontal control points in the field for the project as indicated in the contract documents, (plans set). If the Contractor needs to establish new control points they shall be traversed from existing control points and verified to be accurate by conventional surveying techniques.
  
2. The Department will provide the project specific localized coordinate system.
  
3. The Department will provide data in an electronic format to the Contractor as indicated in the General Notes.
  - a. The information provided shall not be considered a representation of actual conditions to be encountered during construction. Furnishing this information does not relieve the Contractor from the responsibility of making an investigation of conditions to be encountered including, but not limited to site visits, and basing the bid on information obtained from these investigations, and the professional interpretations and judgments of the Contractor. The Contractor shall assume the risk of error if the information is used for any purpose for which the information is not intended.
  
  - b. Any assumption the Contractor makes from this electronic information shall be at their risk. If the Contractor chooses to develop their own digital terrain model the Contractor shall be fully responsible for all cost, liability, accuracy and delays.
  
  - c. The Department will develop and provide electronic data to the Contractor for their use as part of the contract documents in a format as indicated in the General

Notes. The Contractor shall independently ensure that the electronic data will function in their machine control grading system.

4. The Files that are provided were originally created with the computer software applications MicroStation (CADD software) and INROADS (civil engineering software). The data files will be provided in the native formats and other software

formats described below. The contractor shall perform necessary conversion of the files for their selected grade control equipment. The Department will furnish the Contractor with the following electronic files:

- a. CAD files
  - i. Inroads -Existing digital terrain model (.DTM)

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- ii. Inroads -Proposed digital terrain model (.DTM)
  - iii. Microstation -Proposed surface elements - triangles
- b. Alignment Data Files:
- i. ASCII Format
5. The Engineer shall perform spot checks of the Contractor's machine control grading results, surveying calculations, records, field procedures, and actual staking. If the Engineer determines that the work is not being performed in a manner that will assure accurate results, the Engineer may order the Contractor to redo such work to the requirements of the contract documents, and in addition, may require the Contractor to use conventional surveying and staking, both at no additional cost to the Department.

**B . Contractor's Responsibilities**

- 1. The Contractor shall provide the Engineer with a GPS rover and Automatic Level, for use during the duration of the contract. At the end of the contract, the GPS rover and Automatic Level will be returned to the Contractor. The Contractor shall provide a total of 8 hours of formal training on the Contractor's GPS machine control system to the Engineer and up to three additional Department appointees per rover.
- 2. The Contractor shall review and apply the data provided by the Department to perform GPS machine control grading.
- 3. The Contractor shall bear all costs, including but not limited to the cost of actual reconstruction of work, that may be incurred due to application of GPS machine control grading techniques. Grade elevation errors and associated corrections including quantity adjustments resulting from the contractor's use of GPS machine control shall be at no cost to the Department.
- 4. The Contractor shall convert the electronic data provided by the Department into a format compatible with their system.
- 5. The Contractor's manipulation of the electronic data provided by the Department shall be performed at their own risk.

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6. The Contractor shall check and if necessary, recalibrate their GPS machine control system at the beginning of each workday in accordance with the manufacturer's recommendations, or more frequently as needed to meet the requirements of the project.
7. The Contractor shall meet the accuracy requirements as detailed in the Standard Specifications.
8. The Contractor shall establish secondary control points at appropriate intervals and at locations along the length of the project. These points shall be outside the project limits and/or where work is performed. These points shall be at intervals not to exceed 1000 feet. The horizontal position of these points shall be determined by conventional survey traverse and adjustments from the original baseline control points. The conventional traverse shall meet or exceed the Department's Standards. The elevation of these control points shall be established using differential leveling from the project benchmarks, forming a closed loop. A copy of all new control point information including closure report shall be provided and approved by the Engineer prior to construction activities. The Contractor shall be responsible for all errors resulting from their efforts and shall correct deficiencies to the satisfaction of the Engineer and at no additional cost to the Department.
9. The Contractor shall provide stakes at all alignment control points, at every 500 foot stationing, and where required for coordination activities involving environmental agencies and utility companies at the Contractor's expense. Work that is done solely for utility companies and that is beyond the work performed under item 763501 - Construction shall follow and be paid for under item 763597 -Utility Construction Engineering.
10. The Contractor shall at a minimum set hubs at the top of finished grade at all hinge points on the cross section at 500 foot intervals on the main line and at least 4 cross sections on side roads and ramps as directed by the engineer or as shown on the plans. Placement of a minimum of 4 control points outside the limits of disturbance for the excavation of borrow pits, Stormwater Management Ponds, wetland mitigation sites etc. These control points shall be established using conventional survey methods for use by the Engineer to check the accuracy of the construction.
11. The Contractor shall preserve all reference points and monuments that are identified and established by the Engineer for the project. If the Contractor fails to preserve these items the Contractor shall reestablish them at no additional cost to the Department.
12. The Contractor shall provide control points and conventional grades stakes at critical points such as, but not limited to, PC's, PT's, superelevation points, and other critical points required for the construction of drainage and roadway structures.

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13. No less than 2 weeks before the scheduled preconstruction meeting, the Contractor shall submit to the Engineer for review a written machine control grading work plan which shall include the equipment type, control software manufacturer and version, and proposed location of the local GPS base station used for broadcasting differential correction data to rover units.
14. The Contractor shall follow the guidelines set forth in the "Geometric Geodetic Accuracy Standards and Specifications for Using GPS Relative Positioning Techniques" and follow a minimum of Second Order Class 1, (2-1) classification standards.

Automated equipment operations have a high reliance on accurate control networks from which to take measurements, establish positions, and verify locations and features. Therefore, a strong contract control network in the field which is the same or is strongly integrated with the project control used during the design of the contract is essential to the successful use of this technology with the proposed Digital Terrain Model (DTM). Consistent and well designed site calibration for all machine control operations (as described below under Contract Control Plan) are required to ensure the quality of the contract deliverables. The Contract Control Plan is intended to document which horizontal and vertical control will be held for these operations. Continued incorporation of the Base Station(s) as identified in the Contract Control Plan is essential to maintaining the integrity of positional locations and elevations of features. The Contract Control Plan shall be submitted to the Department for review and approval by the Departments Survey Section 3 weeks prior to the start of any machine control work. The Contractor shall operate and maintain all elements of the Machine Grade Control continuously once the operations begin until otherwise approved by the Engineer.

**Contract Control Plan:**

The Contractor shall develop and submit a Contract Control Plan for all contracts which use Machine Control Grading. Contract control includes all primary and secondary horizontal and vertical control which will be used for the construction contract. Upon the Contractor's completion of the initial survey reconnaissance and control verification, but prior to beginning primary field operations, the Contractor shall submit a Contract Control Plan document (signed and sealed by the Delaware licensed Land Surveyor or Delaware Professional Engineer who oversees its preparation) for acceptance by the

Engineer, which shall include the following:

1. A control network diagram of all existing horizontal and vertical control recovered in the field as contract control.
2. Include a summary of the calculated closures of the existing control network, and which control has been determined to have been disturbed or out of tolerance from its original positioning.

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3. An explanation of which horizontal and vertical control points will be held for construction purposes. If necessary include all adjustments which may have been made to achieve required closures.
4. An explanation of what horizontal and vertical control (including base stations) was set to accomplish the required stakeout or automated machine operation. Include how the position of these new control points was determined.
5. Describe the proposed method and technique (technology and quality control) for utilizing the control to establish the existing and/or proposed feature location and to verify the completed feature location and/or measured quantity.
6. A listing of the horizontal and vertical datums to be used and the combined factor to be used to account for ellipsoidal reduction factor and grid scale factor.
7. If the Contractor chooses to use machine control as a method of measuring and controlling excavation, fill, material placement or grading operations as a method of measuring and controlling excavation, fill, material placement or grading operations, the Contractor Control Plan shall include the method by which the automated machine guidance system will initially be site calibrated to both the horizontal and vertical contract control, and shall describe the method and frequency of the calibration to ensure consistent positional results.
8. Issues with equipment including inconsistent satellite reception of signals to operate the GPS machine control system will not result in adjustment to the "Basis of Payment" for any construction items or be justification for granting contract time extension.

**Method of Measurement:**

The quantity of Construction Engineering will not be measured.

**Basis of Payment:**

Payment will be made at the Lump Sum price bid for the item "Construction Engineering". The price bid shall include the cost of furnishing all labor, equipment, instruments, stakes and other material necessary to satisfactorily complete the work as herein described under this item for all roads and structures that are a part of the contract. Adjustment in payment will be made for the deletion or addition of work not shown in the contract documents.

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

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**763503 - TRAINEE**

**Description:**

The item shall consist of providing training in the construction crafts in accordance with the requirements stated in the General Notices of this proposal under the Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246).

**Basis of Payment:**

The payment for the item shall be made at a fixed rate of \$.80 per hour toward the hourly rate of the trainee.

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**763598 - FIELD OFFICE, SPECIAL I**

**Description:**

The field office work shall consist of furnishing, erecting, equipping, maintaining, and removing a singlewide modular office and adjacent parking area. The Contractor shall submit a specific location layout drawing and construction details for the proposed field office and its parking area for approval by the Engineer. The field office and parking area shall be for the exclusive use of Department Officials, Engineers, Designers, Construction Personnel, Consultants, and Inspectors.

The field office structure shall be free of asbestos and/or other hazardous materials. The field office and its parking area shall be constructed and installed in accordance with all applicable city, county, state, and federal codes. The Contractor shall be responsible for obtaining all required licenses and permits for installation and placement of the field office and its parking area. The costs of obtaining such licenses and permits to be incidental to the "Field Office, Special" Item. The field office shall be available for use by the Department continuously throughout the duration of the project.

**Construction and Equipment:**

The field office shall be new and have a minimum floor space of 600 square feet with minimum exterior dimensions of 50'-0" length by 12'-0" width. The floor to ceiling height shall be nominal 8'-0". The exterior walls, ceiling, and floor shall be insulated. The field office shall be of weather-proof construction, tightly floored and roofed, constructed with an air space above the ceiling for ventilation, supported above the ground, safely secured to its support if the support is an inground anchored foundation or otherwise by tie-downs to the ground, and fully skirted with rigid watertight covering overlapping the bottom of the exterior siding to the existing ground.

The Contractor shall provide entries to the field office by constructing a stair and deck platform with canopy at each exterior door. These entries shall be fabricated using treated dimension lumber, be constructed with hand and safety railing, be designed to last the life of the Contract, and conform to the requirements of the Architectural Accessibility Board and other federal, state and local boards, bodies and/or courts having jurisdiction in the Contract limits.

The Contractor shall construct and maintain an all-weather parking area adjacent to the office of at least 2500 square feet and having a minimum of 10 functional parking spaces striped for full size cars. All weather pathways from the parking area to the entrances of the field office shall also be constructed and maintained. This parking area and entrance pathways shall have a minimum of 2" type "C" hot mix on top of minimum 6" graded aggregate subbase. Snow and/or ice shall be removed from the parking area and from the entrance pathways to the field office within 12 hours after each occurrence. Costs for furnishing, placing, and maintaining the aggregate base and hot mix, and for snow and/or ice removal, to be incidental to the Field Office, Special" Item.

The ground area 30'-0" from around the perimeter of the field office to the field office shall be landscaped and maintained. If the earthen grounds do not have a stand of weed free grass, the surface of this area shall be loosened to a depth of 4" and a satisfactory seedbed shall be prepared free of debris and extraneous matter. The area shall be seeded to a healthy stand of grass or sodded, after which the area shall be watered, mowed, and trimmed a minimum of three times a month during the growing seasons. Cost for this landscaping and maintenance to be incidental to the "Field Office, Type I Special" Item.

The field office shall have full carpeting, kitchenette facilities, and interior and exterior paneling, lighting, and plumbing fixtures. The field office shall have a minimum of two (2) exterior doors, each door having a passage and a deadbolt lock. These door locks shall be keyed and at least 2 complete sets of keys shall be supplied to the Engineer's representatives. The exterior doors shall be insulated or have storm doors. The field office shall have a minimum of six (6) windows, each window having a minimum glass area of 1150 square inches and a horizontal mini-blind covering the full glass area. The windows shall be insulated or have storm windows. All windows shall be equipped with a locking device. All doors and windows shall have screens installed and repaired when damaged. At least two (2) outside water service connections shall be provided at the field office. Each water connection shall have a 3/4" frost proof hose bib with vacuum breaker and shall include 100 linear feet of 5/8" minimum diameter reinforced, industrial or commercial grade, soft rubber hose per connection.

The field office shall be provided with sufficient natural and artificial light and shall be adequately heated and cooled to provide comfortable working conditions.

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The field office shall have satisfactory lighting, electrical outlets, heating equipment, exhaust fan, and air-conditioning connected to an operational power source. Plan and drawing areas shall have individual fluorescent lights situated over their worktables. Replacement fluorescent lights shall be furnished as required. Electrical current, water, and any fuel for heating equipment shall be furnished and the cost of such shall be borne by the Contractor. Maintenance of the heating, exhaust fan, and air-conditioning equipment shall be provided for by validated service contracts for the length of the Contract. These service contracts shall allow a Department authorized project person to deal directly with the service organization to request repair.

The Contractor shall furnish and maintain two fire extinguishers and provide one lighted "Exit" sign for each exterior passage door. Fire extinguisher(s) may be chemical or dry power and shall be UL Classification 10-B:C(min.) and shall be suitable for Types A:B:C fires. A commercial or industrial type first aid and safety kit suitable for project conditions and hazards (including snakebite) shall be provided and maintained to full capacity on a monthly basis.

The Contractor shall provide an alarm system for field office security with electronic, direct connection to a security service provider. The security system shall have interior motion, window, and entrance detectors and built in manual fire alarm. All windows of the field office shall be covered with steel bar grids as a deterrent to forced entry. The Contractor shall provide validated monitoring and service contracts for the length of the Contract. These contracts shall allow a Department authorized project person to deal directly with the security service provider to request service and/or repair.

The Contractor shall furnish and maintain an adequate supply of cold potable water, a minimum 23 cubic foot new refrigerator, and a minimum 900-watt new microwave oven. Maintenance of the potable water supply equipment, refrigerator, and microwave shall be provided for by validated service contracts for the length of the Contract. These service contracts shall allow a Department authorized project person to deal directly with the service organization to request repair.

Suitable indoor toilet facilities, conforming to the requirements of the State and Local Boards of Health or of other bodies or courts having jurisdiction in the area, shall be provided. When separate facilities for men and women are not available or required, a sign with the wording "Rest Room" (letter heights 1" minimum) shall be placed over the doorway and an adequate positive locking system shall be provided on the inside of the doorway to insure privacy. The facility(s) shall be maintained by the Contractor to be clean and in good working condition and shall be stocked by the Contractor with adequate lavatory and sanitary supplies at all times during the period of the Contract.

The Contractor shall be responsible for performing or for making arrangements for all necessary telephone connections and/or for their maintenance; for providing a new telephone equipment system, for payment of all connections and the new telephone system equipment and its installation; and for final disconnection of the telephones.

The field office telephone system shall have a total of 3 lines consisting of 1 direct single lines with call forward busy feature, 2 dedicated computer use line with broadband connection for either DSL or cable, and have 1 wireless key set consisting of 1 master key set having privacy feature for the official and exclusive use of the Engineer and other representatives of the Department. Arrangement shall be made to allow a Department authorized project person to deal directly with the telephone company to report outages and/or request repair. Monthly billings for the field office telephone system are incidental to this item.

For all other utilities, the Contractor shall be responsible for performing or for making arrangements for all necessary utility connections and/or for their maintenance; for payment of all utility connections, installations, service fees and bills; and for final disconnection of utilities.

The field office interior shall be furnished by the Contractor. The Contractor shall provide new and maintain the following office furnishings, all which are to be approved by the Engineer prior to installation in the field office. Placement of these furnishings shall be as directed by the Engineer. 6 full size office desks each with filing drawer and fully adjustable ergonomic design swivel chair with armrests and five leg base having wheel casters, 1 computer station with acoustical panels having minimum 60 NRC rating for privacy screen and fully adjustable ergonomic design swivel chair with armrests and five leg base having wheel casters, 1 large conference table for a minimum of 12 people with surrounding chairs with armrests, 2 folding tables minimum 6'-0" by 3'-0" each with ergonomic design straight back chair with armrests, 1 work table,

1 supply cabinet, 2 rough plan racks, 2 legal size filing cabinets with 4 drawers, 2 legal size fire-resistant filing cabinets with lock and key with 4 drawers and meeting fire underwriters' approval for not less than one hour test, 2 book shelves minimum 3'-6" by 4'-6", 3 vertical surface legal size three compartment pockets,

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2 dry erase boards minimum 4' by 3' each with markers and erasers, and 2 cork bulletin boards minimum height 3' by 2'. These office furnishings will remain the property of the Contractor at the conclusion of the project.

The Contractor shall also furnish new and maintain the following office equipment, all which are to be approved by the Engineer prior to installation in the field office. The required equipment will enable the Department to synchronize project record keeping and office functions. The equipment shall be delivered in working and useable condition:

4 heavy-duty calculators having extra-large 12-digit fluorescent display, full size keyboard with contoured keys, two-color ribbon printer, and AC powered;

1 Canon Color imageRUNNER ADVANCE C3525i III all-in-one copier or equal which includes color scanner, color printer, and fax. Copier to have high speed wireless and network capability. Copier shall have all necessary software and cables for proper operation and shall be connected to high speed wireless and connected for use to share on a local network. Copier to have zoom and preset reduction and enlargement features, automatic two (2) sided copying, automatic document feeder with minimum 30 sheet capacity with automatic stapling capacity and shall be capable of printing both letter and ledger size paper;

1 Canon Vixia HF M300, Panasonic HDC SD60, Samsung HMX-R10 or approved equal digital video camera, 1080p, CMOS optical sensor, digital format H.264, digital photo mode, camcorder sensor resolution 3.2 megapixels or greater, SD memory expansion card for still images, connection type, HDMI, USB, component video/audio output;

1 micro cassette recorder, having fast playback, voice-activated system, three-digit tape counter, silent auto-stop and pause, two tape speeds, one-touch and follow-up, built-in condenser microphone, cue and review, and rechargeable with combination battery charger/AC adapter;

1 telephone answering machine having all-digital recording, 14-minute message capacity, selectable message time, voice prompt assistance, day/time stamp, call screening, two-digit LED message indicator, toll saver, power failure memory back-up, and message interrupt from any station; and

2 compact digital cameras with 10 megapixels or greater, maximum dimensions of 3" x 5" x 3", built-in flash, autofocus, video mode LCD for review of images, LCD viewfinder acceptable, removable memory compatible with compact flash, or secure digital (SD) or secure digital high capacity (SDHC), ISO compatible with 100, 200, 400 standard of quality or better, and memory cards supported by camera of 8 GB or better.

Consumables as required to manage the business of the project shall be provided for all office equipment for the length of the Contract. These consumables shall be furnished on request and shall include but not be limited to paper, tapes, ribbons, rolls, toner, cleaning kits, microcassette tapes and batteries, answering machine cassettes, camera batteries and memory sticks and/or discs, DVD and CD R/RW media, etc. Maintenance of all office equipment shall be provided for by a validated service contract for the length of the Contract. This service contract shall allow a Department authorized project person to deal directly with the service organization to request repair. Included in the unit price bid per month for the Field Office on this project will be one (1) IBM compatible Microcomputer Systems which will be furnished and maintained by the Contractor for use by the Engineer. The specified computer system will synchronize the construction management functions of the Department to monitor, report, and perform the accounting of the project work. The computer system and all related equipment specified below shall be furnished new and remain the property of the Contractor at the conclusion of the Contract. A detailed listing of the proposed computer system and all the related equipment to be provided by the Contractor shall be submitted for approval by the Engineer prior to furnishing the Microcomputer System. The Microcomputer System shall be a Laptop Computer System with a docking station. The Microcomputer System shall consist of:

### Central Processing Unit (CPU) – Lap Top

Intel or AMD processor, (2.0 GHz) or better with integrated USB 2.0/3.0 and wireless networking

included,

Minimum 4.0GB RAM with expansion capability to at least 8.0GB, and

Microsoft "Windows® 10 Pro" operating system;

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Bluetooth

Bluetooth 4.0;

Network Card & Wireless Connectivity

Integrated 10/100/1000BASE-T Ethernet LAN

802.11b/g/n/ac WLAN;

### Memory (Storage)

CD/DVD +/- RW with double layer write capability, and 500GB hard drive minimum, integrated Ethernet 10/100, and internal modem. Included software shall support double layer media writing and automatic backup of data;

### Monitor

Provide two (2) flat panel monitors, 23" minimum diagonal visual area, having both HDMI and Display Port connections, 1024-pixel resolution. Swivel base with low radiation and eyestrain protection, brightness and contrast control and

Laptop - shall have 15.4" display minimum;

### Color Graphics Card

Card must be PCI Express interface with 512MB onboard video memory having, DirectX 12.0 compatible, and have a minimum resolution of at least 1280x800 with at least 32 bit color, and video control hardware and software;

### Keyboard

Integrated Keyboard or full-size (Bluetooth) equivalent keyboard. Mouse shall be full size and wireless (Bluetooth);Software

The latest version programs for application management (operating system), word processing, spreadsheet, and anti-virus shall be provided with all user manuals. Upgrades, maintenance, and full technical support by the manufacturer shall be provided for the length of the Contract. The required software will enable the Department to synchronize accounting and record keeping functions between the project, District, and Department offices. A list of programs to be provided shall be submitted to the Engineer for approval. Software, other than for application management and anti-virus, is to be delivered unopened to the Department's administrative office. All software is to be compatible with and for use to run on "Windows® 10". The required applications software follows and is to be latest version unless noted:

spreadsheet - "Microsoft Excel 2019" or later version approved by the Engineer, suite - "Microsoft® Office 2019" or later version as approved by the Engineer, antivirus - "Norton 360 Standard edition" (or later version approved by the Engineer), and software supporting creation of DVD +/- R/RW disks (supporting double layer media writing) and DVDR and DVDRW disks using DVDRW drive, for example: Ahead Nero, Roxio DVD/CD Creator, or some equivalent product. Note: software commonly included as part of the standard CDRW upgrade/standalone package is acceptable if included with the unit;

### Related Equipment

Wireless networking hub/router (802.11ac or better) with all associated hardware (adapters, cables, etc) and soft to enable wireless networking and internet connection sharing for all office computers and printers,

An electrical outlet with dedicated circuit for the main computer unit,

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An optical mouse with proper driving software having complete Microsoft emulation,

Necessary cables for proper operation,

An uninterruptible power supply (UPS) units for protection from power loss or fluctuation, minimum of 6 outlets, adequate to provide a minimum of 30 minutes backup power for an orderly shut down of the computer system with software and connections for automatic system shutdown,

24-bit Sound Blaster compatible PCI soundcard with quality desktop speakers,

A combination surge, spike, and noise protection device with receptacles for all peripherals (may be in combination with the UPS power supply),

A wrist rest suitable for use with the furnished keyboard,

Cleaning kits for disk drives,

An anti-glare filter with grounding wire suitable for use with the furnished monitor, and

All cards, hardware, and operating, anti-virus, and equipment software to be fully installed and operational;

### Maintenance and Service

Maintenance of all specified equipment and components shall be provided for by a validated service agreement for the length of the Contract. Maintenance (upgrades, replacement, full technical support) for each software application shall be provided for by validated maintenance agreement for the length of the Contract. These agreements shall allow an authorized project person to deal directly with the service organization to request repair or the maintenance organization to request assistance; and

### Supplies

Consumables as required to manage the business of the project shall be provided for the Microcomputer Systems for the length of the Contract. These consumables shall be furnished on request and include but not be limited to compatible diskettes for provided digital cameras and memory stick media, DVDR and DVDRW media compatible supporting operational minimum to maximum speed of the DVD/RW drive unit, cut sheet paper and labels compatible with the printers, hardware and screen cleaners, and toner cartridges.

Maintenance of the field office including its adjacent parking area, for the time required, shall consist of maintenance and/or replacement of all provided items, security system, furniture and equipment, computer systems, providing lavatory supplies, providing trash containers and waste baskets, providing entrance mats at each door, providing replacement items for lighting fixtures, maintaining all utilities, providing satisfactory and sanitary janitorial and waste disposal services twice a week, providing cleanup of trash and debris on the parking lot and landscaped area once a week, and shall be included in the monthly unit cost.

The Contractor shall provide and deliver a current copy of all validated field office, equipment, and computer maintenance, service, assistance and/or monitoring agreements and/or contracts as mentioned hereinabove to the Department's administrative office on or before the first day the field office is ready for use.

### **Method of Measurement:**

This item will not be measured but will be paid for on a monthly basis. Partial months will be paid at the rate of 0.033 months per day.

### **Basis of Payment:**

The field office will be paid for on a unit price bid per month, which price shall be full compensation for performing the work specified and the furnishing of all materials, labor, tools, equipment and incidentals necessary to maintain the field office and its adjacent parking area and restore the field office area and adjacent parking area to match the original site condition. No separate payment will be made for costs involved for removing hazardous material or underground tanks to install these offices or the parking area.

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Payment will be made only for the actual number of months that the office is acceptably provided by the Contractor.

The field office shall be ready for use not later than thirty (30) calendar days after the date of the fully executed Contract and before construction operations begin.

7/9/2020

**813500 – PEDESTRIAN CHANNELIZING BARRICADE SYSTEM**

**Description:**

Furnish, place, relocate, and maintain a pedestrian channelizing barricade system in accordance with the requirements of the Americans with Disabilities Act (ADA), the Delaware Manual on Uniform Traffic Control Devices (DE MUTCD), these specifications, the plans and details, and as directed by the Engineer.

**Materials:**

Furnish a pedestrian channelizing barricade system meeting the National Cooperative Highway Research Program (NCHRP) Report 350 or the Manual for Assessing Safety Hardware (MASH) Test Level 2 certification. The approved system must have been tested as a barricade in accordance with the NCHRP 350 and/or MASH testing criteria. Submit a copy of the FHWA certification letter and associated documentation to the Engineer prior to acceptance by the Department and prior to installation of the device on the project.

A. *Barricade Rails:*

1. Manufactured from high density polyethylene (HDPE) with UV inhibitors.
2. Barricade rails must accommodate a minimum of 7 3/4" wide retroreflective sheeting on both sides of the rails.
  - a. Use white prismatic and fluorescent orange retroreflective sheeting where the white and fluorescent orange colors are placed at 45-degree angles.

B. *Barricade supports:*

1. Manufactured from high density polyethylene (HDPE) with UV inhibitors and internally ballasted.
  - a. Use ballast material in accordance with manufacturer recommendations.

**Construction Methods:**

Construct the barricade with continuous delineation along the designated walkway for use as a channelization device.

- A. Assemble the barricade without hardware and in accordance with manufacturer's recommendations.
- B. Provide continuous upper and lower rails for hand or cane trailing.

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1. Install upper rail of barricade a minimum 36" above the ground, measured from the ground to the top of the upper rail.
  2. Install lower rail of the barricade a minimum of 1 ½" above the ground, measured from the ground to the bottom of the lower rail.
- C. No portion of the barrier structure or supports may extend into the walkway more than 3/4" further than the common plane formed by the upper and lower rails.
- D. Ensure that barricade joints are smooth and snag-resistant to accommodate safe hand trailing.
- E. Provide accommodations for attachment of audible information devices.
- F. Pedestrian channelizing barricades cannot be used as road closure barricades or provide positive protection between the temporary walkway and vehicular traffic.
- G. Remove pedestrian channelizing when it is no longer needed.
1. Dispose of all materials in accordance with Subsection 106.08

**Method of Measurement:**

Pedestrian channelizing barricade will be measured along the linear centerline of the barricade in units of linear feet per day (LF/DY), acceptably installed, maintained, removed and completed as specified

**Basis of Payment:**

Pedestrian channelizing barricade will be paid for at the contract unit price bid per linear feet per day for the item Pedestrian Channelizing Barricade. Price and payment include full compensation for providing certification, furnishing, placing, maintaining, and relocating the barricades as required, all labor, equipment, tools, and all incidentals necessary to complete the work. Replace barricades stolen or damaged at no cost to the Department.

5/17/17

**817500 - PREFORMED THERMOPLASTIC DECORATIVE PAVEMENT SYSTEM**

**Description:**

This work consists of preparing the application area, supplying and placing sealer and the preformed thermoplastic material with the specified color and pattern at the location(s) shown on the Plans and as directed by the Engineer.

**Materials:**

The material must be a resilient preformed thermoplastic product, where the top surface contains nonskid/non-slip material. The material must be resistant to the detrimental effects of motor fuels, lubricants, hydraulic fluids etc. The material shall be capable of being installed on bituminous and/or portland cement concrete pavements by the use of an infrared heater or a blue-flame radiant heater. The use of a compactor or similar equipment shall not be permitted.

The material must be capable of conforming to pavement contours, breaks and faults through the action of traffic at normal pavement temperatures. It shall not be necessary to use a grid template or to make pattern grooves or other indentations in the asphalt or concrete surface prior to installing the material. The final product shall have strong adhesion to the underlying pavement, and be durable and abrasion resistant.

The individual pieces in each material segment (typically 24 in. by 36 in.) must be factory assembled with a compatible material and interconnected so that in the field it is not necessary to assemble the individual pieces within a material segment. The material must be able to be applied in temperatures down to 45°F without any special storage, preheating or treatment of the material before application

The material must be able to be applied to asphalt and concrete surfaces without preheating the application surface to a specific temperature. The material must be capable of being affixed to green concrete (concrete that has set but not appreciably hardened) and not require the portland cement concrete application areas to be cured or dried out. The material must be capable of being affixed to bituminous and/or portland cement concrete pavements by the use of the heat of an infrared heater or blue-flame heater. Heating indicators must be evenly distributed on the surface of the material in order to ensure correct application. The material must cover the entire application area. Once applied, no part of the pavement surface must be visible in the application area.

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**Specifications:**

The Material must be composed of an ester modified rosin impervious to degradation by motor fuels, lubricants etc. in conjunction with aggregates, pigments, binders, and non-skid/non-slip material. Pigments and non-skid/nonslip material must be uniformly distributed throughout the material. The thermoplastic material conforms to AASHTO designation M249-98, with the exception of the relevant differences due to the material being supplied in a preformed state, being non-reflective, and potentially being of a color different from white or yellow.

**Pigments:**

White: The material shall be manufactured with sufficient titanium dioxide pigment to meet FHWA Docket No. FHWA-99-6190 Table 5 and Table 6 as revised and corrected.

Red, Blue, and Yellow: The material shall be manufactured with sufficient pigment to meet FHWA Docket No. FHWA-99-6190 Table 5 and Table 6 as revised and corrected. The pigment system must be heavy-metal free.

Other Colors: The pigment system must be heavy-metal free.

**Miscellaneous Specifications:**

Heating indicators: The top surface of the material shall have regularly spaced indents. These indents shall act as a visual cue during application that the material has reached a molten state so satisfactory adhesion and proper embedment of non-skid/non-slip material has been achieved, and a post-application visual cue that the application procedures have been followed.

Skid Resistance: The surface of the preformed thermoplastic material shall contain factory applied non-skid material with a minimum hardness of 7 (Mohs scale). Upon application the material shall provide a minimum skid resistance value of 55 BPN when tested according to ASTM E 303.

Slip Resistance: Upon application the material shall provide a minimum static friction of coefficient of 0.6 when tested according to ASTM C 1028 (wet and dry), and a minimum static coefficient of friction of 0.6 when tested according to ASTM D 2047.

Thickness: The material must be supplied at a minimum thickness of 125 mil (3.18 mm).

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Environmental Resistance: The material must be resistant to deterioration due to exposure to sunlight, water, salt or adverse weather conditions and impervious to oil and gasoline.

The Contractor shall submit industry or manufacturer/supplier technical information available for the material and system proposed for use. This information should include material recommendations, certifications and installation instructions as appropriate for the proposed system based on environmental and traffic conditions.

### **Construction Methods:**

A manufacturer's representative shall be present on-site during the placement of the system.

*The system shall be placed only within the Plan designated areas. These areas shall be prepared by air lancing the surface to remove dirt, loose particles, and any other substance that may reduce the system's ability to adhere to the existing surfaces. Once clean, the surface shall be heated by an infrared heater or a blue-flame radiant heater to remove any moisture within the existing pavement. It is imperative that the surface be dry in order for the adhesive to function properly.*

Once the installation area has been prepped a sealant shall be placed on the substrate, per the manufacturer's specifications, and the material placed over the sealant. The material shall be applied using an infrared heater as recommended by the manufacturer.

The system may be constructed only when environmental conditions meet the requirements of these specifications, or of the material manufacturer/supplier, whichever is more stringent. The following conditions must be met:

- Air temperature, both current and that forecast throughout the cure time shall be above 45°F.

The contractor shall ensure that the edge of the material is flush with the adjacent pavement so that it will not have a lip that could be caught by snow plow or other maintenance activities.

The final texture, color and pattern of the surface shall conform to the Plan details. A 24 inch by 36 inch color sample and pattern shall be supplied to the Department for approval prior to installation

The constructed area shall be closed to traffic until the system has cured and cooled sufficiently to resist damage to the system. Cure time shall be one (1) hour or as directed by the Engineer or manufacturer's representative.

**Method of Measurement:**

The quantity of preformed thermoplastic decorative pavement system will be measured as the actual number of square feet of preformed thermoplastic decorative pavement system placed and accepted in conformance with the Plans, Specifications and manufacturer's recommendation.

The Engineer will not measure areas of correction for payment.

**Basis of Payment:**

The quantity of preformed thermoplastic decorative pavement system will be paid for at the Contract unit price per square foot. Price and payment will constitute full compensation for preparing the area; supplying and placing the sealant and thermoplastic pavement markings; and for all labor, equipment, and incidentals required to complete the work.

4/22/16

- 831500 - FURNISH AND INSTALL UP TO 6" SCHEDULE 80 PVC CONDUIT (OPEN CUT)
  - 831501 - FURNISH AND INSTALL 4" SCHEDULE 80 PVC CONDUIT (OPEN CUT)
  - 831502 - FURNISH AND INSTALL 3" SCHEDULE 80 PVC CONDUIT (OPEN CUT)
  - 831503 - FURNISH AND INSTALL 2-1/2" SCHEDULE 80 PVC CONDUIT (OPEN CUT)
  - 831504 - FURNISH AND INSTALL 2" SCHEDULE 80 PVC CONDUIT (OPEN CUT)
  - 831505 - FURNISH AND INSTALL 1" SCHEDULE 80 PVC CONDUIT (OPEN CUT)
- 831506 - FURNISH AND INSTALL 1" FLEXIBLE METALLIC-LIQUIDTIGHT CONDUIT
- 831507 - FURNISH AND INSTALL 2" FLEXIBLE METALLIC-LIQUIDTIGHT CONDUIT
- 831508 - FURNISH AND INSTALL 3" FLEXIBLE METALLIC-LIQUIDTIGHT CONDUIT
- 831509 - FURNISH AND INSTALL 4" FLEXIBLE METALLIC-LIQUIDTIGHT CONDUIT
  - 831512 - FURNISH AND INSTALL 1" SCHEDULE 80 PVC CONDUIT (TRENCH)
  - 831513 - FURNISH AND INSTALL 2" SCHEDULE 80 PVC CONDUIT (TRENCH)
  - 831514 - FURNISH AND INSTALL 2-1/2" SCHEDULE 80 PVC CONDUIT (TRENCH)
  - 831515 - FURNISH AND INSTALL 3" SCHEDULE 80 PVC CONDUIT (TRENCH)
  - 831516 - FURNISH AND INSTALL 4" SCHEDULE 80 PVC CONDUIT (TRENCH)
- 831517 - FURNISH AND INSTALL 1" SCHEDULE 80 PVC CONDUIT (ON STRUCTURE)
- 831518 - FURNISH AND INSTALL 2" SCHEDULE 80 PVC CONDUIT (ON STRUCTURE)
- 831519 - FURNISH AND INSTALL 2-1/2" SCHEDULE 80 PVC CONDUIT (ON STRUCTURE)
- 831520 - FURNISH AND INSTALL 3" SCHEDULE 80 PVC CONDUIT (ON STRUCTURE)
- 831521 - FURNISH AND INSTALL 4" SCHEDULE 80 PVC CONDUIT (ON STRUCTURE)
  - 831522 - FURNISH AND INSTALL 1" GALVANIZED STEEL CONDUIT (TRENCH)
  - 831523 - FURNISH AND INSTALL 2" GALVANIZED STEEL CONDUIT (TRENCH)
  - 831524 - FURNISH AND INSTALL 2-1/2" GALVANIZED STEEL CONDUIT (TRENCH)
  - 831525 - FURNISH AND INSTALL 3" GALVANIZED STEEL CONDUIT (TRENCH)
  - 831526 - FURNISH AND INSTALL 4" GALVANIZED STEEL CONDUIT (TRENCH)
  - 831527 - FURNISH AND INSTALL 1" GALVANIZED STEEL CONDUIT (BORE)
  - 831528 - FURNISH AND INSTALL 2" GALVANIZED STEEL CONDUIT (BORE)
  - 831529 - FURNISH AND INSTALL 2-1/2" GALVANIZED STEEL CONDUIT (BORE)
  - 831530 - FURNISH AND INSTALL 3" GALVANIZED STEEL CONDUIT (BORE)
  - 831531 - FURNISH AND INSTALL 4" GALVANIZED STEEL CONDUIT (BORE)
- 831532 - FURNISH AND INSTALL 1" GALVANIZED STEEL CONDUIT (OPEN CUT)
- 831533 - FURNISH AND INSTALL 2" GALVANIZED STEEL CONDUIT (OPEN CUT)
- 831534 - FURNISH AND INSTALL 2-1/2" GALVANIZED STEEL CONDUIT (OPEN CUT)

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- 831535 - FURNISH AND INSTALL 3" GALVANIZED STEEL CONDUIT (OPEN CUT)**
- 831536 - FURNISH AND INSTALL 4" GALVANIZED STEEL CONDUIT (OPEN CUT)**
- 831537 - FURNISH AND INSTALL 1" GALVANIZED STEEL CONDUIT (ON STRUCTURE)**
- 831538 - FURNISH AND INSTALL 2" GALVANIZED STEEL CONDUIT (ON STRUCTURE)**
- 831539 - FURNISH AND INSTALL 2-1/2" GALVANIZED STEEL CONDUIT (ON STRUCTURE)**
- 831540 - FURNISH AND INSTALL 3" GALVANIZED STEEL CONDUIT (ON STRUCTURE)**
- 831541 - FURNISH AND INSTALL 4" GALVANIZED STEEL CONDUIT (ON STRUCTURE)**
- 831542 - FURNISH AND INSTALL 2" HDPE SDR-13.5 CONDUIT (BORE)**
- 831543 - FURNISH AND INSTALL 2-1/2" HDPE SDR-13.5 CONDUIT (BORE)**
- 831544 - FURNISH AND INSTALL 3" HDPE SDR-13.5 CONDUIT (BORE)**
- 831545 - FURNISH AND INSTALL 4" HDPE SDR-13.5 CONDUIT (BORE)**
- 831560 - FURNISH AND INSTALL UP TO 4" SCHEDULE 80 PVC CONDUIT (OPEN CUT)**
- 831561 - FURNISH AND INSTALL 1-1/2" SCHEDULE 80 PVC CONDUIT (TRENCH)**
- 831562 - FURNISH AND INSTALL 1-1/2" SCHEDULE 80 PVC CONDUIT (ON STRUCTURE)**
- 831563- FURNISH AND INSTALL 1-1/2" GALVANIZED STEEL CONDUIT (OPEN CUT)**
- 831564 - FURNISH AND INSTALL 1-1/2" GALVANIZED STEEL CONDUIT (TRENCH)**
- 831565 - FURNISH AND INSTALL 1-1/2" GALVANIZED STEEL CONDUIT (BORE)**
- 831566 - FURNISH AND INSTALL 1-1/2" GALVANIZED STEEL CONDUIT (ON STRUCTURE)**
- 831569 - FURNISH & INSTALL SECOND AND SUBSEQUENT ADDITIONAL 1" SCHEDULE 80 PVC CONDUITS IN TRENCH OR OPEN CUT**
- 831570 - FURNISH & INSTALL SECOND AND SUBSEQUENT ADDITIONAL 1-1/2" SCHEDULE 80 PVC CONDUITS IN TRENCH OR OPEN CUT**
- 831571 - FURNISH & INSTALL SECOND AND SUBSEQUENT ADDITIONAL 2" SCHEDULE 80 PVC CONDUITS IN TRENCH OR OPEN CUT**
- 831572 - FURNISH & INSTALL SECOND AND SUBSEQUENT ADDITIONAL 2-1/2" SCHEDULE 80 PVC CONDUITS IN TRENCH OR OPEN CUT**
- 831573 - FURNISH & INSTALL SECOND AND SUBSEQUENT ADDITIONAL 3" SCHEDULE 80 PVC CONDUITS IN TRENCH OR OPEN CUT**
- 831574 - FURNISH & INSTALL SECOND AND SUBSEQUENT ADDITIONAL 4" SCHEDULE 80 PVC CONDUITS IN TRENCH OR OPEN CUT**
- 831575 - FURNISH & INSTALL SECOND AND SUBSEQUENT ADDITIONAL 2" HDPE 13.5 SDR CONDUIT IN DIRECTIONAL BORE**
- 831576 - FURNISH & INSTALL SECOND AND SUBSEQUENT ADDITIONAL 2-1/2" HDPE 13.5 SDR CONDUIT IN DIRECTIONAL BORE**
- 831577 - FURNISH & INSTALL SECOND AND SUBSEQUENT ADDITIONAL 3" HDPE 13.5 SDR CONDUIT IN DIRECTIONAL BORE**

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**831578 - FURNISH & INSTALL SECOND AND SUBSEQUENT ADDITIONAL 4" HDPE 13.5 SDR  
CONDUIT IN DIRECTIONAL BORE**

**831579 - FURNISH & INSTALL SECOND AND SUBSEQUENT ADDITIONAL 1" GALVANIZED STEEL  
CONDUIT IN TRENCH OR OPEN CUT**

**831580 - FURNISH & INSTALL SECOND AND SUBSEQUENT ADDITIONAL 1-1/2" GALVANIZED  
STEEL CONDUIT IN TRENCH OR OPEN CUT**

**831581 - FURNISH & INSTALL SECOND AND SUBSEQUENT ADDITIONAL 2" GALVANIZED STEEL  
CONDUIT IN TRENCH OR OPEN CUT**

**831582 - FURNISH & INSTALL SECOND AND SUBSEQUENT ADDITIONAL 2-1/2" GALVANIZED  
STEEL CONDUIT IN TRENCH OR OPEN CUT**

**831583 - FURNISH & INSTALL SECOND AND SUBSEQUENT ADDITIONAL 3" GALVANIZED STEEL  
CONDUIT IN TRENCH OR OPEN CUT**

**831584 - FURNISH & INSTALL SECOND AND SUBSEQUENT ADDITIONAL 4" GALVANIZED STEEL  
CONDUIT IN TRENCH OR OPEN CUT**

**831585 - FURNISH & INSTALL SECOND AND SUBSEQUENT ADDITIONAL 1" STEEL CONDUIT IN  
DIRECTIONAL BORE**

**831586 - FURNISH & INSTALL SECOND AND SUBSEQUENT ADDITIONAL 1-1/2" STEEL CONDUIT  
IN DIRECTIONAL BORE**

**831587 - FURNISH & INSTALL SECOND AND SUBSEQUENT ADDITIONAL 2" STEEL CONDUIT IN  
DIRECTIONAL BORE**

**831588 - FURNISH & INSTALL SECOND AND SUBSEQUENT ADDITIONAL 2-1/2" STEEL CONDUIT  
IN DIRECTIONAL BORE**

**831589 - FURNISH & INSTALL SECOND AND SUBSEQUENT ADDITIONAL 3" STEEL CONDUIT IN  
DIRECTIONAL BORE**

**831590 - FURNISH & INSTALL SECOND AND SUBSEQUENT ADDITIONAL 4" STEEL CONDUIT IN  
DIRECTIONAL BORE**

**Description:**

This work consists of furnishing and installing a conduit or shield, of the type and size required and as specified in the contract documents or as directed by the Engineer.

**Materials:**

All conduits shall be UL listed.

**HDPE Conduit** - 2" and 4" diameter, high density polyethylene (HDPE) SDR-13.5, smooth wall conduit with permanently pre-lubricated lining, meeting ASTM D2447, ASTM D3035 and NEMA TC7 specifications.

**PVC Conduit** - 4", 3", 2-1/2", 2" or 1" diameter, schedule 80 rigid polyvinyl chloride (PVC) conduit, meeting Commercial Standard CS-272-65 (PVC), ASTM D-1785 and U.C. Standard 651 specifications.

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**Galvanized Steel Conduit** - 4", 3", 2-1/2", 2", 1-1/2 or 1" diameter, rigid galvanized steel conduit meeting National Electric Code 2002, Article 344.

**HDPE Conduit to PVC Conduit Coupling** - Galvanized steel meeting Commercial Standard CS-272-65 (PVC), ASTM D-1785 and U.C. Standard 651 specifications

**Flexible Metallic-Liquidtight Conduit** - meets National Electric Code 2002, Article 350

**Weatherhead for galvanized or PVC conduit** - material shall match the adjoining conduit

**Insulated grounding bushing with knockouts** - meet or exceed UL 514 B

**Condulets for conduit sizes** - material shall match the adjoining conduit

**Anchors** - A 307, Galvanized per A 153

**One hole conduit hangers** - Steel City Series 6H or 6H-B, CADDY CD3B Rigid Conduit Hanger, or approved equal

**End caps** - material shall match the adjoining conduit

**LONG sweep sections for conduit sizes** - material shall match the adjoining conduit, and shall be manufactured 90 degree sweeping bends.

### **Construction Methods:**

#### **General Installation Requirements -**

The Department has the right to reject any installation method proposed for a given work site. PVC shall not be installed under existing pavement unless it is on a continuous roll or with the Engineer's written approval.

Conduit installed underground shall be installed in a straight line between terminal points. In straight runs, junction well spacing shall be no more than 600 feet for fiber optic conduit or no more than 300 feet for copper in conduit, or as directed by the Engineer. If bends are required during installation, they must be manufactured sweeping bends. The Engineer will be consulted before any bends are installed to ensure that the proper arc is provided.

Underground conduit shall have a minimum cover as measured from the finished grade of 24 inches and a maximum cover of 48 inches. The opening shall be filled half way with the cover material, and tamped down firmly before filling in the remainder of the opening. Additional lifts shall be used as required to install the metallic warning tape at the specified depth. All cover material shall be free of rocks, debris, vegetation or other deleterious material that may damage the conduit. An underground utility warning tape shall be installed as specified in this section and the remainder of the fill shall be added, tamping down the top layer.

Conduit not terminated to a base or in a junction well shall be terminated 2 feet beyond the edge of the pavement unless otherwise directed by the Engineer, and properly capped. Tape is NOT an approved method. Conduit shall not extend more than 3 inches inside a junction well. See Standard Construction Details or applicable Plan Details for typical methods of termination.

All underground conduits shall be marked in the ground with a metallic warning tape. The marking tape shall be buried directly above the conduit run that it identifies, at a depth of approximately 12 inches below final grade. The tape identifying ALL conduits shall be at least 6 inches wide, and have a minimum thickness of 3 mils and 500 percent elongation.

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The color of the metallic warning tape identifying fiber optic cable should be bright orange (preferably AULCC orange), and shall read "WARNING - OPTICAL CABLE" or other wording approved by the Engineer that conveys the same message. The color of the tape identifying all other cables shall be bright red, and shall read "WARNING -BURIED ELECTRIC BELOW" or other wording approved by the Engineer that conveys the same message.

Using conduit tools, rigid metallic conduit shall be cut, reamed, and threaded. The thread length shall be as necessary to ensure that the sections of conduits when screwed into a coupling and tightened correctly will butt together and the joint will be watertight. A three-piece threaded union, as approved by the Engineer, shall be used to join two threaded lengths of conduit in the case where a standard coupling will not work. A threaded union shall not be used in a conduit run that is to be driven. At no time is a threadless coupling or a split-bolt coupling to be used for direct buried conduit.

All lengths of HDPE conduit shall be connected with irreversible fusion couplings. Mechanical and removable couplings will not be accepted.

All lengths of PVC conduit shall be connected by one conduit end fitting inside the flared end of the other conduit section. If this is not possible, then a coupling may be used. Regardless of how connection is made, all joints shall be sealed with the appropriate epoxy to ensure that the two conduit pieces bond to one another to form a solid waterproof link. Using conduit tools, the conduit shall be cut and prepared. If approved by the Engineer, a coupler module may be used where conduit segments do not align properly to allow the flared end of one conduit segment to mate with the normal end of the other segment.

Sealed end caps (with knockouts if empty) shall be placed on the ends of all conduits, after compressed air has been used to clear all foreign matter.

If not already pre-installed by the manufacturer, a polyester or polypropylene pulling rope or tape (fish wire) with a minimum rated strength of 1250 pounds shall be installed in each conduit for future use. In instances where the Contractor installs the cable, the fish wire may be eliminated.

All PVC and HDPE conduits shall have a continuous metallic trace wire installed for the entire length of the conduit run for all fiber installations.

Generally, Item No. 908020 - Erosion Control Blanket Mulch in the Department's 2016 Standard Specifications would be used to stabilize slopes that are 2:1 or flatter. For slopes that are steeper than 2:1 and/or receive a moderate amount of concentrated flow, Item No. 908021 - Turf Reinforcement Matting, Type 1 in the Department's 2016 Standard Specifications would be used for slope stabilization. However, if required Contractor shall refer to DelDOT's Erosion and Sediment Control Manual for the placement of steep slope stabilization.

### **Installation of Conduit Under Existing Pavement, Directional Bore -**

Directional bore shall be used for installation of conduits under existing pavement with a conduit diameter not less than 1-1/2". The size of a bore shall not exceed the outside diameter of the conduit by more than 1 inch. If it does, cement grout shall be pumped into the void. Only HDPE and/or Galvanized Steel conduit may be installed by Directional Bore methods.

### **Installation of Conduit Under Existing Pavement, Open Cut -**

Installation by sawcutting the full pavement depth and removing the existing pavement with an excavator or by hand methods, shall be used only for conduits not less than 1-1/2" diameter. The Engineer must first approve all open cutting of roadways. The width and length of open cut and patch restoration materials shall be as shown on the plan details. The Contractor shall be responsible for the removal of all cut pavement and surplus excavation, and for the replacement and correction of any damaged pavement outside the sawcut limits after the conduit(s)

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are installed. Asphalt pavement, concrete, base course, sawcutting, and/or borrow from an outside source as required to restore the roadway will be paid for separately under their respective bid items.

### **Installation of Conduit Under Existing Pavement, Unpaved Trench -**

Trenching or other approved method shall be used for installation of conduit in unpaved trench or under new pavement. Backfill in conduit trenches shall be compacted thoroughly as it is being placed. At the discretion of the Engineer, sod, that must be removed for the placement of conduit, shall be removed either by the use of an approved sod cutter and then replaced, or 6 inches of topsoil shall be placed and the surface seeded in accordance with Section 734001 - Seeding. In areas where new pavement is to be placed or in areas where total reconstruction is taking place, sodding or seeding may not be required by the Engineer. Sodding and/or topsoil from an outside source if required will be paid for separately under their respective bid items. Seeding is considered incidental to the conduit item.

### **Installation of Conduit on Structure -**

Conduit installed on structure shall consist of drilling anchors into concrete, brick, stone, steel or wood and mounting the conduit with the proper clamps or hangers. The conduit shall be attached to the structure by use of one-hole conduit hangers and approved anchors not more than 36 inches apart. Any 90-degree turns in the conduit run shall be accomplished by placing the proper size and type manufactured sweeping bends for the application needed.

### **Installation of Additional Conduit in Trench or Open Cut Pavement:**

In the case of slotted or trenched installations, the Contractor shall install additional conduits at the same time as the initial installation. The Engineer shall indicate the quantity of conduits to be installed during a build. Additional conduits may be stacked one on top of the other, side by side or in a matrix. The orientation shall be at the Contractor's discretion, but conduits shall not twist around one another or be allowed to deviate from straight line paths except in the case of bend installations. Conduits installed at the same time in the same trench or slot shall remain oriented the same in relation to one another throughout the conduit run.

### **Installation of Additional Conduits in Directional Bore:**

In the case of a directional bore that more than one conduit shall be installed, the Contractor shall, at the same time as the initial installation, install one (1) or more additional conduits. The Engineer shall indicate the quantity of conduits to be installed during a build. The additional conduits may be stacked one on top of the other, side by side or in a matrix. The orientation shall be at the Contractors discretion, but conduits shall not twist around one another or be allowed to deviate from straight line paths except in the case of a gentle bend. Conduits installed at the same time, in the same bore shall remain oriented in the same relation to one another throughout the conduit run.

### **Method of Measurement:**

The quantity of conduit furnished and installed as specified, shall be measured as the number of linear feet of conduit furnished, installed as specified, complete in place, and accepted.

The length of each conduit installed under existing pavement by a directional bore or by open cutting the pavement shall be measured along the path of the bore or open cut, from the point that cannot be trenched to the point that trenching can resume. The length of any conduit that is reduced or divided (with a junction well or conduit body) shall be measured as part of the larger conduit.

**Basis of Payment:**

The quantity of conduit will be paid for at the Contract unit price per linear foot. Price and payment shall include full compensation for all materials, and labor, topsoil and seed if needed, and incidentals necessary to complete the item. Payment for all necessary couplings shall be incidental to the price of the conduit.

For conduit installed by Directional Bore, the linear foot payment also includes excavation and backfilling for Bore Equipment, placing the conduit, caps if required, and all other requirements and incidentals listed in the body of this specification.

For conduit installed by Open Cutting existing pavement, the linear foot payment also includes excavating, backfilling, placing the conduit, disposal of excess materials, and all other requirements and incidentals listed in the body of this specification.

For conduit installed in an Unpaved Trench, the linear foot payment also includes excavating, removal of sod if required, backfilling, placing the conduit, disposal of excess materials, replacing excavated on-site sod if required, seeding if required, and all other requirements and incidentals listed in the body of this specification. Sod and/or topsoil furnished from an outside source, will be paid for separately. For conduit installed on a structure, the linear foot payment also includes furnishing and installing anchors and hangers, removal of excess materials, and all other requirements and incidentals listed in the body of this specification.

4/12/2018

**834501 - PARTIAL REMOVAL OF CONCRETE POLE BASES AND CABINET FOUNDATIONS**

**Description:**

This work consists of the removal of concrete pole bases and concrete cabinet foundations.

**Materials:**

Equipment as required to remove concrete pole bases and concrete cabinet foundations.

Material as necessary to match the area surrounding the removed or graded masonry.

**Construction Methods:**

The masonry shall be removed to a depth of six inches below final grade.

Backfill remaining hole with material that matches the surrounding area in accordance with the appropriate items.

**Method of Measurement:**

The quantity of concrete will be measured as the number of cubic yards of concrete removed including anchor bolts, reinforcing bars, conduits and any other hardware within the concrete.

Concrete or other materials moved or removed which is not a part of the item being removed, shall not be measured for the purpose of payment under this item.

**Basis of Payment:**

The quantity of concrete will be paid for at the unit price per cubic yard. Price and payment will constitute full compensation for all labor, equipment, tools, and incidentals required to complete the work.

7/27/2020

**Contract No. T201012001**

**842501 - FURNISH & INSTALL ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 (100 AMP)**

**842502 - FURNISH & INSTALL ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 (200 AMP)**

**Description:**

This work is comprised of furnishing and installing Traffic Signals, ITS Devices and Lighting service pedestals and safety switches in accordance with the Contract Documents and as directed by the Engineer. Electrical service equipment consists of the equipment necessary to connect a utility company service to a traffic signal or ITS device controller cabinet, traffic monitoring station cabinet, or other traffic control device cabinet or lighting control cabinet. Provide electrical service equipment at the phasing and amperage specified in the Contract Documents. This work includes coordinating the connection with the local utility company. While the 100 Amp Service may be specified for both Traffic and Highway Lighting, the 200 Amp Service is typically specified for Highway Lighting Only.

**Materials:**

- Service Pedestal and safety switch
- Ground Rod & Wire
- Cables and wire (including three #8 THHN, one red, one black and one white)
- Conduit & Fittings, Galvanized Steel
- Hex Bolts & Washers, Stainless Steel
- Square Tube Steel Posts
- Portland Cement Concrete, Class B
- Galvanizing
- Aluminum Pedestal Board/Panel
- 24" x 30" Minimum Size Circuit Breaker Box (To be determined by serviceable needs)

All materials provided shall be in accordance with the applicable sections of the Department's 2016 Standard Specifications

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### **Construction Methods:**

All work shall be performed in compliance with NEC, NFPA, and NESC Standards and with utility company minimum requirements. The electric service pedestal shall be installed as shown in the Contract Document Details. The contractor shall locate line side safety switch and meter adjacent to service drop location, fuse and size line side safety switch to service. The load side safety switch should not be fused. Safety switch should be marked with weatherproof stamp. Switch should be labeled "Signal", "Camera", "Repeater", "VMS", "Detector" "RWIS" or "Lighting", denoting the device it serves. All conduits and hardware connections should be tightened with the appropriate wrenches or tools.

The ground resistance of each rod must be measured before connecting the rod to the grounding conductor. If the measured resistance exceeds 25 ohms, exothermically weld a 10-ft. extension to the top of the first rod and drive to its full depth. Measure the earth resistance again. If it still exceeds 25 ohms, contact the engineer for instruction.

### **Service Pedestal Installation**

Area for service pedestal should be excavated. Where a pole base is to be placed in existing concrete pavement such as a sidewalk, the concrete should be saw cut in a square pattern or be removed to the nearest joint. Install conduit using a conduit adapter to connect sweeps to underground conduit and conduit leading to the safety switch and meter. An appropriate length of 2-inch galvanized conduit (threaded and reamed on both ends) should be installed on the end of the 90 degree sweeps at the base of the pedestal so that the end of the conduit will be 3 feet above the finished grade of the area.

Install square tube steel posts per Contract Document Details in 12-inch X 12-inch X 36-inch concrete footings. 3-Inch clearance should be provided on the base of footing. Backfill around the conduit and concrete footings and dispose of excess or unsuitable materials to grade of the bottom of concrete footings. Backfill may be placed after the first 24 hours. Backfill should be as provided in the contract documents.

Remove all excess material. Suitable Material may be used elsewhere on the Project as directed by the Engineer. Set square tube steel posts and determine the finished length of the tubular steel posts by adding the total height of the meter and safety switch to 5 feet. Install ground rod in accordance with the contract documents. The ground resistance of each rod must be measured before connecting the rod to the grounding conductor. If the measured resistance exceeds 25 ohms, exothermically weld a 10-ft. extension to the top of the first rod and drive to its full depth. Measure the earth resistance again. If it still exceeds 25 ohms, contact the engineer for instruction.

Attach pedestal aluminum board/panel to square tube steel posts using six (three for each post) 5/16" x2-1/2" long Grade 5 stainless steel hex bolts, flat washers and nylon lock nuts. Attach meter socket to the

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board/panel with four 5/16" x 3/4" stainless steel hex bolts and nylon lock nuts. Attach the circuit breaker box to the board/panel with four 5/16" x 3/4" stainless steel hex bolts and nylon lock nuts.

The contractor shall arrange inspection by a Delaware licensed electrical inspection agency or contractor's licensed staff) for all lighting system work including but not limited to service, branch circuits, junction wells, underground conduit, all grounding and bonding and any electrical work performed on the project. The contractor shall submit certification for the chosen Delaware licensed electrical inspection agency or contractor's staff to the Project Engineer for approval prior to starting work.

**Method of Measurement:**

The quantity of electric services will be measured as the actual number of complete electric services installed, complete in place tested and accepted.

**Basis of Payment:**

The quantity of electric services installed will be paid at the Contract Unit Price per each electric service of the size and type specified, installed, complete in place, tested and accepted. Price and payment constitutes full compensation for all materials, including all enclosures, panel boards, ground rods, circuit breakers, internal wiring, wiring devices, wiring up to 10 feet each underground from the service pedestal to the utility pole and up to 50 feet each vertical (up the service pedestal and up the utility pole combined and including all required coils), concrete collar, meter sockets, meter, shunts, cover plates, wiring, square tubing, back panel and for all labor, tools, inspection by Delaware licensed electrical agency, and incidentals necessary to complete the Item as specified and as directed by the Engineer.

4/17/2018

**850517 - INSTALLATION OF LUMINAIRE**

**Description:**

This work consists of assembling and installing a complete highway lighting unit on a pole or mast arm presently in place and connecting it to an existing service cable or removing an existing luminaire and returning it to the Department at the Dover Sign Shop.

**Materials:**

Installation:

The Department will supply the complete luminaire .

The Contractor will supply:

Buchanan Connector Kits #825 with #65 or #835 with #20 or approved equal

#8 THWN wire

Split bolt connectors

Electrical tape

**Construction Methods:**

Installation Methods:

The luminaire shall be transported to the site, assembled, and wired and attached to the mast arm or pole by use of hardware approved by the Engineer. The unit shall be attached to the existing service cable and tested. On wood poles, if the service cable is not available, a 5-foot tail shall be left at the pole end of the mast arm. On metal poles, the electrical connections and grounding of pole will be made in the base. If the service cable is not available, a 5-foot tail shall be left in the pole base.

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Each luminaire installed under this item shall be separately connected to the service cable at the pole on wood poles and in the pole base on metal poles.

**Removal Methods:**

The luminaire shall be removed from the pole or mast arm after the wires have been disconnected. The wires shall be taped and secured so that they remain available for installation of a luminaire.

The luminaire and all hardware shall be returned to the Department at the Dover Sign Shop.

**Method of Measurement:**

The quantity of luminaires measured under this item shall be the number of luminaries installed in accordance with these specifications, complete, in place, tested, and accepted or removed, wires secured for future use, and all materials returned to the Department at the Dover Sign Shop.

**Basis of Payment:**

The quantity of luminaries shall be paid for at the Contract unit price per each. Price and payment will constitute full compensation for all labor, equipment, tools, and incidentals required to complete the work.

4/13/2018

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**850520 - LUMINAIRE (LED), 150 WATTS HPS EQUIVALENT**

**850521 - LUMINAIRE (LED), 250 WATTS HPS EQUIVALENT**

**850522 - LUMINAIRE (LED), 400 WATTS HPS EQUIVALENT**

**850523 - LUMINAIRE (LED), 640 WATTS HPS EQUIVALENT (HIGH MAST ONLY)**

**850524 - LED WALL PACK, 250 WATTS HPS EQUIVALENT**

**850525 - LED WALL PACK, 400 WATTS HPS EQUIVALENT**

**850526 - LED WALL PACK, 75 WATTS HPS EQUIVALENT**

**850527 - LED WALL PACK, 150 WATTS HPS EQUIVALENT**

**Description:**

This work consists of furnishing and installing an LED light fixture (luminaire) on pole (not inclusive in this item) with wattage, lamp type and distribution type in accordance with these and the standard specifications as applicable and as shown on the plans. **The LED Wattages above are based on the equivalent output to HPS lighting. Refer to maximum LED Wattages below.**

The complete fixture shall have a heavy-duty, cast-aluminum housing, door with extruded aluminum heat sink, tool-less entry, hinged removable power tray door for easy maintenance, and have fastening hardware that is stainless steel or zinc plated steel. The fixture shall meet ANSI 136.31 3.0 G vibration requirements. Fixture shall have a two-bolt slip fitter system for mounting on a 1-1/4 inch to 2-3/8 inch mounting arm connection. A grey powder coat finish shall be applied to the fixture unless otherwise shown on the plans, or as directed by the engineer.

The fixture shall also meet the following criteria:

1. Lamps: LED
2. Wattage:
  - a. 50 Watt Maximum for Item No. 850526
  - b. 90 Watt Maximum for Item No. 850520 and 850527
  - c. 175 Watt Maximum for Item No. 850521 and 850524
  - d. 250 Watt Maximum for Item No. 850522 and 850525
  - e. 450 Watt Maximum for Item No. 850523
3. Voltage: 120V - 277V
4. CRI: 70 Minimum

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5. Lumens:
  - a. 3,000 to 5,000 for Item No. 850526
  - b. 8,000 to 12,000 for Item No. 850520 and 850527
  - c. 16,00 to 20,000 for Item No. 850521 and 850524
  - d. 27,000 to 31,000 for Item No. 850522 and 850525
  - e. 40,000 to 50,000 for Item No. 850523
6. Rated L70 Lamp Life: 100,000 Hours Minimum when operated at 25 Degrees C (77 Degrees F)
7. Distribution: Type II or Type III (unless otherwise indicated)
8. Color Temperature: 3,000 K - 4,500 K
9. Drive Current: 850 mA Maximum
10. Driver: 0-10V Dimming
11. IP66 Rating for optical portion of the housing
12. 10kV/10kA minimum internal surge suppression module, meeting UL 1449/ANSI C62.41.2 Category C
13. 3 Pin NEMA Photocontrol Receptacle with a Shorting Cap.

Luminaire mounting height shall be as indicated on drawings. Luminaire shall provide point illumination of not less than the given values in the table that follows

Luminaire	Foot-candle Point Table	
	Point 1	Point 2
Luminaire (LED), 75 Watts HPS Equivalent	0.10	0.11
Luminaire (LED), 150 Watts HPS Equivalent	0.16	0.22
Luminaire (LED), 250 Watts HPS Equivalent	0.27	0.37
Luminaire (LED), 400 Watts HPS Equivalent	0.46	0.55
Luminaire (LED), 640 Watts HPS Equivalent	0.55	0.60

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Point 1 coordinates are 90 feet longitudinal distance. Point 2 coordinates are 90 feet longitudinal and 30 feet transverse. The point values given in the table are based on a 30 foot mounting height with a Light Loss Factor of 1. The point values produced by the submitted fixture shall be included with the fixture submittal.

Metal Parts shall be free of burrs and sharp corners and edges. Doors, frames, and other internal access shall be smooth operating and free of light leakage under operating conditions.

Factory applied labels shall comply with UL 1598. Labels shall be located where they will be readily visible to service personnel, but not seen from normal viewing angles when lamps are in place. Labels shall include the following lamp characteristics:

1. CCT and CRI for all luminaires

Luminaire finish shall be manufacturers standard paint applied to factory-assembled and tested luminaire before shipping.

### **Construction Methods:**

Contractor should install luminaires in accordance with the manufacturer's installation instructions and shall follow the following installation requirements:

1. Comply with NECA 1.
2. Fasten luminaire to pole.
3. Install luminaires at height indicated on drawings and level and square with finished grade.
4. Perform an illumination test.

Luminaire identification decals shall be installed to the luminaire housing in accordance with NEMA conventions. The contractor shall ensure the decal is readily visible from the ground and meets **ANSI C136.15-2015 Roadway and Area Lighting Equipment-Luminaire Field Identification standard.**

After installation of luminaires and control devices and after electrical circuitry has been energized, test units to confirm proper operation.

Inspect each installed luminaire for damage. Replace damaged luminaires and components.

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Luminaires will be considered defective if they do not pass tests and inspections.

Contractor shall provide fixture cutsheets, details, and the IESNA LM-79 and LM-80 test reports to the engineer for shop drawing review before purchasing.

Provide documentation that demonstrates that the proposed model of LED luminaire has been tested for electromagnetic compliance following the measurement protocols specified in ANSI standard C63.4-2003, and required by 47 CFR 15.31.

If Contract Documents require each light fixture to be provided with an independent photoelectric control device, a photocell shall be provided with each lighting fixture in place of the shorting cap. Provide photoelectric control using solid state circuitry, cadmium sulfide type with hermetically sealed silicone rectifier rated 120volt, 60 cycle AC and 1000 watts maximum load. Photoelectric control shall be provided with "Fail On" functionality such that in the event of a photocell becoming inoperative, the light fixture will remain in a permanent "On" state through day and nighttime hours. Photo control shall be twist lock type, with suitable mounting bracket with locking type receptacle.

The photoelectric control shall be set to operate, by default factory setting or by field adjustment, using the following criteria:

- Turn on the light fixture at a minimum vertical illumination value of 3 foot-candles.
- Turn off the light fixture at a maximum vertical illumination value of 6 foot-candles.

All electrical Materials shall conform to the requirements of the National Electrical Code of the National Fire Protection Association, and to all local and state laws and/ordinances governing such installations.

**Method of Measurement:**

The quantity of LED luminaires will be measured as the number luminaires furnished, installed, complete in place, and accepted

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**Basis of Payment:**

The quantity of luminaires will be paid for at the Contract unit price per each. Price and payment will constitute full compensation for furnishing all materials, including the luminaires, and for all labor, equipment, tools, and incidentals required to complete the item installation.

4/17/2018

**Contract No. T201012001**

**907500 - TEMPORARY SWALE, TYPE A-1**

**907501 - TEMPORARY SWALE, TYPE A-2**

**907502 - TEMPORARY SWALE, TYPE A-3**

**907503 - TEMPORARY SWALE, TYPE B-2**

**Description:**

Construct, maintain, and remove various types of temporary swales as detailed in this specification and indicated on the plans. Prevent clean runoff from entering disturbed areas by intercepting and diverting runoff to stabilized outlets, or intercept sediment-laden runoff and divert it to a sediment trapping device.

**Materials:**

**Seed and Mulch** - Section 908

**Erosion Control Blanket** - Section 908

**Riprap (R-4)** - Section 707

**Geotextile** - Section 1060

**Construction Methods:**

General Requirements for all Types:

1. Convey runoff from disturbed areas to a sediment trapping device.
2. Outlet diverted runoff from undisturbed areas to an undisturbed stabilized area at non-erosive velocity.
3. Stabilize Temporary Swales that will be operational for less than 14 calendar days with Geotextile in accordance with the Standard Detail titled "Geotextile-Lined Channel Diversion". Completely cover side slopes and swale bottom in this case.

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4. Stabilize Temporary Swales that will be operational for 14 calendar days or more as specified below.
5. Stabilization in all cases must begin no more than 7 calendar days after the start of temporary swale construction.
6. Remove accumulated sediment when it reaches 50% of the swale height or if sediment impedes drainage of the swale, whichever occurs first.
7. Maintain the original dimensions and function of the temporary swale throughout its life.
8. Remove the temporary swale when no longer needed, or as directed by the Engineer. Perform restoration, final grading, seeding and stabilization of the area.

Type A-1: Use where shown on the plans when swale bottom profile is between 0.5% and 2.0%. Excavate at locations shown on the plans (1 foot minimum depth); Construct side slopes at 1:1 maximum; Provide a 4 foot flat bottom; Stabilize using seed and erosion control blanket.

Type A-2: Use where shown on the plans when swale bottom profile is between 2.1% and 8.0%. Excavate at locations shown on the plans (1 foot minimum depth); Construct side slopes at 1:1 maximum; Provide a 4 foot flat bottom; Excavate to stabilize using size R-4 riprap on geotextile.

Type A-3: Use where shown on the plans when swale bottom profile is between 8.1% and 20.0%. Excavate to elevations shown on the plans (1 foot minimum depth); Construct side slopes at 1:1; Provide a 4 foot flat bottom; Stabilize using materials detailed on the plans.

Type B-2: Use where shown on the plans when swale bottom profile is between 2.1% and 8.0%. Excavate at locations shown on the plans (1 foot minimum depth); Construct side slopes at 1:1 maximum; Provide a 6 foot flat bottom; Excavate to stabilize using size R-4 riprap on geotextile.

**Method of Measurement:**

Linear foot measured along the swale bottom.

**Contract No. T201012001**

**Basis of Payment:**

Linear foot measurement includes excavation, applicable stabilization (seeding, erosion control blanket, riprap, and/or geotextile), maintenance, sediment removal, removal when no longer required, restoration, final grading, and final stabilization of the area. Pay for clearing and grubbing under their respective items if required.

2/22/2018

**907510 - TEMPORARY PIPE PLUG**

**Description:**

To divert runoff within drainage structures during construction.

**Materials:**

In accordance with Section 907 and as follows.

- A. Temporary Pipe Plug. Provide Materials for temporary pipe plug as follows:
1. Plywood. Use plywood, with a nominal thickness of 1/2 inch. Length and width to fit inside the drainage structure and cover the pipe opening.
  2. Sand. Use sand that meets the requirements of Section 1001.
  3. Pre-fabricated Sandbag. Use pre-fabricated sandbags manufactured of jute, woven polyester, or polypropylene mesh resistant to ultra-violet radiation of sufficient strength to contain the sand without failure or leakage. The minimum sack size is approximately 16 inch by 25 inch measured inside the seam when the sack is when empty. Fill each sack approximately half full with sand.

**Construction:**

In accordance with Section 907 and as follows.

- A. Temporary Pipe Plug. Construct, maintain and remove temporary pipe plug as follows:
1. Cover pipe opening with plywood. Place sandbags to hold the plywood in place without obstructing other pipe openings.

**Contract No. T201012001**

2. Inspect after rainfall events and repair as necessary to maintain an acceptable Work environment.
3. Remove the temporary pipe plug upon completion of installation of pipe to the downstream outfall.

**Measurement:**

In accordance with Section 907 and as follows.

- A. Temporary Pipe Plug. By each, constructed and accepted.

**Payment:**

In accordance with Section 907 and as follows.

Temporary Pipe Plug. Price and payment will constitute full compensation for furnishing and placing all Materials required; and for all labor, Equipment, tools, and incidentals necessary to complete the Work.

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
907510	TEMPORARY PIPE PLUG	EACH

12/11/2018

**907512 - INLET SEAL**

**Description:**

This work is furnishing, installing and disposing of a temporary cap on inlet boxes to prevent water from entering the inlet box in accordance with the locations shown on the Plans and as directed by the Engineer.

**Materials:**

Exterior grade plywood 1/2-inch thick

Steel plate - ASTM A36, 1/4-inch to 1/2-inch thick

Sandbags – Section 909.02

Sealant material – An approved grout mix, caulk, rubber neoprene or silicone type

Concrete Masonry Block – Hollow Block - Section 1040.03.

**Construction Methods:**

Where indicated install inlet seal on inlet box. Provide watertight joint between plywood or plate and inlet box. Satisfactorily maintain seal's position using sandbags. Inspect before each rain event and maintain inlet seal until no longer needed, and as directed. Remove seal and restore inlet box surface to accept permanent installation of top unit.

**Method of Measurement:**

The quantity of inlet seals will be measured as the actual number of each installed and accepted.

**Basis of Payment:**

The quantity of inlet seals will be paid for at the Contract Unit Prices per each inlet seal installed and accepted. Price and payment will constitute full compensation for furnishing, hauling, installing, removing, restoring, and disposal of all Materials and for all labor, Equipment, and tools.

8/10/2020

**Contract No. T201012001**

**908510 - MOWING**

**908511 - MOWING MEDIAN**

**908512 - MOWING ROADSIDE**

**Description:**

This work consists of mowing roadside, median, and/or any designated areas to a height between approximately 4" and 6", unless otherwise indicated on the Plans, and in accordance with the locations, notes on the Plans and/or as directed by the Engineer.

**Equipment:**

Equipment used for mowing operations shall be mechanical, and shall be sufficiently equipped with safety devices to protect the operator, motorists, and pedestrians from moving hazards, and shall have prior approval of the Engineer. Hand mowing shall be performed on inaccessible areas at the direction of the Engineer.

**Method of Measurement:**

The quantity of mowing will be measured in linear feet of Mowing Roadside and/or Mowing Median, and in acres for other designated areas.

Measurement for Mowing Roadside shall be made along the approximate center line of the adjacent pavement for mowing areas between the right of way and pavement.

Measurement for Mowing Median shall be made along the approximate center line of the median area to be mowed.

No measurements shall be made for mowing traffic separation islands in intersections.

**Contract No. T201012001**

**Basis of Payment:**

The quantity of Mowing Roadside and/or Mowing Median, will be paid for at the Contract unit price per linear foot bid "Mowing Roadside" and/or "Mowing Median", and Contract unit price per acre for "Mowing", as specifically applicable to this Contract. Price and payment shall constitute full compensation for all labor, tools, equipment, fuels, lubricants, safety devices, necessary traffic controls, location moves, and incidentals necessary for the performance of the work.

Mowing of traffic separation islands in intersections shall not be paid for separately, but are considered incidental to Mowing Roadside or Mowing Median.

For new construction contracts, there shall be no payment for the final clean up mowing as required in Subsection 104.14 of the Standard Specifications.

9/19/17

**STATEMENTS**

Included on the following pages:

**UTILITY STATEMENTS**

**RIGHT-OF-WAY STATEMENTS**

**ENVIRONMENTAL STATEMENTS**

**RAILROAD STATEMENTS**



STATE OF DELAWARE  
**DEPARTMENT OF TRANSPORTATION**  
800 BAY ROAD  
P.O. BOX 778  
DOVER, DELAWARE 19903

JENNIFER COHAN  
SECRETARY

Revised 3 Dec,2020  
**UTILITY STATEMENT**  
July 30, 2020  
STATE CONTRACT #T201012001  
F.A.P. #ESTP-2015(19)  
SR 299, SR 1 to Catherine Street  
NEW CASTLE COUNTY

**Location:**

SR299, SR 1 to Catherine Street, Middletown Delaware.

**Project Description:**

SR 299 will be widened to two lanes in each direction from SR 1 to Cleaver Farms Road, and a two-way center lane turn lane from Cleaver Farms Road to Catherine Street, along with pedestrian and bicycle improvements.

The following utility companies own and/or maintain facilities within the project limits:

**ARTESIAN – WATER**  
**ATLANTIC BROADBAND – COMMUNICATION**  
**CHESAPEAKE - GAS**  
**CROWN CASTLE - COMMUNICATION**  
**DELMARVA POWER – ELECTRIC DISTRIBUTION**  
**TOWN OF MIDDLETOWN - ELECTRIC**  
**TOWN OF MIDDLETOWN – SEWER**  
**TOWN OF MIDDLETOWN – WATER**  
**VERIZON DELAWARE INC. – COMMUNICATION**

Utility adjustments and/or relocations shall be performed as narrated, but are not limited to the following:

**Artesian Water Company, Inc.**

Artesian Water Company, Inc. maintains the following facilities within the project limits:

1. 12” ductile iron pipe on the south side of SR 299 from an interconnection meter vault at Sta. 1064+21 to Sta. 1102+45 with a 20” steel casing from Sta. 1075+16 to Station 1076+26.

2. 8" ductile iron pipe crossing SR 299 at Sta. 1065+95 of which 70' is installed in an 18" steel casing. The crossing ties into a master meter vault at Sta. 1065+85 LT. A service line leaves the vault and continues north beyond the project limits.
3. Lateral service line at 1069+55 RT.
4. 12" ductile iron pipe crossing SR 299 at Sta. 1076+61 of which 60' is installed in a 20" steel casing. The line continues west along the North side of SR 299, then turns north along the East side of Brick Mill Road.
5. Master meter vault at station 1088+77 RT.
6. 12" ductile iron pipe from a master meter vault that runs parallel to the South edge of SR 299 and turns to follow the West side of Gloucester Boulevard.
7. 10" ductile iron pipe crossing at station 1088+88 of which 120' is installed in a 20" steel casing pipe this crossing runs to a meter vault at the Christiana Care property.
8. 8" ductile iron pipe that crosses Dove run Boulevard at St. 803+00 and continues North on the West side of Dove Run Boulevard.
9. 12" ductile iron pipe that runs along the East side of Brick mill Road from Sta. 1300+27 to approximately 1301+50.
10. 10" ductile iron pipe that runs along the East side of Brick Mill Road from approximately Sta. 1301+50 to Sta. 1319+32.
11. 10" metal pipe that crosses Brick Mill Road at Sta. 1304+84.
12. 10" ductile iron pipe that runs east from Brick Mill Road at Sta. 1304+90 to a meter vault at the Christian Care property.
13. 2" disconnected service line that crosses Brick Mill Road at Sta. 1308+63.
14. Pipe that crosses Brick Mill Road at Sta. 1317+67 and connects to a master meter vault.
15. Pipe that runs east from Brick Mill Road at Sta. 1317+89 and connects to a meter vault on the Brick Mill Elementary School property.
16. 12" ductile iron pipe that runs along the east side of Willow Grove Mill Drive from Sta. 900+25 to Sta. 902+46.
17. 12" ductile iron pipe that runs along the east side of Willow Grove Mill Drive from Sta. 900+25 to a master meter vault at Sta. 901+75.

**Artesian proposed changes to their facilities include but are not limited to:**

- Existing Water Valve Adjustments by Contractor:
  - Sta. 1064+36; 66' RT (SR 299) (2)
  - Sta. 1064+37; 63' RT (SR 299)
- Water Valve to be removed by Contractor:
  - Sta. 1075+92; 32' LT (SR 299)
  - Sta. 1076+12; 125' RT (SR 299)
  - Sta. 1076+15; 137' RT (SR 299)
  - Sta. 1076+15; 115' RT (SR 299)
  - Sta. 1076+33; 56' RT (SR 299)
  - Sta. 1076+34; 115' RT (SR 299)
  - Sta. 1076+55; 55' RT (SR 299)
  - Sta. 1076+73; 54' RT (SR 299)
  - Sta. 1310+70; 26' RT (Brick Mill Road)

- Water Meter to be removed by Contractor:
  - Sta. 1308+62; 40' LT (Brick Mill Road)
  
- Proposed Water Valve Adjustments by Contractor (as necessary based on final grades):
  - Sta. 1065+83; 99' RT (SR 299)
  - Sta. 1065+91; 93' RT (SR 299)
  - Sta. 1066+00; 99' RT (SR 299)
  - Sta. 1301+64; 71' RT (Brick Mill Road)
  - Sta. 1301+67; 75' RT (Brick Mill Road)
  - Sta. 1304+84; 65' RT (Brick Mill Road)
  - Sta. 1304+89; 69' RT (Brick Mill Road)
  - Sta. 1304+94; 65' RT (Brick Mill Road)
  - Sta. 1312+39; 42' RT (Brick Mill Road)
  - Sta. 1307+87; 36' RT (Brick Mill Road)
  - Sta. 1307+96; 39' RT (Brick Mill Road)
  - Sta. 1312+39; 42' RT (Brick Mill Road)
  - Sta. 1316+50; 48' RT (Brick Mill Road)
  - Sta. 901+38; 64' RT (Willow Grove Mill Dr.)
  - Sta. 901+42; 59' RT (Willow Grove Mill Dr.)

Proposed work by Artesian Water is listed below.

Station Limits	Action
901+75 RT	Meter Vault Relocation
1064+39 to 1075+26 RT	Install 12-in DIP along SR 299 and the westerly corner of Willow Grove Mill Rd. and SR 299
1065+90 to 1065+90 RT	Tie into 8-in DIP and install 8-in DIP
1075+27 to 1076+08 RT	Bore and Jack approx. 80-ft of 20-in X 3/8-in Casing along Willow Grove Mill Rd.
1073+46 to 1076+28 RT	Cut and Cap existing 12-in DIP
1076+30 to 1077+92 RT	Install 12-in DIP along the easterly corner of SR 299 and Willow Grove Mill Rd.
1077+20 RT	Cut and cap existing 12-in DIP
1077+82 LT/RT	Bore and Jack approx. 140-ft of 24-in X 3/8-in Steel Casing under SR 299.
1077+82 LT to 1304+88 RT	Install 16-in DIP along the easterly side of Brick Mill Rd .
1304+88 to 1304+92 RT	Install 12-in DIP and tie into existing 12-in DIP with a 12-in Sleeve
1305+00 to 1306+25 RT	Bore and Jack 16-in DIP through 24-in casing along the easterly side of Brick Mill Rd.
1306+25 to 1317+02 RT	Install 16-in DIP along the easterly side of Brick Mill Road to a 16-in X 12-in Reducer. Install 12-in DIP and tie into existing 12-in DIP.

1301+66 to 1301+66 RT	Install 16" X 6" Hydrant Tee at Station Install 6-in DIP with 6" Gate valve and a Fire Hydrant.
1307+96 to 1307+96 RT	Install 16" X 6" Hydrant Tee at Station. Install 6-in DIP with 6" Gate Valve and a Fire Hydrant.
1316+79 to 1316+79 RT	Cut and cap existing 12-in DIP
1304+93 to 1304+93 RT	Cut and cap existing 12-in DIP
ALL	Properly purge and seal existing water mains within the project limits that will be retired as a result of the relocations. Pull valve boxes on all valves and blowoffs to be abandoned.

Note: The Contractor is not permitted to draw water from any hydrant for any use, without the written permission of the Artesian Water Company and proper metering and backflow prevention equipment in place.

It is the intent that these relocations will be complete prior the first chargeable day of the contract. Should this utility work become concurrent with the project work, the state's contractor shall coordinate and sequence the work with the utility contractor. The state's contractor will supply all maintenance of traffic (MOT) to the utility contractor necessary to perform the work. Any costs associated with this coordination shall be incidental to the MOT items being provided. MOT devices shall be provided to the utility contractor under the respective contract bid items.

**For exact location, please contact Miss Utility at 1(800) 282-8555.**

**No working/existing Artesian Water Company facilities can be taken out of service unless specified and identified in this statement. These facilities will remain in place and active during the duration of this contract.**

**24-hour emergency phone number - 1-800-332-5114.**

These relocations/adjustments are expected to take approximately 107 calendar days to complete after the company has been given a minimum of 30 calendar days advance notice that work shall begin, and the right-of-way and proposed work has been laid out in the field by DelDOT.

### **Atlantic Broadband**

Atlantic Broadband maintains the following overhead facilities within the project limits:

1. Overhead facilities along the South side of SR 299 from Sta. 1001+69 to Sta. 1015+01 where it crosses to Sta. 1015+15 on the North side of SR 299 and continues to Sta. 1103+75.
2. Overhead crossing on SR 299 at Sta. 1027+24.
3. Overhead facilities along the South side of SR 299 from Sta. 1027+40 to Sta. 1028+40 which turn south beyond the project limits,
4. Overhead facilities along the West side of Cleaver Farms Road from Sta. 1500+59 to a location beyond the project limits.

5. Overhead facilities along the East side of Dove Run Boulevard from Sta. 800+45 to a location beyond the project limits.
6. Overhead facilities along the East side of Silver Lake Road from Sta. 705+04 to Sta. 711+03.
7. Overhead facilities along the West side of Brick Mill Road from Sta. 1300+26 to Sta. 1316+50.

Atlantic Broadband maintains the following underground facilities within the project limits:

1. Underground facilities along the North side of SR 299 at Sta.1035+46 and extend North to a point outside the project limits.
2. Underground facilities along the North side of SR 299 at Sta. 1037+57 and extend North to a point outside the project limits.
3. Underground facilities along the North side of SR 299 at Sta. 1041+63.95 and extend North to a point outside the project limits.
4. Underground facilities along the South side of SR 299 at Sta. 1051+60 and extend South to a point outside the project limits.
5. Underground facilities along the East side of Silver Lake Road at Sta. 706+70 and extend East outside the project limits.

**Atlantic Broadband proposed changes to their facilities include but are not limited to:**

Atlantic Broadband will relocate its overhead and underground lines to the location of the proposed utility poles.

It is the intent that these relocations will be complete prior the first chargeable day of the contract. Should this utility work become concurrent with the project work, the state's contractor shall coordinate and sequence the work with the utility contractor. The state's contractor will supply all maintenance of traffic (MOT) to the utility contractor necessary to perform the work. Any costs associated with this coordination shall be incidental to the MOT items being provided. MOT devices shall be provided to the utility contractor under the respective contract bid items.

**For exact location, please contact Miss Utility at 1(800) 282-8555.**

**No working/existing Atlantic Broadband facilities can be taken out of service.**

**These facilities will remain in place and active during the duration of this contract.**

**24-hour emergency phone number - 1-(888) 536-9600.**

These relocations/adjustments are expected to take approximately 60 calendar days to complete after the company has been given a minimum of 30 calendar days advance notice that work shall begin, and the right-of-way and proposed work has been laid out in the field by DelDOT.

**Chesapeake Gas**

Chesapeake Gas maintains the following facilities within the project limits:

1. 2" plastic gas main along the South side of SR 299 from Sta. 1001+07 to Sta. 1012+48.

2. 3/4" plastic gas pipe on the South side of SR 299 at Sta. 1012+48 extending south.
3. 4" plastic gas main along the South side of SR 299 from Sta. 1012+48 to Sta. 1016+54.
4. 4" plastic gas main crossing SR 299 Sta. 1016+54.
5. 2" plastic gas main along the North side of SR 299 from Sta. 1015+98 to Sta. 1016+58.
6. 4" plastic gas main along SR 299 from Sta. 1016+58 to Sta. 1048+00.
7. 4" plastic gas main crossing SR 299 at Sta. 1028+70.
8. 4" plastic gas main in the South side of SR 299 from Sta. 1028+70 which turns south at Sta. 1031+18.15 and runs parallel along the West side of Dickerson Boulevard Road.
9. 2" plastic main on the South side of SR 299 from Sta. 1032+24 to Sta. 1042+33.
10. 2" main on the North side of SR 299 from Sta. 1032+40 to Sta. 1033+22.
11. 3/4" plastic gas pipe on the South side of SR 299 at Sta. 1033+45 extending south.
12. 1-1/4" plastic gas pipe extending from the 2" plastic main on the North side of SR 299 at Sta. 1035+50.57 and extending north outside the project limits.
13. 2" plastic gas pipe along the North side of SR 299 from Sta. 1035+49 to Sta. 1035+93 and extending north outside the project limits.
14. 2" HDPE gas pipe extending from the 4" plastic main on the North side of SR 299 at Sta. 1036+55 and extending north outside the project limits.
15. 3/4" HDPE gas pipe extending from the 4" plastic main on the North side of SR 299 at Sta. 1037+99 and extending north outside the project limits.
16. 3/4" HDPE gas main extending from the 4" plastic main on the North side of SR 299 at Sta. 1038+93 and extending north outside the project limits.
17. 3/4" plastic gas pipe extending from the 2" plastic main on the South side of SR 299 at Sta. 1039+33 and extending south outside the project limits.
18. 3/4" plastic gas pipe extending from the 2" plastic main on the South side of SR 299 at Sta. 1040+09 and extending south outside the project limits.
19. 3/4" HDPE gas main extending from the 4" plastic main on the North side of SR 299 at Sta. 1040+82 and extending north outside the project limits.
20. 3/4" plastic gas pipe extending from the 2" plastic main on the South side of SR 299 at Sta. 1040+96 and extending south outside the project limits.
21. 3/4" plastic gas pipe extending from the 2" plastic main on the South side of SR 299 at Sta. 1041+72 and extending south outside the project limits.
22. 6" plastic gas main in the North side of SR 299 from Sta. 1048+00 to Sta. 1075+52.
23. 3/4" plastic gas pipe crossing SR 299 at Sta. 1049+26 and extending south.
24. 2" plastic gas pipe crossing SR 299 at Sta. 1050+95 and extending south.
25. 3/4" plastic gas pipe extending north from 6" main on North side of SR 299 at Sta. 1064+88.
26. 2" plastic gas pipe (turning into 3/4" plastic) extending north from 6" main on North side of SR 299 at Sta. 1067+25.
27. Gas pipe (size unknown) extending from 6" main on North side of SR 299 at Sta. 1072+20.
28. 4" plastic gas main crossing SR 299 at Sta. 1073+13.
29. 4" plastic gas main along the South side of SR 299 from Sta. 1073+09 to Sta. 1075+57 which turns south and runs along the West side of Willow Grove Mill Drive outside the project limits.
30. 3/4" plastic gas pipe along the North side of SR 299 from Sta. 1073+77 that turns along the West side of Brick Mill Road and extends to Sta. 1302+62.

31. 2" HDPE gas pipe along the South side of SR 299 from Sta. 1099+04 to Sta. 1102+56 and extending beyond the project limits.
32. 2" Plastic gas main along the East side of Catherine Street from Sta. 198+50.00 to the intersection of SR 299 at Sta. 204+86 and continuing east along SR 299.
33. 2" HDPE gas pipe crossing Catherine Street at Sta. 203+62.
34. 2" Plastic gas main along the East side of New Street from Sta. 300+44 and extending beyond the project limits at Sta. 303+30.00.
35. Gas pipe (size unknown) crossing New Street at Sta. 301+96.
36. 2" plastic gas main crossing Dickerson Boulevard at Sta. 500+93.
37. 2" gas main along the East side of Clever Farms Road from Sta. 1500+30 to Sta. 1503+43.
38. 6" plastic gas main in the West side of Brick Mill Road from Sta. 1300+30 to Sta. 1319+00.
39. 6" plastic gas main that ties into a 6" plastic gas main in the West side of Brick Mill Road at Sta. 1810+28 and crosses to the East side of Brick Mill Road and continues along the North side of the Christiana Care Driveway beyond the project limits.
40. 2" plastic gas pipe on West side of Brick Mill Road from Sta. 1810+55 to Sta. 1812+26.
41. 2" plastic gas pipe that ties into a 6" plastic gas main in the West side of Brick Mill Road at Sta. 1812+26 and continues along the South side of a driveway and extends beyond the project limits.
42. 2" plastic gas main that ties into a 6" plastic gas main in the West side of Brick Mill Road at Sta. 1316+66, crosses Brick Mill Road, continues along the South side of driveway for the Brick Mill Elementary School and extends beyond the project limits.
43. 4" plastic gas main that ties into a 6" plastic gas main in the West side of Brick Mill Road at Sta. 1316+99 and continues along the South side of Dove Run Boulevard and extends beyond the project limits.
44. 4" plastic gas pipe along the east side of Gloucester Boulevard from Sta. 1400+00 to Sta. 1400+97.

**Chesapeake Gas proposed changes to their facilities include but are not limited to:**

Chesapeake Gas will install a new 2" HDPE at:

- Sta. 1001+23 to Sta. 1013+31 RT (SR 299)
- Sta. 1015+96 to Sta. 1016+72 LT (SR 299)
- Sta. 1016+72 LT/RT (SR 299)
- Sta. 1032+50 LT/RT (SR 299)
- Sta. 1035+51 to Sta. 1036+97 LT (SR 299)
- Sta. 1036+96 LT/RT (SR 299)
- Sta. 1051+09 LT/RT (SR 299)
- Sta. 203+35 to Sta. 204+92 RT (Catherine Street)
- Sta. 203+57 LT/RT (Catherine Street)
- Sta. 1500+15 to Sta. 1500+61 RT (Clever Farms Road)
- Sta. 1812+28 LT (Brick Mill Road North Approach)
- Sta. 1316+51 LT/RT (Brick Mill Road)
- Sta. 1316+51 to 1316+82 RT (Brick Mill Road)

Chesapeake Gas will install a new 4" HDPE at:

- Sta. 1016+53 to Sta. 1044+50 RT (SR 299)
- Sta. 1044+50 LT/RT in 8" HDPE DR-11 Casing (SR 299)
- Sta. 1044+50 to Sta. 1048+00 LT (SR 299)
- Sta. 1074+48 LT/RT in 8" HDPE DR-11 Casing (SR 299)
- Sta. 500+71 to Sta. 500+72 LT (Dickerson Boulevard)
- Sta. 901+19 to Sta. 902+23 LT (Willow Grove Mill Drive)

Chesapeake Gas will install a new 1 1/4" HDPE line at:

- Sta. 1036+97 to Sta. 1040+65 LT (SR 299)

Chesapeake Gas will install a new 3/4" HDPE line at:

- Sta. 1033+45 RT (SR 299)
- Sta. 1039+33 RT (SR 299)
- Sta. 1040+40 RT (SR 299)
- Sta. 1040+96 RT (SR 299)
- Sta. 1041+72 RT (SR 299)
- Sta. 1048+86 LT to Sta. 1049+04 RT (SR 299)
- Sta. 1302+04 LT (Brick Mill Road)

Chesapeake Gas will install a new 6" HDPE line at:

- Sta. 1048+00 to Sta. 1075+04 LT (SR 299)
- Sta. 1300+64 to Sta. 1316+89 LT (Brick Mill Road)
- Sta. 1810+10 LT/RT in 10" HDPE DR-11 Casing (Brick Mill Road North Approach)

Chesapeake Gas will install a new gas valve at:

- Sta. 1031+17 RT (SR 299)
- Sta. 1036+96 RT (SR 299)
- Sta. 1051+09 LT (SR 299)
- Sta. 1070+87 LT (SR 299)
- Sta. 1810+10 RT (Brick Mill Road North Approach)
- Sta. 1812+28 LT (Brick Mill Road North Approach)
- Sta. 1316+50 LT (Brick Mill Road)

Proposed Gas valves will be required to be adjusted during construction by Chesapeake Gas.

Chesapeake Gas will transfer service to new main at:

- Sta. 1012+49 RT (SR 299)
- Sta. 1033+45 RT (SR 299)
- Sta. 1038+00 LT (SR 299)
- Sta. 1038+94 LT (SR 299)
- Sta. 1039+33 RT (SR 299)
- Sta. 1040+10 RT (SR 299)
- Sta. 1040+65 LT (SR 299)
- Sta. 1040+96 RT (SR 299)
- Sta. 1041+72 RT (SR 299)

- Sta. 1064+75 LT (SR 299)
- Sta. 1067+22 LT (SR 299)
- Sta. 1072+09 LT (SR 299)
- Sta. 1302+05 LT (Brick Mill Road)

Chesapeake Gas will move/adjust locate station at:

- Sta. 1400+97 RT (Gloucester Boulevard)

Chesapeake Gas will retire existing 2" at:

- Sta. 1001+08 to 1012+49 RT (SR 299)
- Sta. 1015+96 to Sta. 1016+58 LT (SR 299)
- Sta. 1031+19 to 1042+33 RT (SR 299)
- Sta. 1032+17 to Sta. 1033+22 LT (SR 299)
- Sta. 1035+51 to Sta. 1035+83 LT (SR 299)
- Sta. 1036+53 to Sta. 1036+55 LT (SR 299)
- Sta. 203+36 to Sta. 204+86 RT (Catherine Street)
- Sta. 203+57 LT to Sta. 203+67 RT (Catherine Street)

Chesapeake Gas will retire existing 4" at:

- Sta. 1012+49 to 1013+31 RT (SR 299)
- Sta. 1016+53 RT to 1016+58 LT (SR 299)
- Sta. 1016+58 to 1048+00 LT (SR 299)
- Sta. 1028+70 LT/RT (SR 299)
- Sta. 1028+70 to Sta. 1031+19 RT (SR 299)
- Sta. 1073+14 LT/RT (SR 299)
- Sta. 1073+14 to 1075+57 RT (SR 299)
- Sta. 500+71 to Sta. 500+93 LT (Dickerson Boulevard)
- Sta. 901+19 to Sta. 902+59 LT (Willow Grove Mill Drive)

Chesapeake Gas will retire existing 6" at:

- Sta. 1048+00 to 1075+63 LT (SR 299)
- Sta. 1300+62 to Sta. 1316+89 LT (Brick Mill Road)
- Sta. 1810+10 RT to Sta. 1810+30 LT (Brick Mill Road North Approach)

Chesapeake Gas will retire existing 3/4" at:

- Sta. 1049+28 RT (SR 299)
- Sta. 1073+76 to Sta. 1075+18 LT (SR 299)
- Sta. 1300+80 to Sta. 1302+05 LT (Brick Mill Road)

Chesapeake Gas will retire existing gas valve at:

- Sta. 1028+94 LT (SR 299)
- Sta. 1035+93 LT (SR299)
- Sta. 1036+55 LT (SR 299)
- Sta. 1050+95 LT (SR 299)
- Sta. 1070+97 LT (SR 299)

- Sta. 1810+28 RT (Brick Mill Road North Approach)
- Sta. 1812+26 LT (Brick Mill Road North Approach)
- Sta. 1316+66 RT (Brick Mill Road)
- Sta. 500+90 LT (Dickerson Boulevard)

It is the intent that these relocations will be complete prior the first chargeable day of the contract. Should this utility work become concurrent with the project work, the state's contractor shall coordinate and sequence the work with the utility contractor. The state's contractor will supply all maintenance of traffic (MOT) to the utility contractor necessary to perform the work. Any costs associated with this coordination shall be incidental to the MOT items being provided. MOT devices shall be provided to the utility contractor under the respective contract bid items.

**IF YOU SMELL GAS AND SUSPECT YOU HAVE A GAS LEAK, CALL CHESAPEAKE UTILITIES IMMEDIATELY!**

**Chesapeake 24-hour emergency service - every day of the year. Call 1800-427-2883.**

**For exact location, please contact Miss Utility at 1(800) 282-8555.**

**No working/existing Chesapeake Utilities facilities can be taken out of service.**

**These facilities will remain in place and active during the duration of this contract.**

These relocations/adjustments are expected to take approximately 120 calendar days to complete after the company has been given a minimum of 30 calendar days advance notice that work shall begin, and the right-of-way and proposed work has been laid out in the field by DelDOT.

**Crown Castle**

Crown Castle maintains overhead facilities within the project limits:

1. South side of SR 299 from Sta. 1001+70 to Sta. 1076+76
2. East side of New Street at Sta. 302+25, crossing SR 299 at Sta. 1016+19 and extending South beyond the project limits
3. North side of SR 299 at Sta. 1073+88, crossing Brick Mill Road at Sta. 1300+39 and extending to SR 299 Sta. 1085+15
4. West side of Brick Mill Road from Sta. 1300+42 to Sta. 1316+49

Crown Castle maintains the following underground facilities within the project limits:

1. South side of SR 299 at Sta. 1042+92, crossing SR 299 at Sta. 1041+52 extending North toward Silver Lake Day Treatment Center
2. South side of SR 299 at Sta. 1051+41 extending South toward Middletown High School
3. South side of SR 299 at Sta. 1069+67, crossing SR 299 at Sta. 1069+64 extending North to Dove Run Shopping Center
4. North side of SR 299 at Sta. 1083+25 extending North to Christiana Care Heath Service
5. Crossing Brick Mill Road at Sta. 1303+55 and extending east to Christiana Care Heath Service

**Crown Castle proposed changes to their facilities include but are not limited to:**

Crown Castle will relocate its overhead lines to the location of the proposed utility poles:

- South side of SR 299 at Sta. 1012+40 to Sta. 1016+77 and extending south beyond limits of project
- Extending from the south and continuing along the south side of SR 299 at Sta. 1017+50 until crossing SR 299 at Sta. 1074+97.
- North side of SR 299 from Sta. 1074+91 to Sta. 1083+70
- West side of Brick Mill Road from Sta. 1303+50 to Sta. 1316+43

Crown Castle will relocate its underground facilities within the project limits:

- South side SR 299 at Sta. 1040+96 crossing SR 299 and meeting existing underground fiber at Sta. 1041+60
- South side of SR 299 at Sta. 1051+43 extending south meeting existing underground fiber at Sta. 1051+56
- Crossing SR 299 at Sta. 1069+63 extending north to Dove Run Shopping Center
- North side of SR 299 at Sta. 1083+70 extending north to Christiana Care Heath Service
- West of Brick Mill Road at 1303+51 crossing Brick Mill Road and extending east to Christiana Care Health Services

It is the intent that these relocations will be complete prior the first chargeable day of the contract. Should this utility work become concurrent with the project work, the state's contractor shall coordinate and sequence the work with the utility contractor. The state's contractor will supply all maintenance of traffic (MOT) to the utility contractor necessary to perform the work. Any costs associated with this coordination shall be incidental to the MOT items being provided. MOT devices shall be provided to the utility contractor under the respective contract bid items.

**For exact location, please contact Miss Utility at 1(800) 282-8555.**  
**24 HOUR FIBER NETWORK OPERATIONS:1-855-93-FIBER**

These relocations/adjustments are expected to take approximately 60 calendar days to complete after the company has been given a minimum of 30 calendar days advance notice that work shall begin and the right-of-way and proposed work has been laid out in the field by DelDOT.

**Delmarva Power - Electric**

Delmarva Power - Electric maintains the following aerial electric facilities within the project limits:

1. North side of SR 299 from Sta. 1045+00 to Sta. 1103+75 and extending beyond the limits of the project.
2. Crossing SR 299 at Sta. 1045+00 and extending to Sta. 704+60 on the West side of Silver Lake Boulevard.

3. Crossing Silver Lake Boulevard at Sta. 708+25 and extending East beyond the project limits.
4. Crossing SR 299 at Sta. 1049+67.
5. North side of SR 299 at Sta. 1059+45 and extending North outside the project limits.
6. Crossing SR 299 at Sta. 1065+56.
7. Crossing Brick Mill Road at Sta. 1300+65 and continuing along the west side of Brick Mill road from Sta. 1300+77 to Sta. 1316+49.
8. Crossing Brick Mill Road at Sta. 1310+54.

Delmarva Power - Electric maintains the following underground electric facilities within the project limits:

1. West side of Silver Lake Boulevard from Sta. 708+13 to Sta. 709+10.
2. Crossing Silver Lake Boulevard at Sta. 709+10 and extending east outside of the project limits.
3. South side of SR 299 at Sta. 1049+00.
4. South side of SR 299 at Sta. 1052+00.

**Delmarva Electric proposed changes to their facilities include but are not limited to:**

- Utility Pole Relocation by DP&L:
  - Sta. 1045+00; 13' LT (DP&L 443352-32681)
  - Sta. 1046+64; 14' LT (DP&L 44366-32682)
  - Sta. 1049+84; 18' LT (DP&L 44397-32686)
  - Sta. 1051+87; 23' LT (DP&L 44418-32690)
  - Sta. 1053+58; 26' LT (DP&L 44434-32694)
  - Sta. 1055+40; 28' LT (DP&L 44451-32698)
  - Sta. 1057+40; 29' LT (DP&L 44471-32703)
  - Sta. 1059+45; 29' LT (DP&L 44491-32708)
  - Sta. 1061+62; 32' LT (DP&L 44509-32712)
  - Sta. 1063+51; 29' LT (DP&L 44528-32717)
  - Sta. 1065+62; 29' LT (DP&L 44578-32722)
  - Sta. 1067+66; 29' LT (DP&L 44568-32727)
  - Sta. 1069+73; 29' LT (DP&L 44588-32731)
  - Sta. 1071+80; 29' LT (DP&L 44609-32736)
  - Sta. 1073+88; 29' LT (DP&L 44632-32741)
  - Sta. 1075+35; 80' LT (DP&L 44640-32753)
  - Sta. 1076+42; 29' LT (DP&L 44656-32748)
  - Sta. 1077+64; 27' LT (DP&L 633)
  - Sta. 1079+28; 27' LT (DP&L 44690-32755)
  - Sta. 1081+26; 26' LT (DP&L 44710-32759)
  - Sta. 1083+25; 27' LT (DP&L 44729-32764)
  - Sta. 1085+15; 27' LT (DP&L 44748-32767)
  - Sta. 1087+18; 27' LT (DP&L 44765-32771)
  - Sta. 1089+40; 26' LT (DP&L 44787-32776)
  - Sta. 1091+57; 27' LT (DP&L 44809-32781)

- Sta. 1093+88; 28' LT (DP&L 44830-32786)
- Sta. 1095+97; 43' LT (DP&L 44850-32795)
- Sta. 1097+97; 66' LT (DP&L 44870-32801)
- Sta. 709+85; 39' LT (DP&L 44358-32656)
- Sta. 711+18; 40' LT (DP&L 44354-32671)
  
- Utility pole removal by DP&L:
  - Sta. 1048+19; 16' LT (DP&L 44383-32684)
  - Sta. 1049+01; 63' RT (DP&L 44394-32679)
  - Sta. 1054+48; 28' LT (DP&L 44434-32695)
  
- Span Guy installation by DP&L:
  - Sta. 1049+32 LT to Sta. 1049+53 RT (TOM 120-322)
  - Sta. 1077+18 LT to Sta. 1078+30 RT (TOM 25-44)
  - Sta. 1098+32 LT/RT
  
- New Overhead line installation by DP&L:
  - Sta. 1049+32 LT to Sta. 1049+53 RT (TOM 120-322)
  
- Underground line installation by DP&L:
  - Sta. 1048+94 RT to Sta. 1049+53 RT (TOM 120-322)

Delmarva Power Electric will relocate aerial facilities on the relocated poles along the west side of Brick Mill Road.

DelDOT has not planned for or coordinated with Delmarva Power -Electric Distribution for any temporary power outages, relocations, physical pole support for excavation nor arranged for the installation of insulation of any power line during this contract. Due to varying construction possibilities; if a contractors means-and-methods should require support from Delmarva Power to fulfill the requirement of 16 Del. C. § 7405B, OSHA Regulations Table A of § 1926.1408, other applicable federal, state or local law or regulation or the Contractor's company policy; it shall be at the Contractor's sole expense and the contractor shall directly coordinate this request with Delmarva Power. All costs associated with any temporary power outages, relocations, physical pole support for excavation or the installation of insulation of any power line during this contract shall be incidental, including the cost of the coordination, to the work being performed. The Department makes no guarantees that the request for any temporary power outages, relocation or the installation of insulation of any power line during this contract will be granted by Delmarva Power in part or in total; or during the time periods requested by the Contractor for construction purposes. Any proposed coordination with Delmarva Power shall be included in the contractor's CPM schedule

It is the intent that these relocations will be complete prior the first chargeable day of the contract. Should this utility work become concurrent with the project work, the state's contractor shall coordinate and sequence the work with the utility contractor. The state's contractor will supply all maintenance of traffic (MOT) to the utility contractor necessary to perform the work. Any costs

associated with this coordination shall be incidental to the MOT items being provided. MOT devices shall be provided to the utility contractor under the respective contract bid items.

**For exact location, please contact Miss Utility at 1(800) 282-8555.**

**To report a downed wire, call DP&L 24/7 at 1(800) 898-8042.**

**No working/existing Delmarva Power facilities can be taken out of service unless specified and identified in this statement.**

**These facilities will remain in place and active during the duration of this contract.**

**Delmarva Power has a written requirement regarding working near overhead power lines.**

#### Customer/Contractor Acknowledgement

##### Performing Work within Dangerous Proximity of High Voltage Lines

“You are hereby notified by Delmarva Power that **NO** work can be performed at this location within dangerous proximity to Delmarva’s overhead lines and that you are required by law to comply with applicable OSHA regulations and the applicable state High Voltage Safety Act. Performance of any activity or causing any person, equipment or things to come within dangerous proximity of Delmarva’s overhead lines creates an extreme risk of severe injury or death. You are further notified that no activities may be conducted within dangerous proximity of Delmarva’s overhead lines until mutually agreeable measures to prevent contact with overhead lines have been reached with Delmarva and Delmarva has provided you with written authorization to perform the activities. Additionally any work involving the use of a crane with intentions to remain outside of dangerous proximity, but within 20 feet of the Company’s overhead lines, requires an Encroachment Prevention Plan in order to satisfy OSHA”

These relocations/adjustments are expected to take approximately 70 calendar days to complete after the company has been given a minimum of 30 calendar days advance notice that work shall begin and the right-of-way and proposed work has been laid out in the field by DelDOT.

#### **Town of Middletown – Electric**

Town of Middletown – Electric maintains the following aerial electric facilities within the project limits:

1. South side of SR 299 from Sta. 1001+06 to Sta. 1102+28.
2. Crossing SR 299 at Sta. 1006+51.
3. Crossing SR 299 at Sta. 1015+09.
4. North side of SR 299 from Sta. 1016+04 to Sta. 1045+00.
5. Crossing SR 299 at Sta. 1016+17.
6. North side of SR 299 at Sta. 1035+70 extending North.
7. North side of SR 299 at Sta. 1036+36 extending North.
8. Crossing SR 299 at Sta. 1061+62.
9. Crossing SR 299 at Sta. 1075+21.
10. East side of Catherine Street from Sta. 200+75 to Sta. 204+86.
11. East side of New Street from Sta. 300+40 to Sta. 304+32 and extending beyond the limits of the project.
12. West side of Cleaver Farms Road from Sta. 1500+61 to Sta. 1504+00.00 and extending beyond the limits of the project.
13. East side of Dove Run Boulevard from Sta. 800+46 to Sta. 803+00 and extending beyond the limits of the project.

14. West side of Brick Mill Road from Sta. 1300+42 to Sta. 1316+49.

Town of Middletown – Electric maintains the following underground electric facilities within the project limits:

1. North side of SR 299 at Sta. 1006+51 extending north to a point outside the project limits.
2. South side of SR 299 at Sta. 1014+50 extending south to a point outside the project limits.
3. North side of SR 299 at Sta. 1024+00 extending north to a point outside the project limits.
4. North side of SR 299 at Sta. 1025+96 extending north to a point outside the project limits.
5. North side of SR 299 at Sta. 1032+99 extending north to a point outside the project limits.
6. South side of SR 299 at Sta. 1054+47 extending south to a point outside the project limits.
7. North side of SR 299 from Sta. 1061+92 to Sta. 1074+71 within Dove Run Shopping Center
8. East side of Catherine Street from Sta. 199+20 to Sta. 199+65.
9. East side of Catherine Street from Sta. 200+40 to Sta. 200+69.
10. West side of Catherine Street from Sta. 203+74 to Sta. 204+30.
11. East side of Dove Run Boulevard from Sta. 800+86 to Sta. 802+27 within Dove Run Shopping Center
12. West side of Brick Mill Road from Sta. 1300+61 to Sta. 1302+03 within Dove Run Shopping Center
13. East side of Brick Mill Road at Sta. 1805+12, leaving the manhole and running north into the CCHS driveway then turning and running east in the center of the driveway. This line has a concrete cover.
14. (2) 6" conduit crossing Brick Mill Road at Sta. 1810+21, originating from pole at Sta. 1810+75 LT. The conduit runs to a manhole at St. 1810+13 RT and then runs east towards CCHS underneath the driveway.

**Town of Middletown proposed changes to their electric facilities include but are not limited to:**

- Electric Meter relocation by Town of Middletown:
  - Sta. 1037+68; 29' LT
- Utility pole relocation by Town of Middletown:
  - Sta. 1001+69; 41' RT (No #)
  - Sta. 1002+84; 41' RT (TD-20)
  - Sta. 1004+23; 41' RT (No #) (Includes Luminaire)
  - Sta. 1005+53; 41' RT (TD 22) (Includes Luminaire)
  - Sta. 1006+85; 41' RT (TD 23)
  - Sta. 1008+22; 41' RT (TD-24) (Includes Luminaire)
  - Sta. 1009+61; 43' RT (TD-24-1)
  - Sta. 1010+53; 43' RT (TD 25)
  - Sta. 1011+00; 44' RT (TD 26)
  - Sta. 1012+40; 45' RT (TD 120-484)
  - Sta. 1016+04; 33' LT (TOM 120-48)
  - Sta. 1016+40; 47' RT (TD-28)
  - Sta. 1016+80; 34' LT (No #)

- Sta. 1017+51; 47' RT (TD-28-1)
- Sta. 1017+53; 33' LT (TOM 120-47)
- Sta. 1018+90; 48' RT (TD-28-2)
- Sta. 1019+17; 33' LT (TOM 120-46) (Includes Luminaire)
- Sta. 1020+29; 48' RT (TD-29)
- Sta. 1020+60; 33' LT (TOM 120-45)
- Sta. 1021+72; 47' RT (TD-30)
- Sta. 1022+16; 33' LT (TOM 120-44)
- Sta. 1023+14; 47' RT (TD-31)
- Sta. 1024+56; 46' RT (TD-32)
- Sta. 1025+99; 45' RT (TD-33)
- Sta. 1027+13; 32' LT (TOM 120-41)
- Sta. 1027+40; 45' RT (TD-34)
- Sta. 1028+91; 48' RT (TD-34-1)
- Sta. 1029+22; 33' LT (TOM 120-40) (Includes Luminaire)
- Sta. 1030+30; 50' RT (TD-35)
- Sta. 1031+02; 33' LT (TOM 120-31)
- Sta. 1032+26; 33' LT (No #)
- Sta. 1033+28; 48' RT (TD-36-1)
- Sta. 1033+40; 34' LT (TOM 120-32) (Includes Luminaire)
- Sta. 1034+99; 44' RT (TOM 120-313)
- Sta. 1035+47; 33' LT (TOM 120-33) (Includes Luminaire)
- Sta. 1036+97; 46' RT (TOM 120-314)
- Sta. 1037+57; 29' LT (TOM 120-34) (Includes Luminaire)
- Sta. 1038+95; 51' RT (TOM 120-315/TD-39)
- Sta. 1039+63; 24' LT (TOM 120-35) (Includes Luminaire)
- Sta. 1040+85; 22' LT (No #)
- Sta. 1040+95; 54' RT (TOM 120-316/TD-40)
- Sta. 1041+64; 20' LT (TOM 120-36)
- Sta. 1042+92; 58' RT (TOM 120-317/TD-41)
- Sta. 1043+65; 16' LT (TOM 120-37/TD-41)
- Sta. 1043+87; 61' RT (TD-42)
- Sta. 1045+07; 87' RT – **Relocate by DP&L**
- Sta. 1045+73; 92' RT (TD-44/320-BI)
- Sta. 1045+96; 58' RT (TOM 120-320)
- Sta. 1047+76; 55' RT (No #)
- Sta. 1049+41; 56' RT (TOM 120-322)
- Sta. 1051+42; 61' RT (TOM120-323)
- Sta. 1052+11; 58' RT (TD-48)
- Sta. 1053+88; 54' RT (49)
- Sta. 1055+61; 53' RT (50)
- Sta. 1057+36; 53' RT (51)
- Sta. 1059+11; 54' RT (52)
- Sta. 1060+87; 55' RT (53)
- Sta. 1061+66; 55' RT (No #)
- Sta. 1062+75; 56' RT (54)

- Sta. 1064+37; 55' RT (55)
- Sta. 1066+15; 55' RT (56)
- Sta. 1067+90; 54' RT (57)
- Sta. 1069+67; 55' RT (58)
- Sta. 1071+40; 55' RT (59)
- Sta. 1072+97; 55' RT (60)
- Sta. 1075+15; 71' RT (No #)
- Sta. 1090+85; 83' RT (No #)
- Sta. 201+69; 31' RT (120-4814)
- Sta. 1803+51; 60' LT (44636-32781) (Brick Mill Road South Approach)
- Sta. 1804+88; 44' LT (44633-32794) (Brick Mill Road South Approach)
- Sta. 1812+06; 38' LT (44629-32822)
- Sta. 1309+07; 30' LT (44627-32836)
- Sta. 1310+55; 28' LT (44624-32850)
- Sta. 1312+07; 28' LT (44822-32863)
- Sta. 1313+56; 27' LT (44620-23877)
- Sta. 1315+08; 26' LT (44618-32891)
- Sta. 1316+49; 26' LT (44617-32919)
  
- Pole Removal by Town of Middletown
  - Sta. 1031+80; 48' RT (TD-36)
  
- New Utility Pole Installation by Town of Middletown
  - Sta. 1030+87; 94' LT
  - Sta. 1032+70; 83' RT
  - Sta. 1044+64; 75' RT
  - Sta. 1301+25; 37' LT
  
- Pole mounted luminaire installation by Town of Middletown:
  - Sta. 1001+10; 64' RT
  - Sta. 1015+01; 46' RT
  - Sta. 1016+09; 48' LT
  - Sta. 1030+84; 91' RT
  - Sta. 1031+00; 41' LT
  - Sta. 1032+60; 41' LT
  - Sta. 1032+74; 79' RT
  - Sta. 1044+64; 77' RT
  - Sta. 1044+85; 67' LT
  - Sta. 1046+03; 68' RT
  
- Manhole adjustment by Town of Middletown:
  - Sta. 1805+12; 60' RT
  - Sta. 1810+13; 63' RT
  
- Underground electric installation by Town of Middletown:

- Sta. 1006+75 LT/RT
- Sta. 1010+44 LT/RT

It is the intent that these relocations will be complete prior the first chargeable day of the contract. Should this utility work become concurrent with the project work, the state's contractor shall coordinate and sequence the work with the utility contractor. The state's contractor will supply all maintenance of traffic (MOT) to the utility contractor necessary to perform the work. Any costs associated with this coordination shall be incidental to the MOT items being provided. MOT devices shall be provided to the utility contractor under the respective contract bid items.

**For exact location of electric facilities, please contact Miss Utility at (800) 282-8555. No working/existing Town of Middletown facilities can be taken out of service unless specified and identified in this statement.**

**These facilities will remain in place and active during the duration of this contract. Town of Middletown Public Works 431 Haveg Road Middletown, DE 19709. Business Hours: 7 a.m. to 3:30 p.m. Monday through Friday. Phone number 1 (302) 378-2211 After hours emergency phone number 1 (302) 378-2211.**

DelDOT has not planned for, or coordinated with the Town of Middletown – Electric Dept for any temporary power outages, relocations, physical pole support for excavation nor arranged for the installation of insulation of any power line during this contract. Due to varying construction possibilities; if a contractors means-and-methods should require support from Town of Middletown – Electric Dept to fulfill the requirement of 16 Del. C. § 7405B, OSHA Regulations Table A of § 1926.1408, other applicable federal, state or local law or regulation or the Contractor's company policy; it shall be at the Contractor's sole expense and the contractor shall directly coordinate this request with Town of Middletown – Electric Dept. All costs associated with any temporary power outages, relocations, physical pole support for excavation or the installation of insulation of any power line during this contract shall be incidental, including the cost of the coordination, to the work being performed. The Department makes no guarantees that the request for any temporary power outages, relocation or the installation of insulation of any power line during this contract will be granted by the Town of Middletown – Electric Dept. in part or in total; or during the time periods requested by the Contractor for construction purposes. Any proposed coordination with Town of Middletown – Electric Dept shall be included in the contractor's CPM schedule

These relocations/adjustments are expected to take approximately 150 calendar days to complete after the company has been given a minimum of 30 calendar days advance notice that work shall begin and the right-of-way and proposed work has been laid out in the field by DelDOT.

**Town of Middletown – Sewer**

Town of Middletown – Sewer maintains the following underground sanitary sewer facilities within the project limits:

1. 10" terracotta the North side of SR 299 from the project limits at Sta. 1000+00 to Sta. 1006+32.

2. 6" terracotta on the North side of SR 299 at Sta. 1005+92 extending north beyond the project limits.
3. 6" PVC on the North side of SR 299 at Sta. 1008+14 extending north beyond the project limits.
4. 6" PVC on the North side of SR 299 from Sta. 1008+14 to Sta. 1010+13.
5. 8" terracotta crossing SR 299 at Sta. 1010+11 and extending South beyond the project limits.
6. 8" terracotta on the North side of SR 299 from Sta. 1010+13 to Sta. 1012+03.
7. Pipe crossing from the North side of SR 299 at Sta. 1012+03 to the South side at Sta. 1014+04 and extending beyond the limits of the project.
8. 12" terracotta/PVC on the North side of SR 299 from Sta. 1012+03 to Sta. 1019+96.
9. 10" terracotta on the North side of SR 299 from Sta. 1019+96 to Sta. 1023+95.
10. 8" PVC on the North side of SR 299 at Sta. 1021+18 and extends north beyond the project limits.
11. 12" terracotta/PVC on the north side of SR 299 from Sta. 1023+95 to Sta. 1037+32.
12. 8" PVC on the north side of SR 299 at Sta. 1026+04 extending north beyond the project limits.
13. 12" PVC on the North side of SR 299 at Sta. 1029+76 extending north beyond the project limits.
14. 16" force main crossing SR 299 at Sta. 1031+63 and continuing north on the west side of Cleaver Farms Road and continuing south on the east side of Dickerson Boulevard.
15. 12" terracotta on the North side of SR 299 at Sta. 1034+32 extending north beyond the project limits.
16. Two 8" terracotta on the North side of SR 299 at Sta. 1037+32 extending north and northeast beyond the project limits.
17. 6" PVC on the North side of SR 299 at Sta. 1037+32 extending east.
18. 8" on the south side of SR 299 in the Middletown Crossing parking lot from Sta. 1039+48 to Sta. 1042+26.
19. 12" PVC crossing SR 299 at Sta. 1044+60 and extending south along the east side of Silver Lake Road.
20. 8" PVC on the North side of side of SR 299 from Sta. 1044+60 to Sta. 1051+86.
21. Force Main on the North side of SR 299 from Sta. 1044+60 to Sta. 1049+43, which crosses SR 299 at Sta. 1049+43 and continues southeast to Middletown High School.
22. 6" force main on the North side of SR 299 from Sta. 1051+86 to Sta. 1058+92.
23. 8" force main on the North side of SR 299 from Sta. 1058+92 to Sta. 1061+52.
24. 10" RCP along the east side of Catherine Street from Sta. 201+60 to Sta. 204+44.
25. Pipe (unknown size) extending West along Green Street from Catherine Street.
26. 10" terracotta along Catherine Street from Sta. 204+44 to Sta. 207+50.
27. 10" terracotta on Catherine Street at Sta. 204+44 continuing east and west.
28. 10" terracotta on Catherine Street at Sta. 205+24, continuing west beyond the project limits.
29. 12" PVC on the East side of New Street from Sta. 300+31 to Sta. 304+31.
30. Force main on the East side of Dove Run Boulevard from Sta. 800+84 to Sta. 802+42 extending north beyond the project limits.
31. Force main Crossing Brick Mill Road at Sta. 1811+12 and extending along the West side of Brick Mill Road to Sta. 1812+39.

**Town of Middletown proposed changes to their sewer facilities include but are not limited to:**

- Manhole adjustment by contractor:
  - Sta. 1000+72; 19' LT
  - Sta. 1000+78; 28' RT
  - Sta. 1003+26; 17' LT
  - Sta. 1005+92; 15' LT
  - Sta. 1008+14; 27' LT
  - Sta. 1010+12; 28' LT
  - Sta. 1012+03; 28' LT
  - Sta. 1016+09; 26' LT
  - Sta. 1019+96; 26' LT
  - Sta. 1021+18; 24' LT
  - Sta. 1023+95; 25' LT
  - Sta. 1027+97; 25' LT
  - Sta. 1029+76; 24' LT
  - Sta. 1034+32; 22' LT
  - Sta. 1037+33; 21' LT
  - Sta. 1049+43; 48' LT
  - Sta. 1051+87; 58' LT
  - Sta. 708+27; 20' LT
  - Sta. 1812+39; 49' LT
  - Sta. 1308+12; 23' LT
  
- Manhole to be removed by contractor:
  - Sta. 1044+60; 1' RT
  - Sta. 1044+60; 69' RT
  - Sta. 1044+77; 23' LT
  - Sta. 1045+25; 79' RT
  - Sta. 1046+53; 25' LT
  - Sta. 1058+92; 27' LT
  
- Cleanout to be removed by contractor:
  - Sta. 1052+13; 20' LT
  - Sta. 1061+51; 76' LT
  
- Sewer encasement to be installed by contractor:
  - Sta. 1033+90 to Sta. 1034+10; 22' LT
  
- 10" Plastic pipe to be installed by contractor:
  - Sta. 1045+33; 141.5' RT to Sta. 1046+75; 72' RT
  - Crossing SR 299 at Sta. 1046+74.
  - Sta. 1046+73; 48' LT to Sta. 1049+42; 48' LT

- 6" Plastic force main to be installed by contractor:
  - Sta. 1049+42 LT from existing manhole to existing force main
  - Sta. 1051+87; 58' LT to Sta. Sta. 1061+52, 70' LT
- Sewer line to be abandoned or removed by contractor:
  - 12" PVC crossing SR 299 at Sta. 1044+60.
  - 12" PVC on south side of SR 299 from Sta. 1044+60 to Sta. 1045+33.
  - 8" PVC on the north side of SR 299 from Sta. 1044+60 to Sta. 1049+40.
  - Pipe (unknown size) on the north side of SR 299 from Sta. 1044+60 to Sta. 1049+43.
  - 6" force main on north side of SR 299 from Sta. 1051+87 to Sta. 1061+51.

**For exact location of electric facilities, please contact Miss Utility at (800) 282-8555.**  
**Town of Middletown Public Works 431 Haveg Road Middletown, DE 19709. Business**  
**Hours: 7 a.m. to 3:30 p.m, Monday through Friday. Phone number 1 (302) 378-2211**  
**After hours emergency phone number 1 (302) 378-2211.**

### **Town of Middletown – Water**

Town of Middletown – Water maintains the following facilities within the project limits:

1. 10" metal pipe on the North side of SR 299 from Sta. 1000+38 to Sta. 1005+17.
2. 10" transite pipe crossing SR 299 at Sta. 1005+17 and extending along the South side of SR 299 to approximately Sta. 1032+31, crossing to the North side of SR 299 and extending to approximately Sta. 1040+75.
3. Pipe on the North side of SR 299 at Sta. 1005+01 to fire hydrant.
4. Pipe on the North side of SR 299 from Sta. 1005+17 to Sta. 1006+42 turning north and continuing beyond the project limits.
5. 1/2" copper crossing SR 299 at Sta. 1007+12 extending north beyond the project limits.
6. 6" Pipe on the South side of SR 299 at Sta. 1009+76 to fire hydrant.
7. Pipe on the South side of SR 299 at Sta. 1010+19 extending south beyond the project limits.
8. 3" metal on the South side of SR 299 at Sta. 1012+31 extending southeast beyond the project limits.
9. 6" Pipe on the South side of SR 299 at Sta. 1014+14 to fire hydrant.
10. 8" pipe on the South side of SR 299 at Sta. 1016+83 extending south beyond the project limits.
11. Two pipes on the South side of SR 299 at Sta. 1017+44 and 1018+88 extending south beyond the project limits.
12. Pipes on the South side of SR 299 at Sta. 1018+95, Sta. 1028+32, and Sta. 1029+24 extending to fire hydrants.
13. Pipe crossing SR 299 at Sta. 1029+73 extending north beyond the project limits.
14. Pipe on the South side of SR 299 at Sta. 1030+72 extending south along the West side of Dickerson Boulevard to a point outside the project limits.
15. Pipe on the North side of SR 299 at station 1039+62 extending north to a water valve.
16. Pipe on the North side of SR 299 from Sta. 1040+75 to Sta. 1063+66.
17. Crossing SR 299 at Sta. 1051+24 extending south beyond the project limits.

18. Crossing SR 299 at Sta. 1063+66 and extending on the South side of SR 299 to interconnection meter vault at Sta. 1064+20.
19. Pipe on the West side of Catherine Street from Sta. 198+00 to Sta. 205+61.
20. Pipe crossing Catherine Street at Sta. 198+97 and Sta. 200+06 extending east.
21. Pipe on the West side of Catherine Street at Sta. 201+70 extending west.
22. 10" abandoned transite on the West side of New Street from Sta. 300+00 extending north beyond the project limits.
23. Pipe on the West side of New Street from Sta. 300+00 extending north beyond the project limits
24. Pipe on the west side of New Street at Sta. 301+69 extending to fire hydrant.
25. Crossing SR 299 at Sta. 1045+70 and extending along the East side of Silver Lake Road to Sta. 708+74.

**Town of Middletown proposed changes to their water facilities include but are not limited to:**

- Fire Hydrant relocation by contractor:
  - Sta. 1005+02; 25' LT
  - Sta. 1009+75; 41' RT
  - Sta. 1014+15; 56' RT
  - Sta. 1018+94; 44' RT
  - Sta. 1029+24; 49' RT
  - Sta. 1040+75; 22' LT
  - Sta. 302+56; 26' LT
  
- Existing water valve adjustment by Contractor:
  - Sta. 1000+66; 8' LT
  - Sta. 1000+69; 41' RT
  - Sta. 1000+71; 36' RT
  - Sta. 1000+81; 7' LT
  - Sta. 1016+83; 42' RT
  - Sta. 1029+73; 30' LT
  - Sta. 1039+63; 45' LT
  - Sta. 1039+74; 28' LT
  - Sta. 1064+05; 63' RT
  - Sta. 1064+05; 66' RT
  - Sta. 1064+09; 67' RT
  
- Proposed water valve/meter adjustment by Contractor:
  - Sta. 1004+65, 17' LT
  - Sta. 1004+96, 19' LT
  - Sta. 1009+72, 38' RT
  - Sta. 1009+70, 40' RT
  - Sta. 1010+24, 41' RT
  - Sta. 1012+58, 35' RT
  - Sta. 1014+21, 35' RT
  - Sta. 1015+57; 47' LT
  - Sta. 1015+62; 48' LT
  - Sta. 1016+88, 35' RT
  - Sta. 1017+45, 56' RT
  - Sta. 1019+00, 35' RT
  - Sta. 1019+02, 33' RT
  - Sta. 1028+36, 47' RT
  - Sta. 1029+29, 49' RT
  - Sta. 1029+76, 43' RT
  - Sta. 1029+78, 41' RT
  - Sta. 1029+81, 44' RT
  - Sta. 1031+24, 53' RT
  - Sta. 1031+36, 50' RT
  - Sta. 1039+40, 51' RT
  - Sta. 1040+78, 37' LT
  - Sta. 1045+63, 89' RT
  - Sta. 1045+65, 86' RT
  - Sta. 1051+29, 55' RT
  - Sta. 1055+12, 52' RT
  
- Water meter relocation by Contractor:

- Sta. 1017+44; 61' RT
- Water meter adjustment by Contractor:
  - Sta. 201+62; 36' RT
  - Sta. 202+25; 35' RT
- Water main relocation by Contractor:
  - 10" DIP from Sta. 1004+91 to Sta. 1064+05
  - 10" DIP crossing SR 299 at Sta. 1015+67
  - Lateral crossing SR 299 at Sta. 1039+61
  - Lateral crossing SR 299 at Sta. 1040+78
  - 10" DIP from Sta. 710+76 to Sta. 711+11
- Water main to be filled and abandoned by contractor:
  - Sta. 1004+91 to Sta. 1063+68

Note: The Contractor is not permitted to draw water from any hydrant for any use, without the written permission of the Town of Middletown and proper metering and backflow prevention equipment in place.

**For exact location of electric facilities, please contact Miss Utility at (800) 282-8555. Town of Middletown Public Works 431 Haveg Road Middletown, DE 19709. Business Hours: 7 a.m. to 3:30 p.m, Monday through Friday. Phone number 1 (302) 378-2211 After hours emergency phone number 1 (302) 378-2211.**

### **Verizon of Delaware**

Verizon of Delaware maintains the following aerial facilities within the project limits:

1. On the South side of SR 299 from Sta. 1001+10 to Sta. 1071+40.
2. Crossing SR 299 at Sta. 1006+75, 1010+53, 1016+19, 1045+02, 1051+94, and 1061+63.
3. On the South side of SR 299 from at Sta. 1028+91 extending south beyond the project limits.
4. On the North side of SR 299 from Sta. 1041+61 to Sta. 1103+75 extending beyond the project limits.
5. On the South side of SR 299 Sta. 1078+30 to Sta. 1093+72.
6. On the East side of Catherine Street from Sta. 201+58 to Sta. 207+50.
7. On the East side of New Street from Sta. 300+00 to Sta. 304+33.
8. Crossing New Street at Sta. 301+77.
9. On the West side of Cleaver Farms Road from Station 1501+58 extending beyond the project limits.
10. Crossing Cleaver Farms Road at Sta. 1503+21.
11. On the East side of Dove Run Boulevard from Station 800+00 to Station 803+00 extending beyond the project limits.
12. On the West side of Silver Lake Boulevard from Sta. 705+89 to Sta. 712+00.

13. On the East side of Silver Lake Boulevard from Sta. 704+10 to Sta. 707+40.
14. On the West Side of Brick Mill Road from Sta. 1300+58 to Sta. 1319+59 extending beyond the project limits.
15. On the West side of Brick Mill Road at Sta. 1310+55 extending west.
16. Crossing Brick Mill Road at Sta. 1316+61.

Verizon of Delaware maintains the following underground facilities within the project limits:

1. On the South side of SR 299 from Sta. 1000+18 to Sta. 1078+25 and from Sta. 1094+12 extending east beyond the project limits.
2. Conduit on the South side of SR 299 from Sta. 1001+14 to Sta. 1001+86.
3. Conduit on the South side of SR 299 extending south from Sta. 1002+39.
4. On the South side of SR 299 at Sta. 1012+40 extending southeast beyond the project limits.
5. Crossing SR 299 at Sta. 1031+38 and extending along the West side of Cleaver Farms Road beyond the project limits.
6. Crossing SR 299 at Sta. 1032+08 and extending along the East side of Cleaver Farms Road to Sta. 1503+58.
7. An abandoned line on the South side of SR 299 at Sta. 1032+14 to Sta. 1065+40.
8. Conduit on the South side of SR 299 extending south from Sta. 1033+28.
9. On the North side of SR 299 from Sta. 1036+61 to Sta. 1041+63.
10. Conduit on the North side of SR 299 extending north from Sta. 1038+30.
11. Conduit on the South side of SR 299 from Sta. 1038+95 to Sta. 1039+12.
12. Crossing SR 299 at Sta. 1039+11.
13. Conduit on the North side of SR 299 extending north from Sta. 1041+64.
14. Two conduits at Sta. 1052+11 and Sta. 1052+18 extending south beyond the project limits.
15. Conduit on the South side of SR 299 from Sta. 1057+31 to 1059+51.
16. On the North side of SR 299 from Sta. 1061+62 to Sta. 1075+35.
17. Conduit on the North side of SR 299 extending north from Sta. 1070+27.
18. Conduit on the South side of SR 299 from Sta. 1071+40 to Willow Grove Mill Drive.
19. On the South side of SR 299 at Sta. 1071+78 extending south beyond the project limits.
20. Crossing SR 299 at Sta. 1071+83.
21. On the North side of SR 299 at Sta. 1077+64 extending north beyond the project limits.
22. On the South side of SR 299 at Sta. 1078+25 extending south to a utility pole.
23. An abandoned line on the South side of SR 299 from Sta. 1078+25 to Sta. 1085+53.
24. An abandoned line on the South side of SR 299 from Sta. 1078+25 to Sta. 1103+75 beyond the project limits.
25. On the North side of SR 299 from Sta. 1083+27 crossing to the South side of SR 299 at Sta. 1084+18.
26. Conduit on the South side of SR 299 from Sta. 1093+67 to Sta. 1094+00.
27. Verizon maintains a conduit run on the North side of SR 299 from Sta. 1093+90 to Station 1103+75 extending beyond the project limits.
28. Crossing SR 299 at Sta. 1094+11.

29. Conduit on the East side of Catherine Street from Sta. 201+43 to Sta. 201+69.
30. Conduit on the East side of Catherine Street from Sta. 204+86 to Sta. 205+20.
31. Crossing Catherine Street at Station 201+44 and extending North to Station 205+20.
32. On the East side of Silver Lake Road from Sta. 705+06 to Sta. 711+35.
33. On the West side of Willow Grove Mill Drive from Sta. 900+10 to Sta. 902+53.
34. An abandoned line crosses Brick Mill Road at Sta. 1300+36 and extends along the East side to 1317+09.
35. On the west side of Brick Mill Road at Sta. 1303+50 and Sta. 1307+64 extending west beyond the project limits.
36. Crossing Brick Mill Road at Sta. 1804+86 extending east beyond the project limits.
37. Crossing Brick Mill Road at Sta. 1310+58.
38. On the East side of Brick Mill Road at Sta. 1316+85 extending east beyond the project limits.

**Verizon proposed changes to their facilities include but are not limited to:**

- Utility pole relocation by Verizon:
  - Sta. 1065+47; 57' RT (TD-55) (Move 8' southwest of existing pole)
- Handhole installation by Verizon:
  - Sta. 1006+29; 61' RT
  - Sta. 1010+48; 64' RT
  - Sta. 1071+74; 52' LT
- Utility pole removed by Verizon:
  - Sta. 1001+03; 19' LT (No #)
  - Sta. 1046+35; 63' RT (320A)
  - Sta. 1052+17; 61' RT (C&P 48)
  - Sta. 1057+42; 57' RT (51/1)
  - Sta. 1059+52; 58' RT (52)
- Underground conduit relocation by Verizon:
  - Lower conduit at Sta. 1000+44 RT at proposed drainage.
  - Extend existing conduit with 4-4" conduit from Sta. 1001+20 RT to Sta. 1012+65 RT.
  - New conduit crossing SR 299 at Sta. 1006+28 and Sta. 1010+44.
  - Extend existing conduit to new pole at Sta. 1030+60 RT.
- Manhole adjustment by Contractor:
  - Sta. 1001+14; 30' RT
  - Sta. 1032+14; 38' RT
  - Sta. 1039+14; 60' RT (2)
  - Sta. 1065+46; 33' RT (2)
  - Sta. 1072+54; 48' RT (2)
  - Sta. 1078+17; 47' RT (2)

- Sta. 1094+06; 44' RT (2)
- Sta. 1094+14; 17' LT (2)
- Sta. 1101+97; 41' LT (2)
  
- Pedestal adjustment by Verizon:
  - Sta. 1071+78 RT adjust the X-Connect Boxes to grade by raising them +/- 2 feet.
  
- Pedestal Removal/Relocation by Verizon:
  - Sta. 1001+96 RT
  - Sta. 1002+78 RT
  - Sta. 1006+93 RT
  - Sta. 1014+11 RT
  - Sta. 1016+35 RT
  - Sta. 1017+17 RT
  - Sta. 1020+33 RT
  - Sta. 1023+07 RT
  - Sta. 1026+55 RT (2)
  - Sta. 1027+61 RT
  - Sta. 1030+29 RT
  - Sta. 1037+61 LT
  - Sta. 1046+35 RT
  - Sta. 1049+00 RT
  - Sta. 1052+16 RT
  - Sta. 1052+40 RT
  - Sta. 1057+29 RT
  - Sta. 1059+51 RT
  - Sta. 1065+13 LT (2)
  - Sta. 1065+46 RT
  - Sta. 1067+47 RT
  - Sta. 1073+86 LT
  - Sta. 1500+69 RT
  
- Replace buried or aerial cables with aerial cables on new poles by Verizon:
  - From Sta. 1012+40 RT to Sta. 1071+14 RT on SR 299.
  - From Sta. 1045+77 LT to Sta. 1100+18 LT on SR 299.
  - From Pole at 1045+77 LT on SR 299 to pole at Sta. 709+90 LT on Silver Lake Road.
  - From Pole at 1045+78 RT on SR 299 to pole at Sta. 707+40 RT on Silver Lake Road.
  - From Pole at Sta. 1301+23 LT to pole at Sta. 1316+85 RT on Brick Mill Road.
  
- Replace buried cables by Verizon:
  - From pole at Sta. 1033+34 RT and across SR 299 to new pedestal Sta. 1501+17 RT on Cleaver Farms Road.
  - From new pole at Sta. 1033+44 RT to existing 4" conduit.
  - From Sta. 1036+60 LT to MH TD/39 at Sta. 1039+14 RT on SR 299.
  - From new pole at Sta. 1038+80 RT to MH TD/39 at Sta. 1039+14 RT on SR 299.
  - From existing UG at Sta. 1041+64 LT across SR 299 to new pole Sta. 1042+20 RT.
  - From new pole at Sta. 1046+03 to existing underground conduit
  - From new pole at Sta. 1052+10 RT to Sta. 1052+60 RT on SR 299, place new buried cable to cut over existing buried cables to new aerial cable.
  - Sta. 1070+31 LT to Sta. 1071+78 LT on SR 299, replace existing Buried cable to accommodate relocated pole.
  - Sta. 1071+78 LT to Sta. 1074+89 LT from new handhole to relocated pole
  - Sta. 1071+42 to Sta. 1071+81 RT from new pole to existing box

- Sta. 1071+85 LT/RT on Middletown-Odessa Rd. Verizon proposes replacing existing cables in conduit to accommodate relocated poles.
- Lower conduit from Sta. 1072+65 RT on SR 299 to Sta. 902+00 LT on Willow Grove Mill Drive.
- From new pole at Sta. 1074+90 LT on SR 299 to new pole at Sta. 1301+25 LT on Brick Mill Rd place new buried cable to cut over existing aerial cable to accommodate relocated pole.
- Sta. 1077+18 LT to Sta. 1077+65 LT on SR 299, place new buried cable to accommodate relocated poles.
- Sta. 1083+25 LT to Sta. 1083+70 LT, place new buried cable and extend spare 2' HDPE to relocated pole
- From MH UNN2-E at Sta. 1094+15 LT to new pole at Sta. 1093+70 LT on SR 299, place new cable and conduit to accommodate relocated poles.
- Sta. 1804+90 LT on Brick Mill Road extend conduit to relocated pole
- Sta. 1812+00 LT on Brick Mill Road extend conduit to relocated pole
  
- Replace aerial cables by Verizon:
  - At Sta. 1001+00 LT/RT on SR 299, raise cable 2'
  - At Sta. 1016+43 LT/RT on SR 299, relocate existing aerial to new poles
  - At Sta. 1098+30 LT/RT on SR 299 install guy wire across SR 299.
  - At. Sta. 301+78 LT/RT on New Street, replace existing service line to new pole.
  
- Remove aerial cables
  - Sta. 1001+12 RT to Sta. 1013+57 RT
  - Sta. 1044+70 LT to Sta. 1045+75 LT
  - Sta. 1051+84 LT/RT
  - Sta. 1061+60 LT/RT
  
- Underground cable to be abandoned/removed by Verizon:
  - Sta. 1001+20 RT to Sta. 1030+40 RT
  - Sta. 1032+20 RT to Sta. 1039+10 RT (Duct bank to remain)
  - Sta. 1036+76 LT to Sta. 1041+64 LT
  - Sta. 1046+00 RT to Sta. 1072+50 RT
  - Sta. 1061+62 LT to Sta. 1075+35 LT
  - Sta. 1071+41 RT to Sta. 1071+84 RT
  - Sta. 1077+64 LT
  - Sta. 1093+88 LT to Sta. 1094+09 LT
  - Sta. 1500+00 RT to Sta. 1501+33 RT
  - Sta. 1310+60 LT/RT
  
- Manhole to be filled with flowable fill and abandoned by Verizon:
  - Sta. 1007+80 RT

It is the intent that these relocations will be complete prior the first chargeable day of the contract. Should this utility work become concurrent with the project work, the state's contractor shall coordinate and sequence the work with the utility contractor. The state's contractor will

supply all maintenance of traffic (MOT) to the utility contractor necessary to perform the work. Any costs associated with this coordination shall be incidental to the MOT items being provided. MOT devices shall be provided to the utility contractor under the respective contract bid items.

**For exact location of electric facilities, please contact Miss Utility at (800) 282-8555.**

**No working/existing Verizon facilities can be taken out of service.**

**These facilities will remain in place and active during the duration of this contract.**

These relocations/adjustments are expected to take approximately 120 calendar days to complete after the company has been given a minimum of 30 calendar days advance notice that work shall begin and the right-of-way and proposed work has been laid out in the field by the State's contractor and required tree trimming and clearing has been performed.

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### **General Notes**

1. The Contractor's attention is directed to Section 105.09 Utilities, Delaware Standard Specifications, August 2016. The Contractor shall contact Miss Utility (1-800-282-8555) two working days prior to any excavation. The Contractor is responsible for the support and protection of all utilities when excavating. The Contractor is responsible for ensuring proper clearances, including safety clearances, from overhead utilities for construction equipment. The Contractor is advised to check the site for access and operating purposes for his equipment and, if necessary, make arrangements directly with the utility companies for field adjustments for adequate clearances.
2. The information shown in the Contract Documents, including the Utility Statement and the Utility Schedule contained herein, concerning the location, type, and size of existing and proposed utilities, their locations, and construction timing has been compiled by the preparer based on information furnished by each of the involved Utility Companies. It shall be the responsibility of the State's Contractor to verify all information and coordinate with the Utility Companies prior to and during construction, as specified in Section 105.09 of the Standard Specifications.
3. It is understood and agreed that the Contractor has considered in his bid all permanent and temporary utility appurtenances in their present and relocated positions as shown on the plans or described in the Utility Statement or are readily discernible and that no additional compensation will be allowed for any delays, inconvenience, or damage due to any interference from the utility facilities and appurtenances or the operation of moving them, except that the Contractor may be granted an equitable extension of time unless the delay is caused by the Contractor's delay in having the site conditions ready for the utility relocation work after the Contractor has provided the advance notice that the site conditions would be ready for the utility relocation work. The contractor's means and method of construction are not taken into account when known utility conflicts are identified. If the Contractor's means and method of construction create a utility conflict the Utility Statement will prevail in discussions with the utility and the Contractor. The State's Contractor shall be responsible for any costs associated with any temporary outages; holding, bracing and shielding of utility facilities; temporary relocations; or permanent relocations that are not specifically identified in this utility statement or shown in the contract plan set.

4. Coordination and cooperation among the Utility Companies and the State's Contractor are of prime importance. Therefore, the Contractor is directed to contact the following Utility Company representatives with any questions regarding this work prior to submitting bids and work schedules. Proposed work schedules should reflect the Utility Companies' proposed relocations. The Utility Companies do not work on weekends, nights or legal holidays.

NAME	COMPANY	PHONE	EMAIL
Mr. Wayne Tyler	Artesian Water	(302) 453-7153	WTyler@artesianwater.com
Mr. Wesley Page	Atlantic Broadband Cable	(410) 827-6441	wpage@atlanticbb.com
Mr. Garth Jones	Chesapeake Gas	(302) 736-6797	gjones@chpk.com
Mr. Angel Collazo	Delmarva Power – Electric	(302) 454-4370	angel.collazo@delmarva.com
Mr. Bill Muehlberger	Crown Castle	(585) 362-0019	Bill.Muehlberger@crowncastle.com
Mr. Wayne Kersey	Town of Middletown	(302) 378-2211	wkersey@middletownde.org
Mr. George Zang	Verizon	(302) 422-1238	george.w.zang@verizon.com

5. As outlined in Chapter 3 of the DeIDOT Utilities Manual, individual utility companies are responsible for obtaining all required permits from municipal, State and federal government agencies and railroads. This includes but is not limited to water quality permits/DNREC Water Quality Certification, DNREC Subaqueous Lands/Wetlands permits, DNREC Coastal Zone Consistency Certification, County Floodplain permits (New Castle County only), U.S. Coast Guard permits, US Army Corps 404 permits, sediment and erosion permits, and railroad crossing permits.
6. Individual utility companies are required to restore any areas disturbed in conjunction with their relocation work. If an area is disturbed by a utility company and is not properly restored, the Department may have the State's Contractor perform the necessary restoration. Any additional costs incurred as a result will be forwarded to the utility company.
7. 16 Del. C. § 7405B requires notification to and mutually agreeable measures from the public utility operating the electric line for any person intending to carry on any function, activity, work or operation within dangerous proximity of any high voltage overhead electric lines. All contractors/other utilities must also maintain a minimum distance of 10'-0" from all overhead energized lines. Additional clearance may be required from high voltage transmission lines.

8. Any existing facilities that are comprised of hazardous materials will be removed by the Utility Company unless otherwise outlined in the contract documents or language above. Any existing facilities containing hazardous materials will be purged by the Utility Company unless otherwise outlined in the contract documents or language above.
  
9. In conjunction with bid preparation and prior to starting work, the State's Contractor shall confirm with all respective Utility Companies noted in this Utility Statement to have advance utility relocations that the advance relocations have in fact been accomplished as summarized herein. In locations where an abandoned utility is to be removed, the Contractor is responsible to contact the utility owner to confirm that the facility can be removed.

**PREPARED AND RECOMMENDED BY:**

  
\_\_\_\_\_  
Stefan Rukowicz, McCormick Taylor  
[SFRukowicz@mccormicktaylor.com](mailto:SFRukowicz@mccormicktaylor.com)

12/3/2020  
DATE

**APPROVED AS TO FORM BY:**

  
\_\_\_\_\_  
Utilities Section, DelDOT  
[Chuck.Ferguson@Delaware.gov](mailto:Chuck.Ferguson@Delaware.gov)

3 Dec, 2020  
DATE

STATE OF DELAWARE  
DEPARTMENT OF TRANSPORTATION  
PO BOX 778  
DOVER, DELAWARE 19903

CERTIFICATE OF RIGHT-OF-WAY STATUS

STATE PROJECT NO. T201012001

F.A.P. NO. ESTP-2015(19)

SR299, SR 1 TO CATHERINE STREET

NEW CASTLE COUNTY

Certificate of Right-of-Way Status - Conditional

Status - Level 3

As acquired by 23 CFR, Part 635, and other pertinent Federal and State regulations or laws, the following certificates are hereby made in reference to this highway project:

The acquisition or right of occupancy and use of some remaining parcels is not complete, but all occupants of the residences on such parcels has had replacement housing made available to them in accordance with 49 CFR 24.04. The parcels which are not available are:

See attached sheet

All necessary real property interests have been or shall be acquired in accordance with current FHWA/State directives covering the acquisition of real property.

No occupants were permanently displaced for this project and the State has physical possession and the right to remove, salvage, or demolish any personal property acquired as part of this project.

The State shall ensure that any occupants of residences, businesses, farms, or non-profit organizations and who have not yet moved from the right-of-way are protected against unnecessary inconvenience and disproportionate injury or any action coercive in nature.; and,

Anticipated clearance for all parcels is January 30, 2021.

RIGHT OF WAY SECTION



Monroe C. Hite, III  
Chief of Right of Way

December 8, 2020

Updated from June 1, 2020

**Project Number T201012001**

**SR299, SR1 to Catherine Street**

**4th Status of Parcels for a Stipulated Level 3 Certification as of 12/8/2020**

<b><u>Parcel Number:</u></b>	<b><u>Owner:</u></b>	<b><u>Status</u></b>	<b><u>Availability</u></b>
Parcel 15-R	Fusco Properties, LP	Condemnation	Available/with notice
Parcel 20-R	Fusco Properties, LP	Condemnation	Available/with notice
Parcel 13-L	Middlecap Associates, LLC	Condemnation	January 30, 2021
Parcel 14-L	Dove Run Associates, LLC	Condemnation	Available/with notice
Parcel 15-L	Christiana Care Health Services	Working on ROE	January 30, 2021

**Revised 12/8/2020**





STATE OF DELAWARE  
**DEPARTMENT OF TRANSPORTATION**  
800 BAY ROAD  
P.O. BOX 778  
DOVER, DELAWARE 19903

JENNIFER COHAN  
SECRETARY

May 19, 2020

ENVIRONMENTAL REQUIREMENTS

FOR

State Contract No. T201012001  
Federal Aid No.: ESTP-2015(19)

Contract Title: SR 299, SR 1 to Catherine Street

Class II Action / Level D  
CE action: **23 CFR 771.117 (d)(13)**

Environmental (NEPA) Approval Date: 9/15/17  
Reevaluation Approval Date: 5/19/2020

In accordance with the procedural provisions for implementing the National Environmental Policy Act of 1969, as amended, the referenced project has been processed through the Department's Environmental Review Procedures and has been classified as a Level d/ Class II Action.

Due to the nature of the proposed construction activities, permits are not required for this project. However, the following construction requirements and special provisions have been developed to minimize and mitigate impact to the surrounding environs. These requirements by DelDOT, not specified within the contract, are listed below. These requirements are the responsibility of the contractor and are subject to risk of shut down at the contractor's expense if not followed.

GENERAL REQUIREMENTS:

1. All construction debris, excavated material, brush, rocks, and refuse incidental to such work shall be placed either on shore above the influence of flood waters or on some suitable dumping ground.

2. That effort shall be made to keep construction debris from entering adjacent waterways or wetlands. Any debris that enters those areas shall be removed immediately.
3. The disposal of trees, brush, and other debris in any stream corridor, wetland, surface water, or drainage area is prohibited.
4. DelDOT Environmental Studies Section must be notified if there are any changes to the project methods, footprint, materials, or designs, to allow the Department to coordinate with the appropriate resource agencies (COE, DNREC, and SHPO), for approval at [DOT\\_EnvironmentalStudies@delaware.gov](mailto:DOT_EnvironmentalStudies@delaware.gov) and/or 302-760-2259.



STATE OF DELAWARE  
**DEPARTMENT OF TRANSPORTATION**  
 800 BAY ROAD  
 P.O. BOX 778  
 DOVER, DELAWARE 19903

JENNIFER COHAN  
 SECRETARY

**RAILROAD STATEMENT**

**For**

**State Contract No.:** T201012001

**Federal Aid No.:** ESTP-2015(19)

**Project Title:** SR 299, SR 1 to Catherine Street

**The following railroad companies maintain facilities within the contract limits:**

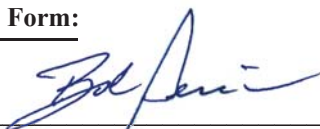
- |  |   |
|--|---|
| <input type="checkbox"/> Amtrak              | <input type="checkbox"/> Maryland & Delaware  |
| <input type="checkbox"/> CSX                 | <input type="checkbox"/> Norfolk Southern     |
| <input type="checkbox"/> Delaware Coast Line | <input type="checkbox"/> Wilmington & Western |
| <input type="checkbox"/> East Penn           | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Delmarva Central    |   |

DOT Inventory No.:     N/A     No. Trains/Day:     N/A     Passenger Trains (Y / N):     N/A    

**In accordance with 23 CFR 635, herein is the railroad statement of coordination (check one):**

- No Railroad involvement.
  
- Railroad Agreement unnecessary but railroad flagging required. The contractor shall follow requirements stated in the DelDOT Maintenance of Railroad Traffic Item in the Special Provisions. Contractor shall coordinate railroad flagging with DelDOT's Railroad Program Manager at (302) 760-2183.
  
- Railroad Agreement required. The necessary Railroad Agreement is pending. The Contractor cannot begin work until the Agreement is complete and fully executed. Railroad related work to be undertaken and completed as required for proper coordination with physical construction schedules. The Contractor shall follow requirements stated in the DelDOT Maintenance of Railroad Traffic Item in the Special Provisions. Contractor shall coordinate railroad flagging with DelDOT's Railroad Program Manager at (302) 760-2183.

**Approved As To Form:**

  
 \_\_\_\_\_  
 Robert A. Perrine  
 DelDOT Railroad Program Manager

20April18

DATE



Delaware Department of Transportation  
Quantity Sheet Summary

Proposal ID: T201012001

Project Descripton: SR299, CATHERINE STREET TO SR1

NOT TO BE USED FOR BIDDING

Item Number	Description	Unit	Quantity
602132	ADJUSTING AND REPAIRING EXISTING MANHOLE	EACH	18
701010	PORTLAND CEMENT CONCRETE CURB, TYPE 1-2	LF	200
701011	PORTLAND CEMENT CONCRETE CURB, TYPE 1-4	LF	179
817031	REMOVAL OF PAVEMENT STRIPING	SF	57499
847007	LIGHTING CONTROL CABINET - 200A, 240/480V	EACH	3
601219	CORRUGATED POLYETHYLENE PIPE, TYPE S, 12"	LF	121
601220	CORRUGATED POLYETHYLENE PIPE, TYPE S, 15"	LF	24
601224	CORRUGATED POLYETHYLENE PIPE, TYPE S, 30"	LF	26
601240	CORRUGATED POLYETHYLENE FLARED END SECTION, 12"	EACH	1
601241	CORRUGATED POLYETHYLENE FLARED END SECTION, 15"	EACH	2
601242	CORRUGATED POLYETHYLENE FLARED END SECTION, 18"	EACH	1
601244	CORRUGATED POLYETHYLENE FLARED END SECTION, 30"	EACH	1
601282	GALVANIZED CORRUGATED ALUMINUM PIPE, 18", 16 GAGE, 2-2/3" X 1/2" CORRUGATION	LF	30
601300	SAFTEY METAL END SECTION, 18"	EACH	1
602002	DRAINAGE INLET, 34" X 18"	EACH	4
907512	INLET SEAL	EACH	21



Delaware Department of Transportation  
Quantity Sheet Summary

Proposal ID: T201012001

Project Description: SR299, CATHERINE STREET TO SR1

NOT TO BE USED FOR BIDDING

Item Number	Description	Unit	Quantity
850517	INSTALLATION OF LUMINAIRE	EACH	17
850520	LUMINAIRE (LED), 150 WATTS, HPS EQUIVALENT	EACH	4
850521	LUMINAIRE (LED), 250 WATTS, HPS EQUIVALENT	EACH	13
851001	ALUMINUM LIGHTING STANDARD WITH SINGLE DAVIT ARM, 30' POLE	EACH	17
907510	TEMPORARY PIPE PLUG	EACH	8
910001	INFILTRATION STONE, NO. 3	CY	2059
910002	INFILTRATION STONE, NO. 8	CY	631
910007	OUTLET STRUCTURE	LS	1
910011	BIOSOIL MIX	CY	318
701500	PORTLAND CEMENT CONCRETE CURB, TYPE 1, MODIFIED	LF	187
707001	RIPRAP, R-4	SY	715
707002	RIPRAP, R-5	SY	52
708002	GEOTEXTILES, SEPARATION	SY	515
709017	UNDERDRAIN OUTLET	EACH	5
710481	ANTI-SEEP COLLAR	EACH	2
710482	BASIN RISER	EACH	1
710504	WATER SERVICES	LS	1



Delaware Department of Transportation  
Quantity Sheet Summary

Proposal ID: T201012001

Project Descripton: SR299, CATHERINE STREET TO SR1

NOT TO BE USED FOR BIDDING

Item Number	Description	Unit	Quantity
711501	SANITARY SEWER SYSTEM	LS	1
760012	PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT, VARIABLE DEPTH	SYIN	112090
813500	PEDESTRIAN CHANNELIZING BARRICADE SYSTEM	LFDY	260580
817500	PREFORMED THERMOPLASTIC DECORATIVE PAVEMENT SYSTEM	SF	1302
831514	FURNISH AND INSTALL 2-1/2" SCHEDULE 80 PVC CONDUIT (TRENCH)	LF	682
831515	FURNISH AND INSTALL 3" SCHEDULE 80 PVC CONDUIT (TRENCH)	LF	716
831516	FURNISH AND INSTALL 4" SCHEDULE 80 PVC CONDUIT (TRENCH)	LF	15695
831523	FURNISH AND INSTALL 2" GALVANIZED CONDUIT (TRENCH)	LF	392
831545	FURNISH AND INSTALL 4" HDPE SDR-13.5 CONDUIT (BORE)	LF	1900
831574	FURNISH AND INSTALL SECOND AND SUBSEQUENT ADDITIONAL 4" SCHEDULE 80 PVC CONDUIT IN TRENCH OR OPEN CUT	LF	526
831578	FURNISH AND INSTALL SECOND AND SUBSEQUENT ADDITIONAL 4" HDPE SDR-13.5 CONDUIT IN DIRECTIONAL BORE	LF	370
207000	STRUCTURAL EXCAVATION	CY	13522
602101	REPLACE DRAINAGE INLET FRAME(S)	EACH	3
602502	CONVERTING EXISTING CATCH BASIN TO MANHOLE	EACH	3
706500	RIGHT-OF-WAY MARKER, CAPPED REBAR	EACH	28
709002	PERFORATED PIPE UNDERDRAINS, 8"	LF	929



Delaware Department of Transportation  
Quantity Sheet Summary

Proposal ID: T201012001

Project Descripton: SR299, CATHERINE STREET TO SR1

NOT TO BE USED FOR BIDDING

Item Number	Description	Unit	Quantity
804001	FURNISH AND MAINTAIN PORTABLE LIGHT ASSEMBLY (FLOOD LIGHTS)	EADY	80
806001	TRAFFIC OFFICERS	HOUR	226
851007	RELOCATED EXISTING LIGHT STANDARD	EACH	1
763503	TRAINEE	HOUR	2840
801000	MAINTENANCE OF TRAFFIC	LS	1
201000	CLEARING AND GRUBBING	LS	1
202000	EXCAVATION AND EMBANKMENT	CY	42245
204000	TEST HOLE	CY	21
208000	FLOWABLE FILL	CY	29
209001	BORROW, TYPE A	CY	558
209006	BORROW, TYPE F	CY	2838
211000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1
211001	REMOVAL OF PORTLAND CEMENT CONCRETE PAVEMENT, CURB AND SIDEWALK	SY	12878
207021	STRUCTURAL BACKFILL, (BORROW TYPE C)	CY	11168
401036	SUPERPAVE TYPE C, PG 64-22, WEDGE	TON	1785
301001	GRADED AGGREGATE BASE COURSE, TYPE B	CY	12401



Delaware Department of Transportation  
Quantity Sheet Summary

Proposal ID: T201012001

Project Description: SR299, CATHERINE STREET TO SR1

NOT TO BE USED FOR BIDDING

Item Number	Description	Unit	Quantity
301002	GRADED AGGREGATE BASE COURSE, TYPE B, PATCHING	CY	1747
401005	SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)	TON	1186
401016	SUPERPAVE TYPE B, PG 76-22	TON	23150
401021	SUPERPAVE TYPE BCBC, PG 64-22	TON	12884
401029	SUPERPAVE TYPE C, PG 64-22, PATCHING	TON	71
401030	SUPERPAVE TYPE B, PG 64-22, PATCHING	TON	2557
701012	PORTLAND CEMENT CONCRETE CURB, TYPE 1-6	LF	652
819016	INSTALLATION OF 4" DIAMETER HOLE, LESS THAN OR EQUAL TO 6" DEPTH	EACH	1
819018	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE SIGN POST	EACH	396
819019	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLE SIGN POSTS	SF	409
601031	REINFORCED CONCRETE PIPE, 12" CLASS IV	LF	37
601033	REINFORCED CONCRETE PIPE, 18", CLASS IV	LF	102
601116	REINFORCED CONCRETE ELLIPTICAL PIPE, 19" X 30", CLASS IV	LF	74
830001	CONDUIT JUNCTION WELL, TYPE 1, 20" X 20" PRECAST CONCRETE	EACH	94
830002	CONDUIT JUNCTION WELL, TYPE 4, 20" X 42-1/2" PRECAST CONCRETE	EACH	33
830004	CONDUIT JUNCTION WELL, TYPE 7, 36" X 60" PRECAST POLYMER CONCRETE	EACH	5
830008	ADJUST OR REPAIR EXISTING CONDUIT JUNCTION WELL	EACH	9



Delaware Department of Transportation  
Quantity Sheet Summary

Proposal ID: T201012001

Project Description: SR299, CATHERINE STREET TO SR1

NOT TO BE USED FOR BIDDING

Item Number	Description	Unit	Quantity
830010	REMOVAL OF EXISTING JUNCTION WELL	EACH	80
701025	PORTLAND CEMENT CONCRETE CURB TYPE 2 MODIFIED	LF	220
701027	PORTLAND CEMENT CONCRETE CURB, TYPE 1-2 MODIFIED	LF	145
705005	PORTLAND CEMENT CONCRETE SIDEWALK, 8"	SF	13821
705528	TEMPORARY PEDESTRIAN CONNECTION	EACH	1
834005	POLE BASE, TYPE 4A	EACH	53
835003	CABINET BASE TYPE P	EACH	7
839001	FURNISH AND INSTALL WOOD POLE	EACH	4
401031	SUPERPAVE TYPE BCBC, PG 64-22, PATCHING	TON	2115
401037	SUPERPAVE TYPE B, PG 64-22, WEDGE	TON	3167
401046	SUPERPAVE TYPE C, PG 76-22 (NON-CARBONATE STONE)	TON	11718
601000	CLEANING DRAINAGE PIPE, 15"-24" DIAMETER	LF	3134
601001	CLEANING DRAINAGE PIPE, GREATER THAN 24" DIAMETER	LF	425
601010	REINFORCED CONCRETE PIPE, 12" CLASS III	LF	234
601011	REINFORCED CONCRETE PIPE, 15", CLASS III	LF	4952
601012	REINFORCED CONCRETE PIPE, 18", CLASS III	LF	2365
601013	REINFORCED CONCRETE PIPE, 21", CLASS III	LF	401



Delaware Department of Transportation  
Quantity Sheet Summary

Proposal ID: T201012001

Project Description: SR299, CATHERINE STREET TO SR1

NOT TO BE USED FOR BIDDING

Item Number	Description	Unit	Quantity
601014	REINFORCED CONCRETE PIPE, 24", CLASS III	LF	1263
601016	REINFORCED CONCRETE PIPE, 30", CLASS III	LF	1308
601018	REINFORCED CONCRETE PIPE, 36", CLASS III	LF	216
601019	REINFORCED CONCRETE PIPE, 42", CLASS III	LF	139
601032	REINFORCED CONCRETE PIPE, 15", CLASS IV	LF	350
601052	REINFORCED CONCRETE PIPE, 12", CLASS V	LF	167
601053	REINFORCED CONCRETE PIPE, 15", CLASS V	LF	79
601100	REINFORCED CONCRETE ELLIPTICAL PIPE, 14" X 23", CLASS III	LF	2364
701013	PORTLAND CEMENT CONCRETE CURB, TYPE 1-8	LF	1774
701014	PORTLAND CEMENT CONCRETE CURB, TYPE 2	LF	14638
701016	INTERGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 1-4	LF	246
701017	INTEGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 1-6	LF	3352
701018	INTEGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 1-8	LF	19856
701023	INTEGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 3-8	LF	302
701032	CURB OPENING, 4' OPENING	EACH	21
701507	CURB RETAINING WALL, TYPE 1	LF	129
702000	TRIANGULAR CHANNELIZING ISLANDS	SF	7050



Delaware Department of Transportation  
Quantity Sheet Summary

Proposal ID: T201012001

Project Description: SR299, CATHERINE STREET TO SR1

NOT TO BE USED FOR BIDDING

Item Number	Description	Unit	Quantity
705001	PORTLAND CEMENT CONCRETE SIDEWALK, 4"	SF	53081
705002	PORTLAND CEMENT CONCRETE SIDEWALK, 6"	SF	17414
705007	SIDEWALK SURFACE DETECTABLE WARNING SYSTEM	SF	2772
705504	BRICK AND/OR BLOCK SIDEWALK	SF	81
501526	PATTERNED PORTLAN CEMENT CONCRETE, 8"	SF	2135
706000	MONUMENT	EACH	15
834501	PARTIAL REMOVAL OF CONCRETE POLE BASES AND CABINET FOUNDATIONS	CY	64
708003	GEOTEXTILES, RIPRAP	SY	252
709001	PERFORATED PIPE UNDERDRAINS, 6"	LF	22354
709011	UNDERDRAIN OUTLET PIPE, 6"	LF	67
710002	ADJUST WATER VALVE BOXES	EACH	52
835001	CABINET BASE TYPE F	EACH	1
710491	RELOCATING WATER METER	EACH	1
711500	ADJUST AND REPAIR EXISTING SANITARY MANHOLE	EACH	20
727510	WOOD RAIL FENCE	LF	393
760010	PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT	SYIN	223850
762000	SAW CUTTING, BITUMINOUS CONCRETE	LF	42328



Delaware Department of Transportation  
Quantity Sheet Summary

Proposal ID: T201012001

Project Descripton: SR299, CATHERINE STREET TO SR1

NOT TO BE USED FOR BIDDING

Item Number	Description	Unit	Quantity
762001	SAW CUTTING, CONCRETE, FULL DEPTH	LF	400
763000	INITIAL EXPENSE/DE-MOBILIZATION	LS	1
763501	CONSTRUCTION ENGINEERING	LS	1
763598	FIELD OFFICE, SPECIAL I	EAMO	30
835002	CABINET BASE TYPE M	EACH	3
803001	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	EADY	200
805001	PLASTIC DRUMS	EADY	271288
836004	REMOVE STEEL POLE (EQUAL TO OR GREATER THAN 17 FEET AND LESS THAN 40 FEET)	EACH	19
836006	REMOVE PEDESTAL POLE	EACH	23
841001	FURNISH AND INSTALL WEATHERHEAD, UP TO 3", ON STEEL POLE	EACH	2
842502	FURNISH AND INSTALL ELECTRIC UTILITY SERVICE EQUIPMENT 120/240 (200 AMP)	EACH	3
808001	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE I	EADY	200
808002	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	EADY	60
846001	FURNISH AND INSTALL LOOP WIRE 1-CONDUCTOR #14 AWG ENCASED IN 1/4" FLEXIBLE TUBING IN A LOOP SAWCUT	LF	6894
846002	FURNISH AND INSTALL A 1-1/2 INCH GALVANIZED RIGID METAL CONDUIT DETECTOR SLEEVE WITH LOOP WIRE	LF	529



Delaware Department of Transportation  
Quantity Sheet Summary

Proposal ID: T201012001

Project Description: SR299, CATHERINE STREET TO SR1

NOT TO BE USED FOR BIDDING

Item Number	Description	Unit	Quantity
810001	TEMPORARY WARNING SIGNS AND PLAQUES	EADY	59206
811007	FLAGGER, NEW CASTLE COUNTY, FEDERAL	HOUR	7904
811016	FLAGGER, NEW CASTLE COUNTY, FEDERAL, OVERTIME	HOUR	791
813001	TEMPORARY BARRICADES, TYPE III	LFDY	74622
817002	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND, ALKYD-THERMOPLASTIC	SF	20863
817006	PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLASTIC, 12"	LF	6015
817013	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	LF	229238
817014	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 10"	LF	1600
817015	PREFORMED RETROREFLECTIVE THERMOPLASTIC MARKINGS, BIKE SYMBOL	EACH	95
839003	REMOVAL OF WOOD POLE	EACH	4
832006	FURNISH AND INSTALL 1-CONDUCTOR #2 AWG STRANDED COPPER, TYPE USE-2	LF	449
832009	FURNISH AND INSTALL 1-CONDUCTOR #8 STRANDED COPPER, TYPE USE-2	LF	10459
905001	SILT FENCE	LF	15261
905002	REINFORCED SILT FENCE	LF	1134
905003	SEDIMENT TRAP	CY	6148
905004	INLET SEDIMENT CONTROL, DRAINAGE INLET	EACH	239



Delaware Department of Transportation  
Quantity Sheet Summary

Proposal ID: T201012001

Project Description: SR299, CATHERINE STREET TO SR1

NOT TO BE USED FOR BIDDING

Item Number	Description	Unit	Quantity
905005	INLET SEDIMENT CONTROL, CURB INLET	EACH	239
905006	INLET SEDIMENT CONTROL, CULVERT INLET	EACH	4
906002	DEWATERING BAG	EACH	10
906004	SKIMMER DEWATERING DEVICE	EACH	2
833001	BONDING AND GROUNDING EXISTING JUNCTION WELL	EACH	7
907500	TEMPORARY SWALE, TYPE A-1	LF	1495
908004	TOPSOIL, 6" DEPTH	SY	27266
908010	TOPSOILING, 6" DEPTH	SY	64265
908014	PERMANENT GRASS SEEDING, DRY GROUND	SY	84077
908015	PERMANENT GRASS SEEDING, STORMWATER	SY	7555
908017	TEMPORARY GRASS SEEDING	SY	183265
907017	COMPOST FILTER LOGS	LF	874
908020	EROSION CONTROL BLANKET MULCH	SY	8298
908023	STABILIZED CONSTRUCTION ENTRANCE	SY	3444
834002	POLE BASE, TYPE 3A	EACH	4
834006	POLE BASE, TYPE 6	EACH	17
908510	MOWING	ACRE	38



Delaware Department of Transportation  
Quantity Sheet Summary

Proposal ID: T201012001

Project Description: SR299, CATHERINE STREET TO SR1

NOT TO BE USED FOR BIDDING

Item Number	Description	Unit	Quantity
910004	CLAY BORROW, CUT-OFF TRENCH	CY	283
910008	STORMWATER MANAGEMENT POND	CY	7349
910009	INFILTRATION TRENCH	CY	1127
910010	BIORETENTION AREA	CY	1387
911000	PLANTINGS	LS	1
601101	REINFORCED CONCRETE ELLIPTICAL PIPE, 19" X 30", CLASS III	LF	1152
601102	REINFORCED CONCRETE ELLIPTICAL PIPE, 22" X 34", CLASS III	LF	247
601103	REINFORCED CONCRETE ELLIPTICAL PIPE, 24"X 38", CLASS III	LF	56
601104	REINFORCED CONCRETE ELLIPTICAL PIPE, 27" X 42", CLASS III	LF	120
601105	REINFORCED CONCRETE ELLIPTICAL PIPE, 29" X 45", CLASS III	LF	33
601115	REINFORCED CONCRETE ELLIPTICAL PIPE, 14" X 23", CLASS IV	LF	636
601130	REINFORCED CONCRETE ELLIPTICAL PIPE, 14"X23", CLASS V	LF	86
601131	REINFORCED CONCRETE ELLIPTICAL PIPE, 19"X30", CLASS V	LF	197
601140	REINFORCED CONCRETE FLARED END SECTION, 12"	EACH	3
601141	REINFORCED CONCRETE FLARED END SECTION, 15"	EACH	11
601144	REINFORCED CONCRETE FLARED END SECTION, 24"	EACH	2
601148	REINFORCED CONCRETE FLARED END SECTION, 36"	EACH	1



Delaware Department of Transportation  
Quantity Sheet Summary

Proposal ID: T201012001

Project Descripton: SR299, CATHERINE STREET TO SR1

NOT TO BE USED FOR BIDDING

Item Number	Description	Unit	Quantity
601170	REINFORCED CONCRETE FLARED END SECTION, 14" X 23"	EACH	5
601171	REINFORCED CONCRETE FLARED END SECTION, 19" X 30"	EACH	3
602003	DRAINAGE INLET, 34" X 24"	EACH	65
602004	DRAINAGE INLET, 48" X 30"	EACH	31
602005	DRAINAGE INLET, 48" X 48"	EACH	76
602006	DRAINAGE INLET, 66" X 30"	EACH	1
602007	DRAINAGE INLET, 66" X 48"	EACH	3
602008	DRAINAGE INLET, 66" X 66"	EACH	3
602009	DRAINAGE INLET, 72" X 24"	EACH	6
602010	DRAINAGE INLET, 72" X 48"	EACH	8
602030	MANHOLE, 48" X 30"	EACH	5
602031	MANHOLE, 48" X 48"	EACH	6
602032	MANHOLE, 66" X 30"	EACH	1
602034	MANHOLE, 66" X 66"	EACH	5
602100	REPLACE DRAINAGE INLET GRATE(S)	EACH	3
602102	REPLACE MANHOLE COVER(S)	EACH	3
602130	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	EACH	17

# **BREAKOUT SHEET INSTRUCTIONS**

**BREAKOUT SHEETS MUST BE SUBMITTED WITH YOUR BID DOCUMENTS !**

BREAKOUT SHEETS ARE TO BE SUBMITTED TO DELDOT'S CONTRACT ADMINISTRATION AS SHOWN BELOW.

BREAKOUT SHEETS MUST TOTAL THE RESPECTIVE LUMP SUM BID AMOUNT(S) SUBMITTED.

MATHEMATICALLY INCORRECT BREAKOUT SHEETS WILL BE RETURNED FOR IMMEDIATE CORRECTION.

**BREAKOUT SHEET - 1**  
**Item Number 910007 – Outlet Structure**

**CONTRACT NO. T201012001**

ITEM NO.	APPROX. QTY.	UOM	DESCRIPTION	UNIT PRICE	AMOUNT
1	1	EA	Concrete Box (34 x 24)	\$	\$
2	1	EA	Concrete Box (48 x 30)	\$	\$
3	1	EA	Weir Wall	\$	\$
				\$	\$
				\$	\$
				\$	\$
				\$	\$
				\$	\$
				\$	\$
				\$	\$

**TOTAL ITEM NUMBER 910007 – OUTLET STRUCTURE \$ \_\_\_\_\_**  
(LUMP SUM BID PRICE FOR ITEM 910007 – OUTLET STRUCTURE)

**THIS PAGE MUST BE SUBMITTED WITH YOUR BID**

**BREAKOUT SHEET - 2**  
**Item Number 911000 – PLANTINGS**

**CONTRACT NO. T201012001**

ITEM NO.	APPROX. QTY.	UOM	DESCRIPTION	UNIT PRICE	AMOUNT
1	28	EA	ARB: ARONIA ARBUTIFOLIA/CHOKEBERRY	\$	\$
2	4	EA	HV: HAMAMEL VIRGINIANA/COMMON WITCH-HAZEL	\$	\$
3	7	EA	LB: LINDERA BENZOIN/SPICEBUSH	\$	\$
4	19	EA	VD: VIBURNUM/ARROWWOOD VIBURNUM	\$	\$
5	144	EA	ANG: ANDROPOGON GERARDII/BIG BLUESTEM	\$	\$
6	485	EA	FR: FESTUCA RUBRA/RED FESCUE	\$	\$
7	53	EA	PA: PANICUM AMARUM/COASTAL SWITCH GRASS	\$	\$
8	405	EA	TS: CAREX STRICTA/TUSSOCK SEDGE	\$	\$
9	2	CY	Mulch	\$	\$
10	2	CY	Topsoil	\$	\$
11	2	CY	Excavation	\$	\$
12	11	1000/GAL	Water	\$	\$

**TOTAL ITEM NUMBER 911000 – PLANTINGS \$ \_\_\_\_\_**  
(LUMP SUM BID PRICE FOR ITEM 911000 – PLANTINGS)

**THIS PAGE MUST BE SUBMITTED WITH YOUR BID**

**BREAKOUT SHEET - 3****CONTRACT NO. T201012001****Item Number 211000 – REMOVAL OF STRUCTURES AND OBSTRUCTIONS**

ITEM NO.	APPROX. QTY.	UOM	DESCRIPTION	UNIT PRICE	AMOUNT
1	30	EA	DRAINAGE INLET	\$	\$
2	1144	LF	FENCE	\$	\$
3	1	EA	HEADWALL	\$	\$
4	1	EA	STONE WALL	\$	\$
5	11	EA	WATER VALVE/METER	\$	\$
6	2	EA	SEWER CLEANOUT	\$	\$
7	6	EA	SEWER MANHOLE	\$	\$
8	24	CY	UTILITY PIPE/CONDUIT	\$	\$
9	1	EA	END SECTION	\$	\$

**TOTAL ITEM NUMBER 211000 – REMOVAL OF STRUCTURES AND OBSTRUCTIONS \$ \_\_\_\_\_**  
(LUMP SUM BID PRICE FOR ITEM 211000 – REMOVAL OF STRUCTURES AND OBSTRUCTIONS)

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**BREAKOUT SHEET - 4**  
**Item Number 710504 – Water Services**

**CONTRACT NO. T201012001**

ITEM NO.	APPROX. QTY.	UOM	DESCRIPTION	UNIT PRICE	AMOUNT
1	6155	LF	10" DUCTILE IRON PIPE	\$	\$
2	15	EA	10" GATE VALVE	\$	\$
3	7	EA	8" GATE VALVE	\$	\$
4	7	EA	6" GATE VALVE	\$	\$
5	1	EA	4" GATE VALVE	\$	\$
6	3	EA	RT VALVE	\$	\$
7	3	EA	REMOVE EXISTING GATE VALVES	\$	\$
8	250	EA	REMOVE EXISTING WATER MAIN	\$	\$

**TOTAL ITEM NUMBER 710504 – WATER SERVICES \$ \_\_\_\_\_**  
(LUMP SUM BID PRICE FOR ITEM 710504 – WATER SERVICES)

**THIS PAGE MUST BE SUBMITTED WITH YOUR BID**

**BREAKOUT SHEET - 5**  
**Item Number 711501 – Sanitary Sewer System**

**CONTRACT NO. T201012001**

ITEM NO.	APPROX. QTY.	UOM	DESCRIPTION	UNIT PRICE	AMOUNT
1	3	EA	SANITARY SEWER MANHOLE	\$	\$
2	548	LF	10" PVC GRAVITY SEWER	\$	\$
3	1010	LF	6" PVC SEWER FORCE MAIN	\$	\$
4	5	EA	ABANDON EXISTING MANHOLE	\$	\$
5	1500	LF	ABANDON EXISTING SEWER FORCEMAIN	\$	\$
6	630	LF	ABANDON EXISTING SEWER MAIN	\$	\$

**TOTAL ITEM NUMBER 711501 – SANITARY SEWER SYSTEM \$ \_\_\_\_\_**  
(LUMP SUM BID PRICE FOR ITEM 711501 – SANITARY SEWER SYSTEM)

**THIS PAGE MUST BE SUBMITTED WITH YOUR BID**