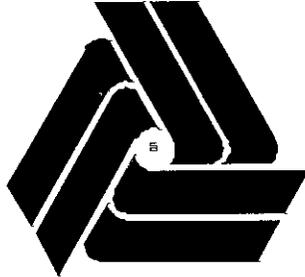


STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION

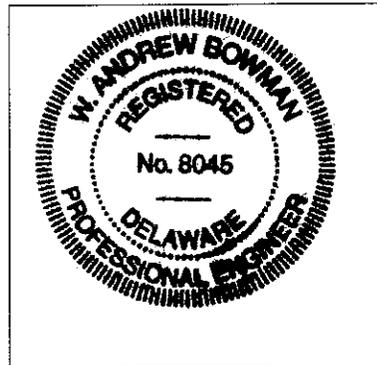
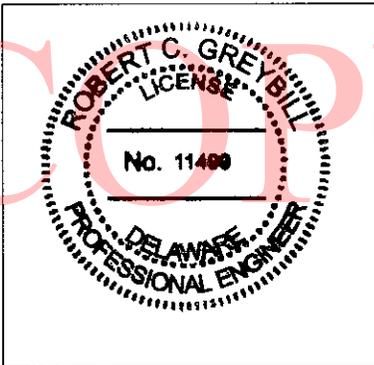


MAINTENANCE AND OPERATIONS
NORTH DISTRICT

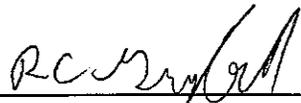
PLANS AND SPECIFICATIONS FOR

Contract Number: T201203401
Federal Aid Project Number: None

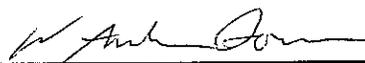
SINKHOLE REPAIRS, NORTH DISTRICT, OPEN END, FY12-FY13



RECOMMENDED:


June 6, 2011
Project Engineer

APPROVED:


6/6/11
North District Engineer

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CONTRACT DESCRIPTION

The purpose of this contract is to repair storm drainage systems where partial or complete failures have occurred. The repair work will include, but not be limited to, the repair or complete replacement of pipes, drainage structures, damaged curb, and associated distressed pavement patching. Some of the drainage system failures have resulted in "cave-ins"/sinkholes of the pavement areas, sidewalk, curb, and/or landscaped areas near the drainage systems. Curb repair shall entail the removal and replacement of cracked, spalled, settled or otherwise damaged curb. Pavement repair shall include saw cutting, removing and replacing deteriorated hot mix pavement. In addition to the repair work, the Contract may include installation of new drainage systems or additional components to existing systems as requested by the Engineer. The work shall be performed on the pipe systems, catch basins, curbs, structures, or pavement as directed by the Engineer on the individual work orders.

The specific work sites are not listed herein, but will be assigned as available by the North District Maintenance office.

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PROJECT NOTES

1. Construction of this contract shall conform to Delaware Department of Transportation Standard Specifications dated August 2001, as amended by the Supplemental Specifications, the Special Provisions and these Project Notes.
2. The Performance Bond shall be submitted at the beginning of the fiscal year. Failure on the part of the Contractor to submit the Performance Bond shall result in the Contract being cancelled.
3. Whenever the word "Contractor" is used in this Contract, it shall refer to the person or persons, company, or corporation furnishing the services required.
4. Whenever the word "Department" or "Engineer" is used, it shall refer to the person or persons representing the Delaware Department of Transportation (DelDOT).
5. The duration of this open-end contract shall be for a period of two years from the date of initial Notice to Proceed, with the option to extend the contract for one (1) additional one-year period. The one-year extension must be approved by both parties in writing, at least 30 days prior to the expiration of the initial two year contract. The Performance Bond shall be submitted with the contract extension. Failure of the Contractor to submit the Performance Bond for the extension period prior to the last working day before end of the previous period shall result in the contract being cancelled. Unit prices for all pay items during the extension period shall remain the same as bid in the original Contract.
6. Tasking of work for Fiscal Years 2012 (beginning July 1, 2011) and Fiscal Year 2013 is contingent upon authorization of State funding.
7. No utility relocation involvement is anticipated. Should any conflicts be encountered during construction requiring adjustment and/or relocation of the agencies' existing facilities, the necessary relocation work shall be accomplished by the respective agencies' forces, as directed by the District Engineer. Any adjustments and/or relocations of municipally owned facilities shall be done by the State's contractor in accordance with the respective agencies' standard specifications as directed by the District Engineer.
8. Environmental permits are not required for this work provided that waters or wetlands, under the jurisdiction of the U.S. Army Corps of Engineers and/or DNREC, are not impacted. If there is a question as to whether or not a water or wetland is jurisdictional, contact the DelDOT Environmental Studies Section at (302) 760-2264. In the event that a jurisdictional water or wetland is impacted, the Environmental Studies Section will be responsible for securing the appropriate permit authorizations.

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9. It is anticipated that all work will occur within DelDOT's existing right of way or easement areas. Should the need occur to trespass onto private property; it will be the responsibility of the DelDOT Project Manager to secure such trespass needs.
10. It is anticipated that all work will occur within DelDOT's right of way. Should the need occur to trespass onto railroad property, including the highway-rail crossing; it will be the responsibility of the Project Manager to contact the railroad chief engineer and obtain written authorization before entering
11. The Project Manager is responsible for ensuring any required documents and analysis as part of the adopted Work Zone Safety and Mobility Procedures and Guidelines has been completed prior to any work starting on this contract
12. The Contractor shall protect all driveways from damage due to Contractor's equipment, and shall be responsible for all such damage done by Contractor's equipment.
13. Underground utilities may be present at all locations. Therefore, all standard practices and procedures regarding utilities shall be followed. The Contractor shall contact Miss Utility of Delaware prior to starting each work order. 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 purposes for his equipment, and make arrangements directly with utility companies for field adjustments for adequate clearances if necessary.
14. Excavated material not needed on the project shall be removed at Contractor's expense.
15. Delete Section 104.05 of the DelDOT Standard Specifications, and replace with the following:

The Department reserves the right to, at any time prior to completion of the contract, issue plan revisions, make adjustments in Contract item quantities, or make such alterations considered necessary to satisfactorily complete the Contract.

The Department reserves the right to increase or decrease the quantities of Pay Items specified in the Contract. Such additions or deletions shall not be cause for an increase or decrease in Contract unit bid prices. The "Change" threshold of plus or minus 25%, as described in Subsection 104.05 of the DelDOT Standard Specifications dated August 2001 shall not apply to this Contract. Quantity increases or decreases of plus or minus 25% or greater shall not be justification for adjustments to unit prices.

The plan revisions and quantity adjustments described above do not invalidate the Contract or release the Contract surety. Payment for these changes shall exclude any amount for loss of anticipated profits alleged to result from the change.

When payment for the Contract work cannot be agreed upon by the Contractor and the Department prior to starting such work ordered, the Department may direct the Contractor to perform the work under Force Account provisions of Subsection 109.04. The Contractor will proceed immediately with the work so ordered and such direction shall neither invalidate the Contract, nor release the surety

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16. All work shall be performed in a manner that will reasonably provide the least practicable obstruction to all road users, including vehicular, pedestrian, and bicycle traffic, and shall conform to the requirements of the Delaware Manual on Uniform Traffic Control Devices, Part 6, including revisions up to the date of advertisement for bids.
17. The Contractor shall not trespass on private property unless the District has acquired a "Temporary Trespass Agreement" from the property owner. If the work is within a permanent easement, the work shall not begin until the adjacent property owners have been notified. Prior to starting work on private property, the Contractor shall notify affected property owners of proposed work dates.
18. Work located within Municipalities requires a Town Agreement. Contact DeIDOT TEAM Support section at (302) 760-2251 prior to commencing work within Municipalities to process a town agreement
19. The work will be scheduled via work orders from the Department. Work sites will vary in complexity. Typically, the work will involve repairing and/or replacing catch basins in or off the roadway, repairing and/or replacing drainage pipes in and off the roadway, removing and replacing curb and/or sidewalk, and hot mix patching the roadway. The work may include the installation of new drainage systems or new components onto existing systems. The sites will be in New Castle County, which encompasses four (4) maintenance areas known as Area 11, Area 12, Area 13, and Area 14. Location maps showing these approximate boundaries for Areas 11 and 12 are included for reference. Areas 13 and 14 are comprised of the interstate highway system including I-95 from the Maryland line to the Pennsylvania line, all of I-495 within the State of Delaware, I-295 from its interchange with I-95 to the Farnhurst Crossover, and associated ramps. The work orders will indicate the work to be performed at each site. Any questions pertaining to any locations shall be referred to the Engineer. The Department's field personnel are not authorized to change scope of work authorized by the Engineer on each work order location.
20. Pipe failures shall be repaired by one of two methods, or at the discretion of the Engineer. The minimum repair will be to plug lift holes or seams as directed and triple wrap the pipe with a 3 feet wide strip of an approved geotextile material fastened securely around the pipe with three wraps of tie wire. Pipes in the roadway, or in cases of severe joint or pipe dislocation, a concrete collar shall be placed after the wrapping of the pipe with geotextile as stated above. The collar shall consist of a double wrap of heavy gauge 4 inch x 4 inch welded wire fabric offset a minimum of 2 inches from the pipe wall with cement brick, and an 8 inch thick concrete collar with a 24 inch lap on each side of the failure. The collar shall surround the length of the pipe that has failed (top, bottom, and sides). Any geotextile, welded wire fabric, mortar for plugging lift holes or seams, lumber for form work or miscellaneous hardware or material required for pipe repairs shall be incidental to Items 208000, 602603 or applicable repair or replacement pay item. No concrete shall be released or placed until the depth of the excavation and the character of the foundation material, the adequacy of the forms and falsework, and the placing of

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reinforcement have been inspected and approved by the Engineer. Immediately upon placing, concrete shall be consolidated by means of a vibrator.

21. Clearing and grubbing of weeds, trees and shrubs less than 6 inches in diameter shall be incidental to the applicable repair or replacement item. Grubbing activities performed in wetland areas requires environmental permit approvals.
22. Any "test holes" and/or "test pitting" required for the completion of each work order shall be paid for under item 208000, Excavation and Backfill for Pipe Trenches.
23. All replacement pipes shall be the same size and material as the pipe that was removed, or as directed by the Engineer.
24. Replacement of PCC sidewalk at driveways and entrances shall be a minimum of 6 inches in depth and placed per the PCC Sidewalk Standard Detail, or as directed by the Engineer.
25. Payment for removal and disposal of existing catch basins shall be incidental to the unit price bid for the applicable item to be replaced.
26. Proper disposal of construction related wastes shall be the sole responsibility of the Contractor.
27. The Contractor shall provide residents 24-hour prior written notice for all phases of contract work. This notice shall be given to all residents whose property is adjacent to the street on which work is to be performed. Failure to give notice will result in a suspension of work.
28. The Contractor will be advised of work to be performed or deleted via a work order. The work order will indicate the maintenance area that the work is in, the items and quantities of the work, property owner notification requirements, and the allowable time to perform the work. Time to perform the work assigned per work order shall be developed by the following method and Items:

Legend:

- 4 Days = Startup time, from date of issue, of each new work order location.
- 1 Day = Time to repair one catch basin or manhole.
- 3 Days = Time to remove and replace one catch basin.
- 1 Day = Time to remove and replace one catch basin hood.
- 1 Day = Time to repair 27 ft. of pipe (each joint wrap and/or collar counted as 14 ft.).
- 1 Day = Time to remove and replace 55 ft. of pipe.
- 1 Day = Time to remove and replace 150 ft² of 4 inch or 6 inch sidewalk.
- 1 Day = Time to remove and replace 70 ft. of curb and/or curb and gutter.
- 2 Days = Restoration (Topsoil, grass seed, straw mulch, and/or hot mix patch replacement, site cleanup.).
- 1 Day = Time to remove and replace 538 ft² of hot mix patching, for hot mix quantities greater than 108 ft². Hot mix patching quantities less than 108ft² are

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considered incidental to the work, and shall offer no additional time for completion.

Example: A work order with the following repair items issued to the Contractor on Thursday, June 1.

- A = 1 catch basin repair
- B = 1 catch basin, remove and replace
- C = 1 catch basin hood, remove and replace
- D = 92 ft of pipe repair
- E = 92 ft of pipe removal and replacement
- F = 40 ft² of 6 inch sidewalk removal and replacement
- G = 10 ft of curb replacement
- H = 86 ft² of hot mix patching.

Formula:

$$\text{Time To Complete} = 4 \text{ days startup} + A(1 \text{ day/CB repair}) + B(3 \text{ days/CB replacement}) + C(1 \text{ day/Hood}) + D/(27 \text{ ft/day}) + E/(55 \text{ ft/day}) + F/(150 \text{ ft}^2/\text{day}) + G/(70 \text{ ft/day}) + H/(538 \text{ ft}^2/\text{day}) + 2 \text{ restoration}$$

$$= 4 \text{ days startup} + (1 \text{ CB})(1 \text{ day/CB repair}) + (1 \text{ CB})(3 \text{ days/CB replacement}) + (1 \text{ Hood})(1 \text{ day/hood}) + (92 \text{ ft Pipe Repair})/(27 \text{ ft/day}) + (92 \text{ ft Pipe Replacement})/(55 \text{ ft/day}) + (40 \text{ ft}^2)/(150 \text{ ft}^2/\text{day}) + (10 \text{ ft curb})/(70 \text{ ft/day}) + (86 \text{ ft}^2 \text{ patching})/(538 \text{ ft}^2/\text{day}) \rightarrow 0 + 2 \text{ restoration}$$

$$= 4 + 1 + 3 + 1 + 3.41 + 1.67 + 0.27 + 0.14 + 0 + 2$$

$$\text{Time To Complete} = 16.5 = 17.0 \text{ Days}$$

The first day charged for the work order in this example is Thursday, June 1st. Completion of all construction activities is required before the end of Friday, June 23rd. Liquidated damages are assessed starting Monday, June 26th, and remain in effect until all work is completed and accepted by the Department. For this contract, Saturdays, Sundays, and State Holidays will not be charged, regardless of whether the Contractor decides to work.

29. Prosecution and progress of work:

The Contractor shall commence work indicated on the work order no later than the third business day after issuance unless required materials are not available. Non-availability of materials shall be verified by at least three (3) different sources. Verification shall be formal and supplied by the Contractor in writing.

Issuance of each work order constitutes the notice to proceed with the work described on the work order.

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If there is a verified non-availability of materials, time charges shall commence on the first (1st) working day following the delivery date of materials.

The work will be scheduled via work orders from the District Maintenance office. Work sites will vary in size and complexity. The work order will list the pay items and quantities of work for each location, and time allotted to perform the work. Location maps showing the boundaries of North District Maintenance area are included for reference. Any questions during construction shall be referred to the Engineer or designated representative.

The Contractor may have up to twelve (12) active work orders at any one time until all assigned work has been completed. The Department will attempt to issue work orders grouped together by Maintenance Area. If this is not possible, the Contractor will be required to work in multiple maintenance areas concurrently. The Contractor is required to have a minimum of two working crews readily available to work on this contract simultaneously, with the ability to provide additional working crews if requested by the Engineer. Each crew is required to have a qualified superintendent as outlined in Section 105.07 of the Standard Specifications and at least two (2) qualified equipment operators.

Failure to complete assigned work orders in the calculated time constitutes "Failure to Pursue the Work" and subjects the Contractor to liquidated damages as outlined in Subsection 108.09 of the Standard Specifications. If work on a specific work order is not completed within the allotted time listed on the work order, liquidated damages will be assessed in accordance with Subsection 108.09 and based on the total value of that work order.

A final inspection will be performed in accordance with Subsection 105.20 on each work order. The work will be accepted by the Department if satisfactorily completed. When seeding is required on the work order, a full stand of grass will be required. The stand shall be established for a minimum of seven days prior to final inspection.

30. Each work order shall be considered a single unit of work. Upon completion of each single unit of work and acceptance by the Department, one itemized invoice will be prepared by the Department for that work. The Contractor shall review and approve the invoice. Payment will be monthly for the completed invoices as outlined in Section 109.07
31. Replacement of catch basins that have a depth less than or equal to 5 feet shall be paid at the unit price bid for the applicable item. Replacement of catch basins with the depth greater than 5 feet will be negotiated or performed by Force Account procedures.
32. Payment for Item 602002, Portland Cement Concrete Masonry Class B, will be made based on the actual measured quantity placed. Epoxy coated reinforcing, bonding agent, smooth bar dowels, ties, inserts, etc. as required by the Engineer shall be incidental to the concrete work.
33. Section 101.91(4) is amended. There will not be a winter shutdown from December 16th to March 15th. The Department reserves the right to issue work and charge time between these dates.

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34. All additional work shall be performed in accordance with Contract unit bid prices. If unit prices are not available, then prices are to be negotiated or performed by Force Account procedures (see Section 109.04 of Standard Specifications).
35. Excavation of roadway materials for patching shall be incidental to the patching pay items being placed.
36. If required during the placement or repair of PCC items, half-inch cork expansion material shall be placed at designated locations as directed by the Engineer. Payment for furnishing and placing the half-inch cork expansion material shall be incidental to the PCC pay items.
37. In locations that include a double grated catch basin, the payment for repair shall be 1.5 times the bid item rate. In locations that include a triple grated catch basin the payment for repair shall be 2 times the bid item rate. This shall apply to items 710503 and 710511.
38. The Contractor is reminded that Section 105.07 of the Standard Specifications requires a competent superintendent or foreman on the project at all times.
39. The Contractor shall acquire all necessary materials and equipment prior to starting work at a specific location. The equipment and material shall remain accessible and on-site through to the completion of work at that particular location unless prior approval from the Engineer is given.
40. Trash, rubbish, debris or brush that hampers repair/maintenance work in this Contract (as determined by the Engineer) shall be removed within the project limits, and shall be incidental to pay item 763000 (Initial Expense).
41. Grass and soil areas within State right-of-way that have been damaged by equipment during this Contract shall be restored with topsoil, seed and mulch at Contractor's expense.
42. The Project Manager shall be responsible for coordinating with the Traffic Section relating to any impacts to Traffic Section facilities (including but not limited to traffic loops, junction wells, etc.) at least four weeks in advance of the start of the activity. Prior to initiating any work on this contract (or sites), the Project Manager shall be responsible for preparing and submitting for approval of the Safety Section, a Maintenance of Traffic Plan. Sufficient time shall be provided for the review and approval of the plan. The Maintenance of Traffic Plan shall include proposed time restrictions on the closure of travel lanes subject to the approval of the Safety Section.
43. The work will frequently be performed using Typical Application 10 of the Delaware Manual on Uniform Traffic Control Devices (MUTCD). However, the Engineer may require use of other configurations in accordance with the MUTCD manual. For locations requiring a flagging operation, the flagger will be paid the fixed hourly rate under the applicable flagger Pay Item.
44. If a road closure is required, the Contractor shall be required to submit the proposed detour route to the DelDOT Safety Officer for approval. The Contractor shall

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coordinate the road closure with the Engineer. The Engineer will coordinate with the DelDOT Safety Section, and be responsible for the necessary emergency notifications. The detour route requires approval by the Engineer prior to closure. The Engineer will coordinate with the DelDOT Team Support Section for notification requirements prior to road closure. A two week detour review lead time shall be required for any requested detour. The Contractor shall be responsible for furnishing and maintaining the Maintenance of Traffic apparatus at the closure (such as Type III barricades, road closure signs, etc.) and all advance warning signs. The Contractor shall be responsible for placement of detour trailblazers. Payment for detour trailblazers shall be under Item 743525 (Temporary Warning Signs).

45. All open excavations shall be secured with plastic drums with retroreflective fluorescent and white prismatic sheeting and orange plastic snow fence. If the construction activity results in a vertical difference or drop-off along, adjacent to, or across a travelway, the Contractor shall eliminate or remedy this hazard by the methods detailed in Table 6G-1 of the Delaware Manual on Uniform Traffic Control Devices (DEMUTCD) as directed by the Engineer. The snow fence, tie wire, and associated items shall be incidental to the work it protects."
46. All **flaggers** utilized by the Contractor for this project shall be **ATSSA certified** by a Department approved certification program. All flaggers shall have certification cards and photo identification with them while working. Absence of a certification card will be justification for flagger dismissal from the site and corresponding suspension of work. All garments worn by flaggers shall comply with applicable regulations for visibility and reflectivity. All construction and Contractor vehicles and self-propelled equipment shall be equipped with an operating roof mounted amber flashing light.
47. Time restrictions for working hours will be determined by the Safety Officer and the Engineer for each specific work location, and stated on the work order. The Contractor shall comply with these time restrictions. Daytime restricted work hours may be required on some work orders, at the discretion of the Safety Officer and Engineer.
48. The Contractor shall submit a site-specific **Traffic Control Plan** for approval five working days before the start of work at each location. The Traffic Control Plan must clearly indicate orientation of traffic control devices to be used for each site. The Plan must be approved by the DelDOT Safety Officer and DelDOT Engineer prior to commencement of work at each site.
49. Costs for adjustment in position of traffic control devices due to variances from the standard MOT case numbers, or for any other reason, shall be included in unit price for each respective MOT pay item.
50. All required maintenance **of traffic warning signs** will be paid under Item 743525, temporary warning signs, or under Item 743504 for warning signs placed in ground. All warning signs shall be diamond grade retro reflective. Wood sheeting is not permitted.

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51. No separate payment shall be made for use of **traffic cones**. Traffic cones and/or work associated with their use, such as set up, removal, cleaning, etc, shall be incidental to the work for which they protect.
52. The Contractor, with the Engineer's representative, shall **inventory all signs** on all roads subject to improvements. Necessary signs shall be maintained in operation during construction, and any other signs shall be properly stored with the Contractor, who shall be responsible for loss or damage. Immediately prior to final inspection, the Contractor and Engineer shall again inventory the traffic signs and account for any lost or damaged signs.
53. A Truck mounted attenuator, Type II (Item 743010) shall be required on roads for shoulder work, travel lane work and other operations as outlined in the DelDOT MUTCD, or as directed by the Engineer.
54. Traffic Control Devices shall be provided and placed in accordance with the DelDOT Traffic Control Manual (MUTCD).
55. No lane closures will be permitted unless applicable work activity is taking place.
56. All repair/maintenance equipment shall be removed from the job sites on a daily basis, except when allowed by the approved Traffic Safety Plan, or as approved by the Engineer. Contractor shall follow guidelines set forth in the Delaware MUTCD for storage of materials
57. All construction personnel shall wear retroreflective safety vests at all times. All retroreflective safety vests must be minimum ANSI Class 2.
58. All traffic control devices shall be in new or refurbished condition, and shall be in compliance with the Delaware Manual of Uniform Traffic Control Devices and NCHRP 350 as defined in Part 6 of the Manual. The devices shall be approved by the Safety Officer prior to use, and shall be maintained in good condition for the duration of the Contract.
59. All permanent warning signs shall be retroreflective, and made up of NCHRP 350 compliant rigid material.
60. Pedestrian Maintenance of Traffic: This work shall consist of providing and maintaining an accessible pedestrian route throughout the project's limits in accordance with the Americans with Disabilities Act of 1990 (ADA) Title II, paragraph 35.130.

The contractor shall be required to review each curb ramp location and submit the appropriate maintenance of traffic detail and devices to the Engineer for each location at least 2-weeks before construction for review, comment, and approval.

The following considerations shall be taken into account when addressing accessible pedestrian maintenance of traffic:

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- All pedestrians, including persons with disabilities, shall be provided with a reasonably safe, convenient and accessible path that replicates as much as practicable the existing pedestrian facilities.
- Maintain access to all business and residents at all times.
- Provide pedestrian access thru or around the work zone. If a detour is chosen the Contractor must submit the detour route to the Engineer for review and approval. The detour route must meet or exceed the current conditions.
- Work should be phased so that all areas of an intersection/sidewalk path are not under construction at the same time unless a clear path is provided and identified.
- Traffic control devices and other construction materials and features shall not intrude into the usable width of the sidewalk, temporary pathway or other pedestrian facility.
- Signs and other devices mounted lower than 7 ft above the temporary pedestrian pathway shall not project more than 4 in. into accessible pedestrian route.
- A smooth, continuous hard surface shall be provided throughout the entire length and width of the pedestrian route throughout construction. There shall be no curbs or vertical elevation changes greater than ¼ in. in grade or terrain that could cause tripping or be a barrier to wheelchair use.

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Quantity Summary

ITEM NO.	DESCRIPTION	UOM	QUANTITY
202000	Excavation and Embankment	CY	225
206000	Rock Excavation for Structures and Trenches	CY	10
208000	Excavation and Backfill for Pipe Trenches	CY	500
209006	Borrow, Type F	CY	151
210000	Type C Borrow, Trench and Structure Backfill	CY	200
211004	Removal of Structures and Obstructions	LF	500
251000	Silt Fence	LF	250
302007	Graded Aggregate Base Course, Type B	CY	150
302008	Graded Aggregate Base Course, Type B, Patching	CY	150
302011	Delaware No. 3 Stone	TON	25
302012	Delaware No. 57 Stone	TON	50
401665	Superpave, Type C Hot-Mix, 160 Gyration, Patching	TON	600
401666	Superpave, Type B Hot-Mix, 160 Gyration, Patching	TON	50
602002	Portland Cement Concrete Masonry, Class B	CY	75
602603	High Early Strength Concrete	CY	50
605573	Steel Plates, 4'x6'x3/4"	EACH	25
612020	RCP, 12" Class IV	LF	200
612021	RCP, 15" Class IV	LF	600
612022	RCP, 18" Class IV	LF	400
612023	RCP, 24", Class IV	LF	150
612520	Corrugated Polyethylene Pipe, Type S, 15"	LF	200
612529	Pipe Video Inspection	LF	5000
612535	Cleaning Drainage Pipe 15-24" Diameter	LF	5000
612536	Cleaning Drainage Pipe Greater than 24" Diameter	LF	2500
612537	Heavy Cleaning of Drainage Pipe	HOUR	50
612539	Pressure Grouting Pipe Joints, 15"-24" Diameter	EACH	175
612540	Pressure Grouting Pipe Joints, Greater than 24" Dia	EACH	100
701004	PCC Valley Gutter, 8"	SY	100
701010	PCC Curb, Type 1	LF	300
701020	Integral PCC Curb and Gutter, Type 1	LF	750
701021	Integral PCC Curb and Gutter, Type 2	LF	1500
701022	Integral PCC Curb and Gutter, Type 3	LF	500
705001	PCC Sidewalk, 4"	SF	5000
705002	PCC Sidewalk, 6"	SF	2000
705008	Curb Ramp, Type 1	SF	250
705009	Curb Ramp, Type 2, 3 and/or 4	SF	250

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708050	Drainage Inlet,34" x 18"	EACH	10
708051	Drainage Inlet,34" x 24"	EACH	10
708052	Drainage Inlet, 48" x 30"	EACH	10
708053	Drainage Inlet, 48" x 48"	EACH	5
708054	Drainage Inlet, 66" x 30"	EACH	5
708500	Replacing Catch Basin Grates	EACH	75
708504	Replace Catch Basin Frames	EACH	75
710503	Repairing Existing Catch Basins	EACH	275
710505	Repairing Existing Manholes	EACH	25
710511	Remove and Replace Existing Catch Basin Hood	EACH	50
712006	Rip Rap, R-5	SY	200
715001	Perforated Pipe Underdrains, 6"	LF	750
732000	Topsoil, 4" Depth	SY	3500
734016	Permanent Grass Seeding, Subdivision	SY	3500
735533	Soil Retention Blanket Mulch, Type III	SY	1000
743003	Arrow Panel, Type C	EA-DY	50
743006	Plastic Drums	EA-DY	5000
743010	Furnish & Maintain Truck Mounted Attenuator, Type II	EA-DY	50
* 743050	Flagger, New Castle County, State	HOUR	1500
* 743062	Flagger, New Castle County, State, Overtime	HOUR	100
743504	Warning Signs	EACH	50
743507	Temporary Barricade, Type III	LF-DY	300
743525	Temporary Warning Signs	EA-DY	1000
748506	Permanent Pavement Striping, Epoxy Resin Paint 4"	LF	100
758000	Removal of Existing PCC Pavement, Curb,Sidewalk,etc	SY	2000
762001	Saw Cutting, Hot-Mix	LF	5000
762002	Saw Cutting, Concrete, Full Depth	LF	750
763000	Initial Expense	LS	1

* Fixed Price item

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