THE STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLANS FOR:
HIGH FRICTION SURFACE TREATMENT,
5 - 200K

CONTRACT NUMBER: T202100701
FEDERAL AID PROJECT NUMBER: ESTP-2020(34)

COUNTY: STATEWIDE   M.R. #: MULTIPLE

PREPARED BY
Whitman, Requardt and Associates, LLP
Engineers   Architects   Environmental Planners        Est. 1915

APPROVED FOR ADVERTISEMENT
09-01-2020

DIRECTOR OF TRANSPORTATION SOLUTIONS
09-01-2020
GENERAL NOTES

1. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS," DATED AUGUST 2015, AND THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD CONSTRUCTION CONTRACTS," DATED 2015, INCLUDING ALL REVISIONS UP TO THE DATE OF AWARD.

2. ELECTRONIC PROJECT FILES THAT MAY BE AVAILABLE TO THE prime CONTRACTOR INCLUDE:

   ( ) NOTE
   ( ) ACAD DATA FILES WITH COORDINATES AND ELEVATIONS FOR PROPOSED POINTS AS SELECTED BY THE ENGINEER.
   ( ) ALL PLAN SHEETS, IN PDF FORMAT.
   ( ) PROPOSED SITE TERRAIN MODEL, IN PDF FORMAT, COMPATIBLE WITH SOFTWARE COMMUNICATED BY THE prime CONTRACTOR.
   ( ) DESIGN PDF IN PDF FORMAT CONTAINING ONLY THE PROPOSED 3D TRIANGLES OF THE PROPOSED DIGITAL TERRAIN MODEL.

NOTE: THE DOCUMENT IDENTIFIER "RELEASE FOR DELIVERY OF DOCUMENTS IN ELECTRONIC FORM TO A CONTRACTOR" MUST BE STATED BY ALL PARTIES PRIOR TO THE DELIVERY OF ANY ELECTRONIC PROJECT FILE.

PROJECT NOTES

SECTION 100


SECTION 400

2. UNLESS SPECIFIED, DISPLAY SIGNAGE SHALL MATCH EXISTING SIGNAGE.

SECTION 700

4. REPLACE ALL UTILITY MARKINGS, JUNCTION BOXES, DRAINAGE BOXES, STREET JUNCTIONS, AND OTHER IN-KIND APPURTENANCES AS TO NOT TO COVER THESE APPURTENANCES WITH HIGH FRICTION SURFACE TREATMENT MATERIAL. UPON COMPLETION OF THE HIGH FRICTION SURFACE TREATMENT INSTALLATION, AVOID REMOVING ANY MATERIAL FROM THESE APPURTENANCES.

5. THE CONTRACTOR SHALL TAKE CARE IN REMOVING PAVEMENT AROUND UTILITIES, BUTT JOINTS, CURBS, ETC. SO THAT EXISTING PAVEMENT BEYOND THE AREA WAS MILLED. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL OTHER CONTRACT WORK WITH TIME CHARGES CONTINUING TO ACCRUE.

6. ALL MILLED MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE STATED.

7. THE CONTRACTOR SHALL PROVIDE ONE TRAFFIC OFFICER FOR ANY OPERATION WHERE AN EXISTING SIGNALIZED INTERSECTION IS PLACED IN FLASH MODE. THE CONTRACTOR SHALL COMPLETE THE LOCATION SPECIFIC LANE CLOSURE MATRICES, PROVIDED ON THE DOCUMENT IDENTIFIER "RELEASE FOR DELIVERY OF DOCUMENTS IN ELECTRONIC FORM TO A CONTRACTOR" AT THE END OF THE DAY'S ACTIVITY IDENTIFYING THE NUMBER OF VEHICLES THAT ATTEMPTED TO DISREGARD THE DETOUR.

8. THE PILOT'S NAME AND THE PILOT'S CONTACT NUMBER DURING THE FLIGHT.

SECTION 900

1. THE CONTRACTOR WILL CONTACT THE DELAWARE TMC AT 302-659-4600 PRIOR TO ANY UNMANNED AERIAL VEHICLE (UAV) FLIGHTS. THE CONTRACTOR MUST SEND THE PROPOSED DIGITAL TERRAIN MODEL (DTM) AS AN ASCII DATA FILES WITH COORDINATES AND ELEVATIONS FOR PROPOSED POINTS AS SELECTED BY THE ENGINEER. THE CONTRACTOR WILL PROVIDE ONE TRAFFIC OFFICER FOR ANY OPERATION WHERE AN EXISTING SIGNALIZED INTERSECTION IS PLACED IN FLASH MODE. THE CONTRACTOR SHALL PROVIDE ONE TRAFFIC OFFICER FOR ANY OPERATION WHERE AN EXISTING SIGNALIZED INTERSECTION IS PLACED IN FLASH MODE.

2. PROJECT NOTES:

   a. LOW VOLUME ACCESS RAMPS (IDENTIFIED IN THE CONTRACT DOCUMENTS)
   b.ギャラリー
   c.ギャラリー

MISCELLANEOUS

1. THE CONTRACTOR SHALL CONTACT THE CHIEF OF CONSTRUCTION FOR EACH FIRST STATE, 14 DAYS PRIOR TO THE START OF CONSTRUCTION AT 302-576-6191 OR BY EMAIL NOTIFICATION TO DOT_Detours@state.de.us.

MAINTENANCE OF TRAFFIC NOTES

1. AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED TRAFFIC CONTROL SUPERVISOR REQUIREMENT FOR THIS PROJECT.

2. THE CONTRACTOR SHALL NOT BE REQUIRED TO HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT.

3. THE CONTRACTOR SHALL PROVIDE A UNMANNED AERIAL VEHICLE (UAV) FOR TRAINING PURPOSES. THE UAV SHALL BE OPERATED IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD CONSTRUCTION DETAILS," DATED 2018, INCLUDING ALL REVISIONS UP TO THE DATE OF AWARD.
LOCATION PLAN
CEDAR CREEK ROAD (S212)

END WORK
38°52'57.92"N
75°23'18.85"W
MILEPOINT 8.06

BEGIN WORK
38°53'03.89"N
75°23'16.04"W
MILEPOINT 7.94

SEQUENCE OF CONSTRUCTION:
1. Place and work within and end road work signs in each direction. 100 feet upstream and downstream of work area. These signs shall remain in place until high friction surface treatment is installed.
2. Using TA-10 during allowable lane closure hours, mill 2" of bituminous concrete pavement within the limits shown. At the end of each day's operation, prior to removing temporary traffic control, place temporary striping to match existing striping.
3. Using TA-10 during allowable lane closure hours, pave the type C wearing course within the limits shown. At the end of each day's operation, prior to removing temporary traffic control, place temporary striping to match existing striping.
4. Using TA-10A during allowable lane closure hours, place permanent striping.
5. Using TA-10A during allowable lane closure hours, work pavement markings, and utility appurtenances and place high friction surface treatment in such fashion as to leave lane widths and lane areas within the lane shown. After placing high friction surface treatment, sweep before removing temporary traffic control and open travel lanes. Remove road work ahead and end road work signs.
6. Perform additional sweeping as required by the Contract Documents.

QUANTITIES

<table>
<thead>
<tr>
<th>ITEM</th>
<th>U.O.M.</th>
<th>ITEM DESCRIPTION</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>401005</td>
<td>TON</td>
<td>SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)</td>
<td>198</td>
</tr>
<tr>
<td>760004</td>
<td>LF</td>
<td>RUMBLE STRIPS, BITUMINOUS PAVEMENT, SHALLOW DEPTH</td>
<td>650</td>
</tr>
<tr>
<td>5 &amp; 5'</td>
<td>LF</td>
<td>PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT</td>
<td>3,482</td>
</tr>
<tr>
<td>760504</td>
<td>GAL</td>
<td>HIGH FRICTION SURFACE TREATMENT</td>
<td>6.53</td>
</tr>
<tr>
<td>762000</td>
<td>LF</td>
<td>SAW CUTTING, BITUMINOUS CONCRETE</td>
<td>48</td>
</tr>
<tr>
<td>805001</td>
<td>EA-DY</td>
<td>PLASTIC DRUMS</td>
<td>314</td>
</tr>
<tr>
<td>808001</td>
<td>EA-DY</td>
<td>FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II</td>
<td>22</td>
</tr>
<tr>
<td>810001</td>
<td>EA-DY</td>
<td>TEMPORARY WARNING SIGNS AND PLAQUES</td>
<td>109</td>
</tr>
<tr>
<td>811009</td>
<td>HOUR</td>
<td>FLAGGER, SUSSEX COUNTY, FEDERAL</td>
<td>154</td>
</tr>
<tr>
<td>811018</td>
<td>HOUR</td>
<td>FLAGGER, SUSSEX COUNTY, FEDERAL, OVERTIME</td>
<td>58</td>
</tr>
<tr>
<td>811005</td>
<td>LT</td>
<td>TEMPORARY MARKINGS, 4&quot; WIDE</td>
<td>5,200</td>
</tr>
<tr>
<td>817013</td>
<td>LF</td>
<td>PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5&quot;</td>
<td>2,600</td>
</tr>
</tbody>
</table>

ALLOWABLE LANE CLOSURE HOURS - CEDAR CREEK ROAD

- SUNDAY: All lanes open
- MONDAY: All lanes open
- TUESDAY: All lanes open
- WEDNESDAY: All lanes open
- THURSDAY: All lanes open
- FRIDAY: All lanes open
- SATURDAY: All lanes open

12:00 AM  1:00 AM  2:00 AM  3:00 AM  4:00 AM  5:00 AM  6:00 AM  7:00 AM  8:00 AM  9:00 AM  10:00 AM  11:00 AM  PM  12:00 PM  1:00 PM  2:00 PM  3:00 PM  4:00 PM  5:00 PM  6:00 PM  7:00 PM  8:00 PM  9:00 PM  10:00 PM  11:00 PM
**Section**

**High Friction Surface Treatment**

**Pavement Milling, Bituminous Concrete Pavement**

**Location Plan**

**Ramp (N6047) from SR 273 EB (Christiana Road) to I-95 NB**

**Quantiies**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>401007</td>
<td>Top Pavement</td>
<td>107</td>
</tr>
<tr>
<td>760010</td>
<td>Pave Milling, Bituminous Concrete Pavement</td>
<td>894</td>
</tr>
<tr>
<td>760014</td>
<td>High Friction Surface Treatment</td>
<td>702</td>
</tr>
<tr>
<td>760000</td>
<td>Saw Cutting, Bituminous Concrete</td>
<td>30</td>
</tr>
<tr>
<td>810003</td>
<td>Arrow Panels Type C</td>
<td>13</td>
</tr>
<tr>
<td>803001</td>
<td>Furnish and Maintain Portable Changeable Message Sign</td>
<td>28</td>
</tr>
<tr>
<td>804001</td>
<td>Furnish and Maintain Portable Light Assembly (Flood Lights)</td>
<td>36</td>
</tr>
<tr>
<td>805001</td>
<td>Plastic Drums</td>
<td>1,575</td>
</tr>
<tr>
<td>806001</td>
<td>Hour Traffic Officers</td>
<td>24</td>
</tr>
<tr>
<td>806001</td>
<td>Furnish and Maintain Truck Mounted Attenuator, Type II</td>
<td>25</td>
</tr>
<tr>
<td>810001</td>
<td>Temporary Barricades, Type III</td>
<td>286</td>
</tr>
<tr>
<td>811703</td>
<td>Temporary Markings, 4&quot;</td>
<td>2,770</td>
</tr>
<tr>
<td>817013</td>
<td>Permanent Pavement Striping, Epoxy Resin Paint, White/Yellow, 5&quot;</td>
<td>1,175</td>
</tr>
<tr>
<td>817014</td>
<td>Permanent Pavement Stripping, Epoxy Resin Paint, White/Yellow, 10&quot;</td>
<td>210</td>
</tr>
<tr>
<td>817027</td>
<td>Raised / Recessed Pavement Marker</td>
<td>30</td>
</tr>
</tbody>
</table>

**Allowable Lane Closure Hours**

- **SUNDAY**
  - 7:00 AM - 9:00 AM
  - 3:00 PM - 5:00 PM
- **MONDAY**
  - 7:00 AM - 9:00 AM
  - 3:00 PM - 5:00 PM
- **TUESDAY**
  - 7:00 AM - 9:00 AM
  - 3:00 PM - 5:00 PM
- **WEDNESDAY**
  - 7:00 AM - 9:00 AM
  - 3:00 PM - 5:00 PM
- **THURSDAY**
  - 7:00 AM - 9:00 AM
  - 3:00 PM - 5:00 PM
- **FRIDAY**
  - 7:00 AM - 9:00 AM
  - 3:00 PM - 5:00 PM
- **SATURDAY**
  - 7:00 AM - 9:00 AM
  - 3:00 PM - 5:00 PM
  - All Lanes Open

**Sequence of Construction**

1. Place temporary warning signs, as shown. These signs shall remain in place until high friction surface treatment is installed.
2. Use the maintenance of traffic plan and detour plan on sheets 6 and 7 during allowable lane closure hours. Mill 2" of bituminous concrete pavement within the limits shown. The concrete, bridge, deck, and bridge joints shall not be disturbed at the end of each day's operation. Prior to removing temporary warning signs, place temporary striping to match existing striping.
3. Use the maintenance of traffic plan and detour plan on sheets 6 and 7 during allowable lane closure hours. Mill 2" of bituminous concrete pavement within the limits shown. The concrete, bridge, deck, and bridge joints shall not be disturbed at the end of each day's operation. Prior to removing temporary warning signs, place temporary striping to match existing striping.
4. Use 12A-40C and 12A-45C during allowable lane closure hours. Place permanent warning signs.
5. Use the maintenance of traffic plan and detour plan on sheets 6 and 7 during allowable lane closure hours. Mill 2" of bituminous concrete pavement within the limits shown. The concrete, bridge, deck, and bridge joints shall not be disturbed at the end of each day's operation. Prior to removing temporary warning signs, place temporary striping to match existing striping.
6. Use the maintenance of traffic plan and detour plan on sheets 6 and 7 during allowable lane closure hours. Mill 2" of bituminous concrete pavement within the limits shown. The concrete, bridge, deck, and bridge joints shall not be disturbed at the end of each day's operation. Prior to removing temporary warning signs, place temporary striping to match existing striping.
7. Perform additional striping as required by the contract documents.

**NOTE**

- Work shall be coordinated with active or old contracts. High Friction Surface Treatment shall not be worked on a project that is substantially complete.
**Legend**

- **Pacific Ocean**
- **Philosophy**
- **Rock Mounted Attenuator**

**Maintenance of Traffic Legend**

- **PLASTIC DRUM**
- **TYPE III BARRICADE**
- **TRUCK MOUNTED ATTENUATOR**

**General Notes**

1. All temporary traffic control devices are to be located on the road shoulder, and shall not encroach on the traveled way or create an on-street hazard in accordance with the Transportation Manual for Delaware Traffic Control Devices.
2. All temporary traffic control devices are to be maintained by the general contractor and shall be in accordance with the applicable regulations.
3. All temporary traffic control devices are to be supplied by the contractor and shall be in accordance with the Delaware Manual on Uniform Traffic Control Devices (DE MUTCD) latest edition.
4. For traffic control devices to be changed to "RAMP", "RR XING" or "BRIDGE" where applicable.
5. "N" through "Q" and "T" and "V", the word "ROAD" shall be changed to "RAMP", "RR XING" or "BRIDGE" where applicable.

**Prepared by**

Whitman, Requardt and Associates, LLP

Engineers   Architects   Environmental Planners        Est. 1915
END WORK
39°39'13.19"N
75°34'59.61"W
MILEPOINT 8.25

BEGIN WORK
39°39'10.02"N
75°35'04.17"W
MILEPOINT 8.16

SEQUENCE OF CONSTRUCTION:
1. Place temporary warning signs and end road work signs in each direction, 300 feet upstream and downstream of work area. These signs shall remain in place until high friction surface treatment is installed.
2. Using TA-10 during allowable lane closure hours, apply 2" of bituminous concrete pavement within the limits shown. At the end of each day's operation, proceed to remove temporary traffic control, place temporary striping to match existing striping.
3. Using TA-17 during allowable lane closure hours, pave the type C wearing course within the limits shown. At the end of each day's operation, proceed to remove temporary traffic control, place temporary striping to match existing striping.
4. Using TA-17A during allowable lane closure hours, place permanent striping.
5. Using TA-10 during allowable lane closure hours, mill the 2" of bituminous concrete pavement within the limits shown. After placing high friction surface treatment, sweep roadway in accordance with the contract documents. Remove temporary traffic control and open travel lanes. Remove ‘road work ahead’ and ‘end road work’ signs.
6. Using TA-17 during allowable lane closure hours, perform additional sweeping as required by the contract documents.
LOCATION PLAN
RAMP FROM I-95 NB TO SR 1 SB (N6053)

SEQUENCE OF CONSTRUCTION:

1. DURING ALLOWABLE LANE CLOSURE HOURS, LOAD TA-33 ON INTERSTATE 95 SB AND THE DETOUR PLAN ON SHEETS 10 AND 11. CLOSE THE RIGHT-MOST LANE (EXIT LANE) OF INTERSTATE 95 NB APPROACHING THE RAMP TO SR 1, CLOSE THE RAMP TO SR 1 UNDER EXISTING WORKING MOVEMENTS AND UTILITY APPURTENANCES. PLACE HIGH FRICTION SURFACE TREATMENT WITHIN THE LIMITS OF CURVE 1. AFTER PLACING HIGH FRICTION SURFACE TREATMENT, REMOVE MASKING FROM PAVEMENT MARKINGS AND UTILITY APPURTENANCES. OPEN RAMP AND INTERSTATE 95 NB RIGHT LANE (EXIT LANE). REMOVE ALL DETOUR SIGNAGE.

2. DURING ALLOWABLE LANE CLOSURE HOURS, CLOSE THE RIGHT-MOST LANE (EXIT LANE) OF INTERSTATE 95 NB APPROACHING THE RAMP TO SR 1 USING THE DETOUR PLAN ON SHEETS 10 AND 11. CLOSE THE RIGHT TRAVEL LANE ALONGSIDE THE RAMP FROM INTERSTATE 95 SB ON SHEETS 10 AND 11 USING A TA-33 WHEN EXISTING PAVEMENT MARKINGS ARE REFLECTED. PLACE HIGH FRICTION SURFACE TREATMENT WITHIN THE LIMITS OF CURVE 1. AFTER PLACING HIGH FRICTION SURFACE TREATMENT, REMOVE MASKING FROM PAVEMENT MARKINGS AND UTILITY APPURTENANCES. OPEN RAMP AND INTERSTATE 95 NB RIGHT LANE (EXIT LANE). REMOVE ALL DETOUR SIGNAGE.

3. DURING ALLOWABLE LANE CLOSURE HOURS, UTILIZING TA-30, PERFORM ADDITIONAL SWEEPING AS REQUIRED BY THE CONTRACT DOCUMENTS.

CUVLE 1
CURVE 2

BEGIN WORK
39°40'52.56"N
75°39'44.23"W
MILEPOINT 0.00

END WORK
39°40'53.69"N
75°39'34.23"W
MILEPOINT 0.14

BEGIN WORK
39°40'52.43"N
75°39'31.05"W
MILEPOINT 0.19

END WORK
39°40'52.43"N
75°39'31.05"W
MILEPOINT 0.19

END WORK
39°40'53.69"N
75°39'34.23"W
MILEPOINT 0.35

LOCATION U4-RAMP I-95NB - SR1SB

QUANTITIES

<table>
<thead>
<tr>
<th>ITEM</th>
<th>U.O.M.</th>
<th>ITEM DESCRIPTION</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>760504</td>
<td>CAL</td>
<td>HIGH FRICTION SURFACE TREATMENT</td>
<td>1,086</td>
</tr>
<tr>
<td>802003</td>
<td>EA-DY</td>
<td>ARROW PANELS TYPE C</td>
<td>802003</td>
</tr>
<tr>
<td>803001</td>
<td>EA-DY</td>
<td>PAVEMENT MARKINGS</td>
<td>803001</td>
</tr>
<tr>
<td>804001</td>
<td>EA-DY</td>
<td>PAVEMENT MARKINGS</td>
<td>804001</td>
</tr>
<tr>
<td>805001</td>
<td>EA-DY</td>
<td>PLASTIC DRUMS</td>
<td>805001</td>
</tr>
<tr>
<td>806001</td>
<td>EA-DY</td>
<td>HOURS TRAFFIC OFFICERS</td>
<td>806001</td>
</tr>
<tr>
<td>807001</td>
<td>EA-DY</td>
<td>FURNISH AND MAINTAIN PORTABLE ATTENUATOR TYPE II</td>
<td>807001</td>
</tr>
<tr>
<td>810001</td>
<td>EA-DY</td>
<td>TEMPORARY WARNING SIGNS AND PLAQUES</td>
<td>810001</td>
</tr>
<tr>
<td>811001</td>
<td>EA-DY</td>
<td>TEMPORARY BARRIERS, TYPE III</td>
<td>811001</td>
</tr>
</tbody>
</table>

HIGH FRICTION SURFACE TREATMENT

6 - 200K

LOCATION U4-RAMP I-95NB - SR1SB

SEQUENCE OF CONSTRUCTION:

1. DURING ALLOWABLE LANE CLOSURE HOURS, LOAD TA-33 ON INTERSTATE 95 SB AND THE DETOUR PLAN ON SHEETS 10 AND 11. CLOSE THE RIGHT-MOST LANE (EXIT LANE) OF INTERSTATE 95 NB APPROACHING THE RAMP TO SR 1, CLOSE THE RAMP TO SR 1 UNDER EXISTING WORKING MOVEMENTS AND UTILITY APPURTENANCES. PLACE HIGH FRICTION SURFACE TREATMENT WITHIN THE LIMITS OF CURVE 1. AFTER PLACING HIGH FRICTION SURFACE TREATMENT, REMOVE MASKING FROM PAVEMENT MARKINGS AND UTILITY APPURTENANCES. OPEN RAMP AND INTERSTATE 95 NB RIGHT LANE (EXIT LANE). REMOVE ALL DETOUR SIGNAGE.

2. DURING ALLOWABLE LANE CLOSURE HOURS, CLOSE THE RIGHT-MOST LANE (EXIT LANE) OF INTERSTATE 95 NB APPROACHING THE RAMP TO SR 1 USING THE DETOUR PLAN ON SHEETS 10 AND 11. CLOSE THE RIGHT TRAVEL LANE ALONGSIDE THE RAMP FROM INTERSTATE 95 SB ON SHEETS 10 AND 11 USING A TA-30 WHEN EXISTING PAVEMENT MARKINGS ARE REFLECTED. PLACE HIGH FRICTION SURFACE TREATMENT WITHIN THE LIMITS OF CURVE 1. AFTER PLACING HIGH FRICTION SURFACE TREATMENT, REMOVE MASKING FROM PAVEMENT MARKINGS AND UTILITY APPURTENANCES. OPEN RAMP AND INTERSTATE 95 NB RIGHT LANE (EXIT LANE). REMOVE ALL DETOUR SIGNAGE.

3. DURING ALLOWABLE LANE CLOSURE HOURS, UTILIZING TA-30, PERFORM ADDITIONAL SWEEPING AS REQUIRED BY THE CONTRACT DOCUMENTS.

SEQUENCE OF CONSTRUCTION:

1. DURING ALLOWABLE LANE CLOSURE HOURS, LOAD TA-33 ON INTERSTATE 95 SB AND THE DETOUR PLAN ON SHEETS 10 AND 11. CLOSE THE RIGHT-MOST LANE (EXIT LANE) OF INTERSTATE 95 NB APPROACHING THE RAMP TO SR 1, CLOSE THE RAMP TO SR 1 UNDER EXISTING WORKING MOVEMENTS AND UTILITY APPURTENANCES. PLACE HIGH FRICTION SURFACE TREATMENT WITHIN THE LIMITS OF CURVE 1. AFTER PLACING HIGH FRICTION SURFACE TREATMENT, REMOVE MASKING FROM PAVEMENT MARKINGS AND UTILITY APPURTENANCES. OPEN RAMP AND INTERSTATE 95 NB RIGHT LANE (EXIT LANE). REMOVE ALL DETOUR SIGNAGE.

2. DURING ALLOWABLE LANE CLOSURE HOURS, CLOSE THE RIGHT-MOST LANE (EXIT LANE) OF INTERSTATE 95 NB APPROACHING THE RAMP TO SR 1 USING THE DETOUR PLAN ON SHEETS 10 AND 11. CLOSE THE RIGHT TRAVEL LANE ALONGSIDE THE RAMP FROM INTERSTATE 95 SB ON SHEETS 10 AND 11 USING A TA-33 WHEN EXISTING PAVEMENT MARKINGS ARE REFLECTED. PLACE HIGH FRICTION SURFACE TREATMENT WITHIN THE LIMITS OF CURVE 1. AFTER PLACING HIGH FRICTION SURFACE TREATMENT, REMOVE MASKING FROM PAVEMENT MARKINGS AND UTILITY APPURTENANCES. OPEN RAMP AND INTERSTATE 95 NB RIGHT LANE (EXIT LANE). REMOVE ALL DETOUR SIGNAGE.

3. DURING ALLOWABLE LANE CLOSURE HOURS, UTILIZING TA-30, PERFORM ADDITIONAL SWEEPING AS REQUIRED BY THE CONTRACT DOCUMENTS.
GENERAL NOTES:

1. All temporary traffic control devices are to be designed in accordance with the Uniform Traffic Control Devices for Motor Vehicles ( MUTCD).

2. Signs “N” through “Q” and “T” and “V”, the word “ROAD” shall be changed to “RAMP”, “RR XING” or “BRIDGE” where applicable.

3. All temporary traffic control devices are to be supplied and maintained by the general contractor and shall be in compliance with this plan and the Delaware Manual on Uniform Traffic Control Devices (MUTCD).

4. Signage shall be a minimum of 6 feet high, measured from the ground to the centerline of the plan.

5. All markings are complete across the roadway, from curb to curb, or "W" type 3 barricades at a roadway closure shall be placed.

6. Detours are directed by the engineer.

7. Barricades shall be a minimum of 6 feet wide unless positioned downward toward the center of the roadway.

8. Detours shall be a minimum of 6 feet wide unless positioned downward toward the center of the roadway.

9. Detours shall be followed by the engineer.

10. Detours shall be directed by the engineer.

11. Detours shall be directed by the engineer.

12. Detours shall be directed by the engineer.

13. Detours shall be directed by the engineer.

14. Detours shall be directed by the engineer.

15. Detours shall be directed by the engineer.

16. Detours shall be directed by the engineer.

17. Detours shall be directed by the engineer.

18. Detours shall be directed by the engineer.

19. Detours shall be directed by the engineer.

20. Detours shall be directed by the engineer.

21. Detours shall be directed by the engineer.

22. Detours shall be directed by the engineer.

23. Detours shall be directed by the engineer.

24. Detours shall be directed by the engineer.

25. Detours shall be directed by the engineer.

26. Detours shall be directed by the engineer.

27. Detours shall be directed by the engineer.

28. Detours shall be directed by the engineer.

29. Detours shall be directed by the engineer.

30. Detours shall be directed by the engineer.

31. Detours shall be directed by the engineer.

32. Detours shall be directed by the engineer.

33. Detours shall be directed by the engineer.

34. Detours shall be directed by the engineer.

35. Detours shall be directed by the engineer.

36. Detours shall be directed by the engineer.

37. Detours shall be directed by the engineer.

38. Detours shall be directed by the engineer.

39. Detours shall be directed by the engineer.

40. Detours shall be directed by the engineer.

41. Detours shall be directed by the engineer.

42. Detours shall be directed by the engineer.

43. Detours shall be directed by the engineer.

44. Detours shall be directed by the engineer.

45. Detours shall be directed by the engineer.

46. Detours shall be directed by the engineer.

47. Detours shall be directed by the engineer.

48. Detours shall be directed by the engineer.

49. Detours shall be directed by the engineer.

50. Detours shall be directed by the engineer.
**GENERAL NOTES**

1. ALL TRAFFIC control devices are to be identical and should be in place at the time the detour is implemented. If the detour is initiated prior to the placement of all traffic control devices, the detour area will be vacated prior to the placement of traffic control devices. The detour area will be marked accordingly.

2. ALL TRAFFIC control devices should be fully displayed and in place prior to the detour taking effect.

3. TRAFFIC signals should be in place and ready to operate prior to the detour being implemented.

4. TRAFFIC signals should be painted prior to the detour being implemented.

5. HIGH FRICTION SURFACE TREATMENT (HFST) shall be applied to areas as needed. Areas to be treated will be marked with yellow spray paint prior to treatment.

**DETOUR PLAN**

1. DETOUR 1: XX MILES AHEAD
   - Local Traffic Only
   - TO ROAD CLOSED
   - THRU TRAFFIC
   - DETOUR
   - DETOUR 500 FT
   - DETOUR 1000 FT
   - DETOUR

2. DETOUR 2: XX MILES AHEAD
   - Local Traffic Only
   - TO ROAD CLOSED
   - THRU TRAFFIC
   - DETOUR
   - DETOUR 500 FT
   - DETOUR 1000 FT
   - DETOUR

3. DETOUR 3: XX MILES AHEAD
   - Local Traffic Only
   - TO ROAD CLOSED
   - THRU TRAFFIC
   - DETOUR
   - DETOUR 500 FT
   - DETOUR 1000 FT
   - DETOUR

4. DETOUR 4: XX MILES AHEAD
   - Local Traffic Only
   - TO ROAD CLOSED
   - THRU TRAFFIC
   - DETOUR
   - DETOUR 500 FT
   - DETOUR 1000 FT
   - DETOUR

5. DETOUR 5: XX MILES AHEAD
   - Local Traffic Only
   - TO ROAD CLOSED
   - THRU TRAFFIC
   - DETOUR
   - DETOUR 500 FT
   - DETOUR 1000 FT
   - DETOUR

6. DETOUR 6: XX MILES AHEAD
   - Local Traffic Only
   - TO ROAD CLOSED
   - THRU TRAFFIC
   - DETOUR
   - DETOUR 500 FT
   - DETOUR 1000 FT
   - DETOUR

7. DETOUR 7: XX MILES AHEAD
   - Local Traffic Only
   - TO ROAD CLOSED
   - THRU TRAFFIC
   - DETOUR
   - DETOUR 500 FT
   - DETOUR 1000 FT
   - DETOUR

8. DETOUR 8: XX MILES AHEAD
   - Local Traffic Only
   - TO ROAD CLOSED
   - THRU TRAFFIC
   - DETOUR
   - DETOUR 500 FT
   - DETOUR 1000 FT
   - DETOUR
END WORK
39°45'19.07"N
75°29'45.71"W
MILEPOINT 6.37

BEGIN WORK
39°45'13.94"N
75°29'58.86"W
MILEPOINT 6.19

LOCATION PLAN
I-495 (N060)

SEQUENCE OF CONSTRUCTION

1. Plant signs and work signs 100 feet upstream of work area on Interstate 495 northbound. Place road work ahead sign on ramp from Governor Printz Boulevard. Place end road work sign 100 feet downstream of work area on Interstate 495 northbound. These signs shall remain in place until permanent pavement markings have been installed.

2. Using TA-33 for a single lane closure and TA-37 for a double lane closure, during allowable lane closure hours, close the travel lanes on Interstate 495 northbound. Remove the existing dashed lane lines, the yellow and white solid lines shall not be disturbed. Install high friction surface treatment within the limits shown. Place high friction surface treatment in the travel lanes within the limits shown.

3. After placing high friction surface treatment, sweep roadway in accordance with the contract documents.

4. Install temporary marking paint for the lane lines removed at the beginning of the operation. Remove marking from existing pavement markings, access pavement markers, and utility appurtenances and open travel lanes to traffic.

5. During allowable lane closure hours, utilizing TA-33 and TA-35A, perform additional sweeping as required by the contract documents.

6. Within 15 working days of installing high friction surface treatment, utilize TA-33, TA-35A, TA-37, and TA-35C during allowable lane closure hours to install permanent lane line pavement markings.

TABLE OF WORK

<table>
<thead>
<tr>
<th>ITEM</th>
<th>U.O.M.</th>
<th>ITEM DESCRIPTION</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>760504</td>
<td>GAL</td>
<td>HIGH FRICTION SURFACE TREATMENT</td>
<td>1,656</td>
</tr>
<tr>
<td>802003</td>
<td>EA-DY</td>
<td>ARRROW PANELS TYPE C</td>
<td>12</td>
</tr>
<tr>
<td>803001</td>
<td>EA-DY</td>
<td>FURNISH AND MAINTAIN PORTABLE CHANGABLE MESSAGE SIGN</td>
<td>16</td>
</tr>
<tr>
<td>804001</td>
<td>EA-DY</td>
<td>FURNISH AND MAINTAIN PORTABLE LIGHT ASSEMBLY (TA-33)</td>
<td>12</td>
</tr>
<tr>
<td>805001</td>
<td>EA-DY</td>
<td>PLASTIC DRUMS</td>
<td>408</td>
</tr>
<tr>
<td>806001</td>
<td>NR</td>
<td>TRAFFIC OFFICERS</td>
<td>48</td>
</tr>
<tr>
<td>808001</td>
<td>EA-DY</td>
<td>FURNISH AND MAINTAIN TRUCK MOUNTED ATTENATION, TYPE I</td>
<td>34</td>
</tr>
<tr>
<td>817001</td>
<td>LF</td>
<td>TEMPORARY MARKINGS, PAINT, 4&quot;</td>
<td>570</td>
</tr>
<tr>
<td>817013</td>
<td>LF</td>
<td>PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5&quot;</td>
<td>570</td>
</tr>
<tr>
<td>817019</td>
<td>LF</td>
<td>PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, BLACK, 5&quot;</td>
<td>570</td>
</tr>
<tr>
<td>817031</td>
<td>SF</td>
<td>REMOVAL OF PAVEMENT STRIPING</td>
<td>382</td>
</tr>
<tr>
<td>806004</td>
<td>EA-DY</td>
<td>ASSEMBLY (FLOOD LIGHTS)</td>
<td>12</td>
</tr>
<tr>
<td>807001</td>
<td>EA-DY</td>
<td>CHANGEABLE MESSAGE SIGN</td>
<td>12</td>
</tr>
<tr>
<td>808002</td>
<td>LF</td>
<td>TEMPORARY MARKINGS, PAINT, 5&quot;</td>
<td>90</td>
</tr>
<tr>
<td>817013</td>
<td>LF</td>
<td>PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5&quot;</td>
<td>570</td>
</tr>
<tr>
<td>817019</td>
<td>LF</td>
<td>PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, BLACK, 5&quot;</td>
<td>570</td>
</tr>
<tr>
<td>817031</td>
<td>SF</td>
<td>REMOVAL OF PAVEMENT STRIPING</td>
<td>382</td>
</tr>
<tr>
<td>809001</td>
<td>LF</td>
<td>TEMPORARY MARKINGS, PAINT, 3&quot;</td>
<td>570</td>
</tr>
<tr>
<td>817013</td>
<td>LF</td>
<td>PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5&quot;</td>
<td>570</td>
</tr>
<tr>
<td>817019</td>
<td>LF</td>
<td>PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, BLACK, 5&quot;</td>
<td>570</td>
</tr>
<tr>
<td>817031</td>
<td>SF</td>
<td>REMOVAL OF PAVEMENT STRIPING</td>
<td>382</td>
</tr>
</tbody>
</table>

END WORK
39°45'19.07"N
75°29'45.71"W
MILEPOINT 6.37

BEGIN WORK
39°45'13.94"N
75°29'58.86"W
MILEPOINT 6.19

LOCATION PLAN
I-495 (N060)