

THE STATE OF DELAWARE



DEPARTMENT OF TRANSPORTATION  
MAINTENANCE AND OPERATIONS  
CONSTRUCTION PLANS AND SPECIFICATIONS FOR

PCC PATCHING, OPEN END, SOUTH, FY21-FY22

CONTRACT NUMBER - T202006601

PRIMAVERA ID - 20-12001

FEDERAL AID NUMBER - NONE

COUNTY: SUSSEX

PLANS PREPARED BY: RM HYLBERT  
DESIGNER

Matthew J. Schlitter 7.2.20  
DELDOT - CE IV/PROJECT MANAGER DATE  
MAINTENANCE AND OPERATIONS - (SOD)



THIS SEAL APPLIES TO ALL SHEETS  
BEARING THE "SOD" SECTION  
DESIGNATION

APPROVED FOR ADVERTISEMENT  
Jim Be... 7-8-2020  
DIRECTOR OF MAINTENANCE AND OPERATIONS DATE

SOUTH DISTRICT

PCC PATCHING, OPEN END, SOUTH, FY21-FY22

**CONTRACT DESCRIPTION**

The purpose of this contract is to make general improvements to various concrete or composite roads throughout Sussex County using Portland cement concrete (PCC) patching methods. These PCC patching methods shall include, but not be limited to: saw cutting, removal of existing PCC pavement, placing concrete and dowel bars, crack and joint sealing, replacing pavement markings, adjusting & repairing drainage inlets, manholes, water valves, and other utilities, repairing pavement area around patches and any other work required to complete each work order.

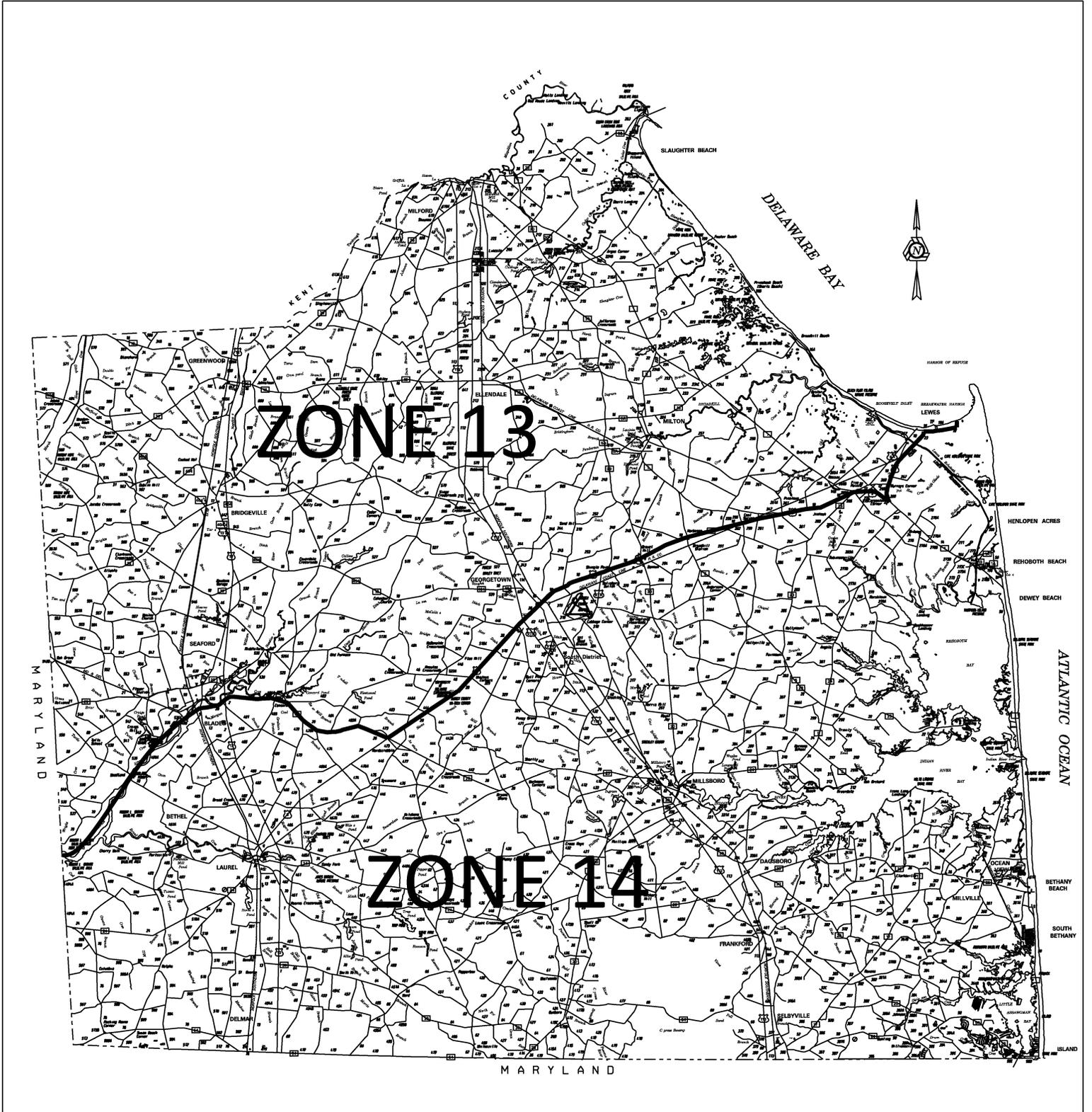
The specific work sites are not listed herein, but will be assigned as available by the South District Maintenance Support office as locations are funded.

1. The DeIDOT 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.
2. It is anticipated that all work will occur within DeIDOT'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 DeIDOT project manager to contact the railroad chief engineer and obtain written authorization prior to such work.

The contractor, however, shall be responsible for obtaining the required clearances and insurances for each railway company involved if the railroad property and/or facilities are located within or near the proposed limits of work and/or if the proposed work encroaches upon the railroad's right of way; in accordance with DeIDOT Maintenance of Railroad Traffic item 801501. The contractor must contact DeIDOT's railroad section manager at 302-760-2183 prior to the start of any work to coordinate the execution of the appropriate agreements and authorizations required from any railway company involved, including coordination of railroad flagging, if necessary.

3. It is anticipated that all work will occur within DeIDOT's existing right of way or easement areas. Should the need occur to trespass onto private property; it will be the responsibility of the DeIDOT project manager to secure such trespass needs prior to the start of work.
4. No environmental permits are required for this work provided no jurisdictional wetlands or waters are impacted. If there is any question as to whether or not a water or wetland is jurisdictional, the contractor shall contact the DeIDOT environmental section at 302-760-2280 prior to the start of work.
5. No utility relocation 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. Payment shall be made using contract unit pricing or where no pricing is available; it shall be negotiated prior to the commencement of work.
6. The DeIDOT 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.) In advance of the start of the activity.
7. Prior to initiating any work on this contract, the contractor 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.

ZONE MAP



## DEPARTMENT OF TRANSPORTATION

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### GENERAL CONTRACT NOTES

1. Construction of this contract shall conform to Delaware Department of Transportation Standard Specifications dated August 2016 as amended by the Supplemental Specifications, the Special Provisions, the most recent Standard Construction Details, the Delaware Manual of Uniform Traffic Control Devices and these plans.
2. The department reserves the right to add or delete quantities to this contract. Such quantity additions or deletions shall not be cause for an increase or decrease in any contract unit bid prices. No item prices are to be renegotiated due to either an increase or decrease in quantity usage resulting from said additions or deletions.
3. The Department reserves the right to prioritize, substitute, add, or delete locations at any time during the contract.
4. The contract shall expire 730 calendar days from the date the Notice to Proceed is issued. The Department reserves the right to request to extend the contract for 1 additional calendar year at the original unit bid prices. The one-year extension must be approved by both parties in writing prior to the expiration of the existing contract. The performance bond shall be submitted with the contract execution and shall be subject to any such agreed upon renewal for extension periods. Initial expense shall only be paid once and shall not be paid a second time upon an extension of the contract. Any additional expenses related to the extension of the contract must be documented and shall be agreed to prior to contract extension.
5. Work will be scheduled via work orders from the district. Work locations will vary in size. The work orders will indicate the work to be performed at each location and the time given for the completion of the work.
6. Issuance of each work order constitutes the Notice to Proceed (NTP) with the work described on the work order. The contractor must begin work within 10 calendar days of the Work order / NTP being issued. Failure to comply with the work order NTP or the work order completion date will result in liquidated damages being assessed based on each work order and section 108.08 of the standard specifications. Liquidated damages will be assessed based on the value of the work order or the total contract award amount, whichever is less.
7. Each work order shall be considered a separate unit of work. The engineer will make payment monthly for the completed work as outlined in section 109.07. Upon the substantial completion of the work order, the engineer will stop time at those locations and perform an initial inspection for the work order locations in accordance with subsection 105.16. If the work is satisfactorily completed, the engineer will release the contractor from maintenance responsibility for those locations. The engineer may also choose to perform the initial inspections at 6-month intervals. The engineer reserves the right to require the contractor to add work or make repairs to completed locations at the department's expense until such a location has been accepted by the department. The contractor must repair all defects in the work caused by poor workmanship or materials at their own expense until the department performs a primary inspection and accepts the contract. A primary inspection will be completed on an annual basis for work orders completed in a calendar year. Upon satisfactory completion of the primary punch list, the department will accept the location and release the contractor from responsibility for the work at that location. If a work order is sufficiently large and complex as determined by the engineer, a primary inspection may be held upon the completion of that work order.
8. Upon issuance of each work order the contractor shall submit the required copies of a detailed progress schedule (PSC) as outlined in standard specification 108.04 within 5 calendar days of the issuance of work order. During the contract, the contractor shall submit two-week (or as required) "look ahead" schedules to the area engineer/ manager no later than noon of each Thursday. Details shall include a description of each work activity, the planned days of work, multiple crews or shifts, and scheduled working hours. Failure to comply will result in a suspension of all contract work with time charges continuing to be assessed. The PSC must also be updated and submitted to the department as changes or delays occur in the contract.

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### GENERAL CONTRACT NOTES (cont.)

9. The locations of the work to be performed are included in designated mobilization zones. The mobilization zone limits are shown on the mobilization zone map in the contract documents. The boundaries of the zones are formed by roads, county lines, bodies of water, etc.
10. One mobilization fee shall be paid for each move into a mobilization zone, which shall cover all locations within that mobilization zone and all work orders issued within that zone. A separate mobilization fee will not be paid for each individual location. No mobilization fee will be paid if a new work order is issued while work on a previous work order is ongoing in that zone. A separate mobilization fee will only be paid if the contractor is directed by the department to move from the mobilization zone in which the contractor is presently working or inclement weather causes a substantial delay in the work. A substantial delay due to inclement weather shall be defined as fourteen or more calendar days. Payment of any mobilization fees shall be agreed upon between the contractor and the department, in writing, prior to work commencing.
11. The contractor shall commence work indicated on the work order no later than the seventh (10<sup>th</sup>) calendar 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. If there is a verified non-availability of materials, time charges shall commence on the first (1<sup>st</sup>) working day following the delivery date of said materials.
12. All work added shall be performed at contract unit prices. In the case where contract unit prices are not available the prices are to be negotiated prior to the commencement of work.
13. Any and all construction engineering, including survey and/or layout for traffic islands, striping, curb ramps, piping and drainage, etc., shall be incidental to the contract.

### PROJECT NOTES

14. All Portland Cement Concrete must be received from an approved production plant unless otherwise approved by the engineer. Only calibrated volumetric concrete trucks will be permitted to provide on-site mixtures. This pertains to both work occurring during normal working hours and nighttime restricted work.
15. There may be peak hour restrictions for some locations, which will be addressed at the issuance of the work order. The intention of this contract is for all work to be performed in daylight hours. Any required use of light plants, barrels or other night time MOT per the MUTCD due to long hours shall be incidental to the patching item. However, in the event that a location requires scheduled nightwork, the associated items, including additional MOT items, will be paid using item 503545, Nighttime PCC Patching Surcharge, Sussex County.
16. The contractor is reminded that section 105.07 of the standard specifications requires the general contractor to have a competent superintendent or foreman on the project at all times.
17. The curing method shall be per standard specification 503.03.9 and agreed to by the DelDOT engineer or his representative prior to the placement of the patch.
18. An assumed PCC patching depth of 11 (eleven) inches shall be used for proposed quantities given within the contract. Any patch depths greater than 11" shall be paid using item 503503, Patching Concrete. Payment for item 503503 shall not exceed 6" in depth regardless of the depth of the patch.

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### PROJECT NOTES (cont.)

19. Item 503004, Patching PCC Pavement (Undercut), shall be used for the purpose of excavating unsuitable material below the patch to a depth no greater than 6".
20. Saw cutting for item 505000, PCC Patching, Partial Depth, will be paid under item 762002, Saw Cutting, Concrete, Variable Depth. Saw cutting for items 503001 and 503002, Patching PCC Pavement will be paid under item 762001, Saw Cutting, Concrete, Full Depth. Patches greater than 11" in depth shall be saw cut, full depth. No additional payment will be made for saw cutting patches deeper than 11". Item 762001 shall include cutting the entire depth of the patch to be replaced regardless of the actual depth of the patch.
21. Unless otherwise directed by the engineer, all PCC patching completed on composite roadways shall utilize concrete to the existing pavement grade. Bituminous pavement shall not be used to eliminate grade differences.
22. The purpose for bituminous patching quantities contained within this contract are to be used to correct laminate pavement that is damaged due to poor pavement conditions and is determined to be in no way the fault of the contractor. The engineer or representative shall determine pavement conditions at each location prior to the commencement of work. If it is determined that the contractor is responsible for the damage due to the lift-out technique it will be handled in accordance with section 503.03.3 of the standard specifications and any repairs necessary as well as MOT required to make repairs will not be paid. If it is determined that bituminous laminate repairs are necessary due to the existing condition of the pavement, the material required for repairs at each location shall be paid per ton. MOT will also be paid for the repair if the damage is not the fault of the contractor as determined by the DeIDOT engineer. Repairs must be made within seven (7) calendar days.
23. Item 817035, Retroreflective Preformed Patterned Markings, 4" shall be used to stripe patches when the weather is 40°F and rising. Patches shall be wet cured in lieu of curing compound when this item is to be used. The purpose of using this item is so that the patch or group of patches can be striped the same day they are placed, before the road is opened to traffic.

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### MAINTENANCE OF TRAFFIC AND PAVEMENT MARKINGS

24. All work shall be performed in a manner that will reasonably provide the least practical obstruction to all road users, including vehicular, pedestrian and bicycle traffic and shall conform to the requirements of the latest Delaware Manual on Uniform Traffic Control Devices (MUTCD) Part 6, herein referred to as the Traffic Control Manual (including revisions in effect at the time of advertisement for bids).
25. At the preconstruction meeting, the contractor shall submit to the South District Safety Officer the necessary certifications for all traffic control devices expected to be used on the contract. In addition, prior to the start of any work order, the contractor must submit a traffic control plan including any additional certifications not previously submitted. Written approval must be received before the start of work at each location.
26. The contractor shall submit to the South District Safety Officer their proposed lane closure time frames for approval. This shall be submitted a minimum of 2 weeks prior to the start of work.
27. An American Traffic Safety Services Association (ATSSA) certified traffic control supervisor shall be required for each location on this project. A copy of the certification card for the ATSSA traffic control supervisor shall be submitted at the preconstruction meeting. The paper certificate is not acceptable. The ATSSA officer shall be incidental to the work being performed and shall not be paid separately.
28. Maintenance of traffic, unless otherwise noted in the approved plans, shall conform to the appropriate traffic control typical application found in the latest version of the DE MUTCD.
29. When required by the DE MUTCD, permanent advance warning signs shall be installed with the legend "END ROAD WORK" located 500 feet downstream from the work area. On intersecting roadways within the project limits, a "ROAD WORK AHEAD" sign shall be placed at a distance not less than 500 feet in advance of the work area and an "END ROAD WORK" sign shall be located 500 feet downstream of the work area. The use of skid mounted sign supports is not allowed unless the contractor can demonstrate that a utility conflict exists, which shall be verified by the engineer; or concrete medians prevent the installation of the permanent signs in the appropriate location. All temporary and permanent signs shall be paid as item 810001.
30. The use of millings and GABC in the travel way, temporary travel way, high volume entrances and access ramps for the purpose of providing temporary roadway service, pothole repair, tapered edge for utilities, butt joints, and longitudinal drop-offs (milling and paving operations) is prohibited. Bituminous TRM, as approved by the Engineer, shall be used for this purpose. TRM shall be incidental to the work it protects and shall not be paid separately.
31. The use of millings or GABC shall be used at the following locations where access to a business, residence, or edge drop off needs to be maintained unless otherwise noted in the plans or directed by the Engineer to use bituminous TRM. All millings and GABC shall be rolled and compacted to prevent material from unraveling.
  - a. Driveways
  - b. Entrances
  - c. Low volume access ramps (identified in the contract documents)
  - d. Edge drop offs adjacent to live roadway (lane, shoulder, or turn lane) and the proposed road construction
  - e. Edge of roadway drop off
32. Grading and maintaining base course that is being used for roadway wedge/ fillet between travel lanes and pavement box, edge of travel way, driveway or entrance access shall be incidental to the contract. The base course shall be placed at no greater than the slope specified in table 6G-1 and shall be compacted. Vertical differences shall be corrected in accordance with the table 6G-1 of the DE MUTCD.

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### **MAINTENANCE OF TRAFFIC AND PAVEMENT MARKINGS (cont.)**

33. No separate payment shall be made for the use of traffic cones. Traffic cones and/or work associated with their use such as setup, removal, cleaning, etc. shall be incidental to the work for which they protect.
34. All persons working within the state right-of-way shall wear a minimum of an ANSI Class II safety vest meeting the ANSI 107-2004 requirements.
35. The contractor is responsible for ensuring that the Traffic Management Center (1-302-659-4600) is notified each and every day when work is being performed in State Right of Way. The contractor must identify the type of work, any lane(s) or shoulder(s) closed, the length of time for work when the lane restriction is in place and when the lane restriction is picked up, contact person/number and state inspector.
36. The contractor shall be responsible for notifying the local 911 center, local schools, and the DeIDOT public information center of all roads and lanes to be closed a minimum of seven calendar days before the closure. If temporarily blocking access to a fire hydrant, notification must be given to Sussex County, the local firefighting authorities, and the 911 center.
37. The contractor shall be responsible for daily coordination efforts with his/her work with other contractors in the immediate area.
38. The contractor shall provide all residents and businesses adjacent to the work zone a minimum 48 hr. prior written notice for the start of construction work. This notification shall include the scope of work, working hours, anticipated start and completion dates, contractor name & address, and DeIDOT contact numbers. Failure to give proper notice will result in a suspension of work requiring notice until proper notice is provided.
39. Access to all businesses and residences within the project limits shall be maintained throughout the duration of the contract. Any temporary closure of an entrance for tie in purposes shall be coordinated with the engineer and / or property owner in advance of the closure.
40. Prior to additional lifts, all drop offs shall be secured before next lift per DE MUTCD 6G.1, even when a safety edge is present.
41. The contractor is responsible for the maintenance of existing pavement and shoulders within the project limits for the duration of the contract or as directed by the Engineer or his designee.
42. All roadways and entrances not open to traffic shall be closed using Type III Barricades and shall be placed per the Traffic Control Manual, Section 6F.63 & 6F.68.
43. A safety edge shall be used on all overlays and patches where patch extends to unimproved shoulder.
44. The contractor shall maintain access to and along pedestrian facilities at all times during construction. Earth, stone and gravel surfaces are not acceptable for providing pedestrian access. Where pedestrian routes are closed or blocked, alternate pedestrian access shall be provided using TA-28 or TA-29 of the DE MUTCD or to the satisfaction of the Engineer and shall be ADA compliant. The cost for any provisions on open end contracts shall be negotiated prior to the commencement of work.

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 1960 (ADA) Title II, Paragraph 35.130.

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### MAINTENANCE OF TRAFFIC AND PAVEMENT MARKINGS (cont.)

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:

- All pedestrians, including persons with disabilities, shall be provided with a reasonably safe, convenient, and accessible path that replicates as much as practical the existing pedestrian facilities.
- Maintain access to all businesses and residences at all times.
- Provide pedestrian access through 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 protrude 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" into the 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  $\frac{1}{4}$ " in grade or terrain that could cause tripping or be a barrier to wheelchair use.

45. All storage of equipment and material shall comply with section 6G.21 of the DE MUTCD.
46. All flaggers shall comply with Chapter 6E of the DE MUTCD.
47. All roadway excavation in or adjacent to travel ways shall be properly backfilled at the end of each day prior to traffic returning to unrestricted travel per Section 6G.20 and Table 6G-1 of the DE MUTCD. This includes all utilities and/or obstacles within or adjacent to the travel ways as outlined in the DE MUTCD.
48. Prior to the start of work, the contractor shall be required to show proof that he has sufficient approved striping materials on hand to ensure striping is completed prior to fully opening roadway to traffic.
49. The department will provide striping layout at locations where no pavement markings previously existed. If department forces provide striping layout on locations where markings previously existed, then the contractor shall reimburse the department for the layout costs.
50. The contractor shall submit detailed drawings (including but not limited to lane and shoulder widths, turn lane lengths, locations of stop bars, turn arrows, crosswalks and railroad crossings) that depict the existing pavement markings for each project location at the preconstruction meeting. These drawings will be reviewed by the department's traffic section to determine if any changes to the final pavement markings are required.
51. Final pavement markings shall conform to all existing patterns unless otherwise directed by the Engineer. The final pavement markings shall be placed within five (5) calendar days after the completion of the paving. Failure to comply will result in suspension of all other contract work with time charges continuing to be assessed.

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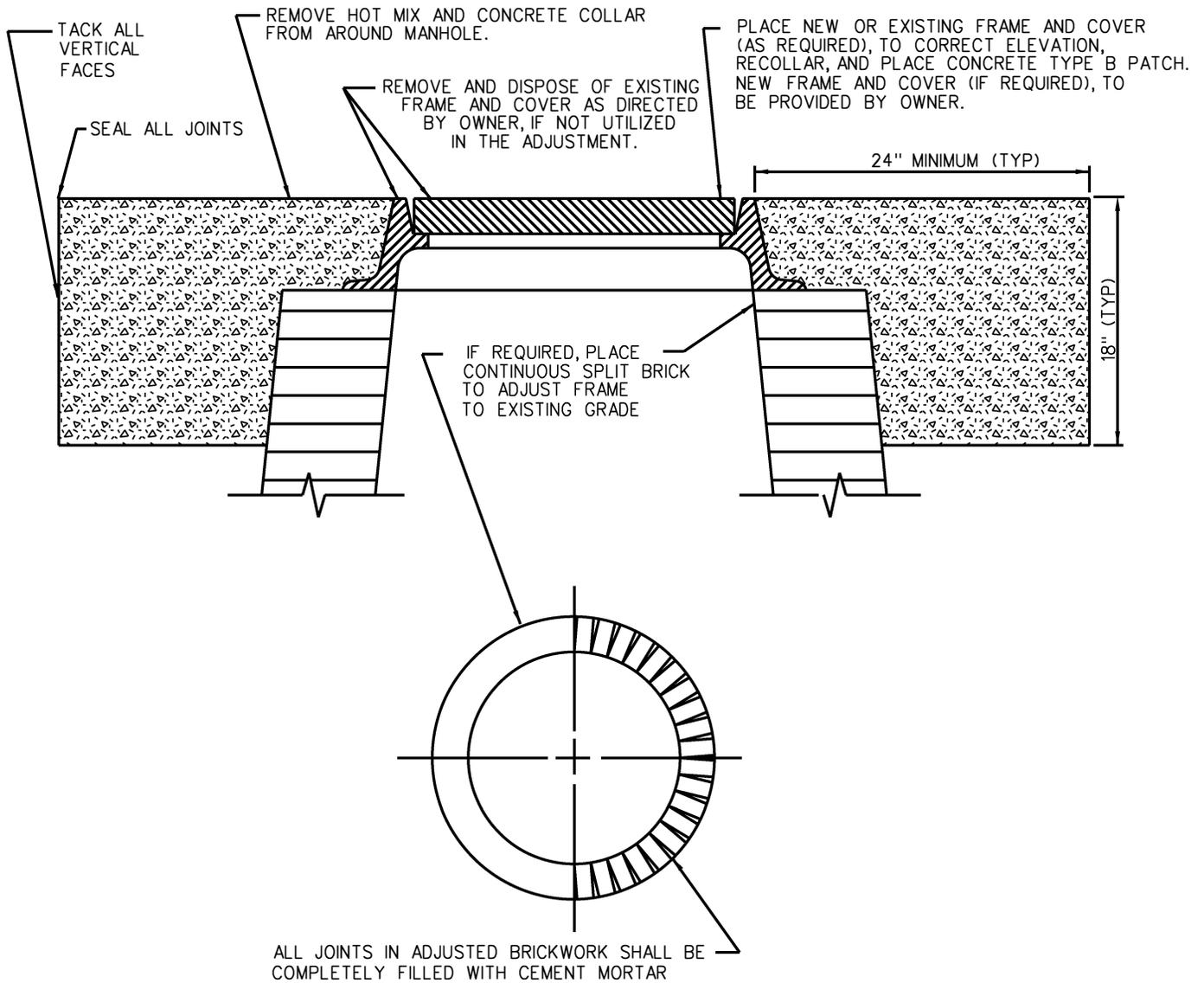
SOUTH DISTRICT

PCC PATCHING, OPEN END, SOUTH, FY21-FY22

### **MAINTENANCE OF TRAFFIC AND PAVEMENT MARKINGS (cont.)**

52. At the end of each day's operation and before traffic is returned to unrestricted roadway use, temporary striping shall be utilized at locations that require permanent striping. Temporary pavement striping must match permanent pavement striping in all regards. Temporary pavement markings shall be paid at the applicable contract unit price. The contractor is responsible for maintaining the temporary markings in good condition such that the pavement is properly delineated at all times. Any refreshing of the temporary markings will be at the contractor's expense, including the replacement of peeling temporary tape.
53. Any erroneous marking will not be paid for and shall be corrected immediately at the contractor's expense. Erroneous markings or shadows that exceed one (1) inch in width shall be removed by either sand or water blasting. No other removal methods will be allowed. An asphalt sealer shall be applied in the area of the removed marking to mask the repair. Any damage to the pavement caused by the removal of erroneous markings shall be repaired/replaced to the satisfaction of the Engineer at the contractor's expense.
54. All markings that are no longer in use and conflict with the pavement markings in use by the traveling public are to be removed and must be completely obliterated by a method approved by the Engineer. Painting over the conflicting striping will not be accepted as a method of removal.
55. Yellow centerlines shall be continuous around median islands. All double yellow centerlines shall be placed in a 5-6-5 configuration (2 each, 5" yellow with a 6" gap between).
56. The contractor, with the Engineer, 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 by the contractor, who shall be responsible for any 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.
57. Traffic detection loops shall be placed in the final wearing surface unless otherwise directed by the Engineer.
58. Traffic detection loops that are currently 5'x7' shall be replaced with loops that are 6'x6' at the same location. Stop bar detection loops shall be the same size as currently existing and should be placed starting two feet behind the stop bar unless otherwise directed by the engineer. If separate signal plans have been developed, the plans supersede this note.
59. Stop lines "bars" shall be installed in accordance with section 3B.16 of the latest DE MUTCD.
60. All crosswalks shall be installed in accordance with Section 3B.18 of the latest DE MUTCD.
61. International crosswalk symbols will be placed at all existing crosswalk locations or other locations as directed by the engineer. Payment will be under the applicable striping items.

ADJUSTMENT DETAIL



ADJUSTING MANHOLE

**NOTE:** MANHOLES IN CONCRETE ROADWAYS SHALL BE SAWCUT FULL DEPTH TO THE SPECIFIED DIMENSIONS PRIOR TO ANY ADJUSTMENT BEING MADE. THE SAWCUTTING SHALL BE INCIDENTAL TO ITEM 602132.

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**SOUTH MAINTENANCE PCC PATCHING, OPEN END, SOUTH, FY21-FY22**

**LOCATION 1 (PCC PATCHING) FROM TO**  
**LENGTH**  
**GENERAL IMPROVEMENTS**  
 OPEN END PCC PATCHING ESTIMATE

**COMMENTS:**

**MATERIAL ESTIMATE FOR LOCATION 1**

301001	GRADED AGGREGATE BASE COURSE, TYPE B	25.00	C.Y.
401029	SUPERPAVE TYPE C, PG 64-22, PATCHING	25.00	TON
402000	BITUMINOUS CONCRETE PATCHING	500.00	SY-IN
503001	PATCHING PORTLAND CEMENT CONCRETE PAVEMENT, 6' TO 15', TYPE A	1,600.00	S.Y.
503002	PATCHING PORTLAND CEMENT CONCRET PAVEMENT, 15' TO 100', TYPE B	1,600.00	S.Y.
503004	PATCHING PORTLAND CEMENT CONCRETE PAVEMENT, (UNDERCUTTING)	500.00	SY-IN
503006	DOWEL BARS	1,200.00	EACH
503503	PATCHING CONCRETE	20,000.00	SY-IN
503536	PORTLAND CEMENT CONCRETE PATCHING SURCHARGE, ZONE 13	1,600.00	S.Y.
503537	PORTLAND CEMENT CONCRETE PATCHING SURCHARGE, ZONE 14	1,600.00	S.Y.
503545	NIGHTTIME PORTLAND CEMENT CONCRETE PATCHING SURCHARGE, SUSSEX COUNTY	800.00	S.Y.
504001	CRACK AND JOINT SEALING LESS THAN 3/4 INCH WIDE	5,000.00	L.F.
505000	PORTLAND CEMENT CONCRETE PATCHING, PARTIAL DEPTH	400.00	SY-IN
602130	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	3.00	EACH
602132	ADJUSTING AND REPAIRING EXISTING MANHOLE	3.00	EACH
760009	RUMBLE STRIPS, CENTER LINE, CONCRETE	4,000.00	L.F.
762000	SAW CUTTING, BITUMINOUS CONCRETE	500.00	L.F.
762001	SAW CUTTING, CONCRETE, FULL DEPTH	8,000.00	L.F.
762002	SAW CUTTING, CONCRETE, VARIABLE DEPTH	500.00	L.F.
763556	ROAD LOCATION MOBILIZATION, ZONE 13	3.00	EACH
763557	ROAD LOCATION MOBILIZATION, ZONE 14	3.00	EACH
802003	ARROW PANELS TYPE C	250.00	EA-DY
803001	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	100.00	EA-DY
805001	PLASTIC DRUMS	10,000.00	EA-DY
806001	TRAFFIC OFFICERS	75.00	HOURL
808002	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	200.00	EA-DY

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LOCATION 1 (PCC PATCHING) FROM TO  
LENGTH  
GENERAL IMPROVEMENTS  
OPEN END PCC PATCHING ESTIMATE

COMMENTS:

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MATERIAL ESTIMATE FOR LOCATION 1

810001	TEMPORARY WARNING SIGNS AND PLAQUES	2,000.00	EA-DY
811003	FLAGGER, SUSSEX COUNTY, STATE	1,000.00	HOUR
811015	FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	100.00	HOUR
817002	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND, ALKYD-THERMOPLASTIC	200.00	S.F.
817003	TEMPORARY MARKINGS, PAINT, 4"	3,500.00	L.F.
817009	TEMPORARY MARKINGS, TAPE, 4"	3,500.00	L.F.
817013	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	3,500.00	L.F.
817027	RAISED/RECESSED PAVEMENT MARKER	80.00	EACH
817035	RETROREFLECTIVE PERFORMED PATTERNED MARKINGS, 4"	1,000.00	L.F.
817036	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, BLACK 6"	1,000.00	L.F.
846001	FURNISH AND INSTALL LOOP WIRE 1-CONDUCTOR #14 AWG ENCASED IN 1/4" FLEXIBLE TUBING IN A LOOP SAWCUT	500.00	L.F.

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CONTRACT QUANTITIES SUMMARY SHEET

301001	GRADED AGGREGATE BASE COURSE, TYPE B	25.00	C.Y.
401029	SUPERPAVE TYPE C, PG 64-22, PATCHING	25.00	TON
402000	BITUMINOUS CONCRETE PATCHING	500.00	SY-IN
503001	PATCHING PORTLAND CEMENT CONCRETE PAVEMENT, 6' TO 15', TYPE A	1,600.00	S.Y.
503002	PATCHING PORTLAND CEMENT CONCRET PAVEMENT, 15' TO 100', TYPE B	1,600.00	S.Y.
503004	PATCHING PORTLAND CEMENT CONCRETE PAVEMENT, (UNDERCUTTING)	500.00	SY-IN
503006	DOWEL BARS	1,200.00	EACH
503503	PATCHING CONCRETE	20,000.00	SY-IN
503536	PORTLAND CEMENT CONCRETE PATCHING SURCHARGE, ZONE 13	1,600.00	S.Y.
503537	PORTLAND CEMENT CONCRETE PATCHING SURCHARGE, ZONE 14	1,600.00	S.Y.
503545	NIGHTTIME PORTLAND CEMENT CONCRETE PATCHING SURCHARGE, SUSSEX COUNTY	800.00	S.Y.
504001	CRACK AND JOINT SEALING LESS THAN 3/4 INCH WIDE	5,000.00	L.F.
505000	PORTLAND CEMENT CONCRETE PATCHING, PARTIAL DEPTH	400.00	SY-IN
602130	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	3.00	EACH
602132	ADJUSTING AND REPAIRING EXISTING MANHOLE	3.00	EACH
760009	RUMBLE STRIPS, CENTER LINE, CONCRETE	4,000.00	L.F.
762000	SAW CUTTING, BITUMINOUS CONCRETE	500.00	L.F.
762001	SAW CUTTING, CONCRETE, FULL DEPTH	8,000.00	L.F.
762002	SAW CUTTING, CONCRETE, VARIABLE DEPTH	500.00	L.F.
763000	INITIAL EXPENSE/DE-MOBILIZATION	LUMP	SUM
763556	ROAD LOCATION MOBILIZATION, ZONE 13	3.00	EACH
763557	ROAD LOCATION MOBILIZATION, ZONE 14	3.00	EACH
802003	ARROW PANELS TYPE C	250.00	EA-DY
803001	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	100.00	EA-DY
805001	PLASTIC DRUMS	10,000.00	EA-DY
806001	TRAFFIC OFFICERS	75.00	HOUR
808002	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	200.00	EA-DY
810001	TEMPORARY WARNING SIGNS AND PLAQUES	2,000.00	EA-DY

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DELAWARE DEPARTMENT OF TRANSPORTATION

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SOUTH MAINTENANCE PCC PATCHING, OPEN END, SOUTH, FY21-FY22

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CONTRACT QUANTITIES SUMMARY SHEET

811003	FLAGGER, SUSSEX COUNTY, STATE	1,000.00	HOUR
811015	FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	100.00	HOUR
817002	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND, ALKYD-THERMOPLASTIC	200.00	S.F.
817003	TEMPORARY MARKINGS, PAINT, 4"	3,500.00	L.F.
817009	TEMPORARY MARKINGS, TAPE, 4"	3,500.00	L.F.
817013	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	3,500.00	L.F.
817027	RAISED/RECESSED PAVEMENT MARKER	80.00	EACH
817035	RETROREFLECTIVE PERFORMED PATTERNED MARKINGS, 4"	1,000.00	L.F.
817036	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, BLACK 6"	1,000.00	L.F.
846001	FURNISH AND INSTALL LOOP WIRE 1-CONDUCTOR #14 AWG ENCASED IN 1/4" FLEXIBLE TUBING IN A LOOP SAWCUT	500.00	L.F.