THE STATE OF DELAWARE



DEPARTMENT OF TRANSPORTATION OFFICE OF TRANSPORTATION SOLUTIONS PLANS AND SPECIFICATIONS FOR

CONTRACT NUMBER-

T201806501

CENTRAL MAINTENANCE

FEDERAL AID NUMBER-

NONE

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CONTRACT TITLE-

PATCHING AND THIN OVERLAY OPEN-END, CENTRAL, FY18-20

PLANS PREPARED BY:

CENTRAL DISTRICT DESIGN ENGINEER

CENTRAL DISTRICT CONTRACTS ENGINEER

DATE RECOMMENDED:

DATE RECOMMENDED:

1 aav 2 . 7,2,18

CENTRAL DISTRICT MAINTENANCE ENGINEER

DATE APPROVED:

CENTRAL DISTRICT ENGINEER

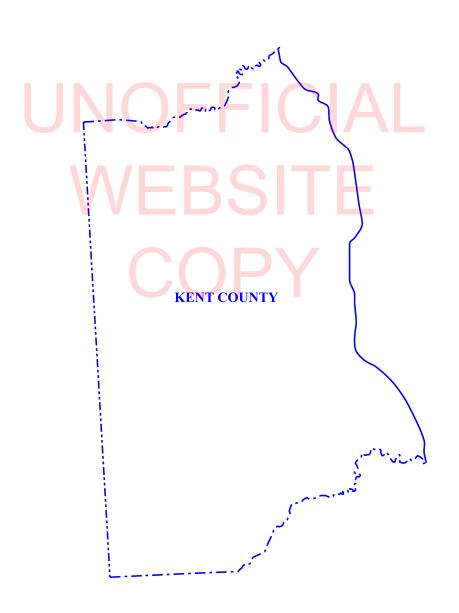
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LOCATION MAP



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GENERAL

- 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. AND THESE PLANS.
- 2. THIS WILL BE AN OPEN-END CONTRACT CONSISTING OF PATCHING HOT-MIX AND CONCRETE PAVEMENT AND PLACEMENT OF THIN HOT-MIX OR WARM-MIX THIN OVERLAYS AS NEEDED.
- 3. THE CONTRACT WILL BE A WORK-ORDER DRIVEN CONTRACT TO PATCH EXISTING HOT-MIX PAVEMENTS AND THIN OVERLAYS AS REQUIRED FOR STATE MAINTAINED ROADS IN KENT COUNTY. THE WORK SHALL INCLUDE BUT NOT BE LIMITED TO MAINTENANCE OF TRAFFIC, REMOVAL OF DETERIORATED PAVEMENT SURFACES AS DIRECTED BY THE ENGINEER AND AS REQUIRED BY THESE PLAN NOTES AND INCLUDED DETAIL. WORK SHALL BE DIRECTED BY THE ENGINEER OR REPRESENTATIVE VIA WORK ORDER(S).

THE SPECIFIC OPEN-END SITES ARE NOT LISTED HEREIN, BUT WILL BE ASSIGNED AS AVAILABLE BY CENTRAL DISTRICT MAINTENANCE PERSONNEL.

AS ADDITIONAL LOCATIONS ARE IDENTIFIED THEY WILL BE SUBMITTED TO THE ENVIRONMENTAL STUDIES OFFICE FOR REVIEW AND SHALL OBTAIN WRITTEN APPROVAL BEFORE ANY WORK CAN BEGIN.

4. THE PURPOSE OF THIS CONTRACT IS TO MAKE GENERAL IMPROVEMENTS TO ROADS AND/OR STREETS LOCATED WITHIN THE BOUNDARIES OF KENT COUNTY. DEPENDING ON FUND AVAILABILITY, THE DEPARTMENT RESERVES THE RIGHT TO ADD OR DELETE LOCATIONS AND/OR QUANTITIES FOR THIS CONTRACT. SUCH LOCATION OR 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 ADDITION OR DELETION OF LOCATIONS.

ANY INCREASE IN LOCATIONS IF NOT INCREASING THE OVERALL CONTRACT BID PRICE SHALL NOT CONSTITUTE ANY ADDITIONAL INCREASE IN ITEM 763000 – INITIAL EXPENSE/DE-MOBILIZATION.

NOTE THAT NO ADDITIONAL PAYMENT WILL BE MADE FOR ANY ADDITIONAL MOBILIZATIONS REQUESTED BY THE DISTRICT WHICH, WHEN ADDED TOGETHER WITH ALL THE ALREADY PERFORMED WORK PLUS INCREASED/DECREASED LOCATIONS, DOES NOT EXCEED THE TOTAL AWARD PRICE OF THE CONTRACT.

INITIAL EXPENSE WILL ONLY BE ADJUSTED IF THE TOTAL CONTRACT VALUE EXCEEDS THE BID VALUE, IN WHICH CASE THE PAYMENT AMOUNT WILL BE ADJUSTED ON A PRO-RATED BASIS. COST ADJUSTMENTS PAID FOR ASPHALT AND DIESEL FUEL WILL BE EXCLUDED FROM THE AMOUNT CALCULATED FOR THIS PURPOSE. ALSO NOTE THAT MOBILIZATION FOR ALL LOCATIONS IS INCLUDED IN THE LUMP SUM BID FOR INITIAL EXPENSE.

THE DISTRICT RESERVES THE RIGHT TO PRIORITIZE, SUBSTITUTE, ADD, OR DELETE LOCATIONS AT ANYTIME DURING THE CONTRACT.

AS ADDITIONAL LOCATIONS ARE IDENTIFIED THEY WILL BE SUBMITTED TO THE ENVIRONMENTAL STUDIES OFFICE FOR REVIEW AND SHALL OBTAIN WRITTEN APPROVAL BEFORE ANY WORK CAN BEGIN.

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INITIAL EXPENSE SHALL BE PAID BY 1/3 OF BID PRICE PER YEAR OF THE CONTRACT.

- 5. LOCATION LISTINGS INDICATE GENERAL LIMITS OF CONSTRUCTION, MAJOR TYPES OF IMPROVEMENTS, AND ESTIMATED QUANTITIES. DURING THE BIDDING PERIOD, ANY QUESTIONS PERTAINING TO LOCATIONS SHALL BE DIRECTED TO THE CONTRACT ADMINISTRATOR. AFTER THE AWARD, SUCH QUESTIONS SHALL BE REFERRED TO THE APPROPRIATE DISTRICT ENGINEER OR HIS REPRESENTATIVE.
- 6. THE CONTRACTOR SHALL PROVIDE ALL RESIDENTS WHO LIVE ADJACENT TO THE WORK ZONE WITH 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 DELDOT CONTACT NUMBERS. FAILURE TO GIVE PROPER NOTICE WILL RESULT IN A SUSPENSION OF WORK REQUIRING NOTICE, UNTIL PROPER NOTICE IS PROVIDED. ENGINEER WILL PROVIDE REQUIRED WORDING FOR THE NOTICE.

7. LENGTH OF CONTRACT:

THE PERIOD OF THIS CONTRACT SHALL BE VALID FOR ONE (1) CALENDAR YEAR FROM THE "NOTICE TO PROCEED". THE CONTRACT MAY BE EXTENDED FOR TWO (2) ADDITIONAL, ONE-YEAR TERMS THROUGH NEGOTIATION BETWEEN THE CONTRACTOR AND THE DEPARTMENT OF TRANSPORTATION. NEGOTIATION SHOULD BE INITIATED NO LATER THAN NINETY (90) DAYS PRIOR TO THE TERMINATION OF THE CURRENT AGREEMENT.

NOTE: THE ESTIMATED QUANTITIES SHOWN REPRESENT A THREE-YEAR PERIOD. THE DOLLAR VALUE ESTIMATED TO BE UTILIZED IN EACH OF THE THREE YEARS SHALL BE APPROXIMATELY ONE THIRD OF THE ENTIRE CONTRACT AWARD VALUE WITH THE TWO SUBSEQUENT YEARS BEING AN ADDITIONAL ONE THIRD EACH.

DURING THE BIDDING PERIOD, ANY QUESTIONS PERTAINING TO LOCATIONS SHALL BE DIRECTED TO THE CONTRACT ADMINISTRATOR. AFTER THE AWARD, SUCH QUESTIONS SHALL BE REFERRED TO THE APPROPRIATE DISTRICT ENGINEER OR HIS REPRESENTATIVE.

8. PRICE ADJUSTMENT:

UPON EXPIRATION OF THE INITIAL CONTRACT TERM, EACH ONE-YEAR CONTRACT EXTENSION MAY ADJUST PRICING BY MUTUAL WRITTEN AGREEMENT. THE PRICING MUST COVER THE FULL TERM OF THE CONTRACT EXTENSION PERIOD. IF THE PRICE DIFFERENCE FOR ANY EXTENSION PERIOD EXCEEDS THE PREVIOUS ONE YEAR PERIOD, APPROVAL OF THE PRICE ADJUSTMENT SHALL BE AT THE DISCRETION OF THE DEPARTMENT. THE DEPARTMENT RETAINS THE RIGHT TO REJECT A REQUEST FOR FUTURE YEAR EXTENSIONS AT ANY TIME.

EXTENSION TO FUTURE YEARS IS DEPENDENT ON LEGISLATIVE FUNDING APPROPRIATIONS FOR THESE FISCAL YEARS AND AGREEMENT ON SUCCEEDING YEAR'S PRICING AS DESCRIBED HERIN. THE BID PRICES IN THE CONTRACT MUST BE GUARANTEED FOR THE FIRST YEAR OF THE CONTRACT. IN FUTURE YEAR CONTRACT EXTENSIONS, THE VENDOR MAY REQUEST AN INCREASE IN UNIT PRICES. THE VENDOR WILL BE REQUIRED TO REQUEST ANY PRICE INCREASES PRIOR TO THE EXTENSION OF THE CONTRACT. THE BID PRICES IN THE CONTRACT EXTENSION SHALL BE GUARANTEED FOR THE PERIOD OF THE CONTRACT EXTENSION. IF THE DIFFERENCE REQUESTED EXCEEDS THE CHANGE IN THE NATIONWIDE ALL URBAN CONSUMER PRICE INDEX (CPI-U), U.S. CITY AVERAGE FOR THE SAME PERIOD, APPROVAL OF ANY PRICE ADJUSTMENT OFFERED THE VENDOR ABOVE THE CPI-U WILL BE AT THE DISCRETION OF THE DISTRICT ENGINEER. THE DEPARTMENT RETAINS THE RIGHT TO CANCEL THE FUTURE YEAR EXTENSION

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NOTES

IF ANY ACCEPTABLE AGREEMENT CANNOT BE REACHED WITH THE VENDOR ON THE PRICE ADJUSTMENT. THIS CONTRACT MAY BE EXTENDED FOR SUCH PERIOD, QUANTITIES, AND TIME, AS IS MUTUALLY AGREEABLE BETWEEN BOTH PARTIES.

THE CPI-U IS CALCULATED AS FOLLOWS:

CURRENT CPI-U - CPI-U AT PURCHASE ORDER DATE = CPI-U DIFFERENCE

DIVIDE THE CPI-U DIFFERENCE BY CPI-U AT PURCHASE ORDER DATE = CPI-U FACTOR

MOVE THE FACTOR DECIMAL POINT OVER TWO (2) SPACES TO THE RIGHT GIVES YOU THE % INCREASE FOR THE TIME PERIOD AND MAXIMUM ALLOWABLE PERCENTAGE INCREASE FOR THAT PURCHASE.

EXAMPLE: 173.2 - 165.4 = 7.8 (DIFFERENCE)

7.8 / 165.4 = .047158403 (FACTOR) 4.72% CPI-U FOR THAT PERIOD

9. PERFORMANCE AND PROGRESS OF WORK:

UPON ISSUANCE OF THE "NOTICE TO PROCEED" THE CONTRACTOR SHALL BEGIN EXECUTION OF WORK ON KNOWN LOCATIONS.

WORK TO BE PERFORMED UNDER THE OPEN-END PART OF THIS CONTRACT SHALL BE GENERATED THROUGH WORK ORDERS ISSUED TO THE CONTRACTOR BY THE DEPARTMENT'S CENTRAL DISTRICT. WORK-ORDERS WILL BE ISSUED AS A GROUP TO ALLOW THE MOST EFFICIENT ALLOCATION OF THE CONTRACTOR'S WORK FORCE AS THE SITUATION ALLOWS, HOWEVER; THE DISTRICT RETAINS THE RIGHT TO PRIORITIZE THE INDIVIDUAL LOCATIONS AS THE NEED ARISES. THE FIRST WORK ORDER GROUP MAY BE ISSUED AT THE TIME OF THE PRECONSTRUCTION MEETING ALONG WITH THE NOTICE TO PROCEED. IF WORK DOES NOT COMMENCE, OR NON-AVAILABILITY OF MATERIALS IS NOT PRESENTED IN THE ALLOTTED TIME, TIME CHARGES EQUAL TO LIQUIDATED DAMAGES FOR THE WORK SHALL COMMENCE. IF THERE IS A VERIFIED NON-AVAILABILITY OF MATERIALS, TIME CHARGES SHALL COMMENCE ON THE FOURTH (4) WORKING DAY FOLLOWING THE DELIVERY DATE.

THE DEPARTMENT WILL ATTEMPT TO ASSIGN WORK-ORDERS IN A MANNER THAT WILL KEEP THE DISTANCE BETWEEN JOB ORDER LOCATIONS TO A MINIMUM, IN A LOGICAL CONSTRUCTION SEQUENCE, AND AT A RATE THAT SHALL ALLOW FOR CONTINUOUS WORK. THE CONTRACTOR SHALL BE REQUIRED TO CONTINUOUSLY WORK ON THE LOCATIONS IN THE GROUP AND ANY SUCCESSIVE GROUPS UNTIL THE WORK IS COMPLETE. THERE WILL BE NO BREAKS IN THE SCHEDULE UNTIL ALL ASSIGNED WORK IS COMPLETED. THIS NOTE APPLIES EVEN IN THE EVENT THE ACTUAL COMPLETED WORK IS AHEAD OF THE ORIGINAL SUBMITTED PROJECT SCHEDULE.

FAILURE TO COMPLETE WORK IN THE SPECIFIED TIME SHALL CONSTITUTE "FAILURE TO PURSUE THE WORK" AND SUBJECTS THE CONTRACTOR TO LIQUIDATED DAMAGES AS OUTLINED IN SUBSECTION 108.08 OF THE STANDARD SPECIFICATIONS. EACH WORK-ORDER OR GROUP OF WORK-ORDERS IS TO BE COMPLETED WITHIN THE SPECIFIED TIME. ADDITIONAL ITEMS AND/OR WORKING DAYS MAY BE ADDED TO ANY WORK ORDER AS NEEDED AT THE DISCRETION OF THE ENGINEER. IF THE WORK ON A SPECIFIC WORK-ORDER GROUP IS NOT COMPLETED WITHIN THE ALLOCATED TIME, LIQUIDATED DAMAGES WILL BE ASSESSED IN ACCORDANCE WITH SUBSECTION 108.09 OF THE STANDARD SPECIFICATIONS BASED ON

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THE TOTAL VALUE OF THAT PARTICULAR WORK-ORDER OR WORK-ORDER GROUP, WHICHEVER IS APPLICABLE.

- 10. PAYMENTS SHALL BE ISSUED ON A MONTHLY BASIS FOR THE AMOUNT OF WORK COMPLETED, INVOICED AND ACCEPTED BY THE DEPARTMENT.
- 11. THE CONTRACTOR SHALL SUBMIT THE REQUIRED COPIES OF A DETAILED PROGRESS SCHEDULE (PSC) AS OUTLINED IN STANDARD SPECIFICATION 108.04 PRIOR TO BEGINNING WORK ON A WORK ORDER GROUP. DETAILS SHALL INCLUDE A DESCRIPTION OF EACH WORK ACTIVITY, THE PLANNED DAYS OF WORK, MULTIPLE CREWS OR SHIFTS, AND SCHEDULED WORKING HOURS. 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 WEDNESDAY. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.

UNLESS OTHERWISE NOTED ON THE PLANS, THE CONTRACTOR SHALL, AS PART OF THE PROJECT SCHEDULE, SUBMIT TO THE ENGINEER AN ESTIMATE OF THE MONTHLY PAYMENTS EXPECTED TO BE RECEIVED ON THE CONTRACT. THIS WILL BE REFERENCED AS THE "MONTHLY PAYMENT CHART".

A CHART IN MICROSOFT EXCEL, MICROSOFT WORD, OR HAND WRITTEN FORMAT WILL BE ACCEPTABLE FOR THIS PURPOSE. THE CHART SHOULD INCLUDE, AS A MINIMUM, COLUMNS FOR THE MONTH, YEAR, AND ESTIMATED MONTHLY PAYMENTS. THE TOTAL OF ALL ESTIMATED PAYMENTS SHOULD EQUAL THE AWARDED CONTRACT TOTAL BID PRICE.

THE ENGINEER MAY REQUEST AN UPDATED "MONTHLY PAYMENT CHART" AT HIS DISCRETION, DEPENDING ON THE ACCURACY OF THE INITIAL ESTIMATES AND ACCORDING TO THE OVERALL NEEDS OF THE DEPARTMENT.

THE "MONTHLY PAYMENT CHART" WILL NOT BE CONSIDERED A BINDING DOCUMENT BY EITHER THE CONTRACTOR OR THE DEPARTMENT AND IS CONSIDERED SOLELY INFORMATIONAL.

THE COST TO PREPARE AND UPDATE THE "MONTHLY PAYMENT CHART" SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 763000 – INITIAL EXPENSE.

12. AS PART OF THE "CRAFT TRAINING" INITIATIVE, THE CONTRACTOR SHALL EMPLOY AT LEAST ONE APPROVED INDIVIDUAL IN AT LEAST ONE TRADE LISTED FOR THE PROJECT.

MAINTENANCE OF TRAFFIC

- 13. 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 2011 DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, PART 6, INCLUDING ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT FOR BIDS.
- 14. 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 AND/OR TA-29 OF THE 2011 DELAWARE MANUAL

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ON UNIFORM TRAFFIC CONTROL DEVICES OR TO THE SATISFACTION OF THE ENGINEER. PEDESTRIAN DETOUR ROUTES OR ALTERNATE PEDESTRIAN FACILITIES SHALL CONSIST OF ADA COMPLIANT FACILITIES TO THE LEVEL OF WHICH EXISTS ON THE PEDESTRIAN ROUTE. THE COST FOR ANY PROVISIONS SHALL BE INCIDENTAL TO ITEM 801500 - MAINTENANCE OF TRAFFIC, ALL INCLUSIVE.

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:

- 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 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 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.

15. AN AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED TRAFFIC CONTROL SUPERVISOR SHALL BE REQUIRED FOR ALL LOCATIONS SPECIFIED IN THE CONTRACT PLANS. 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.

16. TYPICAL APPLICATION 10 FROM PART 6 OF THE 2011 DELAWARE MUTCD SHALL PRIMARILY BE USED FOR PREPARATION OF THE ROADWAY AND PLACEMENT OF THE HOT-MIX. USE OF A TRUCK MOUNTED ATTENUATOR (TMA) MAY BE REQUIRED FOR THIS CASE. THE COST OF FURNISHING THE TMA SHALL BE INCIDENTAL TO THE PRICE BID ITEM 801500. NO SEPARATE PAYMENT SHALL BE MADE FOR THE TMA.

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TYPICAL APPLICATION 46 FROM PART 6 OF THE 2011 DELAWARE MUTCD SHALL PRIMARILY BE USED IN THE PRESENCE OF A RAILROAD CROSSING. USE OF A TRUCK MOUNTED ATTENUATOR (TMA) MAY BE REQUIRED FOR THIS CASE. THE COST OF FURNISHING THE TMA SHALL BE INCIDENTAL TO OTHER CONTRACT ITEMS. NO SEPARATE PAYMENT SHALL BE MADE FOR THE TMA. TYPICAL APPLICATION 17A/17B FROM PART 6 OF THE 2011 DELAWARE MUTCD SHALL APPLY FOR ALL STRIPING OPERATIONS. TMA'S REQUIRED FORTHIS OPERATION SHALL BE INCIDENTAL TO THE PRICE BID FOR THE RESPECTIVE STRIPING ITEM.

- 17. MAINTENANCE OF TRAFFIC SHALL ONLY BE PAID ONE TIME PER ROADWAY LOCATION REGARDLESS OF MUTCD APPLICATION AND WHETHER OR NOT BOTH LANES WILL HAVE TO BE SEQUENCED FOR CLOSURE OR REGARDLESS OF THE NUMBER OF TRAFFIC CASES REQUIRED TO PERFORM THE WORK. MAINTENANCE OF TRAFFIC WILL BE PAID FOR AT EACH AND EVERY LOCATION UNLESS; IF MAINTENANCE OF TRAFFIC IS DEEMED NOT NECESSARY BY THE ENGINEER AND IS NOT UTILIZED BEING AT THAT PARTICULAR LOCATION. NO PAYMENT WILL BE MADE FOR THAT LOCATION IN THE CASE OF A PARTICULAR OPEN-END PATCHING LOCATION.
- 18. THE CONTRACTOR SHALL SUBMIT A TEMPORARY TRAFFIC CONTROL PLAN, INCLUDING THE NECESSARY NCHRP 350 CERTIFICATIONS FOR ALL DEVICES THAT WILL BE UTILIZED INCLUDING DEVICES UTILIZED BY SUBCONTRACTORS, FOR EACH TEMPORARY TRAFFIC CONTROL CASE ANTICIPATED TO BE USED PRIOR TO THE START OF THE PRE-CONSTRUCTION MEETING. WRITTEN APPROVAL MUST BE RECEIVED BEFORE THE START OF WORK AT EACH AND EVERY LOCATION. AN ADDITIONAL PLAN DETAILING THE NUMBER OF ANTICIPATED FLAGGERS AND THE PROPOSED LOCATIONS MUST BE SUBMITTED TO AND APPROVED BY THE ENGINEER PRIOR TO WORK AT EACH LOCATION.
- 19. ON ALL INTERSECTING STREETS, APPROACHING THE WORK AREA, "ROAD WORK 1,500 FT.", "ROAD WORK 1,000 FT.", AND "ROAD WORK 500 FT." PERMANENT SIGNS SHALL BE PLACED AS SHOWN ON THESE PLANS OR AS DIRECTED BY THE ENGINEER. AN "END ROAD WORK" SIGN SHALL BE PLACED ACROSS THE STREET FROM THE 500 FT SIGN, VISIBLE TO TRAFFIC OPERATING IN THE WORK ZONE. PAYMENT FOR PERMANENT WARNING SIGNS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 801500.
- 20. A TRAFFIC OFFICER MUST BE PRESENT AT ANY INTERSECTION WITH A TRAFFIC SIGNAL (806001). PROVIDE ACTUAL INVOICE TO ENGINEER.
- 21. NO WORK SHALL BE PERFORMED ALONG U.S. ROUTE 13 OR S.R. 1 FROM FRIDAY THROUGH SUNDAY (INCLUSIVE SOUTHBOUND) AND SATURDAY THROUGH MONDAY (INCLUSIVE-NORTHBOUND)
- 22. NO WORK SHALL BE PERFORMED ON STATE ROUTES 8 & 10 FROM THE WEEK BEFORE THROUGH THE WEEK AFTER A RACE EVENT AT DOVER DOWNS.
- 23. TIME RESTRICTIONS FOR SUPPLEMENTAL LOCATIONS WILL BE DETERMINED BY THE DISTRICT SAFETY OFFICER AND THE ENGINEER.

PAVEMENT MARKINGS

24. AT THE PRECONSTRUCTION MEETING, THE CONTRACTOR SHALL SUBMIT DETAILED DRAWINGS (INCLUDING BUT NOT LIMITED TO EXISTING STRIPING LENGTHS, 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. THESE DRAWINGS

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WILL BE REVIEWED BY THE DEPARTMENT'S TRAFFIC SECTION TO DETERMINE IF ANY CHANGES TO THE FINAL PAVEMENT MARKINGS ARE REQUIRED. FINAL PAVEMENT MARKINGS SHALL CONFORM TO ALL EXISTING PATTERNS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE FINAL PAVEMENT MARKINGS SHALL BE PLACED WITHIN FOURTEEN (14) CALENDAR DAYS AFTER THE PLACEMENT OF THE FINAL COURSE OF HOT-MIX OR WARM-MIX. FAILURE TO COMPLY WILL RESULT IN SUSPENSION OF ALL OTHER CONTRACT WORK WITH TIME CHARGES TO BE ASSESSED

THE DEPARTMENT WILL PROVIDE STRIPING LAYOUT AT LOCATIONS WHERE NO PAVEMENT MARKINGS PREVIOUSLY EXISTED. IF DEPARTMENT PERSONNEL PROVIDE STRIPING LAYOUT ON LOCATIONS WHERE MARKINGS PREVIOUSLY EXISTED, THEN THE CONTRACTOR SHALL REIMBURSE THE DEPARTMENT FOR THE LAYOUT COSTS.

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, PERMANENT WHITE EDGE LINES SHALL WRAP AROUND THE RADIUS OF ALL SIDE STREETS AND MAJOR COMMERCIAL ENTRANCES TO A TANGENT POINT. 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 STRIPES WITH A 6" GAP BETWEEN). STRIPING SHALL BE PER FINAL DELDOT LAYOUTS.

- 25. 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 WITH ENGINEER APPROVED METHOD. NO OTHER REMOVAL METHODS WILL BE ALLOWED. WHEN USING A PERMANENT MASKING AGENT, APPLY IT IN THE AREA OF THE REMOVED MARKING TO MASK THE REPAIR. ANY DAMAGE TO THE ROAD SURFACE CAUSED BY REMOVAL OF ERRONEOUS MARKINGS SHALL BE REPAIRED / REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE. IF THE PERMANENT MASKING AGENT FAILS IN ANY WAY, THE CONTRACTOR WILL NEED TO CONTINUE TO MASK, AS NECESSARY, UNTIL THE CONTRACT'S FINAL INSPECTION.
- 26. STOP LINES "BARS" SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 3B.16 OF THE 2011 DELAWARE MUTCD.
- 27. ALL CROSSWALKS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 3B.18 OF THE 2011 DELAWARE MUTCO.
- 28. ALL TRAFFIC CONTROL DEVICES SHALL BE IN NEW OR REFURBISHED CONDITION AND SHALL BE IN COMPLIANCE WITH THE TRAFFIC CONTROL MANUAL AND WITH NCHRP REPORT 350 AS DEFINED IN SECTION "6A" OF THE MANUAL. THE DEVICES SHALL BE APPROVED BY THE DISTRICT SAFETY OFFICER PRIOR TO USE AND SHALL BE MAINTAINED IN GOOD CONDITION FOR THE DURATION OF THE CONTRACT. TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE MAINTAINED IN GOOD CONDITION IN ACCORDANCE WITH THE BROCHURE ENTITLED "QUALITY GUIDELINES FOR TEMPORARY TRAFFIC CONTROL DEVICES", PUBLISHED BY THE AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA).
- 29. THE CONTRACTOR SHALL SUBMIT THE PROPOSED TEMPORARY TRAFFIC CONTROL PLANS FOR EACH WORK-ORDER ISSUED LOCATION TO CENTRAL DISTRICT MAINTENANCE FOR APPROVAL PRIOR TO THE START OF WORK ON THAT LOCATION. WORK SHALL NOT COMMENCE ON A LOCATION WITHOUT WRITTEN APPROVAL OF THE TEMPORARY TRAFFIC CONTROL PLAN.
- 30. THE CONTRACTOR SHALL BE REQUIRED TO SHOW PROOF THAT HE HAS SUFFICIENT APPROVED STRIPING MATERIALS ON HAND TO ENSURE STRIPING IS COMPLETED PRIOR TO FULL OPENING ROADWAY TO TRAFFIC.

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NOTES

31. 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, SHALL BE INSTALLED IN ACCORDANCE WITH THE TEMPORARY STRIPING POLICY. 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. TEMPORARY MARKINGS AT INTERSECTING STREETS ARE TO STOP AT THE POINT OF CURVATURE AND CONTINUE AT THE POINT OF TANGENCY PAST THE INTERSECTION.

32. FOR THERMAL STRIPING, CONTRACTOR MUST ACCOMPANY THE QUANTITIES WITH SPECIFIC DETAIL, INCLUDING SQUARE FOOTAGE, SPECIFIC SYMBOL SIZE, SYMBOL TYPE, AND LOCATION. THIS DETAIL IS INCIDENTAL COST TO ALL SYMBOL AND LEGEND PAY ITEMS.

TRAFFIC SIGNAL NOTES

- 33. TRAFFIC DETECTION LOOPS SHALL BE PLACED IN THE FINAL WEARING SURFACE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- 34. 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.

PROJECT

- 35. UNLESS SPECIFIED, OVERLAY WIDTHS SHALL MATCH EXISTING WIDTHS AND OVERLAY DEPTHS SHALL BE APPROXIMATELY 3/4".
- 36. IN LOCATIONS WHERE ANY SPECIFIC HOT-MIX PATCH EXCEEDS THE LENGTH OF 25 LINEAR FEET (4 FOOT MINIMUM WIDTH), THE CONTRACTOR SHALL BE REQUIRED TO MILL THE EXISTING MATERIAL AND PAYMENT WILL BE MADE UTILIZING THE UNIT PRICE BID FOR ITEM 760010 PAVEMENT MILLING. FOR HOT-MIX PATCHES OF THE LENGTH OF 25 FEET OR LESS, PAYMENT FOR EXCAVATION SHALL BE MADE AT THE UNIT PRICE BID FOR 402000 HOT-MIX PATCHING, REGARDLESS OF THE METHOD CHOSEN BY THE CONTRACTOR TO PERFORM THE WORK.
- 37. UNLESS OTHERWISE NOTED IN THE PLANS OR DETAILS, SAWCUTTING HOT-MIX SHALL BE PAID UNDER ITEM 762000.
- 38. THE COST OF CLIPPING THE EDGES BACK, PICKING UP AND DISPOSING OF EXCESS SOD AND SWEEPING AND CLEANING EXISTING PAVEMENT PRIOR TO OVERLAY SHALL BE INCIDENTAL TO THE PRICE BID FOR ITEM 401005, 401026, 401027, 401028, AND 401054.
- 39. BUTT JOINTS SHALL BE PLACED AS DIRECTED BY THE ENGINEER. BUTT JOINTS AT DRAINAGE STRUCTURES NOT TO BE RESURFACED SHALL BE AS PER THE INCLUDED PLAN DETAIL OR LOCATION

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NOTES. BUTT JOINTS CUT PRIOR TO THE DAY OF THE PAVEMENT OVERLAY SHALL BE RAMPED WITH HOT-MIX. PAVEMENT MILLINGS WILL NOT BE ALLOWED FOR THIS PURPOSE. BUTT JOINTS, IN FULL MILL AREAS SHALL BE INCIDENTAL TO THE MILLING ITEM. IN MILLED AREAS, THERE WILL BE NO SEPARATE PAYMENT FOR BUTT JOINTS AS THE REMOVAL AND CLEANUP OF THE HOT-MIX RESIDUE WEDGE LEFT FROM MILLING OPERATIONS SHALL BE INCINDENTAL TO THE MILLING ITEM.

- 40. TAPER MILLING IS INTENDED FOR MILLING IN THE AREA OF FIXED STRUCTURES (I.E. CURBS GUARDRAIL, ETC.) THE MILLED DEPTH AT THE STRUCTURE SHALL BE THE DEPTH OF THE PROPOSED OVERLAY AND 0" AT A DISTANCE OF +/- 3' FROM THE STRUCTURE. THE COMPUTED DEPTH FOR PAYMENT PURPOSES IS THE AVERAGE OF THE TWO DEPTHS. FOR THIS CONTRACT TAPER MILLING SHALL BE PAID UNDER THE UNIT PRICE BID FOR ITEM 760010.
- 41. ALL MILLED MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE STATED.
- 42. CATCH BASIN GRATES WITHIN THE LOCATION LIMITS THAT DO NOT COMPLY WITH THE STANDARD DETAIL FOR A TYPE 1 GRATE (I.E. DON'T HAVE 45 DEGREE SLOTS) SHALL BE REPLACED. THE ENGINEER SHALL DETERMINE THE ACTUAL LOCATIONS AND NEED FOR GRATE OR FRAME MODIFICATIONS.
- 43. EXCAVATION FOR P.C.C. CURBS, SIDEWALK OR VALLEY GUTTER SHALL BE INCIDENTAL TO THE BID PRICE FOR THESE RESPECTIVE ITEMS. EXCAVATED MATERIAL, NOT NEEDED ON THE PROJECT, SHALL BE REMOVED FROM THE LOCATION AT THE CONTRACTORS EXPENSE. ITEM 908001, TOPSOIL, SHALL BE USED AS BACKFILL MATERIAL FOR CURB AND SIDEWALK WHEN SO DIRECTED BY THE ENGINEER. TOPSOIL SHALL BE SCREENED/SIFTED SO AS NO MATERIAL GREATER THAN 0.5" SHOULD BE PRESENT IN MATERIAL USED FOR BACKFILL. WHEN REPLACEMENT OF CURB AND GUTTER HAS BEEN COMPLETED AND THE FORMS REMOVED AT EACH LOCATION OF THIS CONTRACT, BACKFILLING SHALL BE DONE IMMEDIATELY. COMPLETE RESTORATION, TOPSOIL, SEEDING, AND REMOVAL OF ALL MATERIALS FOR CURB & GUTTER OR SIDEWALK; SEALING OF VALLEY GUTTERS AND PARGING OF CATCH BASINS, SHALL BE COMPLETED WITHIN SEVEN (7) CALENDAR DAYS. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL OTHER CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.
- 44. MATERIALS USED TO FILL SHOULDER AREAS ADJACENT TO NEW HOT-MIX OR WARM-MIX OVERLAYS MAY BE ITEM 908001-TOPSOIL OR 301003, 301002-GRADED AGGREGATE BASE COURSE TYPE B. THE UNIT PRICE SHALL INCLUDE FURNISHING, PLACEMENT, GRADING AND COMPACTING THE MATERIAL.
- 45. AFTER PAVEMENT MILLING AND/OR PAVING, ALL TRANSVERSE VERTICAL DIFFERENCES, RAISED EDGES OF MANHOLES, CATCH BASINS, WATER VALVE BOXES, ETC. SHALL BE RAMPED WITH HOT-MIX OR WARM-MIX AT A 20:1 OR FLATTER SLOPE PRIOR TO OPENING THE ROADWAY TO TRAFFIC. PAVEMENT MILLINGS WILL NOT BE ALLOWED FOR THIS PURPOSE.
- ALL ADJUSTMENTS SHALL BE MADE NO MORE THAN SEVEN (7) CALENDAR DAYS PRIOR TO THE PLACEMENT OF THE FINAL COURSE OF HOT-MIX OR WARM-MIX UNLESS OTHERWISE APPROVED BY THE ENGINEER. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL OTHER CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.
- 46. ALL PAVING, INCLUDING TURN LANES, SHOULDERS AND INTERSECTIONS, IS TO BE COMPLETED WITHIN SEVEN (7) CALENDAR DAYS OF EACH DAY'S MILLING OPERATION. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL OTHER CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.

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- 47. WHEN CLEANING AFTER A MILLING OPERATION, THE CONTRACTOR SHALL TAKE CARE IN REMOVING PAVEMENT AROUND UTILITIES, BUTT JOINTS, CURBS, ETC. SO AS TO NOT DISTURB THE EXISTING PAVEMENT BEYOND THE SPECIFIED DEPTH. ANY DAMAGE CAUSED BY CONTRACTORS OPERATION MAY RESULT IN PLACING LEVELING COURSES AT THE CONTRACTOR'S EXPENSE. THE REMOVAL AND CLEAN UP OF THE HOT-MIX OR WARM-MIX RESIDUE WEDGE REMAINING AFTER MILLING OPERATIONS SHALL BE INCIDENTAL TO THE MILLING ITEM. THE REMOVAL OF EXISTING RAISED PAVEMENT MARKERS (RPM'S) SHALL BE INCIDENTAL TO THE APPLICABLE MILLING ITEMS.
- 48. WHERE SIDEWALKS EXIST WITHIN THE LOCATION LIMITS, CURB RAMPS SHALL BE EITHER NEWLY INSTALLED OR RETROFITTED, AS DIRECTED BY THE ENGINEER, IN COMPLIANCE WITH THE MOST CURRENT DELAWARE STANDARD CONSTRUCTION DETAILS OR AS SHOWN ON THE PLANS. PAYMENT WILL BE MADE UNDER THE APPROPRIATE CURB RAMP AND DETECTABLE WARNING SYSTEM ITEMS.
- 49. IF A NEW ITEM IS NECESSARY TO ADD TO THIS CONTRACT, THE BASIS FOR REVIEWING THE CONTRACTOR'S REQUESTED PRICING IS DELDOT'S MEDIAN PRICING.
- 50. 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.
- 51. CATCH BASINS WHICH ARE 4 FOOT OR GREATER IN DEPTH AND ARE SLATED FOR REPAIR, WILL HAVE STEPS INSTALLED IN ACCORDANCE WITH SECTION 602000 OF THE STANDARD SPECIFICATIONS. PAYMENT SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR ITEM 602130.
- 52. THE PORTLAND CEMENT CONCRETE USED WITHIN ITEM 602132 ADJUSTING AND REPAIRING EXISTING MANHOLE AND ITEM 710002 ADJUST WATER VALVE BOXES SHALL CONFORM TO THE REQUIREMENTS OF CLASS A CONCRETE AS STATED WITHIN SECTION 503.02 OF THE DEPARTMENT'S STANDARD SPECIFICATIONS.
- 53. 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.
- 54. NO STEEL PLATES WILL BE ALLOWED ON THIS PROJECT.
- 55. THE STANDARD SPECIFICATION FOR ITEMS 401005, 401026, 401027, 401028, AND 401054 ARE HEREBY MODIFIED SUCH THAT WHEN PLACING ANY BITUMINOUS CONCRETE DESIGNATED A NON-OVERLAY, I.E. IN PATCH SITUATIONS, THE MINIMUM AMBIENT TEMPERATURE MUST BE 45 DEGREES AND RISING FOR A 1 TO 2 INCH LIFT AND NOT 40 DEGREES AS EXPRESSED IN THE SPECIFICATION IN TABLE 401-A.
- 56. FOR THIS CONTRACT, THE SPECIFICATION FOR ITEM 401054 IS HEREBY MODIFIED TO EXCLUDE THE USE OF ANY RECYCLED ASPHALT PAVEMENT (RAP) OR RECLAIMED ASPHALT SHINGLES IN THE MIX DESIGN. USE OF ANY OF THESE MATERIALS SHALL RESULT IN A REJECTION OF THE MIX DESIGN AND ANY HOT-MIX OR WARM-MIX PLACED WHICH IT IS DETERMINED CONTAINS ANY OF THESE MATERIALS SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.
- 57. IN THE CASE OF SOME PATCHING LOCATIONS, THE ENGINEER WILL DETERMINE IF MILLING IS REQUIRED. IF MILLING IS NOT REQUIRED, THE PATCH OR OVERLAY HOT-MIX ITEM WILL BE FULL COMPENSATION.

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- 58. ONCE CONTRACT WORK BEGINS, THE CONTRACTOR SHALL WORK CONTINUALLY ON THIS CONTRACT, REGARDLESS OF CONTRACT TIME USED OR TIME REMAINING, UNLESS THE ENGINEER APPROVES OTHERWISE. IF WORK IS NOT CONTINUAL, EXCEPT FOR WEATHER- OR TRAFFIC-RELATED REASONS, LIQUIDATED DAMAGES WILL BE ASSESSED FOR EACH CALENDAR DAY THE CONTRACTOR DOES NOT WORK.
- 59. THE PROCEDURE UNDER THIS CONTRACT IS TO SEQUENCE THE PLACEMENT OF HOT-MIX TO PROVIDE THE BEST OPPORTUNITY FOR THE JOINTS TO BOND TOGETHER FROM SEPARATE PULLS. FOR THE LONGITUDINAL JOINTS, THE DEPARTMENT IS STRONGLY RECOMMENDING PULLING BOTH TRAVEL LANES OF ANY ROAD LOCATION THE SAME DISTANCE EACH DAY. FOR TRANSVERSE JOINTS, THE TRAVELLING PUBLIC SHOULD NOT DETECT THE JOINT BECAUSE OF A BUMP OR JOINT SEPARATION. ENGINEER MUST APPROVE DEVIATION FROM THESE RECOMMENDATIONS. THE SEQUENCE OF PAVING IS TO RESULT IN THE BEST JOINT QUALITY IN THE PAVEMENT SURFACE TO PROVIDE THE MOST DURABLE RESULT IN ANY LOCATION.
- 60. ANY PATCH GREATER THAN 200 L.F. IN LENGTH SHALL BE PAID UNDER PAY ITEM 401005.
- 61. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 105.09 <u>UTILITIES</u>, DELAWARE STANDARD SPECIFICATIONS, AUGUST 2016. THE CONTRACTOR SHALL CONTACT MISS UTILITY (1-800-282-8555) TWO WORKING DAYS PRIOR TO ANY EXCAVATION. THE CONTRACTOR IS RESPONSIBLE FOR THE SUPPORT AND PROTECTION OF ALL UTILITIES WHEN EXCAVATING. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING PROPER CLEARANCES, INCLUDING SAFELY CLEARANCES, FROM OVERHEAD UTILITIES FOR CONSTRUCTION EQUIPMENT. THE CONTRACTOR IS ADVISED TO CHECK THE SITE FOR ACCESS PURPOSES FOR HIS EQUIPMENT AND, IF NECESSARY, MAKE ARRANGEMENTS DIRECTLY WITH THE UTILITY COMPANIES FOR FIELD ADJUSTMENTS FOR ADEQUATE CLEARANCES.
- 62. IT IS UNDERSTOOD AND AGREED THAT THE CONTRACTOR HAS CONSIDERED IN HIS BID ALL PERMANENT AND TEMPORARY UTILITY APPURTENANCES IN THEIR PRESENT AND RELOCATED POSITIONS AS SHOWN ON THE PLANS OR DESCRIBED IN THE UTILITY STATEMENT OR ARE READILY DISCERNIBLE AND THAT NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ANY DELAYS, INCONVENIENCE, OR DAMAGE DUE TO ANY INTERFERENCE FROM THE UTILITY FACILITIES AND APPURTENANCES OR THE OPERATION OF MOVING THEM, EXCEPT THAT THE CONTRACTOR MAY BE GRANTED AN EQUITABLE EXTENSION OF TIME.
- 63. COORDINATION AND COOPERATION AMONG THE UTILITY COMPANIES AND THE STATE'S CONTRACTOR ARE OF PRIME IMPORTANCE. THEREFORE, THE CONTRACTOR IS DIRECTED TO CONTACT THE FOLLOWING UTILITY COMPANY REPRESENTATIVES WITH ANY QUESTIONS REGARDING THIS WORK PRIOR TO SUBMITTING BIDS AND WORK SCHEDULES. PROPOSED WORK SCHEDULES SHOULD REFLECT THE UTILITY COMPANIES' PROPOSED RELOCATIONS. THE UTILITY COMPANIES DO NOT WORK ON WEEKENDS OR LEGAL HOLIDAYS.
- 64. IT IS REQUIRED BY THE DEPARTMENT THAT THE CONTRACTOR USE A SPRAY PAVER THAT IS CAPABLE OF SPRAYING TACK COAT PG 64-22 HOT LIQUID ASPHALT CEMENT, ITEM 401501.
- 65. PATCHING SCOPE OF CONTRACT CONTRACTOR IS TO CRACK SEAL THE JOINTS WITH 4"OVERBAND EQUAL DISTANCE ON EACH SIDE OF ALL JOINTS. SEAL ALL PATCHES WITHIN THIRTY (30) DAYS ONCE PATCHING PORTION OF THE CONTRACT IS COMPLETE. PAY ITEM IS 504001.

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TESTING

66. ONE WEEK PRIOR TO COMMENCEMENT OF WORK ON THE THIN OVERLAY WORK, FIELD TESTING SHALL BE REQUIRED AT AN AS YET TO BE DETERMINED LOCATION. THE INTENT OF THE TESTING SHALL BE TO DETERMINE SEVERAL FACTORS.

THE FIRST FACTOR IS THE ABILITY TO OVERLAY PREVIOUSLY CRACK SEALED PAVEMENTS WITHOUT THE NEED TO MILL THE EXISTING PAVEMENT TO REMOVE THE SEALANT.

THEREFORE, A 250 TON +/- TEST STRIP FOR ITEM 401054 SHALL BE APPLIED AT THE LOCATION TO BE DESIGNATED BY THE DEPARTMENT. THE ACTUAL THIN WARM-MIX MATERIAL PLACED SHALL BE PAID UNDER THE UNIT PRICE BID FOR ITEM 401054. MAINTENANCE OF TRAFFIC NECESSARY TO PERFORM THE WORK AT THIS LOCATION SHALL BE PAID AT THE UNIT PRICE BID FOR ITEM 801500.

PRIOR TO PLACEMENT OF THE 250 TON +/- TEST STRIP, THE APPROVED TACK TRUCK SHALL BE TESTED TO CONFIRM THAT THE DISTRIBUTION RATE OF THE ASPHALT TACK MEETS THE VEHICLES DOCUMENTED CALIBRATION. BASED ON THIS FIELD TESTING, THE CONTRACTOR AND THE ENGINEER SHALL FORMALLY AGREE ON ANY CORRECTIONS THAT SHALL APPLY FOR THAT PARTICULAR VEHICLE. IF MULTIPLE VEHICLES ARE TO BE UTILIZED, THEN TESTING SHALL BE APPLIED TO THE ADDITIONAL VEHICLES.

AT THIS POINT, THE CONTRACTOR SHALL APPLY TACK AT VARYING RATES, AS DIRECTED BY THE ENGINEER.

THIS SECOND FACTOR SHALL DETERMINE THE BEST APPLICABLE RATE OF TACK PLACEMENT IN ORDER TO ASSURE PROPER BINDING OF THE WARM-MIX TEST STRIP WITHOUT BLEEDING THROUGH THE APPLIED THIN OVERLAID SURFACE. PAYMENT FOR TESTING AND PLACEMENT OF THE TACK MATERIAL SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 401501.

A ONE-WEEK TIME PERIOD SHALL ELAPSE DURING WHICH TIME THE THIN WARM-MIX OVERLAY CAN BE MONITORED BY THE DEPARTMENT. THE ENGINEER WILL THEN DIRECT THE CONTRACTOR AS TO WHAT APPLICABLE RATE OF TACK COAT TO PLACE FOR THE OTHER KNOWN LOCATIONS WITHIN THE CONTRACT.

67. FOR ITEM 401054 SUPERPAVE TYPE C, PG 70-22, THIN LIFT A NO. 4 (4.75 MM) NOMINAL MAXIMUM AGGREGATE SIZE SHALL BE USED. ENGINEER WILL DIRECT IF THIN HOT-MIX WILL BE NECESSARY.

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LOCATION 1

(OPEN END, VARIOUS LOCATIONS) FROM TO

LENGTH

m

L.F.

GENERAL IMPROVEMENTS

THIN OVERLAY AND PATCHING

COMMENTS:

	MATERIAL ESTIMATE FOR LOCATION 1	
202004	UNDERCUT EXCAVATION, PATCHING	15.00 C.Y.
211001	REMOVAL OF PORTLAND CEMENT CONCRETE PAVEMENT, CURB AND SIDEWALK	5,100.00 S.Y.
301002	GRADED AGGREGATE BASE COURSE, TYPE B, PATCHING	60.00 C.Y.
301003	GRADED AGGREGATE BASE COURSE, TYPE B	60.00 TON
401005	SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)	4,600.00 TON
401026	BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 64-22 PATCHING	3,200.00 TON
401027	BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 64-22 PATCHING	90.00 TON
401028	BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONRETE BASE COURSE, 160 GYRATIONS PG 64-22 PATCHING	310.00 TON
401054	SUPERPAVE TYPE C, PG 70-22, THIN LIFT	17,600.00 TON
401501	BITUMINOUS ASPHALT TACK COAT	32,000.00 GAL
401517	STONE MATRIX ASPHALT (SMA) WEARING SURFACE	80.00 TON
402000	BITUMINOUS CONCRETE PATCHING	1,807.00 SY-IN
403000	BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS (TRM) CONCRETE	12.00 TON
503001	PATCHING PORTLAND CEMENT CONCRETE PAVEMENT, 6' TO 15', TYPE A	250.00 S.Y.
503002	PATCHING PORTLAND CEMENT CONCRET PAVEMENT, 15' TO 100', TYPE B	210.00 S.Y.
503006	DOWEL BARS	600.00 EACH
503503	PATCHING CONCRETE	350.00 SY-IN
504001	CRACK AND JOINT SEALING LESS THAN 3/4 INCH WIDE	1,100.00 L.F.
504002	CRACK AND JOINT SEALING, 3/4 INCH TO 1 3/4 INCH WIDE	400.00 L.F.
602100	REPLACE DRAINAGE INLET GRATE(S)	40.00 EACH
602130	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	180.00 EACH
602132	ADJUSTING AND REPAIRING EXISTING MANHOLE	35.00 EACH
619002	POINTING EXISTING MASONRY	50.00 L.F.
628040	SHALLOW SPALL REPAIR	190.00 C.F.
628041	DEEP SPALL REPAIR	190.00 C.F.
701012	PORTLAND CEMENT CONCRETE CURB, TYPE 1-6	250.00 L.F.
701018	INTEGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 1-8	250.00 L.F.

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PATCHING AND THIN OVERLAY OPEN-END, CENTRAL, FY18-20

LOCATION 1

(OPEN END, VARIOUS LOCATIONS) FROM TO

LENGTH

m

L.F.

GENERAL IMPROVEMENTS

THIN OVERLAY AND PATCHING

COMMENTS:

	MATERIAL ESTIMATE FOR LOCATION 1	
705001	PORTLAND CEMENT CONCRETE SIDEWALK, 4"	900.00 S.F.
705002	PORTLAND CEMENT CONCRETE SIDEWALK, 6"	600.00 S.F.
705007	SIDEWALK SURFACE DETECTABLE WARNING SYSTEM	5,200.00 S.F.
705008	CURB RAMP, TYPE 1	3,000.00 S.F.
705009	CURB RAMP, TYPE 2, 3, AND/OR 4	37,500.00 S.F.
705010	CURB RAMP, TYPE 5	3,000.00 S.F.
710002	ADJUST WATER VALVE BOXES	30.00 EACH
760010	PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT	36,000.00 SY-IN
762000	SAW CUTTING, BITUMINOUS CONCRETE	1,050.00 L.F.
762001	SAW CUTTING, CONCRETE, FULL DEPTH	1,050.00 L.F.
762003	SAW CUTTING, GREATER THAN 18" IN DEPTH	200.00 L.F.
762004	BUTT JOINTS	3,600.00 S.Y.
802003	ARROW PANELS TYPE C	260.00 EA-DY
803001	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	40.00 EA-DY
804001	FURNISH AND MAINTAIN PORTABLE LIGHT ASSEMBLY (FLOOD LIGHTS)	40.00 EA-DY
806001	TRAFFIC OFFICERS	80.00 HOUR
808002	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	8.00 EA-DY
811002	FLAGGER, KENT COUNTY, STATE	3,200.00 HOUR
811014	FLAGGER, KENT COUNTY, STATE, OVERTIME	215.00 HOUR
817002	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND, ALKYD-THERMOPLASTIC	3,000.00 S.F.
817003	TEMPORARY MARKINGS, PAINT, 4"	100,000.00 L.F.
817004	TEMPORARY MARKINGS, PAINT, SYMBOL/LEGEND	521.00 S.F.
817005	PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLASTIC, 5"	8,500.00 L.F.
817006	PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLASTIC, 12"	8,500.00 L.F.
817013	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	50,000.00 L.F.
817015	PREFORMED RETROREFLECTIVE THERMOPLASTIC MARKINGS, BIKE SYMBOL	8.00 EACH
817027	RAISED/RECESSED PAVEMENT MARKER	500.00 EACH

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CENTRAL

PATCHING AND THIN OVERLAY OPEN-END, CENTRAL, FY18-20

MAINTENANCE

LOCATION 1

(OPEN END, VARIOUS LOCATIONS) FROM TO

LENGTH

m

L.F.

GENERAL IMPROVEMENTS

THIN OVERLAY AND PATCHING

COMMENTS:

	MATERIAL ESTIMATE FOR LOCATION 1	
846001	FURNISH AND INSTALL LOOP WIRE 1-CONDUCTOR #14 AWG ENCASED IN 1/4" FLEXIBLE TUBING IN A LOOP SAWCUT	900.00 L.F.
846002	FURNISH AND INSTALL A 1-1/2 INCH GALVANIZED RIGID METAL CONDUIT DETECTOR SLEEVE WITH LOOP WIRE	200.00 L.F.
908001	TOPSOIL	200.00 TON
908014	PERMANENT GRASS SEEDING, DRY GROUND	1,000.00 S.Y.



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CENTRAL MAINTENANCE

PATCHING AND THIN OVERLAY OPEN-END, CENTRAL, FY18-20

CONTRACT QUANTITIES SUMMARY SHEET

202004	UNDERCUT EXCAVATION, PATCHING	15.00 C.Y.
211001	REMOVAL OF PORTLAND CEMENT CONCRETE PAVEMENT, CURB AND SIDEWALK	5,100.00 S.Y.
301002	GRADED AGGREGATE BASE COURSE, TYPE B, PATCHING	60.00 C.Y.
301003	GRADED AGGREGATE BASE COURSE, TYPE B	60.00 TON
401005	SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)	4,600.00 TON
401026	BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 64-22 PATCHING	3,200.00 TON
401027	BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 64-22 PATCHING	90.00 TON
401028	BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONRETE BASE COURSE, 160 GYRATIONS PG 64-22 PATCHING	310.00 TON
401054	SUPERPAVE TYPE C, PG 70-22, THIN LIFT	17,600.00 TON
401501	BITUMINOUS ASPHALT TACK COAT	32,000.00 GAL
401517	STONE MATRIX ASPHALT (SMA) WEARING SURFACE	80.00 TON
402000	BITUMINOUS CONCRETE PATCHING	1,807.00 SY-IN
403000	BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS (TRM) CONCRETE	12.00 TON
503001	PATCHING PORTLAND CEMENT CONCRETE PAVEMENT, 6' TO 15', TYPE A	250.00 S.Y.
503002	PATCHING PORTLAND CEMENT CONCRET PAVEMENT, 15' TO 100', TYPE B	210.00 S.Y.
503006	DOWEL BARS	600.00 EACH
503503	PATCHING CONCRETE	350.00 SY-IN
504001	CRACK AND JOINT SEALING LESS THAN 3/4 INCH WIDE	1,100.00 L.F.
504002	CRACK AND JOINT SEALING, 3/4 INCH TO 1 3/4 INCH WIDE	400.00 L.F.
602100	REPLACE DRAINAGE INLET GRATE(S)	40.00 EACH
602130	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	180.00 EACH
602132	ADJUSTING AND REPAIRING EXISTING MANHOLE	35.00 EACH
619002	POINTING EXISTING MASONRY	50.00 L.F.
628040	SHALLOW SPALL REPAIR	190.00 C.F.
628041	DEEP SPALL REPAIR	190.00 C.F.
701012	PORTLAND CEMENT CONCRETE CURB, TYPE 1-6	250.00 L.F.
701018	INTEGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 1-8	250.00 L.F.
705001	PORTLAND CEMENT CONCRETE SIDEWALK, 4"	900.00 S.F.

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CONTRACT QUANTITIES SUMMARY SHEET

705002	PORTLAND CEMENT CONCRETE SIDEWALK, 6"	600.00 S.F.
705007	SIDEWALK SURFACE DETECTABLE WARNING SYSTEM	5,200.00 S.F.
705008	CURB RAMP, TYPE 1	3,000.00 S.F.
705009	CURB RAMP, TYPE 2, 3, AND/OR 4	37,500.00 S.F.
705010	CURB RAMP, TYPE 5	3,000.00 S.F.
710002	ADJUST WATER VALVE BOXES	30.00 EACH
760010	PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT	36,000.00 SY-IN
762000	SAW CUTTING, BITUMINOUS CONCRETE	1,050.00 L.F.
762001	SAW CUTTING, CONCRETE, FULL DEPTH	1,050.00 L.F.
762003	SAW CUTTING, GREATER THAN 18" IN DEPTH	200.00 L.F.
762004	BUTT JOINTS	3,600.00 S.Y.
763000	INITIAL EXPENSE/DE-MOBILIZATION	LUMP SUM
801500	MAINTENANCE OF TRAFFIC, ALL INCLUSIVE	LUMP SUM
802003	ARROW PANELS TYPE C	260.00 EA-DY
803001	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	40.00 EA-DY
804001	FURNISH AND MAINTAIN PORTABLE LIGHT ASSEMBLY (FLOOD LIGHTS)	40.00 EA-DY
806001	TRAFFIC OFFICERS	80.00 HOUR
808002	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	8.00 EA-DY
811002	FLAGGER, KENT COUNTY, STATE	3,200.00 HOUR
811014	FLAGGER, KENT COUNTY, STATE, OVERTIME	215.00 HOUR
817002	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND, ALKYD-THERMOPLASTIC	3,000.00 S.F.
817003	TEMPORARY MARKINGS, PAINT, 4"	100,000.00 L.F.
817004	TEMPORARY MARKINGS, PAINT, SYMBOL/LEGEND	521.00 S.F.
817005	PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLASTIC, 5"	8,500.00 L.F.
817006	PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLASTIC, 12"	8,500.00 L.F.
817013	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	50,000.00 L.F.
817015	PREFORMED RETROREFLECTIVE THERMOPLASTIC MARKINGS, BIKE SYMBOL	8.00 EACH
817027	RAISED/RECESSED PAVEMENT MARKER	500.00 EACH

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CENTRAL MAINTENANCE

PATCHING AND THIN OVERLAY OPEN-END, CENTRAL, FY18-20

CONTRACT QUANTITIES SUMMARY SHEET

846001	FURNISH AND INSTALL LOOP WIRE 1-CONDUCTOR #14 AWG ENCASED IN 1/4" FLEXIBLE TUBING IN A LOOP SAWCUT	900.00 L.F.
846002	FURNISH AND INSTALL A 1-1/2 INCH GALVANIZED RIGID METAL CONDUIT DETECTOR SLEEVE WITH LOOP WIRE	200.00 L.F.
908001	TOPSOIL	200.00 TON
908014	PERMANENT GRASS SEEDING, DRY GROUND	1 000 00 S V

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