

STATE OF DELAWARE



DEPARTMENT OF TRANSPORTATION
MAINTENANCE SUPPORT – SOUTH DISTRICT
PLANS AND SPECIFICATIONS FOR:

CONTRACT NO: T201406902 P3e No: 14-44001

CONTRACT TITLE: CONVERSION ROADS, SOUTH, 2014

PLANS PREPARED BY: GRANT PARKER (DESIGN TECHNICIAN)

PLANS REVIEWED BY: Jim Wyatt DATE: 10/14/13
MAINT.SUPPORT MANAGER

<p>DATE RECOMMENDED: <u>10.14.13</u></p> <p>ASSISTANT MAINT. ENGINEER: <u>Jason McCluskey</u></p>	
<p>DATE RECOMMENDED: <u>10-15-13</u></p> <p>MAINTENANCE ENGINEER: <u>[Signature]</u></p>	
<p>DATE APPROVED: <u>10/22/13</u></p> <p>SOUTH DISTRICT ENGINEER: <u>Jeffrey S. Reed</u></p>	

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SOUTH DISTRICT

CONVERSION ROADS, SOUTH, 2014

CONTRACT DESCRIPTION & LOCATIONS

THE PURPOSE OF THIS CONTRACT IS TO CONVERT EXISTING SURFACE TREATED ROADS IN SUSSEX COUNTY TO WARM MIX. THE LOCATIONS ARE LISTED BELOW, HOWEVER THE DEPARTMENT RESERVES THE RIGHT TO ADD OR DELETE LOCATIONS WITH NO CHANGES TO UNIT PRICES. THE WORK SHALL INCLUDE WARM MIX OVERLAYS, WEDGING, PATCHING, STRIPING, TOPSOILING, SEEDING, MULCHING AND ANY OTHER WORK ASSOCIATED WITH EACH LOCATION.

LOCATION 1 –

S257 – DIAMOND FARM RD (1.40 MILES)

FROM: S22 (HARBESON RD)

TO: S88 (CAVE NECK RD)

LOCATION 2 –

S286 – HOPKINS RD (1.05 MILES)

FROM: (HOT MIX JOINT)

TO: S262 (FISHER RD)

LOCATION 3 –

S288A – DORMAN RD (1.42 MILES)

FROM: S24 (JOHN J WILLIAMS HWY)

TO: S280B (CONLEYS CHAPEL RD)

LOCATION 4 –

S290 – HURDLE DITCH RD (0.50 MILES)

FROM: S48 (HOLLYVILLE RD)

TO: S47 (JOHNSON RD)

LOCATION 5 –

S315 – DEEP BRANCH RD (3.30 MILES)

FROM: S48 (ZOAR RD)

TO: S47 (SPRINGFIELD RD)

LOCATION 6 –

S326 – BETHESDA RD (0.39 MILES)

FROM: (600' S OF S86 AVE OF HONOR)

TO: S329 (RICH RD) ABANDONED

LOCATION 7 –

S326 – BETTS POND RD (0.46 MILES)

FROM: S20 (THOMPSONVILLE RD)

TO: S328 (BARK POND RD)

LOCATION 8 –

S340 – TOWNSENDS RD (1.71 MILES)

FROM: S355 (MURRAY RD)

TO: S26 (VINES CREEK RD)

LOCATION 9 –

S392 – GUM RD (3.06 MILES)

FROM: S376 (PEPPER RD)

TO: S52 (ROXANNA RD)

LOCATION 10 –

S421 – CAREYS CAMP RD (0.21 MILES)

FROM: S24 (MILLSBORO HWY)

TO: S410 (REVEL RD)

LOCATION 11 –

S488 – AIRPORT RD (0.91 MILES)

FROM: S2 (SUSSEX HWY)

TO: S481 (BRICKYARD RD)

LOCATION 12 –

S488 – AIRPORT RD (1.45 MILES)

FROM: S485 (BETHEL-CONCORD RD)

TO: S479 (FIRETOWER RD)

LOCATION 13 –

S565 – DEER FOREST RD (2.28 MILES)

FROM: S579 (STATE FOREST RD)

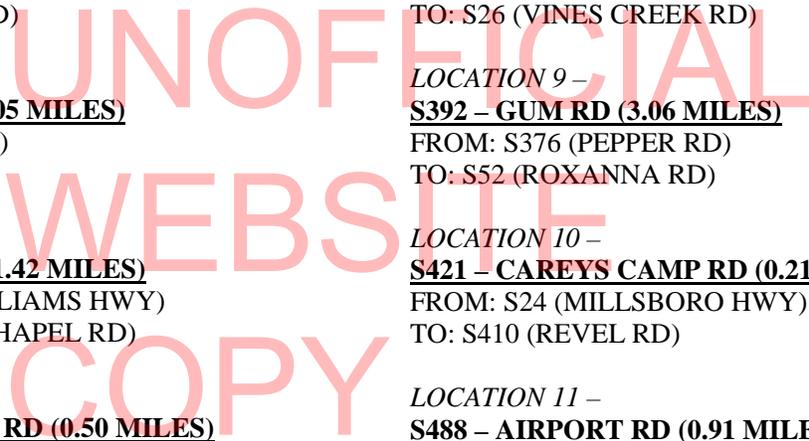
TO: S113 (DUPONT BLVD)

LOCATION 14 –

S572 – ATLANTA RD (2.05 MILES)

FROM: S31 (DUBLIN HILL RD)

TO: MARYLAND LINE



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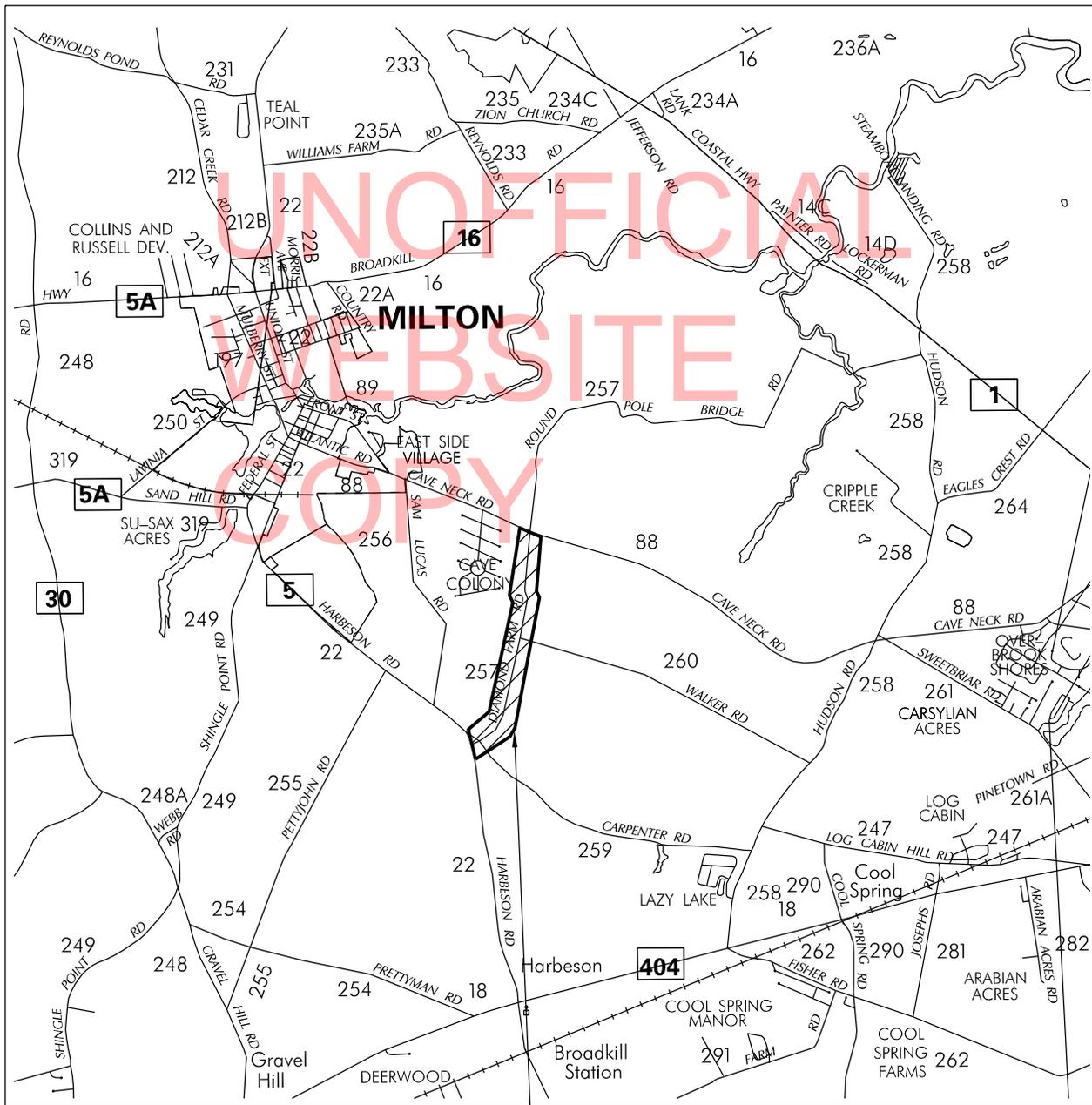
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SOUTH DISTRICT

CONVERSION ROADS, SOUTH, 2014

LOCATION MAP



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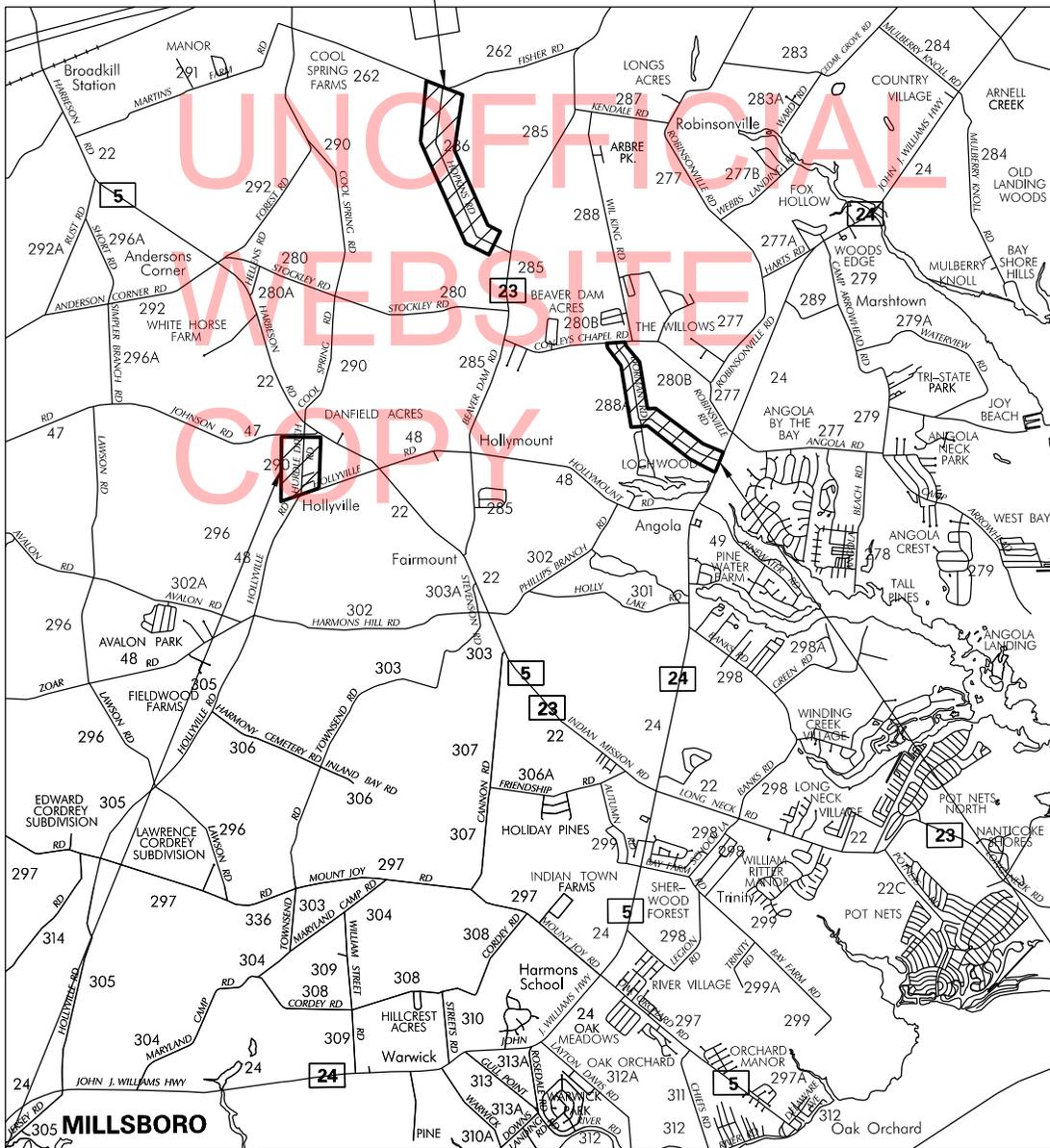
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SOUTH DISTRICT

CONVERSION ROADS, SOUTH, 2014

LOCATION MAP

LOCATION 2
S286 (HOPKINS RD)
FROM: HOT MIX JOINT
TO: S262 (FISHER RD)



LOCATION 4
S290 (HURDLE DITCH RD)
FROM: S48 (HOLLYVILLE RD)
TO: S47 (JOHNSON RD)

LOCATION 3
S288A (DORMAN RD)
FROM: S24 (JOHN J WILLIAMS HWY)
TO: S280B (CONLEYS CHAPEL RD)

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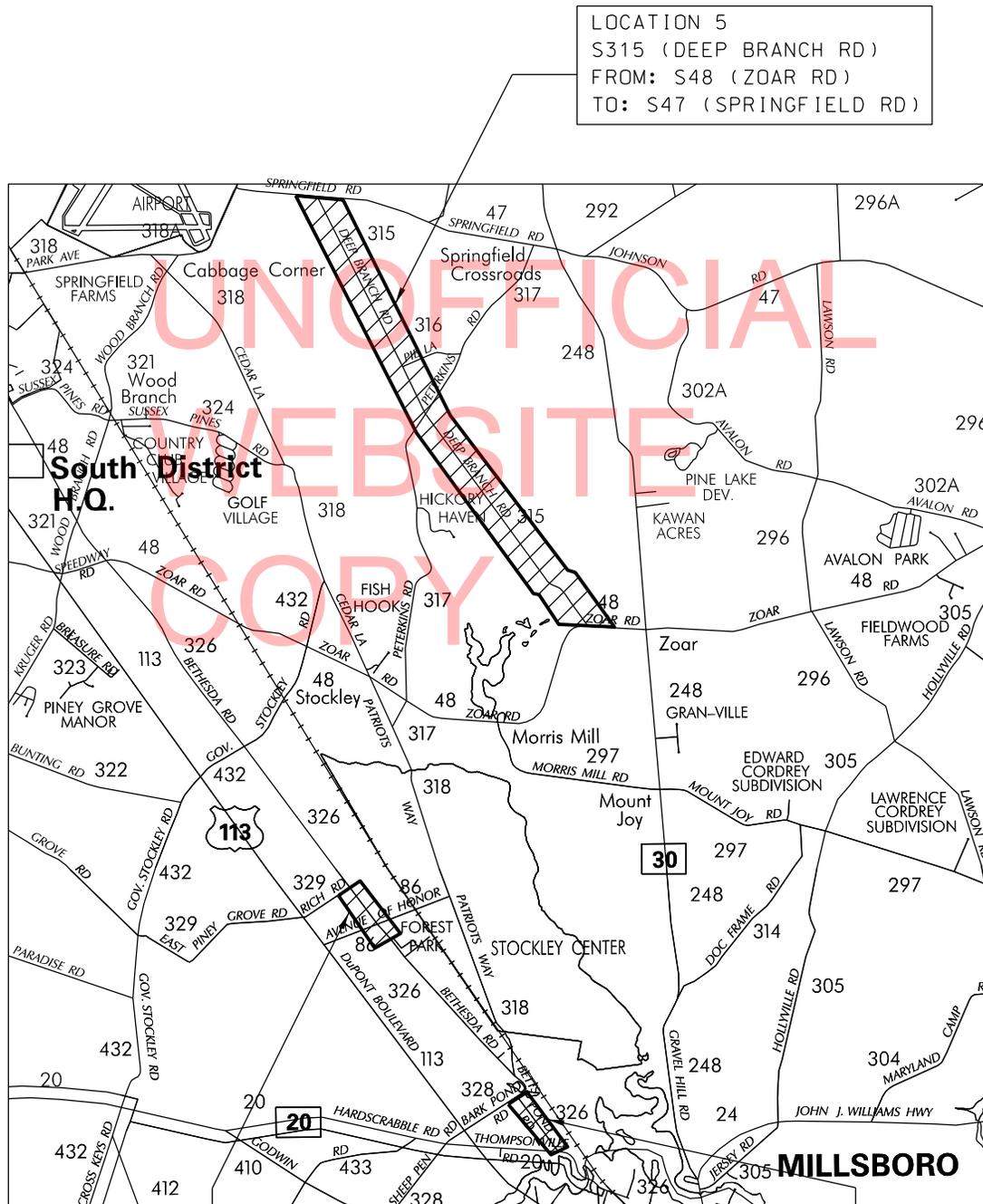
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CONVERSION ROADS, SOUTH, 2014

LOCATION MAP



LOCATION 5
S315 (DEEP BRANCH RD)
FROM: S48 (ZOAR RD)
TO: S47 (SPRINGFIELD RD)

LOCATION 6
S326 (BETHESDA RD)
FROM: 600' S. OF S86 (AVE. OF HONOR)
TO: S329 (RICH RD) ABANDONED

LOCATION 7
S326 (BETTS POND RD)
FROM: S20 (THOMPSONVILLE RD)
TO: S328 (BARK POND RD)

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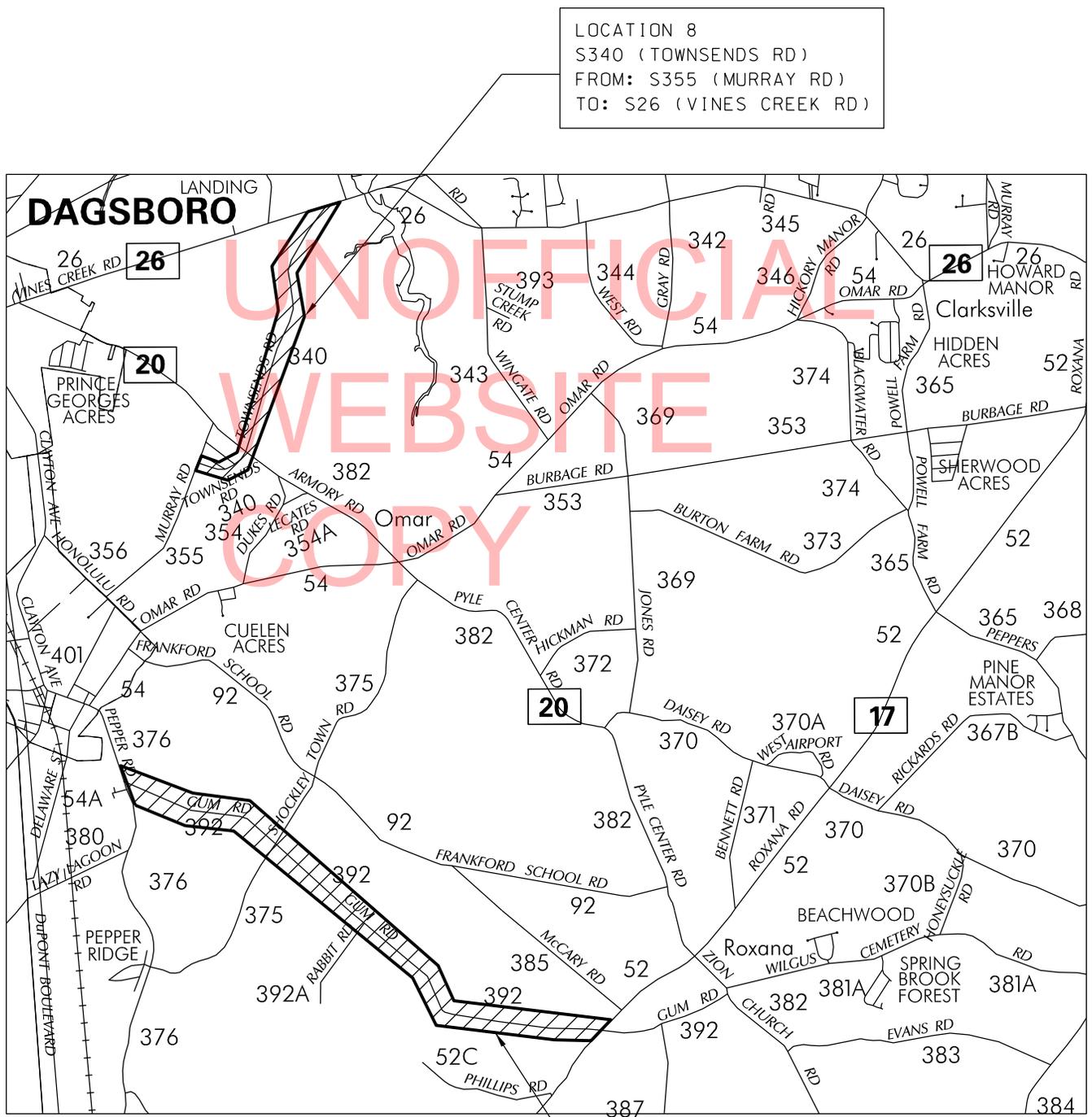
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CONVERSION ROADS, SOUTH, 2014

LOCATION MAP



LOCATION 9
S392 (GUM RD)
FROM: S376 (PEPPER RD)
TO: S52 (ROXANA RD)

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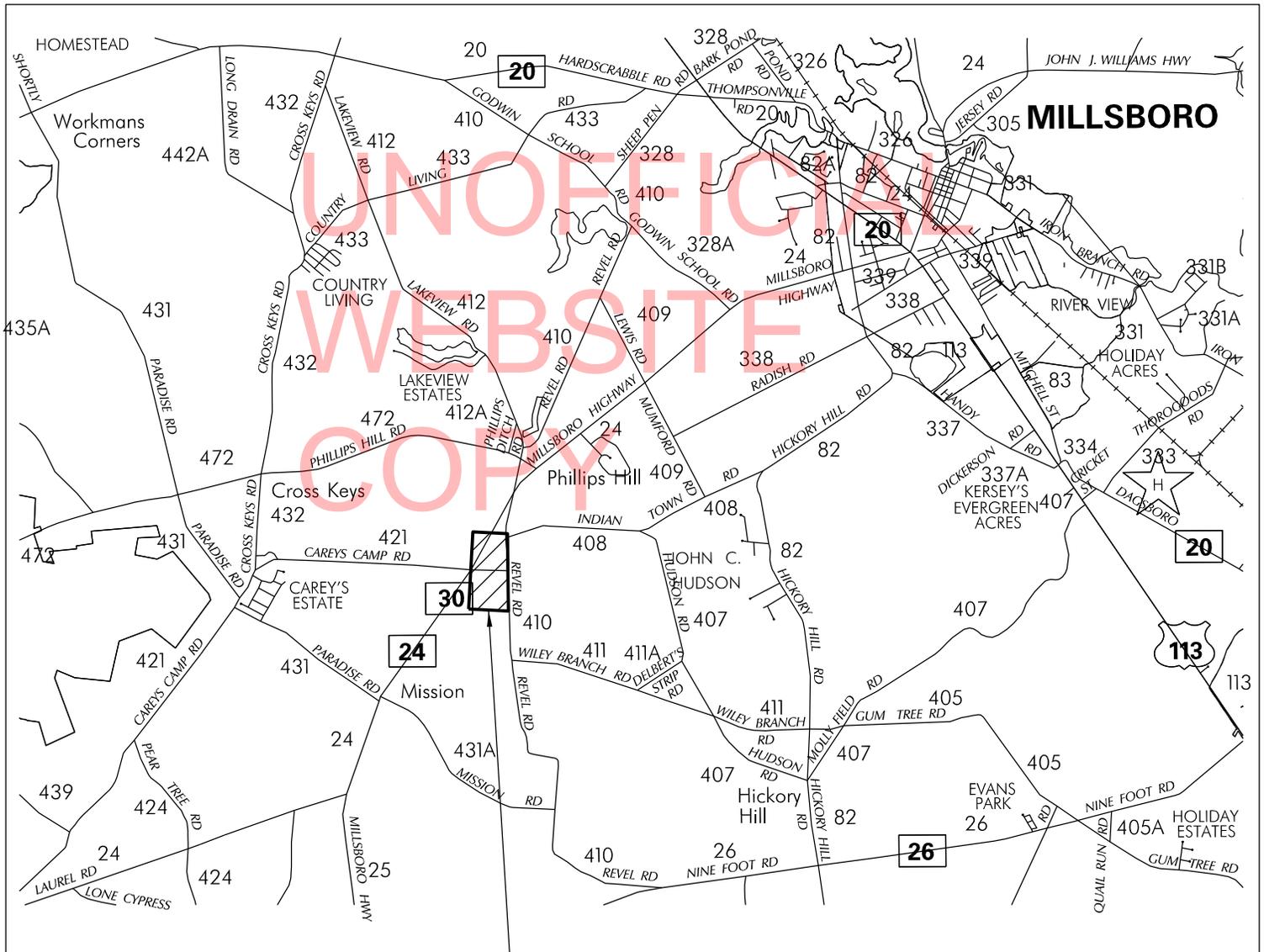
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CONVERSION ROADS, SOUTH, 2014

LOCATION MAP



LOCATION 10
S421 (CAREYS CAMP RD)
FROM: S24 (MILLSBORO HWY)
TO: S410 (REVEL RD)

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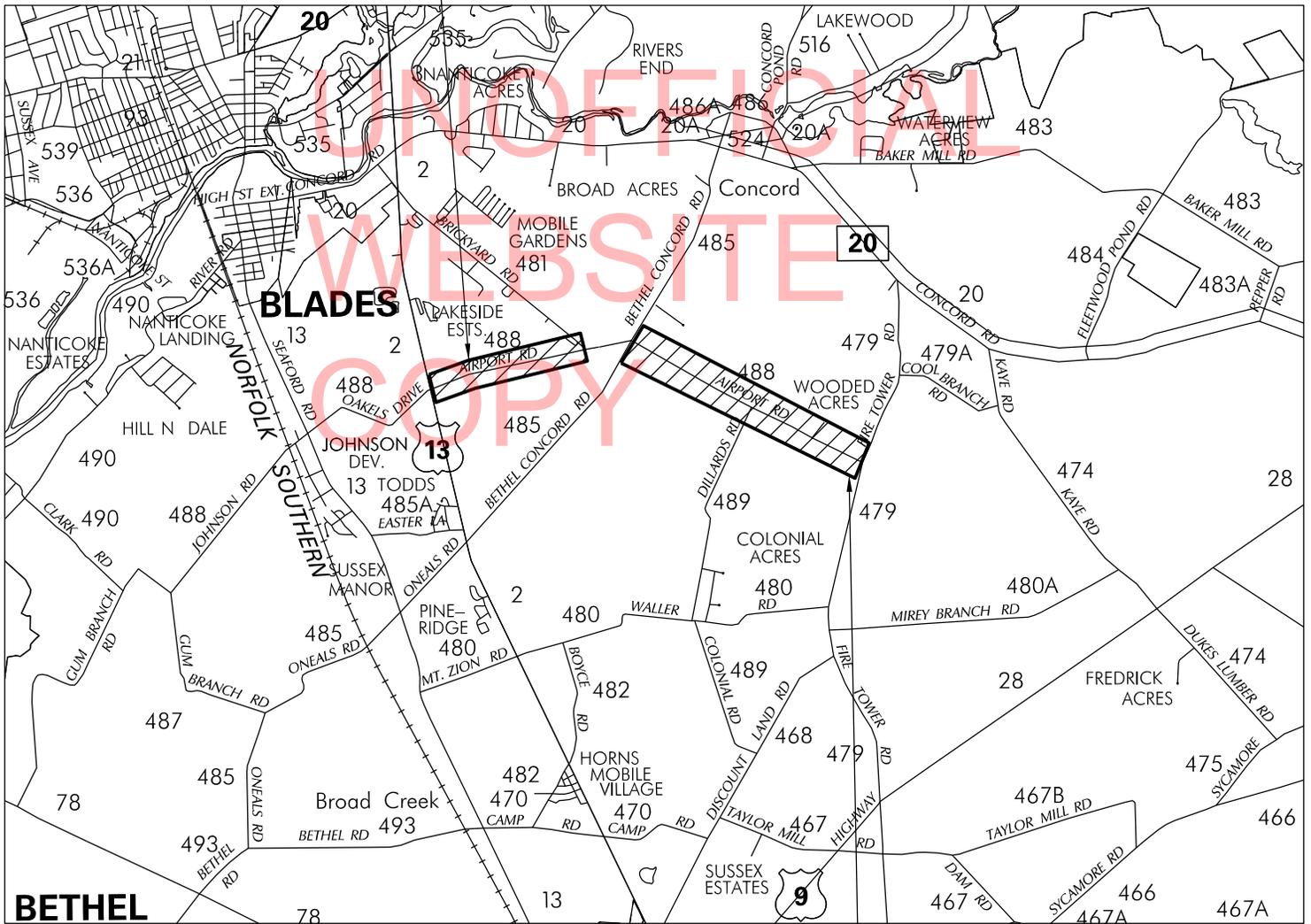
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CONVERSION ROADS, SOUTH, 2014

LOCATION MAP

LOCATION 11
S488 (AIRPORT RD)
FROM: S2 (SUSSEX HWY)
TO: S481 (BRICKYARD RD)



LOCATION 12
S488 (AIRPORT RD)
FROM: S485 (BETHEL-CONCORD RD)
TO: S479 (FIRE TOWER RD)

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SOUTH DISTRICT

CONVERSION ROADS, SOUTH, 2014

GENERAL CONTRACT PLAN NOTES

1. CONSTRUCTION OF THIS CONTRACT SHALL CONFORM TO DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED AUGUST 2001 AS AMENDED BY THE SUPPLEMENTAL SPECIFICATIONS, THE SPECIAL PROVISIONS, THE MOST RECENT STANDARD CONSTRUCTION DETAILS, AND THESE PLANS.
2. THE PURPOSE OF THIS CONTRACT IS TO MAKE GENERAL IMPROVEMENTS TO ROADS AND/OR STREETS WITHIN THE DISTRICT HEREIN SPECIFIED. 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 SAID ADDITIONS OR DELETIONS. INITIAL EXPENSE SHALL ONLY BE PAID ONCE. ANY ADDITIONAL EXPENSES RELATED TO THE EXTENSION OF THE CONTRACT SHALL BE AGREED TO PRIOR TO CONTRACT EXTENSION.
3. 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 COMMENCEMENT OF WORK.
4. THE DEPARTMENT RESERVES THE RIGHT TO REQUEST AN EXTENSION OF THIS CONTRACT, WITH THE AGREEMENT OF CONTRACTOR, AT THE CURRENT CONTRACT PRICES.
5. THE CONTRACTOR SHALL SUBMIT THE REQUIRED COPIES OF A DETAILED PROGRESS SCHEDULE (PSC) AS OUTLINED IN STANDARD SPECIFICATION 108.04 PRIOR TO OR AT THE PRECONSTRUCTION MEETING. 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 THURSDAY. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.
6. 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.

MAINTENANCE OF TRAFFIC AND PAVEMENT MARKINGS

7. WORK SHALL BE PERFORMED IN A MANNER THAT WILL ENSURE THE LEAST PRACTICAL OBSTRUCTION TO THE TRAVELING PUBLIC, CONSISTENT WITH SAFETY STANDARDS AND SHALL COMPLY WITH THE REQUIREMENTS OF THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) PART 6, HEREIN REFERRED TO AS THE DELAWARE MUTCD (INCLUDING REVISIONS IN EFFECT AT THE TIME OF ADVERTISEMENT FOR BIDS).
8. THE CONTRACTOR SHALL USE TYPICAL APPLICATION 10 FROM THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AS OUTLINED IN THE BREAKOUT SHEET FOR ITEM 763643, MAINTENANCE OF TRAFFIC.
9. WHEN SIDE ROADS INTERSECT THE WORK ZONE, ADDITIONAL TRAFFIC CONTROL DEVICES SHALL BE ERECTED INCLUDING PERMANENT WARNING SIGNS.

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CONVERSION ROADS, SOUTH, 2014

GENERAL CONTRACT PLAN NOTES

MAINTENANCE OF TRAFFIC AND PAVEMENT MARKINGS (CONT.)

10. ALL ROADWAY EXCAVATION IN OR ADJACENT TO TRAVELWAYS SHALL BE PROPERLY BACKFILLED AT THE END OF EACH DAY PRIOR TO TRAFFIC RETURNING TO UNRESTRICTED TRAVEL PER SECTION 6G.20 OF THE DE MUTCD PART 6. THIS INCLUDES ALL UTILITIES AND/OR OBSTACLES WITHIN OR ADJACENT TO THE TRAVELWAYS AS OUTLINED IN THE DE MUTCD PART 6.
11. PRIOR TO ANY ADDITIONAL LIFTS, ALL DROP OFFS SHALL BE SECURED BEFORE NEXT LIFT PER DELAWARE MUTCD, TABLE 6G-1.
12. WHEN WEDGING, THE SAFETY EDGE SHALL BE INSTALLED AT THE EDGE OF PAVEMENT WHEN VERTICAL DIFFERENCE OF 2" OR GREATER IS CREATED AT THAT LOCATION. SAFETY EDGE SHALL BE USED ON ALL OVERLAYS.
13. 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.
14. AT THE END OF EACH WORK DAY, THE CONTRACTOR SHALL CORRECT ALL PAVEMENT EDGE DROP OFFS WITHIN 10' OF A TRAVEL LANE TO RESULT IN A DROP OFF OF NO MORE THAN 2". ANY CORRECTIVE MEASURES TAKEN BY THE CONTRACTOR SHALL BE INCIDENTAL TO THE MOT ITEMS.
15. TRAFFIC DETECTION LOOPS SHALL BE PLACED IN THE FINAL WEARING SURFACE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
16. 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.
17. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF EXISTING PAVEMENT WITHIN THE PROJECT LIMITS FOR THE DURATION OF THE CONTRACT OR AS DIRECTED BY THE ENGINEER OR DESIGNEE.
18. WHEN REQUIRED BY THE DE MUTCD, PERMANENT ADVANCE WARNING SIGNS SHALL BE INSTALLED WITH THE LEGENDS ROAD WORK 1500 FT, ROAD WORK 1000 FT AND ROAD WORK 500 FT IN ADVANCE OF THE WORK AREA IN BOTH DIRECTIONS. AN END ROAD WORK SIGN SHALL BE LOCATED 500 FEET DOWNSTREAM FROM THE WORK AREA. ON INTERSECTING ROADWAYS WITHIN THE PROJECT LIMITS, A ROAD WORK AHEAD SIGN SHALL BE PLACED AT 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. ALL PERMANENT ADVANCE WARNING SIGNS SHALL BE GROUND MOUNTED ON TWO NCHRP-350 OR MASH APPROVED BREAK-AWAY POSTS AND SHALL BE MOUNTED IN COMPLIANCE WITH THE DE MUTCD. PERMANENT ADVANCE WARNING SIGNS SHALL BE MOUNTED AT A HEIGHT OF 7 FEET, MEASURED FROM THE ROADWAY TO THE BOTTOM OF THE SIGN. 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.

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CONVERSION ROADS, SOUTH, 2014

GENERAL CONTRACT PLAN NOTES

MAINTENANCE OF TRAFFIC AND PAVEMENT MARKINGS (CONT.)

19. ALL ROADWAYS AND ENTRANCES NOT OPEN TO TRAFFIC SHALL BE CLOSED USING TYPE III BARRICADES AND SHALL BE PLACED PER DEMUTCD, PART 6, SECTION 6F.68.
20. ALL FLAGGERS SHALL COMPLY WITH CHAPTER 6E OF THE DE MUTCD PART 6.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS/HER WORK WITH OTHER CONTRACTORS IN THE AREA.
22. 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 SHOULDERS CLOSED, 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.
23. 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.
24. 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.
25. ACCESS TO ALL BUSINESSES AND RESIDENCES WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE CONTRACT. ANY TEMPORARY CLOSURE OF A DRIVEWAY FOR TIE-IN PURPOSES SHALL BE COORDINATED WITH THE PROPERTY OWNER IN ADVANCE OF THE CLOSURE
26. 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 DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR TO THE SATISFACTION OF THE ENGINEER AND SHALL BE ADA COMPLIANT. THE COST FOR ANY PROVISIONS SHALL BE INCIDENTAL TO THE ITEM FOR WHICH THEY PROTECT.
27. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE LOCAL 911 CENTER, LOCAL SCHOOLS, AND THE DELDOT 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 IS REQUIRED, NOTIFICATION MUST BE GIVEN TO SUSSEX COUNTY, THE LOCAL FIRE FIGHTING AUTHORITIES, AND THE 911 CENTER.

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SOUTH DISTRICT

CONVERSION ROADS, SOUTH, 2014

GENERAL CONTRACT PLAN NOTES

MAINTENANCE OF TRAFFIC AND PAVEMENT MARKINGS (CONT.)

28. THE CONTRACTOR SHALL SUBMIT DETAILED DRAWINGS (INCLUDING BUT NOT LIMITED TO LANE AND SHOULDER WIDTHS, TURN LANE LENGTHS, LOCATIONS OF STOP BARS, TURN ARROWS, AND RAILROAD CROSSINGS) THAT DEPICT THE EXISTING PAVEMENT MARKINGS FOR EACH PROJECT LOCATION PRIOR TO THE START OF WORK AT EACH LOCATION. THESE DRAWINGS WILL BE REVIEWED BY THE DEPARTMENT'S TRAFFIC SECTION TO DETERMINE IF ANY CHANGES TO THE FINAL PAVEMENT MARKINGS ARE REQUIRED.
29. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN, INCLUDING THE NECESSARY NCHRP 350 CERTIFICATIONS FOR ALL DEVICES THAT WILL BE UTILIZED, FOR EACH LOCATION BEFORE THE START OF THE PRE-CONSTRUCTION MEETING. WRITTEN APPROVAL MUST BE RECEIVED BEFORE THE START OF WORK AT EACH AND EVERY LOCATION.
30. THE DELDOT REPRESENTATIVE SHALL BE RESPONSIBLE FOR COORDINATING WITH THE TRAFFIC SECTION RELATING TO ANY IMPACTS TO TRAFFIC SECTION FACILITIES (INCLUDING BUT NOT LIMITED TO TRAFFIC LOOPS, JUNCTION WELLS ETC.) AT LEAST 4 WEEKS IN ADVANCE OF THE START OF THE ACTIVITY. PRIOR TO INITIATING ANY WORK ON THIS CONTRACT (OR SITES), THE PROJECT MANAGER SHALL BE RESPONSIBLE FOR PREPARING AND SUBMITTING FOR APPROVAL OF THE SAFETY SECTION, A MAINTENANCE OF TRAFFIC PLAN. SUFFICIENT TIME SHALL BE PROVIDED FOR THE REVIEW AND APPROVAL OF THE PLAN. THE MAINTENANCE OF TRAFFIC PLAN SHALL INCLUDE PROPOSED TIME RESTRICTIONS ON THE CLOSURE OF TRAVEL LANES SUBJECT TO THE APPROVAL OF THE SAFETY SECTION.
31. THE CONTRACTOR 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. NO SEPARATE PAYMENT SHALL BE MADE FOR THE USE OF TRAFFIC CONES.
32. ALL STORAGE OF EQUIPMENT AND MATERIAL SHALL COMPLY WITH SECTION 6G.21 OF THE DE MUTCD PART 6.
33. ALL TRAFFIC CONTROL DEVICES SHALL BE IN NEW OR REFURBISHED CONDITION, SHALL BE IN COMPLIANCE WITH THE DELAWARE MUTCD AND WITH NCHRP REPORT 350 AS DEFINED IN SECTION "A" OF THE DELAWARE MUTCD AND SHALL BE APPROVED BY THE ENGINEER BEFORE INSTALLATION.
34. 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.
35. ALL TRAFFIC CONTROL DEVICES SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE DE MUTCD PART 6. PLEASE NOTE THAT AS OF JANUARY 4, 2010, THERE ARE NEW SHEETING REQUIREMENTS FOR ALL SIGNS, CHANNELIZING DEVICES, ETC.

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CONVERSION ROADS, SOUTH, 2014

GENERAL CONTRACT PLAN NOTES

MAINTENANCE OF TRAFFIC AND PAVEMENT MARKINGS (CONT.)

36. TRAFFIC CONTROL DEVICES SHALL BE SUITABLY MAINTAINED AT ALL TIMES, INCLUDING SUCH MAINTENANCE AS WASHING SIGN FACES, REPLACING DEFICIENT BATTERIES AND LIGHTS, ALIGNING PROPERLY, REPLACING REFLECTIVE MATERIALS, RELOCATING BARRIERS, AND ANY OTHER MAINTENANCE OF TRAFFIC CONTROL DEVICES DEEMED NECESSARY BY THE ENGINEER OR DESIGNEE TO MAINTAIN TRAFFIC IN A SAFE AND EFFECTIVE MANNER.
37. 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 PLACEMENT OF THE FINAL COURSE OF WARM MIX. FAILURE TO COMPLY WILL RESULT IN SUSPENSION OF ALL OTHER CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED. 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. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, 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. 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 THE ROADWAY TO TRAFFIC.
38. ANY ERRONEOUS MARKING WILL NOT BE PAID FOR AND SHALL BE CORRECTED IMMEDIATELY AT THE CONTRACTORS 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 REMOVAL OF ERRONEOUS MARKINGS SHALL BE REPAIRED / REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTORS EXPENSE.
39. 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 PER THE LATEST VERSION OF THE PERMANENT MARKING SECTION OF THE TRAFFIC CONTROL MANUAL. 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.
40. 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 ERADICATED BY A METHOD APPROVED BY THE ENGINEER. PAINTING OVER THE CONFLICTING STRIPING WILL NOT BE ACCEPTED AS A METHOD OF REMOVAL. MAINTENANCE OF TRAFFIC, UNLESS OTHERWISE NOTED IN THE APPROVED PLANS, SHALL CONFORM TO THE APPROPRIATE TRAFFIC CONTROL CASE FOUND IN THE LATEST VERSION OF THE DE MUTCD PART 6.
41. 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.

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SOUTH DISTRICT

CONVERSION ROADS, SOUTH, 2014

GENERAL CONTRACT PLAN NOTES

MAINTENANCE OF TRAFFIC AND PAVEMENT MARKINGS (CONT.)

42. ALL REQUIRED MAINTENANCE OF TRAFFIC WARNING SIGNS SHALL BE PAID FOR UNDER ITEM 743024, TEMPORARY WARNING SIGNS AND PLAQUES. ALL WARNING SIGNS SHALL BE DIAMOND GRADE RETRO REFLECTIVE. WOOD SHEETING IS NOT PERMITTED.

PROJECT

43. UNLESS SPECIFIED, OVERLAY WIDTHS SHALL MATCH EXISTING WIDTHS.
44. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, ANY AND ALL CONSTRUCTION ENGINEERING SHALL BE INCIDENTAL TO THE CONTRACT.
45. THE CONTRACTOR SHALL GIVE TWO (2) WEEKS NOTICE TO THE PROPERTY OWNER WHEN ANY FIXTURE, SHRUB OR OTHER OBJECT MUST BE REMOVED FROM THE RIGHT OF WAY OR EASEMENT AREA. IF THE OWNER HAS NOT ATTEMPTED TO SALVAGE THIS PROPERTY, THE CONTRACTOR SHALL REMOVE IT WITHOUT OBLIGATION. COMPENSATION SHALL BE INCIDENTAL TO THE CONTRACT.
46. THE COST OF CLIPPING BACK THE EDGES OF THE ROADWAY, SHOULDERS, AND THE FIRST 3' OF UNPAVED DRIVEWAY ENTRANCES, PICKING UP AND DISPOSING OF WASTE AND EXCESS MATERIAL, AND CLEANING THE EXISTING PAVEMENT PRIOR TO OVERLAY SHALL BE INCIDENTAL TO SECTION 401.
47. BUTT JOINTS SHALL BE PLACED AT ALL INTERSECTING HOT/WARM MIX ROADS AND ANY OTHER LOCATIONS AS DIRECTED BY THE ENGINEER. BUTT JOINTS AT DRAINAGE STRUCTURES NOT TO BE RESURFACED SHALL BE AS PER THE STANDARD DETAIL OR LOCATION NOTES. BUTT JOINTS CUT PRIOR TO THE DAY OF THE PAVEMENT OVERLAY SHALL BE RAMPED WITH WARM MIX TRM. IN AREAS TO BE MILLED, THERE WILL BE NO SEPARATE PAYMENT FOR BUTT JOINTS.
48. 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 +/- 6½' FROM THE STRUCTURE. THE COMPUTED DEPTH FOR PAYMENT PURPOSES IS THE AVERAGE OF THE TWO DEPTHS.
49. IF MILLING IS PART OF THESE IMPROVEMENTS, THE COST OF DELIVERY OF MILLED MATERIAL TO THE NEAREST STATE DISTRICT MAINTENANCE YARD SHALL BE INCLUDED IN THE PRICE BID FOR SECTION 760.
50. CATCH BASIN GRATES WITHIN THE LOCATION LIMITS THAT DO NOT MEET 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. CATCH BASIN FRAMES SHALL INCLUDE NECESSARY ADJUSTMENTS TO MEET PROPOSED GRADES INCIDENTAL TO THE CATCH BASIN FRAME ITEM. ALL REPLACED GRATES/FRAMES SHALL BE DELIVERED TO THE NEAREST DISTRICT MAINTENANCE YARD WITH DELIVERY COSTS INCIDENTAL TO THE APPROPRIATE BID ITEMS. PAYMENT FOR REPLACED GRATES/FRAMES SHALL NOT BE MADE UNTIL RECEIPT OF DELIVERED MATERIALS IS PRODUCED AND SIGNED BY A DELDOT MAINTENANCE YARD SUPERVISOR.
51. THE COST OF FINE GRADING, COMPACTING, AND PREPARING EXISTING SHOULDERS FOR PAVING SHALL BE INCIDENTAL TO SECTIONS 401.

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SOUTH DISTRICT

CONVERSION ROADS, SOUTH, 2014

GENERAL CONTRACT PLAN NOTES

PROJECT NOTES (CONT.)

52. MATERIALS USED TO FILL SHOULDER AREAS ADJACENT TO NEW WARM MIX OVERLAYS MAY BE ONE OR MORE OF THE FOLLOWING MATERIALS: ITEMS 732004 – TOPSOIL OR 302005- GRADED AGGREGATE BASE COURSE TYPE B. THE UNIT PRICE SHALL INCLUDE FURNISHING, PLACEMENT, GRADING AND COMPACTING THE MATERIAL.
53. 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 PROJECT AT THE CONTRACTORS EXPENSE. ITEM 732004, 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 .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.
54. AFTER PAVEMENT MILLING, ALL TRANSVERSE VERTICAL DIFFERENCES, RAISED EDGES OF MANHOLES, CATCH BASINS, WATER VALVE BOXES, ETC. SHALL BE RAMPED WITH WARM-MIX TRM AT A 20:1 OR FLATTER SLOPE PRIOR TO OPENING THE ROADWAY TO TRAFFIC. PAVEMENT MILLINGS WILL NOT BE ALLOWED FOR THIS PURPOSE. ALL PAYMENT SHALL BE INCIDENTAL TO THE MILLING ITEM.
55. ALL ADJUSTMENTS SHALL BE MADE NO MORE THAN SEVEN (7) CALENDAR DAYS PRIOR TO THE PLACEMENT OF THE FINAL COURSE OF 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.
56. 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.
57. 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 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.
58. 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.

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SOUTH DISTRICT

CONVERSION ROADS, SOUTH, 2014

GENERAL CONTRACT PLAN NOTES

PROJECT NOTES (CONT.)

59. 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.
60. CATCH BASINS, WHICH ARE 4' OR GREATER IN DEPTH AND ARE SLATED FOR REPAIR WILL HAVE STEPS INSTALLED IN ACCORDANCE WITH SECTION 708 OF THE STANDARD SPECIFICATIONS. PAYMENT SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR ITEM 710001.
61. DRAINAGE INLETS, WHICH ARE 4' GREATER IN DEPTH AND ARE SLATED FOR REPAIR WILL HAVE STEPS INSTALLED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. PAYMENT SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR THE DRAINAGE INLET ITEM.
62. THE PORTLAND CEMENT CONCRETE USED TO ADJUST AND REPAIR EXISTING MAN HOLES, DRAINAGE INLETS AND WATER VALVE BOXES SHALL CONFORM TO THE REQUIREMENTS OF CLASS A CONCRETE AS STATED WITHIN SECTION 503.02 OF THE DEPARTMENT'S STANDARD SPECIFICATIONS.
63. A 3" OVERLAY SHALL BE 2 EQUAL LIFTS OF TYPE C HOT MIX. A 3½" OVERLAY SHALL BE A 1¼" TYPE C LIFT OVER A 2¼" TYPE B LIFT UNLESS OTHERWISE NOTED IN THE PLANS.
64. THE MINIMUM AND MAXIMUM SINGLE LIFT THICKNESSES OF MATERIALS SHALL BE AS FOLLOWS:
- A. -TYPE C WARM-MIX: 1.25" - 2.00"
 - B. -TYPE B WARM-MIX: 2.25" - 3.00"
 - C. -BCBC: 3.00" - 6.00"
 - D. -GABC: 2.00" - 8.00"
65. ALL SUBDIVISIONS SHALL USE A TYPE C WARM MIX MIXTURE THAT SHALL MEET THE REQUIREMENTS FOR A 3/8" NOMINAL MAXIMUM AGGREGATE SIZE FOR SUPERPAVE MIXTURE.
66. THE PURPOSE OF THE WARM MIX WEDGE COURSE, WHEN SPECIFIED, IS TO REMOVE EXISTING EXCESSIVE CROWN RESULTING IN A FINAL CROSS SLOPE OF BETWEEN 2% AND 4% OR AS DIRECTED BY THE ENGINEER.
67. THE CONTRACTOR, PRIOR TO LAYING A RUN OF DRAINAGE PIPE OR OTHER INVOLVED CONSTRUCTION, SHALL EXCAVATE WITHIN THE ALIGNMENT AT POINTS OF POSSIBLE CONFLICT TO DETERMINE IF A CONFLICT EXISTS. ANY CONFLICTS SHALL BE COORDINATED BY THE CONTRACTOR WITH THE ENGINEER. ANY UTILITY CONFLICTS SHALL BE COORDINATED BY THE CONTRACTOR WITH THE ENGINEER AND THE UTILITY INVOLVED. THE ENGINEER SHALL DETERMINE THE SOLUTION.
68. FOR THIS CONTRACT, SECTION 612 OF THE STANDARD SPECIFICATIONS SHALL BE MODIFIED SUCH THAT PAYMENT FOR PIPE EXCAVATION AND BACKFILLING WILL BE MEASURED AND PAID REGARDLESS OF THE PIPE SIZE TO BE UTILIZED.
69. ITEM NO. 401696; ENTRANCE, DRIVEWAY & INTERSECTING STREET PAVING SURCHARGE SHALL BE USED FOR STATE NUMBERED ROADS ONLY AND SHALL NOT BE USED WITHIN ANY SUBDIVISION OR DEVELOPMENT.

DELAWARE DEPARTMENT OF TRANSPORTATION

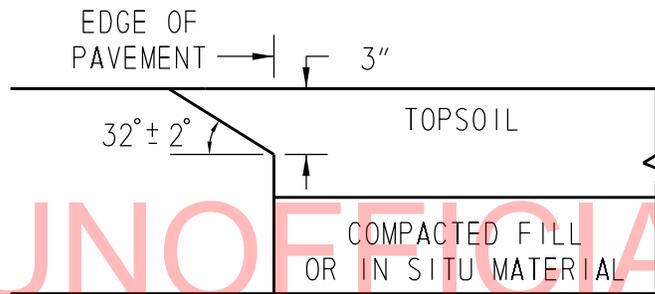
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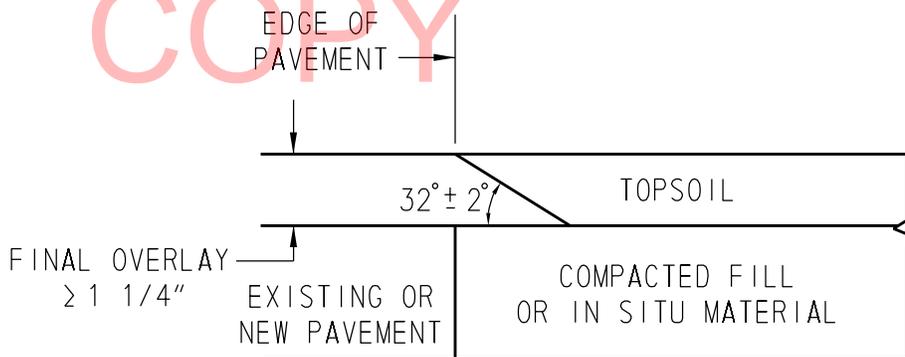
CONVERSION ROADS , SOUTH, 2014

DETAILS SHEET



CONCRETE PAVEMENTS

N. T. S.



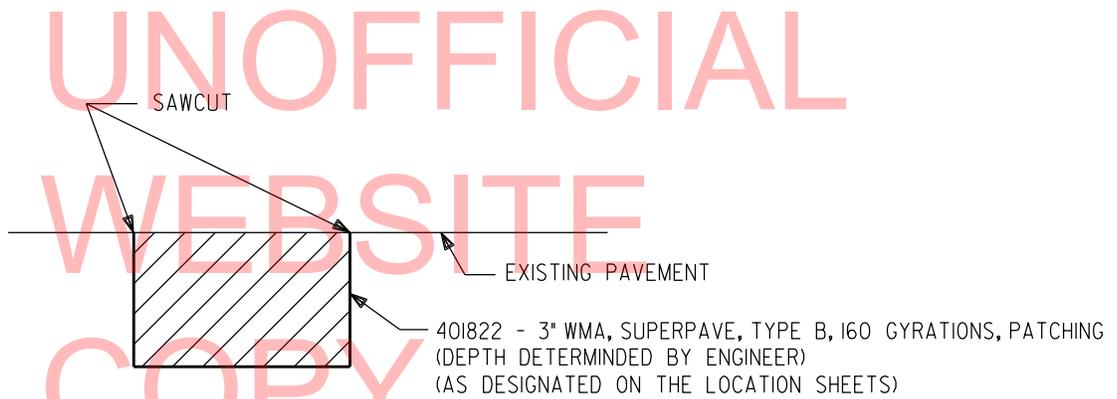
BITUMINOUS CONCRETE PAVEMENTS AND OVERLAYS

N. T. S.

SAFETY EDGE

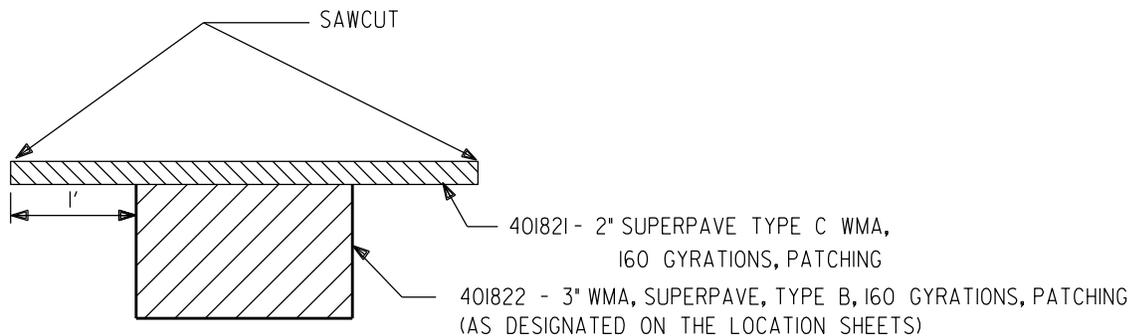
DETAILS SHEET

NOTE: ALL EDGES TO BE SAWCUT. CUTTING BY USE OF AIR HAMMERS MAY BE SUBSTITUTED FOR SAWCUTTING IF THE AREA IS TO BE OVERLAID UNDER THE SAME CONTRACT. THIS DETAIL SHALL BE USED FOR ALL WARM-MIX PATCHES UNLESS OTHERWISE NOTED ON THE PLANS.



WARM-MIX PATCH WITH OVERLAY

NOTE: DEPTH OF PATCHING, 3" OR AS DIRECTED BY THE ENGINEER



WARM-MIX PATCH DETAIL

NOTE: DEPTH OF PATCHING, 8" OR AS DIRECTED BY THE ENGINEER

NOTE: ITEM 401822 (TYPE 'B' PATCHING) MAY BE SUBSTITUTED WITH ITEM 401823 (WMA, BCBC, PATCHING) AT THE DIRECTION OF THE ENGINEER.

DELAWARE DEPARTMENT OF TRANSPORTATION

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SOUTH
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CONVERSION ROADS, SOUTH, 2014

LOCATION 2 286(HOPKINS ROAD) FROM HOT MIX JOINT TO S262 (FISHER RD)

LENGTH 1688.592 m 5540 L.F. AADT 761

GENERAL IMPROVEMENTS

PATCHING AND 2" WARM MIX OVERLAY

COMMENTS:

MATERIAL ESTIMATE FOR LOCATION 2

302005	GRADED AGGREGATE BASE COURSE, TYPE B	15.00 TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	40.00 TON
401800	WMA, SUPERPAVE, TYPE C, 115 GYRATIONS, PG 64-22 (CARBONATE STONE)	1,450.00 TON
401822	WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22, PATCHING	30.00 TON
406001	WARM-MIX PATCHING	475.00 SY-IN
732004	TOPSOIL (TON)	170.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	2,465.00 S.Y.
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	2.00 EA-DY
743052	** FLAGGER, SUSSEX COUNTY, STATE	136.00 HOUR
743064	** FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	24.00 HOUR
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLAST IC	16.00 S.F.
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	11,080.00 L.F.
761001	BUTT JOINTS, HOT MIX	335.00 S.Y.

** DENOTES FIXED PRICE ITEM

DELAWARE DEPARTMENT OF TRANSPORTATION

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SOUTH
MAINTENANCE

CONVERSION ROADS, SOUTH, 2014

LOCATION 5

315(DEEP BRANCH ROAD) FROM S48 (ZOAR RD) TO S47 (SPRINGFIELD RD)

LENGTH 5266.944 m 17280 L.F. AADT 798

GENERAL IMPROVEMENTS

WEDGING AND 2" WARM MIX OVERLAY

COMMENTS:

MATERIAL ESTIMATE FOR LOCATION 5

209013	BORROW, TYPE F	848.00 TON
302005	GRADED AGGREGATE BASE COURSE, TYPE B	165.00 TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	45.00 TON
401800	WMA, SUPERPAVE, TYPE C, 115 GYRATIONS, PG 64-22 (CARBONATE STONE)	5,120.00 TON
401825	WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22, WEDGE	2,275.00 TON
732004	TOPSOIL (TON)	794.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	11,520.00 S.Y.
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	5.00 EA-DY
743052	** FLAGGER, SUSSEX COUNTY, STATE	408.00 HOUR
743064	** FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	72.00 HOUR
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLAST IC	64.00 S.F.
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	17,280.00 L.F.
761001	BUTT JOINTS, HOT MIX	700.00 S.Y.

** DENOTES FIXED PRICE ITEM

DELAWARE DEPARTMENT OF TRANSPORTATION

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SOUTH
MAINTENANCE

CONVERSION ROADS, SOUTH, 2014

LOCATION 6 **326(BETHESDA ROAD) FROM 600' SOUTH OF S86 (AVE. OF HONOR) TO S329 (RICH RD) WHICH HAS BEEN ABANDONED**

LENGTH 615.696 m 2020 L.F. AADT 991

GENERAL IMPROVEMENTS

PATCHING, WEDGING AND 2" WARM MIX OVERLAY

COMMENTS:

MATERIAL ESTIMATE FOR LOCATION 6

209013	BORROW, TYPE F	120.00 TON
302005	GRADED AGGREGATE BASE COURSE, TYPE B	1.00 TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	38.00 TON
401800	WMA, SUPERPAVE, TYPE C, 115 GYRATIONS, PG 64-22 (CARBONATE STONE)	580.00 TON
401822	WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22, PATCHING	2.00 TON
401825	WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22, WEDGE	325.00 TON
732004	TOPSOIL (TON)	92.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	1,350.00 S.Y.
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	2.00 EA-DY
743052	** FLAGGER, SUSSEX COUNTY, STATE	102.00 HOUR
743064	** FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	18.00 HOUR
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLAST IC	32.00 S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	4,040.00 L.F.
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	4,040.00 L.F.
761001	BUTT JOINTS, HOT MIX	917.00 S.Y.

** DENOTES FIXED PRICE ITEM

DELAWARE DEPARTMENT OF TRANSPORTATION

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SOUTH
MAINTENANCE

CONVERSION ROADS, SOUTH, 2014

LOCATION 7 326(BETTS POND ROAD) FROM S20 (THOMPSONVILLE RD) TO S328 (BARK POND RD)

LENGTH 701.04 m 2300 L.F. AADT 991

GENERAL IMPROVEMENTS

PATCHING, WEDGING AND 2" WARM MIX OVERLAY

COMMENTS:

MATERIAL ESTIMATE FOR LOCATION 7

209013	BORROW, TYPE F	40.00 TON
302005	GRADED AGGREGATE BASE COURSE, TYPE B	9.00 TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	75.00 TON
401800	WMA, SUPERPAVE, TYPE C, 115 GYRATIONS, PG 64-22 (CARBONATE STONE)	778.00 TON
401822	WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22, PATCHING	30.00 TON
401825	WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22, WEDGE	150.00 TON
406001	WARM-MIX PATCHING	505.00 SY-IN
732004	TOPSOIL (TON)	95.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	1,025.00 S.Y.
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	4.00 EA-DY
743052	** FLAGGER, SUSSEX COUNTY, STATE	102.00 HOUR
743064	** FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	18.00 HOUR
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLAST IC	32.00 S.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	32.00 S.F.
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	4,600.00 L.F.
761001	BUTT JOINTS, HOT MIX	220.00 S.Y.
762001	SAW CUTTING, HOT MIX	190.00 L.F.

** DENOTES FIXED PRICE ITEM

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SOUTH
MAINTENANCE

CONVERSION ROADS, SOUTH, 2014

LOCATION 8 340(TOWNSENDS ROAD) FROM S355 (MURRAY RD) TO S26 (VINES CREEK RD)

LENGTH 2660.904 m 8730 L.F. AADT 761

GENERAL IMPROVEMENTS

PATCHING AND 2" WARM MIX OVERLAY

COMMENTS:

MATERIAL ESTIMATE FOR LOCATION 8

302005	GRADED AGGREGATE BASE COURSE, TYPE B	44.00 TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	56.00 TON
401800	WMA, SUPERPAVE, TYPE C, 115 GYRATIONS, PG 64-22 (CARBONATE STONE)	2,556.00 TON
401822	WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22, PATCHING	20.00 TON
406001	WARM-MIX PATCHING	350.00 SY-IN
710001	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	3.00 EACH
732004	TOPSOIL (TON)	265.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	3,880.00 S.Y.
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	4.00 EA-DY
743052	** FLAGGER, SUSSEX COUNTY, STATE	238.00 HOUR
743064	** FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	42.00 HOUR
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLAST IC	48.00 S.F.
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	13,095.00 L.F.
761001	BUTT JOINTS, HOT MIX	425.00 S.Y.

** DENOTES FIXED PRICE ITEM

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MAINTENANCE

CONVERSION ROADS, SOUTH, 2014

LOCATION 9 392(GUM ROAD) FROM S376 (PEPPER RD) TO S52 (ROXANNA RD)

LENGTH 4922.52 m 16150 L.F. AADT 1060

GENERAL IMPROVEMENTS

PATCHING, WEDGING AND 2" WARM MIX OVERLAY

COMMENTS:

MATERIAL ESTIMATE FOR LOCATION 9

209013	BORROW, TYPE F	170.00 TON
302005	GRADED AGGREGATE BASE COURSE, TYPE B	37.00 TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	66.00 TON
401800	WMA, SUPERPAVE, TYPE C, 115 GYRATIONS, PG 64-22 (CARBONATE STONE)	4,902.00 TON
401822	WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22, PATCHING	46.00 TON
401825	WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22, WEDGE	455.00 TON
406001	WARM-MIX PATCHING	806.00 SY-IN
732004	TOPSOIL (TON)	530.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	7,625.00 S.Y.
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	4.00 EA-DY
743052	** FLAGGER, SUSSEX COUNTY, STATE	340.00 HOUR
743064	** FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	60.00 HOUR
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLAST IC	80.00 S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	18,640.00 L.F.
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	18,640.00 L.F.
761001	BUTT JOINTS, HOT MIX	431.00 S.Y.

** DENOTES FIXED PRICE ITEM

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SOUTH
MAINTENANCE

CONVERSION ROADS, SOUTH, 2014

LOCATION 10 421(CAREYS CAMP ROAD) FROM S24 (MILLSBORO HWY) TO S410 (REVEL RD)

LENGTH 341.376 m 1120 L.F. AADT 1143

GENERAL IMPROVEMENTS

2" WARM MIX OVERLAY

COMMENTS:

MATERIAL ESTIMATE FOR LOCATION 10

302005	GRADED AGGREGATE BASE COURSE, TYPE B	9.00 TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	20.00 TON
401800	WMA, SUPERPAVE, TYPE C, 115 GYRATIONS, PG 64-22 (CARBONATE STONE)	340.00 TON
732004	TOPSOIL (TON)	35.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	500.00 S.Y.
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	1.00 EA-DY
743052	** FLAGGER, SUSSEX COUNTY, STATE	51.00 HOUR
743064	** FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	9.00 HOUR
748019	TEMPORARY MARKINGS, PAINT, 4"	2,240.00 L.F.
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	2,240.00 L.F.
761001	BUTT JOINTS, HOT MIX	170.00 S.Y.

** DENOTES FIXED PRICE ITEM

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SOUTH
MAINTENANCE

CONVERSION ROADS, SOUTH, 2014

LOCATION 11 488(AIRPORT RD) FROM S2 (SUSSEX HWY) TO S481 (BRICKYARD RD)

LENGTH 1386.84 m 4550 L.F. AADT 905

GENERAL IMPROVEMENTS

PATCHING AND 2" WARM MIX OVERLAY

COMMENTS:

MATERIAL ESTIMATE FOR LOCATION 11

302005	GRADED AGGREGATE BASE COURSE, TYPE B	45.00 TON
401800	WMA, SUPERPAVE, TYPE C, 115 GYRATIONS, PG 64-22 (CARBONATE STONE)	1,450.00 TON
401822	WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22, PATCHING	55.00 TON
406001	WARM-MIX PATCHING	950.00 SY-IN
732004	TOPSOIL (TON)	175.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	2,025.00 S.Y.
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	6.00 EA-DY
743052	** FLAGGER, SUSSEX COUNTY, STATE	102.00 HOUR
743064	** FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	18.00 HOUR
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	9,825.00 L.F.
758000	REMOVAL OF EXISTING PORTLAND CEMENTCONCRETE PAVEMENT, CURB, SIDEWALK, ETC.	7.00 S.Y.
761001	BUTT JOINTS, HOT MIX	270.00 S.Y.
762001	SAW CUTTING, HOT MIX	302.00 L.F.
762002	SAW CUTTING, CONCRETE, FULL DEPTH	215.00 L.F.

** DENOTES FIXED PRICE ITEM

DELAWARE DEPARTMENT OF TRANSPORTATION

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CONVERSION ROADS, SOUTH, 2014

LOCATION 12 488(AIRPORT RD) FROM S485 (BETHEL-CONCORD RD) TO S479 (FIRE TOWER RD)

LENGTH 2313.432 m 7590 L.F. AADT 905

GENERAL IMPROVEMENTS

PATCHING, WEDGING AND 2 1/2" WARM MIX OVERLAY

COMMENTS:

NOTE: OVERLAY SHALL BE IN TWO 1-1/4" LIFTS

MATERIAL ESTIMATE FOR LOCATION 12

209013	BORROW, TYPE F	52.00 TON
302005	GRADED AGGREGATE BASE COURSE, TYPE B	57.00 TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	45.00 TON
401800	WMA, SUPERPAVE, TYPE C, 115 GYRATIONS, PG 64-22 (CARBONATE STONE)	2,950.00 TON
401822	WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22, PATCHING	80.00 TON
401825	WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22, WEDGE	245.00 TON
406001	WARM-MIX PATCHING	1,350.00 SY-IN
732004	TOPSOIL (TON)	415.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	3,635.00 S.Y.
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	6.00 EA-DY
743052	** FLAGGER, SUSSEX COUNTY, STATE	204.00 HOUR
743064	** FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	36.00 HOUR
748530	REMOVAL OF PAVEMENT STRIPING	150.00 S.F.
748541	PREFORMED RETROREFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS, 4"	300.00 L.F.
748542	PREFORMED RETROREFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS, 6"	300.00 L.F.
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	7,590.00 L.F.
761001	BUTT JOINTS, HOT MIX	145.00 S.Y.
762001	SAW CUTTING, HOT MIX	510.00 L.F.

** DENOTES FIXED PRICE ITEM

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT T201406902

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SOUTH
MAINTENANCE

CONVERSION ROADS, SOUTH, 2014

LOCATION 13 **565(DEER FOREST ROAD) FROM S579 (STATE FORREST RD) TO S113 (DUPONT BLVD)**

LENGTH 3614.928 m 11860 L.F. AADT 1076

GENERAL IMPROVEMENTS

PATCHING AND 2" WARM MIX OVERLAY

COMMENTS:

MATERIAL ESTIMATE FOR LOCATION 13

302005	GRADED AGGREGATE BASE COURSE, TYPE B	54.00 TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	110.00 TON
401800	WMA, SUPERPAVE, TYPE C, 115 GYRATIONS, PG 64-22 (CARBONATE STONE)	3,580.00 TON
401822	WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22, PATCHING	27.00 TON
406001	WARM-MIX PATCHING	470.00 SY-IN
732004	TOPSOIL (TON)	342.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	5,275.00 S.Y.
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	6.00 EA-DY
743052	** FLAGGER, SUSSEX COUNTY, STATE	204.00 HOUR
743064	** FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	36.00 HOUR
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLASTIC	48.00 S.F.
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	14,825.00 L.F.
758000	REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT, CURB, SIDEWALK, ETC.	69.00 S.Y.
761001	BUTT JOINTS, HOT MIX	520.00 S.Y.
762002	SAW CUTTING, CONCRETE, FULL DEPTH	23.00 L.F.

** DENOTES FIXED PRICE ITEM

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT T201406902

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SOUTH
MAINTENANCE

CONVERSION ROADS, SOUTH, 2014

LOCATION 14 **572(ATLANTA ROAD) FROM S31 (DUBLIN HILL RD) TO MARYLAND LINE**

LENGTH 3279.648 m 10760 L.F. AADT 877

GENERAL IMPROVEMENTS

PATCHING AND 2" WARM MIX OVERLAY

COMMENTS:

MATERIAL ESTIMATE FOR LOCATION 14

302005	GRADED AGGREGATE BASE COURSE, TYPE B	30.00 TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	50.00 TON
401800	WMA, SUPERPAVE, TYPE C, 115 GYRATIONS, PG 64-22 (CARBONATE STONE)	3,165.00 TON
401822	WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22, PATCHING	43.00 TON
406001	WARM-MIX PATCHING	750.00 SY-IN
732004	TOPSOIL (TON)	425.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	4,785.00 S.Y.
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	6.00 EA-DY
743052	** FLAGGER, SUSSEX COUNTY, STATE	204.00 HOUR
743064	** FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	36.00 HOUR
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLASTIC	32.00 S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	13,450.00 L.F.
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	13,450.00 L.F.
758000	REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT, CURB, SIDEWALK, ETC.	48.00 S.Y.
761001	BUTT JOINTS, HOT MIX	474.00 S.Y.
762002	SAW CUTTING, CONCRETE, FULL DEPTH	16.00 L.F.

** DENOTES FIXED PRICE ITEM

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT: T201406902

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SOUTH CONVERSION ROADS, SOUTH, 2014
MAINTENANCE

CONTRACT QUANTITIES SUMMARY SHEET

209013	BORROW, TYPE F	1,485.00 TON
302005	GRADED AGGREGATE BASE COURSE, TYPE B	518.00 TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	648.00 TON
401800	WMA, SUPERPAVE, TYPE C, 115 GYRATIONS, PG 64-22 (CARBONATE STONE)	31,793.00 TON
401822	WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22, PATCHING	430.00 TON
401825	WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22, WEDGE	4,500.00 TON
406001	WARM-MIX PATCHING	7,306.00 SY-IN
710001	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	3.00 EACH
732004	TOPSOIL (TON)	4,113.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	53,770.00 S.Y.
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	55.00 EA-DY
743052	** FLAGGER, SUSSEX COUNTY, STATE	2,669.00 HOUR
743064	** FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	471.00 HOUR
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLAST IC	480.00 S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	38,370.00 L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	32.00 S.F.
748530	REMOVAL OF PAVEMENT STRIPING	150.00 S.F.
748541	PREFORMED RETROREFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS, 4"	300.00 L.F.
748542	PREFORMED RETROREFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS, 6"	300.00 L.F.
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	141,910.00 L.F.
758000	REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT, CURB, SIDEWALK, ETC.	136.00 S.Y.
761001	BUTT JOINTS, HOT MIX	6,112.00 S.Y.
762001	SAW CUTTING, HOT MIX	1,332.00 L.F.
762002	SAW CUTTING, CONCRETE, FULL DEPTH	295.00 L.F.
763000	INITIAL EXPENSE	LUMP SUM
763643	MAINTENANCE OF TRAFFIC, ALL INCLUSIVE	LUMP SUM

** DENOTES FIXED PRICE ITEM