THE STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION SOLUTIONS
PLANS AND SPECIFICATIONS FOR:

CONTRACT NO:	T201901004	P3E NO: 19-55082
FEDERAL AID NO:	ESTP-2019(26)	
CONTRACT TITLE:	HIGH FRICTION SURFACE TREATMENT, RURAL, OPEN-END, FY20-23	
PLANS PREPARED BY:	WRA	

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ADAM S. WEISER
LICENSED
No. 14904
DELAWARE
PROFESSIONAL ENGINEER

WHITMAN, REQUARDT & ASSOCIATES — DATE 9/11/2019

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

APPROVED FOR ADVERTISMENT

DIRECTOR OF TRANSPORTATION SOLUTIONS — DATE 9/11/19

GENERAL 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, DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THESE PLANS.

2. THE PURPOSE OF THIS CONTRACT IS TO MAKE GENERAL IMPROVEMENTS TO ROADS AND/OR STREETS WITHIN THE STATE AS SPECIFIED HEREIN. 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. IN THE CASE WHERE CONTRACT UNIT PRICES ARE NOT AVAILABLE, THE PRICES ARE TO BE NEGOTIATED.

3. THIS CONTRACT IS INTENDED TO INSTALL HIGH FRICTION SURFACE TREATMENT OVERLAYS ON EXISTING HOT-MIX OR CONCRETE PAVEMENT SURFACES AT LOCATIONS TO BE DETERMINED BY THE DEPARTMENT VIA WORK ORDER AND IN ACCORDANCE WITH THESE PLANS, THE DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND STANDARD CONSTRUCTION DETAILS. THE WORK SHALL INCLUDE, BUT NOT BE LIMITED TO MAINTENANCE OF TRAFFIC AS REQUIRED PER LOCATION, CLEANING OF ROADWAY SURFACE, PAVEMENT PATCHING AS REQUIRED PER LOCATION, INSTALLATION OF HIGH-FRICTION SURFACE TREATMENT, MASKING OF IN-ROADWAY UTILITY APPURTENANCES, INSTALLATION AND/OR REMOVAL OF PAVEMENT MARKINGS AND THE REMOVAL OF ANY ASSOCIATED CONSTRUCTION DEBRIS.

4. THE CONTRACTOR SHALL PROVIDE ALL RESIDENTS AND BUSINESSES ADJACENT TO THE WORK ZONE A MINIMUM 48-HOUR 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. ACCESS TO ALL BUSINESSES AND RESIDENCES WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THIS CONTRACT. ANY TEMPORARY CLOSURE OF A DRIVEWAY FOR TIE-IN PURPOSES SHALL BE COORDINATED WITH THE ENGINEER AND/OR PROPERTY OWNER IN ADVANCE OF THE CLOSURE.

5. ANY AND ALL CONSTRUCTION ENGINEERING SHALL BE INCIDENTAL TO THE CONTRACT.

6. 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 WITHIN FIVE (5) WORKING DAYS. IF THERE IS A VERIFIED

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NON-AVAILABILITY OF MATERIALS, TIME CHARGES SHALL COMMENCE ON THE FIRST WORKING DAY FOLLOWING THE DELIVERY DATE OF SAID MATERIALS.

7. 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 ENGINEERIN 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.

OPEN-END NOTES

1. WORK TO BE PERFORMED UNDER THIS CONTRACT SHALL BE GENERATED THROUGH JOB ORDERS ISSUED TO THE CONTRACTOR BY THE ENGINEER. UP TO SIX (6) WORK ORDERS WILL BE ISSUED AT ONE TIME, AS A GROUP, TO COMPOSE A JOB ORDER, TO ALLOW FOR THE MOST EFFICIENT ALLOCATION OF THE CONTRACTOR'S WORK FORCE.

2. A SINGLE ROAD LOCATION MOBILIZATION WILL BE PAID PER JOB ORDER. FOR EXAMPLE, IF A JOB ORDER IS ISSUED THAT INCLUDES THREE (3) DIFFERENT WORK ORDERS/LOCATIONS, ONE MOBILIZATION WILL BE PAID, NOT THREE.

3. A TEMPORARY TRAFFIC CONTROL – TYPICAL APPLICATION PAY ITEM WILL BE PAID TO COVER THE SETUP, REMOVAL AND MAINTENANCE OF TEMPORARY TRAFFIC CONTROL FOR EACH LOCATION ISSUED VIA JOB ORDER. THE SPECIFIC PAY ITEM WILL BE INDICATED ON THE JOB ORDER ISSUED BY THE DEPARTMENT FOR THE REQUIRED TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATION. FURNISHING OF TEMPORARY TRAFFIC CONTROL DEVICES (DRUMS, ARROW BOARDS, MESSAGE BOARDS, TRUCK MOUNTED ATTENUATORS, FLAGGERS, TRAFFIC OFFICERS, TEMPORARY WARNING SIGNS, ETC WILL BE PAID FOR UNDER THE RESPECTIVE PAY ITEMS.

4. EXECUTION OF EACH WORK ORDER GROUP IS TO BEGIN WITHIN ONE (1) MONTH OF ITS BEING ISSUED TO THE CONTRACTOR, UNLESS REQUIRED MATERIALS ARE NOT AVAILABLE, AND WORK SHALL BE COMPLETED WITHIN ONE (1) MONTH.

5. IF WORK DOES NOT COMMENCE WITHIN THE SPECIFIED ONE (1) MONTH, OR NON-AVAILABLITY OF MATERIALS IS NOT PRESENTED IN WRITING, TIME CHARGES EQUAL TO LIQUIDATED DAMAGES FOR THE WORK ORDER GROUP SHALL COMMENCE.

6. FAILURE TO COMPLETE A WORK ORDER GROUP 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. ADDITIONAL ITEMS AND/OR WORKING DAYS MAY BE ADDED TO ANY WORK ORDER AS NEEDED, AT THE DISCRETION OF THE ENGINEER. IF WORK ON A SPECIFIC WORK-ORDER GROUP IS NOT COMPLETED WITHIN THE ALLOTTED TIME,

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LIQUIDATED DAMAGES WILL BE ASSESSED IN ACCORDANCE WITH SUBSECTION 108.09 BASED ON THE TOTAL VALUE OF THAT WORK-ORDER GROUP.

7. THE DEPARTMENT WILL ATTEMPT TO ASSIGN JOB ORDERS IN A MANNER THAT WILL KEEP THE DISTANCE BETWEEN WORK ORDER LOCATIONS TO A MINIMUM AND IN LOGICAL SEQUENCE.

PROJECT NOTES

SECTION 100:

1. ANY DAMAGE TO ITEMS NOTED TO BE RELOCATED OR RESET BY THE CONTRACTOR, AT THE DISCRETION OF THE ENGINEER, SHALL BE REPAIRED AND/OR REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.

2. THE CONTRACTOR WILL CONTACT THE DELAWARE TMC AT 302-659-4600 PRIOR TO ANY UNMANNED AIRCRAFT VEHICLE (UAV) FLIGHTS. THE CONTRACTOR WILL BE REQUIRED TO PROVIDE THE FOLLOWING INFORMATION: THE REGISTRATION NUMBER OF THE UAV, THE FLIGHT TIME, LOCATION OF THE FLIGHT, THE PILOT'S NAME AND THE PILOT'S CONTACT NUMBER DURING THE FLIGHT.

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SECTION 700

1. MASK ALL UTILITY MANHOLES, JUNCTION WELL COVERS, DRAINAGE INLETS AND OTHER IN-ROADWAY APPURTENANCES SO AS NOT TO COVER THESE APPURTENANCES WITH HIGH-FRICTION SURFACE TREATMENT MATERIAL. UPON COMPLETION OF THE HIGH-FRICTION SURFACE TREATMENT INSTALLATION, REMOVE MASKING MATERIAL FROM THESE APPURTENANCES.

2. THE CONTRACTOR SHALL NOT SPRAY HIGH FRICTION SURFACE TREATMENT MATERIAL ON EXISTING PAVEMENT MARKINGS. ANY PAVEMENT MARKINGS THAT CANNOT BE AVOIDED BY MAKING ADJUSTMENTS TO APPLICATION EQUIPMENT SHALL BE MASKED AND PROTECTED. NO MARKINGS SHALL BE REMOVED UNLESS INDICATED IN THE WORK ORDER LOCATION PLAN SHEETS OR AS DIRECTED BY THE ENGINEER.

MISCELLANEOUS

1. NO ENVIRONMENTAL PERMITS ARE REQUIRED FOR THIS WORK PROVIDED DITCHES OCCUR IN UPLANDS AND ARE CONVEYING ONLY ROADSIDE STORM WATER (I.E., NON CORPS-JURISDICTIONAL). IF THERE IS ANY QUESTION AS TO WHETHER OR NOT THE DITCHES ARE LOCATED IN JURISDICTIONAL WATERS, CONTACT THE DELDOT ENVIRONMENTAL SECTION AT (302) 760-2264.

2. NO UTILITY RELOCATION INVOLVEMENT IS ANTICIPATED. SHOULD ANY CONFLICTS BE ENCOUNTERED DURING CONSTRUCTION REQUIRING ADJUSTMENT AND/OR RELOCATION OF THE AGENCIES' EXISTING FACILITIES, THE NECESSARY RELOCATION WORK SHALL BE ACCOMPLISHED BY THE RESPECTIVE AGENCY'S FORCES, AS DIRECTED BY THE ENGINEER. ANY ADJUSTMENTS AND/OR RELOCATIONS OF

MUNICIPALLY OWNED FACILITIES SHALL BE DONE BY THE STATE'S CONTRACTOR IN ACCORDANCE WITH THE RESPECTIVE AGENCY'S STANDARD SPECIFICATIONS AS DIRECTED BY THE ENGINEER.

3. IT IS ANTICIPATED THAT ALL WORK WILL OCCUR WITHIN DELDOT'S EXISTING RIGHT-OF-WAY OR EASEMENT AREAS. SHOULD THE NEED OCCUR TO TRESPASS ONTO PRIVATE PROPERTY; IT WILL BE THE RESPONSIBILITY OF DELDOT'S PROJECT MANAGER TO SECURE SUCH TRESPASS NEEDS.

4. NO WORK NEAR OR WITHIN RAILROAD RIGHT-OF-WAY IS ANTICIPATED. IF ANY RAILROAD PROPERTY OR FACILITIES ARE NEAR OR WITHIN THE PROPOSED LIMITS OF WORK OR IF THE PROPOSED WORK ENCROACHES UPON THE RAILROAD'S RIGHT-OF-WAY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE REQUIRED CLEARANCES AND INSURANCE FOR EACH INVOLVED RAILROAD IN ACCORDANCE WITH THE APPROPROPRIATE DELDOT MAINTENANCE OF RAILROAD TRAFFIC ITEM. DELDOT'S RAILROAD SECTION MANAGER MUST BE CONTACTED AT (302) 760-2183 TO COORDINATE THE EXECUTION OF THE APPROPRIATE AGREEMENTS AND AUTHORIZATIONS REQUIRED FROM ANY RAILROAD COMPANY INVOLVED, INCLUDING COORDINATION FOR RAILROAD FLAGGING, IF NECESSARY.

5. DELDOT'S PROJECT MANAGER SHALL BE RESPONSIBLE FOR COORDINATING WITH THE TRAFFIC SECTION RELATING TO ANY IMPACTS TO TRAFFIC SECTION FACILITIES (INCLUDING BUT NOT LIMITED TO TRAFFIC LOOPS, JUNCTION WELLS, ETC.) AT LEAST FOUR (4) WEEKS IN ADVANCE OF THE START OF THE ACTIVITY.

6. 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. MAINTENANCE OF TRAFFIC PLAN SHALL INCLUDE THE PROPOSED TIME RESTRICTIONS FOR THE CLOSURE OF TRAVEL LANES SUBJECT TO THE APPROVAL OF THE SAFETY SECTION.

7. DELDOT'S 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.

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MILL AND OVERLAY NOTES

1. THIS PROJECT WILL INCLUDE SOME LOCATIONS REQUIRING A 2" MILL AND 2" PAVEMENT OVERLAY WITHIN THE LIMITS OF THE WORK LOCATION. PAVEMENT LIMITS WILL BE AS DEFINED WITHIN THE WORK ORDER. CONSTRUCTION SEQUENCE WILL BE PROVIDED WITHIN THE WORK ORDER BUT WILL GENERALLY CONSIST OF A 2" MILL, TEMPORARY PAVEMENT MARKINGS, 2" PAVEMENT OVERLAY, TEMPORARY PAVEMENT MARKINGS, FINAL PAVEMENT MARKINGS, AND PLACEMENT OF HIGH-FRICTION SURFACE TREATMENT A MINIMUM OF 30 DAYS AFTER PAVING.

2. UNLESS SPECIFIED, OVERLAY WIDTHS SHALL MATCH EXISTING WIDTHS.

3. 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.

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

5. ALL PAVING, INCLUDING TURN LANES, SHOULDERS AND INTERSECTIONS, IS TO BE COMPLETED WITHIN SEVEN (7) CALENDAR DAYS FROM THE TIME THE AREA WAS MILLED. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL OTHER CONTRACTOR WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.

6. THE CONTRACTOR SHALL TAKE CARE IN REMOVING PAVEMENT AROUND UTILITIES, BUTT JOINTS, CURBS, ETC. SO THAT EXISTING PAVEMENT BEYOND THE SPECIFIED DEPTHS IS NOT DAMAGED. ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS MAY RESULT IN PLACING LEVELING COURSES AT THE CONTRACTOR'S EXPENSE. THE REMOVAL AND CLEAN UP OF THE HOT 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 THE APPLICABLE MILLING AND/OR RECLAMATION ITEMS.

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MAINTENANCE OF TRAFFIC

1. 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, INCLUDING ALL SUPPLEMENTAL INFORMATION, INTERIM GUIDANCE AND MEMORANDUMS PROVIDED ON WWW.MUTCD.DELDOT.GOV, HEREIN REFERRED TO AS THE DELAWARE MUTCD (INCLUDING REVISIONS IN EFFECT AT THE TIME OF ADVERTISEMENT FOR BIDS).

2. THE CONTRACTOR SHALL SUBMIT THE PROPOSED TEMPORARY TRAFFIC CONTROL PLANS FOR EACH WORK-ORDER ISSUED LOCATION TO THE ENGINEER FOR APPROVAL PRIOR TO BEGINNING WORK AT EACH LOCATION.

3. THE SETUP OF TRAFFIC CONES SHALL BE INCIDENTAL TO THE ITEMS THAT THEY PROTECT. ALL FLAGGERS, WARNING SIGNS, TRUCK MOUNTED ATTENUATORS AND OTHER TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE PAID SEPARATELY AS REQUIRED BY THE SPECIFIC WORK LOCATION.

4. WHEN SIDE ROADS INTERSECT THE WORK ZONE, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE ERECTED AS REQUIRED BY THE DELAWARE MUTCD AND THE ENGINEER.

5. THE CONTRACTOR SHALL ENSURE THAT DISRUPTION TO TRAFFIC IS MINIMIZED AT ALL TIMES IN ALL CASES. TIME RESTRICTIONS FOR LANE CLOSURES ON LOCATIONS ASSOCIATED WITH THIS CONTRACT WILL BE PROVIDED WITH EACH ISSUED WORK ORDER. GENERAL CONTRACT TIME RESTRICTIONS ARE AS FOLLOWS:

A. NO LANE CLOSURES ON TWO-LANE ROADWAYS WITH AADT GREATER THAN OR EQUAL TO 5,000 VEHICLES PER DAY SHALL OCCUR BETWEEN 6:00 AM TO 9:00 AM AND/OR 3:00 PM TO 7:00 PM ON A STANDARD WEEKDAY, (I.E., MONDAY THROUGH FRIDAY) WITHOUT PRIOR PERMISSION FROM THE ENGINEER. FOR TWO-LANE ROADWAYS WITH AADT LESS THAN 5,000 VEHICLES PER DAY, LANE CLOSURES TYPICALLY WILL BE ALLOWED ANY TIME.

B. SUMMER WEEKEND OPERATIONS MAY OCCUR ON NON-BEACH ROUTE ROADWAYS SUBJECT TO DETERMINATION BY THE ENGINEER, BUT NO SUMMER WEEKEND WORK SHALL TAKE PLACE ON MAJOR BEACH ROUTES.

C. NIGHTTIME WORK MAY OCCUR ON CONGESTED MAJOR ROADWAY CORRIDORS AND/OR AT LOCATIONS AS DETERMINED BY THE ENGINEER WHERE DAYTIME LANE CLOSURES WILL CAUSE EXCESSIVE DISRUPTION TO TRAFFIC FLOW.

D. QUESTIONS REGARDING THE TIMING OF LANE CLOSURES ON A PARTICULAR ROADWAY SHALL BE DIRECTED TO THE TRAFFIC SAFETY SECTION.

E. IT SHALL BE NOTED THAT THE PROVISIONS ABOVE ARE FOR GENERAL GUIDANCE AND THAT THE DEPARTMENT CAN BE MORE RESTRICTIVE AT ITS DISCRETION.

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6. 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 OF ROADWAY TO TRAFFIC.

7. WHEN NOTED ON THE WORK ORDER LOCATION PLANS, AT THE END OF EACH DAY'S OPERATION AND BEFORE TRAFFIC IS RETURNED TO UNRESTRICTED ROADWAY USE, TEMPORARY STRIPING SHALL BE UTILIZED AT LOCATOINS THAT REQUIRE PERMANENT STRIPING. TEMPORARY PAVEMENT STRIPING MUST MATCH PERMANET PAVEMENT STRIPING IN ALL REGARDS. TEMPORARY PAVEMENT MARKINGS SHALL BE PAID AT THE APPLICABLE CONTRACTO 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.

8. WHEN NOTED ON THE WORK ORDER LOCATON PLANS, WITHIN THE MAINLINE WORK AREA, PERMANENT ADVANCE WARNING SIGNS WITH THE LEGENDS "ROAD WORK 1500 FT", "ROAD WORK 1000 FT", AND ROAD WORK 500 FT" SHALL BE INSTALLED 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 A DISTANCE NOT LESS THAN 500 FEET UPSTREAM OF THE WORK AREA. ALL PERMANENT ADVANCE WARNING SIGNS SHALL BE GROUND-MOUNTED ON TWO NCHRP-250 OR MASH APPROVED BREAKAWAY 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 LOCATOIN.

9. FOR ITEM 806001 TRAFFIC OFFICERS, REQUIRED INVOICES WILL BE REVIEWED FOR ACCURACY. ANY MAJOR INACCURACIES WILL BE ADJUSTED ACCORDINGYL. FOR EXAMPLE, IF INVOICE SHOWS CHARGED HOURS ON A CERTAIN DATE AND WE HAVE DOCUMENTATION THAT NO WORK OCCURRED THAT DATE OR NO OFFICERS WERE PRESENT THE INVOICE WILL BE ADJUSTED ACCORDINGLY.

PAVEMENT MARKINGS

1. PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE DELAWARE MUTCD AND SHALL MATCH THE EXISTING CONFIGURATION UNLESS OTHERWISE SPECIFIED BY THE ENGINEER. 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. ALL DOUBLE YELLOW CENTERLINES SHALL BE PLACED IN A 5-6-5 CONFIGURATION (2 EACH, 5” YELLOW STRIPES” WITH A 6” GAP BETWEEN).

2. ANY ERRONEOUS MARKINGS 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 AS DIRECTED BY THE ENGINEER. NO OTHER REMOVAL METHODS WILL BE ALLOWED. ANY DAMAGE TO THE PAVEMENT OR THE HIGH FRICTION SURFACE TREATMENT CAUSED BY REMOVAL OF ERRONEOUS MARKINS SHALL BE REPAIRED / REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR’S EXPENSE.

3. STOP LINES “BARS” SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 3B.16 OF THE DELAWARE MUTCD.

4. ALL CROSSWALKS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 3B.18 OF THE DELAWARE MUTCD.

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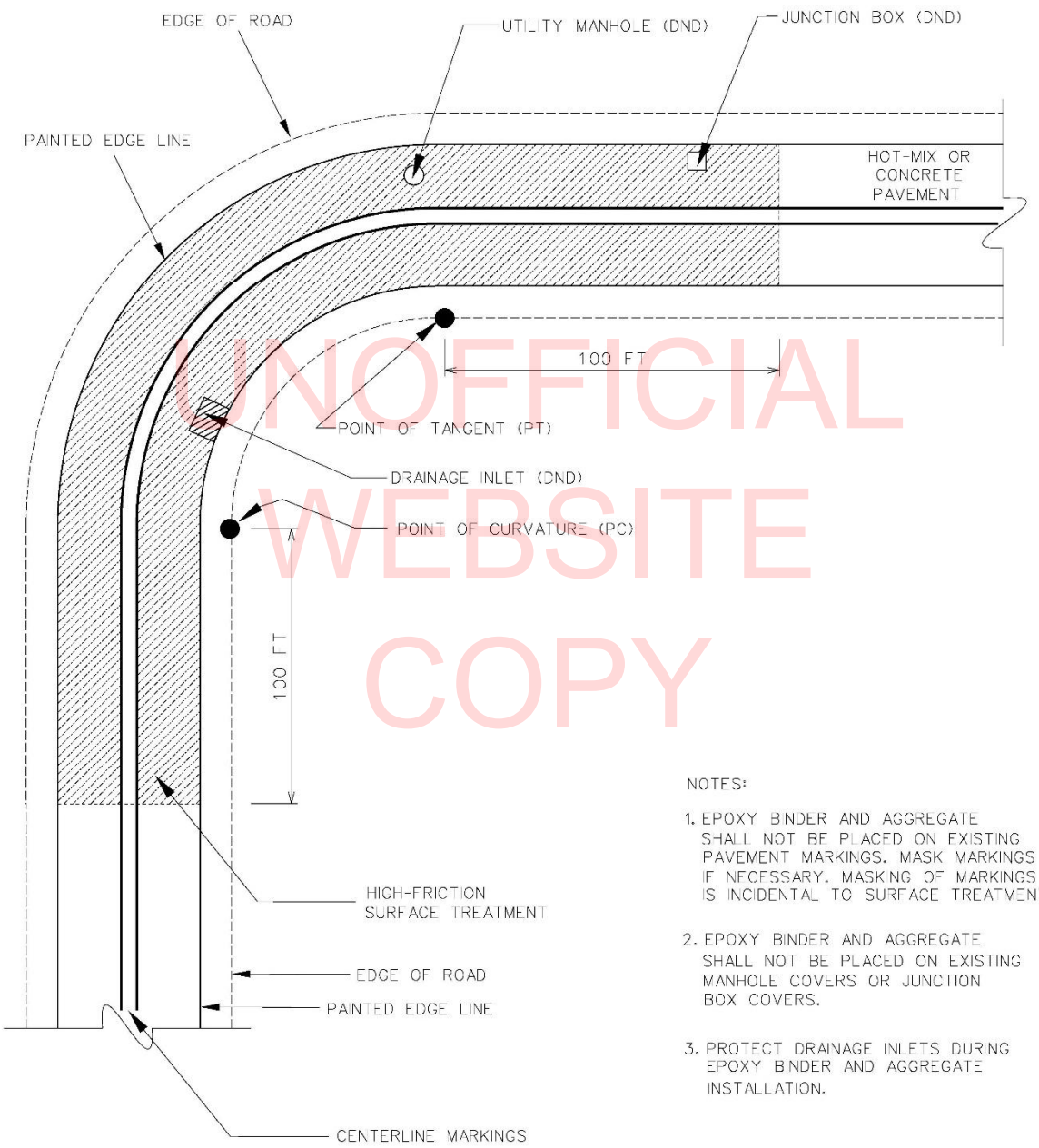
HIGH FRICTION SURFACE TREATMENT INSTALLATION - CURVE (TYPICAL)



NOTES:

1. EPOXY BINDER AND AGGREGATE SHALL NOT BE PLACED ON EXISTING PAVEMENT MARKINGS. MASK MARKINGS IF NECESSARY. MASKING OF MARKINGS IS INCIDENTAL TO SURFACE TREATMENT.
2. EPOXY BINDER AND AGGREGATE SHALL NOT BE PLACED ON EXISTING MANHOLE COVERS OR JUNCTION BOX COVERS.
3. PROTECT DRAINAGE INLETS DURING EPOXY BINDER AND AGGREGATE INSTALLATION.

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	HIGH-FRICTION SURFACE TREATMENT INSTALLATION - CURVE	CONTRACT T201401004	ROAD NO. N/A	SHEET NO. x
				COUNTY STATEWIDE	DESIGNED BY: MFR CHECKED BY: ASW	TOTAL SHTS. x

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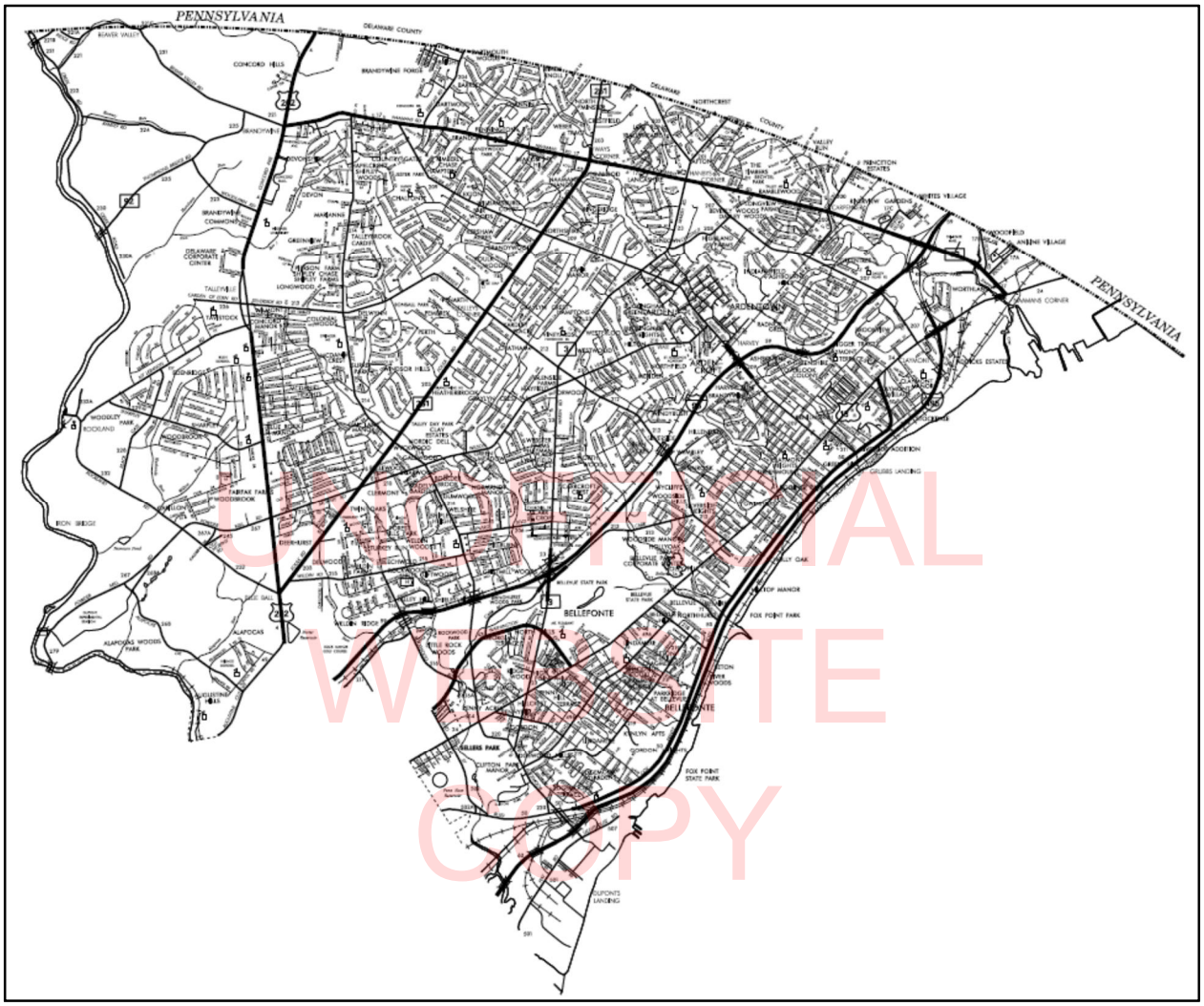
MOBILIZATION ZONE MAPS – ZONE 1



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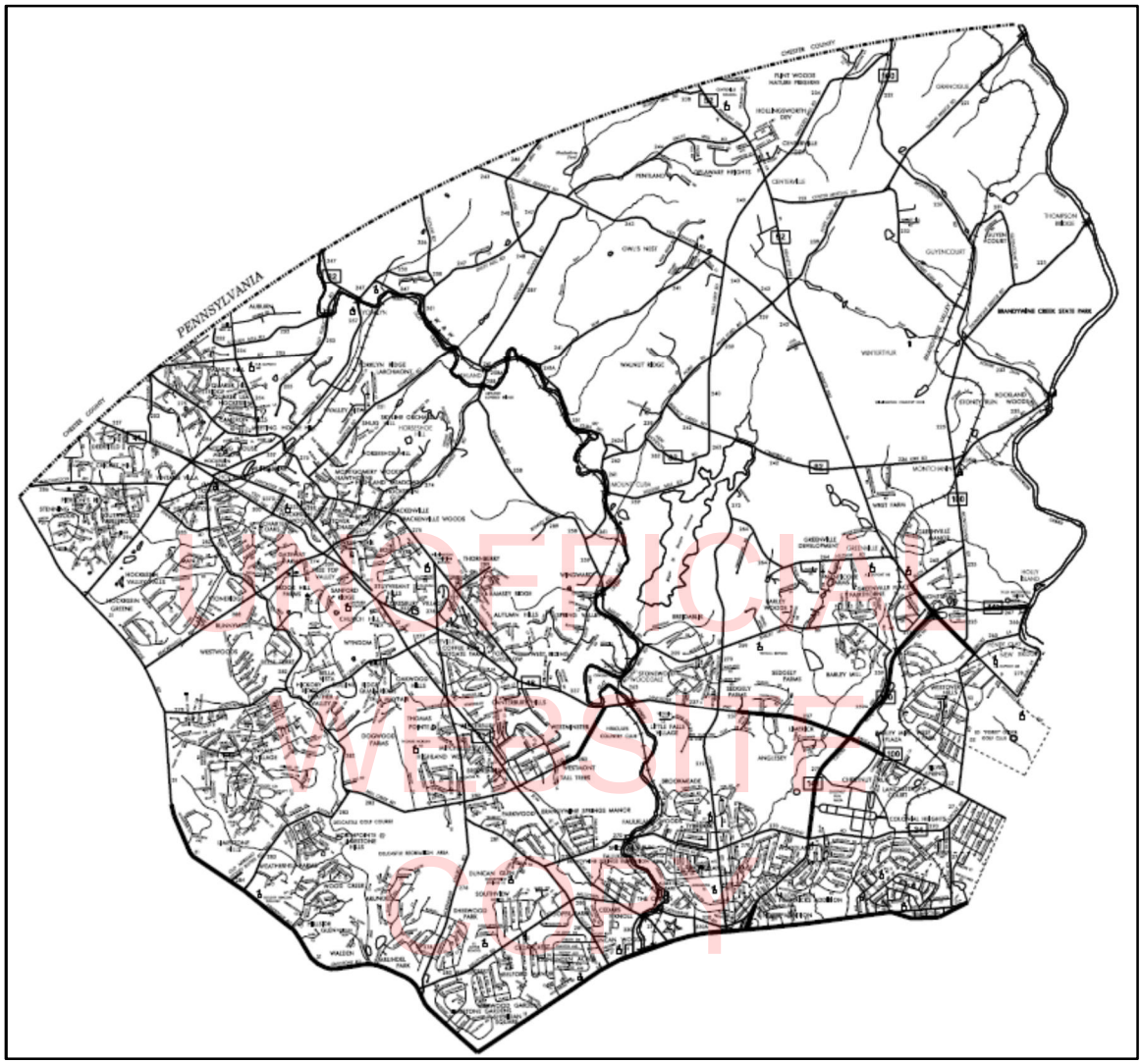
MOBILZIATION ZONE MAPS – ZONE 2



MOBILIZATION ZONE MAPS – ZONE 3

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MOBILIZATION ZONE MAPS – ZONE 4

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MOBILIZATION ZONE MAPS – ZONE 5

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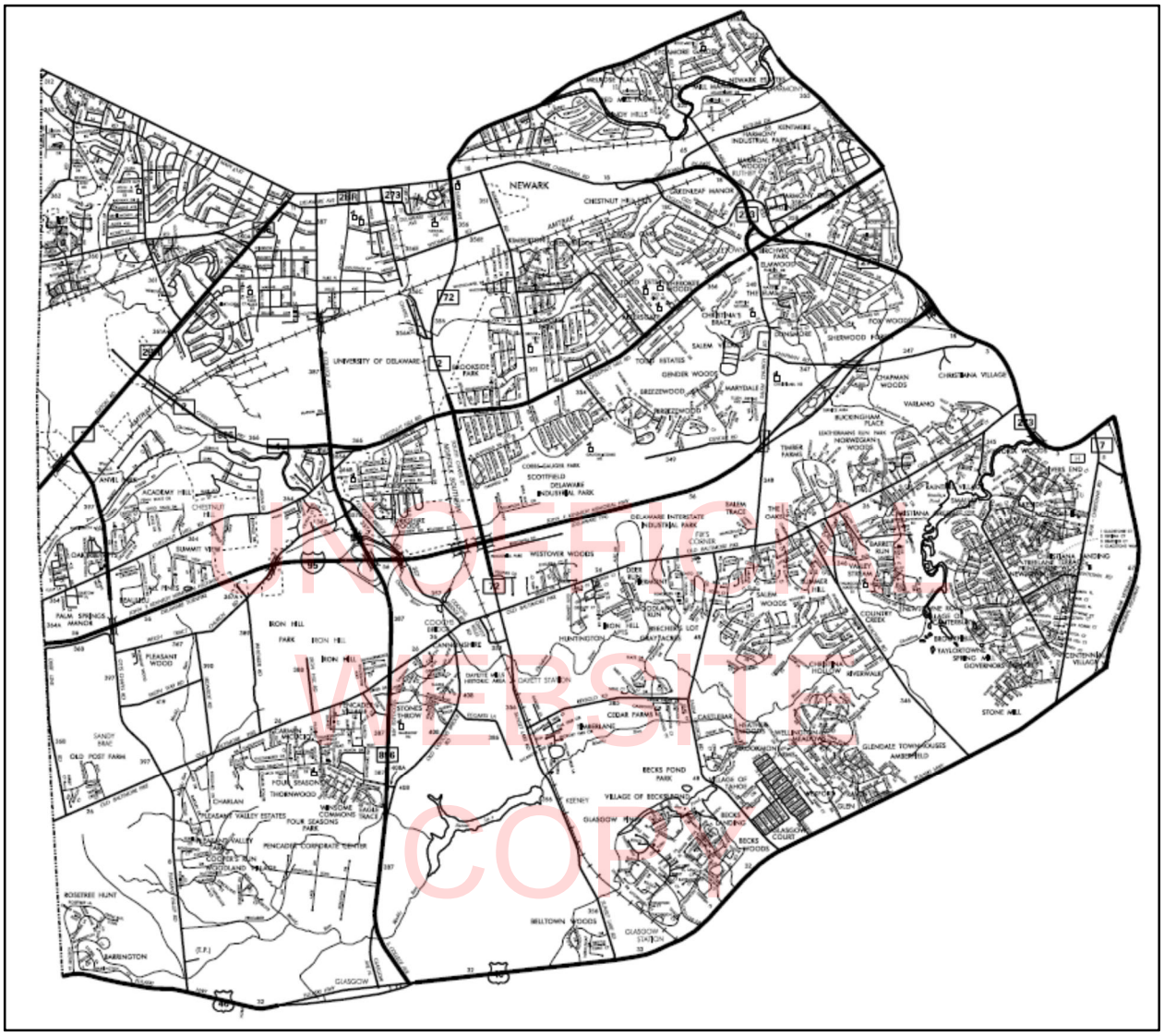
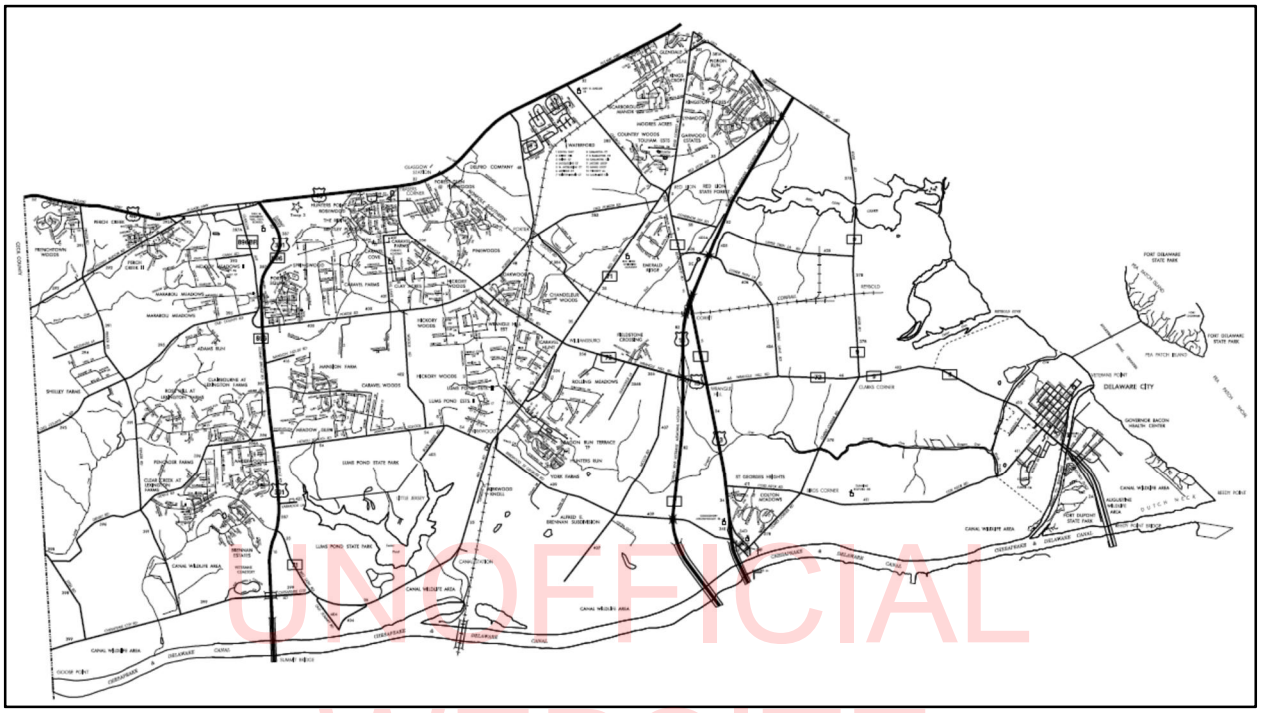
MOBILIZATION ZONE MAPS – ZONE 6



MOBILIZATION ZONE MAPS – ZONE 7



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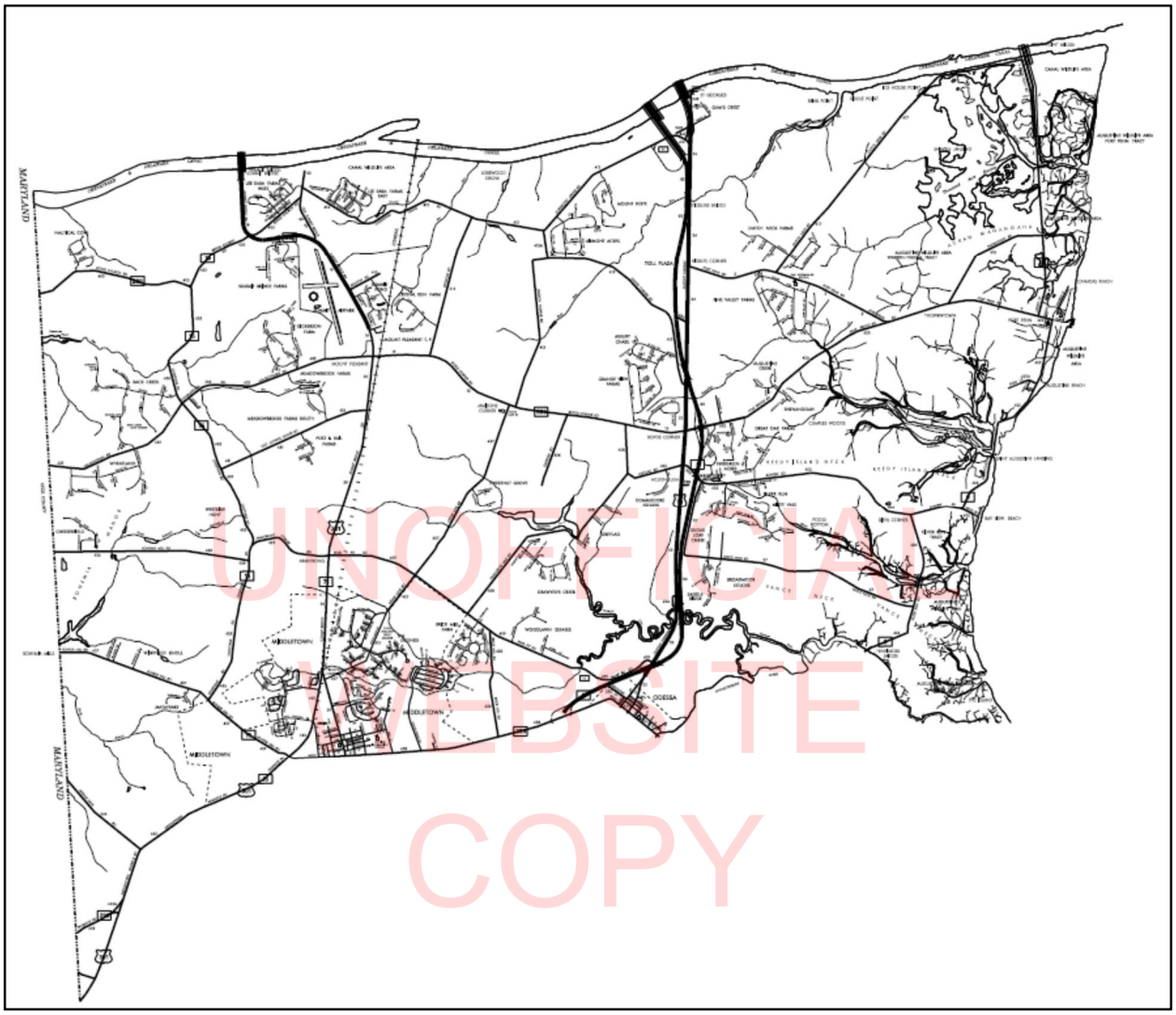
MOBILIZATION ZONE MAPS – ZONE 8



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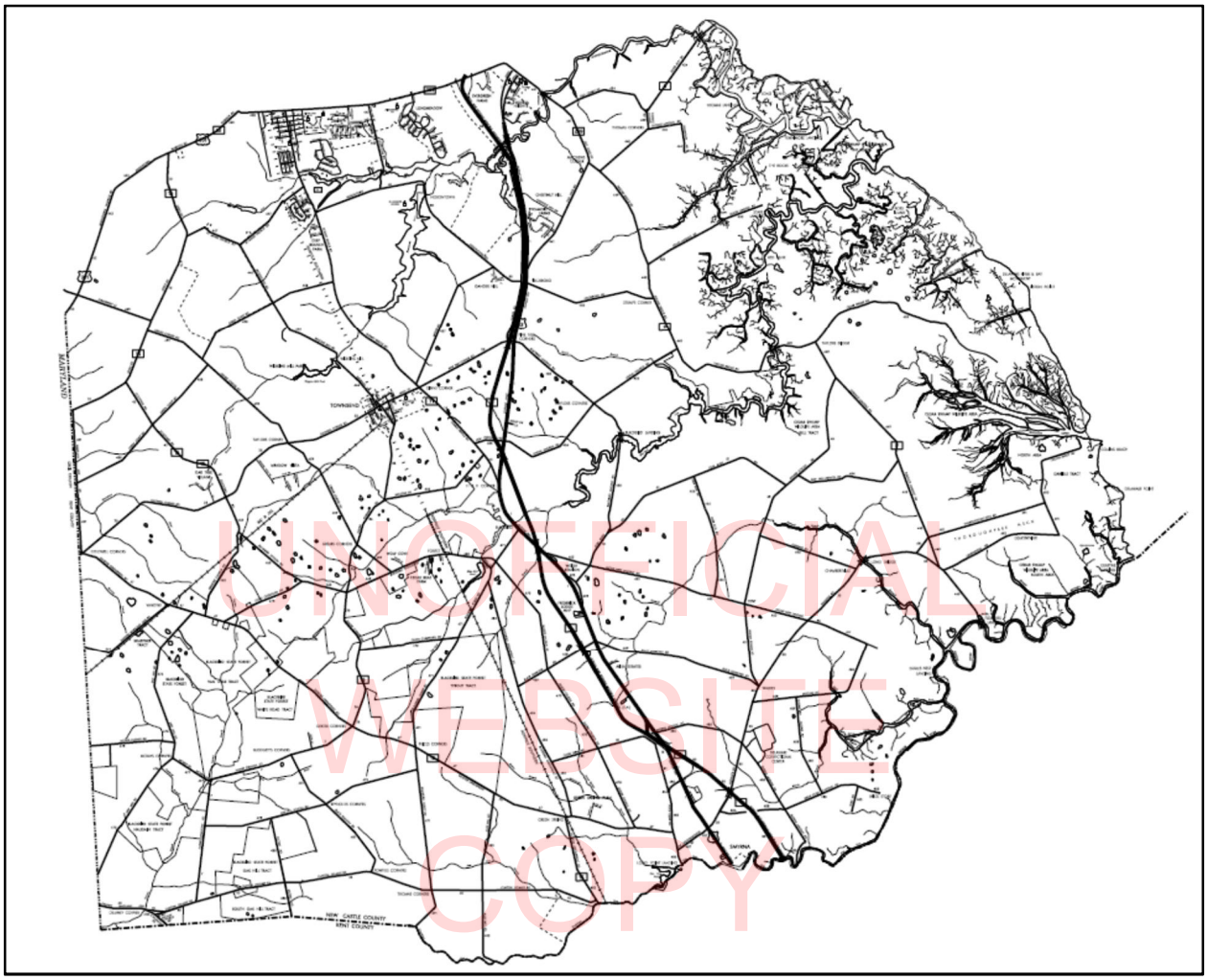
MOBILIZATION ZONE MAPS – ZONE 9



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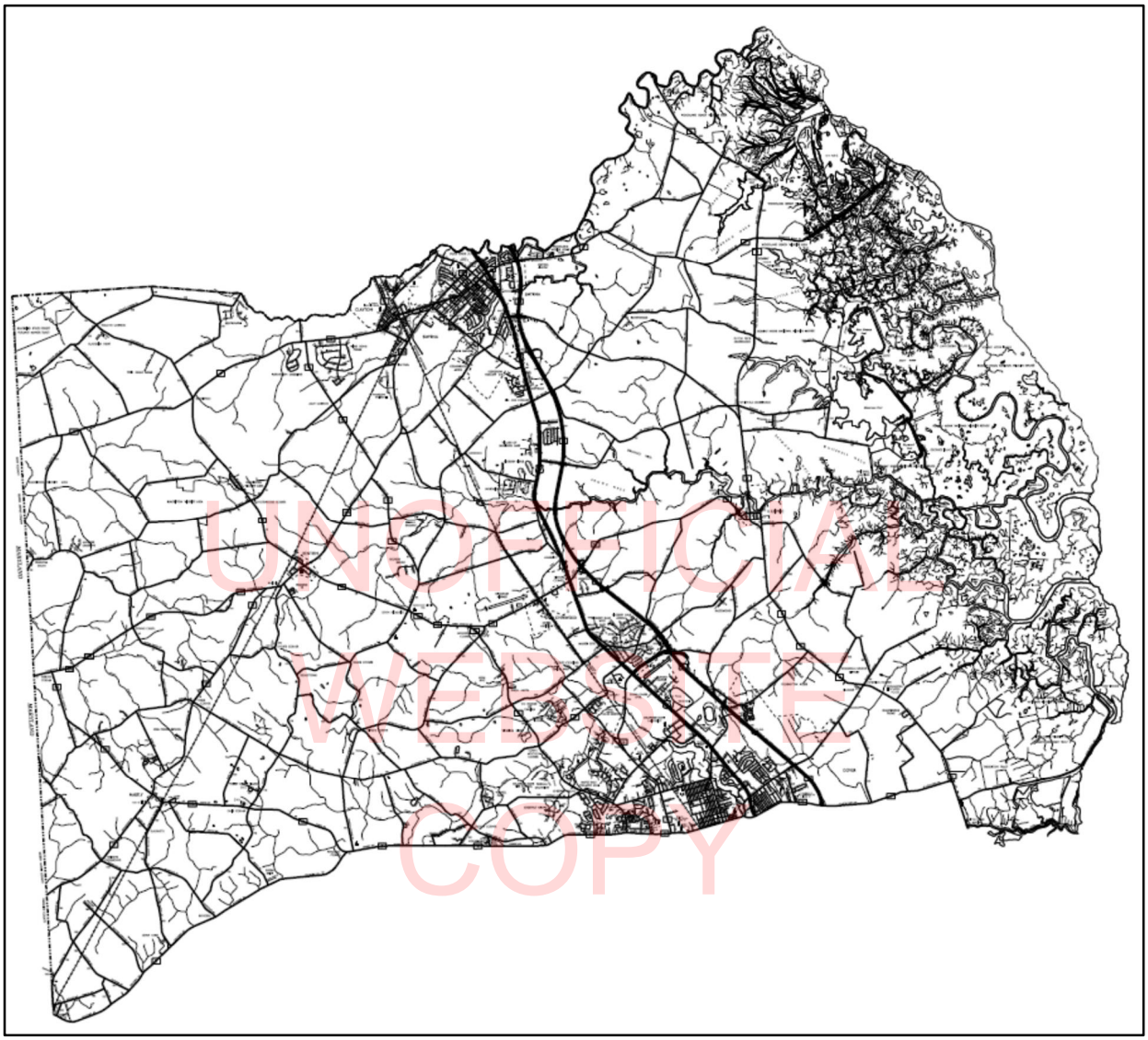
MOBILIZATION ZONE MAPS – ZONE 10



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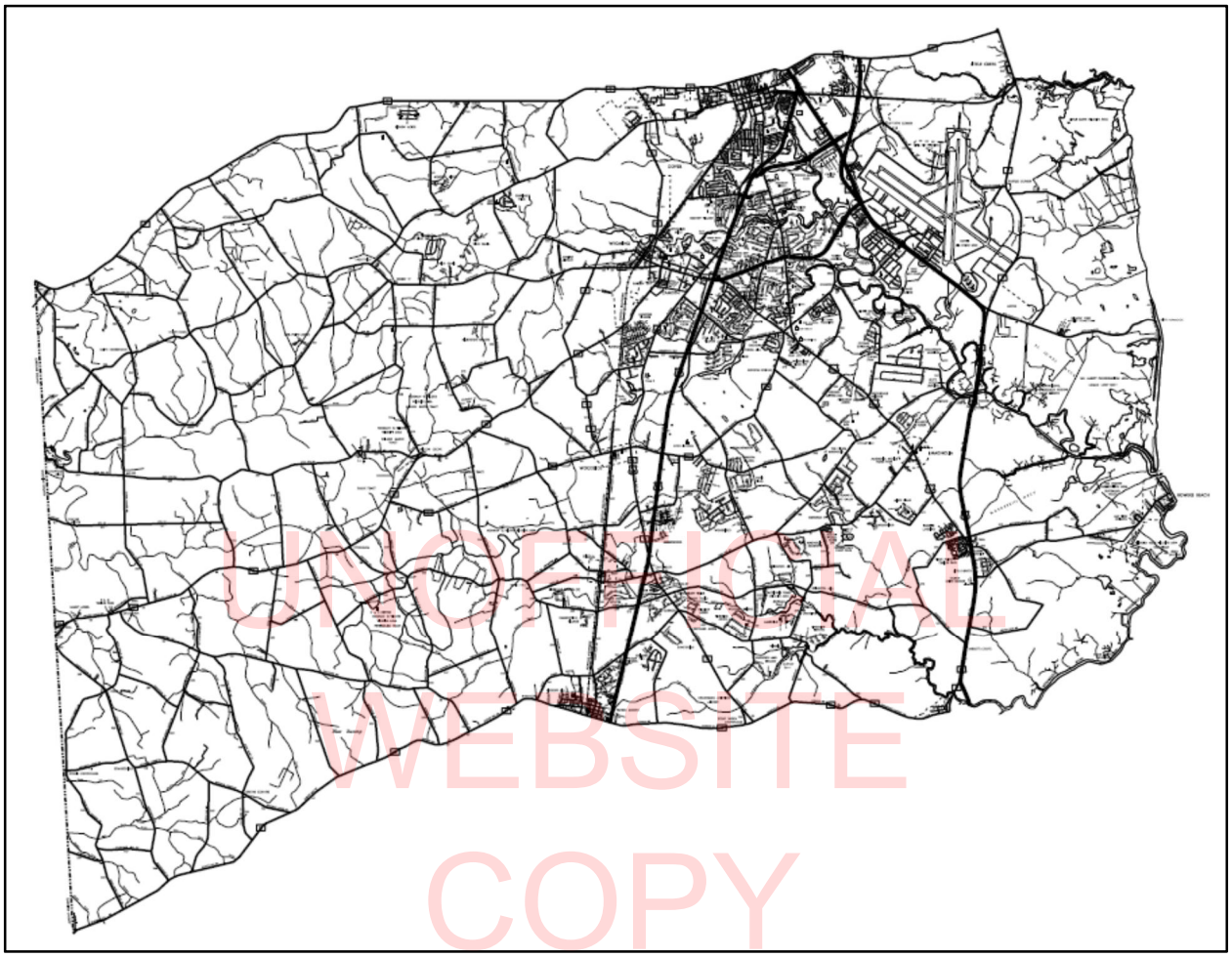

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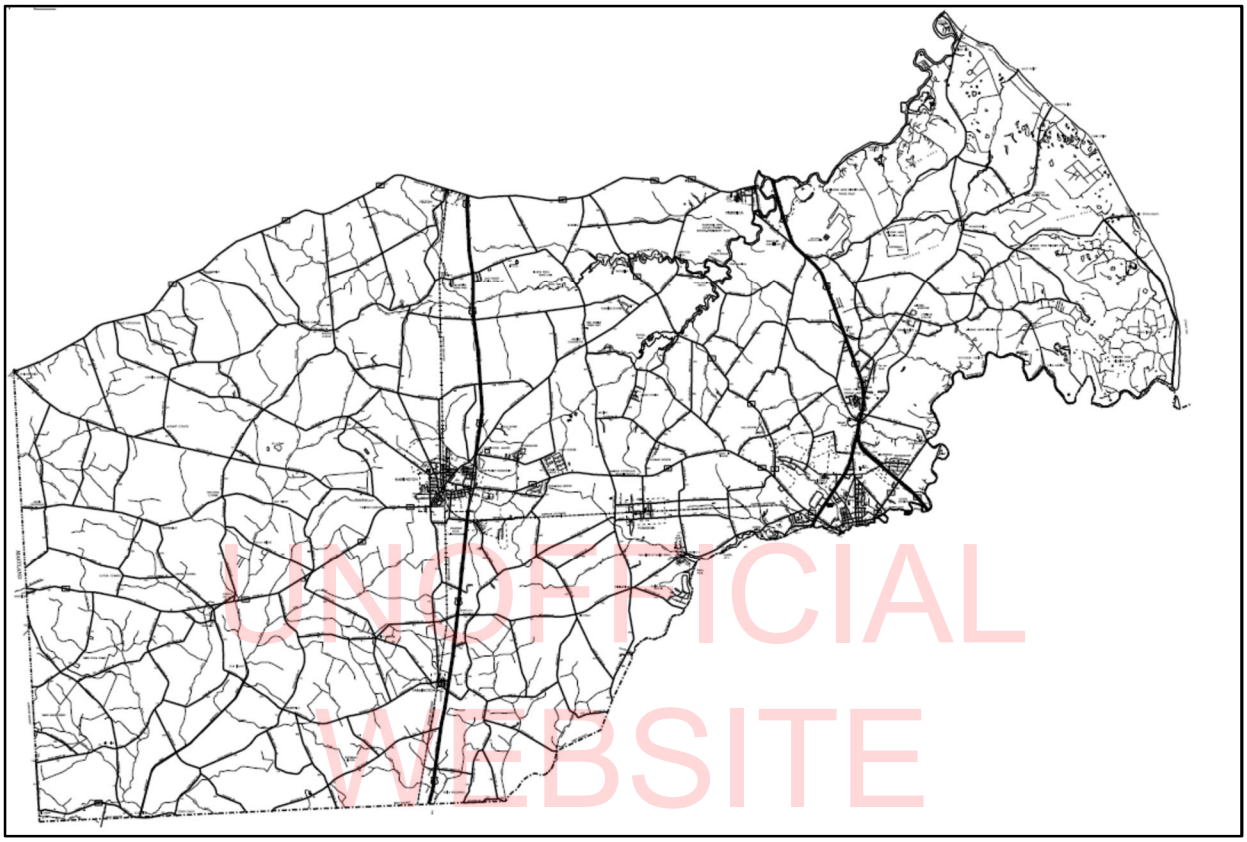

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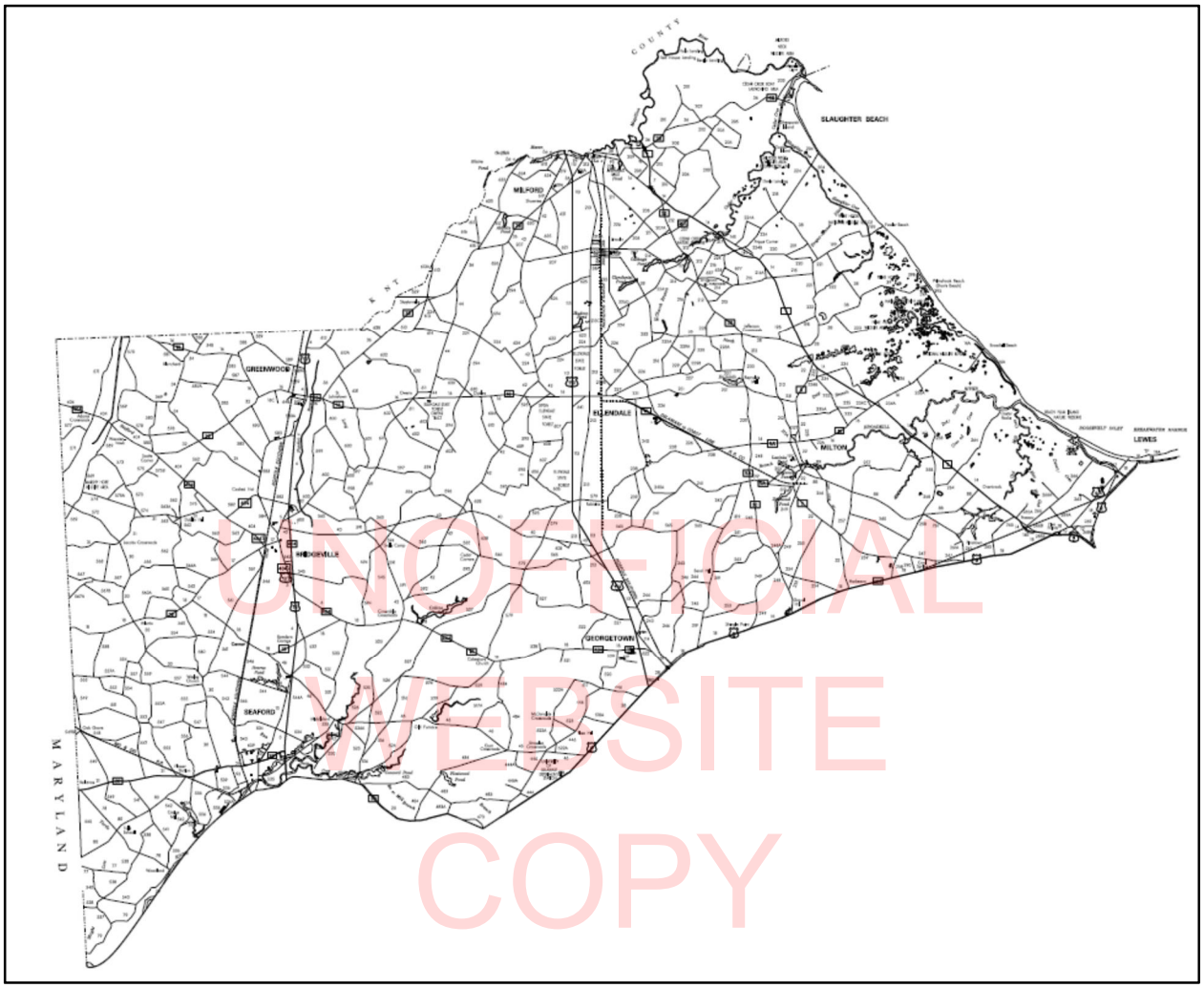
MOBILIZATION ZONE MAPS – ZONE 13



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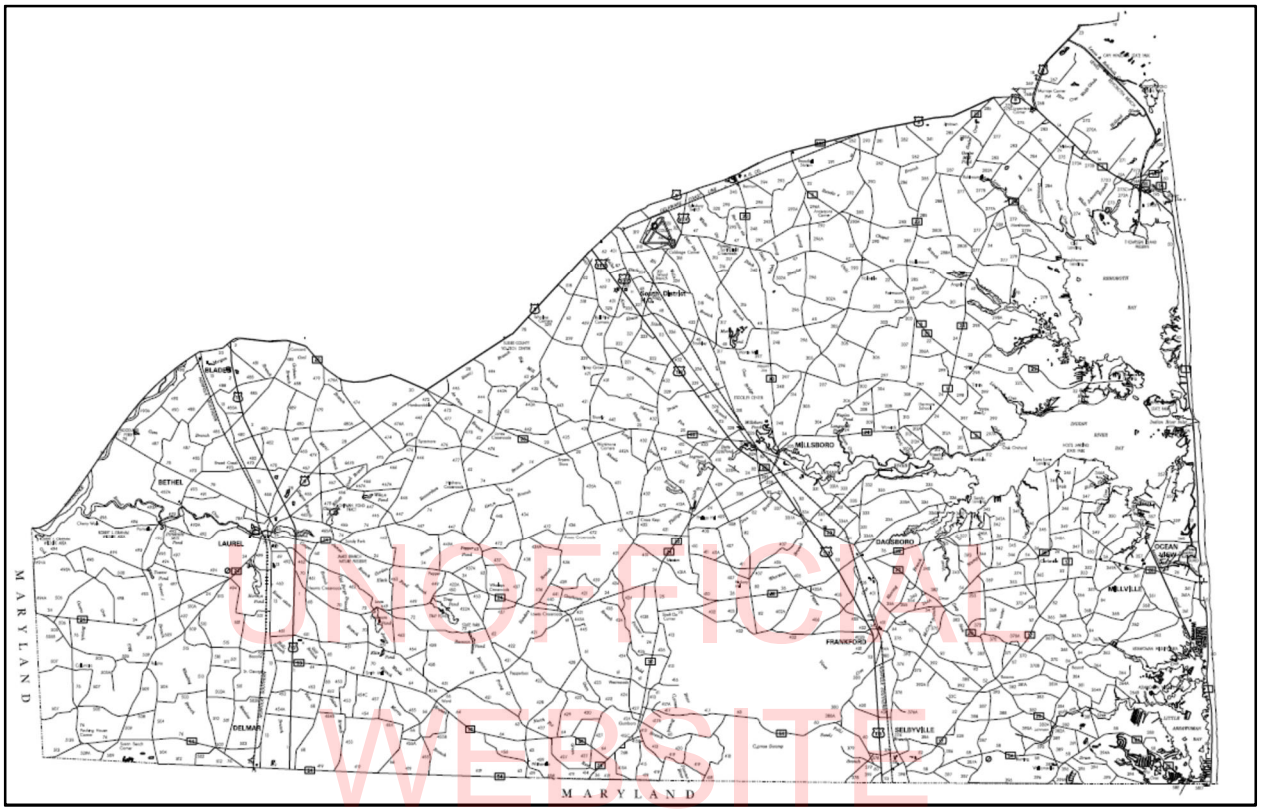
MOBILIZATION ZONE MAPS – ZONE 14



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CONTRACT QUANTITIES SUMMARY SHEET (1 OF 2)

401005	SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)	1,705.00 TON
760004	RUMBLE STRIPS, BITUMINOUS PAVEMENT, SHALLOW DEPTH	451.00 LF
760010	PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT	27,500.00 SY-IN
760504	HIGH FRICTION SURFACE TREATMENT	35,426.00 GAL
762000	SAW CUTTING, BITUMINOUS CONCRETE	667.00 LF
763544	ROAD LOCATION MOBILIZATION, ZONE 1	1.00 EACH
763545	ROAD LOCATION MOBILIZATION, ZONE 2	1.00 EACH
763546	ROAD LOCATION MOBILIZATION, ZONE 3	1.00 EACH
763547	ROAD LOCATION MOBILIZATION, ZONE 4	1.00 EACH
763548	ROAD LOCATION MOBILIZATION, ZONE 5	1.00 EACH
763549	ROAD LOCATION MOBILIZATION, ZONE 6	1.00 EACH
763550	ROAD LOCATION MOBILIZATION, ZONE 7	1.00 EACH
763551	ROAD LOCATION MOBILIZATION, ZONE 8	3.00 EACH
763552	ROAD LOCATION MOBILIZATION, ZONE 9	4.00 EACH
763553	ROAD LOCATION MOBILIZATION, ZONE 10	1.00 EACH
763554	ROAD LOCATION MOBILIZATION, ZONE 11	1.00 EACH
763555	ROAD LOCATION MOBILIZATION, ZONE 12	4.00 EACH
763556	ROAD LOCATION MOBILIZATION, ZONE 13	5.00 EACH
763557	ROAD LOCATION MOBILIZATION, ZONE 14	5.00 EACH
801503	TEMPORARY TRAFFIC CONTROL – TWO LANE, TWO-WAY WITH LANE CLOSURE (TA-10)	1.00 LS
801505	TEMPORARY TRAFFIC CONTROL – MULTILANE DIVIDED HIGHWAY WITH LANE CLOSURE (TA-33)	1.00 LS
801511	TEMPORARY TRAFFIC CONTROL – MULTILANE DIVIDED HIGHWAY DOUBLE LANE (TA-37)	1.00 LS
801517	TEMPORARY TRAFFIC CONTROL – DETOUR FOR A CLOSED STREET (TA-20)	1.00 LS
802003	ARROW PANELS TYPE C	40.00 EA-DY

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CONTRACT QUANTITIES SUMMARY SHEET (2 OF 2)

803001	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	128.00 EA-DY
804001	FURNISH AND MAINTAIN PORTABLE LIGHT ASSEMBLY (FLOOD LIGHTS)	55.00 EA-DY
805001	PLASTIC DRUMS	1,564.00 EA-DY
806001	TRAFFIC OFFICERS	156.00 HR
808001	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	75.00 EA-DY
810001	TEMPORARY WARNING SIGNS AND PLAQUES	1,750.00 EA-DY
811007	FLAGGER, NEW CASTLE COUNTY, FEDERAL	568.00 HR
811008	FLAGGER, KENT COUNTY, FEDERAL	469.00 HR
811009	FLAGGER, SUSSEX COUNTY, FEDERAL	930.00 HR
811016	FLAGGER, NEW CASTLE COIUNTY, FEDERAL, OVERTIME	50.00 HR
811017	FLAGGER, KENT COUNTY, FEDERAL, OVERTIME	40.00 HR
811018	FLAGGER, SUSSEX COUNTY, FEDERAL, OVERTIME	75.00 HR
813001	TEMPORARY BARRICADES, TYPE III	1,320.00 LF-DY
817002	PERMANENET PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLASTIC	284.00 SF
817003	TEMPORARY MARKINGS, PAINT, 4”	55,935.00 LF
817004	TEMPORARY MARKINGS, PAINT, SYMBOL/LEGEND	85.00 SF
817013	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5”	35,500.00 LF
817014	PERMANENT PAVEMENT STRIPING, EPOXY-RESIN PAINT, WHITE/YELLOW, 10”	3,725.00 LF
817027	RAISED/RECESSED PAVEMENT MARKER	70.00 EA
817031	REMOVAL OF PAVEMENT STRIPING	18,000.00 SF

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