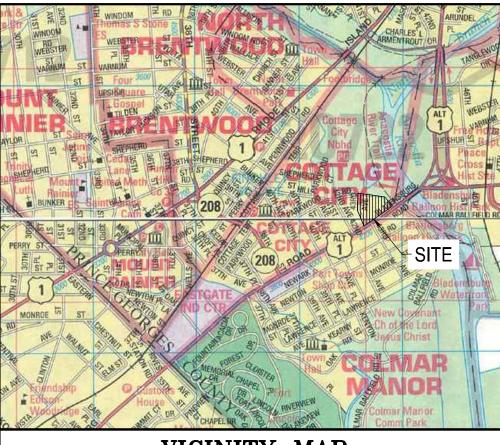
# COTTAGE CITY 43rd AVE

## 43rd AVENUE MAINTENANCE PLAN

COTTAGE CITY (2nd) ELECTION DISTRICT PRINCE GEORGE'S COUNTY, MARYLAND





### VICINITY MAI

SCALE = 1"=2,000"

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PRINCE GEORGE'S CO. MAP

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### GENERAL NOTES:

- 1. ONLY APPROVED PLANS THAT HAVE BEEN SIGNED BY THE ENGINEER OF RECORD SHALL BE USED FOR THE CONSTRUCTION OF THE IMPROVEMENTS SHOWN ON THESE DRAWINGS. AUTOCAD FILES OR OTHER ELECTRONIC FILES ARE NOT TO BE USED FOR CONSTRUCTION
- 2. THE EXISTING UTILITIES SHOWN HEREON HAVE BEEN LOCATED USING INFORMATION AVAILABLE AT THE TIME THIS PLAN WAS PREPARED. PRIOR TO DIGGING, THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES WITHIN THE LIMITS OF CONSTRUCTION SHOWN ON THIS PLAN AND CONFIRM THAT NO CONFLICTS EXIST. ANY CONFLICTS MUST BE BROUGHT TO THE ATTENTION OF CPJ AND THE OWNER PRIOR TO STARTING CONSTRUCTION.
- 3. THIS PLAN SHALL ONLY BE USED FOR THE CONSTRUCTION OF STORM DRAIN AND PAVING AND ASSOCIATED STORM DRAIN AND PAVING IMPROVEMENTS AS SHOWN. THIS PLAN SHALL NOT BE USED FOR ANY OTHER CONSTRUCTION PURPOSE.
- 4. THESE PLANS DO NOT INCLUDE THE NECESSARY PRECAUTIONS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN ACCORDANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERETO APPURTENANT.
- 5. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING, REPLACING, OR RECONSTRUCTING EXISTING SITE FEATURES (E.G. CURB AND GUTTER, SIDEWALK, FENCING, SOIL, UTILITIES, ETC.) DAMAGED AS A RESULT OF PROJECT WORK.
- 6. ALL CONSTRUCTION MUST BE DONE IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT OF 2010 AND ALL RULES AND REGULATIONS THERETO APPURTENANT.
- "MILL AND OVERLAY AS PER STANDARD F4 OF THE POLICY AND SPECIFICATION FOR UTILITY INSTILLATION AND MAINTENANCE". PLEASE BE SURE TO REFERENCE THE POLICY AND SPECIFICATIONS FOR UTILITY INSTILLATION AND MAINTENANCE TO MAKE SURE THE LIMITS OF MILL AND OVERLAY ARE CORRECT.
- 8. CONTRACTOR SHALL COORDINATE ANY CLOSURES WITH TOWN OR ENGINEER TO PROVIDE ADEQUATE NOTICE TO HOMEOWNERS OF ANY NECESSARY CLOSURES.
- 9. TO REOPEN PAVEMENT TO TRAFFIC AS SOON AS POSSIBLE, CONTRACTOR MAY SUBMIT A HIGH EARLY STRENGTH CONCRETE MIX FOR ACCEPTANCE. THE ULTIMATE CONCRETE STRENGTH MUST BE EQUAL TO OR GREATER THAN THE CONCRETE MIX SPECIFIED PER PLAN.
- 10. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING SEDIMENT LADEN WATER DOES NOT LEAVE THE SITE. CONTRACTOR SHALL INSTALL APPROPRIATE SEDIMENT CONTROL MEASURES AS NECESSARY. STANDARD SEDIMENT CONTROL NOTES AND SOME DETAILS ARE PROVIDED ON SHEETS 9 AND 10. REFER TO THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL DETAILS AND PRACTICES AS NEEDED.
- 11. CONTRACTOR SHALL PROVIDE ALL NECESSARY SIGNAGE AND FLAGGERS TO MAINTAIN SAFE PASSAGE OF VEHICLES AND PEDESTRIANS AROUND WORK ZONE.

### MISS UTILITY

Call "Miss Utility" at 1—800—257—7777, 48 hours prior to the start of work
The excavator must notify all public utility companies with underground
facilities in the area of proposed excavation and have those facilities
located by the utility companies prior to commencing excavation.

### STABILIZATION NOTE

STABILIZATION PRACTICES ON ALL PROJECTS MUST BE IN COMPLIANCE WITH THE REQUIREMENTS OF COMAR 26.17.1.08 G REGULATIONS BY JANUARY 9, 2013, REGARDLESS OF WHEN AN EROSION SEDIMENT CONTROL PLAN WAS APPROVED. FOLLOWING INITIAL SOIL DISTURBANCE OR RE—DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN: THREE (3) CALENDAR DAY AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) CALENDAR DAY AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

COVER SHEET 43rd AVENUE CONCEPT PLAN

COTTAGE CITY 43rd AVENUE COTTAGE CITY (2ND) ELECTION DISTRICT PRINCE GEORGE'S COUNTY, MARYLAND



Charles P. Johnson & Associates, Inc.

Civil and Environmental Engineers · Planners · Landscape Architects · Surveyors

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CLIENT: TOWN OF COTTAGE CITY
3820 40TH AVENUE
COTTAGE CITY, MD 20722
ATTN: CAROL RICHARDSON, TOWN MANAGER

DESIGN
BMF

DRAFT
JMN

DATE
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DESIGN
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JMN

DATE
MAR., 2024

FILE NO:

SCALE
AS SHOWN

2020-3050

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS
WERE PREPARED OR APPROVED BY ME, AND TH.
I AM A DULY LICENSED PROFESSIONAL ENGINEE
UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE #: 38851

EXPIRATION DATE: 12/13/2025

### **ABBREVIATIONS**

Pavement ACI Point of Curvature American Concrete Institute ASTM American Society for Testing Materials PCC Point of Compound Curvature AHD P/C Point of Crown APPROX. Approximate P/GE Profile Grade Elevation Þ or B/L P.G.E. Baseline **Profile Ground Elevation** Back / Book P.G.L. Profile Grade Line BIT. Bituminous P/GL Profile Ground Line B.C. **Bituminous Concrete** Plasticity Index B.M. Bench Mark Point of Intersection BOT. POC Point On Curve C/C Center-to-Center POT Point On Tangent Polyvinyl Chloride Profile Wall Pipe Cubic Feet PPWP cfs Cubit Feet per Second PROP Proposed CPv Channel Protection Volume PRC Point of Reverse Curve D50 50th Percentile of Diameter Point of Tangency D.I.P. Ductile Iron Pipe Polyvinyl Chloride C.C. Center of Curve Rock Fragments CAP Corrugated Aluminum Pipe CAPA Corrugated Aluminum Pipe Arch CATV Cable Television RW OR R/W Right of Way R.C.P. Ñ or C/L Centerline Reinforced Concrete Pipe RCPP Reinforced Concrete Pressure Pipe R.Q.D. Chainlink Fence Rock Quality Designation CLF R.M. Corrugated Metal Pipe Rootmat CMP South C.O. Cleanout Combination SAN. Sanitary Sewer COMB. SB OR S/B Concrete Southbound CONC. S.D. Storm Drain Construction CONSTR S.D.D. Surface Drain Ditch COR. Corner Correction Silt Fence CORR. Corrugated Polyethylene Pipe - Type 'S' Square Feet CPP-S SHT. Corrugated Steel Pipe - Aluminized Type 2 CSP S.P.T. Corrugated Steel Pipe Arch - Aluminized Type 2 Standard Penetration Testing CSPA Degree of Curve SRP Steel Spiral Rib Pipe - Aluminized Type 2 DC SRPA Steel Spiral Rib Pipe arch - Aluminized Type 2 Design Hourly Volume D.H.V. SSF Super Silt Fence Drop Inlet D.I. S.S. Diameter Side Slope DIA. STD. D.O. **Double Opening** Standard Station Electric Single Opening EΑ Square Yards Elevation Stormwater Management **ELEV** ES End Section Tangent Existing EX or EXIST Telephone Feet Per Second Top of Cover f.p.s. T.G. Top of Grate Flowline T OR TL F or FL Traverse Line F.B.D. Flat Bottom Ditch T.M. Top of Manhole Fire Hydrant TRAV. F.H. Traverse Forward TS FWD. **Temporary Swale** T.S. Top of Slab Galvanized T.S. GALV. Topsoil Gas Valve Typical G.V. Handbox U.D. Under Drain H.B. H.D.P.E. High Density Polyetheylene U.G. Underground Headwall HDWL. Utility Pole United States Department of Agriculture Hydraulic Grade Line HGL Hydrologic Soil Group Velocity HSG Horizontal Ellipitical Reinforced Concrete Pipe Water HERCP Inch WB Westbound I.S.T Inlet Sediment Trap WB Wetland Buffer W.M. Water Meter Junction Box W.S. Wrapped Steel K Inlet **WSE** Water Surface Elevation Length WUS Waters of the United States Linear Feet W.V. Water Valve Liquid Limit Water Quality Volume WQv Low Point Diameter Light Pole Left Macadam MAC. Maximum MAX. Modified MOD. Minimum MIN. Montgomery County Department of Permitting Services MCDPS Maryland Department of the Environment MDE MH

Maryland National Capital Park and Planning Commission

Maryland State Highway Administration

Not To Scale

Northbound Northeast

Non-Plastic On Center

Overhead Electric

North

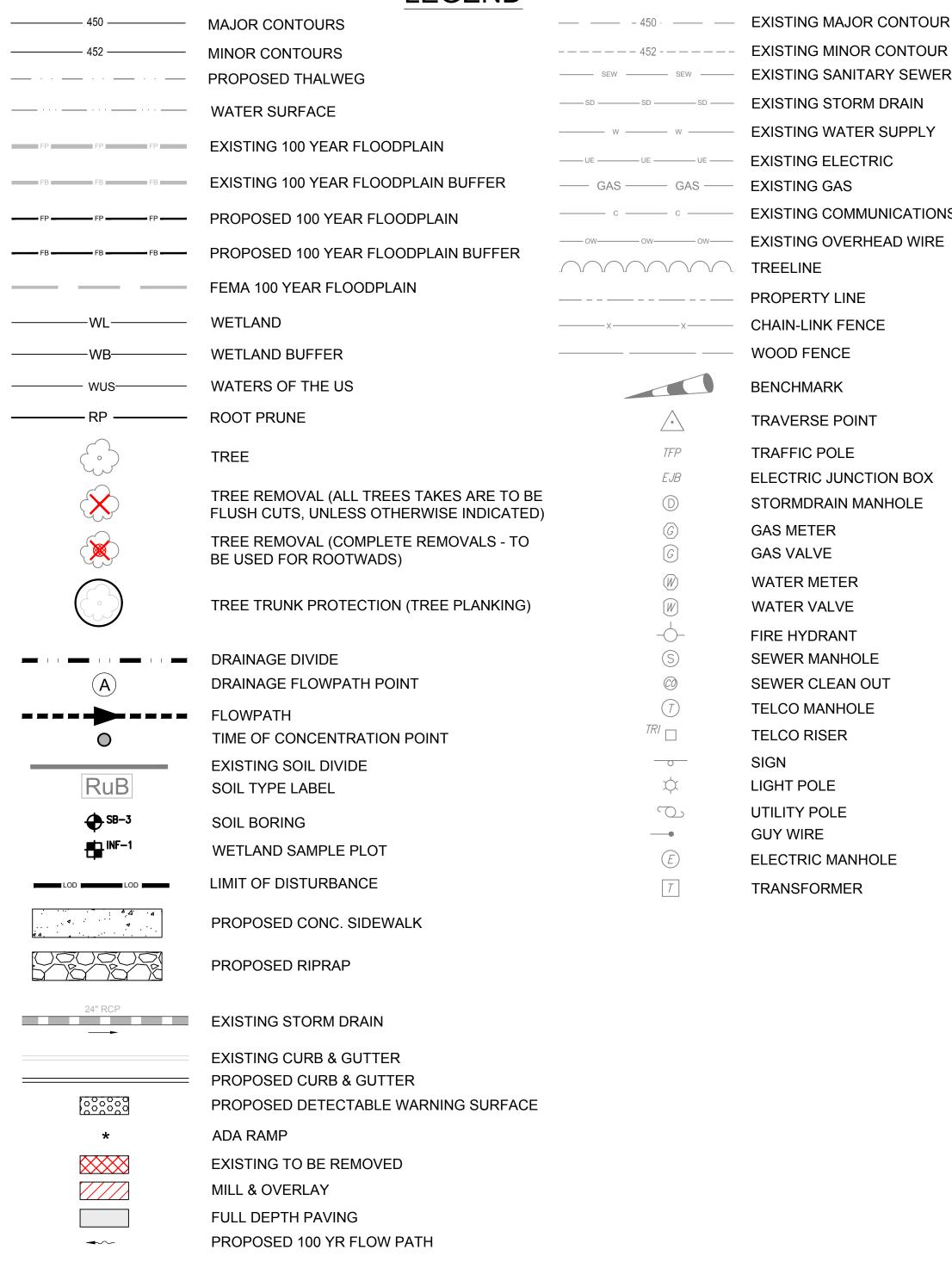
MNCPPC

MSHA

NTS

O.C.

### LEGEND



LONGITUDINALLY SLOTTED DRAIN

---- 452 ---- EXISTING MINOR CONTOUR ---- SEW ---- SEW --- EXISTING SANITARY SEWER ——SD ———SD ———SD —— EXISTING STORM DRAIN ——— w ——— EXISTING WATER SUPPLY ——UE ——UE —— EXISTING ELECTRIC — GAS — GAS — EXISTING GAS EXISTING COMMUNICATIONS **EXISTING OVERHEAD WIRE** TREELINE — - - — PROPERTY LINE CHAIN-LINK FENCE WOOD FENCE **BENCHMARK** TRAVERSE POINT TRAFFIC POLE **ELECTRIC JUNCTION BOX** STORMDRAIN MANHOLE GAS METER GAS VALVE WATER METER WATER VALVE FIRE HYDRANT SEWER MANHOLE **SEWER CLEAN OUT TELCO MANHOLE**  $^{TRI}$ TELCO RISER SIGN LIGHT POLE

**UTILITY POLE** 

TRANSFORMER

**ELECTRIC MANHOLE** 

**GUY WIRE** 

MASTER LEGEND 43rd AVENUE CONCEPT PLAN

COTTAGE CITY 43rd AVENUE COTTAGE CITY (2ND) ELECTION DISTRICT PRINCE GEORGE'S COUNTY, MARYLAND



WERE PREPARED OR APPROVED BY ME AND THA I AM A DULY LICENSED PROFESSIONAL ENGINEER
UNDER THE LAWS OF THE STATE OF MARYLAND.

ICENSE #: 38851

RATION DATE: 12/13/2025

The Charles P. Johnson & Associates, Inc. Civil and Environmental Engineers • Planners • Landscape Architects • Surveyors Associates 1751 Elton Rd., Ste. 300 Silver Spring, MD 20903 301-434-7000 Fax: 301-434-9394 www.cpja.com • Silver Spring, MD • Gaithersburg, MD • Annapolis, MD • Greenbelt, MD • Frederick, MD • Fairfax, VA

CLIENT: TOWN OF COTTAGE CITY 3820 40TH AVENUE	TAX MAP/WSSC N/A	SITE PLAN NO: N/A	
COTTAGE CITY, MD 20722 ATTN: CAROL RICHARDSON, TOWN MANAGER	DESIGN BMF	SHEET	OF 1
COPYRIGHT © LATEST DATE HEREON CHARLES P. JOHNSON & ASSOCIATES, INC. ALL RIGHTS RESERVED,	DATE MAR., 2024	FILE NO :	10
UNAUTHORIZED USE OR REPRODUCTION IS PROHIBITED.	SCALE AS SHOWN	2020-	-3050

### GENERAL STORM DRAIN AND PAVING NOTES

- 1) INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS, BY HAND OR VACUUM, AT UTILITY CROSSINGS WELL IN ADVANCE OF TRENCHING. IF CLEARANCES TO WATER AND SEWER LINES ARE LESS THAN SHOWN ON THIS PLAN, OR LESS THAN TWELVE (12) INCHES, CONTACT THE DEPARTMENT OF PERMITTING INSPECTION AND ENFORCEMENT (DPIE) INSPECTOR BEFORE PROCEEDING WITH CONSTRUCTION.
- 2) ALL STORM DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE STORMWATER MANAGEMENT STANDARDS AND SPECIFICATIONS OF PRINCE GEORGE'S COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION.
- 3) FOR TYPES OF STORM DRAIN STRUCTURES, REFER TO THE LATEST STANDARD DETAILS OF PRINCE GEORGE'S COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION, UNLESS OTHERWISE NOTED.
- 4) ALL ROADWAY CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING: THE DPW&T SPECIFICATIONS AND STANDARDS FOR ROADWAYS AND BRIDGES; THE PRINCE GEORGE'S COUNTY CODE, SUBTITLE 23, ROAD ORDINANCE; AND THE PRINCE GEORGE'S COUNTY POLICY AND SPECIFICATION FOR UTILITY INSTALLATION AND MAINTENANCE.
- 5) PRIOR TO DIGGING WITHIN THE PUBLIC RIGHT-OF-WAY, CALL "MISS UTILITY" TOLL FREE AT (800) 257-7777 FOR UTILITY LOCATION AT LEAST 48 HOURS BEFORE BEGINNING CONSTRUCTION.
- 6) PRIOR TO PERMIT ISSUANCE AND STARTING ANY WORK SHOWN ON THIS PLAN, THE PERMITTEE SHALL ARRANGE A PRE-CONSTRUCTION MEETING WITH THE DPIE INSPECTOR BY CALLING (301) 883-5730. AN INITIAL INSPECTION IS REQUIRED PRIOR TO FULL MASS GRADING OF THE SITE.
- 7) IN ACCORDANCE WITH SECTION 23-128, THE COUNTY'S ROAD ORDINANCE, A PROJECT SIGN SHALL BE POSTED PROMINENTLY DESCRIBING THE FOLLOWING:
   SUBDIVISION NAME (AS SHOWN ON PERMIT APPLICATION)
- OWNER/PERMITTEE NAME
- OWNER/PERMITTEE NAME
  OWNER/PERMITTEE ADDRESS AND PHONE
- DPW&T PERMIT NUMBER
- 8) ALL ELEVATIONS SHOWN ON THIS PLAN ARE IN ACCORDANCE WITH THE FOLLOWING: HORIZONTAL--MARYLAND COORDINATE SYSTEM (STATE PLANE GRID) BASED ON NORTH AMERICAN DATUM OF 1983 (NAD 83); NATIONAL GEODOTIC VERTICAL DATUM OF 1929 (NG VD 29).
- 9) TEMPORARY TRAFFIC CONTROL AND PERMANENT TRAFFIC SIGNS SHALL CONFORM TO THE LATEST EDITION OF THE FEDERAL HIGHWAY ADMINISTRATION'S MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- 10) IT SHALL BE THE RESPONSIBILITY OF THE PERMITTEE TO ARRANGE FOR THE ADJUSTMENT OR RELOCATION OF ALL UTILITIES.
- 11) ALL UNSUITABLE MATERIAL MUST BE REMOVED AND REPLACED WITH SUITABLE MATERIAL TO A DEPTH AS DIRECTED BY THE GEOTECHNICAL ENGINEER, THE DPW&T INSPECTOR, AND/OR THE DEPARTMENT'S ENGINEER.
- 12) EXCAVATION AND PLACEMENT OF FILL MATERIAL SHALL BE PERFORMED UNDER THE SUPERVISION OF A MARYLAND-LICENSED ENGINEER.
- 13) THE PERMITTEE WILL BE REQUIRED TO FURNISH COMPACTION REPORTS CERTIFIED BY A MARYLAND-LICENSED ENGINEER ON EACH LAYER OF FILL MATERIAL PRIOR TO PLACING SUBSEQUENT LAYERS.
- 14) DURING THE PLACEMENT OF A STANDARD PAVEMENT SECTION, NO PAVEMENT COURSE OR STONE LIFT SHALL BE PLACED UNTIL THE UNDERLYING COURSE OR SUBGRADE IS APPROVED BY THE DPW&T INSPECTOR. THE APPROVAL SHALL EXPIRE IF TRAFFIC OR INCLEMENT WEATHER AFFECTS THE SITE PRIOR TO PAVING.
- 15) AS SOON AS THE ASPHALT BASE COURSE IS APPROVED, THE INTERMEDIATE ASPHALT COURSE SHALL BE PLACED IMMEDIATELY OVER IT TO FORM A PROTECTIVE SEAL
- 16) TEMPORARY STREET NAME SIGN INSTALLATION AND MAINTENANCE IS THE OBLIGATION OF THE PERMITTEE ONCE BASE PAVING IS COMPLETED.
- 17) WHERE ROADWAY CONSTRUCTION IS ON OR IN THE VICINITY OF AN EXISTING ROAD, IN-KIND PAVEMENT MARKING AND STRIPING REPLACEMENT (E.G., THERMOPLASTIC, PAINTED, ETC.) ARE REQUIRED. ALSO, APPROPRIATE PAVEMENT MARKING AND STRIPING SHALL BE PROVIDED IN THE AREA OF PAVEMENT WIDENING AND/OR RECONSTRUCTION AND/OR OVERLAY OF AN EXISTING ROAD.
- 18) SAW CUT AND MILL A 2-INCH DEEP, 10-FOOT-WIDE NOTCH AT EXISTING EDGE OF PAVEMENT WHERE IT IS NECESSARY TO CONNECT TO OR TO EXTEND AN EXISTING ROAD. OVERLAY AT POINT OF TIE-IN TO ENSURE A SMOOTH TRANSITION AND POSITIVE DRAINAGE.
- 19) WHERE IT IS NECESSARY TO WIDEN AN EXISTING ROAD, AND MILLING AND OVERLAY REQUIREMENTS HAVE BEEN WAIVED OR REDUCED, THE WIDENING AND THE EDGE TREATMENT OF EXISTING ROAD SHALL BE CONSTRUCTED IN ACCORDANCE WITH DPW&T STANDARD NO. 300.20 UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT.
- 20) ALL RESIDENTIAL ROADWAY FILLET RADII SHALL BE AT LEAST 37 FEET, UNLESS OTHERWISE NOTED. ROADWAYS WITH HIGHER CLASSIFICATION REQUIRE 45 FEET AND/OR 50 FEET RADII.
- 21) AN UNDERDRAIN SYSTEM IS REQUIRED FOR THE FULL LENGTH OF ALL PROPOSED AND MODIFIED ROADWAYS, ON BOTH SIDES, AND TO THE LIMITS OF THE PERMIT SHOWN ON THIS PLAN.
- 22) ALL CURB AND GUTTER SHALL BE CONSTRUCTED IN ACCORDANCE WITH DPW&T STANDARDS NO. 300.01 THROUGH 300.04 UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT.
- 23) BRICK CHANNELIZATION IS REQUIRED IN ALL PUBLIC DPW&T STORM DRAIN STRUCTURES. CONCRETE CHANNELIZATION IS NOT ALLOWED.
- 24) POSITIVE DRAINAGE SHALL BE MAINTAINED THROUGHOUT THE AREA COVERED BY THIS PERMIT AND THROUGH ADJACENT PROPERTY FRONTAGES.
- 25) ALL UNPAVED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE SODDED.
- 26) ALL SIDEWALK RAMPS SHOWN ON THIS PLAN SHALL BE CONSTRUCTED IN ACCORDANCE WITH DPW&T STANDARDS 300.05 THROUGH 300.10 AND SHALL COMPLY WITH THE LATEST REVISION TO THE FEDERAL ACCESSIBILITY GUIDELINES OF THE AMERICANS WITH DISABILITIES ACT.

- 27) ALL SIDEWALKS SHOWN ON THIS PLAN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST DPW&T STANDARDS AND SHALL COMPLY WITH THE LATEST REVISION TO THE FEDERAL ACCESSIBILITY GUIDELINES OF AMERICANS WITH DISABILITIES ACT.
- 28) ALL SIDEWALKS (EXCEPT AS NOTED HEREIN) ARE TO BE CONSTRUCTED BY THE SITE DEVELOPER.
- 29) SIDEWALKS ALONG FRONTAGES OF OPEN-SPACE PARCELS AND THOSE NOT COVERED BY A SINGLE-FAMILY BUILDING PERMIT SHALL BE CONSTRUCTED UNDER THIS STREET CONSTRUCTION PERMIT.
- 30) THE WIDTH OF A RESIDENTIAL DRIVEWAY APRON AT THE PROPERTY LINE SHALL NOT BE LESS THAN THE WIDTH OF THE ON-SITE PARKING PAD AT ITS WIDEST POINT, A MAXIMUM WIDTH OF 20 FEET, AND A MINIMUM WIDTH OF 10 FEET. A RESIDENTIAL DRIVEWAY APRON FLARE SHALL NOT BE CONSTRUCTED CLOSER THAN 3.5 FEET TO THE NEAREST ABUTTING PROPERTY LINE.
- 31) ALL DRIVEWAY APRONS ARE TO BE CONSTRUCTED BY THE SITE DEVELOPER.
- 32) ENSURE THAT STREET TREES ARE NO CLOSER THAN 1 FOOT TO THE RIGHT-OF-WAY LINE, IN AN OPEN SPACE SECTION CONFIGURATION, AND NO CLOSER THAN 15 FEET FROM STREET LIGHT OR POLE, AND OF APPROPRIATE HEIGHT SO AS NOT TO INTERFERE WITH EXISTING OR PROPOSED OVERHEAD UTILITY LINES. ALL STREETSCAPE PLANTING SHALL BE IN ACCORDANCE WITH DPW&T STANDARDS 600.01 THROUGH 600.20 UNLESS DIRECTED OTHERWISE BY THE DEPARTMENT.
- 33) PAVEMENT QUALITY CONTROL AND CORING WILL BE REQUIRED OF THE PERMITTEE FOR ALL PAVEMENT COURSES USING THE FOLLOWING PROCESS:
- a. PRIOR TO PAVING, PERMITEE/PAVING CONTRACTOR SHALL ELECTRONICALLY NOTIFY INSPECTOR OF PAVING DATES (FAX CAN OCCASIONALLY BE ACCEPTED), AND PROVIDE INFORMATION NEEDED FOR CORE TESTING REQUEST (CTR FORM #1). DPW&T INSPECTOR FILLS OUT THE CTR FORM THEN SENDS IT TO THE MATERIALS LAB.
- b. CONTRACTORS, WHO ARE NEW TO THE MATERIALS LAB, SHALL ELECTRONICALLY SUBMIT QC PLANS TO IT, AND ARRANGE TO BE INITIATED BY IT PRIOR TO PAVING.
- c. THE PERMITEE/PAVING CONTRACTOR MUST PROVIDE A MD-CERTIFIED FIELD TECHNICIAN FOR DAILY QUALITY CONTROL (QC) TESTING DURING THE ENTIRE PAVING OPERATION (NOT JUST ITS END). FIELD TECHNICIAN SHALL BE ADEQUATELY EQUIPPED WITH A PHONE, CALIBRATED THERMOMETER, AND A CALIBRATED THIN-LIFT DENSITY GAUGE FOR QC AND INSPECTOR-REQUESTED TESTING.
- d. HMA DENSITY GAUGES SHALL BE VALIDATED AND CALIBRATED DAILY (SHA 504.03.10. A.2), SO THEIR READINGS CAN BE ACCEPTED FOR COURSE PLACED WITH A TOTAL TONNAGE UNDER 200 TONS OR ACCEPTABLE THICKNESS UNDER 1.2" DUE TO PATCHING, WEDGE & LEVELING, BRIDGE DECKS, ... ETC.
- e. FIELD TECH. SHALL CALL THE MATERIALS LAB WITH DATE & TIME OF CORE CUTTING SO IT CAN BE WITNESSED, AND CORES & HMA SAMPLES CAN BE RECEIVED ON SITE BY A LAB INSPECTOR.
- f. INSPECTOR RANDOMLY SELECTS & MARKS CORE LOCATIONS IN THE FIELD; NOTES THEM DOWN ON THE CTR STATING STREET'S NAME AND ADDRESS, LOT #, STA #, OR DISTANCE FROM NEAREST INTERSECTION; THEN FAXES THE CTR AGAIN TO THE LAB, AND GIVES TO FIELD TECH BOXES FOR ONLY PR. GEOGE'S COUNTY HMA SAMPLES.
- g. FIELD TECH. SHALL CHECK DELIVERY TICKETS FOR COUNTY-REQUIRED INFO, COLLECT AT LEAST ONE BEHIND-THE-PAVER HMA SAMPLE/MIX/DAY, AND CUT AT LEAST 5 CORES/MIX/DAY BUT NO LESS THAN 2 CORES FROM EACH STREET, UNLESS OTHERWISE INSTRUCTED BY AN INSPECTOR; THEN HAND OVER THE SAMPLES TO DPWT INSPECTOR NO LATER THAN ONE (1) BUSINESS DAY FROM THE PAVING.
- h. IF, AT THE LAB'S DISCRETION, THE CORES' CUTTING IS NOT WITNESSED, CORES SHALL BE RECEIVED IN THE LAB, IN ONE BUSINESS DAY FROM PAVING, AS LONG AS THEY ARE NUMBERED AND WELL IDENTIFIED ON FORM #2 BY: PROJECT NAME, STREET NAME, CORE LOCATION, PAVING DATE, CORING DATE, MIX CODE, ... ETC. IF NOT PROPERLY IDENTIFIED, CORES WILL NOT BE ACCEPTED.
- i. IF, AT THE LAB'S DISCRETION, A BEHIND-THE-PAVER HMA SAMPLE IS NOT RECEIVED ON SITE, IT SHALL BE RECEIVED IN THE LAB ALONG WITH CERTIFIED DELIVERY TICKETS, IN ONE (1) BUSINESS DAY, AND BE IDENTIFIED BY: PROJECT NAME, SAMPLING LOCATION, PAVING DATE, & STATE MIX DESIGNATION. IF NOT PROPERLY LABELED, HMA SAMPLES WILL NOT BE ACCEPTED.
- j. IF CORES ARE TESTED AT AN INDEPENDENT THIRD PARTY'S TESTING LAB, THAT LAB MUST BE AASHTO ACCREDITED FOR SPECIFIC TESTS, AND BE INITIATED BY THE MATERIALS LAB, WHICH SHALL BE NOTIFIED (FAX CAN OCCASIONALLY BE ACCEPTED), OF THE TESTING DATE & TIME SO IT MAY WITNESS THE 3RD PARTY TESTING.
- k. CORE RESULTS SHALL BE REPORTED ON CORE ANALYSIS (FORM #2), E-MAILED1 TO MATERIALS LAB & INSPECTOR NO LATER THAN ONE BUSINESS DAY FROM TESTING (ONE DAY FROM CUTTING FOR COMPANION CORES), AND MAILED OUT TO PERMITEE.
- I. FIELD TECHNICIANS AND THIRD PARTY TESTING LABS SHALL MAINTAIN A LOG OF THEIR TEST RESULTS; RECOMMENDATIONS, AND ACTIONS TAKEN TO CORRECT THE PROBLEMS, IF ANY. THE LOG SHALL BE AVAILABLE TO DPW&T FOR REVIEW UPON ANY DPW&T INSPECTOR'S REQUEST.
- 34) PERMITTEE SHALL SUBMIT PROPERTY CORNER CERTIFICATIONS AND UTILIZE METAL PROPERTY MARKERS PER PRINCE GEORGE'S COUNTY CODE, SECTION 24-120, PRIOR TO ACCEPTANCE OF STREETS.
- 35) WASHINGTON SUBURBAN SANITARY COMMISSION 200 FOOT SHEET NO.: 211NE05
- 36) DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION SITE CONCEPT APPROVAL NUMBER:
- 37) SEDIMENT CONTROL APPROVAL NUMBER: <u>xxx-xx</u>
- 38) PRELIMINARY PLAN APPROVAL NUMBER: <u>N/A</u>

REQUIREMENTS WHERE APPLICABLE SHALL APPLY:

- 39) RECORD PLAT RECORDING NUMBER: N/A
   40) APPROVED STREET GRADE ESTABLISHMENT INFORMATION: N/A
- ORIGINAL STREET NAMEAPPROVAL NUMBER
  41) AT THE TIME OF PERMIT RELEASE, THE FOLLOWING MINIMUM SUBMITTAL
- WASHINGTON SUBURBAN SANITARY COMMISSION PAVING CLEARANCE CERTIFICATION;
- BITUMINOUS CONCRETE CORE CERTIFICATIONS, ALL PAVEMENT COURSES;
   PROPERTY MARKER CERTIFICATION;
- DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION LETTER APPROVING STORM DRAIN AS-BUILT;

- TREE APPROVAL AND TREE BOND POSTED, IF NECESSARY;
- STREET LIGHT PROOF OF PAYMENT (MUST BE ACCOMPANIED BY A MEMORANDUM FROM DPW&T'S TRAFFIC SAFETY DIVISION ACCEPTING THE PROOF OF PAYMENT); AND
   PROOF/STATEMENT THAT ALL FINANCIAL MATTERS HAVE BEEN SETTLED.
- 42) THE PERMITTEE IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL TRAFFIC SIGNS, TRAFFIC SIGNALS, AND ROADWAY MARKINGS FOR ROADWAY IMPROVEMENTS ON SUBDIVISION ACCESS ROADS WHICH INCLUDE ARTERIAL, COLLECTOR, INDUSTRIAL, AND ANY NECESSARY OFFSITE CONDITIONS WHICH REQUIRE ROADWAY IMPROVEMENTS. THE DESIGN AND/OR CONSTRUCTION DRAWINGS SHALL BE INCLUDED ALONG WITH THE PERMIT PLANS, AND SHALL BE REVIEWED AND APPROVED BY THE DEPARTMENT'S TRAFFIC SAFETY DIVISION PRIOR TO PERMIT ISSUANCE.

  43) THE PERMITTEE IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL TRAFFIC MARKINGS, TRAFFIC SIGNALS, IF REQUIRED, AND PAYMENT OF FEE FOR

STREET NAME SIGNS ON INTERNAL SUBDIVISION STREETS. TRAFFIC SIGNS WILL BE

FURNISHED AND INSTALLED BY THE COUNTY.

44) ALL CONCRETE PIPE SYSTEMS 48 INCHES OR LESS SHALL BE INSPECTED WITH A VIDEO CAMERA AS PART OF THE FINAL "AS BUILT" CONSTRUCTION REQUIREMENTS.

### **GENERAL STORM DRAIN AND PAVING NOTES (OTHER):**

- 1. ALL STORM DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE STORMWATER STANDARDS AND SPECIFICATIONS OF PRINCE GEORGE'S COUNTY DEPARTMENT OF ENVIRONMENTAL RESOURCES, UNLESS OTHERWISE NOTED.
- 2. FOR TYPES OF STRUCTURES REFER TO THE LATEST STORMWATER MANAGEMENT STANDARD DETAILS, DER (SWMSD), UNLESS OTHERWISE NOTED.
- 3. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATIONS AND ELEVATIONS OF THE UTILITIES BY DIGGING TEST PITS AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF TRENCHING. IF CLEARANCE ARE LESS THAN SPECIFIED, CONTACT THE ENGINEER, AND THE OWNER OF OTHER INVOLVED UTILITY BEFORE PROCEEDING WITH CONSTRUCTION.
- 4. ALL STORM DRAIN PIPES MUST HAVE A MINIMUM OF 1 FOOT COVER.
- 5. ALL INLETS TOP SLAB FRONT FACES SHALL BE PAINTED WITH THE FOLLOWING CHESAPEAKE BAY DRAINAGE. "DON'T DUMP" (STANDARD 82.0).
- 6. CONTRACTORS SHALL ADJUST ALL EXISTING UTILITIES AS NEEDED TO CONSTRUCT PROPOSED ROAD IMPROVEMENTS. ADJUSTMENTS MAY INCLUDE BUT NOT LIMITED TO MANHOLE COVERS, VALVES, FIRE HYDRANTS, STORM DRAIN INLETS, STREET LIGHTS, TRAFFIC SIGNALS STRUCTURES, UTILITY POLES, SIDEWALKS, BURIED UTILITY CONDUIT AND PIPES.

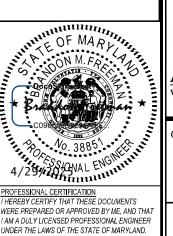
### Special construction requirements for work performed in the vicinity of existing water meter and pipes

- Construction vehicles generating a load greater than aashto h20 and vibratory compaction
  equipment are not permitted within 10 feet clear of the existing water mains, meter, and site
  utility system.
- The contractor shall submit construction vehicle specifications for all vehicles to be used closer than 10 feet clear or crossing of the existing water meter and pipes to the wssc relocations unit
- for wssc approval prior to commencing work over the mains.

  3. Stockpiling of soil or other material is not permitted within the existing wssc easement or within 10 feet clear of the water pipes and meter.
- The contractor shall locate and stake out the meter and existing water pipes and maintain the markers during construction. The meter and all valves shall be kept accessible during construction.
- 5. The contractor shall use special care while performing work in the vicinity of the water meter and pipes as any damage that is required as a result of their work in the vicinity shall be the full responsibility of the contractor.

STANDARD NOTES 43rd AVENUE CONCEPT PLAN

COTTAGE CITY 43rd AVENUE COTTAGE CITY (2ND) ELECTION DISTRICT PRINCE GEORGE'S COUNTY, MARYLAND



CENSE #: 38851

Civil and Environmental Engineers · Planners · Landscape Architects · Surveyors

1751 Elton Rd., Ste. 300 Silver Spring, MD 20903 301-434-7000 Fax: 301-434-9394

rw.cpja.com • Silver Spring, MD • Gaithersburg, MD • Annapolis, MD • Greenbelt, MD • Frederick, MD • Fairfax, VA

LIENT: TOWN OF COTTAGE CITY
3820 40TH AVENUE
COTTAGE CITY, MD 20722
ATTN: CAROL RICHARDSON, TOWN MANAGER

DESIGN
BMF
DRAFT
JMN

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TAX MAP/WSSC
N/A

DESIGN
BMF
DRAFT
JMN

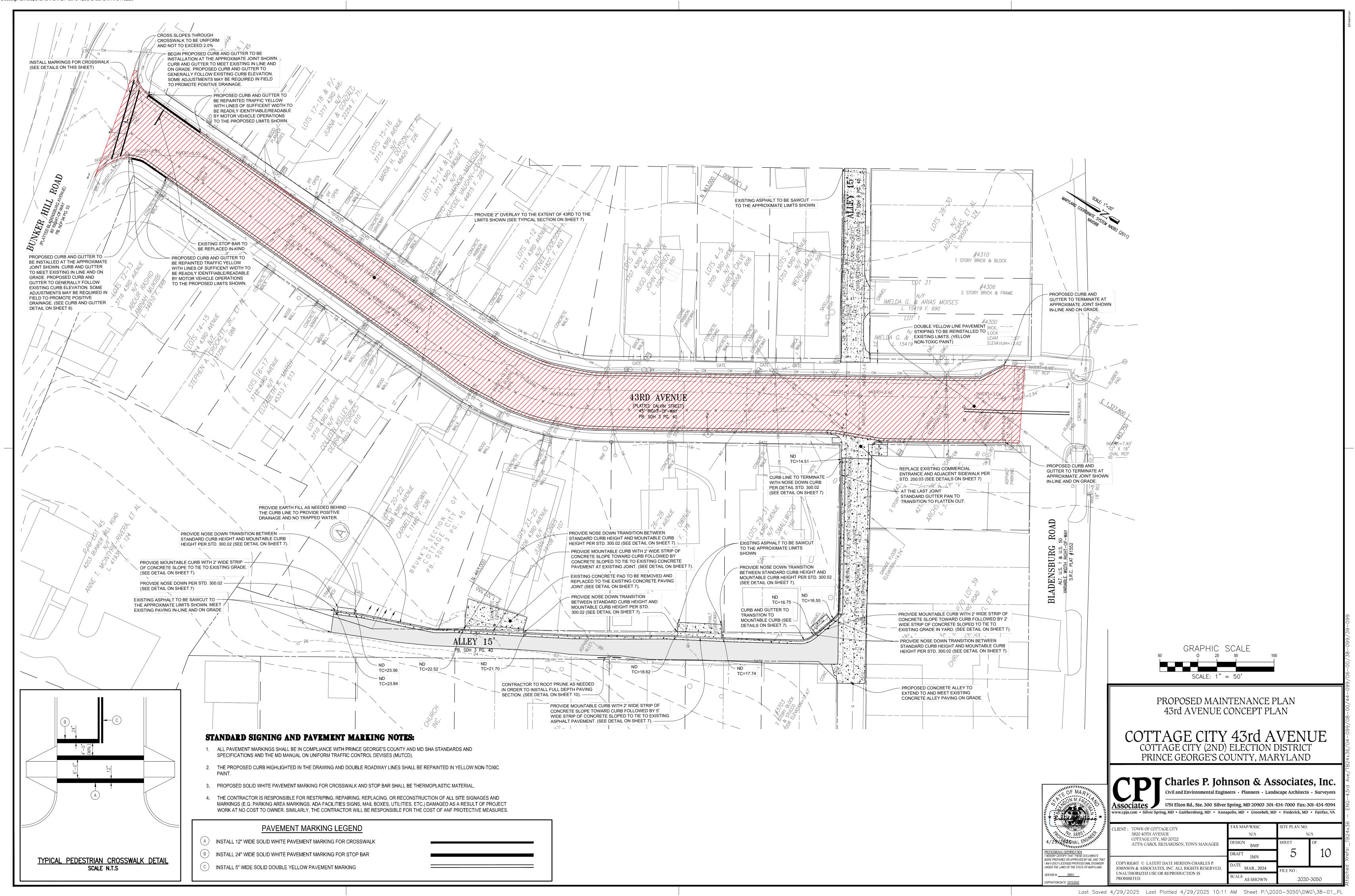
DATE

MAR., 2024

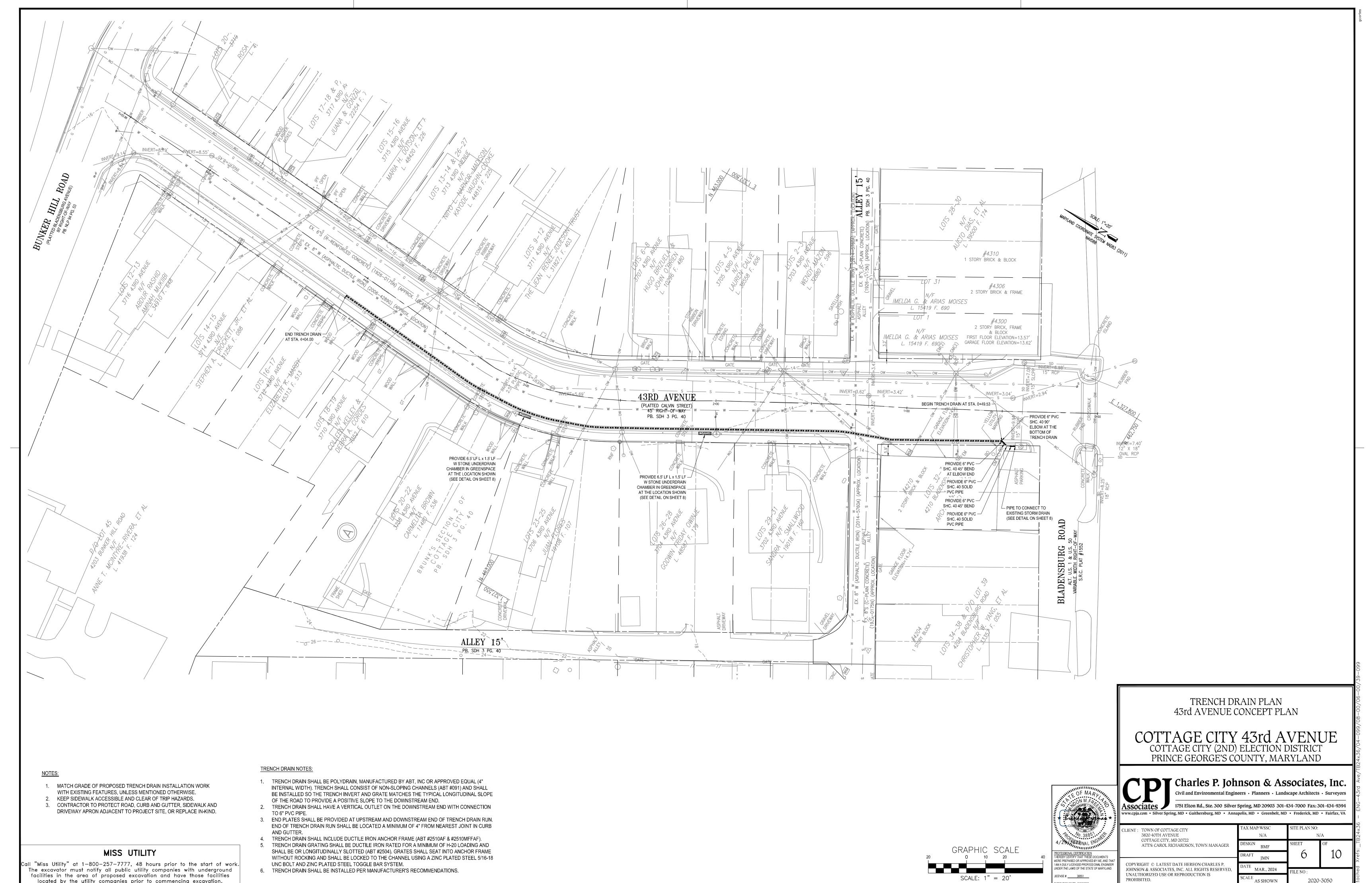
FILE NO:

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AS SHOWN
2020-3050

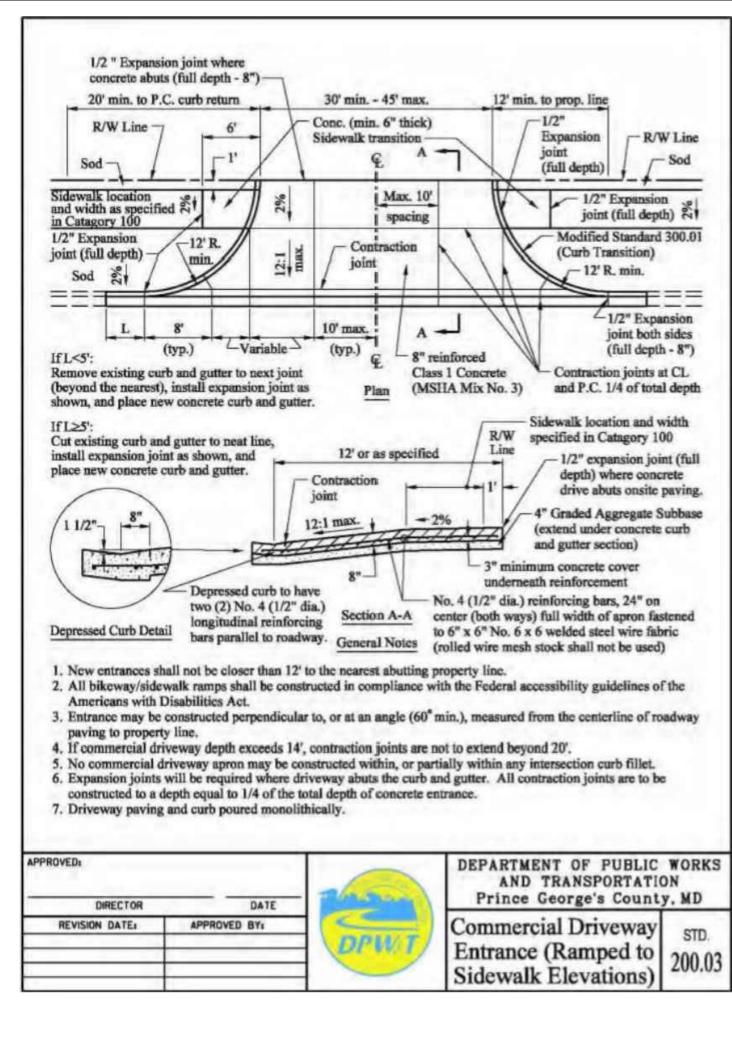
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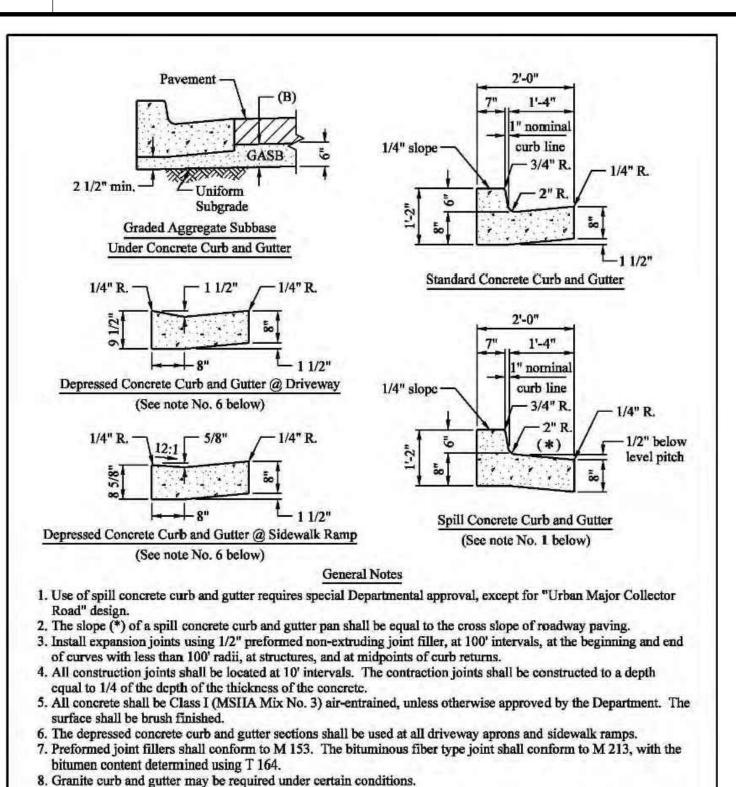


located by the utility companies prior to commencing excavation.



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10. All new construction within the County right-of-way shall comply with Federal accessibility guidelines of the

DPW

9. Provide uniform subgrade under entire roadway section.

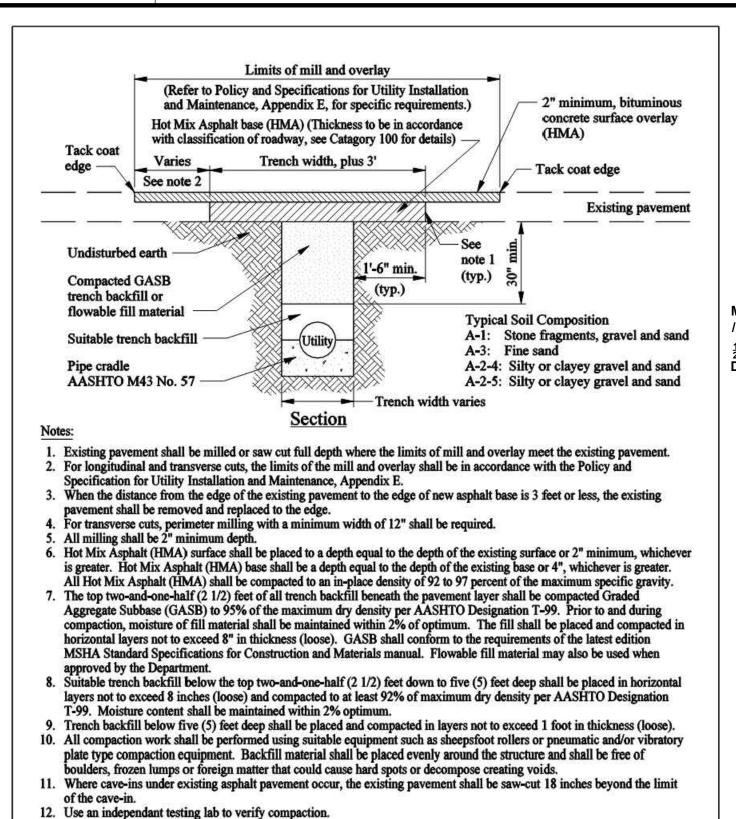
DIRECTOR

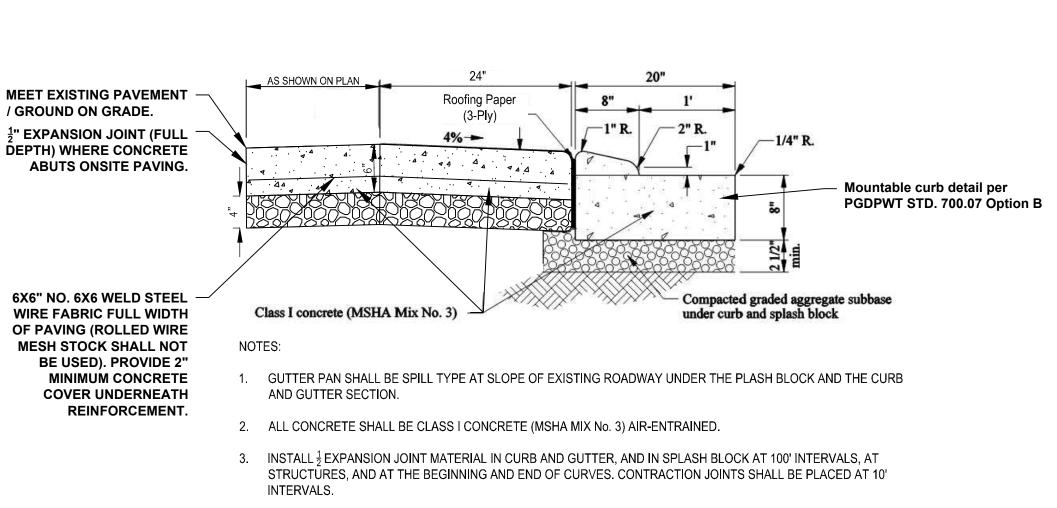
REVISION DATE:

Americans with Disabilities Act and Fair Housing regulations.

APPROVED BY:

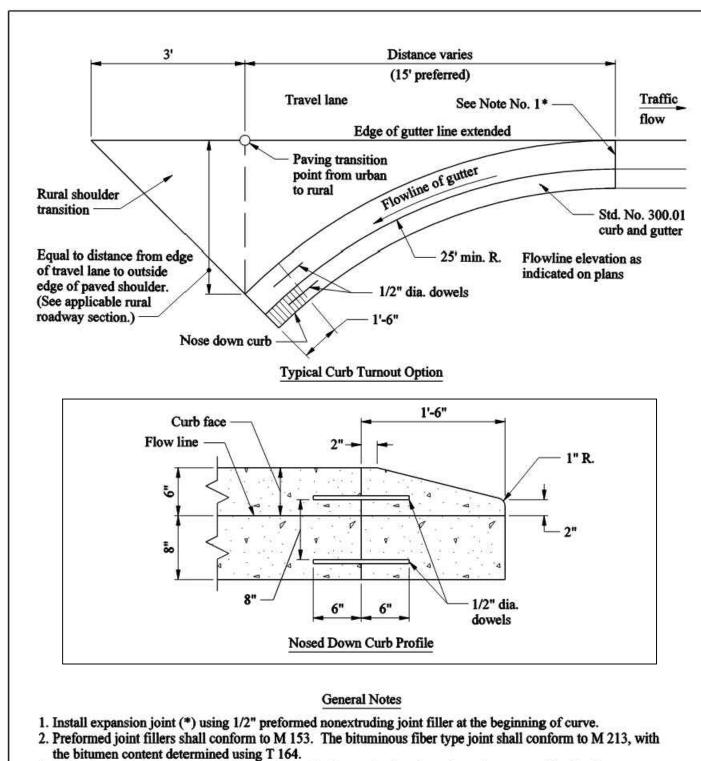
DATE





MOUNTABLE CURB DETAIL

N.T.S



3. All concrete shall be Class I (MSHA Mix No. 3) air-entrained, unless otherwise approved by the Department.

DEPARTMENT OF PUBLIC WORKS

Prince George's County, MD

STD.

300.02

AND TRANSPORTATION

Concrete Curb

Turnout and

Nosed Down Curb

The surface shall be broom finished.

DIRECTOR

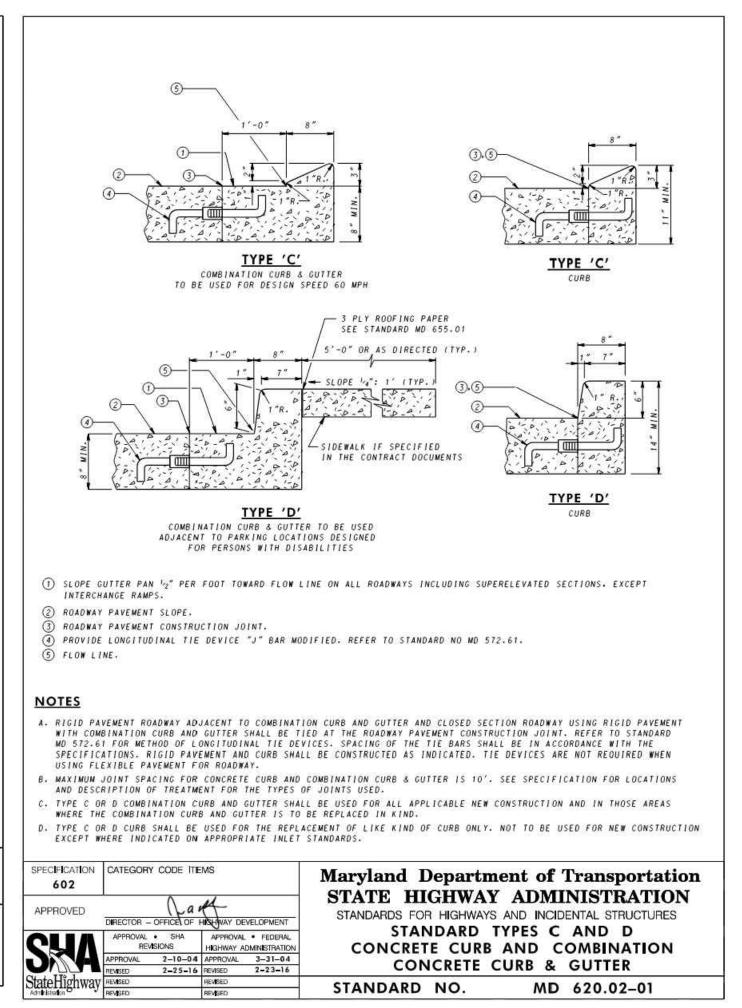
REVISION DATE:

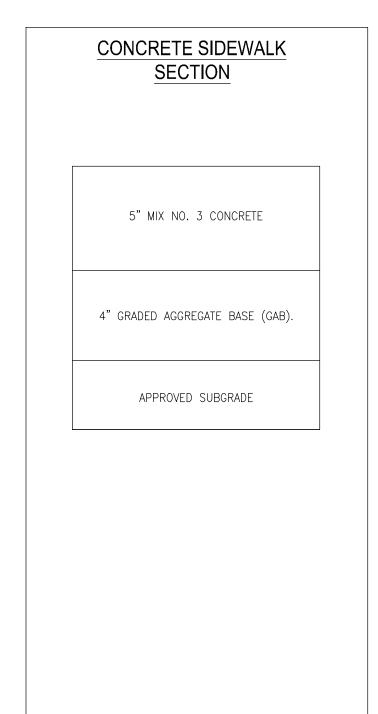
APPROVED:

Provide uniform subgrade under entire roadway section

DATE

APPROVED BY:





DATE

APPROVED BY:

APPROVED:

DIRECTOR

REVISION DATE:

DEPARTMENT OF PUBLIC WORKS

AND TRANSPORTATION

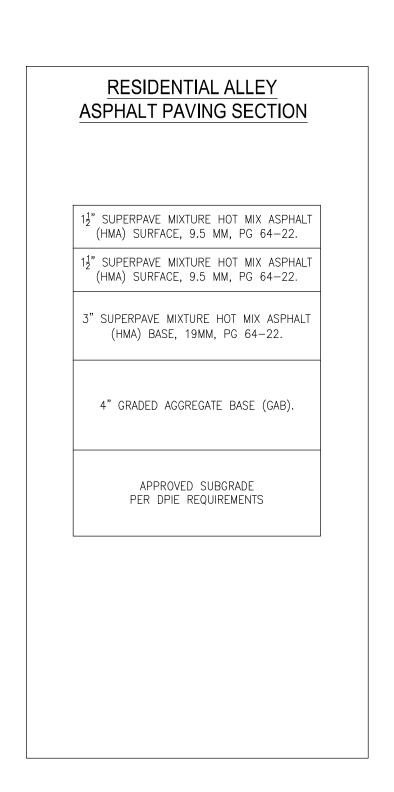
Prince George's County, MD

Concrete Curb

and Gutter

STD.

300.01



DEPARTMENT OF PUBLIC WORKS

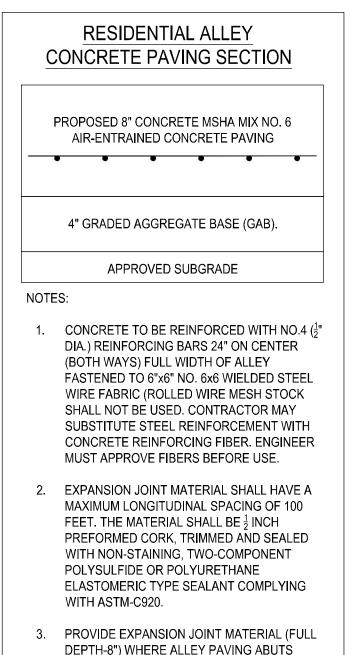
AND TRANSPORTATION Prince George's County, MD

STD.

Utility Patch in

Flexible Asphalt

**Pavement** 



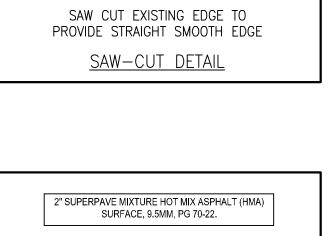
EXISTING PAVEMENT OR RETAINING WALLS.

4. SCORE THE CONCRETE TO A DEPTH OF \( \frac{1}{3} \) THE

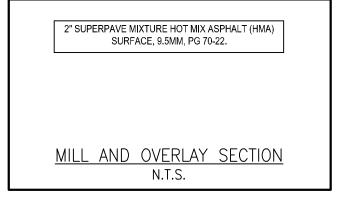
PLANE TRANSVERSE JOINTS AT 10'-0"

MAXIMUM INTERVALS.

SLAB THICKNESS TO PROVIDE WEAKENED



EXISTING PAVING



PAVING DETAILS 43rd AVENUE CONCEPT PLAN

COTTAGE CITY 43rd AVENUE COTTAGE CITY (2ND) ELECTION DISTRICT

PRINCE GEORGE'S COUNTY, MARYLAND

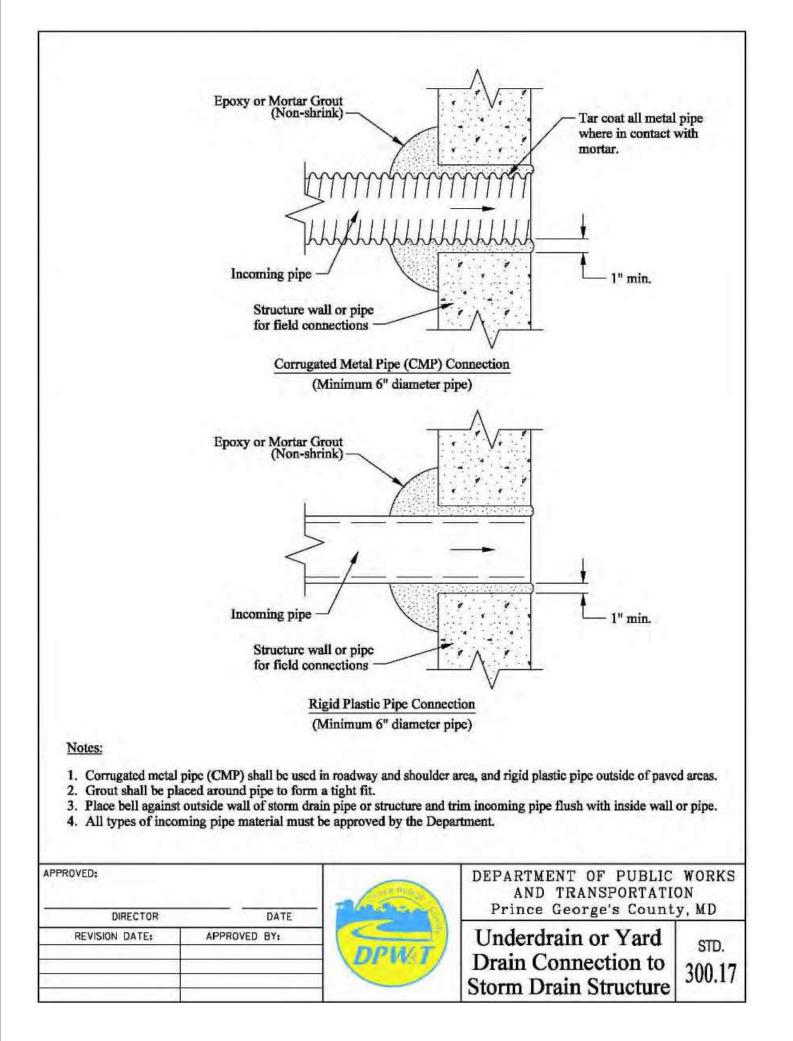


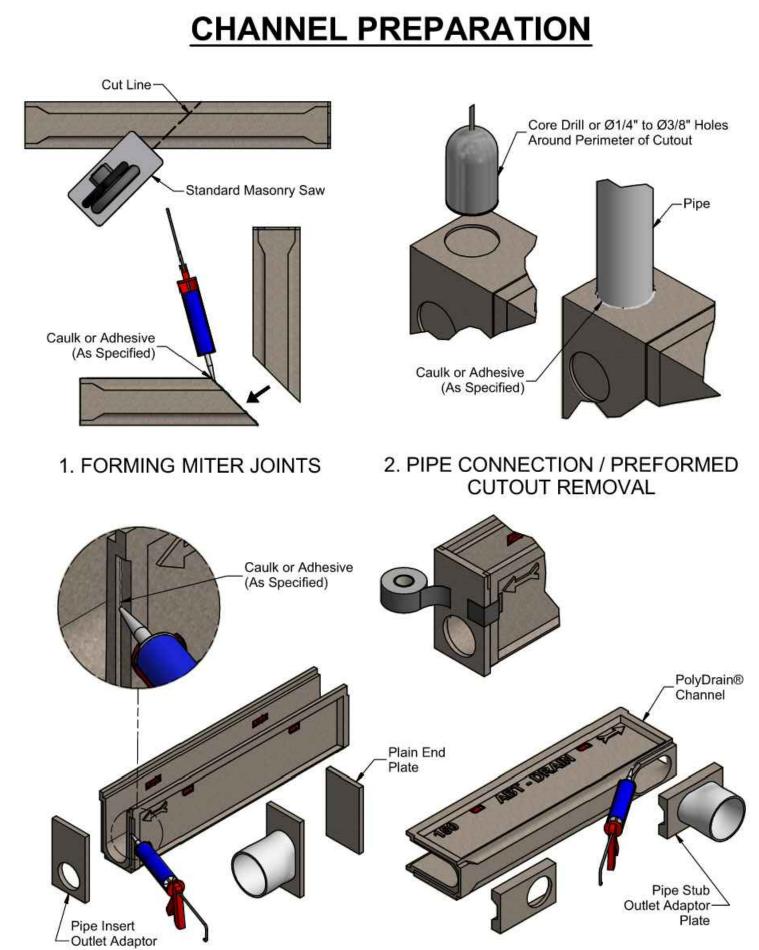
Charles P. Johnson & Associates, Inc. Civil and Environmental Engineers • Planners • Landscape Architects • Surveyors Associates / 1751 Elton Rd., Ste. 300 Silver Spring, MD 20903 301-434-7000 Fax: 301-434-9394 ww.cpja.com • Silver Spring, MD • Gaithersburg, MD • Annapolis, MD • Greenbelt, MD • Frederick, MD • Fairfax, VA

LIENT: TOWN OF COTTAGE CITY 3820 40TH AVENUE COTTAGE CITY, MD 20722 ATTN: CAROL RICHARDSON, TOWN MANAGER BMF IMN MAR., 2024 AS SHOWN 2020-3050

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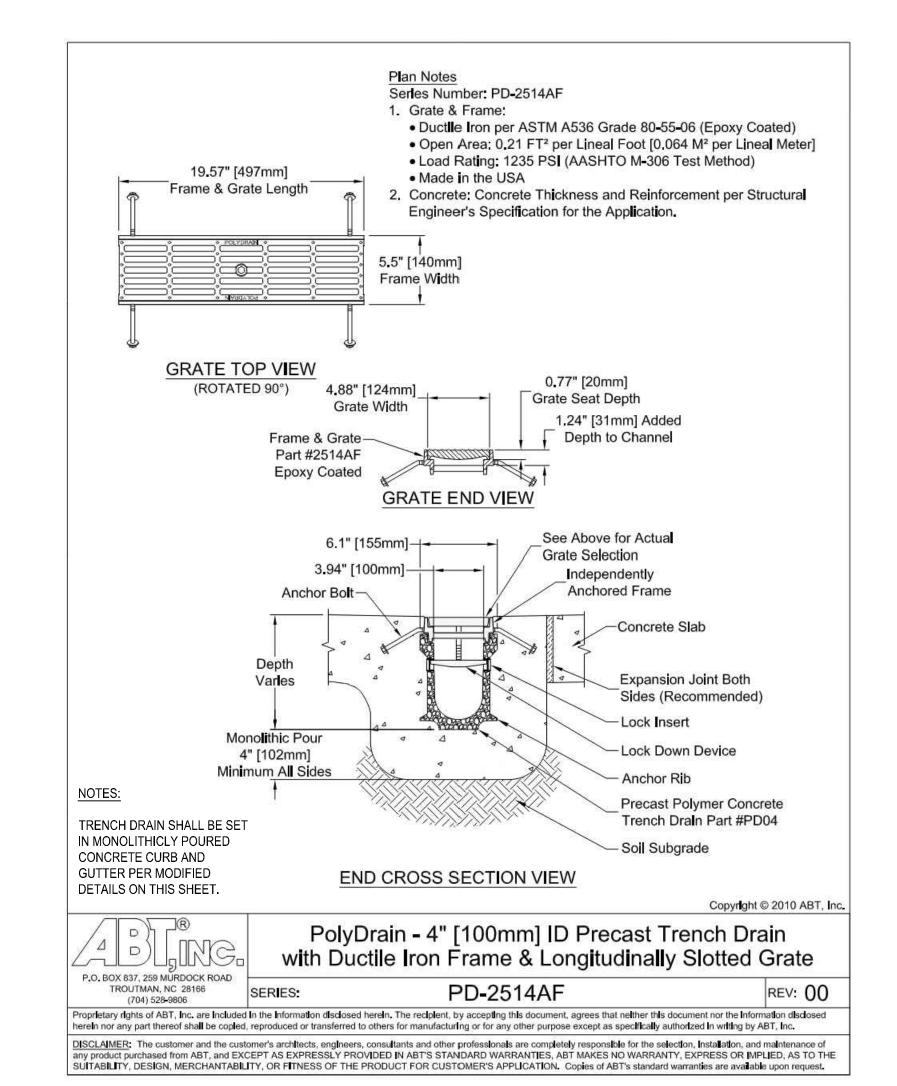




3. HORIZONTAL AND VERTICAL OUTLET/CLOSED END PLATES

EXISTING CONCRETE —

SIDEWALK



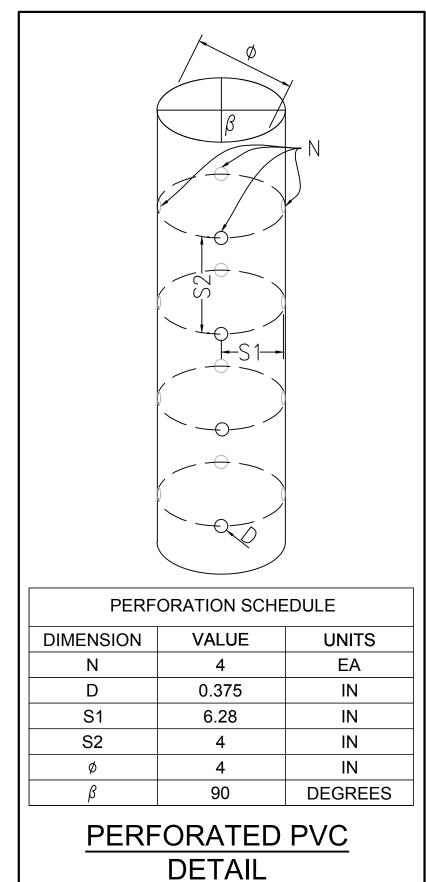
PIPE SCHEDULE

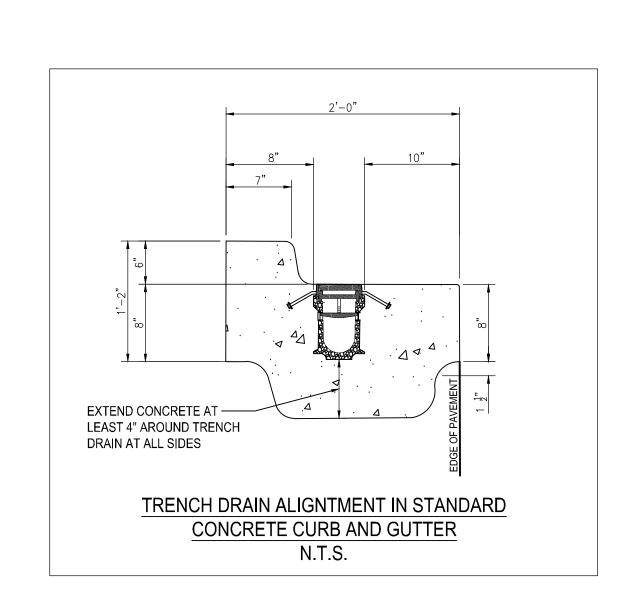
PERFORATED P.V.C. SCH.40

SOLID P.V.C. SCH.40

SOLID P.V.C. SCH.40

TOTAL= 19





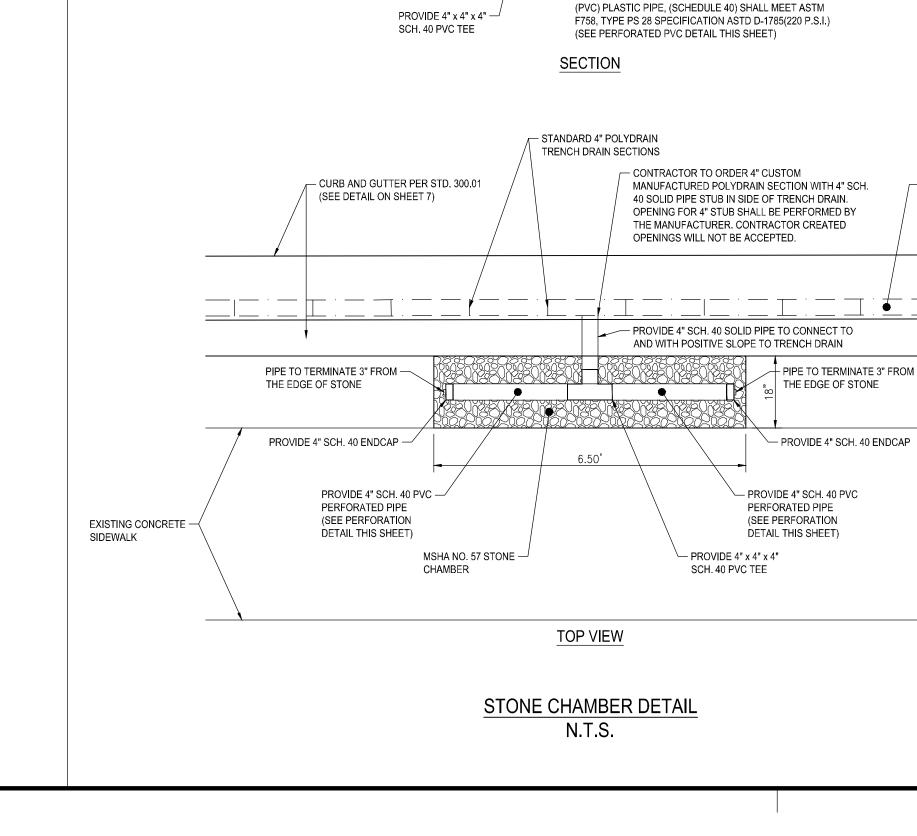
MISS UTILITY

Call "Miss Utility" at 1-800-257-7777, 48 hours prior to the start of work.

The excavator must notify all public utility companies with underground

facilities in the area of proposed excavation and have those facilities

located by the utility companies prior to commencing excavation.



REINSTALL EXCAVATED 4" -TOPSOIL. PROVIDE SEED

AND MULCH TO STABILIZE.

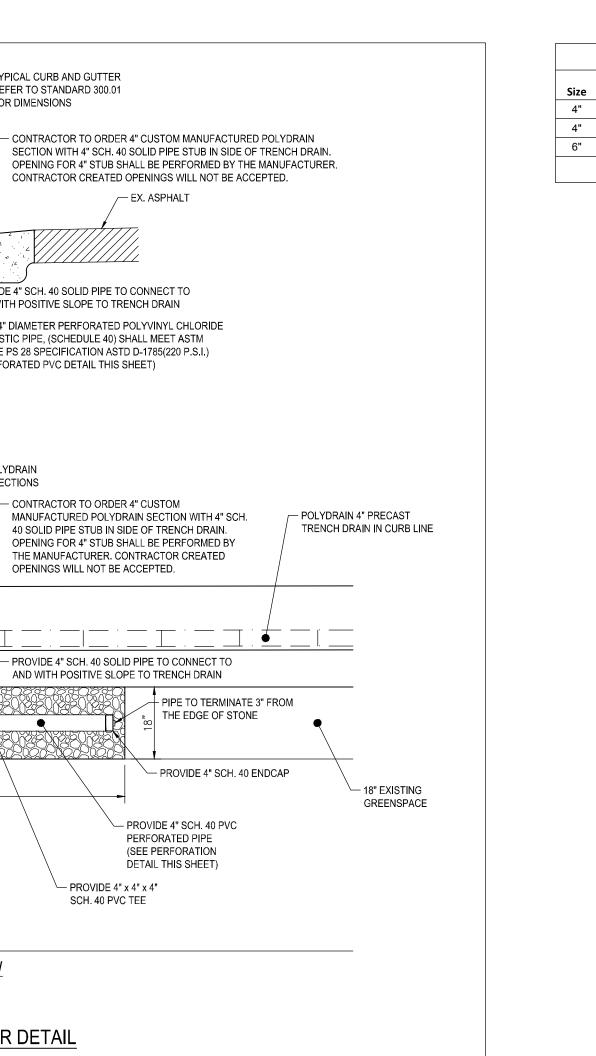
MSHA NO. 57 STONE —

- TYPICAL CURB AND GUTTER REFER TO STANDARD 300.01

- PROVIDE 4" SCH. 40 SOLID PIPE TO CONNECT TO AND WITH POSITIVE SLOPE TO TRENCH DRAIN -- MINIMUM 4" DIAMETER PERFORATED POLYVINYL CHLORIDE

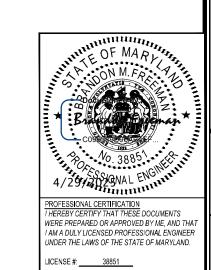
— EX. ASPHALT

FOR DIMENSIONS



TRENCH DRAIN DETAILS 43rd AVENUE CONCEPT PLAN

COTTAGE CITY 43rd AVENUE COTTAGE CITY (2ND) ELECTION DISTRICT PRINCE GEORGE'S COUNTY, MARYLAND



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To provide erosion control and vegetative establishment for extreme changes in grade.

### **Conditions Where Practice Applies** Earth disturbances or extreme grade modifications on steep or long slopes.

The grading plan should be based on the incorporation of building designs and street layouts that fit and utilize existing topography and desirable natural surroundings to avoid extreme grade modifications. Information submitted must provide sufficient topographic surveys and soil investigations to determine limitations that must be imposed on the grading operation related to slope stability, adjacent properties, drainage patterns, measures for water removal, and vegetative treatment, etc. Many jurisdictions have regulations and design procedures already established for land grading that must be followed. The plan must show existing and proposed contours for the area(s) to be graded including practices for erosion control, slope stabilization, and safe conveyance of runoff (e.g., waterways, lined channels, reverse benches, grade stabilization structures).

The grading/construction plans are to include the phasing of these practices and consideration of the following

Design Criteria

- Provisions to safely convey surface runoff to storm drains, protected outlets or stable water courses to ensure that surface runoff will not damage slopes or other graded areas
- Cut and fill slopes, stabilized with grasses, no steeper than 2:1, (Where the slope is to be mowed, the slope should be no steeper than 3:1, but 4:1 is preferred because of safety factors related to moving steep slopes.) Slopes steeper than 2:I require special design and stabilization considerations to be shown on the plans.
- Benching per Detail B-3-1 whenever the vertical interval (height) of any 2:1 slope exceeds 20 feet; for 3: slopes, when it exceeds 30 feet; and for 4:I slopes, when it exceeds 40 feet. Locate benches to divide the slope face as equally as possible and to convey the water to a stable outlet. Soils, seeps, rock outcrops, etc. are to be taken into consideration when designing benches.
- a. Provide benches with a minimum width of six feet for ease of maintenance.
- b. Design benches with a reverse slope of 6:I or flatter to the toe of the upper slope and with a minimum of one foot in depth. Grade the longitudinal slope of the bench between 2 percent and 3 percent, unless accompanied by appropriate design and computations.
- c. The maximum allowable flow length within a bench is 800 feet unless accompanied by appropriate design and computations.
- Diversion of surface water from the face of all cut and fill slopes using earth dikes or swales. Convey surface water down slope using a designed structure, and:
- a Protect the face of all graded slopes from surface runoff until they are stabilized
- b. Do not subject the slope's face to any concentrated flow of surface water such as from natural drainage ways, graded swales, downspouts, etc.
- c. Protect the face of the slope by special erosion control materials to include, but not be limited to, approved vegetative stabilization practices, riprap or other approved stabilization methods.
- Serrated slope as shown in Detail B-3-2. The steepest allowable slope for ripable rock is 1.5:1. For non rock surfaces, the slopes are to be 2:1 or flatter. These steps will weather and act to hold moisture, lime, fertilizer and seed thus producing a much quicker and longer lived vegetative cover and better slope Subsurface drainage provisions. Provide subsurface drainage where necessary to intercept seepage
- that would otherwise adversely affect slope stability or create excessively wet site conditions
- Proximity to adjacent property. Slopes must not be created close to property lines without adequate protection against sedimentation, erosion, slippage, settlement, subsidence, or other related damages
- Quality of fill material. Fill material must be free of brush, rubbish, logs, stumps, building debris, and other objectionable material. Do not place frozen materials in the fill nor place the fill material on a
- Stabilization. Stabilize all disturbed areas structurally or vegetatively in compliance with Section B-4 Standards and Specifications for Stabilization Practices.

The line, grade, and cross section of benching and serrated slopes must be maintained. Benches and serrated slopes must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization.

### **B-4-1 STANDARDS AND SPECIFICATIONS** FOR INCREMENTAL STABILIZATION

Establishment of vegetative cover on cut and fill slopes.

To provide timely vegetative cover on cut and fill slopes as work progresses

Conditions Where Practice Applies Any cut or fill slope greater than 15 feet in height. This practice also applies to stockpiles.

Incremental Stabilization - Cut Slopes

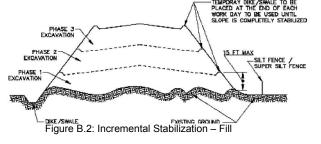
- 1. Excavate and stabilize cut slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all cut slopes as the work progresses.
- 2. Construction sequence example (Refer to Figure B.1):
- a. Construct and stabilize all temporary swales or dikes that will be used to convey runoff around
- b. Perform Phase 1 excavation, prepare seedbed, and stabilize.
- c. Perform Phase 2 excavation, prepare seedbed, and stabilize. Overseed Phase 1 areas as
- d. Perform final phase excavation, prepare seedbed, and stabilize. Overseed previously seeded
- areas as necessary. Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary

EXISTING GROUND PHASE 3 EXCAVATION

Figure B.1: Incremental Stabilization – Cut Incremental Stabilization - Fill Slopes

- Construct and stabilize fill slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all slopes as the work progresses
- Stabilize slopes immediately when the vertical height of a lift reaches 15 feet, or when the grading operation ceases as prescribed in the plans.
- At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner.
- Construction sequence example (Refer to Figure B.2):
- a. Construct and stabilize all temporary swales or dikes that will be used to divert runoff around the fil Construct silt fence on low side of fill unless other methods shown on the plans address this area.
- a. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner.
- c. Place Phase 1 fill, prepare seedbed, and stabilize.
- d. Place Phase 2 fill, prepare seedbed, and stabilize.
- e. Place final phase fill, prepare seedbed, and stabilize. Overseed previously seeded areas as

Note: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.



### MISS UTILITY

Call "Miss Utility" at 1-800-257-7777, 48 hours prior to the start of work. The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation.

### **B-4 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION**

Using vegetation as cover to protect exposed soil from erosion

Purpose To promote the establishment of vegetation on exposed soil.

stabilization; and permanent stabilization.

**Conditions Where Practice Applies** On all disturbed areas not stabilized by other methods. This specification is divided into sections on incremental stabilization; soil preparation, soil amendments and topsoiling; seeding and mulching; temporary

### Effects on Water Quality and Quantity

Stabilization practices are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and runoff to downstream areas Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates

will increase organic matter content and improve the water holding capacity of the soil and subsequent plant Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to

of runoff, infiltration, evaporation, transpiration, percolation, and groundwater recharge. Over time, vegetation

receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present

Sediment control practices must remain in place during grading, seedbed preparation, seeding, mulching, and vegetative establishment.

### Adequate Vegetative Establishment

### Inspect seeded areas for vegetative establishment and make necessary repairs, replacements, and reseedings within the planting season.

- Adequate vegetative stabilization requires 95 percent groundcover.
- 2. If an area has less than 40 percent groundcover, restabilize following the original recommendations for lime, fertilizer, seedbed preparation, and seeding 3. If an area has between 40 and 94 percent groundcover, over-seed and fertilize using half of the rates
- originally specified 4. Maintenance fertilizer rates for permanent seeding are shown in Table B.6.

### **B-4-2 STANDARDS AND SPECIFICATIONS**

### SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

The process of preparing the soils to sustain adequate vegetative stabilization.

o provide a suitable soil medium for vegetative growth.

### Conditions Where Practice Applies Where vegetative stabilization is to be established.

- . Soil Preparation 1. Temporary Stabilization
- a. Seedbed preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted or construction equipment. After the soil is loosened, it must not be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.
- b. Apply fertilizer and lime as prescribed on the plans.
- c. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means.
- a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:
- i. Soil pH between 6.0 and 7.0.

Permanent Stabilization

- i. Soluble salts less than 500 parts per million (ppm).
- iii. Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if lovegrass will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable
- iv. Soil contains 1.5 percent minimum organic matter by weight.
- v. Soil contains sufficient pore space to permit adequate root penetration.
- b. Application of amendments or topsoil is required if on-site soils do not meet the above conditions. c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then
- scarified or otherwise loosened to a depth of 3 to 5 inches.
- d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test
- e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seedbed preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seedbed loosening may be unnecessary on newly disturbed areas.

- 1. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation. Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these
- specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS. B. Topsoiling is limited to areas having 2:1 or flatter slopes where:
- a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth. b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients
- c. The original soil to be vegetated contains material toxic to plant growth.
- d. The soil is so acidic that treatment with limestone is not feasible. 4. Areas having slopes steeper than 2:1 require special consideration and design.
- 5. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:
- a. Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 11/2 inches in diameter
- b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.
- c. Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
- Topsoil Application
- a. Erosion and sediment control practices must be maintained when applying topsoil. b. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or
- c. Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper gradingand seedbed preparation.

### Soil Amendments (Fertilizer and Lime Specifications)

water pockets.

- Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.
- 2. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer.
- hydroseeding) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 98 to 100 percent will pass through a #20 mesh sieve. 4. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by

of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when

disking or other suitable means. Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate **B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING** 

Definition

The application of seed and mulch to establish vegetative cover.

Purpose To protect disturbed soils from erosion during and at the end of construction.

Conditions Where Practice Applies To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

weaken bacteria and make the inoculant less effective.

inch of soil covering. Seedbed must be firm after planting.

iv. When hydroseeding do not incorporate seed into the soil.

### Specifications

Seeding

- a. All seed must meet the requirements of the Maryland State Seed Law. All seed must be subject to re-testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table B.4 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of seed and seeding rate.
- b. Mulch alone may be applied between the fall and spring seeding dates only if the ground is

Use four times the recommended rate when hydroseeding. Note: It is very important to keep

inoculant as cool as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can

- frozen. The appropriate seeding mixture must be applied when the ground thaws c. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must not be used later than the date indicated on the container. Add fresh inoculants as directed on the package.
- d. Sod or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

### Application

- a. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
- i. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site-specific seeding summaries. ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each
- b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil. i. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4

direction. Roll the seeded area with a weighted roller to provide good seed to soil contact.

- ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer). i. If fertilizer is being applied at the time of seeding, the application rates should not exceed the following: nitrogen, 100 pounds per acre total of soluble nitrogen; P2O5 (phosphorous), 200
- pounds per acre; K2O (potassium), 200 pounds per acre. ii. Lime: Use only ground agricultural limestone (up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
- iii. Mix seed and fertilizer on site and seed immediately and without interruption

### B. Mulchina

- Mulch Materials (in order of preference)
- a. Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably bright in color. Straw is to be free of noxious weed seeds as specified in the Maryland Seed Law and not musty, moldy, caked, decayed, or excessively dusty. Note: Use only sterile straw mulch in areas where one species of grass is desired.
- b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processe into a uniform fibrous physical state
- i. WCFM is to be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
- ii. WCFM, including dye, must contain no germination or growth inhibiting factors. iii. WCFM materials are to be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material must form a blotter-like ground cover, on application, having moisture absorption and
- percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings. iv. WCFM material must not contain elements or compounds at concentration levels that will be
- v. WCFM must conform to the following physical requirements: fiber length of approximately 10 millimeters, diameter approximately 1 millimeter, pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and water holding capacity of 90 percent minimum.

### Application

- a. Apply mulch to all seeded areas immediately after seeding.
- b. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre.
- c. Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

- a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and erosion hazard:
- i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this
- ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50
- pounds of wood cellulose fiber per 100 gallons of water. iii. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used. Follow application rates as specified by the manufacturer. Application of liquid binders needs to be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. Use of asphalt binders is strictly
- iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to 3,000 feet

### **B-4-4 STANDARDS AND SPECIFICATIONS**

### **FOR TEMPORARY STABILIZATION**

stabilize disturbed soils with vegetation for up to 6 months.

To use fast growing vegetation that provides cover on disturbed soils.

Conditions Where Practice Applies Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time,

### rmanent stabilization practices are required.

1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.

alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding seasor

**TEMPORARY SEEDING SUMMARY** 

2. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding 3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch

liness Zone (from Figure B.3): Seed Mixture  n Table B.1):					Fertilizer Rate	Lime Rate
	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	(10-20-20)	
	Annual Ryegrass	40 lbs	3/1 - 5/15 8/1 - 10/15	0.5 in.	436 lb/ac (10lb/1000 sf)	2 tons/ac (90lb/1000 sf)
	Barley	96 lbs	3/1 - 5/15 8/1 - 10/15	1 in.		
	Foxtail Millet	30 lbs	5/16 - 7/31	0.5 in.		
	Pearl Millet	30 lbs	5/16 - 7/31	0.5 in.		

### **B-4-5 STANDARDS AND SPECIFICATIONS FOR** PERMANENT STABILIZATION

Exposed soils where ground cover is needed for 6 months or more

To stabilize disturbed soils with permanent vegetation.

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils. Conditions Where Practice Applies

### A. Seed Mixtures 1. General Use

- a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
- b. Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area
- c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency. d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 ½ pounds per 1000 square feet (150 pounds per
- acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary . Turfgrass Mixtures a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance
- b. Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan. i. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging
- from 10 to 35 percent of the total mixture by weight. ii. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass
- cultivars with each ranging from 10 to 35 percent of the total mixture by weight. iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes; Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square
- feet. One or more cultivars may be blended iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes; Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 11/2 to 3 pounds per 1000 square feet.
- Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland" Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line Ideal Times of Seeding for Turf Grass Mixtures

Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a)

Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b)

abnormally dry or hot seasons, or on adverse sites.

Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15 (Hardiness Zones: 7a, 7b) I. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 11/2 inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (½ to 1 inch every 3 to 4 days depending

on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in

### PERMANENT SEEDING SUMMARY Hardiness Zone (from Figure B.3): 7A Seed Mixture (from Table B.3) Fertilizer Rate (10-20-20) Application Seeding Dates P<sub>2</sub>O<sub>5</sub> Rate (lbs/ac) Depths SELECT ONE SPECIES OF FESCUE: Tall Fescue (Lolium arundinaceum) formerly Festuca arundianceurn) Hard Feacue (Festuca trachyphylia) 3/1 - 5/15 0.25 in. -8/1 - 10/15 Kentucky Blugrass (Poa pratensis) Perennial Ryegrass (Lollum perenne) SELECT TWO GRASSES: Creeping Red Fescue (Festuca ruba var. 20 Hard Fescue (Festuca trachyphylia) 8/1 - 10/15 0.5 in. Perennial Ryegrass (Lollum perenne) Redtop (Agrostis gigantean) AND ADD THE FOLLOWING LEGUME: Flatpea (Lathyrus sylvestris) pounds 90 lb/ac 90 lb/ac per acre (2lb/1000 (2lb/1000 (90lb/1000 sf) SELECT <u>ONE</u> WARM-SEASON GRASS: sf) Switch Grass (Panicum vigatum) Costal Panic Grass (Panicum amarum var. amarum) AND ADD 3/1 - 5/15 0.25 in. -Creeping Red Fescue (Festuca ruba var. 8/1 - 10/15 0.5 in. PLUS ONE OF THE FOLLOWING Partridge Pea (Chamaecrista fasciculate) Bush Clover (Lespedeza capitata) Wild Indigo (Baptisia tinctoria) Orchardgrass (Dactylis glomerata) Creeping Red Fescue (Festuca ruba var. 3/1 - 5/15 | 0.25 in. Redtop (agrostiis gigantean) 8/1 - 10/15 0.5 in. Alsike Clover (Trifolium hybridum)

### B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

agronomist or soil scientist prior to its installation.

White Clover (Trifolium repens)

- a. Class of turfgrass sod must be Maryland State Certified. Sod labels must be made available to the job foreman and inspector. b. Sod must be machine cut at a uniform soil thickness of \% inch, plus or minus \% inch, at the time of cutting. Measurement for thickness must
- exclude top growth and thatch. Broken pads and torn or uneven ends will not be acceptable Standard size sections of sod must be strong enough to support their own weight and retain their size and shape when suspended vertically with d. Sod must not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
- a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the subsoil immediately prior to laying the sod. b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightly wedged against each other. Stagger lateral joints to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots.

e. Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period must be approved by an

Water the sod immediately following rolling and tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping and irrigating for any piece of sod within eight hours. a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain moist soil to a depth of

Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. Roll and tamp, peg or otherwise secure the sod

### After the first week, sod watering is required as necessary to maintain adequate moisture content Do not mow until the sod is firmly rooted. No more than ½ of the grass leaf must be removed by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless otherwise specified.

4 inches. Water sod during the heat of the day to prevent wilting.

to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying soil surface.

### **Table H.1: Geotextile Fabrics** WOVEN SLIT FILM WOVEN MONOFILAMENT NONWOVEN GEOTEXTILE GEOTEXTILE GEOTEXTILE MINIMUM AVERAGE ROLL VALUE 1 PROPERTY TEST METHOD MD CD MD CD MD Grab Tensile Strength ASTM D-4632 200 lb 200 lb 370 lbs 250 lbs 200 lbs 200 lbs Grab Tensile Elongation ASTM D-4632 15% 10% 15% 15% 50% 50% 75 lb 75 lb 100 lb 60 lb 80 lb 80 lb Trapezoidal Tear Strength ASTM D-4533 Puncture Strength ASTM D-6241 450 lb U.S. Sieve 30 U.S. Sieve 70 U.S. Sieve 70 Apparent Opening Size 2 ASTM D-4751 (0.21 mm) $(0.21 \, \text{mm})$ Permittivity ASTM D-4491 0.05 sec -1 0.28 sec -1.1 sec -1 Ultraviolet Resistance ASTM D-4355 70% strength 70% strength 70% strength Retained at 500 hours

1 All numeric values except apparent opening size (AOS) represent minimum average roll values (MARV). MARV is calculated as the typical minus two standard deviations. MD is machine direction. CD is cross direction

### 2 Values for AOS represent the average maximum opening.

Geotextiles must be evaluated by the National Transportation Product Evaluation Program (NTPEP) and conform to the values in

The geotextile must be inert to commonly encountered chemicals and hydrocarbons and must be rot and mildew resistant. The geotextile must be manufactured from fibers consisting of long chain synthetic polymers and composed of a minimum of 95 percent by weight of polyolefins or polyesters, and formed into a stable network so the filaments or yarns retain their dimensional stability elative to each other, including selvages

When more than one section of geotextile is necessary, overlap the sections by at least one foot. The geotextile must be pulled taut over the applied surface. Equipment must not run over exposed fabric. When placing riprap on geotextile, do not exceed a one foot

### **Table H.2: Stone Size** d<sub>100</sub> ASSHTO SIZE RANGE NUMBER 57 1 | 3/8 to 1 1/2 inch | 1/2 in | 1 1/2 in | M-43 N/A NUMBER 1 2 to 3 inches 2½ in 3 in M-43 4 to 7 inches 5½ in 7 in (CLASS 0): 9½ in | 15 in | 16 in 24 in N/A 200 lb 600 lb CLASS III N/A 23 in 34 in N/A 1 This classification is to be used on the upstream face of stone outlets and check dams.

<sup>3</sup> Optimum gradation is 50 percent of the stone above and 50 percent below midsize.

2 This classification is to be used for gabions

Stone must be composed of a well graded mixture of stone sized so that fifty (50) percent of the pieces by weight are larger than the size determined by using the charts. A well graded mixture, as used herein, is defined as a mixture composed primarily of larger stone sizes but with a sufficient mixture of other sizes to fill the smaller voids between the stones. The diameter of the largest stone in such a mixture must not exceed the respective d100 selected from Table H.2. The d50 refers to the median diameter of the stone. This is the size for which 50 percent, by weight, will be smaller and 50 percent will be larger.

Note: Recycled concrete equivalent may be substituted for all stone classifications for temporary control measures only. Concrete broken into the sizes meeting the appropriate classification, containing no steel reinforcement, and having a minimum density of 150 pounds per cubic foot may be used as an equivalent.

PARAMETERS 1	ACCEPTABLE RANGE
рН	5.0 - 8.5
Moisture content	30% - 60%, wet weight basis
Organic matter content	25% - 65%, dry weight basis
	% passing a selected mesh size, dry weight basis
	3 in (75 mm), 100% passing
	1 in (25 mm), 90 - 100% passing
	0.75 in (19 mm), 70 - 100% passing
Particle size	0.25 in (6.4 mm), 30 - 60% passing
	0.04 in (1 mm), 30% min. passing
	1 in (25 mm), 90-100% passing
	1 in (25 mm), 90-100% passing
	1 in (25 mm), 90-100% passing
Physical contaminants (manmade inerts) < 1% dry weight basis	

Composting and Compost (TMEC, The U.S. Composing Council).

### **GENERAL NOTES:**

ARE MET.

THE CONTRACTOR IS RESPONSIBLE FOR ENSURING SEDIMENT LADEN WATER DOES NOT LEAVE THE SITE. CONTRACTOR SHALL INSTALL APPROPRIATE SEDIMENT CONTROL MEASURES AS NECESSARY STANDARD SEDIMENT CONTROL NOTES AND SOME DETAILS ARE PROVIDED ON SHEETS 9-10. REFER TO THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL DETAILS AND PRACTICES AS NEEDED.

FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:

THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN THREE HORIZONTAL TO ONE VERTICAL (3:1)

SEVEN (7) CALENDAR DAYS FOR ALL OTHER DISTURBED OR GRADED

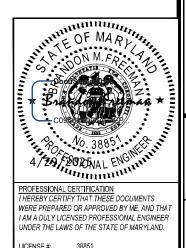
MEASURES WILL BE MAINTAINED ON A CONTINUING BASIS UNTIL THE

SITE IS PERMANENTLY STABILIZED AND ALL PERMIT REQUIREMENTS

A REASON THE PROJECT SITE, THE IN-PLACE SEDIMENT CONTROL

SEDIMENT CONTROL SITE DESIGN NOTES 43rd AVENUE CONCEPT PLAN

### COTTAGE CITY 43rd AVENUE COTTAGE CITY (2ND) ELECTION DISTRICT PRINCE GEORGE'S COUNTY, MARYLAND



XPIRATION DATE: 12/13/202

Charles P. Johnson & Associates, Inc. Civil and Environmental Engineers • Planners • Landscape Architects • Surveyors Associates 1751 Elton Rd., Ste. 300 Silver Spring, MD 20903 301-434-7000 Fax: 301-434-9394 ww.cpja.com • Silver Spring, MD • Gaithersburg, MD • Annapolis, MD • Greenbelt, MD • Frederick, MD • Fairfax, VA

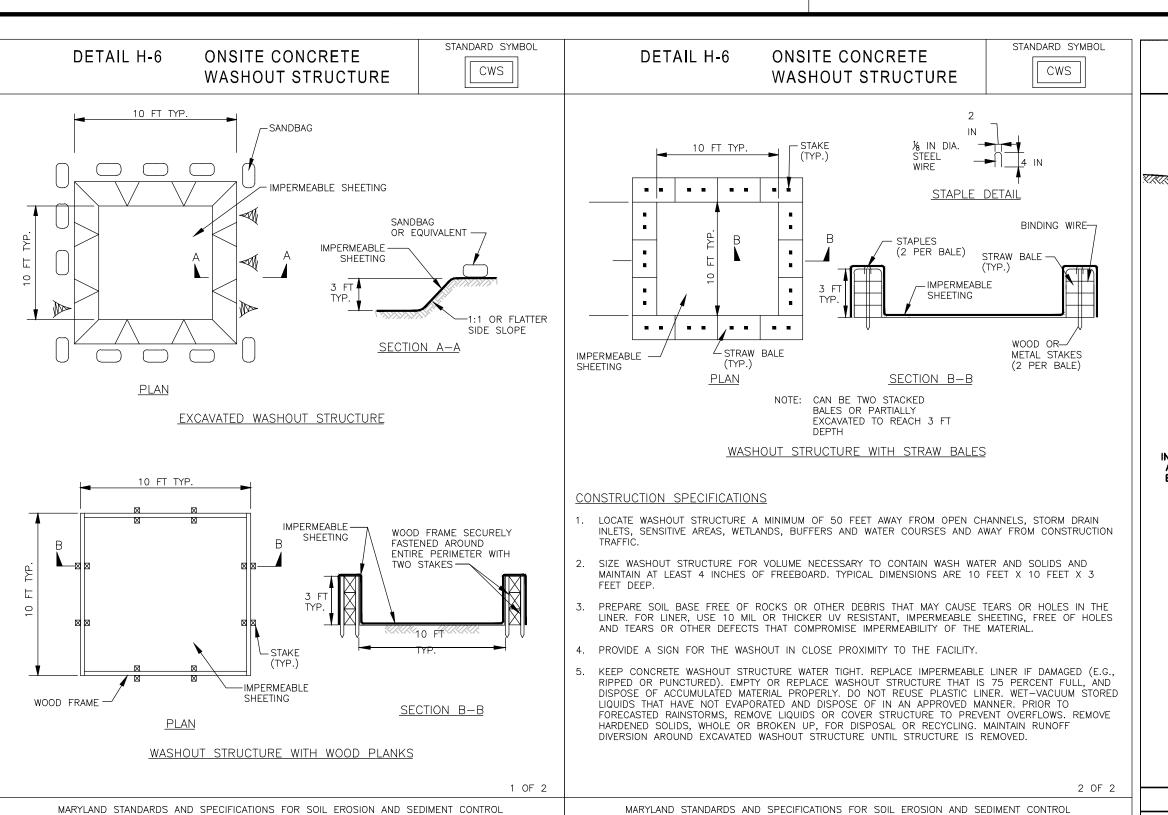
E PLAN NO LIENT: TOWN OF COTTAGE CITY 3820 40TH AVENUE COTTAGE CITY, MD 20722 ATTN: CAROL RICHARDSON, TOWN MANAGER BMF IMN COPYRIGHT © LATEST DATE HEREON CHARLES P. JOHNSON & ASSOCIATES, INC. ALL RIGHTS RESERVED MAR., 2024 UNAUTHORIZED USE OR REPRODUCTION IS 2020-3050

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NATURAL RESOURCES CONSERVATION SERVICE

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NATURAL RESOURCES CONSERVATION SERVICE

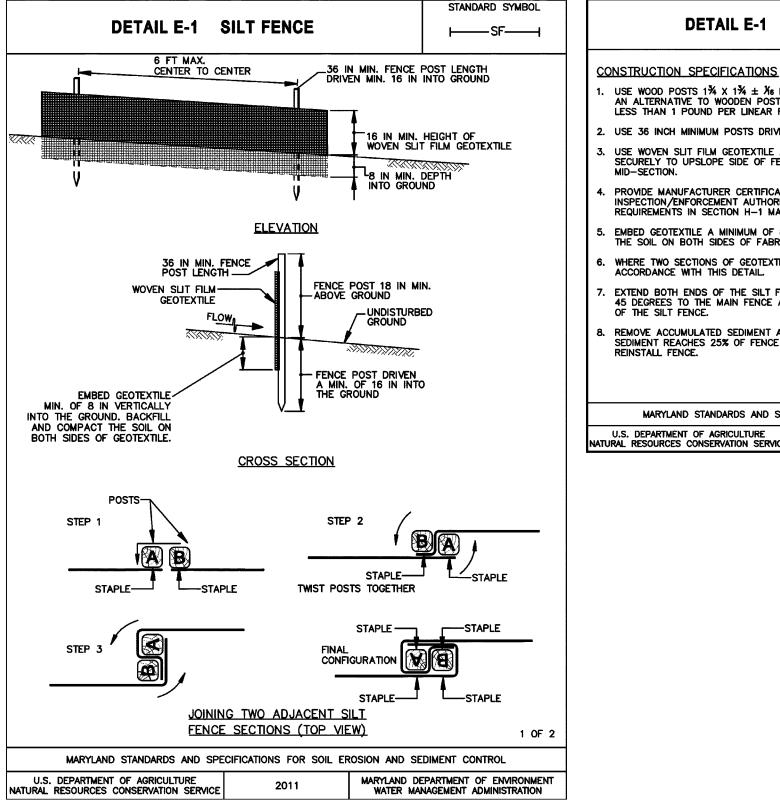


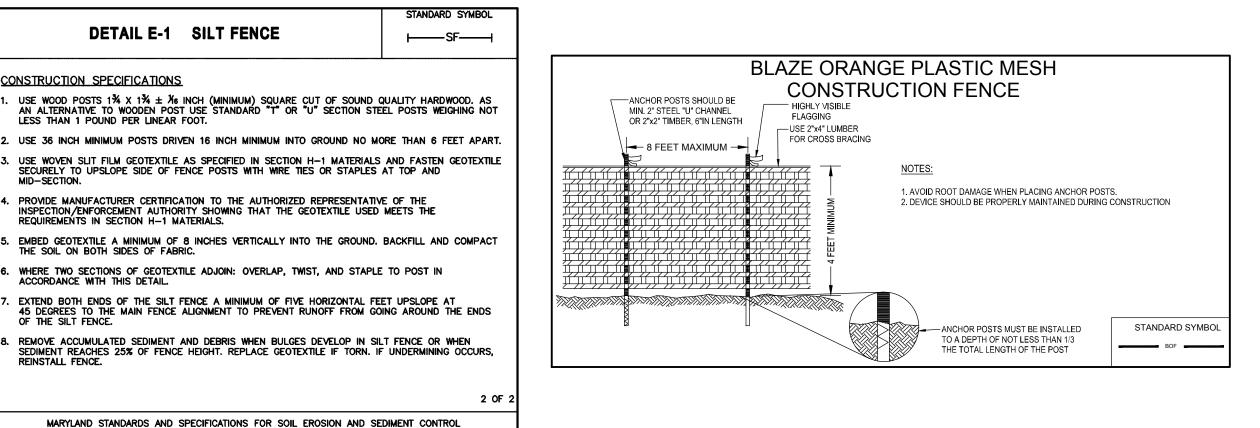
MARYLAND DEPARTMENT OF ENVIRONMENT

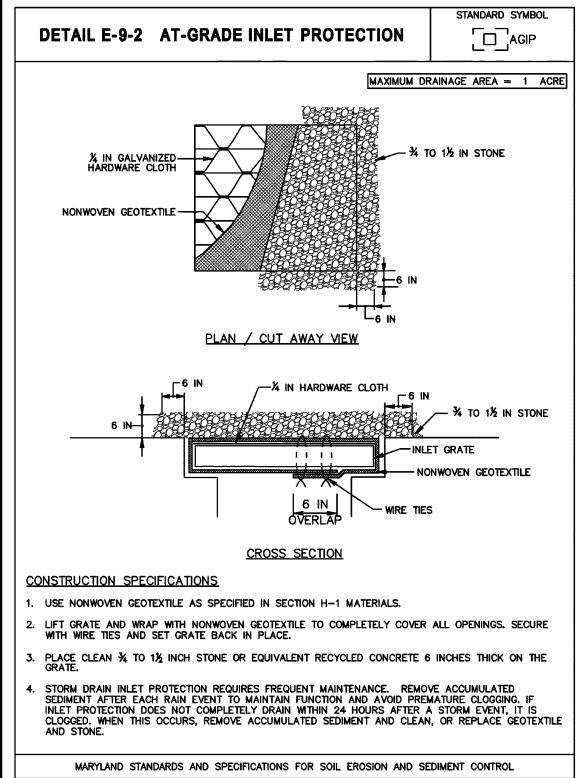
WATER MANAGEMENT ADMINISTRATION

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

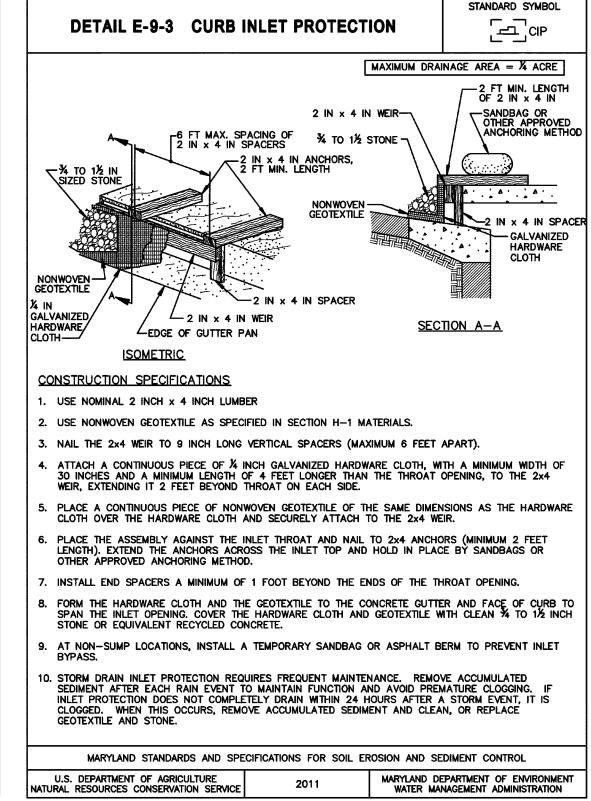
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE





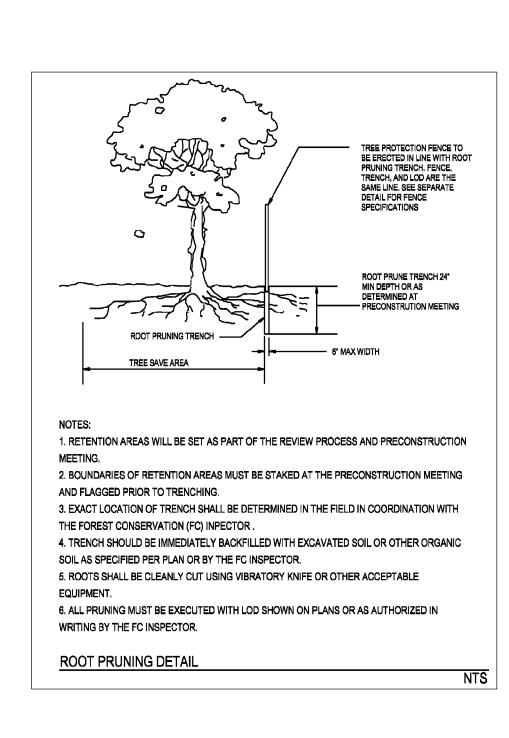


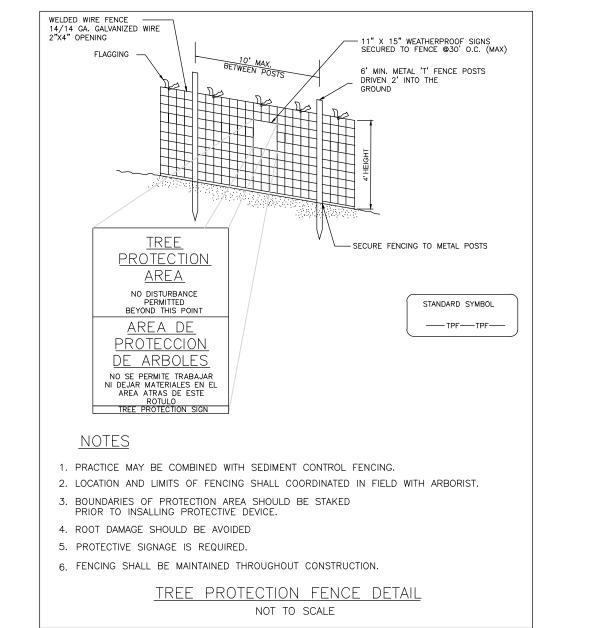
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MARYLAND DEPARTMENT OF ENVIRONMENT

WATER MANAGEMENT ADMINISTRATION





DETAIL E-1 SILT FENCE

PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE

WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN

LESS THAN 1 POUND PER LINEAR FOOT

REQUIREMENTS IN SECTION H-1 MATERIALS.

ACCORDANCE WITH THIS DETAIL.

### **GENERAL NOTES:**

THE CONTRACTOR IS RESPONSIBLE FOR ENSURING SEDIMENT LADEN WATER DOES NOT LEAVE THE SITE. CONTRACTOR SHALL INSTALL APPROPRIATE SEDIMENT CONTROL MEASURES AS NECESSARY. STANDARD SEDIMENT CONTROL NOTES AND SOME DETAILS ARE PROVIDED ON SHEETS 9-10. REFER TO THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL DETAILS AND PRACTICES AS NEEDED.

FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:

- THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN THREE HORIZONTAL TO ONE VERTICAL (3:1) AND SEVEN (7) CALENDAR DAYS FOR ALL OTHER DISTURBED OR
- GRADED A REASON THE PROJECT SITE, THE IN-PLACE SEDIMENT CONTROL MEASURES WILL BE MAINTAINED ON A CONTINUING BASIS UNTIL THE SITE IS PERMANENTLY STABILIZED AND ALL PERMIT REQUIREMENTS ARE MET.

SEDIMENT CONTROL SITE DESIGN DETAILS 43rd AVENUE CONCEPT PLAN

COTTAGE CITY 43rd AVENUE COTTAGE CITY (2ND) ELECTION DISTRICT PRINCE GEORGE'S COUNTY, MARYLAND

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The Charles P. Johnson & Associates, Inc. Civil and Environmental Engineers  $\, \cdot \,$  Planners  $\, \cdot \,$  Landscape Architects  $\, \cdot \,$  Surveyors Associates / 1751 Elton Rd., Ste. 300 Silver Spring, MD 20903 301-434-7000 Fax: 301-434-9394

ΓΕ PLAN NO: LIENT: TOWN OF COTTAGE CITY 3820 40TH AVENUE COTTAGE CITY, MD 20722 ATTN: CAROL RICHARDSON, TOWN MANAGER BMF IMN COPYRIGHT © LATEST DATE HEREON CHARLES P. JOHNSON & ASSOCIATES, INC. ALL RIGHTS RESERVED MAR., 2024 UNAUTHORIZED USE OR REPRODUCTION IS CALE AS SHOWN 2020-3050

### MISS UTILITY

Call "Miss Utility" at 1-800-257-7777, 48 hours prior to the start of work. The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation.

PROFESSIONAL CERTIFICATION
HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THA UNDER THE LAWS OF THE STATE OF MARYLAND.

IRATION DATE: 12/13/2021

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