Utility Company Training Session

Presented by:

Department of Permitting, Inspections & Enforcement

Site/Road Plan Review Division — Traffic Engineering & Utility Section

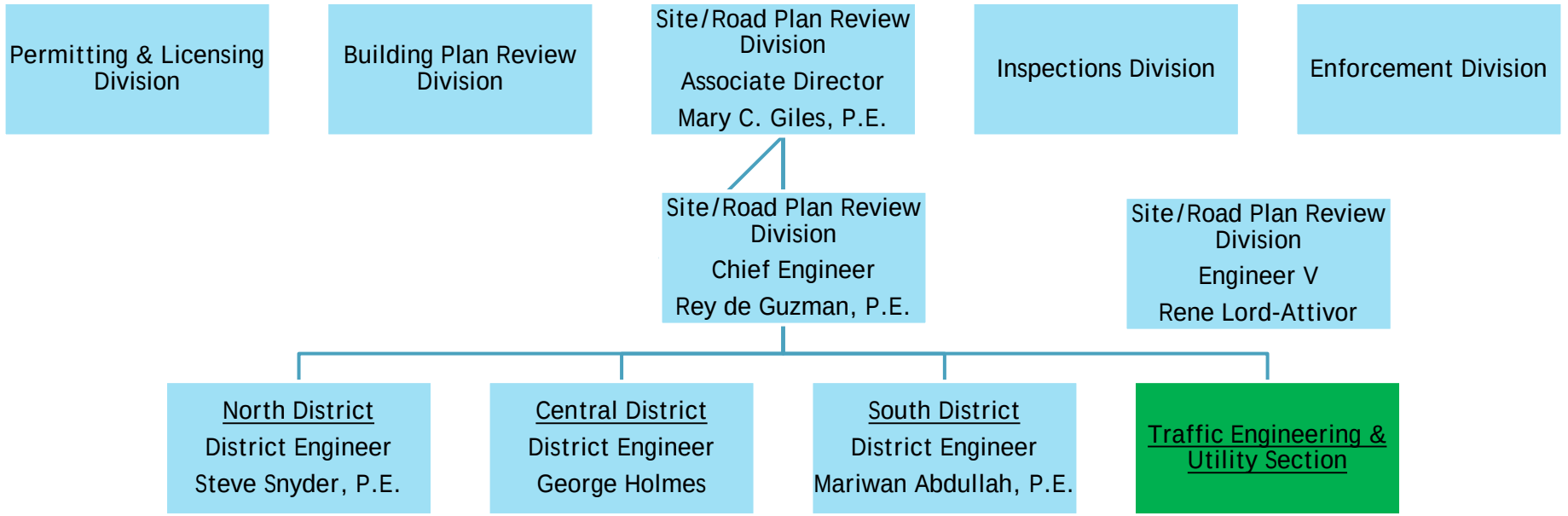
January 10, 2018, Revised April 2, 2019

DPIE
DEPARTMENT OF PERMITTING, INSPECTIONS AND ENFORCEMENT

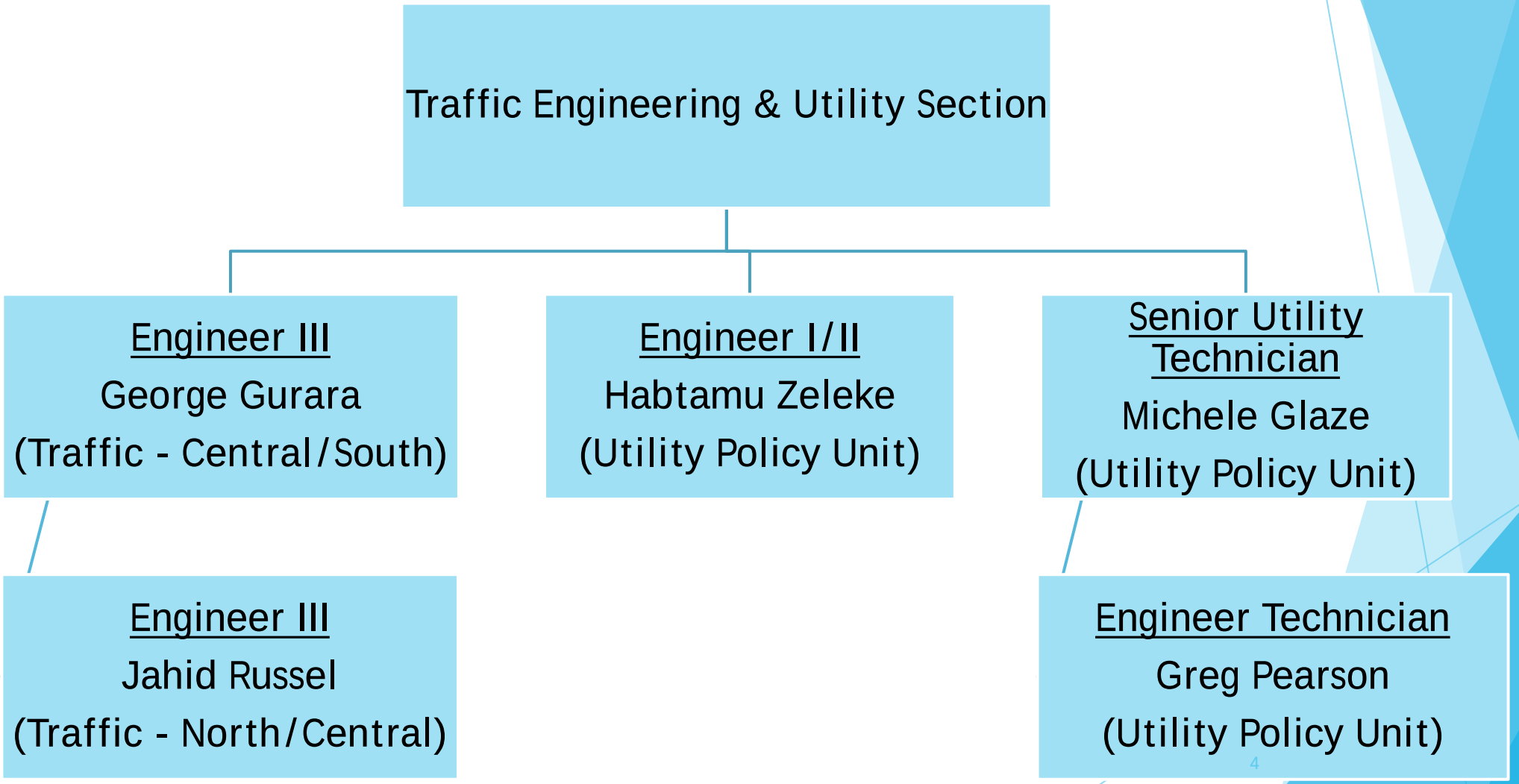
Outline

I. Introduction
II. Organization Chart
III. Utility Permits Overview
IV. Special Utility Permit Review
V. Traffic Control
VI. Common Mistakes

DPIE Organization



Traffic & Utility Section



Other Reviewers

- Other Jurisdictions
  - When work falls within other jurisdictions, they should review
  - Occasionally we will be asked to review on their behalf
  - Any items that fall on SHA roadways are under their purview
- Peer Review
  - There are Utility and Traffic Peer Reviewers available for expedited review
- Private Roads
  - County does not review work on private roads

Maintenance Utility Permits

Utility Policy Regarding Maintenance Utility Permits

A. A Maintenance Utility Permit shall be required for each utility company to cover the following work performed on its existing utility facilities located within public rights-of-way or easements under the jurisdiction of the Prince George's County, Department of Public Works and Transportation:

- Routine maintenance of existing utility facilities.
- Repairs to existing utility facility infrastructure that do not constitute a material upgrade or betterment of the utility facility.
- Underground utility facility construction within publicly dedicated future roadways of new subdivisions.
- Modifications to utility facilities that are required for Capital Improvement Program (CIP) projects, except for any such modification to WSSC utility facilities required to be made by a party under direct contract with the Department for a CIP project.
- Service connections that do not require the placement or relocation of any utility pole and do not require any open cut of the roadway pavement on arterial roadways, collector roadways, industrial/ commercial roadways, transit routes, or any other roadway that has ADT volume of six thousand (6,000) vehicles per day or greater.
- Service connections that do not require two (2) or more open cuts of the roadway pavement by the same utility company within two hundred (200) feet of each other within a six- (6)month period.

Maintenance Utility Permit Quick Reference

ALLOWED	NOT ALLOWED
❑ WORK THAT HAS BEEN REQUESTED AND INSPECTOR NOTIFIED ❑ EMERGENCY WORK WITH NOTIFICATION WITHIN 24 HOURS ❑ CIP PROJECT WORK THAT HAS BEEN REQUESTED	❑ NO REQUEST MADE OR NOTIFICATIONS GIVEN ❑ WORK OUTSIDE OF THE RIGHT-OF-WAY **INCLUDING PUE** ❑ NEW INSTALLATIONS AND UPGRADES ❑ MOST CUSTOMER RELATED WORK

Special Utility Permits

Utility Policy Regarding Special Utility Permits

A. A Special Utility Permit shall be required for the following types of utility facility construction within public rights-of-way or easements under the jurisdiction of the Prince George's County, Department of Public Works and Transportation:

- Construction of new utility facilities, except underground utility construction within publicly dedicated future roadways of new subdivisions.
- Material upgrades to existing utility facilities.
- Material relocation or realignment of existing utility facilities, except for relocation required by the County.
- Material extensions of existing utility facilities.
- Service connections that require the placement or relocation of any utility pole or that require any open cut of the roadway pavement on arterial roadways, collector roadways, industrial/commercial roadways, transit routes, or any other roadway that has average daily traffic (ADT) volume of six thousand (6,000) vehicles per day or greater.
- Service connections that require two (2) or more open cuts of the roadway pavement by the same utility company within two hundred (200) feet of each other within a 6-month period.
- Relining and/or cleaning underground utility systems.
- Any utility work that requires the cutting of any pavement within the moratorium period.

Special Utility Permit Quick Reference

ALLOWED	NOT ALLOWED
❑ UTILITY WORK WITHIN THE RIGHT-OF-WAY	❑ WORK OUTSIDE OF THE RIGHT-OF-WAY **INCLUDING PUE** ❑ GRADING OTHER THAN FOR UTILITY INSTALLATION ❑ IMPERVIOUS SURFACE INSTALLATION ❑ CURB CUTS, DRIVEWAY INSTALLATIONS, AND TEMPORARY ACCESS ROADS

Other Permits

Other Permits That May Be Required

- **Street Construction Permit**
  - ***For Right-of-Way Only***
  - Grading, Temporary Entrances/Curb Cuts, Oversize Vault modifications, Access Drives completely within r/w, Changes to Street Grade, etc.
  - Requires SWM Concept Approval and/or Street Grade Establishment Approval
- **Site Development Rough Grading Permit (Not Recommended)**
  - ***For Rough Grading Only***
  - Grading, Temporary Access Paths, etc.
  - Requires SWM Concept Approval and/or Street Grade Establishment Approval
- **Site Development Fine Grading Permit**
  - ***For Work within the PUE, Combination Sites, Fine Grading, and Installation of Impervious outside of Right-of-Way***
  - All Construction including Special Utility Permit if desired
  - Requires SWM Concept Approval and/or Street Grade Establishment Approval
- **Haul Road/Timber Transport Permit**
- **Oversized/Overweight Vehicle Permit**
- **Restoration Bond/Driveway Bond Permit**

Exemptions to Grading Ordinance

Sec. 32-127. - Exceptions to Grading Permit.

(a) Provided all other provisions of this Division are met and excluding the property located within the Chesapeake Bay Critical Area Overlay Zone, no grading or storm drain connection permit will be required under the following conditions:

(1) Agricultural land management practices and construction of agricultural structures; and removal of cultivated sod, shrubs and trees for transplant as part of a regular commercial activity.

(2) The stockpiling, with slopes at a natural angle of repose, of raw or processed sand, stone and gravel at concrete, asphalt and material processing plants and storage yards not associated with a development application.

(3) Refuse disposal areas or sanitary landfills operated and conducted in accordance with the requirements, rules and ordinances adopted by Prince George's County.

(4) Grading for or by, and on land owned by, the United States of America or the State of Maryland when used exclusively for purposes originally acquired or consistent with constitutional and statutory authorizations and limitations; or for, by or under permit from a municipality authority, State Highway Administration or the County Department of Permitting, Inspections, and Enforcement to the extent such grading is within public right-of-way and adjacent slope easements or minimum slope areas only, and specifically exclusive of the remainder of the lot.

(5) Grading and trenching by privately or publicly-owned and operated public utility companies or commissions for open channel improvements and underground utility installations and maintenance in:

(A) Public rights-of-way and Washington Suburban Sanitary Commission easements; and

(B) Utility easements immediately adjacent to public rights-of-way or in the space on abutting lot(s) needed to accommodate the respective house connections; provided, however, that all grading and trenching involved is included in a current site grading permit or as part of a current building permit.

(6) Grading, as a maintenance measure, or for landscaping or construction purposes on existing developed lots or parcels, provided:

(A) The aggregate of area(s) affected or bare-earthed at any one (1) time does not exceed five thousand (5,000) square feet or disturb less than 100 cubic yards of earth;

(B) The grade change does not exceed twelve (12) inches at any point and does not alter the drainage pattern;

(C) All bare earth is promptly seeded, sodded or otherwise effectively protected from erosive actions.

(D) Does not require a Tree Conservation Plan per Subtitle 25.

(7) Grading and related earthwork, incidental to individual water wells and sewage disposal (septic) systems installed pursuant to a valid permit from the appropriate authority.

(CB-15-2011; CB-18-2013; CB-36-2015)

Exemptions to Stormwater Management Ordinance

Sec. 32-174. - Exemptions from Requirements.

(a) Except as provided in Subsection (b), the following development activities are exempt from the provisions of this Division and the requirements of providing stormwater management:

(1) Agricultural land management practices;

(2) Additions or modifications to existing detached one-family dwellings provided that they comply with item (3) of this Subsection; and the subject site does not exceed the maximum allowable lot coverage allowed in Section 27-442(c) Table II - Lot Coverage and Green Area or Section 27-445.12(a)(3) Table 2 Maximum Net Lot Coverage, whichever applies.

(3) Any developments that do not disturb more than five thousand (5,000) square feet of land area;

(4) Developments within the City of Bowie where the city has approved stormwater management design plans for a development either on or off the development site, which otherwise meet or exceed the provisions of this Division;

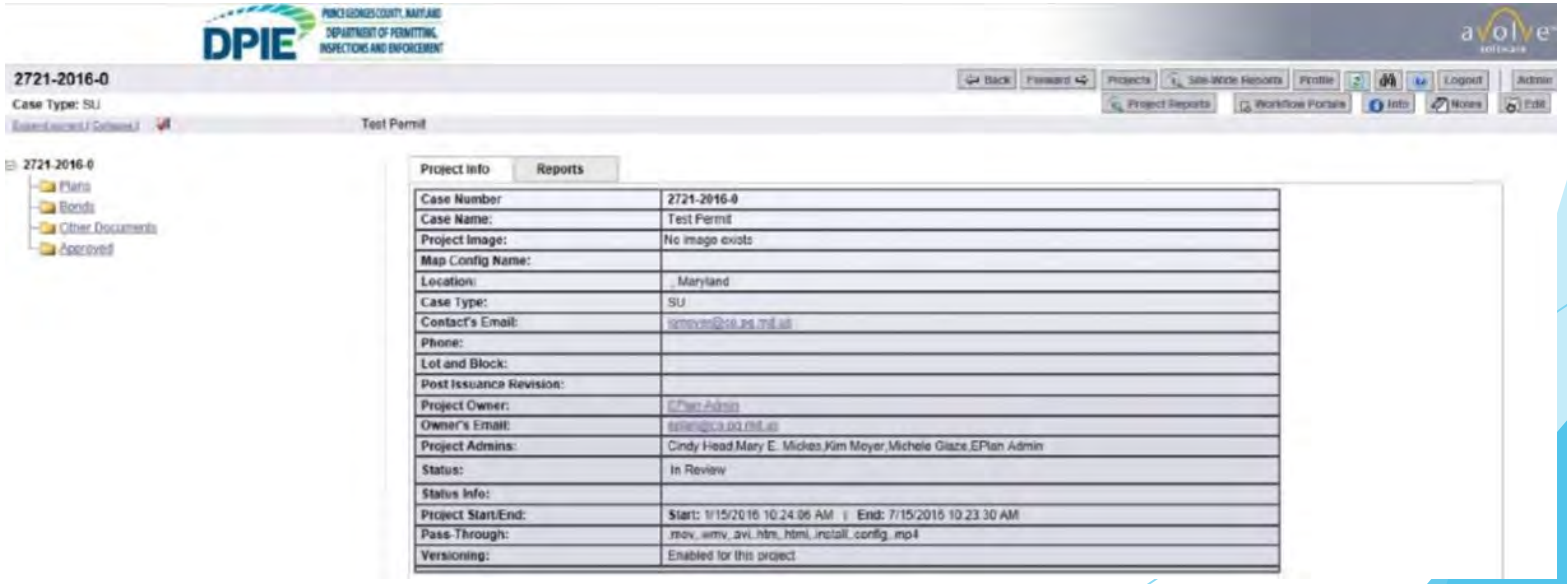
(5) Land development activities which the Administration determines will be regulated under specific state laws that provide for managing stormwater runoff.

(b) Where the property is located within a Chesapeake Bay Critical Area Overlay Zone, the development activities in Subsection (a), above, except for agricultural land management activities, shall comply with the stormwater management requirements of this Division and conform with the requirements of Subtitle 5B, and a Conservation Plan shall be required relating to the stormwater management activities. In all cases, the development activities located within the Chesapeake Bay Critical Area Overlay Zone, and are required to comply with stormwater management requirements, shall meet the requirements of this Division and conform to the requirements of Subtitle 5B.

(CB-15-2011)

Special Utility Permit Review

Submission/Review Process



Submission/Review Process

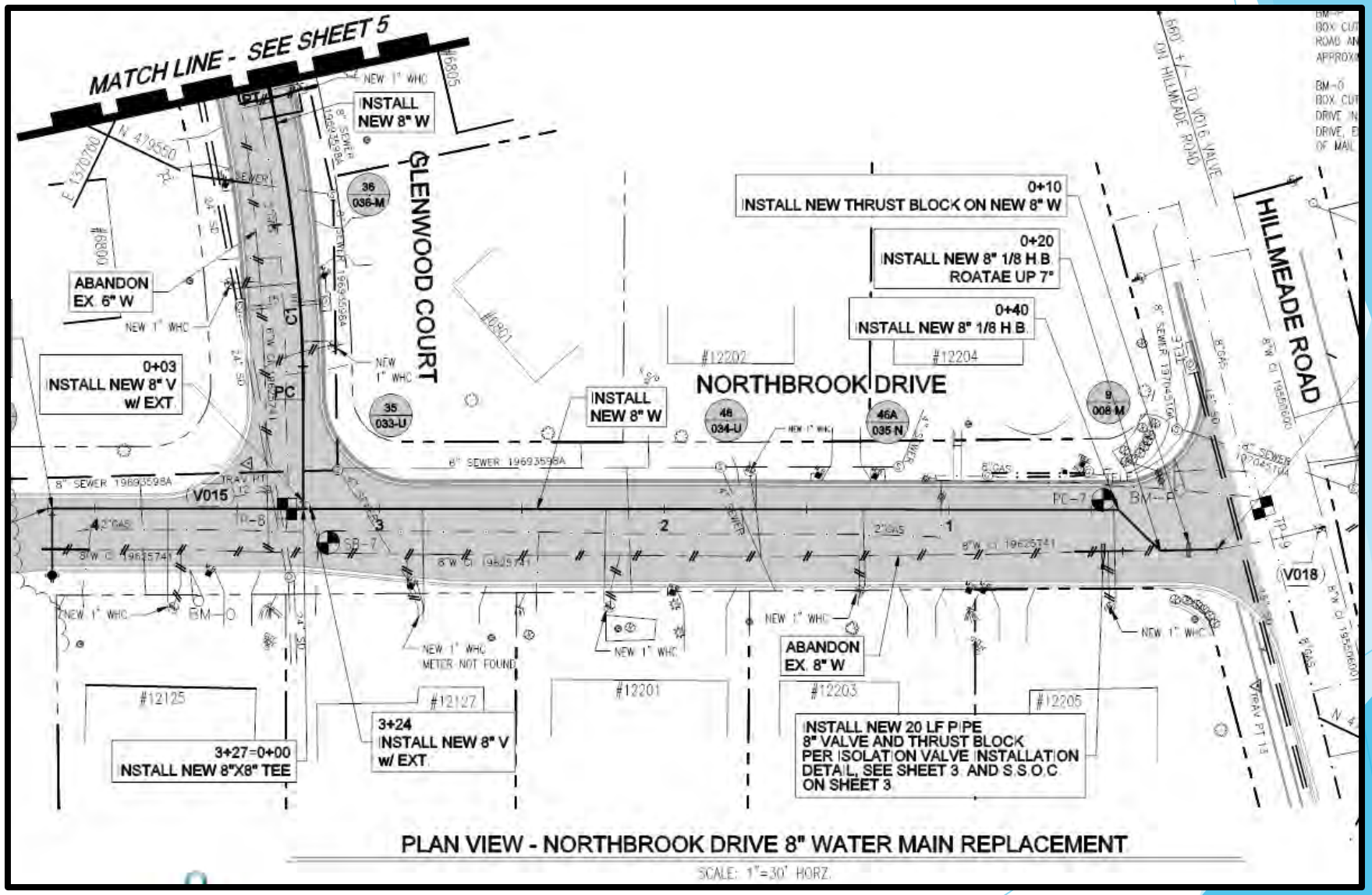
- **Online Application – 3 Steps**

  User Guide available online,
  http://www.princegeorgescountymd.gov/documentcenter/view/4929

  - Register as a New User if not done previously and we will approve usually within 24 hours, http://dpiepermits.princegeorgescountymd.gov/
  - Apply for a Special Utility Permit
  - Upload Plans after ePlan email notification, https://eplans.princegeorgescountymd.gov/ProjectDox/

- **Prescreen Review by Utility Section**
  - Utility Section will review submission and determine if complete. If not, ePlan email notification of "Correction Request" will be sent to Applicant
  - Determination of whether work should be located within an existing PUE
  - Determination of whether Traffic Review is required
- **Reviews will be completed by Utility and Traffic Reviewers**
  - Current review time is 3+ weeks, but this varies based on volume of permits
- **"Applicant Resubmit ePlan" email notification will indicate when markups are available via ePlan, if required to be addressed**
- **"Approved Plans Ready for Download" ePlan email notification will be sent when permit is issued**

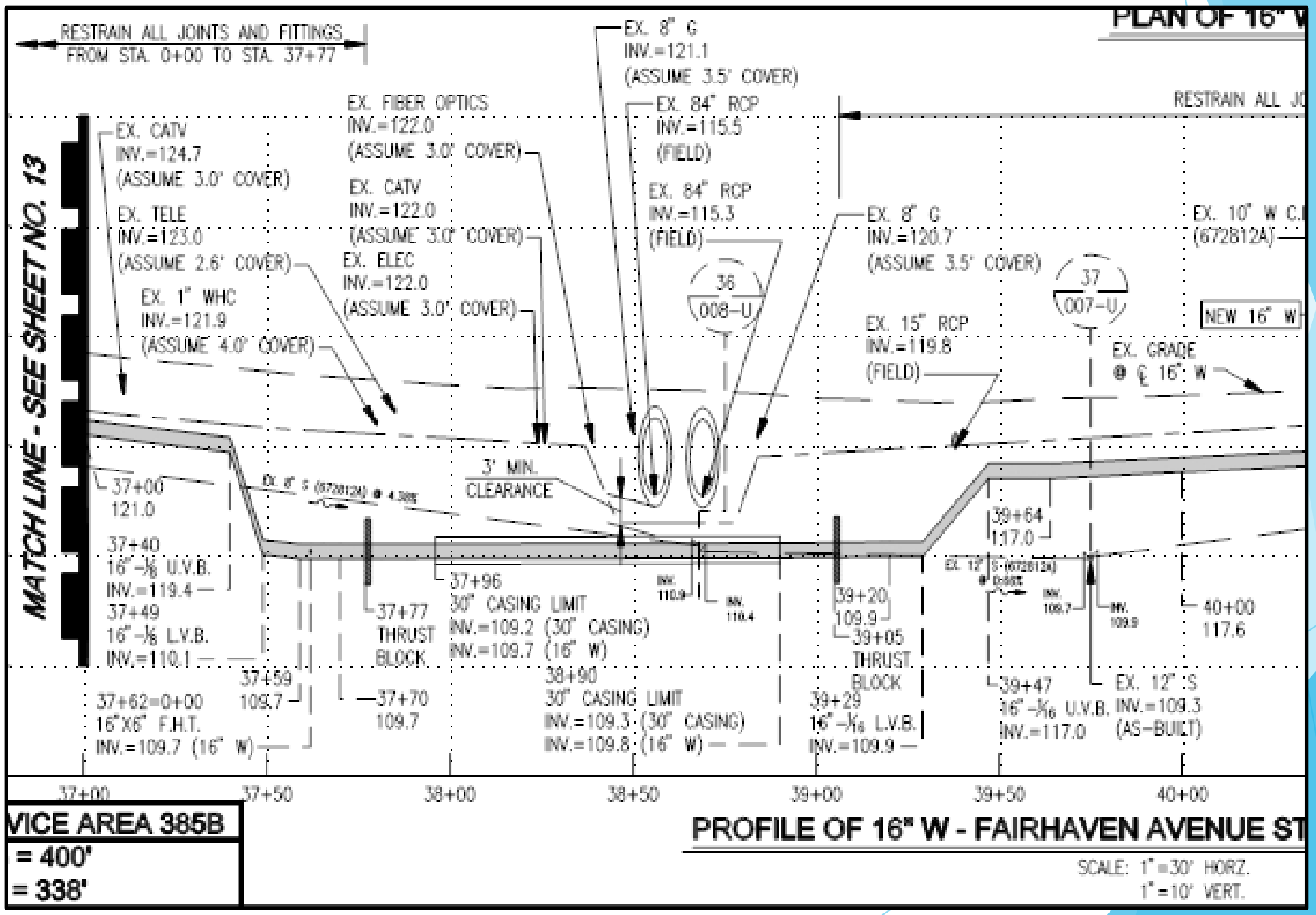
Review Requirements — Layout



Review Requirements — Layout

- For Dry Utilities, locate in the grass area behind the curb and gutter whenever possible
- Parallel to centerline/baseline
- Maintain 5’ horizontal and 1’ vertical clearance
- Maintain 2’ horizontal clearance from curb and gutter
- Appurtenances should not lie over or obstruct access to other utilities
- Cathodic Protection should be as close as possible to the main and all appurtenances should be on the same side of the pipe
- Test stations and other appurtenances should be flush mounted in grassed area, 2’ behind curb
- Crossings of roads should be at 90 degrees or 45 degrees

Review Requirements — Must Have Items



Review Requirements — Must Have Items

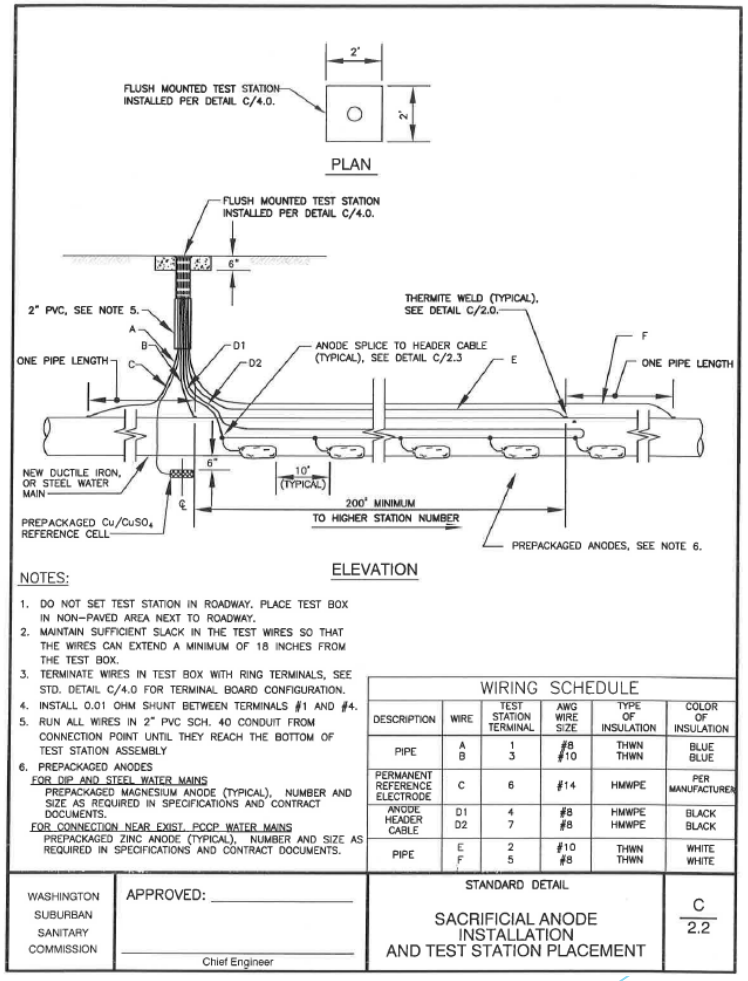
- Existing, proposed, and ultimate right-of-way lines/widths and jurisdiction
- Existing and proposed utilities and appurtenances including cathodic protection and foundations
- Existing, proposed, and ultimate pavement including type, width and moratorium status
  - ***For Pavement Assessment and Projects go to PAMS Online,*** http://princegeorges.maps.arcgis.com/apps/webappviewer/index.html?id=b94b91ba595148edac49ae294926d61c
  - Mill and overlay limits per Utility Policy
- Existing, proposed and ultimate other surfaces

Review Requirements — Must Have Items

- Installation lengths in pavement and outside and restoration types in square footage
- Disposition of abandoned and disturbed items such as mains, signal devices, striping and speed humps
- Profile for main installations and bridge/oversize culvert crossings
- Traffic control notes, details and/or plans
- Construction schedule

Review Requirements – Other Necessary Items

- Current version of Special Details
- Notes regarding DPIE Inspection notifications
- Notes regarding traffic signal coordination/notifications
- Site specific notes
- Show test pit/boring/core locations and include restoration
- Pavement marking notes/plans as necessary
- Multiple location permits must be divided per DPIE Inspection Districts and limited to 40 plan sheets



Traffic Control Plan Review

What is Traffic Control?

- Temporary Traffic Control (TTC) or Maintenance of Traffic (MOT) provides safe and positive direction for all roadway users (motorists, pedestrians and bicyclists) when temporary work activities (road construction, maintenance, utility work and roadway incidents) interfere with normal traffic flow.
- Adequate TTC plans are vital in protecting both the public roadway users and the construction workers.

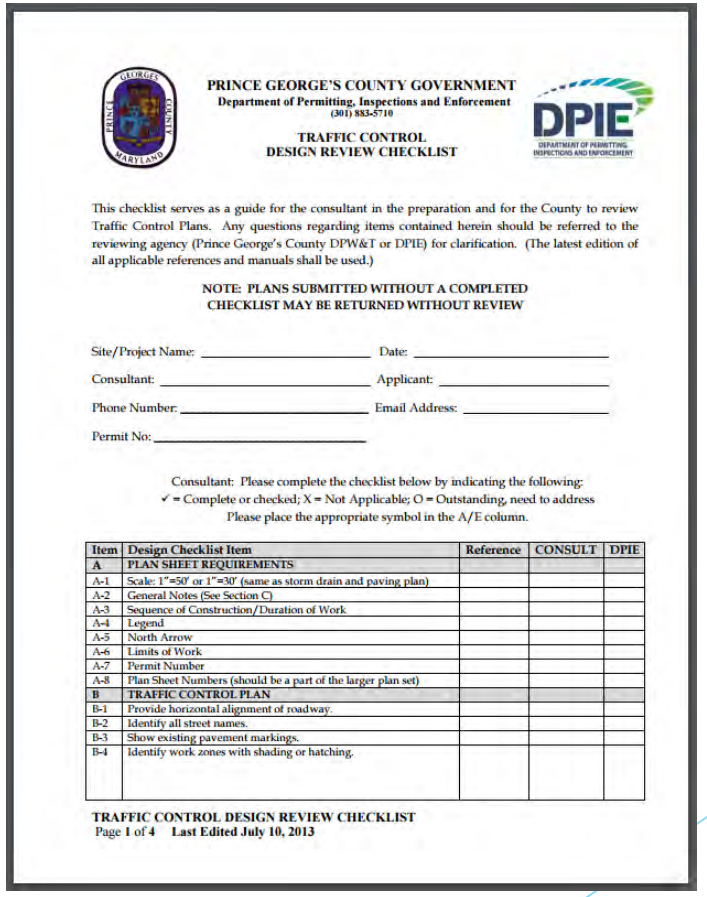
When is a Traffic Control Plan required?

- Any time work activity affects the travel way (roadway, bikeway, sidewalks) within the County right-of-way, a traffic control plan is required.
- All approved permits that fit this criteria should include an approved traffic control plan.

Design Guidelines

- **Prince George's County DPIE Traffic Control Plan Design Checklist**
  - Details the requirements for plan submittals
  - Should be filled out and submitted with every plan submittal
  - Found on DPIE Website

**Will be updated periodically*



PRINCE GEORGE'S COUNTY GOVERNMENT
Department of Permitting, Inspections and Enforcement
(301) 883-5710

TRAFFIC CONTROL
DESIGN REVIEW CHECKLIST

This checklist serves as a guide for the consultant in the preparation and for the County to review Traffic Control Plans. Any questions regarding items contained herein should be referred to the reviewing agency (Prince George's County DPW&T or DPIE) for clarification. (The latest edition of all applicable references and manuals shall be used.)

NOTE: PLANS SUBMITTED WITHOUT A COMPLETED CHECKLIST MAY BE RETURNED WITHOUT REVIEW

Site/Project Name: _____ Date: _____

Consultant: _____ Applicant: _____

Phone Number: _____ Email Address: _____

Permit No: _____

Consultant: Please complete the checklist below by indicating the following:
✓ = Complete or checked; X = Not Applicable; O = Outstanding, need to address
Please place the appropriate symbol in the A/E column.

Item	Design Checklist Item	Reference	CONSULT	DPIE
A	PLAN SHEET REQUIREMENTS:			
A-1	Scale: 1"=50' or 1"=30' (same as storm drain and paving plan)			
A-2	General Notes (See Section C)			
A-3	Sequence of Construction/Duration of Work			
A-4	Legend			
A-5	North Arrow			
A-6	Limits of Work			
A-7	Permit Number			
A-8	Plan Sheet Numbers (should be a part of the larger plan set)			
B	TRAFFIC CONTROL PLAN			
B-1	Provide horizontal alignment of roadway.			
B-2	Identify all street names.			
B-3	Show existing pavement markings.			
B-4	Identify work zones with shading or hatching.			

TRAFFIC CONTROL DESIGN REVIEW CHECKLIST
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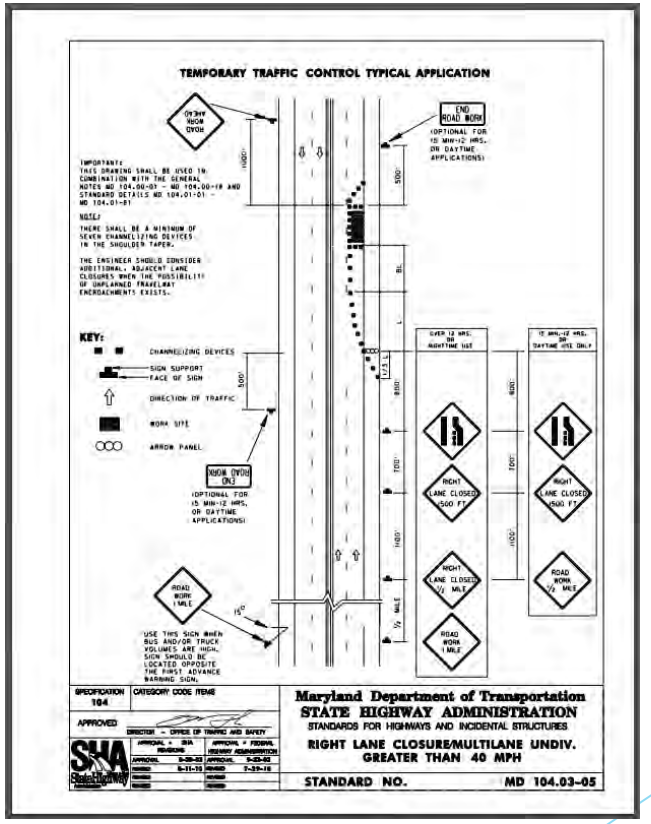
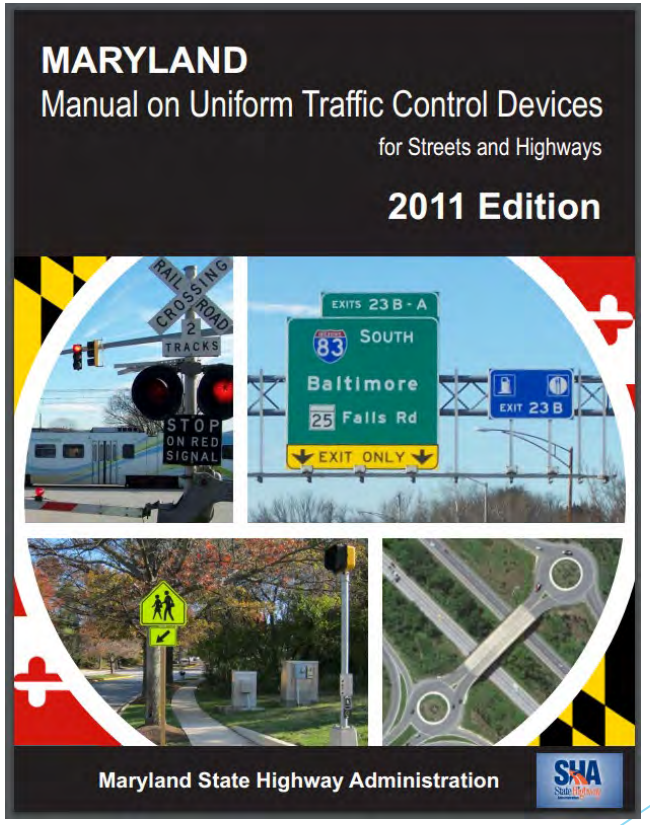
Design Guidelines

- **MD SHA Temporary Traffic Control Typical Applications**
  - Standard Details that cover:
    - Sign & channelization device spacing
    - Taper lengths
    - Buffer lengths
    - Typical applications
      - Roadway types
      - Speed
      - Type of work
    - Found on the MD SHA Website



Design Guidelines

- **MD Manual on Uniform Traffic Control Devices (MD MUTCD)**
  - Use when something is not addressed by the MD SHA TTCTA
  - Find additional information about signs (designation, size, use)
  - Found on MD SHA Website



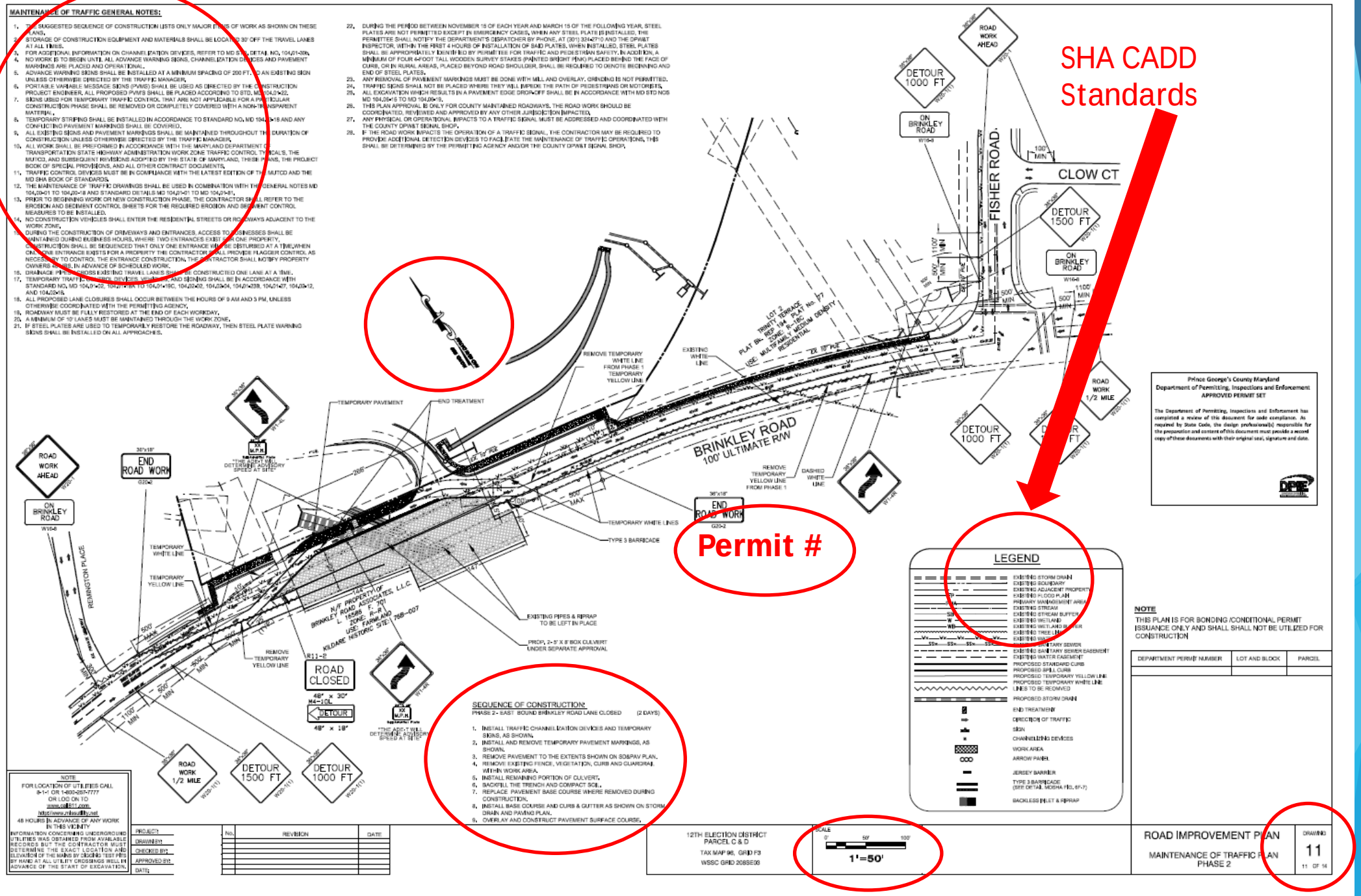
Typical vs Specific Plans

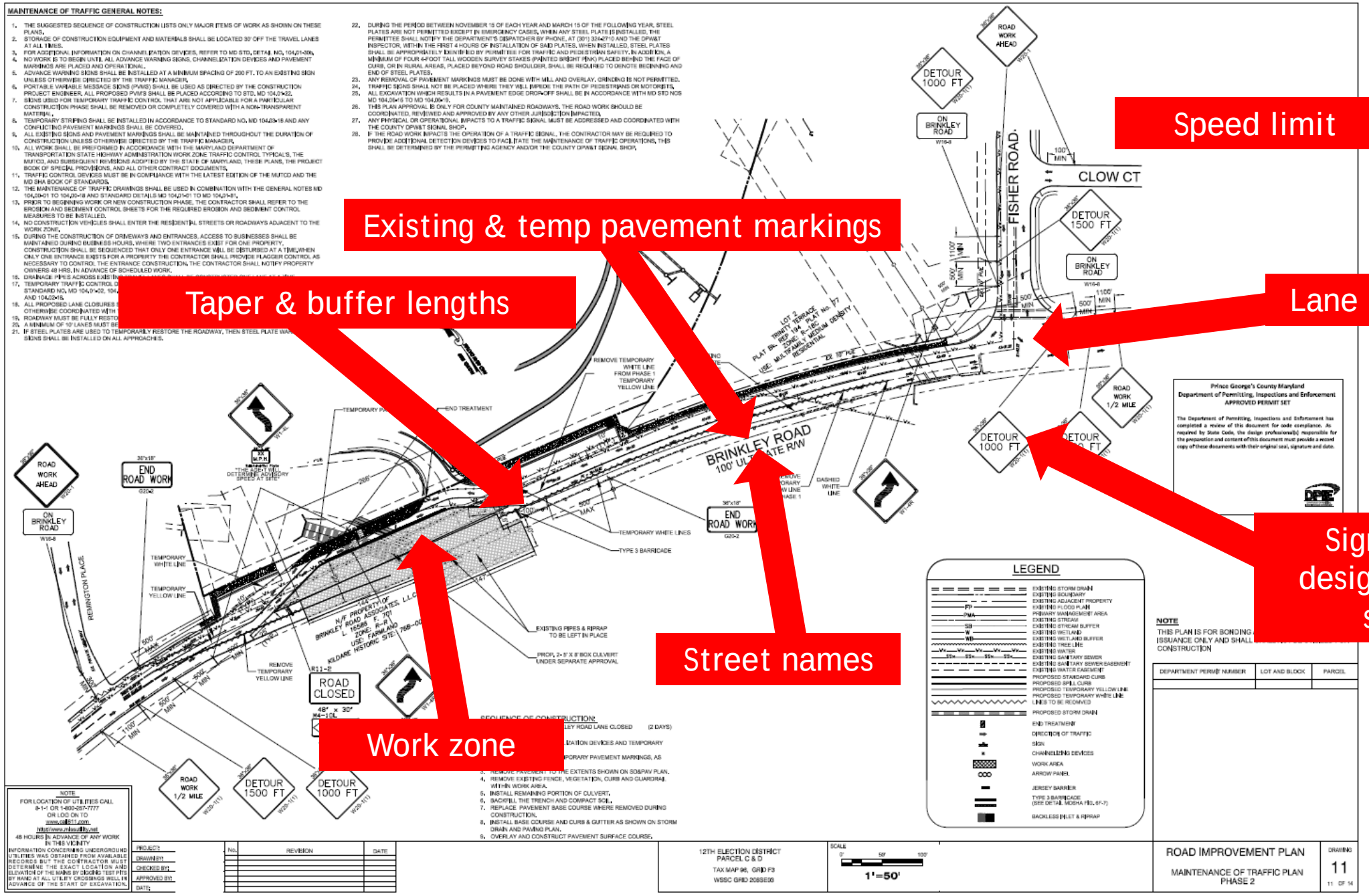
- Plans for work scenarios that almost exclusively match the MD Typicals can be done using/showing the typicals, detailed sequence of construction and the other required items.
- More complicated jobs will have a specific/detailed plan sheet(s) showing the horizontal alignment/topo with actual signs, spacing, channelization devices, etc. and the other required items.

Plan Sheet Requirements

Item	Design Checklist Item	Reference	CONSULT	DPIE
A	PLAN SHEET REQUIREMENTS			
A-1	Scale: 1″=50′ or 1″=30′ (same as storm drain and paving plan)			
A-2	General Notes (See Section C)			
A-3	Sequence of Construction/Duration of Work			
A-4	Legend			
A-5	North Arrow			
A-6	Limits of Work			
A-7	Permit Number			
A-8	Plan Sheet Numbers (should be a part of the larger plan set)			

F


MAINTENANCE OF TRAFFIC GENERAL NOTES:
1. THE SUGGESTED SEQUENCE OF CONSTRUCTION LISTS ONLY MAJOR ITEMS OF WORK AS SHOWN ON THESE PLANS.
2. STORAGE OF CONSTRUCTION EQUIPMENT AND MATERIALS SHALL BE LOCATED 30' OFF THE TRAVEL LANES AT ALL TIMES.
3. FOR ADDITIONAL INFORMATION ON CHANNELIZATION DEVICES, REFER TO MD STD., DETAIL NO. 104.01-108.
4. NO WORK IS TO BEGIN UNTIL ALL ADVANCE WARNING SIGNS, CHANNELIZATION DEVICES AND PAVEMENT MARKINGS ARE PLACED AND OPERATIONAL.
5. ADVANCE WARNING SIGNS SHALL BE INSTALLED AT A MINIMUM SPACING OF 200 FT. TO AN EXISTING SIGN UNLESS OTHERWISE DIRECTED BY THE TRAFFIC MANAGER.
6. PORTABLE VARIABLE MESSAGE SIGNS (PVMS) SHALL BE USED AS DIRECTED BY THE CONSTRUCTION PROJECT ENGINEER. ALL PROPOSED PVMS SHALL BE PLACED ACCORDING TO STD. MD 104.01-22.
7. SIGNS USED FOR TEMPORARY TRAFFIC CONTROL THAT ARE NOT APPLICABLE FOR A PARTICULAR CONSTRUCTION PHASE SHALL BE REMOVED OR COMPLETELY COVERED WITH A NON-TRANSPARENT MATERIAL.
8. TEMPORARY STRIPING SHALL BE INSTALLED IN ACCORDANCE TO STANDARD NO. MD 104.01-18 AND ANY CONFLICTING PAVEMENT MARKINGS SHALL BE COVERED.
9. ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION UNLESS OTHERWISE DIRECTED BY THE TRAFFIC MANAGER.
10. ALL WORK SHALL BE PREFORMED IN ACCORDANCE WITH THE MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION WORK ZONE TRAFFIC CONTROL TYPICALS, THE MUTCD, AND SUBSEQUENT REVISIONS ADOPTED BY THE STATE OF MARYLAND, THESE PLANS, THE PROJECT BOOK OF SPECIAL PROVISIONS, AND ALL OTHER CONTRACT DOCUMENTS.
11. TRAFFIC CONTROL DEVICES MUST BE IN COMPLIANCE WITH THE LATEST EDITION OF THE MUTCD AND THE MD SHA BOOK OF STANDARDS.
12. THE MAINTENANCE OF TRAFFIC DRAWINGS SHALL BE USED IN COMBINATION WITH THE GENERAL NOTES MD 104.20-01 TO 104.20-18 AND STANDARD DETAILS MD 104.01-01 TO MD 104.01-81.
13. PRIOR TO BEGINNING WORK OR NEW CONSTRUCTION PHASE, THE CONTRACTOR SHALL REFER TO THE EROSION AND SEDIMENT CONTROL SHEETS FOR THE REQUIRED EROSION AND SEDIMENT CONTROL MEASURES TO BE INSTALLED.
14. NO CONSTRUCTION VEHICLES SHALL ENTER THE RESIDENTIAL STREETS OR ROADWAYS ADJACENT TO THE WORK ZONE.
15. DURING THE CONSTRUCTION OF DRIVEWAYS AND ENTRANCES, ACCESS TO BUSINESSES SHALL BE MAINTAINED DURING BUSINESS HOURS. WHERE TWO ENTRANCES EXIST ON ONE PROPERTY, CONSTRUCTION SHALL BE SEQUENCED THAT ONLY ONE ENTRANCE WILL BE DISTURBED AT A TIME. WHEN ONLY ONE ENTRANCE EXISTS FOR A PROPERTY THE CONTRACTOR SHALL PROVIDE FLAGGER CONTROL AS NECESSARY TO CONTROL THE ENTRANCE CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY PROPERTY OWNERS 48 HRS. IN ADVANCE OF SCHEDULED WORK.
16. DRAINAGE PIPES CROSS EXISTING TRAVEL LANES SHALL BE CONSTRUCTED ONE LANE AT A TIME.
17. TEMPORARY TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH STANDARD NO. MD 104.01-02, 104.01-18A TO 104.01-18C, 104.20-02, 104.20-04, 104.01-03B, 104.01-27, 104.03-12, AND 104.20-16.
18. ALL PROPOSED LANE CLOSURES SHALL OCCUR BETWEEN THE HOURS OF 9 AM AND 5 PM, UNLESS OTHERWISE COORDINATED WITH THE PERMITTING AGENCY.
19. ROADWAY MUST BE FULLY RESTORED AT THE END OF EACH WORKDAY.
20. A MINIMUM OF 10' LANES MUST BE MAINTAINED THROUGH THE WORK ZONE.
21. IF STEEL PLATES ARE USED TO TEMPORARILY RESTORE THE ROADWAY, THEN STEEL PLATE WARNING SIGNS SHALL BE INSTALLED ON ALL APPROACHES.
22. DURING THE PERIOD BETWEEN NOVEMBER 15 OF EACH YEAR AND MARCH 15 OF THE FOLLOWING YEAR, STEEL PLATES ARE NOT PERMITTED EXCEPT IN EMERGENCY CASES, WHEN ANY STEEL PLATE IS INSTALLED, THE PERMITTEE SHALL NOTIFY THE DEPARTMENT'S DISPATCHER BY PHONE, AT (301) 324-2710 AND THE DPW&T INSPECTOR, WITHIN THE FIRST 4 HOURS OF INSTALLATION OF SAID PLATES. WHEN INSTALLED, STEEL PLATES SHALL BE APPROPRIATELY IDENTIFIED BY PERMITTEE FOR TRAFFIC AND PEDESTRIAN SAFETY. IN ADDITION, A MINIMUM OF FOUR 4-FOOT TALL WOODEN SURVEY STAKES (PAINTED BRIGHT PINK) PLACED BEHIND THE FACE OF CURB, OR IN RURAL AREAS, PLACED BEYOND ROAD SHOULDER, SHALL BE REQUIRED TO DENOTE BEGINNING AND END OF STEEL PLATES.
23. ANY REMOVAL OF PAVEMENT MARKINGS MUST BE DONE WITH MILL AND OVERLAY. GRINDING IS NOT PERMITTED.
24. TRAFFIC SIGNS SHALL NOT BE PLACED WHERE THEY WILL IMPEDE THE PATH OF PEDESTRIANS OR MOTORISTS.
25. ALL EXCAVATION WHICH RESULTS IN A PAVEMENT EDGE DROP-OFF SHALL BE IN ACCORDANCE WITH MD STD NOS MD 104.06-15 TO MD 104.06-19.
26. THIS PLAN APPROVAL IS ONLY FOR COUNTY MAINTAINED ROADWAYS. THE ROAD WORK SHOULD BE COORDINATED, REVISED AND APPROVED BY ANY OTHER JURISDICTION IMPACTED.
27. ANY PHYSICAL OR OPERATIONAL IMPACTS TO A TRAFFIC SIGNAL MUST BE ADDRESSED AND COORDINATED WITH THE COUNTY DPW&T SIGNAL SHOP.
28. IF THE ROAD WORK IMPACTS THE OPERATION OF A TRAFFIC SIGNAL, THE CONTRACTOR MAY BE REQUIRED TO PROVIDE ADDITIONAL DETECTION DEVICES TO FACILITATE THE MAINTENANCE OF TRAFFIC OPERATIONS. THIS SHALL BE DETERMINED BY THE PERMITTING AGENCY AND/OR THE COUNTY DPW&T SIGNAL SHOP.
SHA CADD Standards
BRINKLEY ROAD
100' ULTIMATE R/W
FISHER ROAD
CLOW CT
DETOUR 1000 FT
DETOUR 1500 FT
ON BRINKLEY ROAD
ROAD WORK AHEAD
ROAD WORK 1/2 MILE
END ROAD WORK
ROAD CLOSED
TEMPORARY PAVEMENT
END TREATMENT
REMOVE TEMPORARY WHITE LINE FROM PHASE 1 TEMPORARY YELLOW LINE
EXISTING WHITE LINE
TEMPORARY WHITE LINES
TYPE 3 BARRICADE
TEMPORARY WHITE LINE
TEMPORARY YELLOW LINE
REMINGTON PLACE
EXISTING PIPES & RIPRAP TO BE LEFT IN PLACE
PROP. 2- 5' X 8' BOX CULVERT UNDER SEPARATE APPROVAL
N/F PROPERTY OF BRINKLEY ROAD ASSOCIATES, L.L.C. L. 15688 F. 701 ZONE: R-R USE: FARMLAND KILDARE HISTORIC SITE: 76B-007
LOT 2 TRINITY TERRACE PLAT BK. REF 194 PLAT No. 17 ZONE: R-MC USE: MULTIFAMILY MEDIUM DENSITY RESIDENTIAL
Permit #
Prince George's County Maryland
Department of Permitting, Inspections and Enforcement
APPROVED PERMIT SET
The Department of Permitting, Inspections and Enforcement has completed a review of this document for code compliance. As required by State Code, the design professional(s) responsible for the preparation and content of this document must provide a record copy of these documents with their original seal, signature and date.
LEGEND
EXISTING STORM DRAIN
EXISTING BOUNDARY
EXISTING ADJACENT PROPERTY
EXISTING FLOOD PLAIN
PRIMARY MANAGEMENT AREA
EXISTING STREAM
EXISTING STREAM BUFFER
EXISTING WETLAND
EXISTING WETLAND BUFFER
EXISTING TREE LINE
EXISTING WATER
EXISTING SANITARY SEWER
EXISTING SANITARY SEWER EASEMENT
EXISTING WATER EASEMENT
PROPOSED STANDARD CURB
PROPOSED SPILL CURB
PROPOSED TEMPORARY YELLOW LINE
PROPOSED TEMPORARY WHITE LINE
LINES TO BE REMOVED
PROPOSED STORM DRAIN
END TREATMENT
DIRECTION OF TRAFFIC
SIGN
CHANNELIZING DEVICES
WORK AREA
ARROW PANEL
JERSEY BARRIER
TYPE 3 BARRICADE (SEE DETAIL MDSHA STD. 8F-7)
BACKLESS INLET & RIPRAP
NOTE
THIS PLAN IS FOR BONDING /CONDITIONAL PERMIT ISSUANCE ONLY AND SHALL SHALL NOT BE UTILIZED FOR CONSTRUCTION
DEPARTMENT PERMIT NUMBER
LOT AND BLOCK
PARCEL
SEQUENCE OF CONSTRUCTION:
PHASE 2 - EAST BOUND BRINKLEY ROAD LANE CLOSED (2 DAYS)
1. INSTALL TRAFFIC CHANNELIZATION DEVICES AND TEMPORARY SIGNS, AS SHOWN.
2. INSTALL AND REMOVE TEMPORARY PAVEMENT MARKINGS, AS SHOWN.
3. REMOVE PAVEMENT TO THE EXTENTS SHOWN ON SD&PAV PLAN.
4. REMOVE EXISTING FENCE, VEGETATION, CURB AND GUARDRAIL WITHIN WORK AREA.
5. INSTALL REMAINING PORTION OF CULVERT.
6. BACKFILL THE TRENCH AND COMPACT SOIL.
7. REPLACE PAVEMENT BASE COURSE WHERE REMOVED DURING CONSTRUCTION.
8. INSTALL BASE COURSE AND CURB & GUTTER AS SHOWN ON STORM DRAIN AND PAVING PLAN.
9. OVERLAY AND CONSTRUCT PAVEMENT SURFACE COURSE.
NOTE
FOR LOCATION OF UTILITIES CALL 8-1-1 OR 1-800-257-7777 OR LOG ON TO www.call811.com
48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY
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 AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF THE START OF EXCAVATION.
PROJECT:
DRAWN BY:
CHECKED BY:
APPROVED BY:
DATE:
No.
REVISION
DATE
12TH ELECTION DISTRICT
PARCEL C & D
TAX MAP 96, GRID F3
WSSC GRID 208SE08
SCALE
0' 50' 100'
1"=50'
ROAD IMPROVEMENT PLAN
MAINTENANCE OF TRAFFIC PLAN
PHASE 2
DRAWING
11
11 OF 14


MAINTENANCE OF TRAFFIC GENERAL NOTES:
Speed limit
Existing & temp pavement markings
Taper & buffer lengths
Lane use arrows
Signs with designation & sizes
Street names
Work zone
BRINKLEY ROAD
FISHER ROAD
CLOW CT
REMINGTON PLACE
ROAD WORK AHEAD
DETOUR 1000 FT
DETOUR 1500 FT
ON BRINKLEY ROAD
END ROAD WORK
ROAD CLOSED
ROAD WORK 1/2 MILE
TEMPORARY WHITE LINES
TEMPORARY YELLOW LINE
TYPE 3 BARRICADE
EXISTING PIPES & RIPRAP TO BE LEFT IN PLACE
LEGEND
Prince George's County Maryland
Department of Permitting, Inspections and Enforcement
APPROVED PERMIT SET
ROAD IMPROVEMENT PLAN
MAINTENANCE OF TRAFFIC PLAN PHASE 2
12TH ELECTION DISTRICT
PARCEL C & D
TAX MAP 96, GRID F3
WSSC GRID 208SE06
1"=50'
DRAWING 11

Tapers

- Use the SHA TTCTA for reference tables
- Should be based on prevailing (85th percentile speed)
  - In absence of the data, we would look at the design speed (usually 5-10 MPH higher than the posted)

TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATION
TAPER LENGTH CRITERIA TABLE

SPEED (S) IN MPH	WIDTH OF OFFSET (W) IN FEET											
	1	2	3	4	5	6	7	8	9	10	11	12
	TAPER LENGTH (L) IN FEET WHERE L = $WS^2/60$											
25	11	21	32	42	53	63	73	84	94	105	115	125
30	15	30	45	60	75	90	105	120	135	150	165	180
35	21	41	62	82	103	123	143	164	184	205	225	245
40	27	54	80	107	134	160	187	214	240	267	294	320
	TAPER LENGTH (L) IN FEET WHERE L = WS											
45	45	90	135	180	225	270	315	360	405	450	495	540
50	50	100	150	200	250	300	350	400	450	500	550	600
55	55	110	165	220	275	330	385	440	495	550	605	660
60	60	120	180	240	300	360	420	480	540	600	660	720
65	65	130	195	260	325	390	455	520	585	650	715	780
70	70	140	210	280	350	420	490	560	630	700	770	840

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	L MINIMUM (ON EXPRESSWAYS AND FREEWAYS, MERGING LANE CLOSURE TAPERS SHALL BE 1000 FEET, UNLESS DIRECTED BY THE ENGINEER)
SHIFTING TAPER	L (WHEN CONDITIONS DO NOT PERMIT SHIFTING TAPERS OF LENGTH L, SHIFTING TAPERS DOWN TO LENGTH 1/2 L (MIN.) MAY BE USED)
SHOULDER TAPER	1/3 L MINIMUM
TWO-WAY TAPER (FLAGGING)	100 FEET MAX., 50 FEET MIN.
TERMINATION TAPER	100 FEET MIMIMUM

NOTE:
AN "ABRUPT" LANE SHIFT IS ANY SHIFT WITH A TAPER LENGTH (L) LESS THAN THE VALUE SPECIFIED IN THE TABLE ABOVE.

SPECIFICATION | CATEGORY CODE ITEM

APPROVED
DIRECTOR - OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS
APPROVAL 8-20-03 REVISED REVISED REVISED

APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 9-23-03 REVISED REVISED REVISED

State Highway Administration

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

TAPER LENGTH CRITERIA TABLE

STANDARD NO. MD 104.01-80

Buffers

TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATION

NOTES:

1. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES:

   TAPER CHANNELIZATION - SHALL BE EQUAL IN FEET TO THE POSTED SPEED LIMIT FOR POSTED SPEEDS EQL/LESS THAN 40 MPH AND 40 FEET FOR POSTED SPEEDS GREATER THAN 40 MPH

   TANGENT CHANNELIZATION - SHALL BE EQUAL IN FEET TO TWICE THE POSTED SPEED LIMIT IN THE BUFFER AND EQUAL IN FEET TO THE POSTED SPEED ADJACENT TO THE WORK AREA FOR POSTED SPEEDS EQL/LESS THAN 40 MPH. SPACING SHALL BE 80 FEET IN THE BUFFER AND 40 FEET ADJACENT TO THE WORK AREA FOR POSTED SPEEDS GREATER THAN 40 MPH

2. THE MINIMUM BUFFER LENGTH (BL) SHALL BE AS FOLLOWS:

BUFFER LENGTH (BL)

TYPICAL BUFFER LENGTH	
PREVAILING SPEED (MPH)	LENGTH (FEET)
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645
70	730
75	820

REFER TO LATEST PART VI OF THE MUTCD FOR ADDITIONAL SPEEDS/BUFFER LENGTHS AND ADJUSTMENTS TO BUFFER LENGTH DUE TO THE EFFECT OF GRADE ON STOPPING AND VARIATION FOR TRUCKS.

3. REFER TO STANDARD NO. MD 104.01-80 (TAPER LENGTH CRITERIA TABLE) FOR MINIMUM TAPER LENGTHS.

SPECIFICATION	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF TRAFFIC AND SAFETY

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	8-20-03	APPROVAL	9-23-03
REVISED	6-8-04	REVISED	
REVISED	8-11-10	REVISED	7-29-10
REVISED		REVISED	

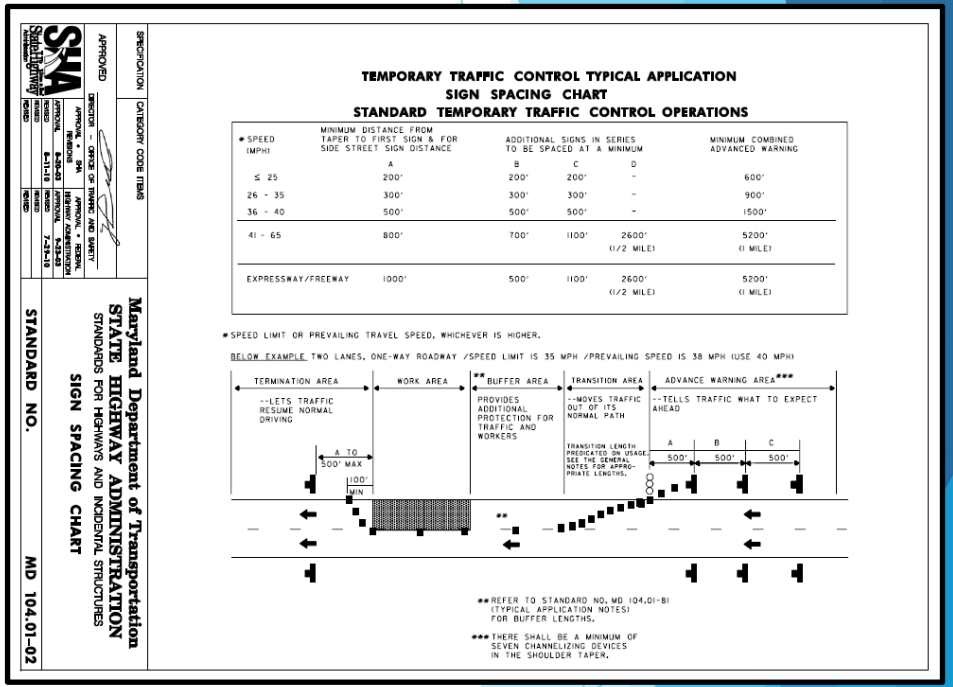
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

TYPICAL APPLICATION NOTES

STANDARD NO. MD 104.01-81

Signs

- Signs shall be used per the applicable MD STD Typical
- Designations and dimensions can be found in the MD MUTCD
- Sign spacing may be adjusted based on the speed limit of the roadway
- Signs should be shown in the direction in which the driver will see it
- Sign posts should be shown for all signs
- Signs shall not impede any roadways or walkways



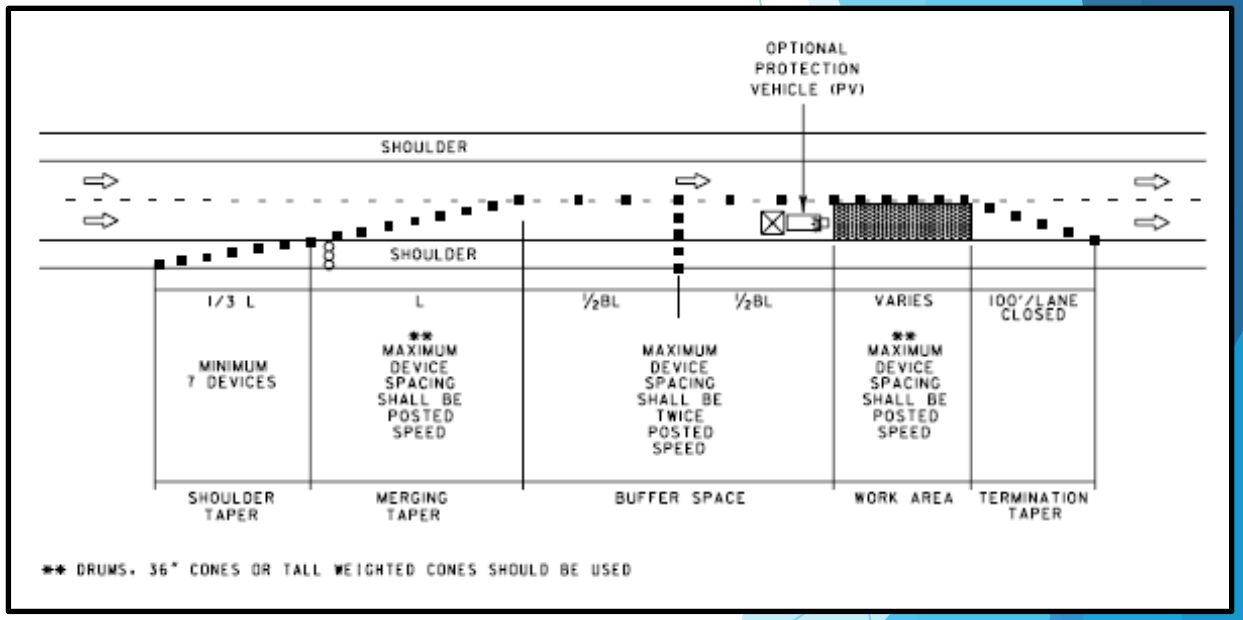
MD 104.01-02

Pavement Markings

- All existing PMs should be shown on the plan
  - When two-lane two-way roadways that have existing PMs are resurfaced, the impacted markings that are to be replaced in kind must be called out and identified on the plan.
  - When two-lane two-way roadways with bike lanes and multilane roadways are resurfaced, a separate PM plan showing the existing markings to be replaced must be provided. The date that the markings were field surveyed/verified should be noted on the plans.
- For the purposes of the TCP, existing markings may be temporarily covered
- There should be no conflicting markings during construction
- Temporary markings should be called out and identified
- There should be NO GRINDING of pavement markings unless previously discussed with the permitting agency

Channelizing Devices

- Spacing
  - Taper – equal in feet to the posted speed (up to 40 mph)
  - Tangent – equal in feet to 2X the posted speed (up to 40 mph) in the buffer area
  - Tangent – equal in feet to the posted speed (up to 40 mph) in the area adjacent to the work zone
- Type
  - Cones – may be used in lower speed, low volume areas (with no drop off)
  - Drums – may be used in all scenarios where there is no significant drop-off
  - Concrete barrier – where a drop off is present

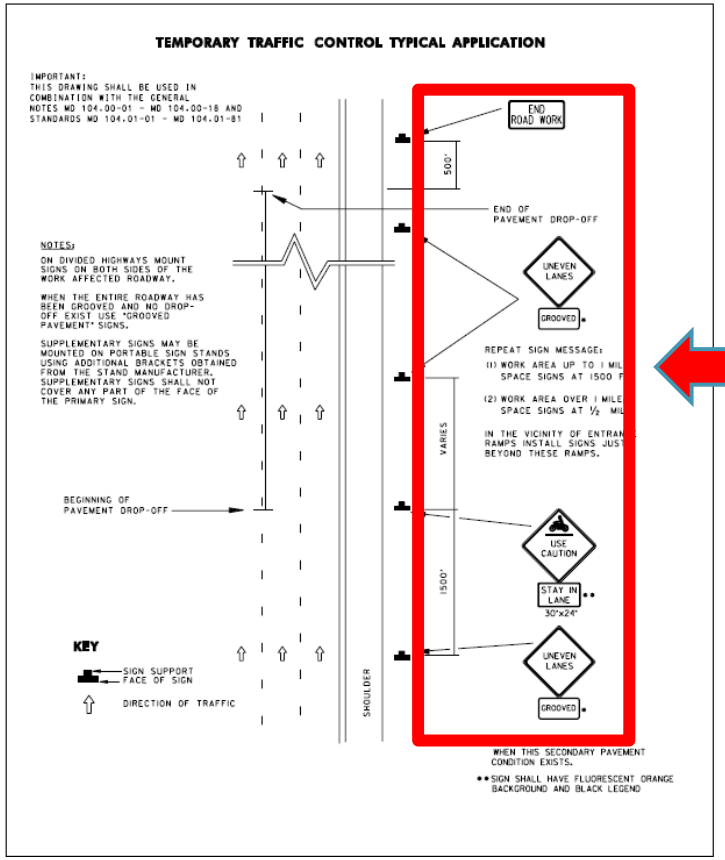


MD STDs 104.01-30 A-D

Pavement Drop-Offs

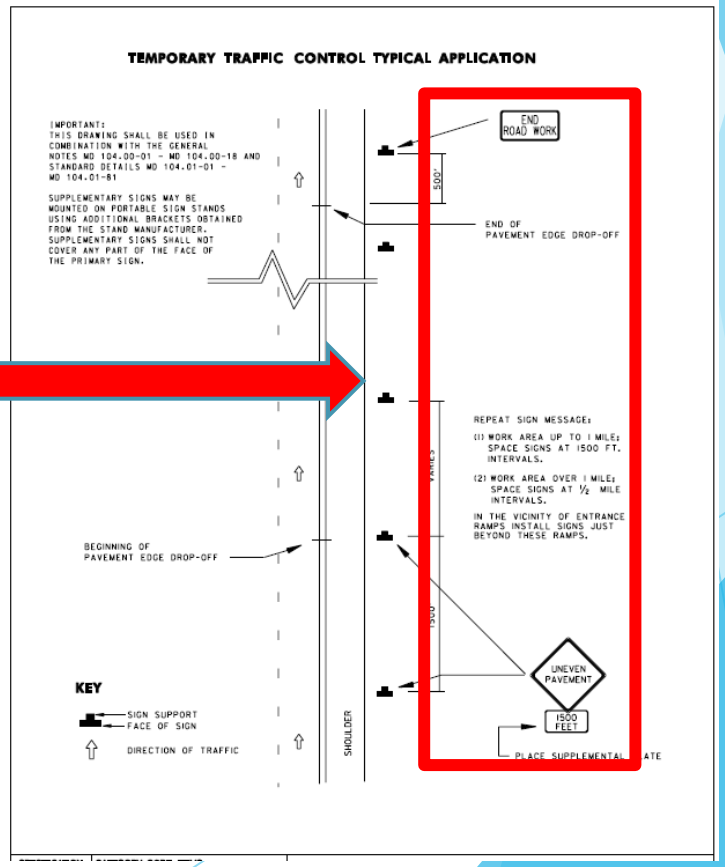
- **Drop-off of 2.5 inches or less (between traffic lanes) -**

MD STD 104.06-15



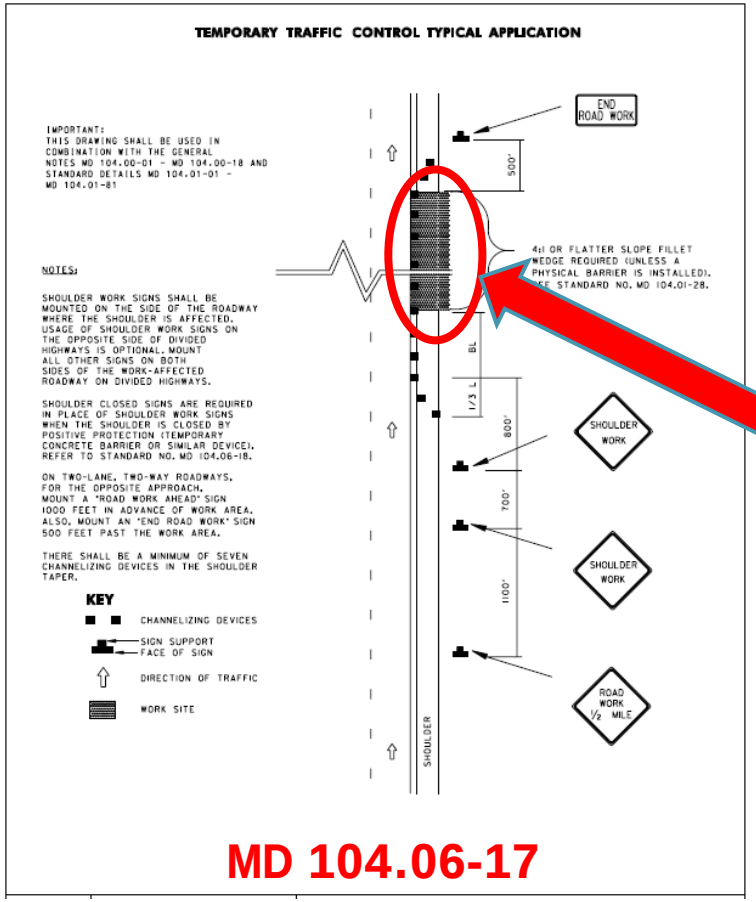
Just requires signs

- **Drop-off of 2.5 inches or less (between traffic lanes & shoulder) - MD STD 104.06-16**



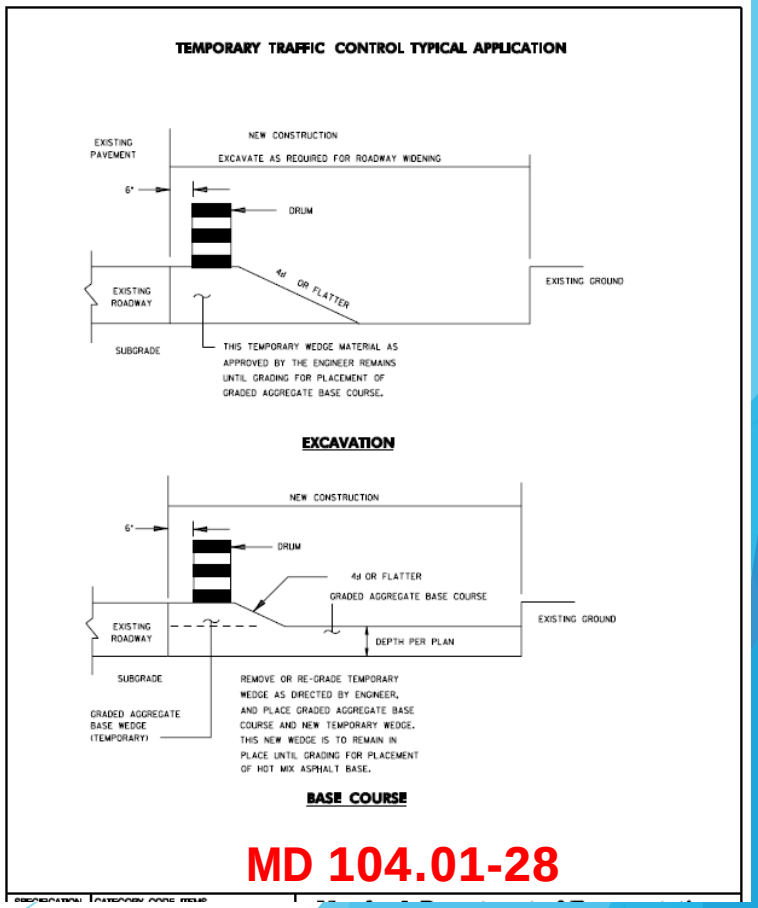
Pavement Drop-Offs

- Drop-off greater than 2.5 in, but equal to or less than 5 in (between traffic lanes & shoulder)



MD 104.06-17

4:1 or flatter slope fillet wedge required with the drums OR must use a concrete barrier

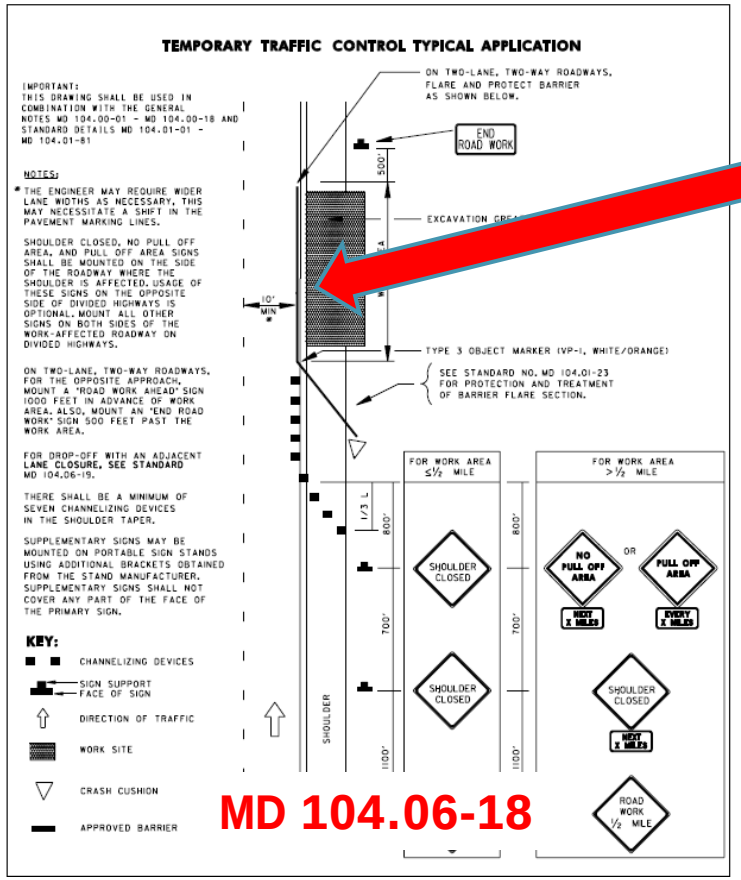


MD 104.01-28

Pavement Drop-Offs

Drop-off greater than 5 inches

WITHOUT *adjacent lane closure*

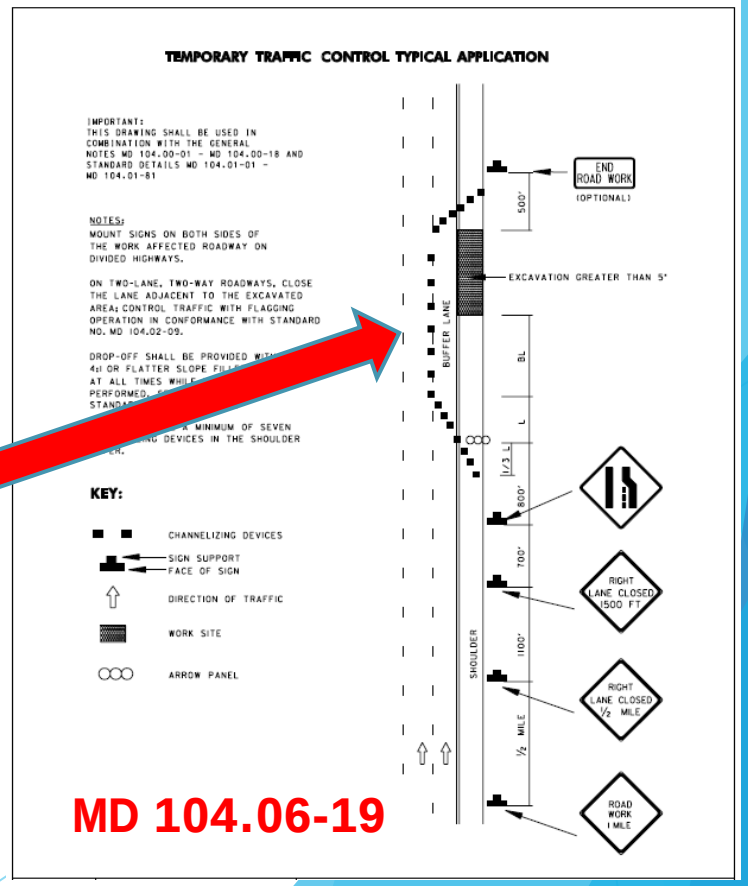


MD 104.06-18

Barrier required

Barrier NOT required

WITH *adjacent lane closure*

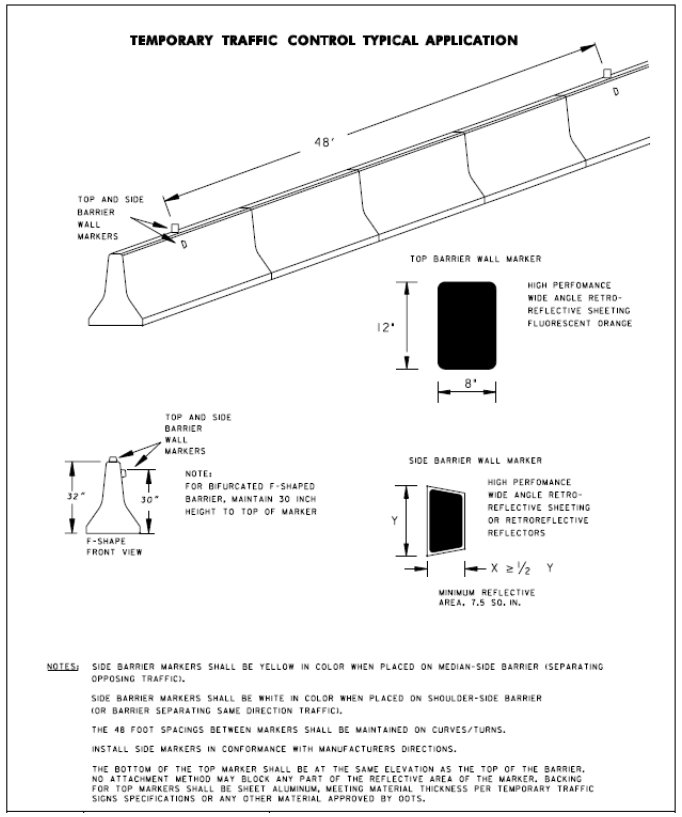


MD 104.06-19

Concrete Barrier

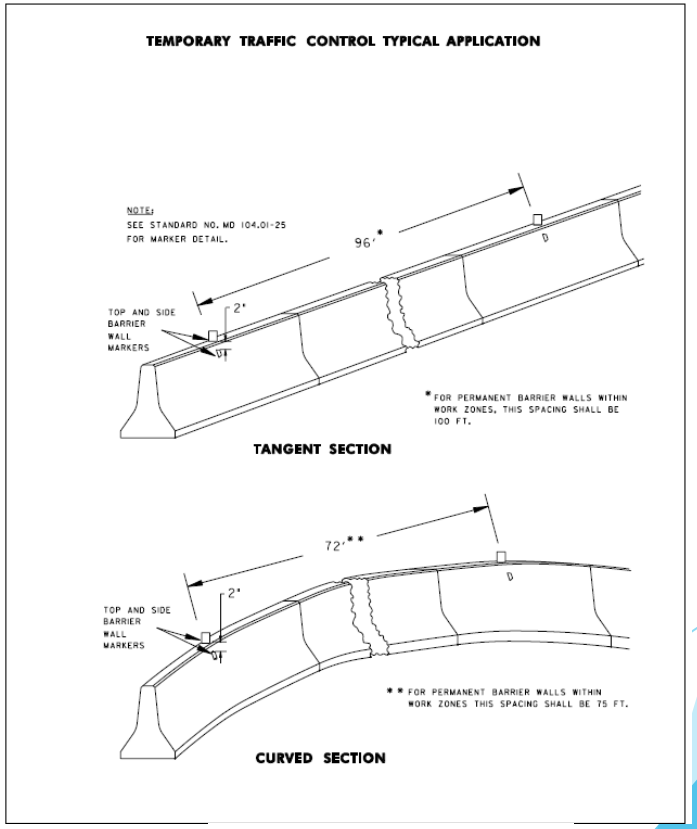
Barrier Delineation

Barrier 4 ft or closer to edge line



MD 104.01-25

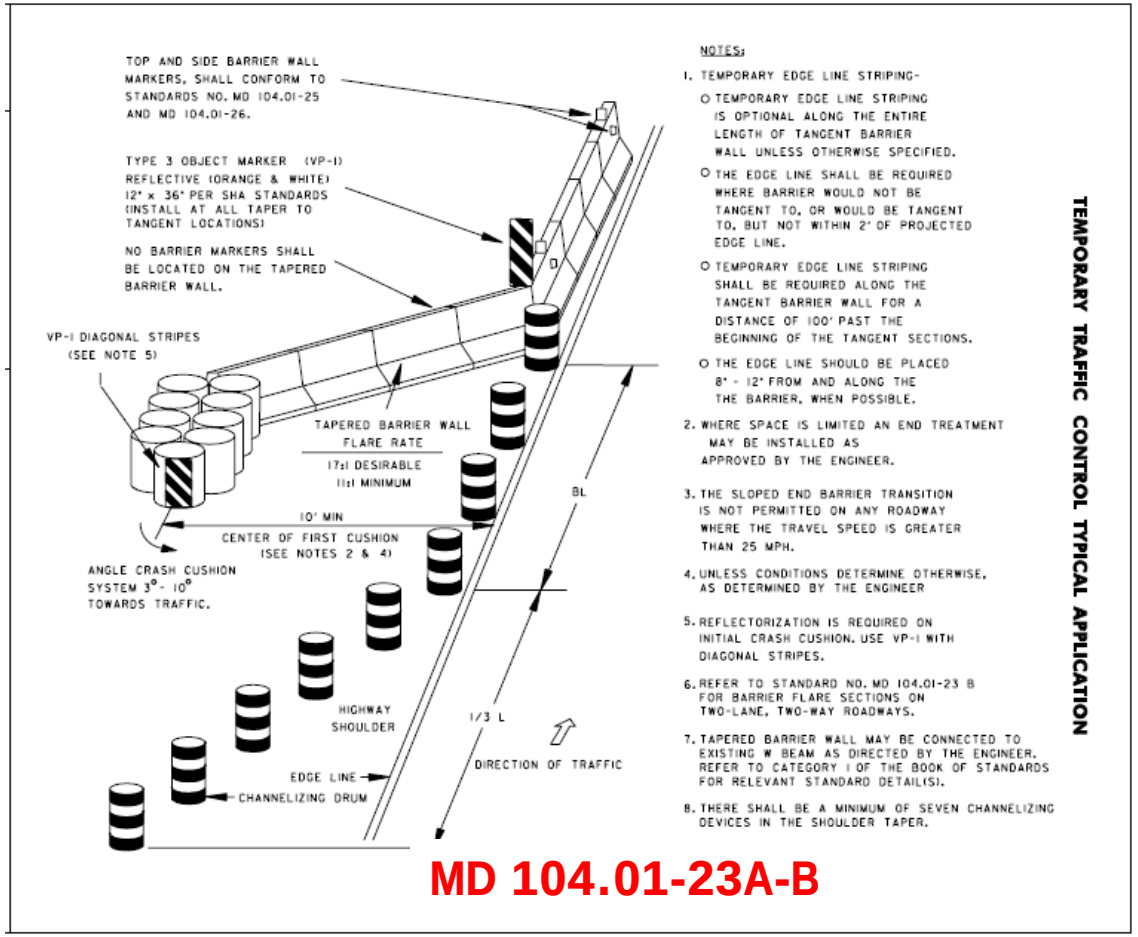
Barrier between 4 ft and 15' from edge line



MD 104.01-26

Concrete Barrier

Advance Channelization & Protection for Barrier Flare Section



MD 104.01-23A-B

Open Trenches/Barrier Use

B-IV	TRAFFIC CONTROL PLAN - CONCRETE BARRIER USE
B-38	MD STDs 104.06-15 – 104.06-19 shall be used for reference.
B-39	Trench depth shall be noted on the plans.
B-40	Concrete barrier shall be used when the criteria shown for trench depth in the above MD STDs are met and the roadways where work is taking place is classified as a collector, major collector or arterial.
B-41	Water filled or sand filled barrier may be used when the criteria shown for trench depth in the above MD STDs are met and the roadways where work is taking place is classified as an industrial, primary residential or secondary residential roadway.
B-42	Channelizing drums may be used when the criteria shown for the trench depth in the above MD STDs are met and the roadways where work is taking place is classified as a primary residential or secondary residential roadway AND the work zone is controlled by a flagger.
B-43	For all open trench work, pedestrian safety must be addressed.

Open Trenches/Barrier Use

	Flagger?	Treatment	Reference
Arterial	No	Concrete barrier or buffer lane	MD 104.06-18 MD 104.06-19
Major Collector	No	Concrete barrier or buffer lane	MD 104.06-18 MD 104.06-19
Collector	No	Concrete barrier or buffer lane	MD 104.06-18 MD 104.06-19
Industrial	No	Water/sand filled barrier*	MD 104.06-18
Primary Residential	No	Water/sand filled barrier*	MD 104.06-18
Primary Residential	Yes	Channelizing drums	MD 104.02-10
Secondary Residential	No	Water/sand filled barrier*	MD 104.06-18
Secondary Residential	Yes	Channelizing drums	MD 104.02-10

MDSHA Approved Water/sand filled barrier:
http://www.roads.maryland.gov/OMT/waterbarriers.pdf

Special Attention

- Bus Stops
- Pedestrians
- Temporary Road Closures

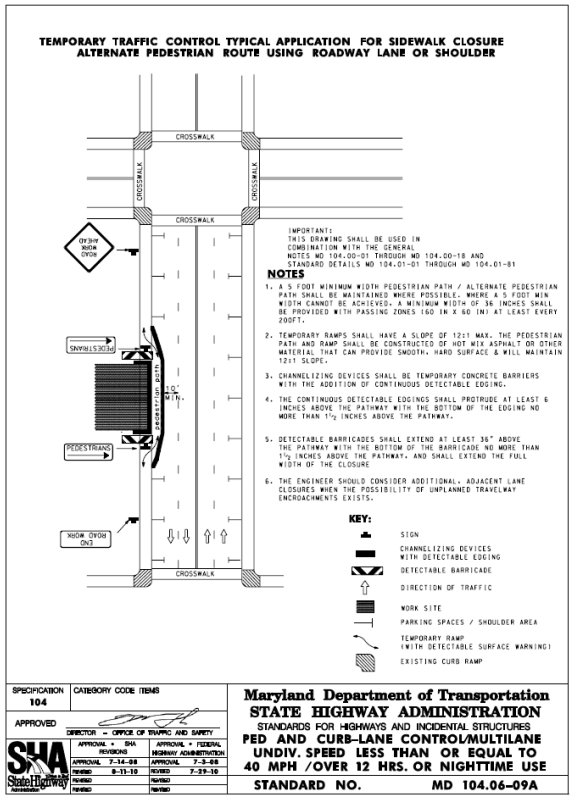
Bus Stops

- Show all bus stops within the limits of the work area
- If the bus stop or bus stop access is affected by the construction, it needs to be addressed
- Coordination with DPWT Transit and/or WMATA may be necessary

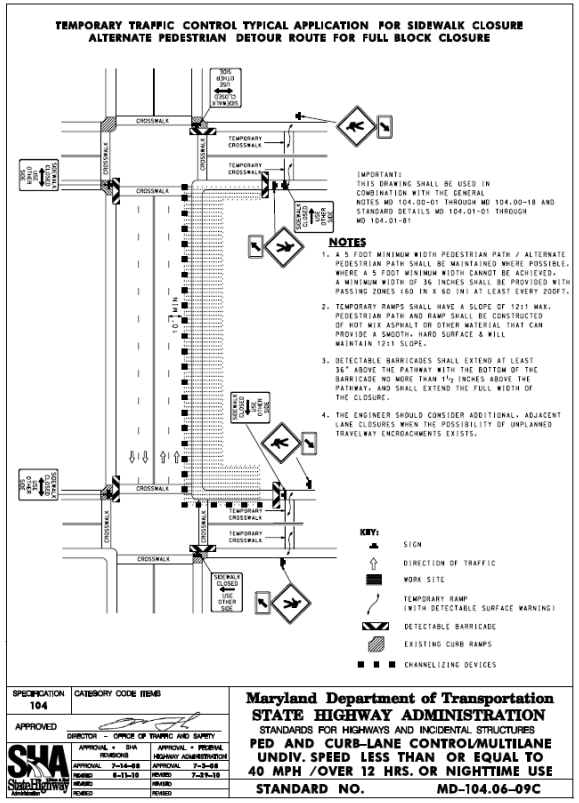
Pedestrian Accommodations

- Contractors shall provide a clear, detectable, traversable, safe and handicap accessible path for pedestrians at all times during construction
- *Keep in mind, pedestrians may be vision/hearing impaired, in a wheelchair, etc.*

Pedestrian Accommodations



MD STDs 104.06-09A-D



Temporary Road Closures

- Should only be used when there is no other viable and safe traffic control alternative
- Requires review by and approval from DPIE & DPWT

Temporary Road Closures

- Applicant must submit a letter of request to the Director of DPIE
  - Justification for closure
  - Estimated duration of closure
  - Proposed start date of closure
  - Proposed detour plan
- DPIE reviews request to determine if necessary
- DPIE refers to DPWT for review and approval
- DPWT approves or rejects request
  - If approved, DPIE will issue final letter of approval
  - Conditions will be specified (notification of agencies, public safety, residents, etc.)

Specific to Utility Plans

E	UTILITY WORK			
E-1	When two-lane two-way roadways (no bike lanes) that have existing pavement markings are resurfaced due to utility work, the impacted markings that are to be replaced in kind must be called out and identified on the plan.			
E-2	When two-lane two-way roadways with bike lanes and multilane roadways are resurfaced due to utility work, a separate pavement marking & signing plan showing the existing markings to be replaced must be provided. The date that the markings were field surveyed/verified should be noted on the plans.			
E-3	When the work area involves multiple roadways and segments and the traffic control is standard and typical, a table is suitable to display the intended traffic control for various segments. The table should include: • Street name • Segment (i.e. from Street A to Street B) • Posted speed limit • Description of work (i.e. replacement of water main appurtenances) • Width of pavement • Approximate duration of work • Trench depth, if applicable • Applicable typical standards (i.e. MD 104.02-02)			

E-3 — Traffic Control Table

WSSC CONTRACT NO. BRBT6012A16, FAIRHAVEN TRANSMISSION WATER MAIN REPLACEMENT TRAFFIC CONTROL TABLE								
STREET	**FROM**	**TO**	**POSTED SPEED LIMIT**	**PAVEMENT WIDTH**	**DESCRIPTION OF WORK**	**APPROX. DURATION (WORKING DAYS)**	**WATER MAIN TRENCH DEPTH RANGE**	**APPLICABLE MOT STANDARDS**
FAIRHAVEN AVE.	US 301	MIDLAND TURN	25 MPH	36’	REPLACEMENT OF WATER MAINS, APPURTENANCES & SERVICES	137	4.3’ – 12.3’	MD 104.02-02, 104.02-04, 104.02-10
FAIRGREEN LN.	TRUMPS HILL RD.	END OF CUL-DE-SAC	25 MPH	26’	REPLACEMENT OF WATER MAINS, APPURTENANCES & SERVICES	23	4.5’ – 7.4’	MD 104.02-02, 104.02-10
FAIRGREEN CT.	FAIRGREEN LN.	END OF CUL-DE-SAC	25 MPH	26’	REPLACEMENT OF WATER MAINS, APPURTENANCES & SERVICES	10	4.5’ – 5.9’	MD 104.02-02, 104.02-10
FIRGREEN TERR.	FAIRGREEN LN.	END OF CUL-DE-SAC	25 MPH	26’	REPLACEMENT OF WATER MAINS, APPURTENANCES & SERVICES	12	4.3’ – 5.8’	MD 104.02-02, 104.02-10

Additional Consideration

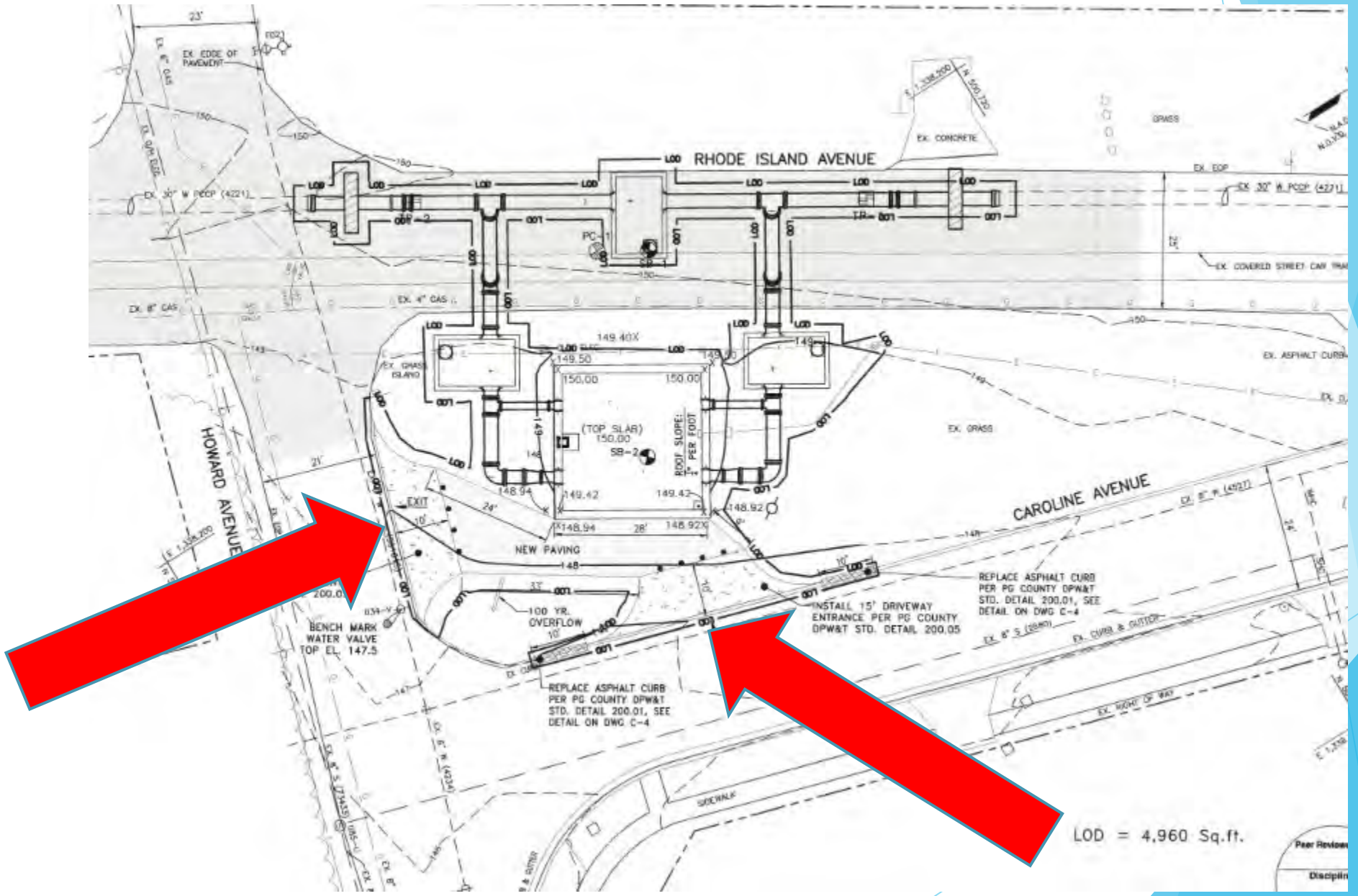
- Traffic signals and detection
- Schools in vicinity
- Speed humps
- Extended or overnight work hours
  - Land use
  - Hourly volumes

Common Questions & Problems

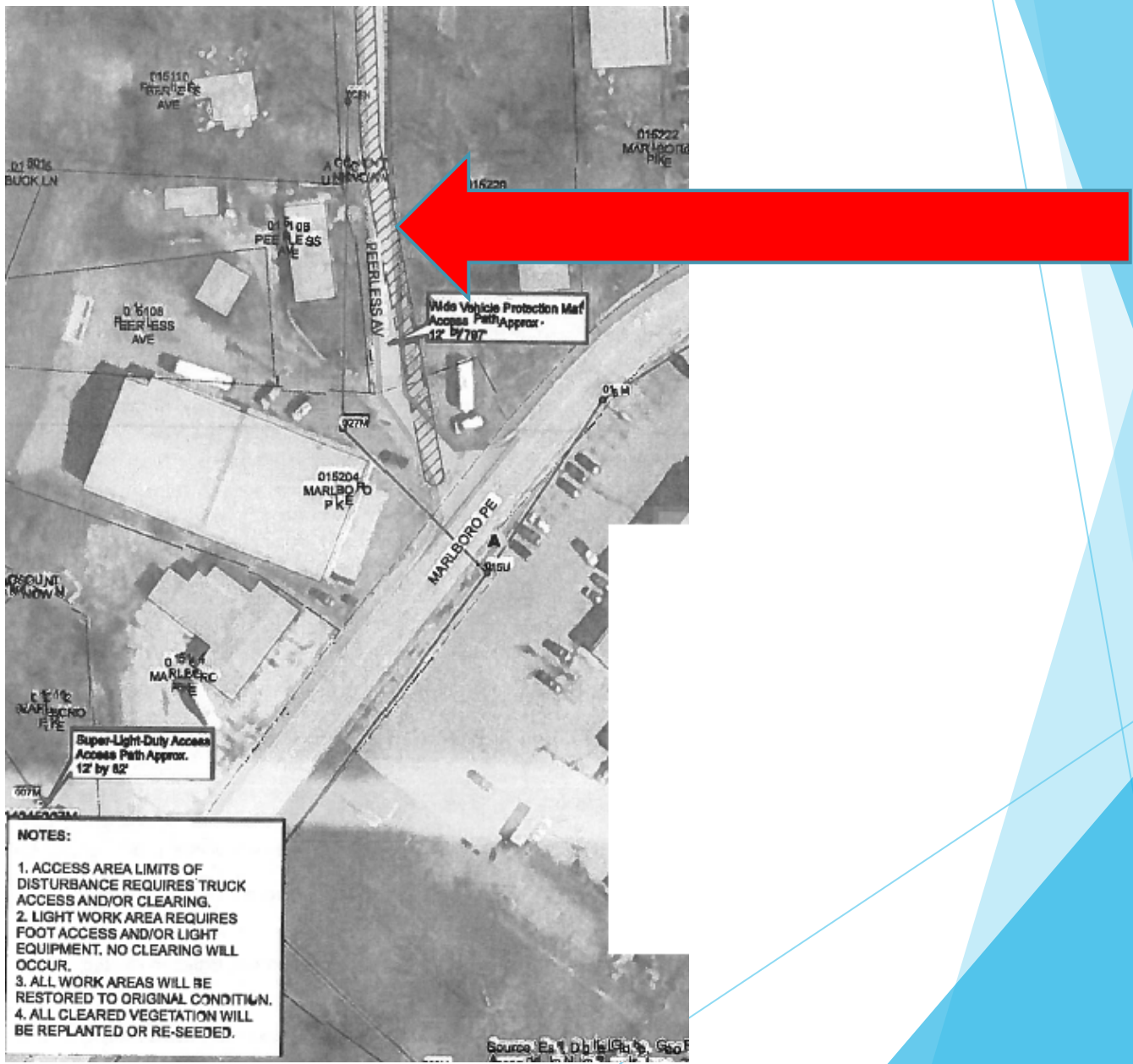
Commonly asked questions:

- Do the plans have to be to scale or can it be a sketch?
  - *The plans should be to scale, unless otherwise discussed with the reviewer.*
- What happens when there is not enough space to accommodate the required signs?
  - *Signs may need to be placed on the approaching/adjacent roadways (with a plaque) to notify drivers.*
  - *If the street is a dead end, a fewer number of signs may be used – always keep the sign that "tells the driver what to do", at a minimum.*
- Can fewer signs be provided when working in residential areas/neighborhoods?
  - *Yes, but pertinent information must still be adequately provided to the motorist.*

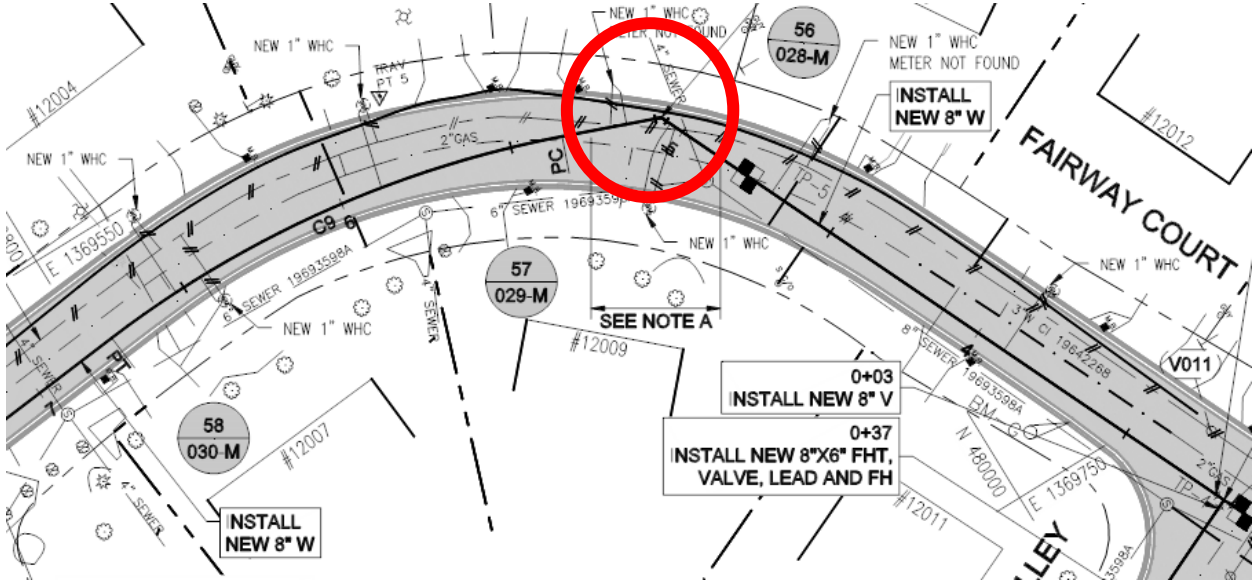
Wrong Permit Type

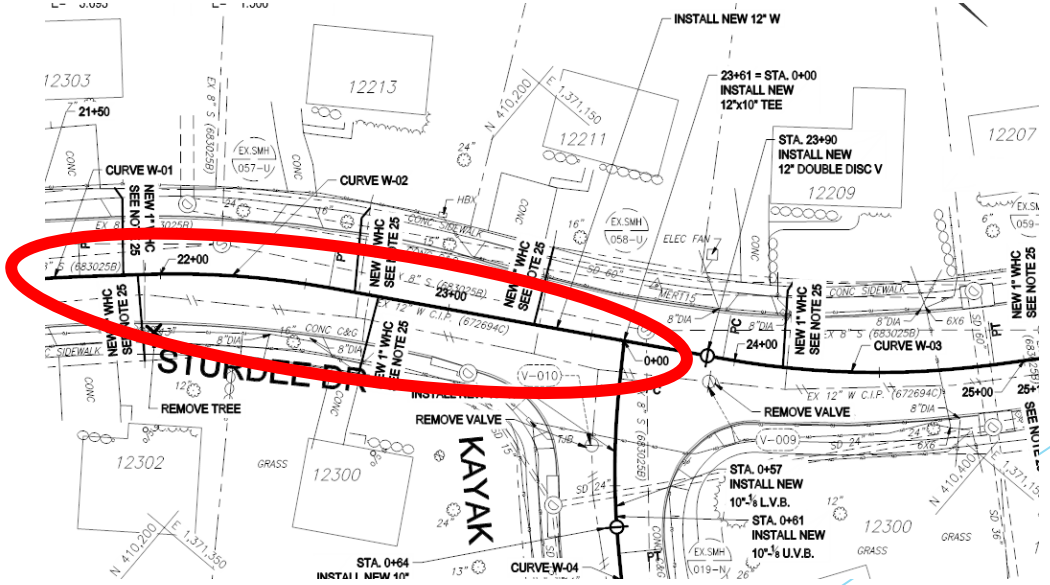


Wrong Permit Type

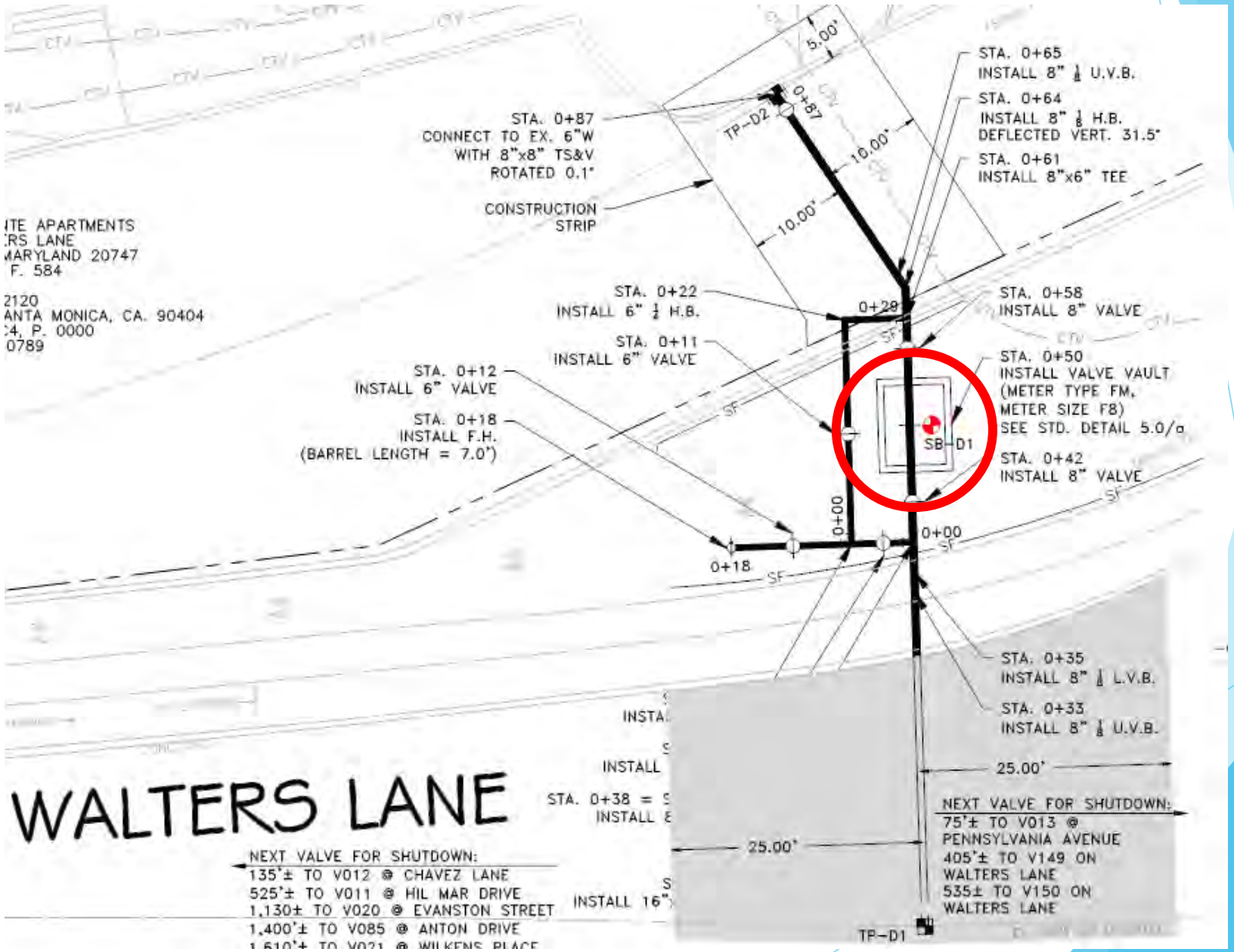


Not Parallel to Centerline





Meter Vaults in Right-of-Way



Mill and Overlay Limits

Sewers				Manholes			
Asset ID	Dia.	Length	Description	Asset ID	Depth	Dia.	Description
06007031S	6"	307.3'	REPLACE WITH 8" S	06007031N	7.6'	48"	LINE MANHOLE

LEGEND

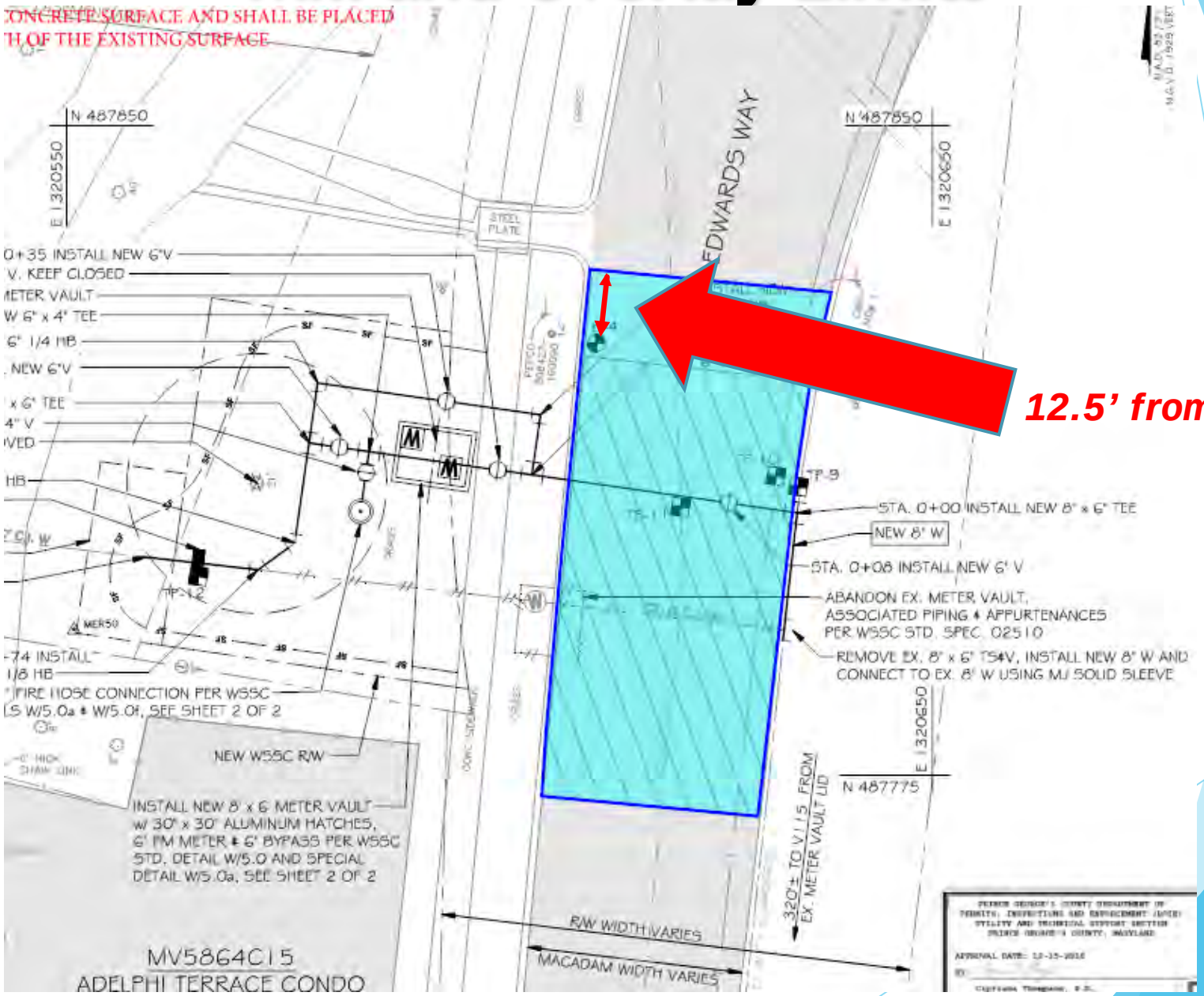
Sewer 06007031S
REPLACE WITH 8" S
NEAR 724 SHERIDAN STREET
SLIGO CREEK BASIN

NOTES:
1. Prior to excavation, contractor shall locate all utilities per Miss Utility (800) 257-7777.
2. All work shall be in accordance with the WSSC specification and contract documents.
3. Call WSSC Environmental at 301-206-2075 for tree removal and pruning.
4. Other subject manholes and sewers part of this task order are also shown in the map

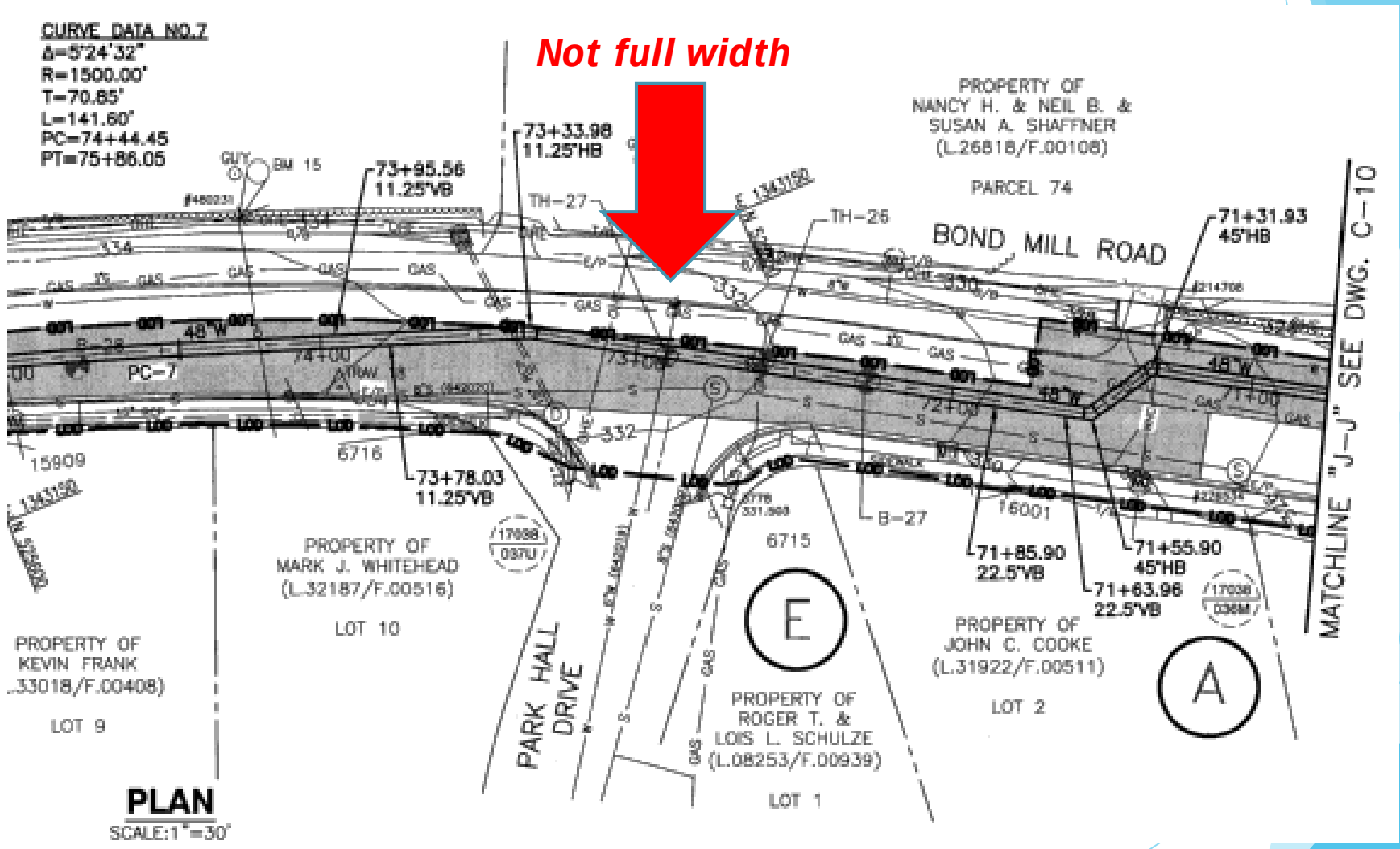
Washington Suburban Sanitary Commission

CONTRACT	CI6175A16
JOB NO	
WSSC 200'S	207NE01
ADC MAP	P5409A06
NOT TO SCALE	SHEET NO. 14 of 54

Mill and Overlay Limits

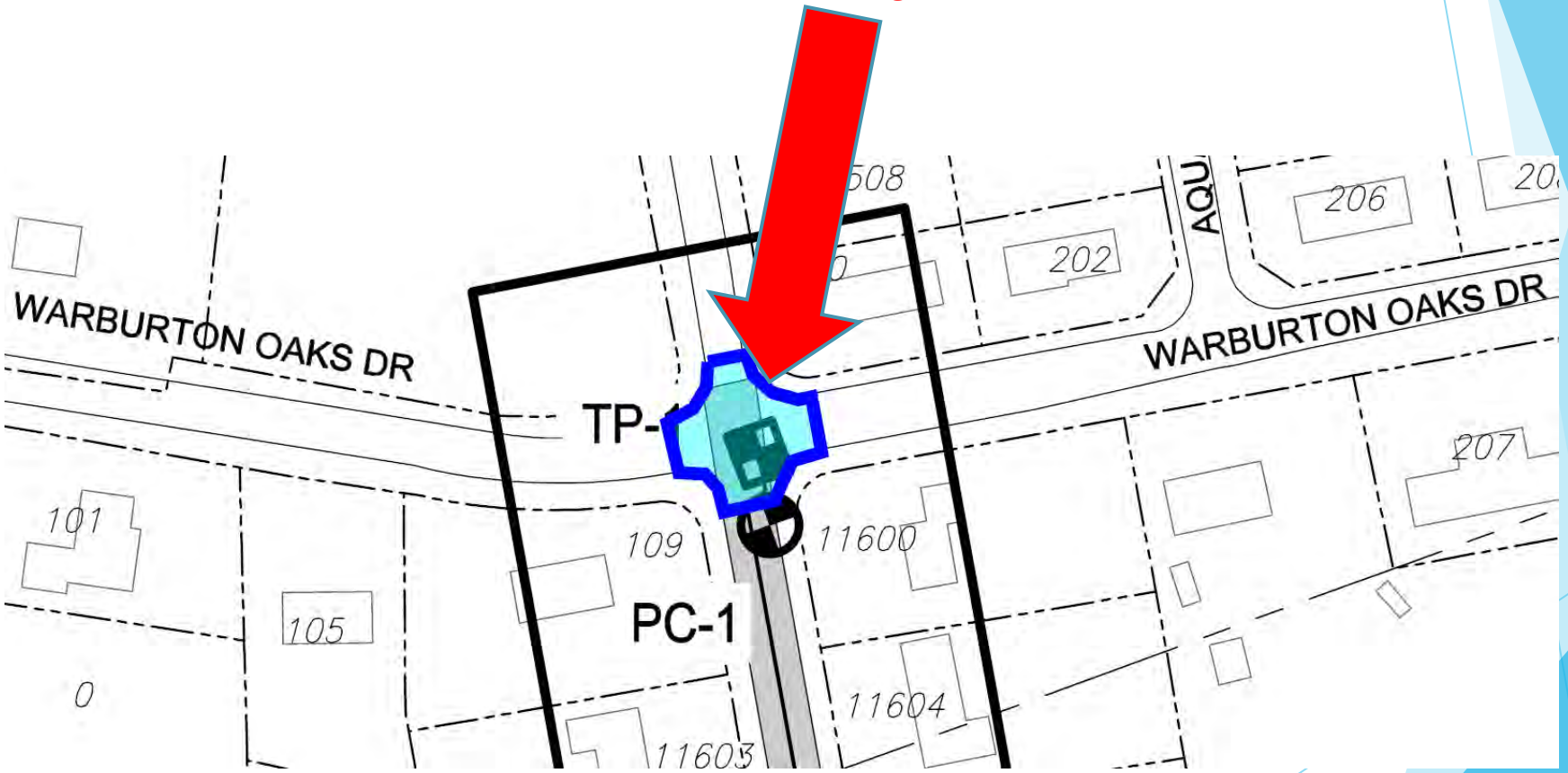


Mill and Overlay Limits



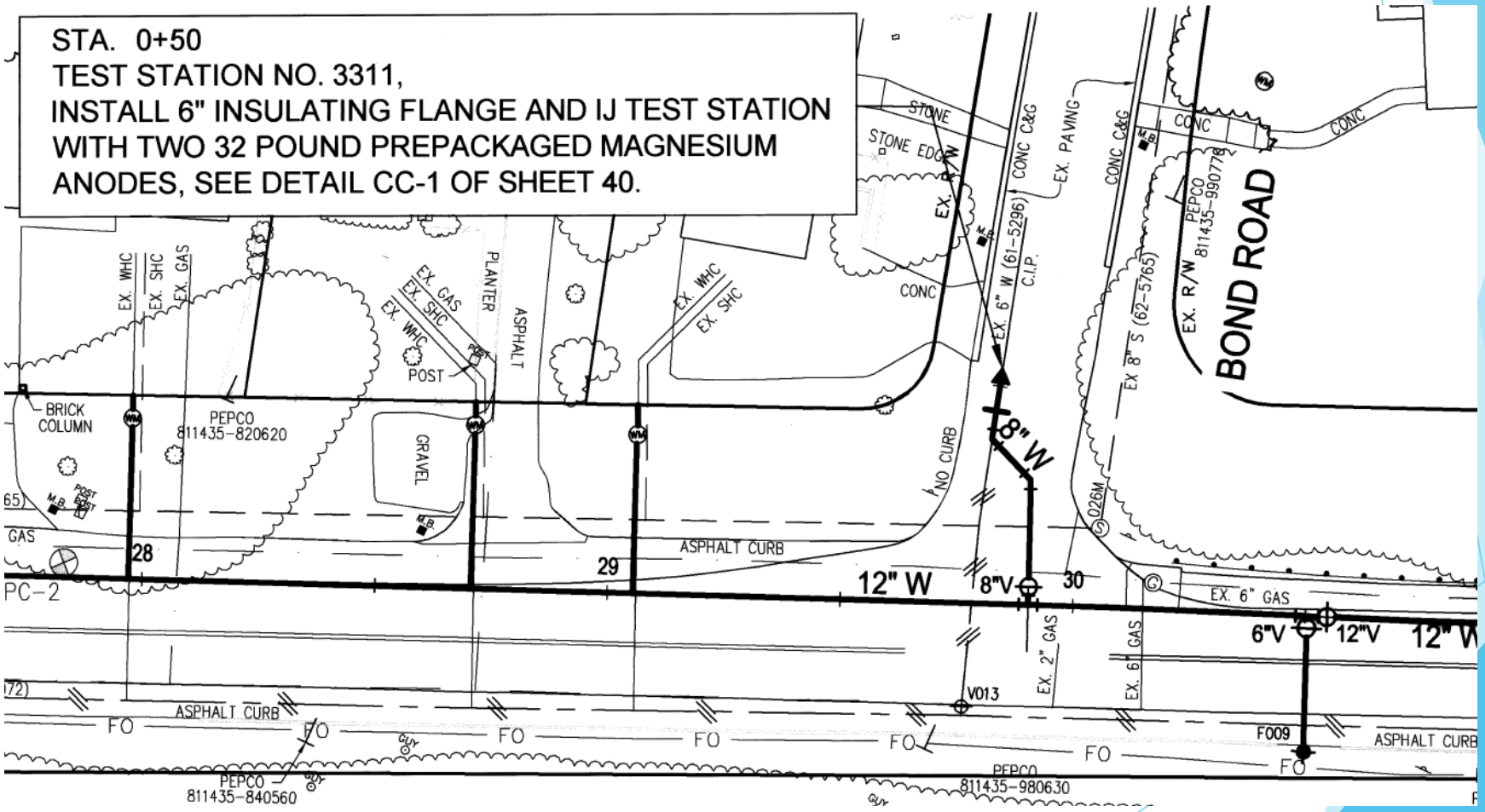
Mill and Overlay Limits

Not to PC/PT of fillets through full intersection



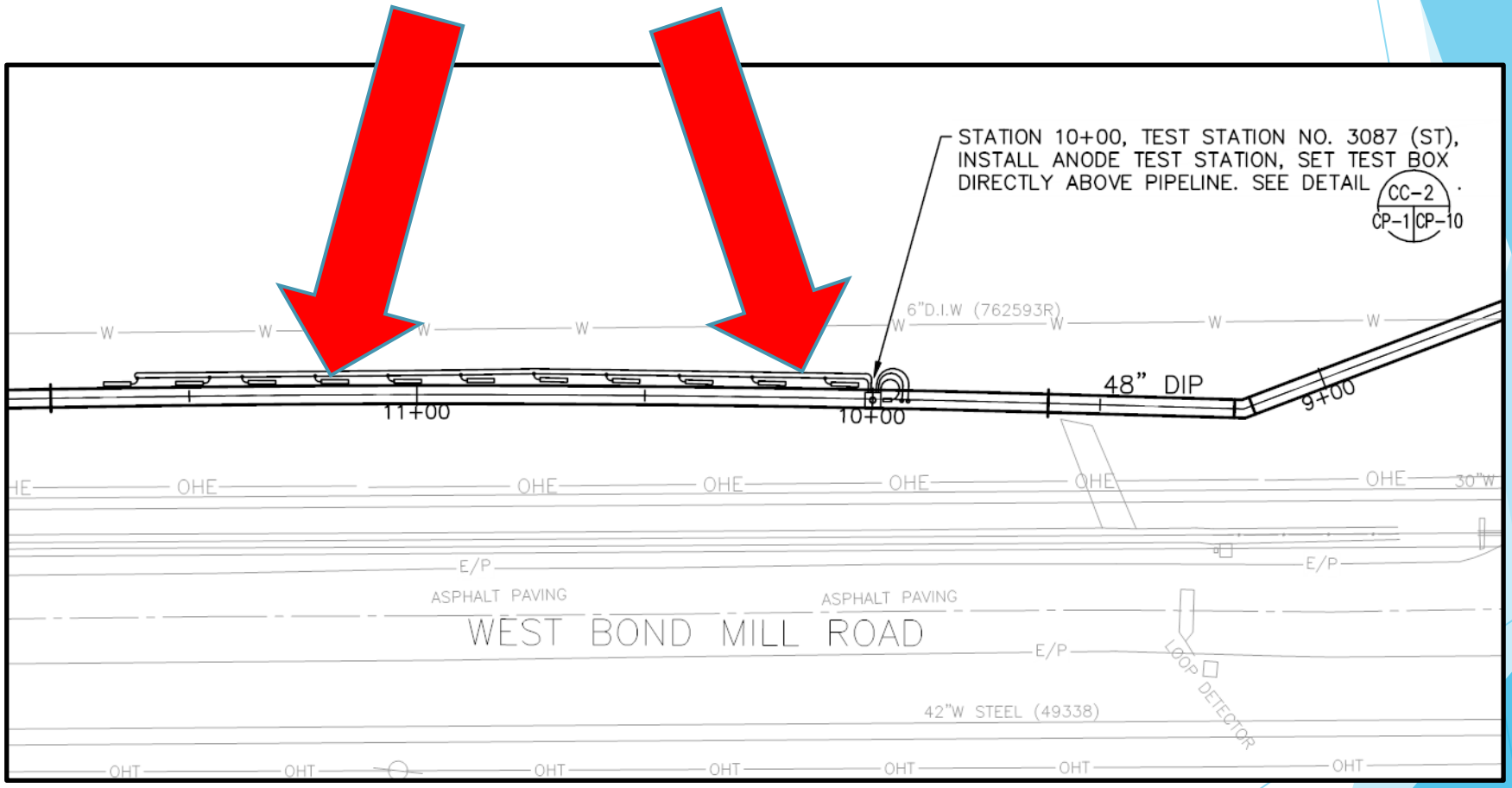
Cathodic Protection

Not shown graphically



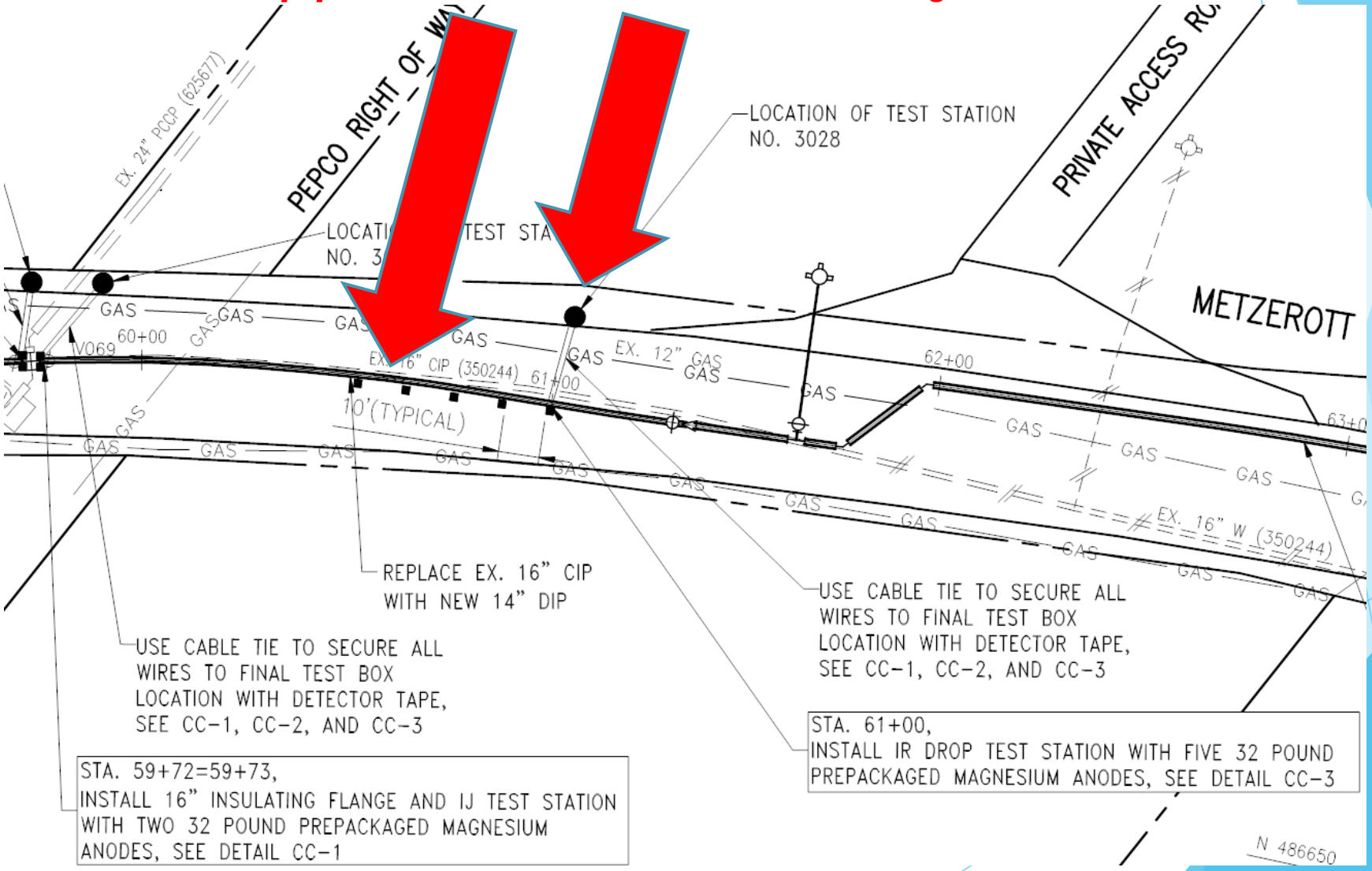
Cathodic Protection

Excessive number of anodes



Cathodic Protection

Anodes and test station not on same side of pipe and shortest distances of wiring



Missing/Not Addressed

- Submittal of Design Checklist with plans
- Duration of work
- Bus stops
- Speed limits of impacted roadways
- Speed humps
- Pedestrian accommodations impacted by work
- Identification of schools

Questions?

Contacts

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Thank You!