

Most Commonly Seen Concerns

Help Us, Help You



Most Commonly Seen Concerns

Help Us

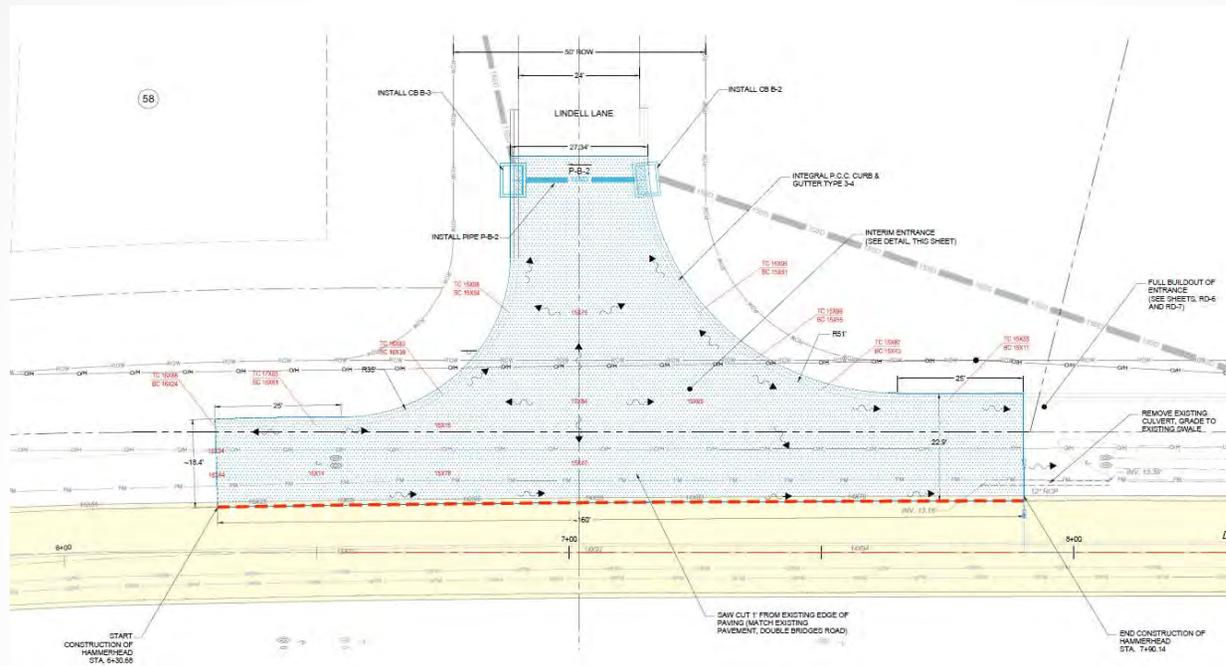
- Project Phasing
- Horizontal and Vertical Control
- Pavement & Test Holes
- Cross Sections

Help You

- Reduce the Number of Comments
- Reduce the Number of reviews
- Reduce Review Times



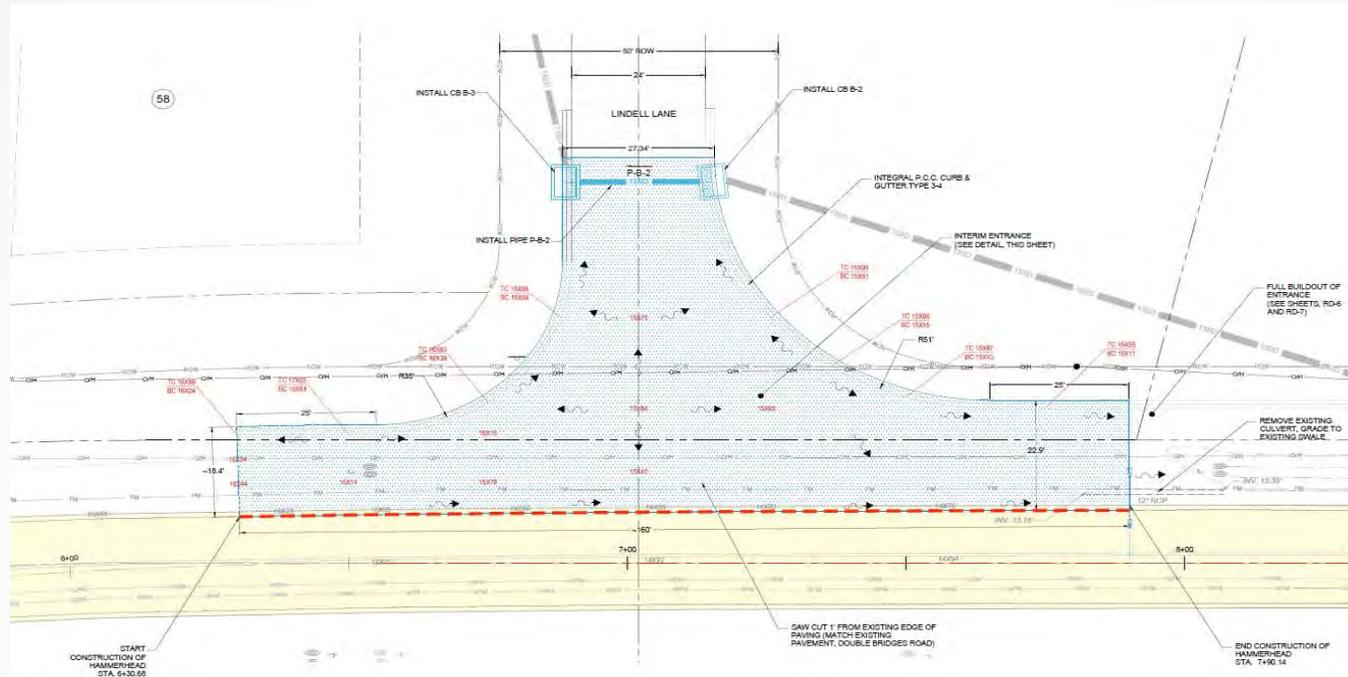
Project Phasing



- Discuss Phasing at Presubmittal Meeting
- Phasing should be Driven by Turn Lane Warrants in Terms of Building Permits
- NO CO's until Phase I is completed



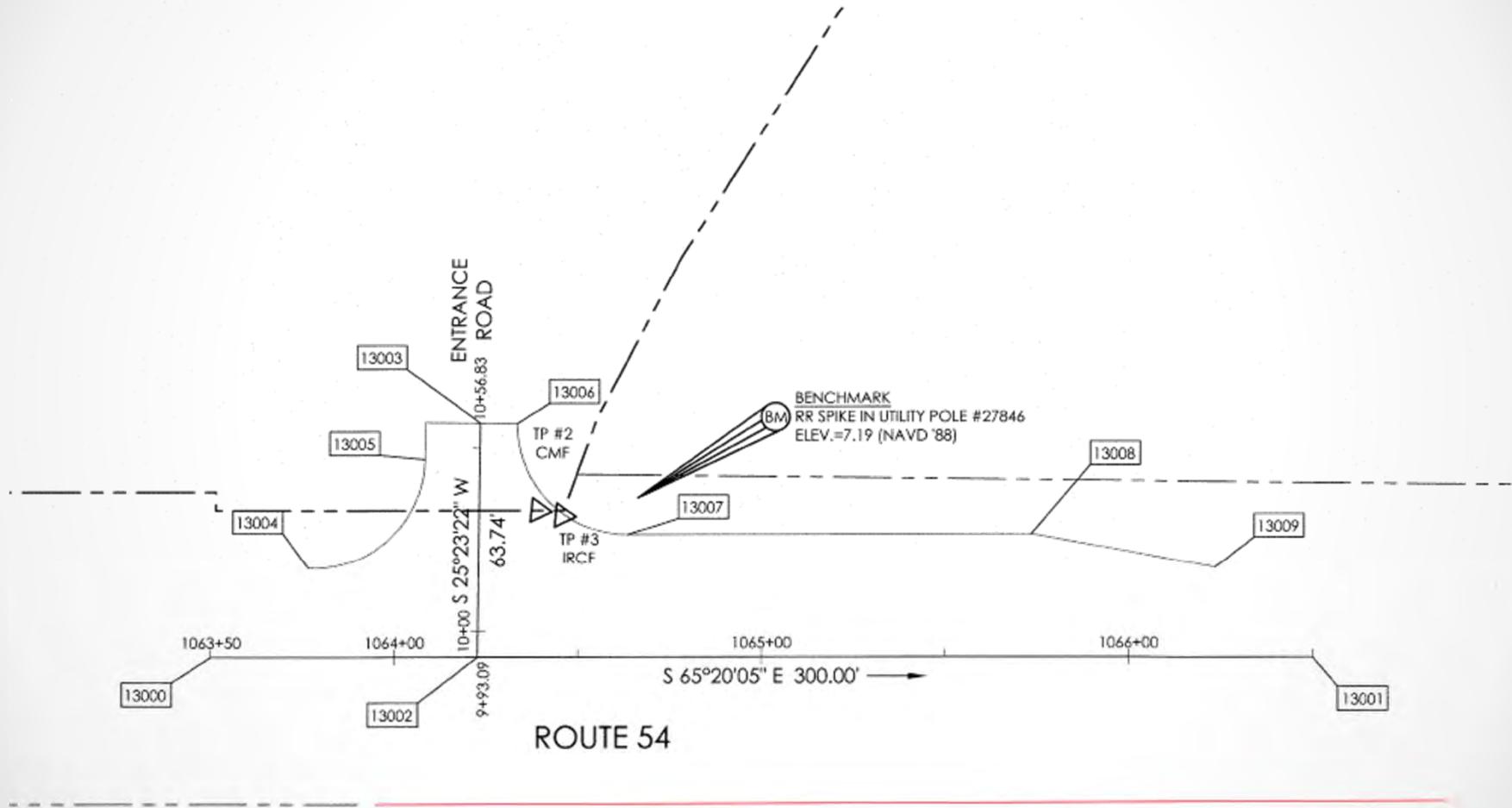
Project Phasing



- Account for future turn lanes and sw/sup
- Identify Required Drainage for Phase
- Paving Section and Future tie-In



Horizontal and Vertical Control



Horizontal and Vertical Control

HORIZONTAL/VERTICAL CONTROL DATA					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
TP-1	1060+22.31	-45.72	171829.71	748060.61	N/A
TP-2	1064+39.76	-39.98	171650.91	748437.34	6.38
TP-3	1064+46.19	-38.75	171647.08	748442.74	6.67
TP-4	1068+99.41	-40.77	171459.62	748855.79	7.43

CONSTRUCTION ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
13000	1063+00.00	0.0000	171651.84	748339.52
13001	1066+50.00	0.0000	171526.64	748612.15
13002	1064+22.69	0.0000	171621.50	748405.58
13003	1064+22.69	-63.74	171679.09	748432.91
13004	1063+76.51	-24.37	171662.92	748373.79
13005	1064+08.37	-53.93	171676.49	748415.07
13006	1064+33.49	-63.61	171674.80	748441.95
13007	1064+63.52	-33.41	171634.83	748456.63
13008	1065+73.52	-33.52	171589.02	748556.64
13009	1063+23.53	-24.37	171559.94	171559.94

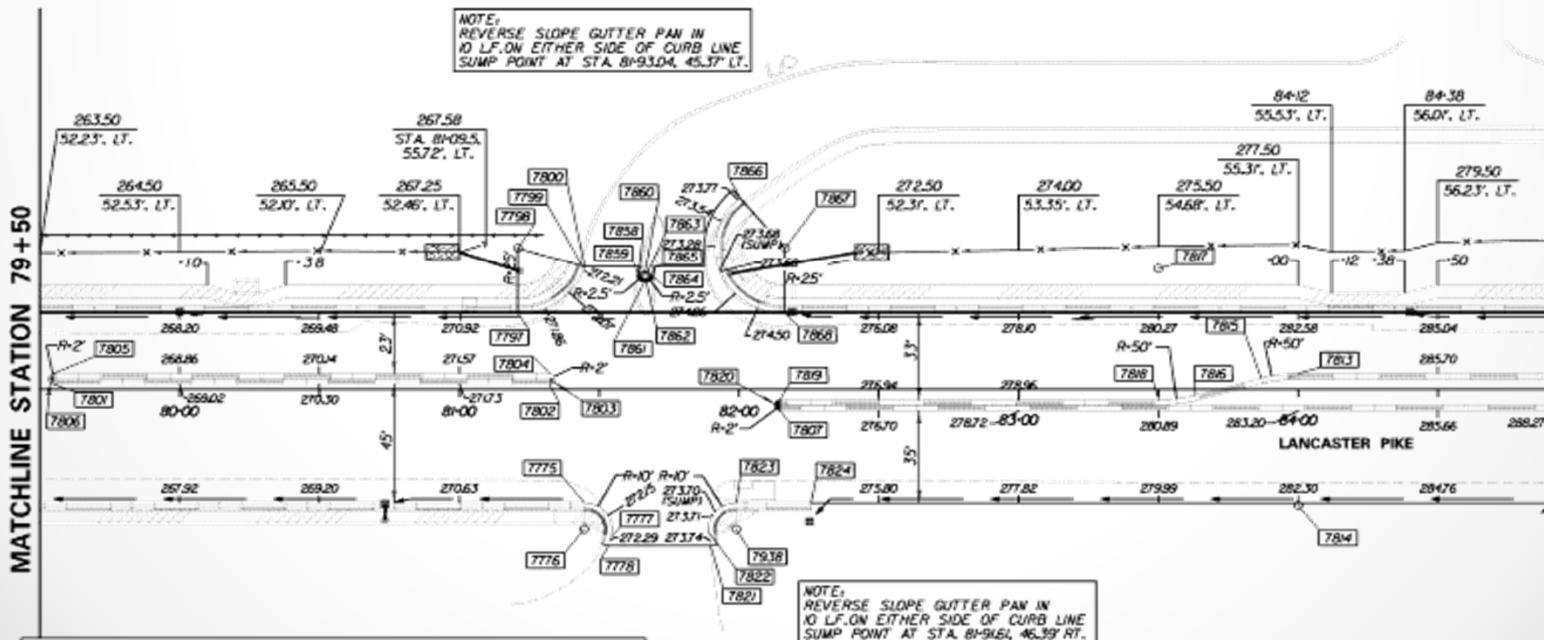


Horizontal and Vertical Control

COORDINATE SCHEDULE				
POINT	STATION	OFFSET	NORTH	EAST
7775	81+44.6857	43.0000	650966.2388	579209.1563
7776	81+44.6857	53.0000	650956.8943	579205.5954
7777	81+54.2795	55.8214	650950.8415	579213.5555
7778	81+53.2847	59.2059	650948.0333	579211.4202
7797	81+20.9833	-29.0000	651041.9595	579212.6467
7798	81+20.9833	-54.0000	651065.3207	579221.5497
7799	81+44.6498	-45.9443	651049.3654	579240.7957
7800	81+44.9434	-46.8069	651050.0669	579241.3772
7801	79+55.0000	-2.0000	651075.8356	579047.9292
7802	81+32.3026	-2.0000	651012.6985	579213.6094
7803	81+32.3024	-4.0000	651014.5675	579214.3213
7804	81+32.3026	-6.0000	651016.4363	579215.0337
7805	79+55.0000	-6.0000	651079.5734	579049.3536
7806	79+55.0000	-4.0000	651077.7045	579048.6414
7807	82+14.7388	8.0000	650973.9987	579287.0808
7808	86+58.6979	8.0000	650815.9058	579701.9377

NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE SR #1 LANCASTER PIKE CONSTRUCTION & R/W BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501 - CONSTRUCTION ENGINEERING.
6. PROPOSED CURBS OR PAVEMENT THAT TIE INTO EXISTING PAVEMENT OR CURBS SHALL MATCH THE EXISTING PAVEMENT OR CURB ELEVATIONS.



Cross Sections

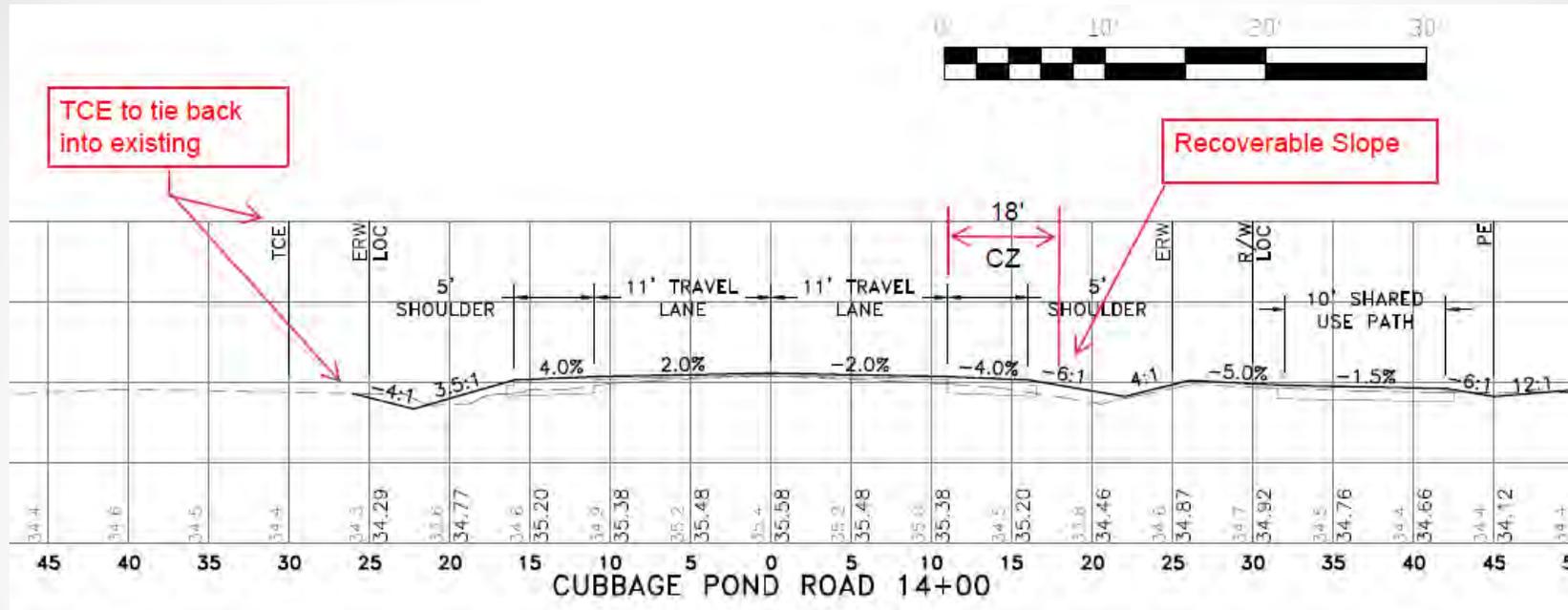
4.4.5 Commercial Entrance Plan Submittal Requirements – Cross Section Sheets

Where subdivision construction plans include proposed improvements to frontage roads, cross sections shall be required. Cross sections shall be shown along the frontage road every 50 feet at even stations (e.g. 1+00, 1+50, etc.) within the limits of improvements. Cross sections shall show the following information:

- A. Existing and proposed widths of streets, lanes, shoulders, right-of-way and easements
- B. Existing and proposed cross slopes of all lanes, shoulders and swales
- C. Slope of roadside embankment (front slope and back slope)
- D. Clear zone width and horizontal clearance
- E. Proposed limit of construction
- F. Point-of-Profile Grade Application
- G. Existing and proposed curb, including curb type(s)
- H. Depth and type of pavement material
- I. Locations to place topsoil, seed and mulch
- J. Location of underdrains
- K. All existing and proposed drainage structures and utilities



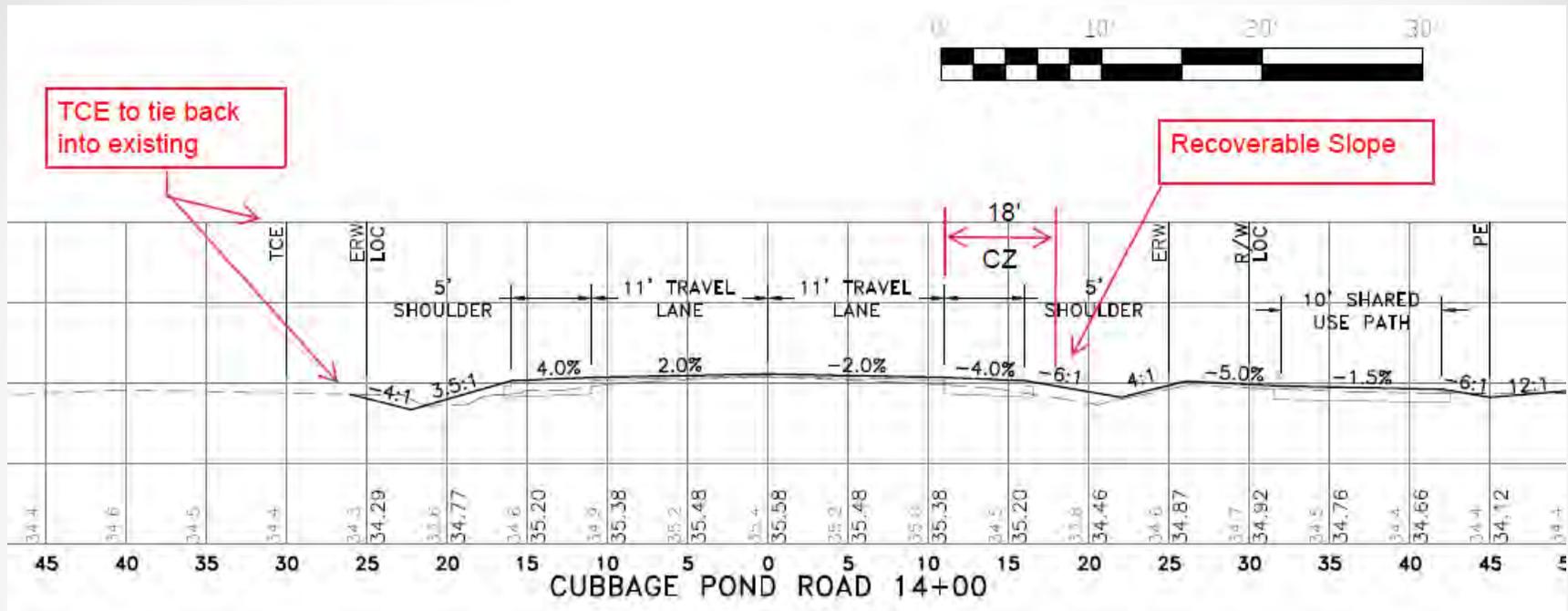
Cross Sections



- Critical For Review
- Typical Sections – “What”
- Plan Views – “Where”
- Cross Sections – “How”



Cross Sections

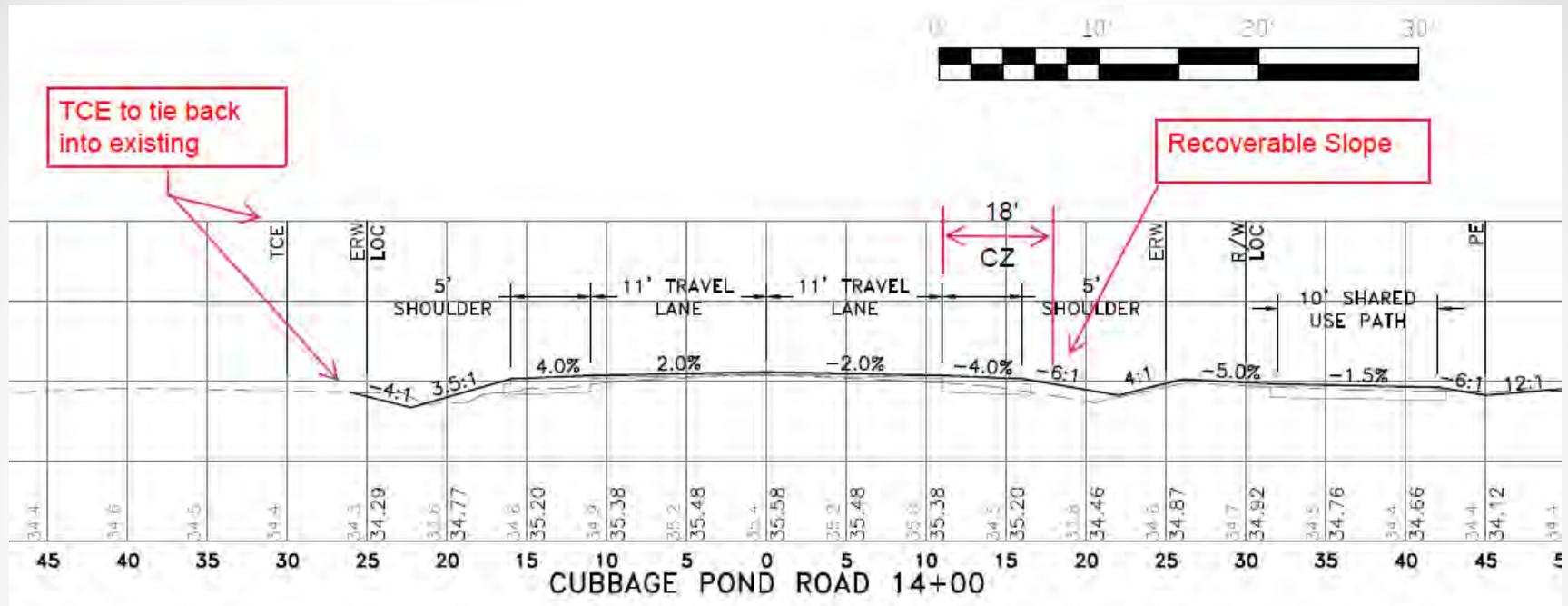


Consistent with Plan Views Typical's

- Lane Widths
- Curb Type
- Extent of Pavement Depths
- Pavement and Sidewalk Slopes



Cross Sections

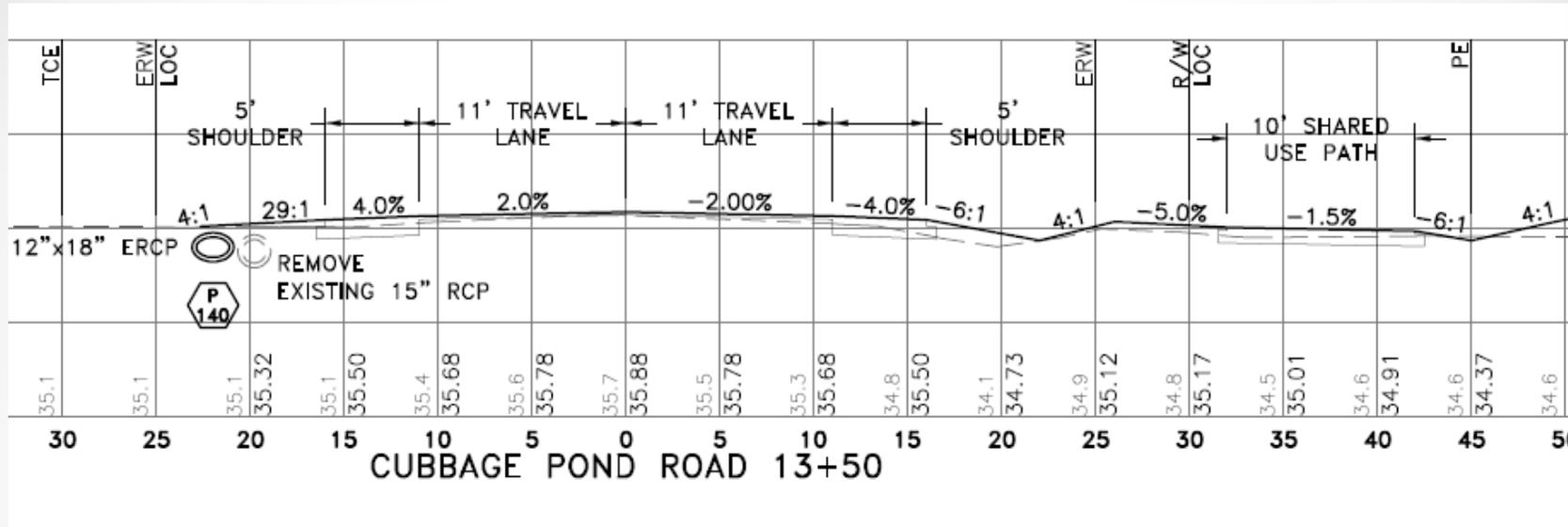


Must be Consistent Plan Views & Typical's

- DeIDOT Review Staff Rely Heavily on X-sections
- X-Sections Must be in Real Space (no fudging)
- LOC must be determined Via X-Sections



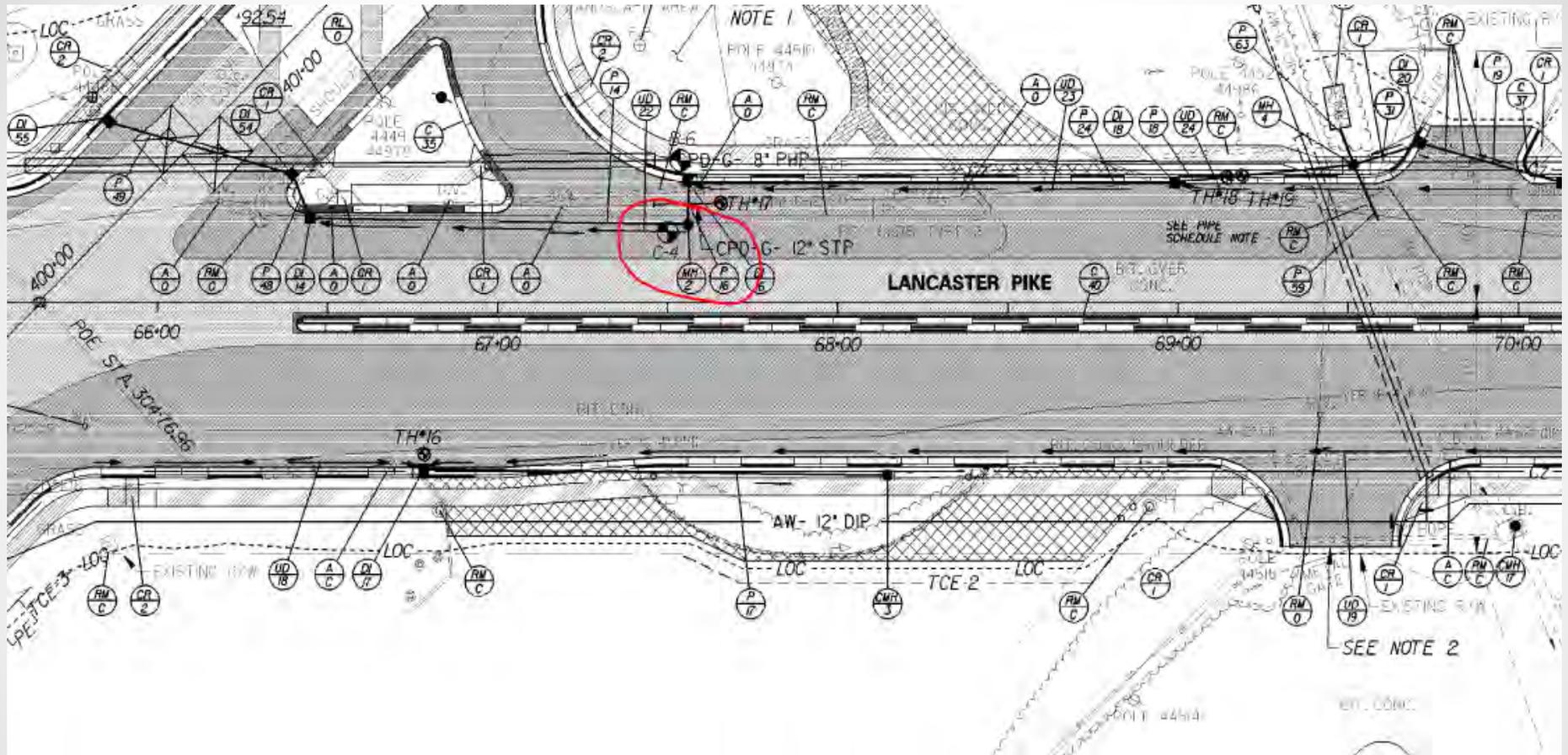
Cross Sections



- Lateral Offset for SUP 2'
- Recoverable Slope for SW/SUP
- Minimum of 2' PE/RW Behind SUP



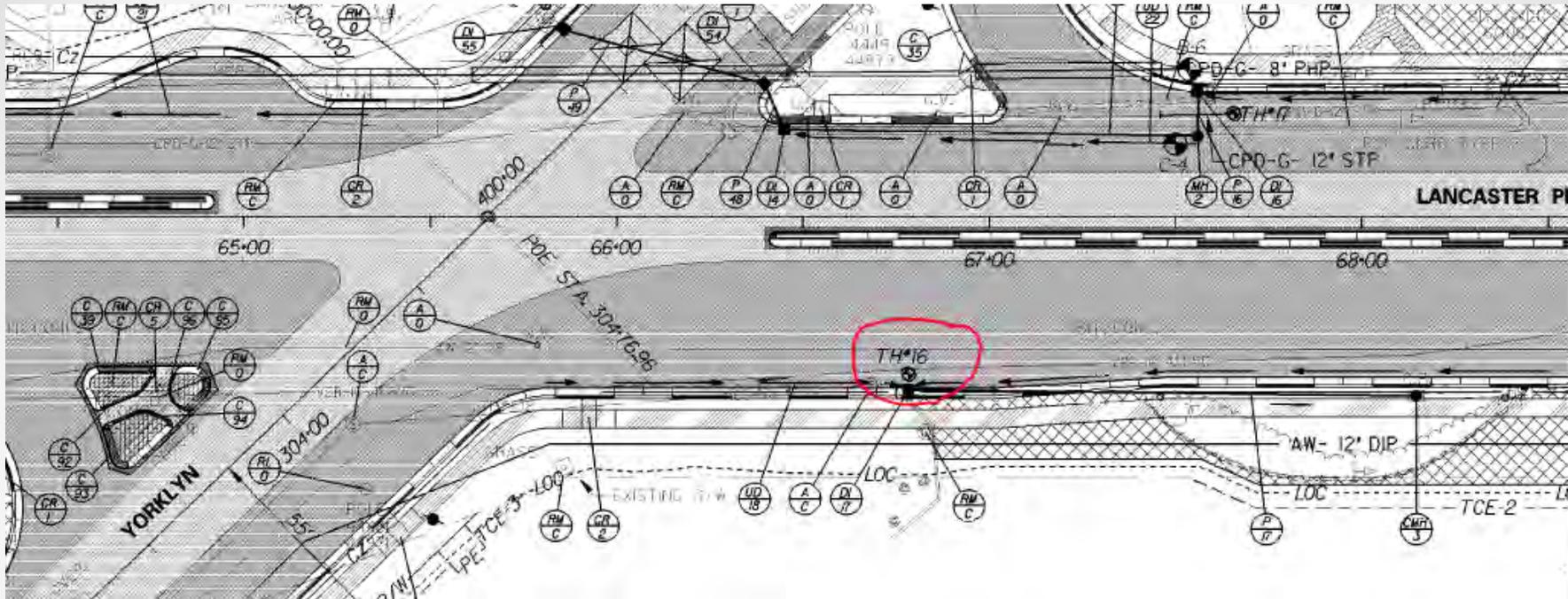
Roadway Cores



ROADWAY CORE SUMMARY			
C NO.	STA.	OFFSET	DESCRIPTION
4	67+50	19.5' LT.	5/2" ASPHALT OVER 9/4" CONCRETE



Utility Test Holes



UTILITY TEST HOLES						
NO.	UTILITY	STATION	OFFSET	GR. EL.	COVER	O.D. & MATERIAL
TH 16	VER	66.78	42.2' RT.	262.40	3.38	16" PVC
TH 17	CPD-G	67.66	27.7' LT.	263.64	5.12	12" STEEL
TH 18	CPD-G	69.14	34.8' LT.	263.01	5.76	12" STEEL
TH 19	AW	69.19	35.2' LT.	260.78	2.68	12" CIP



Recap

- Establish Project Phasing Early in Process
- Provide Layout Information (H&V Control)
- Good X-Sections are Critical for Design and Review
- Pavement Design Process



GRADING

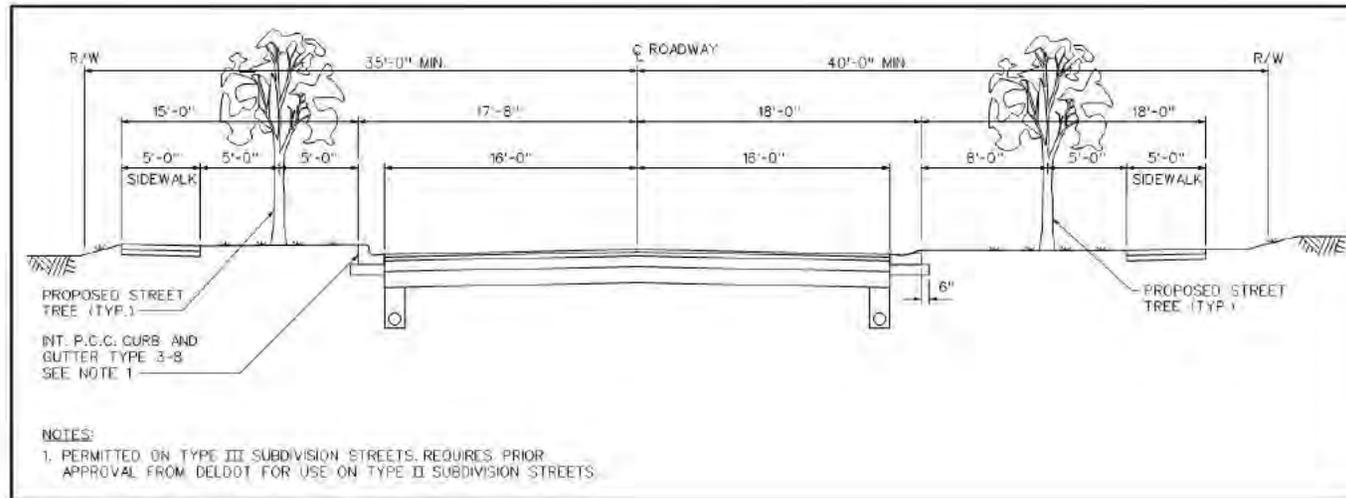


- When designing catch basins in swales or off roadway, the apron size must be accounted for
- Failure to account for box size and apron leads to side slopes greater than 4:1, re-design or remediation required



LANDSCAPING

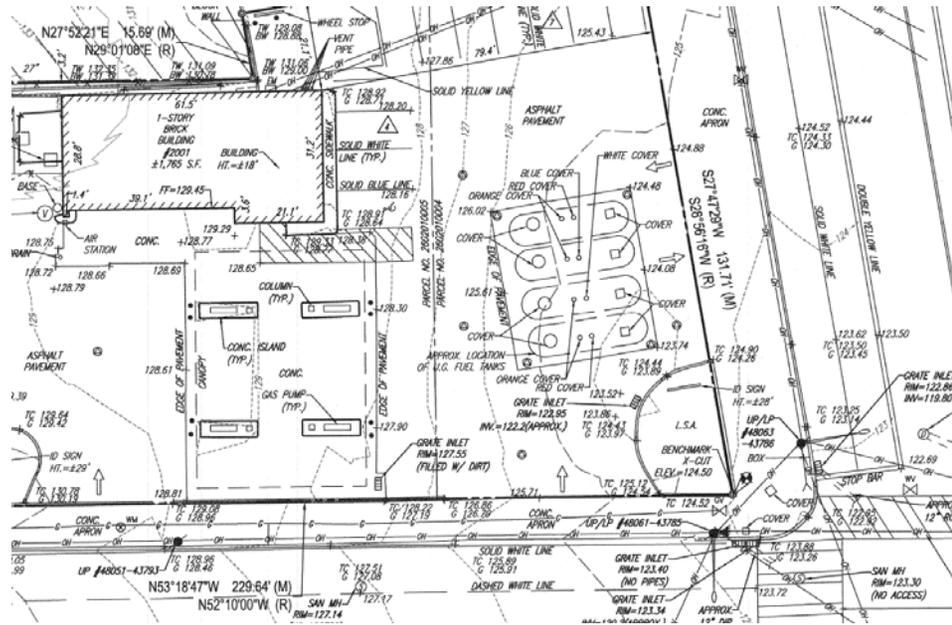
Figure 3.7-a Street Trees



- Landscaping is not allowed within State R/W except in subdivisions when properly accounted for in accordance with section 3.7. This includes increased R/W width requirements and depends on proposed curb type
- Along 3-digit roads not preferred in R/W but can be allowable with a maintenance agreement from the Roadside Beautification section.
- Outside subdivisions absolutely 100% disallowed to have this landscaping be accounted for to attain code compliance required by local jurisdictions as road widening project or even utility work may remove this landscaping



REQUIRED EASEMENTS



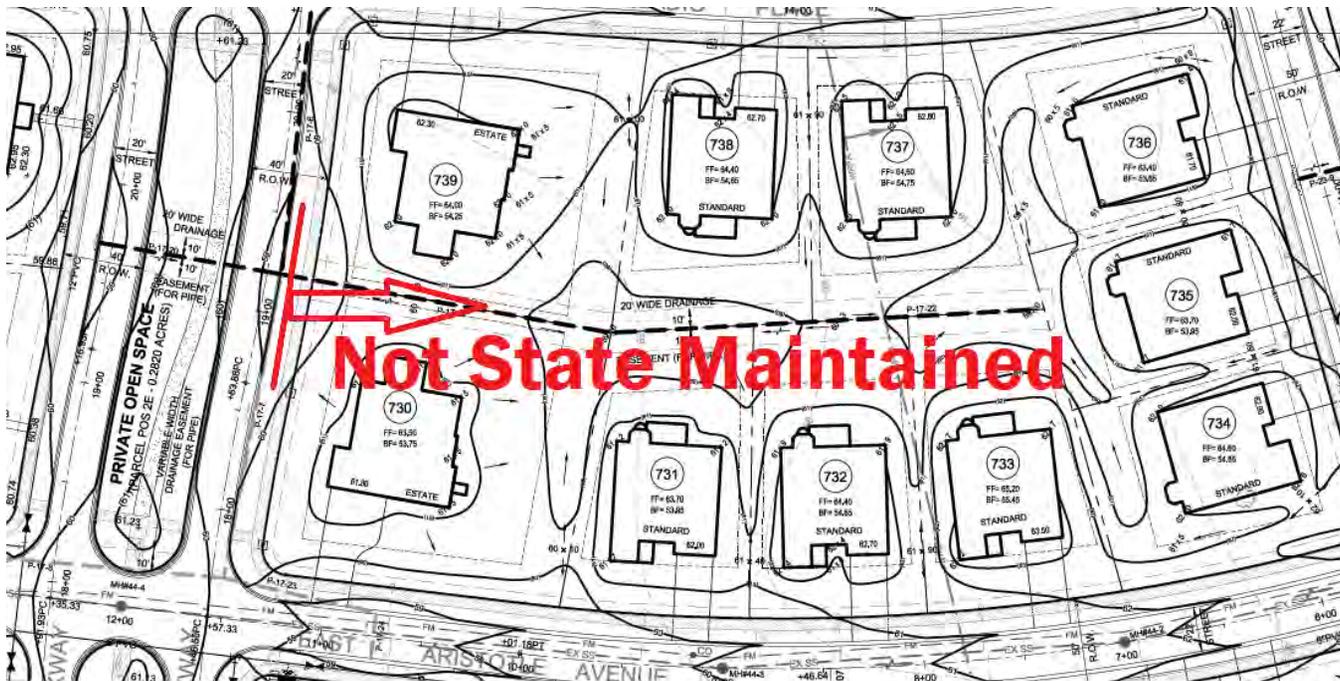
3.2.5.1.2 Frontage Easements

A 15-foot easement beyond the minimum right-of-way listed in Figure 3.2.5-a, must be established along the property frontage to provide for infrastructure , such as: drainage, lighting, pathways, sidewalks, traffic control and monitoring equipment and systems, transit facilities, utility installations and utility systems etc. This easement may be required regardless of the inclusion of a shared-use path or any other features. The following note should be added to the plan: *“A 15-foot permanent easement is hereby established for the State of Delaware as per this plat.”*

- Frontage easements must be provided per section 3.2.5.1.2
- This easement must be clear of all permanent facilities to include underground storage tanks



NON-STATE STORM LINES



EASEMENT TABLE			
DESCRIPTION OF EASEMENT	SHT. NO.	IN FAVOR OF	MAINTENANCE RESPONSIBILITY
IRREGULAR SHAPED DRAINAGE / SWM MAINT. AND ACCESS EASEMENT	3 THRU 12	NEW CASTLE COUNTY & DELDOT	GROUND SURFACE - MAINT. CORP. STORM SEWER - DELDOT
20' WIDE DRAINAGE EASEMENT WEST SIDE LOREWOOD GROVE RD.	7	DELDOT	GROUND SURFACE - LOT 418 STORM SEWER - DELDOT
20' WIDE DRAINAGE EASEMENT EAST SIDE LOREWOOD GROVE RD.	8	DELDOT	GROUND SURFACE - MAINT. CORP. STORM SEWER - DELDOT
20' WIDE DRAINAGE ESMT. (FOR PIPE / PDS)	3 THRU 12	DELDOT	STORM SEWER - DELDOT GROUND SURFACE - LOT OWNERS
20' WIDE DRAINAGE ESMT. (FOR PIPE / PDS)	3 THRU 12	DELDOT	STORM SEWER - DELDOT GROUND SURFACE - LOT OWNERS
20' WIDE DRAINAGE ESMT. (FOR PIPE / PDS)	12	NEW CASTLE COUNTY (FOR PIPE / S/WALES)	GROUND SURFACE - LOT OWNERS DELDOT & MAINT. CORP.
40' WIDE SANITARY SEWER EASEMENT (LOTS)	10 & 12	NEW CASTLE COUNTY	GROUND SURFACE - LOTS #1 & #2 PIPE - NEW CASTLE COUNTY
40' WIDE SANITARY SEWER EASEMENT (POS)	8, 10 & 12	NEW CASTLE COUNTY	GROUND SURFACE - MAINT. CORP. PIPE - NEW CASTLE COUNTY
20' WIDE PEDESTRIAN EASEMENT - SCOTT RUN CROSS-COUNTRY TRAIL	5, 6, 7, 8, 11, 12	NEW CASTLE COUNTY	CROSS COUNTRY TRAIL - NEW CASTLE CO. (INCLUDING CONSTRUCTION OF) GRASSSED AREAS - MAINT. CORP.
10' WIDE WATER LINE EASEMENT (LOTS)	12	ARTESIAN WATER	PIPE - ARTESIAN WATER GROUND SURFACE - LOTS 28 & 29
10' WIDE WATER LINE EASEMENT (POS)	12	ARTESIAN WATER	PIPE - ARTESIAN WATER GROUND SURFACE - MAINT. CORP.
20' WIDE GAS LINE EASEMENT	6, 8, 11, 12	DELMARVA POWER	PIPE - DELMARVA POWER GROUND SURFACE - MAINT. CORP.
40' WIDE COMBINATION SANITARY SEWER AND WATER LINE EASEMENT (POS)	8	NEW CASTLE COUNTY & ARTESIAN WATER CO.	SEWER PIPE - NEW CASTLE COUNTY WATER LINE - ARTESIAN WATER CO. GROUND SURFACE - MAINT. CORP.
30'X10' WATER LINE EASEMENT (LOTS)	3 THRU 6	ARTESIAN WATER CO.	GROUND SURFACE - LOT OWNERS WATER LINE - ARTESIAN WATER CO.
30'X10' WATER LINE EASEMENT (POS)	3 THRU 6	ARTESIAN WATER CO.	GROUND SURFACE - MAINT. CORP. WATER LINE - ARTESIAN WATER CO.
DRIVEWAY ACCESS EASEMENT	7	LOT OWNERS AS INDICATED	GROUND SURFACE - LOT OWNERS
IRREGULAR SHAPED PEDESTRIAN EASEMENT	5 & 9	NEW CASTLE COUNTY	CROSS COUNTRY TRAIL - NEW CASTLE CO. (INCLUDING CONSTRUCTION OF) GRASSSED AREAS - MAINT. CORP.
15' WIDE PERMANENT CONSTRUCTION UTILITY EASEMENT (POS)	3 THRU 8	DELDOT & UTILITY COE.	GROUND SURFACE - MAINT. CORP. UTILITIES THEREIN - RESPECTIVE UTILITY CO. STORM SEWER / ROADWAY - DELDOT
15' WIDE PERMANENT CONSTRUCTION UTILITY EASEMENT (LOTS)	3 THRU 6	DELDOT & UTILITY COE.	GROUND SURFACE - LOT OWNERS UTILITIES THEREIN - RESPECTIVE UTILITY CO. STORM SEWER / ROADWAY - DELDOT
40' WIDE WATER LINE EASEMENT (POS)	9	ARTESIAN WATER CO.	GROUND SURFACE - MAINT. CORP. WATER LINE - ARTESIAN WATER CO.
20' WIDE WATER LINE EASEMENT (POS)	8	ARTESIAN WATER CO.	GROUND SURFACE - MAINT. CORP. WATER LINE - ARTESIAN WATER CO.
10' WIDE PERMANENT EASEMENT	3, 5 & 9	DELDOT	GROUND SURFACE - MAINT. CORP.
10' WIDE WATER LINE EASEMENT (POS)	3	ARTESIAN WATER CO.	GROUND SURFACE - MAINT. CORP. WATER LINE - ARTESIAN WATER CO.

- On Record Plans, the party responsible for long term maintenance of non-state maintained storm pipes must be identified
- The State does not maintain pipes that do not drain or convey runoff from State maintained roadways.
- Can be done via easement table, notes or labeling of easements

SURETY FORMS

- Direction from the Attorney General's office is that we ONLY except sureties that use our exact language, verbatim
- Adding, removing or replacing stipulations, referencing codes from other States (or Countries) is not acceptable.
- Examples can be found at the Development Coordination Portal (formerly Appendices E, F and G)
- Letters of Credit, Surety Agreement or Escrow Agreement are all accepted

DelDOT Development Coordination Manual

SAMPLE LETTER OF CREDIT
FOR
SUBDIVISION CONSTRUCTION

Bank Letterhead

Address to District Public Works Engineer in appropriate District as follows:

<p>New Castle County (DelDOT Canal District) Public Works Engineer 250 Bear-Christiana Road Bear, DE 19701 (302) 326-4679</p>	<p>Kent County (DelDOT Central District) Public Works Engineer 930 Public Safety Blvd. Dover, DE 19901 (302) 760-2433</p>	<p>Sussex County (DelDOT South District) Public Works Engineer 23697 DuPont Blvd. Georgetown, DE 19947 (302) 853-1340</p>
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RE: Irrevocable Commercial Letter of Credit No. _____
_____ (name of Development)
in _____ County, Agreement No. _____

Dear Sir or Madam:

We hereby establish our Irrevocable Commercial Letter of Credit in favor of the State of Delaware, Department of Transportation as beneficiary at the request of and for an account of _____ (Developer),
for an amount or amounts not to exceed _____ (\$ _____).



Questions???

