

DUCTBANK DETAIL

SCALE: NTS

- CONDUIT LEGEND**
- #1 - 3" PVC CONDUIT
 - #2 - 3" PVC CONDUIT
 - #3 - 1" PVC CONDUIT
 - #4 - OPEN

- NOTES:**
1. GEOTECH TEST, IN ACCORD WITH ASTM D698, THE BOTTOM OF EXCAVATION TO ACHIEVE 85% TO 95% OF MAXIMUM DRY DENSITY, PRIOR TO CONCRETE PLACEMENT.

May 6, 2019
DATE

SHEET NO.
18062 SK-C.1

PROJECT NO.

PROJECT: STATE OF DELAWARE
DELAWARE DEPARTMENT OF TRANSPORTATION
OMBIDFM PROJECT
DELDOT PHASE II PARKING LOT EXPANSION
AT
KENT COUNTY ADMINISTRATION BUILDING
800 BAY ROAD
DOVER, DELAWARE 19801

STUDIO JAED
ARCHITECTS ■ ENGINEERS ■ FACILITIES SOLUTIONS

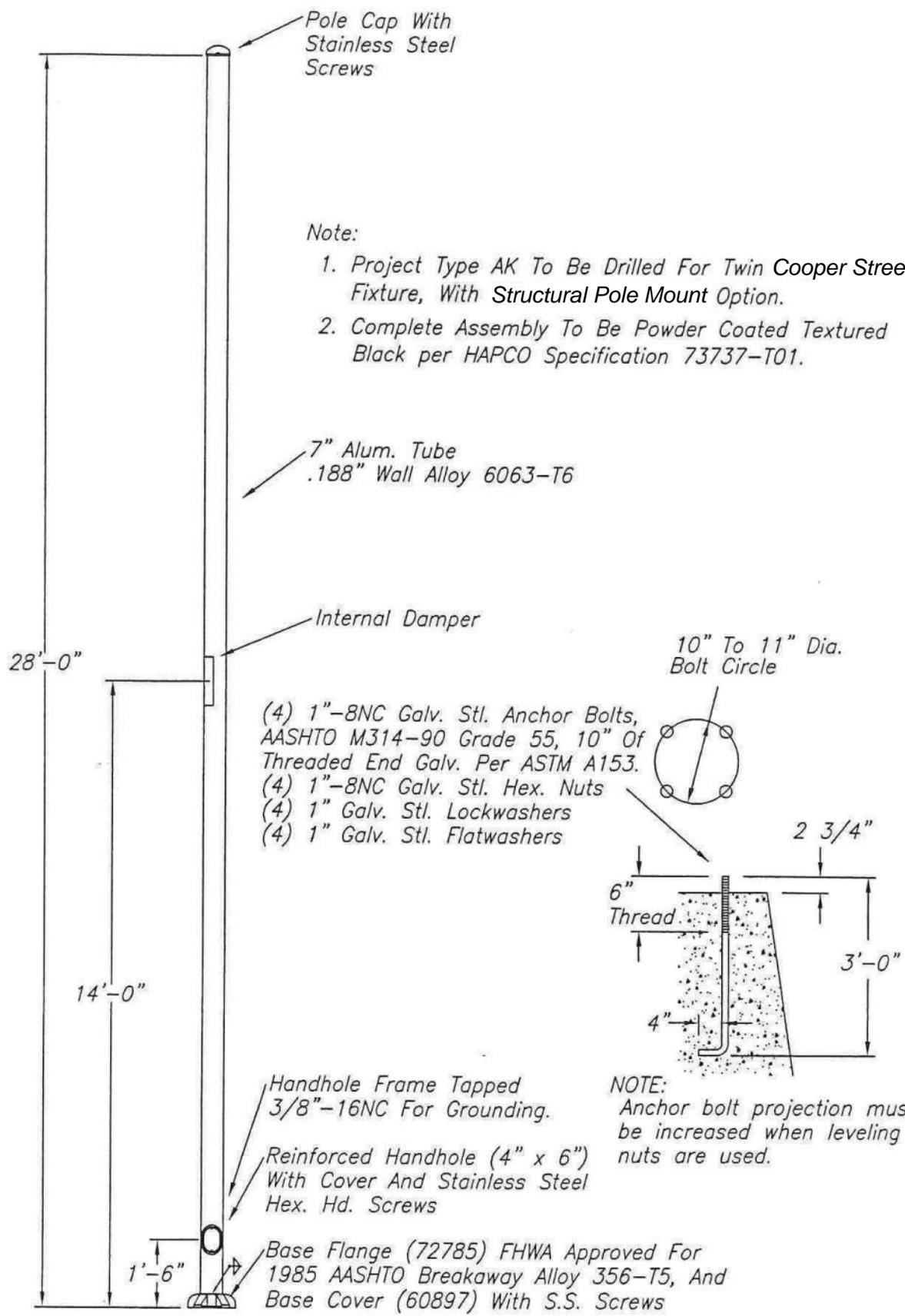
CORPORATE HEADQUARTERS
250 WINDLE HILL ROAD, STE. 110
REHOBOTH BEACH, DE 19721
PH: (302) 652-1102 FX: (302) 652-1423

Website: www.studiojaed.com

EAIR: info@studiojaed.com

REVISIONS:

△ PER ADDENDUM #5



NO.	REVISIONS	DATE

WARNING: DO NOT INSTALL LIGHTING POLES WITHOUT LUMINAIRES

hapco
A Kearney-National Company

TITLE	
CUSTOMER	
SCALE	DATE
BY	DWG. NO.
CHK'D	

Mark-up of original HAPCO drawing B85621 For Bidding Purposes

LEGEND					
ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED
CONCRETE CURB & GUTTER			SANITARY GRAVITY SEWER LINE, SIZE & FLOW DIRECTION		
CONCRETE SIDEWALK, SLAB / PAVING OR PARKING LOT			SANITARY SEWER FORCE MAIN, SIZE & FLOW DIRECTION		
IMPERVIOUS SURFACED ROAD, DRIVE OR PARKING LOT			SANITARY SEWER MANHOLE (S.M.H.)		
INDIVIDUAL TREE OR BUSH			SANITARY SEWER CLEANOUT		
WIRE FENCE			WATER MAIN & SIZE		
CHAINLINK FENCE			FIRE HYDRANT		
STOCKADE FENCE			WATER VALVE (W.V.) OR METER (W.M.)		
STRUCTURE (CONCRETE, WOOD, METAL, ETC.)			STORM DRAIN MANHOLE (S.D.M.H.)		
DRAINAGE DITCH OR SWALE			STORM DRAIN LINE (CMP OR RCP)		
EMBANKMENT SIDESLOPES (DOWN)			CATCH BASIN		
CONTOUR			UTILITY POLE W/ OVERHEAD SERVICE (TELEPHONE OR ELECTRIC OR BOTH)		
ELEVATION SPOT SHOT			UNDERGROUND ELECTRIC		
BENCH MARK			UNDERGROUND TELEPHONE		
PROPERTY OR RIGHT-OF-WAY LINE			UNDERGROUND GAS MAIN		
CENTERLINE			PAVEMENT TO BE REMOVED		
LIGHT POLE					

EROSION SEDIMENT CONTROL LEGEND	
LIMIT OF DISTURBANCE	
STANDARD INLET PROTECTION - TYPE 1	IP-1
STANDARD INLET PROTECTION - TYPE 2	IP-2
SENSITIVE AREA PROTECTION	SAP
RIP-RAP OUTLET PROTECTION 1	ROP-1
CULVERT INLET PROTECTION	CIP

- ### STORM SEWER CONSTRUCTION NOTES
- D-1 INSTALL STORM DRAIN CATCH BASIN AT LOCATIONS SHOWN (TYP.). SEE STORM DRAIN CATCH BASIN SCHEDULE AND DELDOT STANDARD DETAIL D-5 FOR BASIN TYPE, SIZE, GRATE, AND INVERTS.
 - D-2 INSTALL STORM DRAIN MANHOLE AT LOCATIONS SHOWN (TYP.). SEE STORM DRAIN MANHOLE SCHEDULE AND DELDOT STANDARD DETAIL D-6 FOR MANHOLE TYPE, COVER, SIZE, AND INVERTS.
 - D-3 INSTALL 15 INCH REINFORCED CONCRETE STORM DRAIN PIPE AT LOCATIONS SHOWN (TYP.). SEE STORM DRAIN PIPE SCHEDULE FOR PIPE ANGLES AND INVERTS.
 - D-4 INSTALL FLARED END SECTION WITH PERSONNEL SAFETY GRATE AT LOCATIONS SHOWN (TYP.). SIZE SHALL MATCH CONNECTING PIPE. SEE FLARED END SECTION DETAIL AND DELDOT STANDARD SAFETY GRATES DETAIL, SHEET C-902 FOR ADDITIONAL INFORMATION.
 - D-5 INSTALL 15 INCH REINFORCED CONCRETE PIPE AT EXISTING CATCH BASIN. CONTRACTOR TO PROVIDE WATER TIGHT SEAL, AND REPAIR ANY DAMAGE TO EXISTING CATCH BASIN, CURB, OR OTHER ASSOCIATED STRUCTURES.
 - D-6 CONTRACTOR MAY BE REQUIRED TO HAND-FORM CURB IN SPECIFIED LOCATIONS DUE TO CONFLICT WITH TOP OF PIPE ELEVATION.

- ### STORM SEWER GENERAL NOTES
- ALL STORM DRAIN PIPE LENGTHS SHOWN HEREON ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE. LENGTHS OF OPEN ENDED PIPES ARE FROM CENTER OF PRECEDING STRUCTURE TO END OF PIPE RUN AND INCLUDE THE LENGTH OF THE FLARED END SECTION. LENGTHS ARE ROUNDED TO THE NEAREST FOOT.
 - ALL STORM DRAIN INVERTS SHOWN ARE AT THE INSIDE OF STRUCTURE WALL.
 - ALL PIPES SHALL BE CLASS V REINFORCED CONCRETE PIPE UNLESS OTHERWISE NOTED.
 - ALL STORMWATER INFRASTRUCTURE SHALL BE PRIVATELY OWNED AND MAINTAINED.

BECKER MORGAN GROUP
 ARCHITECTURE
 ENGINEERING
 0 10 20 40
 SCALE : 1" = 20'

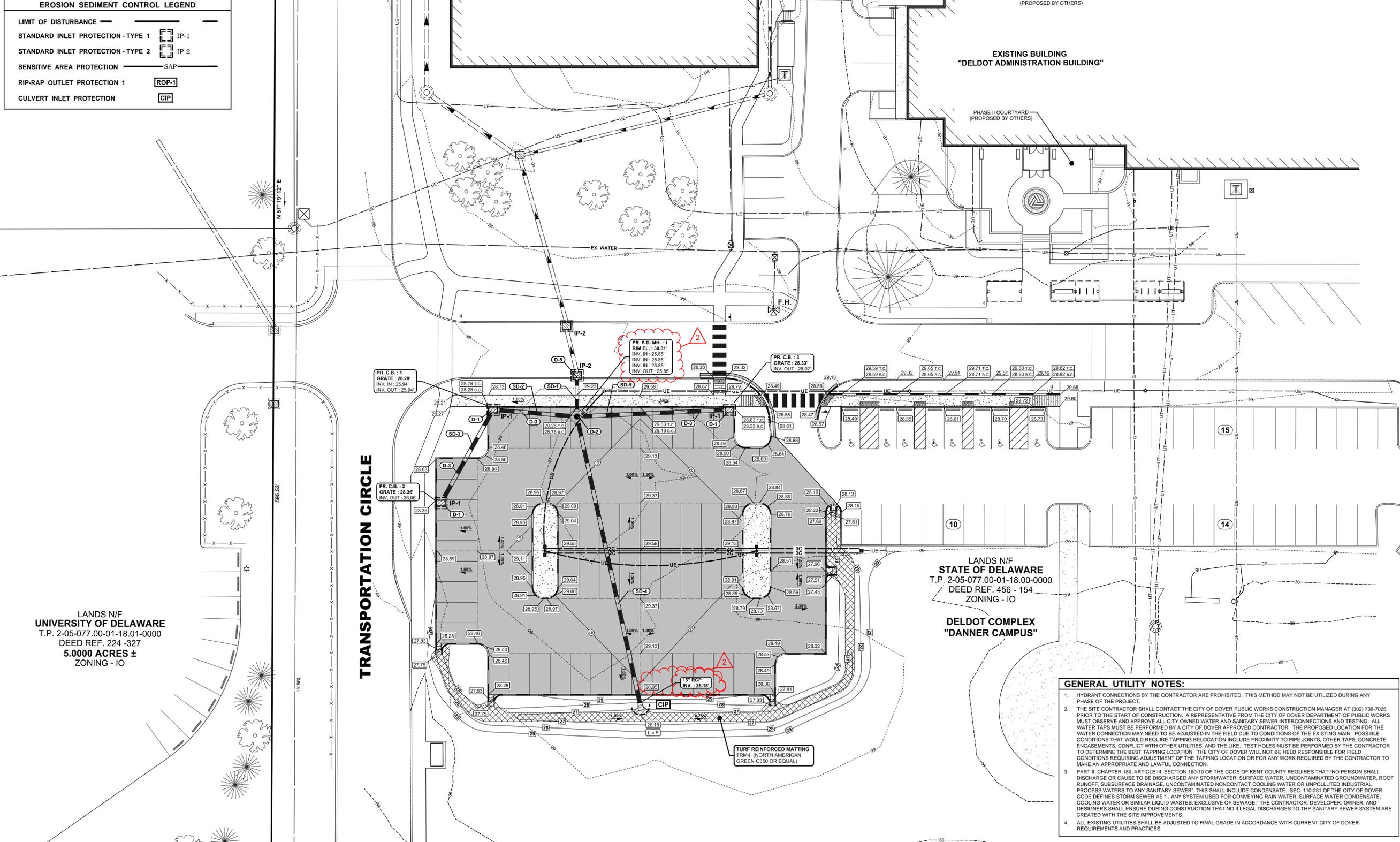
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REVISIONS
 2. REVISED PER ADDENDUM #5 05/06/2019

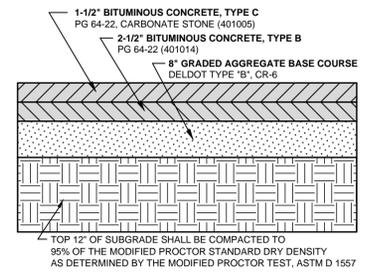
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 DELAWARE DEPARTMENT OF TRANSPORTATION
 OMB/DFM PROJECT
 DELDOT PHASE II PARKING LOT EXPANSION
 AT
 KENT COUNTY ADMINISTRATION BUILDING
 800 BAY ROAD
 DOVER, DELAWARE 19901

SHEET TITLE
GRADING & STORMWATER MANAGEMENT PLAN
 CONSTRUCTION DOCUMENTS
 MARCH 15, 2019
 DRAWN: T.D.G. CHK'D/DESIGNER: C.D.C.
 DISCIPLINE: CIVIL SHEET NO.:
 PROJECT NO.: **C-401**
 18062

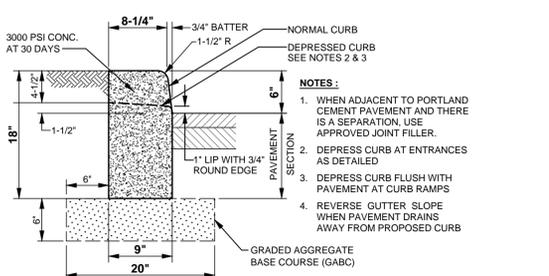


- ### GENERAL UTILITY NOTES:
- HYDRANT CONNECTIONS BY THE CONTRACTOR ARE PROHIBITED. THIS METHOD MAY NOT BE UTILIZED DURING ANY PHASE OF THE PROJECT.
 - THE SITE CONTRACTOR SHALL CONTACT THE CITY OF DOVER PUBLIC WORKS CONSTRUCTION MANAGER AT (302) 736-7025 PRIOR TO THE START OF CONSTRUCTION. A REPRESENTATIVE FROM THE CITY OF DOVER DEPARTMENT OF PUBLIC WORKS MUST OBSERVE AND APPROVE ALL CITY OWNED WATER AND SANITARY SEWER INTERCONNECTIONS AND TESTING. ALL WATER TAPS MUST BE PERFORMED BY A CITY OF DOVER APPROVED CONTRACTOR. THE PROPOSED LOCATION FOR THE WATER CONNECTION MAY NEED TO BE ADJUSTED IN THE FIELD DUE TO CONDITIONS OF THE EXISTING MAIN. POSSIBLE CONDITIONS THAT WOULD REQUIRE TAPPING RELOCATION INCLUDE PROXIMITY TO PIPE JOINTS, OTHER TAPS, CONCRETE ENCASUREMENTS, CONFLICT WITH OTHER UTILITIES, AND THE LIKE. TEST HOLES MUST BE PERFORMED BY THE CONTRACTOR TO DETERMINE THE BEST TAPPING LOCATION. THE CITY OF DOVER WILL NOT BE HELD RESPONSIBLE FOR FIELD CONDITIONS REQUIRING ADJUSTMENT OF THE TAPPING LOCATION OR FOR ANY WORK REQUIRED BY THE CONTRACTOR TO MAKE AN APPROPRIATE AND LAWFUL CONNECTION.
 - PART II, CHAPTER 180, ARTICLE III, SECTION 180-10 OF THE CODE OF KENT COUNTY REQUIRES THAT "NO PERSON SHALL DISCHARGE OR CAUSE TO BE DISCHARGED ANY STORMWATER, SURFACE WATER, UNCONTAMINATED GROUNDWATER, ROOF RUNOFF, SUBSURFACE DRAINAGE, UNCONTAMINATED NONCONTACT COOLING WATER OR UNPOLLUTED INDUSTRIAL PROCESS WATERS TO ANY SANITARY SEWER". THIS SHALL INCLUDE CONDENSATE. SEC. 110-231 OF THE CITY OF DOVER CODE DEFINES STORM SEWER AS "...ANY SYSTEM USED FOR CONVEYING RAIN WATER, SURFACE WATER CONDENSATE, COOLING WATER OR SIMILAR LIQUID WASTES, EXCLUSIVE OF SEWAGE". THE CONTRACTOR, DEVELOPER, OWNER, AND DESIGNERS SHALL ENSURE DURING CONSTRUCTION THAT NO ILLEGAL DISCHARGES TO THE SANITARY SEWER SYSTEM ARE CREATED WITH THE SITE IMPROVEMENTS.
 - ALL EXISTING UTILITIES SHALL BE ADJUSTED TO FINAL GRADE IN ACCORDANCE WITH CURRENT CITY OF DOVER REQUIREMENTS AND PRACTICES.

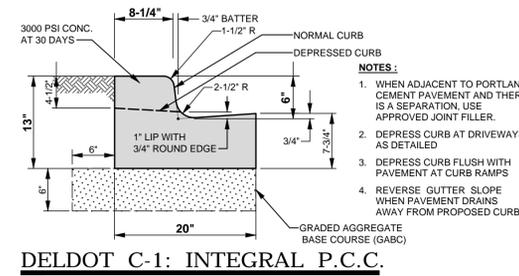
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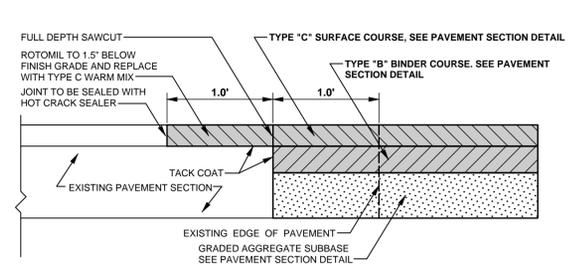
PAVEMENT SECTION DETAIL
NO SCALE BMG NO.: SW-2A



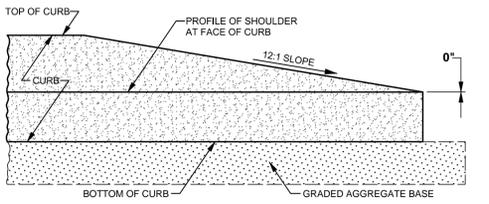
DELDOT C-1: P.C.C. CURB - TYPE 1-6
NO SCALE SHOWN FOR REFERENCE ONLY - SEE DELDOT STANDARDS BMG NO.: SW-01A



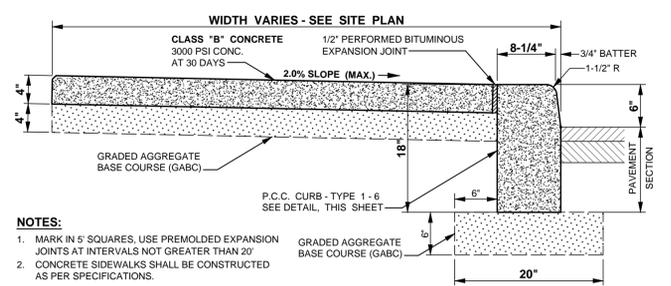
DELDOT C-1: INTEGRAL P.C.C. CURB & GUTTER TYPE 3-6
NO SCALE SHOWN FOR REFERENCE ONLY - SEE DELDOT STANDARDS BMG NO.: SW-01A



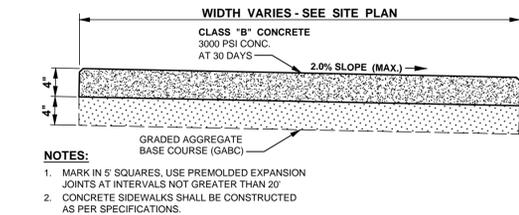
PAVEMENT TIE-IN SECTION
NO SCALE BMG NO.: SW-2DA



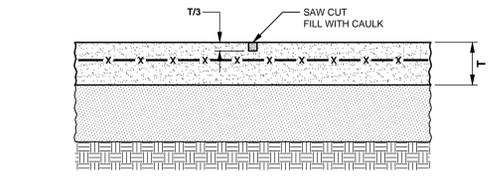
CURB TAPER DETAIL
NO SCALE BMG NO.: SW-1C



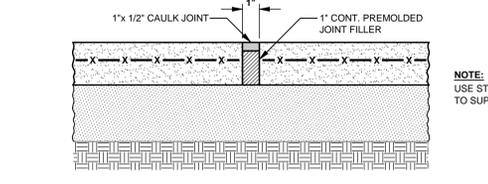
COMBINATION SIDEWALK AND P.C.C. CURB TYPE 1-6
NO SCALE BMG NO.: SW-03I



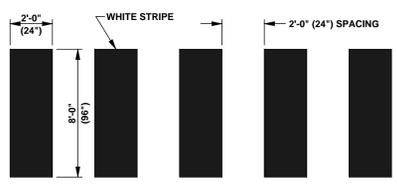
CONCRETE SIDEWALK DETAIL
NO SCALE BMG NO.: SW-03C



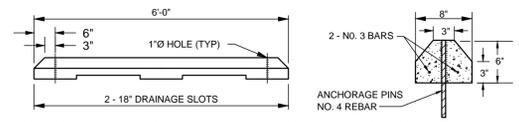
CONTROL JOINT DETAIL
NO SCALE BMG NO.: SW-6E



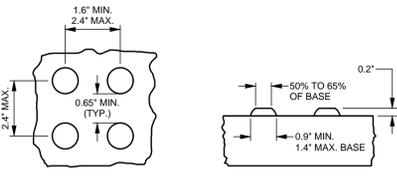
CONSTRUCTION / EXPANSION JOINT DETAIL
NO SCALE BMG NO.: SW-6F



STRIPING OF CROSSWALK SHALL BE THERMO
NO SCALE BMG NO.: TS-03

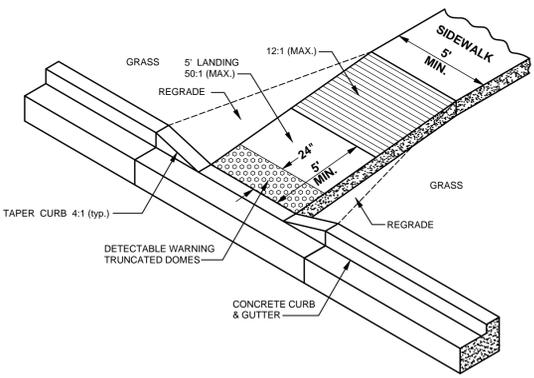


PRECAST CONCRETE BUMPER BLOCKS
NO SCALE BMG NO.: SW-14

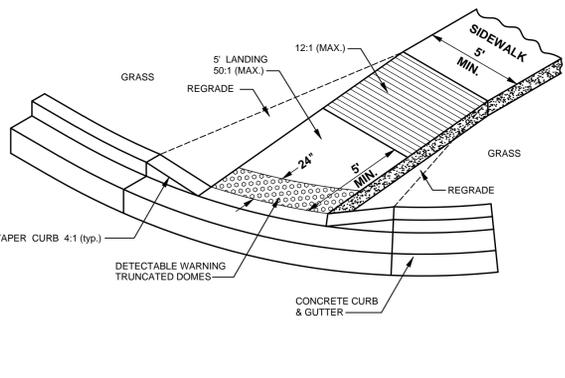


DETECTABLE WARNINGS - TRUNCATED DOME

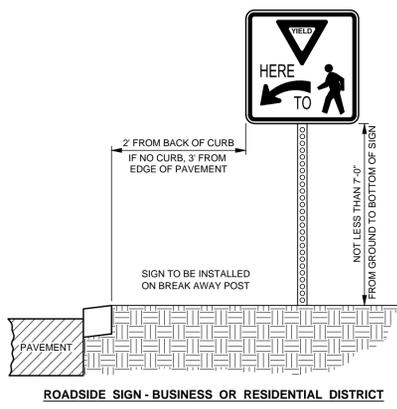
- NOTES:**
- PER CURRENT ADAAG.
 - PRIOR TO INSTALLATION VERIFY MATERIALS AND COLORS WITH DELDOT AND/OR LOCAL AGENCIES.
 - SURFACE TEXTURE OF RAMPS SHALL BE COARSE BRUDDING OR NON-SKID TYPE SURFACE.
 - VERIFY WIDTH OF RAMP ON SITE PLAN PRIOR TO CONSTRUCTION.
 - THE AREA OF DETECTABLE WARNING TRUNCATED DOMES SHALL BE 2'-0" LONG AND THE FULL WIDTH OF THE RAMP OR DEPRESSED CURB.
 - DETECTABLE WARNINGS MUST HAVE A LIGHT-TO-DARK CONTRAST WITH THE SIDEWALK MATERIAL.
 - LIGHT REFLECTANCE VALUE CONTRAST MUST BE AT LEAST 70%.
 - THE COLOR OF DETECTABLE WARNINGS TO BE USED FOR SIDEWALK MATERIAL IS AS FOLLOWS:
- | SIDEWALK / CURB RAMP MATERIAL | DETECTABLE WARNING SYSTEM COLOR |
|-------------------------------|---|
| CONCRETE | BROWN CONCRETE, DARK GRAY, BRIGHT RED, ORANGE (BRICK), RED OR BLACK |
- ***IF USING A DIFFERENT SIDEWALK MATERIAL THAN SHOWN ABOVE OR IF THE SIDEWALK MATERIAL IS A DIFFERENT COLOR THAN NORMAL (I.E. CONCRETE OR HOT-MIX WITH A PIGMENT SO THAT IT IS NOT THE "NATURAL" OFF-WHITE OR BLACK RESPECTIVELY), CONTACT DELDOT CONSISTENCY CONTROL, QUALITY PROGRAM MANAGER AT (302) 760-2342 FOR COLOR CHOICES.



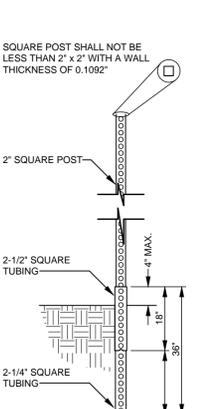
ACCESSIBLE RAMP DETAIL
NO SCALE BMG NO.: SW-04A1



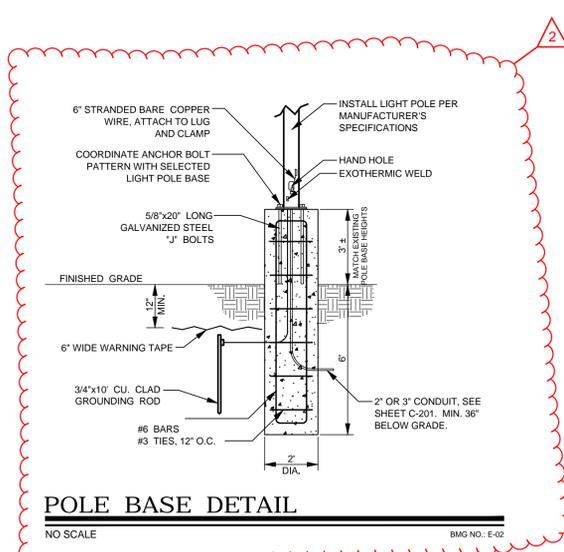
ACCESSIBLE RAMP DETAIL
NO SCALE BMG NO.: SW-04A1



ROADSIDE SIGN - BUSINESS OR RESIDENTIAL DISTRICT
NOTE:
1. DESIGN, FABRICATION AND INSTALLATION OF ALL PERMANENT SIGNING SHALL BE IN ACCORDANCE WITH LATEST "DEMUTCD" (DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) MANUAL (LATEST EDITION).



BREAKAWAY POST DETAIL
NO SCALE BMG NO.: TS-02R



POLE BASE DETAIL
NO SCALE BMG NO.: E-02

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REVISIONS

- 2 REVISED PER ADDENDUM #5 05/06/19

PROJECT
STATE OF DELAWARE
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OMB/DFM PROJECT
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AT
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DOVER, DELAWARE 19901

SHEET TITLE
SITE CONSTRUCTION DETAILS & SCHEDULES

CONSTRUCTION DOCUMENTS
MARCH 15, 2019

DRAWN: T.D.G. CHK'D/DISIGNER: C.D.C.
DISCIPLINE: CIVIL SHEET NO.:
PROJECT NO.: 18062 **C-901**