

YORKTOWN, INDIANA

TOWN STANDARDS

Town Standards Apply To Public Property & Private Property.

The Entire Set Of Full Size Town Standards Shall Be Attached To The Construction Drawings And Shall Be Considered Part Thereto.

REVISION LOG

SHEET NO.	ISSUED	RE-ISSUED	RE-ISSUED	RE-ISSUED	RE-ISSUED	RE-ISSUED	RE-ISSUED
SHEET 1	4-19-04	8-11-05	3-14-07	X-XX-23			
SHEET 2	4-19-04			X-XX-23			
SHEET 3	4-19-04			X-XX-23			
SHEET 4	X-XX-23						
SHEET 5	4-19-04			X-XX-23			
SHEET 6	4-19-04		3-14-07	X-XX-23			
SHEET 7	4-19-04		3-14-07	X-XX-23			
SHEET 8	4-19-04	8-11-05	3-14-07	X-XX-23			
SHEET 9	4-19-04		3-14-07	X-XX-23			
SHEET 10	4-19-04		3-14-07	X-XX-23			
SHEET 11	X-XX-23						
SHEET 12	X-XX-23						
SHEET 13	X-XX-23						
SHEET 14	X-XX-23						
SHEET 15	X-XX-23						
SHEET 16	X-XX-23						
SHEET 17	X-XX-23						
SHEET 18	4-19-04			X-XX-23			

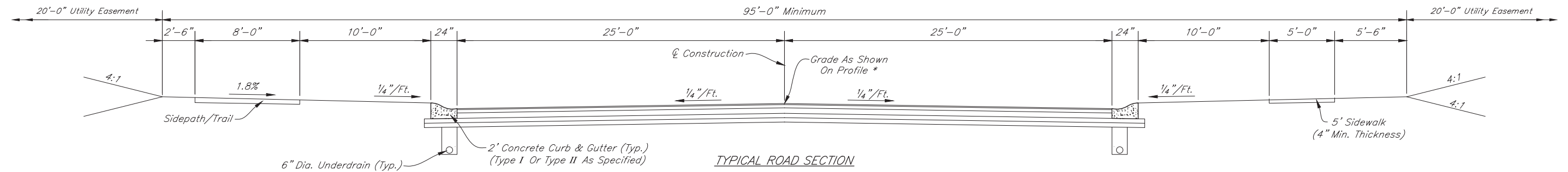
DIRECTIONS FOR USE

- 1.) *Details Prepared By Outside Sources Shall Not Be Included In The Construction Drawings When Said Details Cover Work Which Is Covered By Town Standards.*
- 2.) *Individual Town Standards That Do Not Apply May Be Crossed-Out By Design Engineer Through The Placement Of A Single Large X Over Detail. Minor Reference Notations May Be Placed Adjacent To Individual Standard Titles For Coordination However, The Standards Themselves Shall Not Be Modified In Any Way.*
- 3.) *Details Prepared By Outside Sources Covering Work Which Is Not Covered By Town Standards Are The Sole Responsibility Of The Design Engineer And Shall Be Placed On Sheets Other Than The Town Standards Sheets.*
- 4.) *Failure To Properly Execute The Above Directions For Use Will Not Effect The Applicability Nor The Enforcement Of The Town Standards.*
- 5.) *Town Of Yorktown Shall Be Contacted When Required By Calling 765-759-4002.*

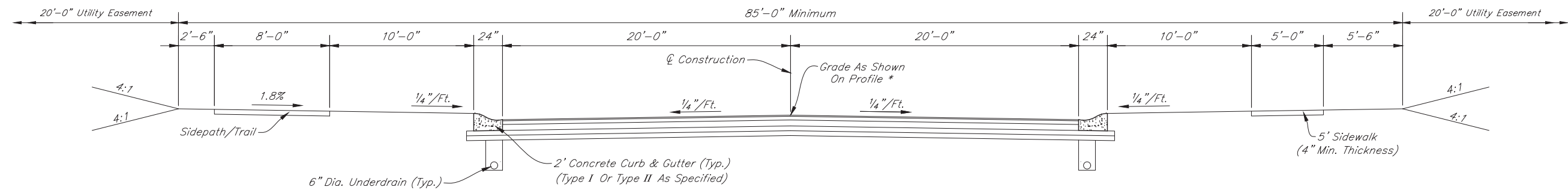
GENERAL NOTES

- 1.) Contractor Shall Verify The Exact Location Of All Existing Utilities At Least 24 Hours Prior To Any Construction Or Excavation. During Construction, All Utilities Shall Be Adequately Supported To Minimize Damage. The Contractor Shall Be Responsible For Repairing Or Replacing Damaged Utilities To The Satisfaction Of The Town Of Yorktown And The Owner Of The Affected Utility.
- 2.) Installation Of Or Provisions For The Installation Of All Underground Utilities (Including Service Laterals) To Be Placed Under Pavement Areas Shall Be Established Prior To The Construction Of The Pavements. The Town Reserves The Right To Require Trenchless Construction For Crossing Of Existing Streets.
- 3.) All Benchmarks And Elevations Shall Be U.S.C. & G.S. Datum.
- 4.) Wherever Proprietary Equipment Is Specified, All Proposals For Substitution Shall Be Submitted In Writing To The Town Of Yorktown And Shall Be Subject To The Findings Of The Town Of Yorktown.
- 5.) Approved Excavated Material May Be Used For Backfill Outside Of Limits Specified Herein And Under Proposed Sidewalks Provided Sidewalks Are Constructed 6 Months After Backfilling Of Trench. In Order For Excavated Material To Be Approved For Backfill It Shall Be Free Of Organic Material, Rocks Larger Than 6 Inches, Frozen Material, Debris, Excessive Water, Or Other Unsuitable Material As Determined By Town Of Yorktown.
- 6.) Whenever Granular Backfill Is Placed In A Trench, Contractor Shall Compact Material To A Minimum Of 95% Maximum Dry Density As Per ASHTO T99. The Contractor Shall Demonstrate That Compaction Is Achieved By Means Of In Place Density Tests Performed By An Independent Testing Firm. Testing Frequency Shall Be One Test Per Trench Or 1 Test Per 100 Linear Feet Of Trench, Whichever Is Greater.

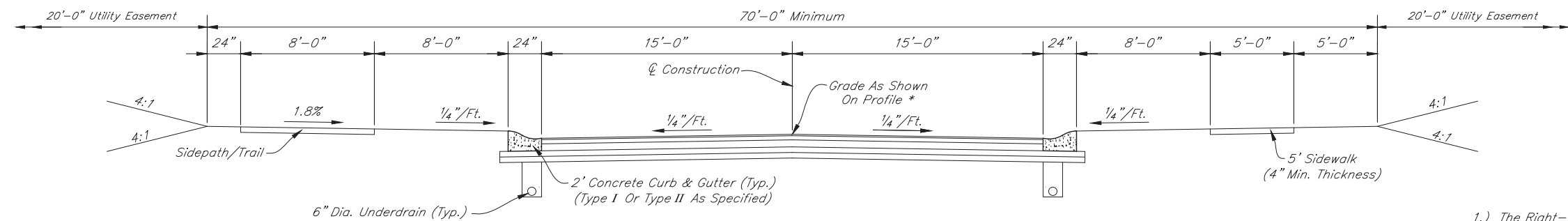
REVISIONS			<div>RECOMMENDED FOR APPROVAL</div> <div>DESIGN ENGINEER</div> <div>XX/XX/23</div> <div>DATE</div>	TOWN OF YORKTOWN	SHEET
Rev. No.	Description	Date		<div>DIRECTIONS FOR USE,</div> <div>GENERAL NOTES, &</div> <div>REVISION LOG</div>	1
1	Added Rev. Date for Sheets 1 & 7	8/11/2005			OF
2	Added Revision Dates	3/14/2007			18
3	Added Rev. Date, 7 New Sheets	X/XX/2023			
	& Rev. Notes & Sheet Total				



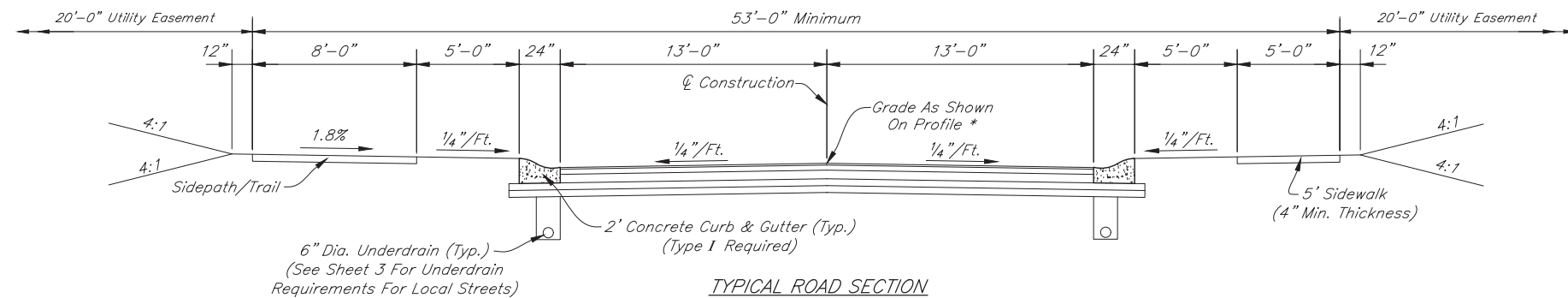
TYPICAL ROAD SECTION
MAJOR ARTERIAL STREETS
 Scale: 1/4" = 1'-0"



TYPICAL ROAD SECTION
MINOR ARTERIAL STREETS
 Scale: 1/4" = 1'-0"



TYPICAL ROAD SECTION
COLLECTOR STREETS
 Scale: 1/4" = 1'-0"



TYPICAL ROAD SECTION
LOCAL STREETS
 Scale: 1/4" = 1'-0"

GENERAL NOTES

- 1.) The Right-Of-Way Widths, Pavement Widths, And Easements Widths Indicated On This Sheet Are Minimum Distances Required By The Town Of Yorktown. Greater Widths May Be Provided. The Contractor Shall Review The Plat And The Plans To Confirm The Various Widths Indicated On This Sheet And Shall Report Any Discrepancy To The Town Prior To Proceeding With Construction.
- 2.) Wherever Proprietary Equipment Is Specified, All Proposals For Substitution Shall Be Submitted To The Town And Shall Be Subject To The Approval Of The Town. Installation Failing To Meet This Requirement Shall Be Removed As Directed By The Town Of Yorktown At The Developer's Cost.
- 3.) Whenever Trench Opening Encroaches Within 5' Of An Existing Or Proposed Street Or Sidewalk, "B"-Borrow Compacted In Lifts In Accordance With The Most Recent INDOT Standard Specifications Shall Be Required. Approved Backfill Material May Be Used Under Proposed Sidewalks Provided Sidewalks Are Constructed 6 Months After Backfilling Of Trench.
- 4.) Installation Of Or Provisions For The Installation Of All Underground Utilities (Including Service Laterals) To Be Placed Under Pavement Areas Shall Be Established Prior To The Construction Of The Pavements.
- 5.) The Location Of Proposed Utilities As Indicated Hereon Are Based Upon The Experience Of The Town Of Yorktown And Are So Indicated To Ensure The Orderly Development Of The Land. Strict Adherence To The Indicated Location Is Required. Requests To Change The Location Of The Proposed Utilities Shall Be Submitted In Writing To The Town. Utilities Not Meeting These Requirements Shall Be Removed And Replaced As Directed By The Town.

REVISIONS		
Rev. No.	Description	Date
1	Rev. All Sections By Adding The Sidepath/Trail, Rev. Gen Note #2 & Sheet Total	X/XX/2023

RECOMMENDED FOR APPROVAL _____ XX/XX/23
 DESIGN ENGINEER DATE
 APPROVED _____
 STREET SUPERINTENDENT DATE

TOWN OF YORKTOWN
RIGHT-OF-WAY,
UTILITY EASEMENT & UTILITY LOCATION
GUIDELINES

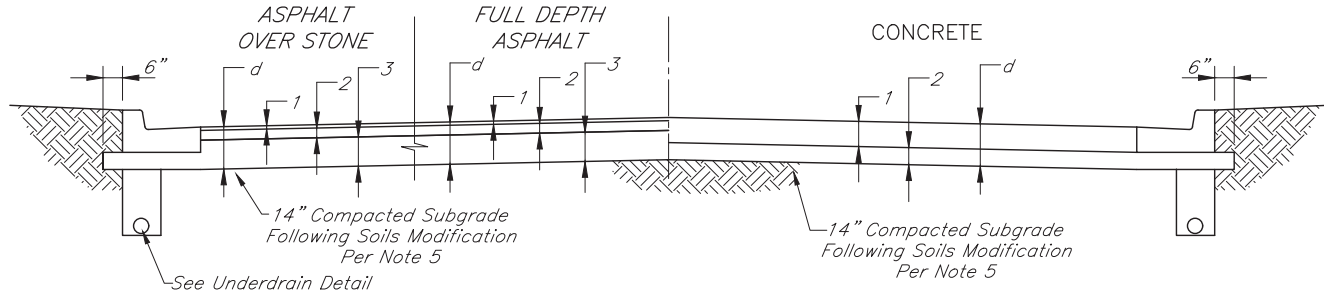
SHEET
2
OF
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PAVEMENT CONSTRUCTION

- 1.) Subbase And Subgrade Shall Be Compacted To At Least 100 Percent Of The Maximum Dry Density In Accordance With A.A.S.H.T.O. T99. Compaction Test Shall Be At The Contractor's Expense And Shall Be Performed By An Independent Laboratory. Tests Results Shall Be Submitted To The Town Prior To Placing Any Material On The Subbase Subgrade. One-In Place Density Test Shall Be Completed For Each Lift For Every 400 Linear Feet Of Traffic Lane. At The Discretion Of The Street Commissioner, The Compaction Testing May Be Waived And The Adequacy Of Subbase And Subgrade Shall Be Determined By The Town Based On A Contractor Performed Proofroll With A Fully Loaded Tri-Axle Dump Truck.
- 2.) For Local Streets With Concrete Pavement The Four Inch Compacted Aggregate #53 Is Optional If Adequate Subgrade Is Present. Adequacy Of Subgrade Shall Be Determined Solely By The Town Based On A Contractor Performed Proofroll With A Fully Loaded Tri-Axle Dump Truck.
- 3.) Place Tack Coat In Accordance With The Most Recent INDOT Standard Specifications For Asphalt Pavement Sections.
- 4.) Wherever Rigid Pavement Is To Be Used, The Contractor Shall Submit A Detailed Paving Plan To The Town. The Paving Plan Shall Show The Location And Type Of Jointing To Be Used In The Construction. The Location And Type Of Jointing Shall Meet The Requirements Of The Most Recent INDOT Standard Details.
- 5.) Upon Approval Of The Mix Design By The Town Engineer, Chemical Modification Of Soils Per INDOT Standard Specifications Section 215, Shall Be Performed To A Minimum Depth Of 14 Inches. Following Soil Modification, Compaction Shall Be Performed Until The Modified Layer Has A Density Not Less Than 100% Of The Maximum Dry Density Or The Zone Below The Modified Layer Has A Density Not Less Than 95% Of The Maximum Dry Density. Maximum Dry Densities Shall Be Determined In Accordance With AASHTO T99. The Mix Design Shall Be Determined In Accordance With INDOT Design Procedures For Soil Modification Or Stabilization. The Proposed Design And Construction Procedure Shall Be Submitted To The Town Engineer. Unsatisfactory Soil Modifications, As Determined By The Town Engineer, May Require An Increase In Depth Of The Aggregate Base Or Binder. Tensar TX160 Geogrid May Be Used In Lieu Of, Or In Conjunction With, The Chemical Modification Of Soils, As Directed By The Town Engineer. In Conjunction With The Usage Of Tensar TriAx Geogrid, A Modified Pavement Section May Be Provided By The Town Engineer.

CURB RAMP CONSTRUCTION

- 1.) All Curb Ramps Shall Meet The Requirements Of The Americans With Disabilities Act, The Most Recent INDOT Standard Specifications And The Town Of Yorktown's Most Recent Standards. Curb Swipes Required For Handicap Ramps Shall Be Provided With Initial Curb Construction.
- 2.) Minimum Width Of Curb Ramp Shall Be 4 Feet, Not Including Flares. Maximum Slope Of Ramps Shall Be 8.33% (12:1). Handicap Ramps Are To Be Located As Shown On The Plans, Or As Directed By The Town.
- 3.) Type E Ramps Shall Be Provided At The Center Line Of The Radius At All Corners Of Every Street Intersection Where There Is An Existing Or Proposed Sidewalk And Curb. In Case Of "T" Intersection, A Type C Ramp Shall Be Provided Adjacent To Each Corner Ramp. Type C Ramps Also Shall Be Provided At Walk Locations At Mid-Block In Hospital, Medical Center Or Athletic Stadium Vicinities. The Use Of Details Contrary To Those Shown Hereon Shall Require The Prior Written Approval By The Town.
- 4.) Surface Texture Of The Ramp Shall Be That Obtained By A Coarse Brooming Transverse To The Slope Of The Ramp.
- 5.) Ramps Shall Be Provided Where The Driveway Curb Extends Across The Sidewalk.
- 6.) Care Shall Be Taken To Assure A Uniform Grade On All Ramps With No Grade Breaks.
- 7.) Drainage Structures Shall Not Be Placed In Line With The Ramps Except Where Existing Drainage Structures Are Being Utilized In The New Construction. Location Of The Ramps Shall Take Precedence Over Location Of Drainage Structures.
- 8.) The Normal Gutter Line Profile Shall Be Maintained Through The Area Of The Ramp.
- 9.) Expansion Joint For The Ramp Shall Be A Maximum 1/2" Wide. The Top Of The Joint Filler For All Ramp Types Shall Be Flush With Adjacent Concrete.
- 10.) Slope Of Ramp May Be Warped When Field Conditions Warrant And When Approved By The Town.



d=11"

- ① 165 lbs/sys, QC/QA-HMA, 2, 64, Surface, 9.5mm
② 385 lbs/sys, QC/QA-HMA, 2, 64, Inter., 19.0mm
③ 6" Compacted Aggregate No. 53 (2 Lifts)

LOCAL RESIDENTIAL STREETS

d=10"

- ① 6", PCCP
② 4" Compacted Aggregated No. 53 (See Note 2)

LOCAL RESIDENTIAL COLLECTOR AND LOCAL COMMERCIAL/INDUSTRIAL STREETS

d=12"

- ① 220 lbs/sys, QC/QA-HMA, 2, 64, Surface, 12.5mm
② 275 lbs/sys, QC/QA-HMA, 2, 64, Inter., 19.0mm
③ 4" Compacted Aggregate No. 53

d=10"

- ① 220 lbs/sys, QC/QA-HMA, 2, 64, Surface, 12.5mm
② 275 lbs/sys, QC/QA-HMA, 2, 64, Inter., 19.0mm
③ 275 lbs/sys, QC/QA-HMA, 2, 64, Base, 19.0mm
Over 330 lbs/sys, QC/QA-HMA, 2, 64, Base, 25.0mm

d=11"

- ① 7", PCCP
② 4" Compacted Aggregated No. 53

RESIDENTIAL/COMMERCIAL/INDUSTRIAL COLLECTOR AND SECONDARY ARTERIAL STREETS

d=13"

- ① 220 lbs/sys, QC/QA-HMA, 3, 76, Surface, 12.5mm
② 275 lbs/sys, QC/QA-HMA, 3, 64, Inter., 19.0mm
③ 5" Compacted Aggregate No. 53

d=12"

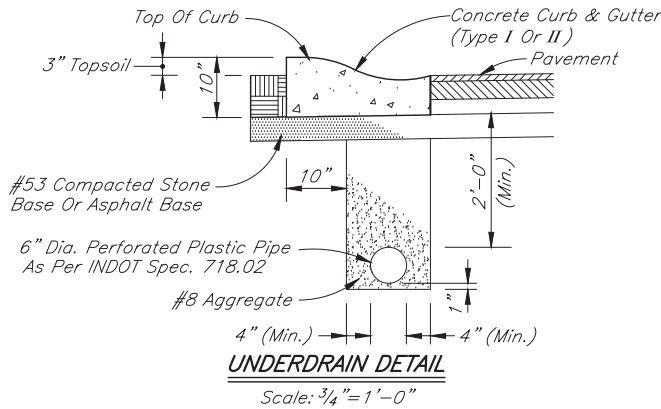
- ① 220 lbs/sys, QC/QA-HMA, 3, 76, Surface, 12.5mm
② 330 lbs/sys, QC/QA-HMA, 3, 64, Inter., 19.0mm
③ 330 lbs/sys, QC/QA-HMA, 3, 64, Base, 25.0mm
Over 440 lbs/sys, QC/QA-HMA, 3, 64, Base, 25.0mm

d=11 1/2"

- ① 7.5", PCCP
② 4" Compacted Aggregated No. 53

PAVEMENT CONSTRUCTION

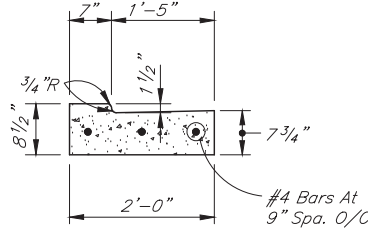
Scale: None



UNDERDRAIN DETAIL

Scale: 3/4"=1'-0"

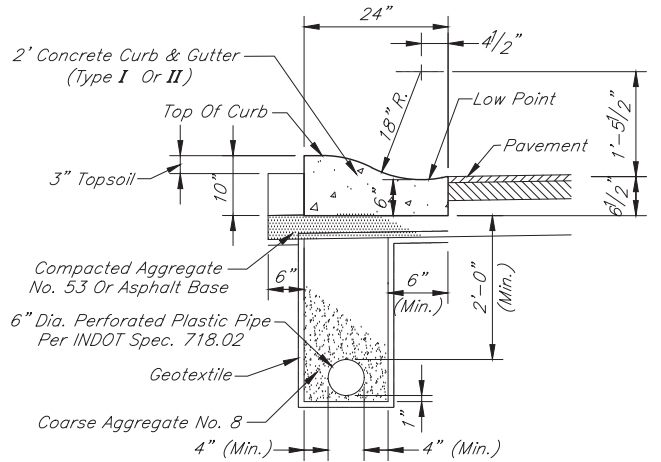
NOTE:
For Local Streets Only, The Street Commissioner Will Determine The Requirement For Limits Of Underdrain Placement. Underdrains Will Be Placed A Minimum Of 100 Foot Each Side Of All Inlets. Where Soil Or Ground Water Conditions Warrant, The Placement Of Underdrains



NOTE:
Reinforced Concrete Gutter Is Req'd. At All Private Drives That Intersect A Public Road With Type II 2' Combined Concrete Curb And Gutter Or Similar.

REINFORCED CONCRETE GUTTER

Scale: 3/4"=1'-0"

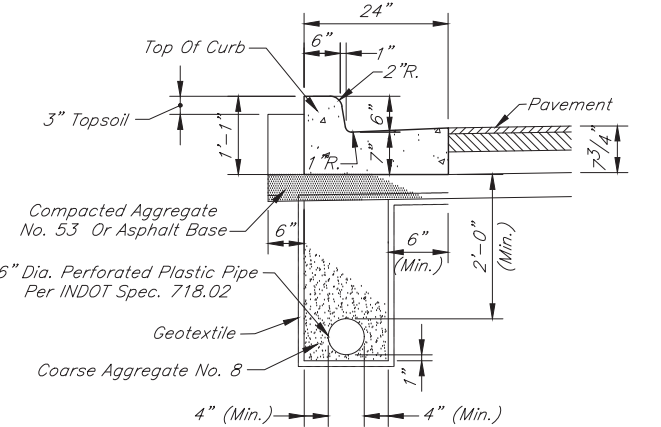


TYPE I

See Development Standards For Depressed Concrete Roll Curb If Desired At A Private Drive That Intersects A Public Road With Type I Curb.

2' CONCRETE ROLL CURB & GUTTER

Scale: 3/4"=1'-0"

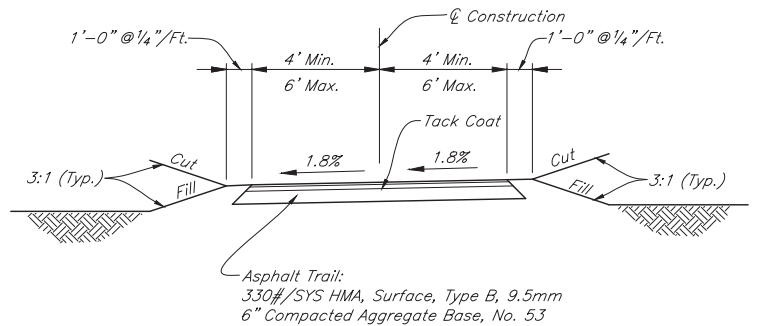


TYPE II

See Development Standards For Reinforced Concrete Gutter Which Is Required At All Private Drives That Intersect A Public Road With Type II Curb Or Similar.

2' COMBINED CONCRETE CURB & GUTTER

Scale: 3/4"=1'-0"



TYPICAL SIDEPATH/ TRAIL CROSS SECTION

Not To Scale

NOTES:

- 1.) Cross Slope Shall Be 1.8% Maximum For Crowns, Transitions, And Superelevations.

REVISIONS		
Rev. No.	Description	Date
1	Replaced, Rev. Or Added Most	X/XX/2023
	Details & Notes, Rev. Sheet Total	

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
DATE
APPROVED
STREET SUPERINTENDENT
DATE

TOWN OF YORKTOWN

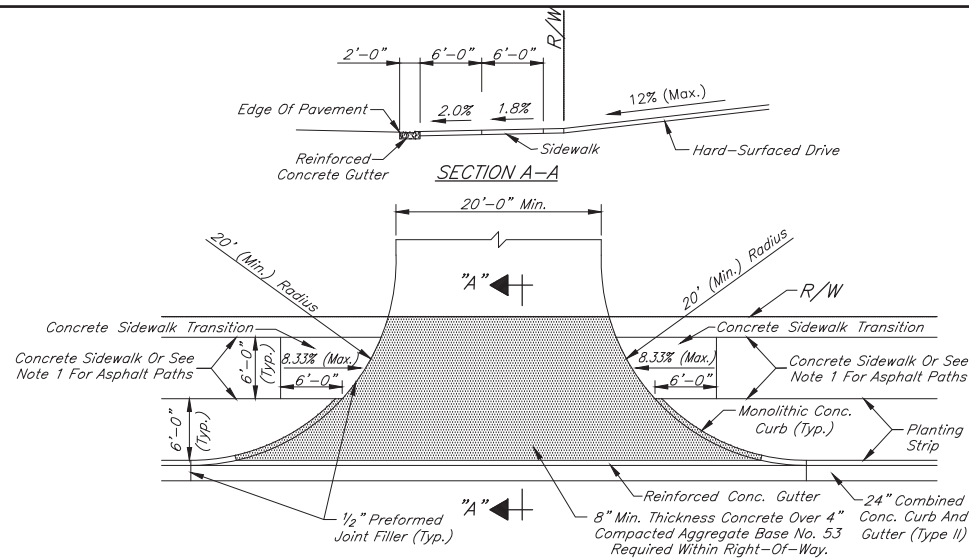
PAVEMENT, CURB AND SIDEWALK
DETAILS AND NOTES

SHEET

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TYPICAL COMMERCIAL PRIVATE DRIVE

Scale: None

- 1.) Asphalt Path Terminations Within The Public Right-Of-Way At Commercial Drives, Private Drives, Or Approaches Shall Be Accomplished With A 6' Minimum Length Of Concrete Sidewalk Transition (Increase Length Of Concrete Sidewalk Transition As Required To Meet The 8.33% (12:1) Maximum Slope Requirement) So That The Asphalt Path Meets The Concrete Sidewalk Transition At A Neat Line Perpendicular To The Path Alignment.
- 2.) The Maximum Algebraic Difference In Grades For Any 10 Foot Interval Shall Not Exceed 8% For Crests, Nor 10% For Sags.
- 3.) Concrete Drives Require Control Joints At A Maximum Of Every 10 Feet Each Way.
- 4.) Use Actual Setback As Shown On Plat And As Provided By The Town Of Yorktown Zoning Ordinance.
- 5.) The Town Of Yorktown May Approve Alternate Paving Materials Matching Suitable Mainline Pavement.

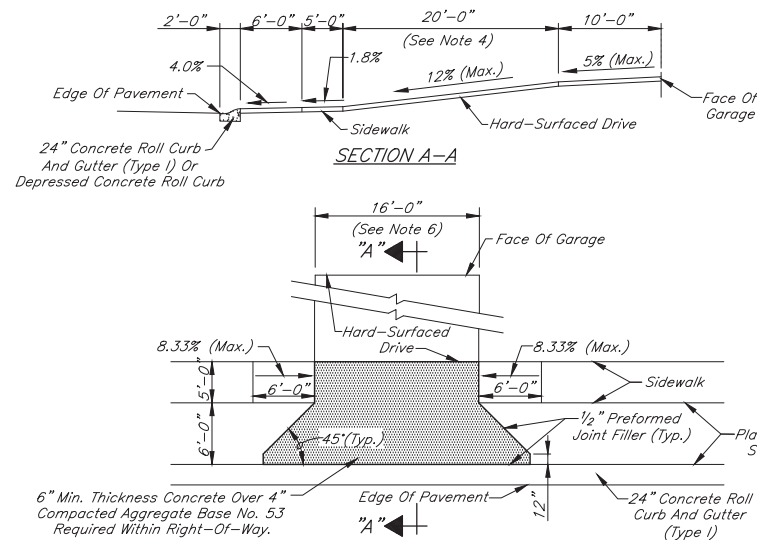
NOTE
Reinforced Concrete Gutter Is Req'd. At All Private Drives That Intersect A Public Road With Type II 24" Combined Concrete Curb And Gutter Or Similar.

REINFORCED CONCRETE GUTTER

Scale: None

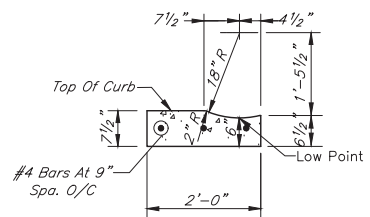
PRIVATE DRIVE CULVERT PIPE AND END SECTIONS

- 1.) Except With The Prior Written Approval Of The Town Engineer, Culvert Pipe, And End Sections For New Installations Shall Be Reinforced Concrete Pipe In Accordance With The Town Standards. Zinc Coated Or Aluminum Coated Corrugated Metal Pipe Culverts, Couplers, And End Sections In Accordance With The Most Recent INDOT Specification May Be Permitted For Replacement Culverts In Areas Where Reinforced Concrete Pipe Is Used By One-Third Or Less Of 3 Properties Upstream And Downstream Of The Subject Replacement On The Same Side Of The Subject Street.



TYPICAL RESIDENTIAL PRIVATE DRIVE

Scale: None

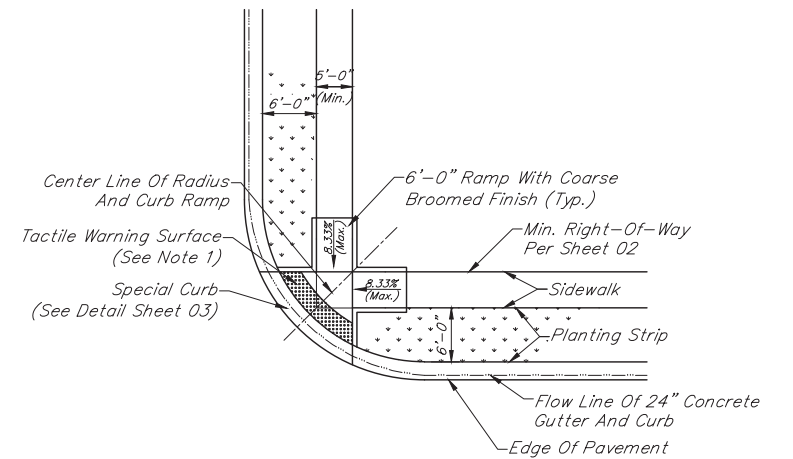


DEPRESSED CONCRETE ROLL CURB

Scale: None

PRIVATE DRIVE CULVERT PIPE AND END SECTIONS

- 1.) Except With The Prior Written Approval Of The Town Engineer, Culvert Pipe, And End Sections For New Installations Shall Be Reinforced Concrete Pipe In Accordance With The Town Standards. Zinc Coated Or Aluminum Coated Corrugated Metal Pipe Culverts, Couplers, And End Sections In Accordance With The Most Recent INDOT Specification May Be Permitted For Replacement Culverts In Areas Where Reinforced Concrete Pipe Is Used By One-Third Or Less Of 3 Properties Upstream And Downstream Of The Subject Replacement On The Same Side Of The Subject Street.



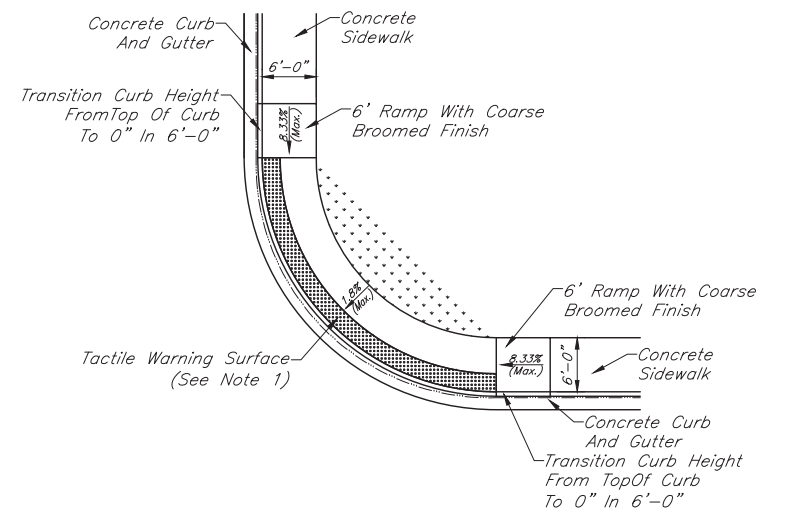
(See Curb Ramp Construction Notes On Sheet 03 Of Yorktown Standards)

CURB RAMP, TYPE E

Scale: None

NOTES:

- 1.) Tactile Warning Surface Shall Be Dark Brick Red Color And Shall Be Manufactured By ADA Solutions, INC., Or As Approved By The Town.
- 2.) Transition Gutter Flowline To Midpoint Of Concrete Curb And Gutter At Curb Ramp.



(See Curb Ramp Construction Notes On Sheet 03 Of Yorktown Standards)

CURB RAMP, TYPE F

Scale: None

NOTES:

- 1.) Tactile Warning Surface Shall Be Dark Brick Red Color And Shall Be Manufactured By ADA Solutions, INC., Or As Approved By The Town.
- 2.) Transition Gutter Flowline To Midpoint Of Concrete Curb And Gutter At Curb Ramp.

REVISIONS		
Rev. No.	Description	Date
1	New Sheet	X/XX/2023

RECOMMENDED FOR APPROVAL _____ XX/XX/23
DESIGN ENGINEER DATE

APPROVED _____
STREET SUPERINTENDENT DATE

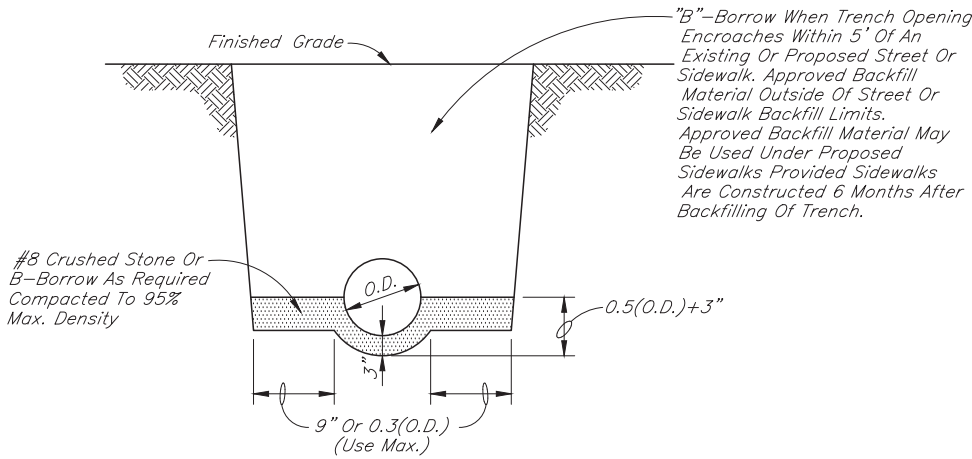
TOWN OF YORKTOWN

PAVEMENT, CURB AND SIDEWALK
DETAILS AND NOTES

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REINFORCED CONCRETE PIPE

- 1.) Reinforced Concrete Pipe Shall Be Class III, IV, Or V As Specified In ASTM C-76.
- 2.) Reinforced Elliptical Concrete Pipe Shall Be Class HE-III Or HE-IV As Specified In ASTM C-507.
- 3.) Lift Holes Are Not Allowed For Pipe Less Than 24 Inches In Diameter. A Maximum Of Two Lift Holes Are Allowed For Pipe 24 Inches In Diameter Or Larger. Lift Holes Shall Be Repaired According To Most Recent INDOT Standard Specifications.
- 4.) Fittings And Specialties Shall Be In Accordance With The Specifications For The Type Of Pipe Being Used.
- 5.) Each Pipe Section Shall Be Marked With Date Of Manufacturer, Size And Class Of Pipe, Specification Designation, Manufacturer And Plant Identification.
- 6.) Pipe Shall Be Furnished With A Bell Or Groove On One End Of A Unit Of Pipe And A Spigot Or Tongue On The Adjacent End Of The Adjoining Pipe. All Joints Shall Have A Groove On The Spigot For Placement Of A Rubber "O"-Ring Or Profile Gasket In Accordance With ASTM C-443. The Gasket Shall Be A Continuous Ring Which Fits Snugly Into The Annular Space Between The Over Lapping Surfaces Of The Assembled Pipe Joint.



RCP PIPE BEDDING DETAIL

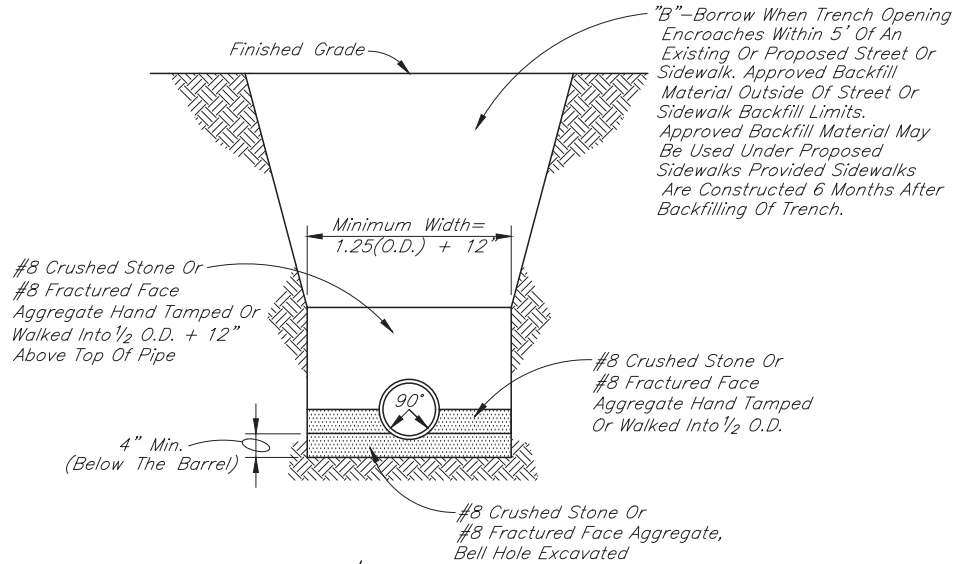
Scale: None

POLYVINYL CHLORIDE (P.V.C.) PIPE

- 1.) Pipe Diameters Of 10 Inches Through 15 Inches Shall Meet Or Exceed All The Requirements Of ASTM D-3034, And Shall Have A Minimum Cell Classification Of 12454-C. Reference Should Be Made To ASTM D-1784 For A Summarization Of Cell Class Properties. Pipe Diameters Greater Than 15 Inches Shall Meet Or Exceed All Requirements Of ASTM F-679, And Shall Have A Minimum Cell Classification Of 12454-C. P.V.C. Ribbed Sewer Pipe Shall Meet Or Exceed All Requirements Of ASTM F-794, And Shall Have A Minimum Cell Classification Of 12454.
- 2.) The Minimum Wall Thickness Of 10 Inches Through 15 Inches In Diameter Pipe Shall Conform To SDR-35, Type PSM, As Specified In ASTM D-3034. The Minimum Wall Thickness For Pipe Diameters Greater Than 15 Inches Shall Conform To T-1 As Specified In ASTM F-679. P.V.C. Pipe Shall Have A Minimum Pipe Stiffness Of 46 Pounds Per Square Inch For Each Diameter When Measured At Five Percent Deflection And Tested In Accordance With ASTM D-2412.
- 3.) Pipe Joints Shall Have A Bell Wall, Gasket Groove And Spigot Which Is Integral With The Pipe. The Assembly Of Joints Shall Be In Accordance With Pipe Manufacturers' Recommendations And ASTM D-3212. No Solvent Cement Joints Shall Be Allowed. Gasket Material Shall Be Constructed Of Styrene Butadiene Or Butyl Rubber And Meet The Requirements Of ASTM F-477.
- 4.) Each Pipe Section Shall Be Marked With Name Of Manufacturer, Trademark Or Tradename, Nominal Pipe Size, Production/Extrusion Code, Material And Cell Class Designation, And ASTM Number.
- 5.) Installation Shall Be In Accordance With ASTM Recommended Practice D-2321.

HIGH DENSITY POLYETHYLENE (H.D.P.E.) CORRUGATED PIPE

- 1.) Requirements For Test Methods, Dimensions And Markings Are Those Found In A.A.S.H.T.O. Specifications M-252 And M-294.
- 2.) Pipe And Fittings Shall Be Made Of Polyethylene Compounds Which Meet Or Exceed The Requirements Of Type III, Category 4 Or 5, Grade P33 Or P34, Class C Per ASTM D-1248.
- 3.) The H.D.P.E. Corrugated Pipe Shall Have An Integrally Formed Smooth Interior.
- 4.) Male And Female Pipe Ends Which Allow The Construction Of Overlapping, Gasket Joints, Shall Be Made In Conformance With ASTM D-3212. Neoprene Gaskets Shall Meet ASTM F-477.
- 5.) Installation Shall Be In Accordance With ASTM Recommended Practice D-2321.
- 6.) H.D.P.E. Pipe Greater Than 36 Inches In Diameter Shall Not Be Allowed For Use In The Town Of Yorktown.
- 7.) H.D.P.E. Pipe 10 Inches Through 18 Inches In Diameter May Be Used Within The Public Right-Of-Way Subject To The Bedding Requirements For Flexible Pipe. H.D.P.E. Pipe Greater Than 18 Inches In Diameter Shall Not Be Allowed For Use Within The Public Right-Of-Way In The Town Of Yorktown.
- 8.) Pipe Stiffness Values Shall Be In Accordance With A.A.S.H.T.O. Specification M-294.



FLEXIBLE (PVC OR HDPE) PIPE BEDDING DETAIL

Scale: None

* Refer To HDPE Pipe Note 6 And Note 7 For Approved Locations And Sizes Of HDPE Pipe

GENERAL NOTES

- 1.) The Town Of Yorktown Shall Be Given 24 Hour Written Notice Of The Required Deflection Testing Procedure To Be Performed By The Contractor. An In-Place Deflection Test Shall Be Performed On All Flexible Pipe Installed Within The Town Of Yorktown For The Purposes Of Conveying Storm Drainage. An Allowable Deflection Of 5 Percent Internal Pipe Diameter Will Be Acceptable After All Backfilling Has Been In Place For 30 Days. A Nine-Point, "Go-No-Go" Mandrel Shall Be Used For The Deflection Test And A Proving Ring Shall Be Provided For Each Mandrel. All Pipe Exceeding The Allowable Deflection Shall Be Replaced Or Rerounded. The Replaced Or Rerounded Section Shall Be Retested 30 Days After Replacement Or Rerounding. The Contractor Shall Bear All Costs For Testing And Testing Equipment. The "Go-No-Go" Mandrel Shall Be Manually Pulled Without The Use Of Any Winching Or Other Mechanical Device.
- 2.) Storm Sewer Pipe Of Other Material Or Material Not Meeting These Specifications Shall Require The Prior Written Approval Of The Town.
- 3.) The Contractor Shall Submit Information To The Town Showing Conformance With These Specifications Upon Request.
- 4.) As-Built Drawings Shall Be Submitted To The Town Of Yorktown.

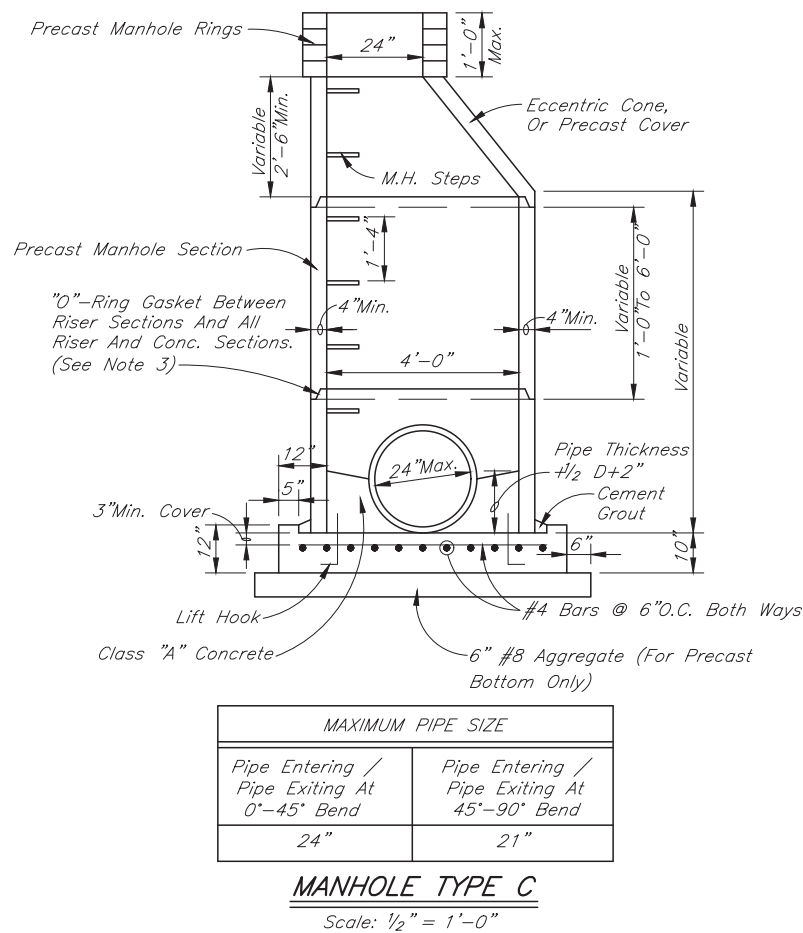
REVISIONS		
Rev. No.	Description	Date
1	Rev. Sheet Total	X/XX/2023

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
DATE XX/XX/23
APPROVED
STREET SUPERINTENDENT
DATE

TOWN OF YORKTOWN

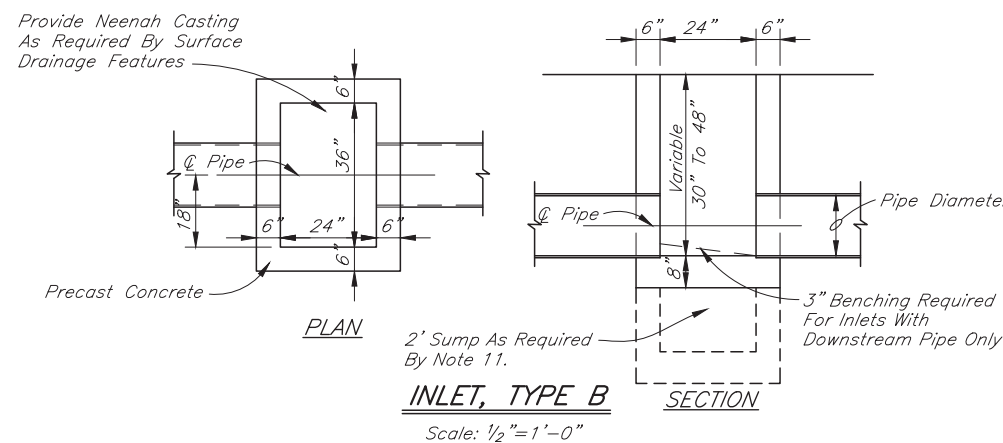
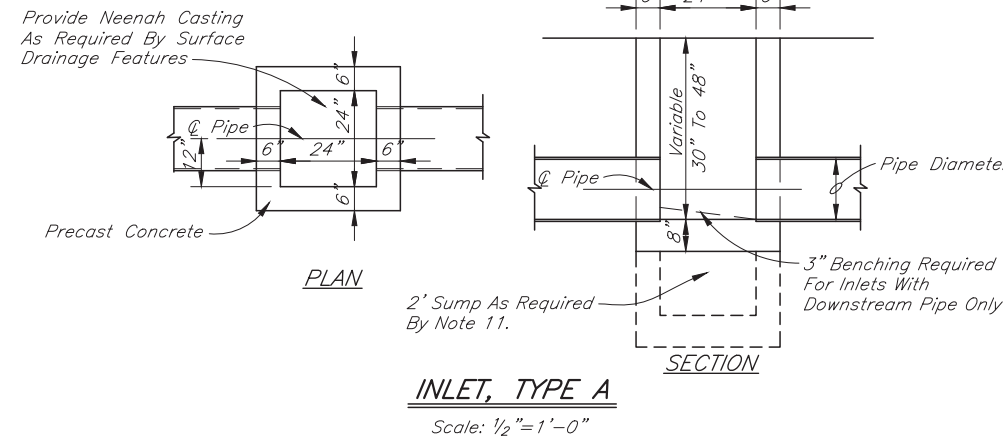
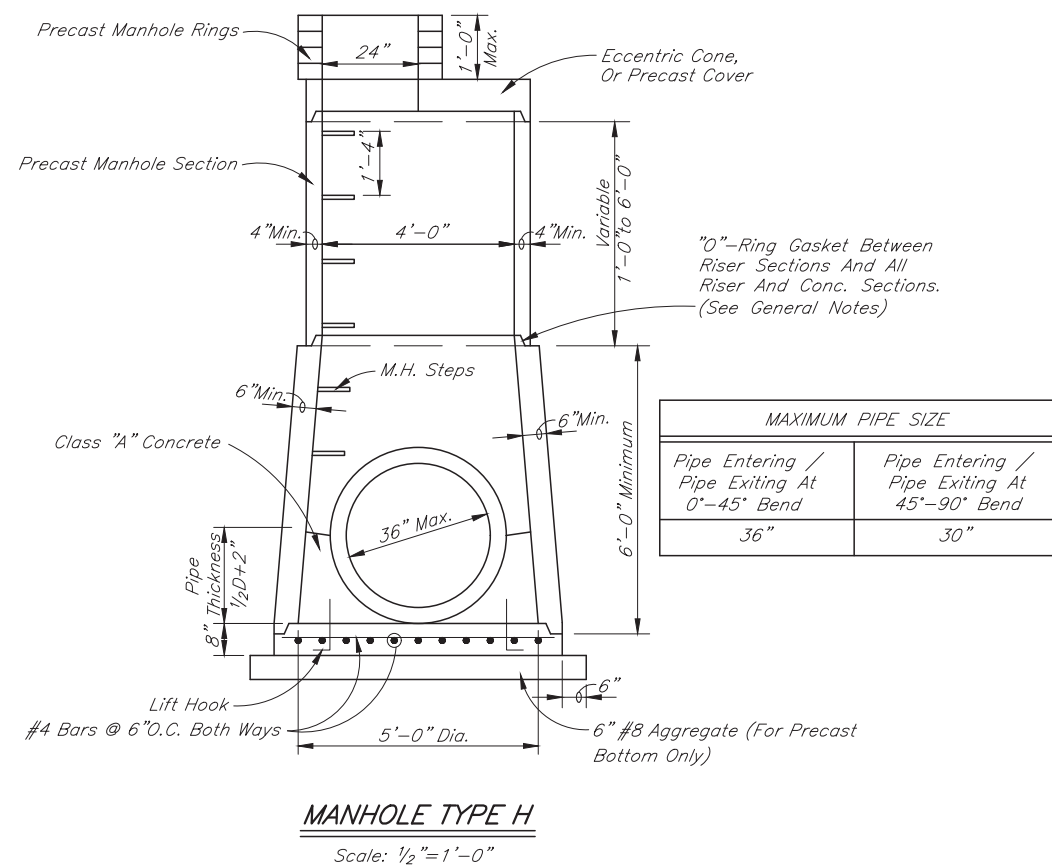
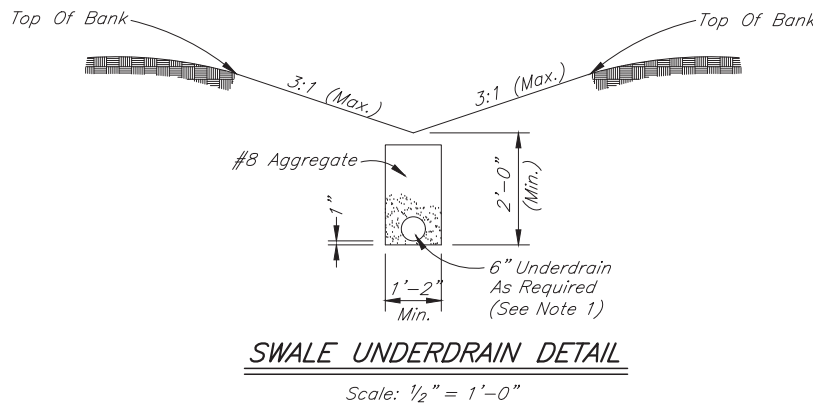
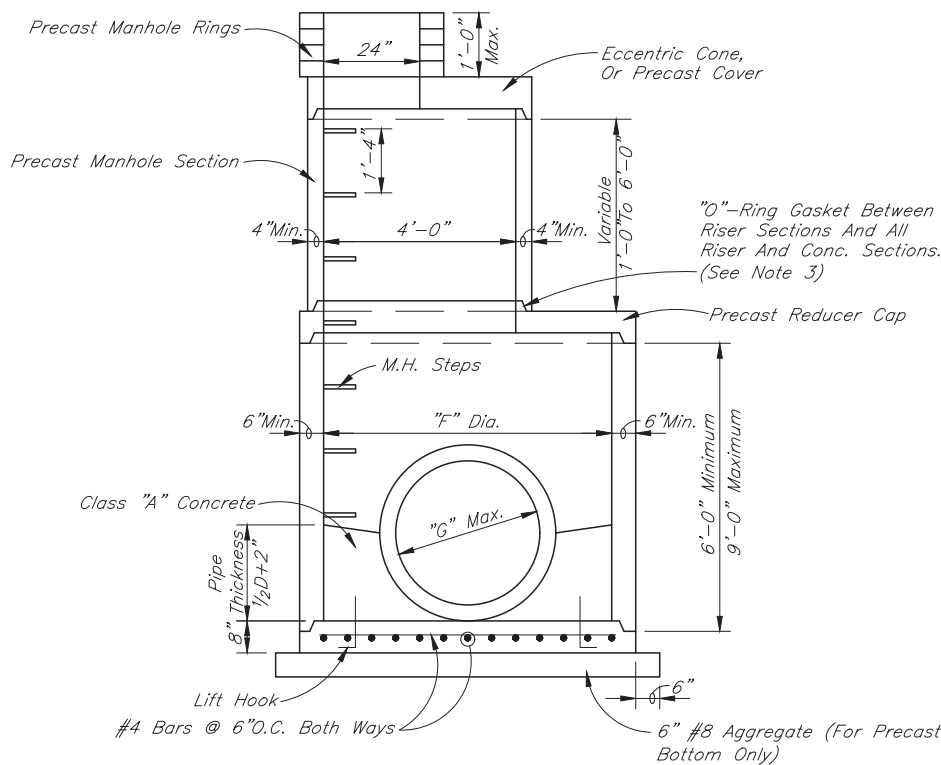
STORM SEWER
BEDDING DETAILS AND NOTES

SHEET
5
OF
18



GENERAL NOTES

- Swales Shall Be Constructed With A Minimum 0.3 Percent Profile Grade Provided That A 6 Inch Diameter Underdrain Is Provided For Swales With Less Than A 1.0 Percent Profile Grade, See Detail Shown On This Sheet.
- Type J, K, L, M And N Manholes As Detailed Hereon Require A Certain Minimum Depth. In Cases Where The Depth Of The Storm Sewer Is Not Sufficient To Meet The Minimum Depth As Required By The Detail, "F" Diameter Manhole Section May Be Used Throughout The Depth Of The Manhole.
- Manholes Shall Conform To ASTM C-478. Joints Shall Conform To ASTM C-443. The Use Of Cast-In-Place Concrete Structures Shall Require The Prior Written Approval Of The Town. Regardless Of The Type Of Casting Used, The Casting Shall Be Centered Over The Manhole Steps.
- Manhole Steps Shall Be Neenah R-1981-J, East Jordan No. 8512, M.A. Industries PS 1-PF, Or As Approved By The Town.
- Castings Which Drain Combined Curb And Gutter, Type **II** Curbing Shall Be Neenah R-3287-10V With Trout Symbol And Words "DUMP NO WASTE" And "DRAINS TO RIVER" In 1/2" Raised Letters Cast On Top Or As Approved By The Town. Inlet, Type B Required. Manholes Shall NOT Be Used To Drain Combined Curb And Gutter, Type **II** Curbing.
- Castings Which Drain Roll Curb And Gutter, Type **I** Curbing Shall Be Neenah R-3501-TR Or R-3501-TL With Words "DUMP NO WASTE" And "DRAINS TO RIVER" In 1/2" Raised Letters Cast On Top Or As Approved By The Town. Inlet, Type A Required. Manholes Shall NOT Be Used To Drain Roll Curb And Gutter, Type **I** Curbing.
- Castings For Inlets Which Drain Open Pavement Areas Without Curbing Shall Be Neenah R-3402-E With Words "DUMP NO WASTE" And "DRAINS TO RIVER" In 1/2" Raised Letters Cast On Top Or As Approved By The Town.
- Castings For Manholes Which Drain Open Pavement Areas Without Curbing Shall Be Neenah R-2501 With Words "DUMP NO WASTE" And "DRAINS TO RIVER" In 1/2" Raised Letters Cast On Top Or As Approved By The Town.
- Castings For Use On Inlets Or Manholes Which Drain Swales Or Dry Bottom Detention Basins Shall Be Neenah R-4342 With Words "DUMP NO WASTE" And "DRAINS TO RIVER" In 1/2" Raised Letters Cast On Top Or As Approved By The Town.
- Castings For Manholes Which Do Not Collect Surface Water Shall Be Neenah R-1642 Or As Approved By The Town.
- A 2' Sump Below Downstream Pipe Is Required On Any Inlet, Type A Or B Which Drains Directly To A Mainline Pipe. Connection Of Inlet Pipe To Mainline Pipe Shall Occur At A Manhole.



REVISIONS		
Rev. No.	Description	Date
1	Revised Manhole Details	3/14/2007
2	Rev. Sheet Total	X/XX/2023

RECOMMENDED FOR APPROVAL _____ XX/XX/23
DESIGN ENGINEER DATE

APPROVED _____
STREET SUPERINTENDENT DATE

TOWN OF YORKTOWN

SHEET
6
OF
18

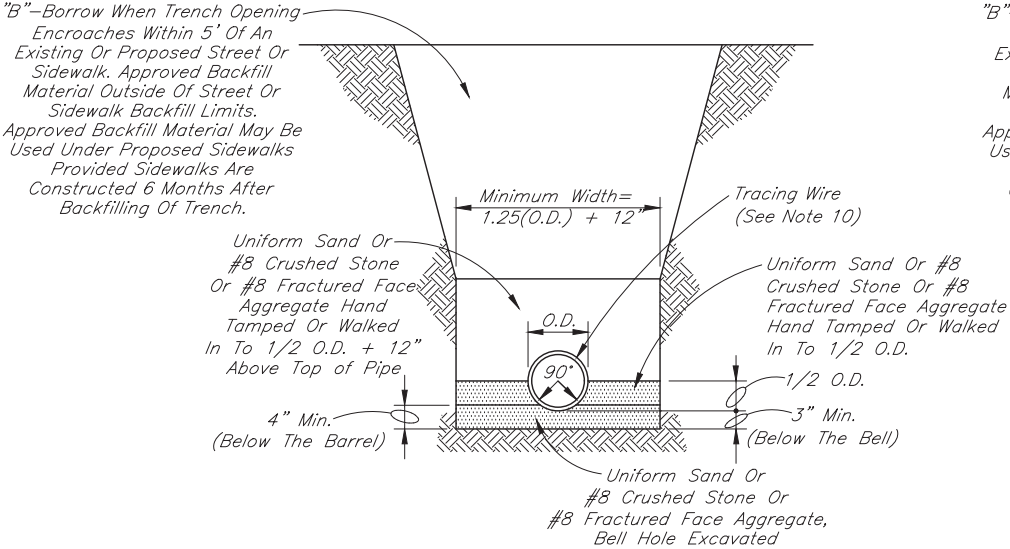
STORM SEWER DETAILS & NOTES

WATER MAIN MATERIALS

- 1.) Ductile Iron Pipe For Water Mains Shall Be Centrifugally Cast And Shall Conform To The Latest Revision Of ANSI Specification A21.5 And AWWA C151. Ductile Iron Pipe With Push-On Or Mechanical Joints, 12 Inch Diameter And Smaller, Shall Be Pressure Class 350. The Pipe Shall Be Provided With A Minimum Laying Length Of 18 Feet.
- 2.) Polyvinyl Chloride (P.V.C.) Pipe For Water Mains Shall Conform To The Latest Revision Of ANSI/AWWA C900, ASTM Specification D-1784, "Rigid Polyvinyl Chloride And Chlorinated Polyvinyl Chloride Compounds," And ASTM Specifications D-2241, "Standard Specifications For Polyvinyl Chloride (P.V.C.) Pressure-rated (SDR Series)." The Appropriate ASTM Cell Classification Shall Be Either 12454-A Or 12454-B. Polyvinyl Chloride Pipe Shall Be Furnished In Standard Laying Lengths Of 20 Feet. P.V.C. Pipe Shall Be Pressure Class 150, DR 18. P.V.C. Pipe May Only Be Used For Water Main Installations Up To 12 Inches In Diameter.
- 3.) Ductile Iron Fittings, 3 Inches Through 48 Inches, Shall Conform To The Latest Revision Of ANSI Specification A21.10 And AWWA C110. Ductile Iron Compact Fittings, 3 Inches Through 16 Inches Shall Conform To The Latest Revision Of ANSI Specification A21.53 And AWWA C153. Fittings In And Within 2 Feet Of Structures Shall Be Flanged. All Other Fittings Shall Be Mechanical Joint Type.
- 4.) Ductile Iron Pipe Coatings Shall Conform To The Latest Revision Of ANSI A21.51, AWWA C-151, And ANSI A21.4, AWWA C-104. Interior Pipe Lining Shall Be Cement-Mortar With Asphaltic Seal Coat. Exterior Pipe Coating Shall Be Standard Asphaltic Coating, Except Exposed Piping Within Structures, Shall Receive Shop Priming Compatible With Finish Painting.
- 5.) Mechanical Joints And Accessories Shall Conform To The Latest Revision Of ANSI Specification A21.10 And AWWA C110. Rubber Gaskets Shall Be Vulcanized Synthetic Rubber And Shall Conform To The Latest Revision Of ANSI Specifications A21.11 And AWWA C111.
- 6.) Flanged Ductile Iron Pipe Shall Conform To The Latest Revision Of ANSI Specification A21.15 And AWWA C-115. Rubber Gaskets Shall Be Either Ring Or Full Face And Shall Be 1/8 Inch Thick. Bolts And Nuts Shall Conform To ANSI B18.2.1 And ANSI B18.2.2.
- 7.) Push-on Joints Shall Conform To The Latest Revision Of ANSI Specification A21.11 And AWWA C111. Rubber Gaskets Shall Be Vulcanized Synthetic Rubber And Shall Conform To The Latest Revision Of ANSI Specifications A21.11 And AWWA C111.
- 8.) Service Pipe Shall Be 3/4 Inch, Or 1 Inch, Copper Water Tube, Type K, Soft Temper, For Underground Service, Conforming To ASTM B-88 And B-251, And In Accordance With AWWA C-800 Or CPVC Copper Tube Size (CTS) Pipe Rated At 200 psi In Accordance With ASTM D2846 With Tracer Wire. The Pipe Shall Be Marked With The Manufacturer's Name Or Trademark And Mark Indicative Of The Type Of Pipe. The Outside Diameter Of The Pipe And Minimum Weight Per Foot Of The Pipe Shall Not Be Less Than That Listed In ASTM B-251, Table II.
- 9.) For All Water Main And Service Pipe, The Contractor Shall Install Insulated #10 Solid Copper Wire. The #10 Solid Copper Wire Shall Be Laid Directly Over The Main And Shall Be Attached To The Pipe At Regular Intervals To Ensure It Remains In Place During Backfilling. All Connections On The Wire Are To Be Made With A Connector As Required By The Town. Connections Shall Be Taped With Electrical Moisture Sealant Patches. At Each Valve And Hydrant The Wire Shall Be Brought To Ground Level. At Hydrants The Wire Shall Be Connected To The Loop Ring Below The Steamer Cap And The Wire Shall Be Taped To The Barrel As It Is Brought To Ground Level. At Valves, The Wire Shall Be Placed In 1/2 Inch Diameter Plastic Pipe. The Plastic Pipe Shall Be Brought To One (1) Foot Below Finished Grade On The Outside Of The Valve Box. The Wire Shall Be Buried 12 Inches Below Grade And Shall Have A Minimum Of 24 Inches Of Looped Wire. Refer To The Typical Valve Installation Detail On Sheet 8 For Additional Details.

WATER MAIN PRESSURE AND LEAKAGE TESTING

- 1.) The Town Of Yorktown Shall Be Given 24 Hour Written Notice Of The Required Pressure And Leakage Test. The Pressure And Leakage Testing Shall Be Performed By The Contractor And Verified By The Town Of Yorktown Water Superintendent. All New Water Mains Shall Be Flushed Of Air When Filled By The Town Of Yorktown. Existing Valves Shall Only Be Operated By The Town Of Yorktown Water Department. The Pressure And Leakage Test Shall Be Performed In Accordance With The Basic Provisions Of AWWA C600 And AWWA C605. The Testing Procedure Shall Assume A 80 PSIG Working Pressure. The Test Pressure Shall Not Be Less Than 1.25 Times The Working Pressure At The Highest Point Along The Test Section Or Not Less Than 1.5 Times The Working Pressure At The Point Of Testing. Test Pressure Shall Not Exceed Pipe Or Thrust-restraint Design Pressures Or Rated Pressures Of The Valves. The Test Pressure Of 125 PSIG Shall Not Vary By More Than +5 Pounds Per Square Inch For The 2 Hour Duration Of The Test.
- 2.) Valves Shall Not Be Operated In Either Direction At Differential Pressures Exceeding The Rated Valve Working Pressure.
- 3.) It Is Good Practice To Allow The System To Stabilize At The Test Pressure Before Conducting The Minimum 2 Hour Duration Leakage Test. During The Leakage Test The Contractor Shall Measure And Record The Quantity Of Water Pumped Into The Test Section To Maintain The Test Pressure At 125 PSIG. The Test Section Will Be Considered Satisfactory If It Meets Following Specification:
- | Pipe Size
(Inches) | Allowable Leakage
(Gal./Hr./1000 Ft.) |
|-----------------------|--|
| 6 | 0.50 |
| 8 | 0.67 |
| 10 | 0.84 |
| 12 | 1.01 |
| 14 | 1.18 |
| 16 | 1.34 |
- 4.) If The Leakage From A Test Section Is Greater Than The Allowable Leakage, The Contractor Shall Locate And Repair The Defective Joints, Mains, And Appurtenances. The Pressure And Leakage Test Shall Then Be Repeated Until Satisfactory Results Are Obtained.



PVC PIPE BEDDING DETAIL

Scale: None

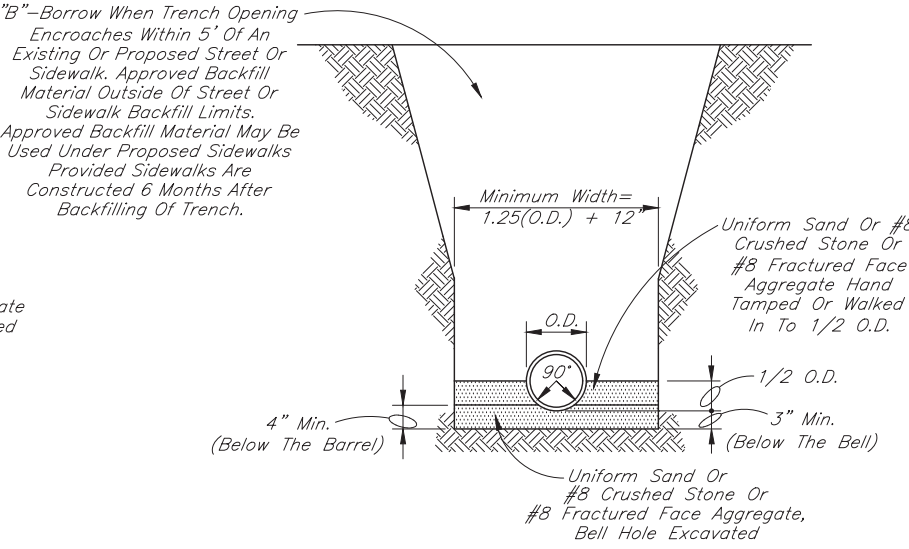
Pipe Size	8" TO 14"	16" And Over
Bedding Below The Pipe Barrel	O.D./4 Min.=4"	O.D./4 Max.=8"

WATER MAIN GENERAL NOTES

- 1.) All Water Pipe Shall Be Installed With A Minimum Depth Of Cover Of 60 Inches.
- 2.) All Ductile Iron Water Main Material Shall Be Installed In Accordance With AWWA C600. All P.V.C. Water Main Material Shall Be Installed In Accordance With AWWA C605.

WATER MAIN DISINFECTION AND BACTERIOLOGICAL TESTING

- 1.) The Town Of Yorktown Shall Be Given 24 Hour Written Notice Of The Required Disinfection. All Flushing And Disinfection Testing Procedures Are To Be Performed By The Town. All Newly Installed Water Mains Shall Be Disinfected In Accordance With ANSI/AWWA C-651. Liquid Chlorine, High-test Calcium Hypochlorite (70 Percent Chlorine), Or High-Test Sodium Hypochlorite (14.7 Percent Chlorine) May Be Used To Provide An Initial Minimum Concentration Of 25 mg/L Of Free Chlorine In All Newly Installed Mains.
- 2.) A Minimum Concentration Of 10 mg/L Of Free Chlorine Shall Be Maintained In All Parts Of The Newly Installed Mains For 24 Hours Of Contact Time.
- 3.) Following The Initial 24 Hour Contact Time But Prior To 48 Hours Of Contact Time, All Treated Water Shall Be Thoroughly Flushed From The Newly Laid Pipe At Its Extremity Until The Replacement Water Has A Chlorine Residual Of Less Than 2 mg/L.
- 4.) After Flushing, Water Samples Collected By The Town On Two Successive Days From The Treated Piping System Shall Show Satisfactory Bacteriological Results.
- 5.) The Taking Of Samples And The Bacteriological Testing Shall Be Carried Out By The Town Of Yorktown At The Developer's Expense.



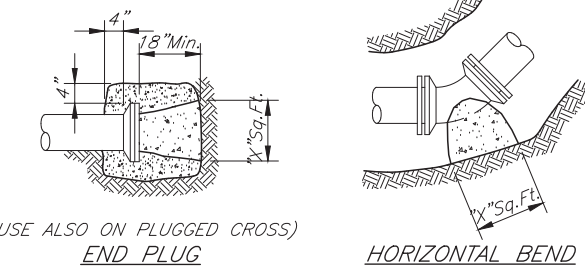
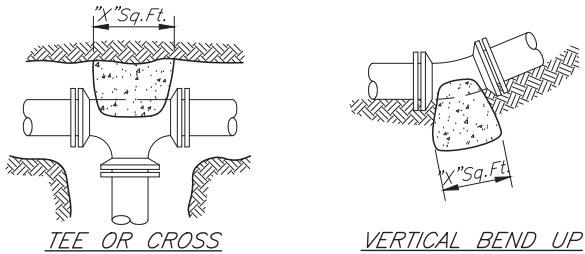
DI PIPE BEDDING DETAIL

Scale: None

AS-BUILT DRAWINGS

- 1.) As-Built Drawings Shall Be Submitted To The Town Of Yorktown Prior To Release Of Water For Distribution. As-Built To Be Submitted In A Digital Format Shall Able To Be Incorporated Into Delaware County GIS System.
- 2.) Contractor Is Responsible For All Leaks, Faulty Hydrants, Broken Mains, Etc. For One Year After The Date Of Acceptance By The Town.

REVISIONS				RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	<u>XX/XX/23</u>	DATE	TOWN OF YORKTOWN		SHEET 7 OF 18
Rev. No.	Description	Date								
1	Revised Water Main Materials Notes	3/14/2007								
2	Add Water Gen. Notes, Rev. Water Materials Notes, Water Main Pressure	X/XX/2023								
	/Leakage Note #2, & Sheet Total									
				APPROVED	WATER SUPERINTENDENT		DATE	WATER MAIN BEDDING DETAILS AND NOTES		



(USE ALSO ON PLUGGED CROSS)
END PLUG

HORIZONTAL BEND

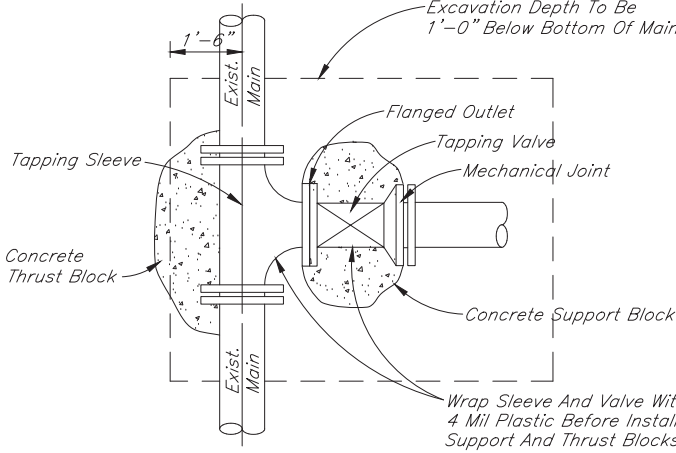
SIZE OF THRUST BLOCKS IN SQUARE FEET																									
TYPE OF SOIL	11 1/4" BEND					22 1/2" BEND					45° BEND					90° BEND					TEE, CROSS & END PLUG				
	6"	8"	10"	12"	16"	6"	8"	10"	12"	16"	6"	8"	10"	12"	16"	6"	8"	10"	12"	16"	6"	8"	10"	12"	16"
Loose Sand & Gravel, Soft Clay	2	3	5	7	12	4	6	9	13	23	6	10	16	24	42	4	8	12	17	30					
Compacted Sand & Gravel, Dense Silt, Firm Till & Stiff Clay	1	1	2	3	4	1	2	3	5	8	2	4	6	8	14	2	3	4	6	10					
Very Stiff Clay, Dense Till, Shale Or Rock	1	1	1	2	2	1	1	2	3	4	1	2	3	4	7	1	1	2	3	5					

NOTES:

- (1) Wrap All Water Main Surfaces With Plastic Prior To Placement Of Concrete.
- (2) Blocks Designed For 150 PSI Pressure, For Higher Pressures Areas Should Be Pro-Rated Upwards.
- (3) Vertical Bends Downwards Should Be Individually Designed Using Clamps Or Stirrups With Concrete Deadman.
- (4) Concrete For Thrust Blocks To Be 4,000 PSI Laid To Undisturbed Ground.
- (5) Mechanical Restraining Devices Such As Megalug, As Manufactured By EBAA Iron Inc., May Be Used In Lieu Of Concrete Thrust Blocks.

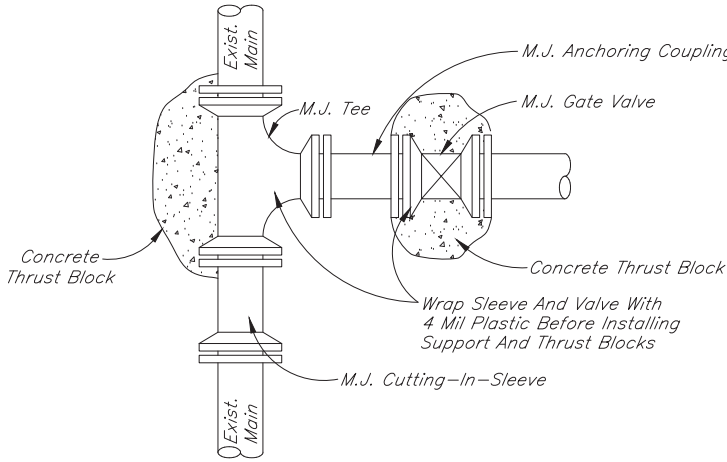
STANDARD THRUST BLOCKS FOR DUCTILE IRON

Scale: None



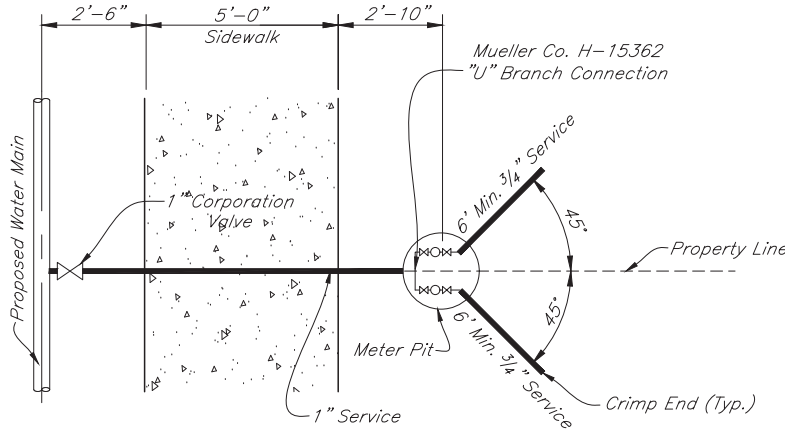
TAPPING SLEEVE AND VALVE CONNECTION

Scale: None



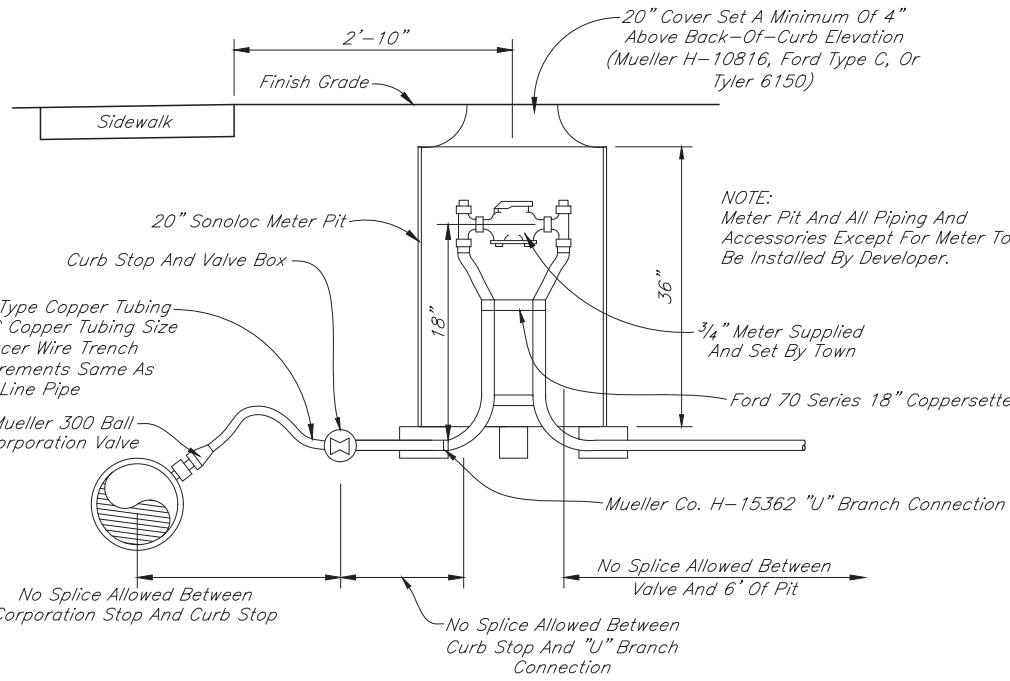
CUTTING-IN-SLEEVE AND TEE CONNECTION

Scale: None



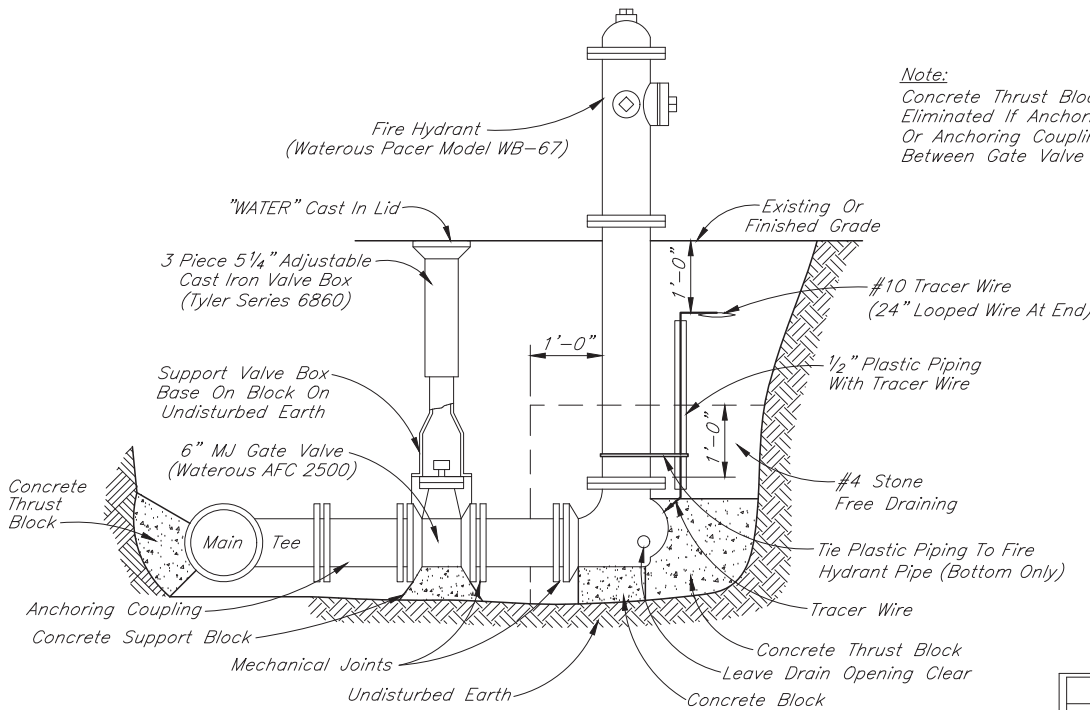
TYPICAL DUAL METER SETTING PLAN

Scale: None



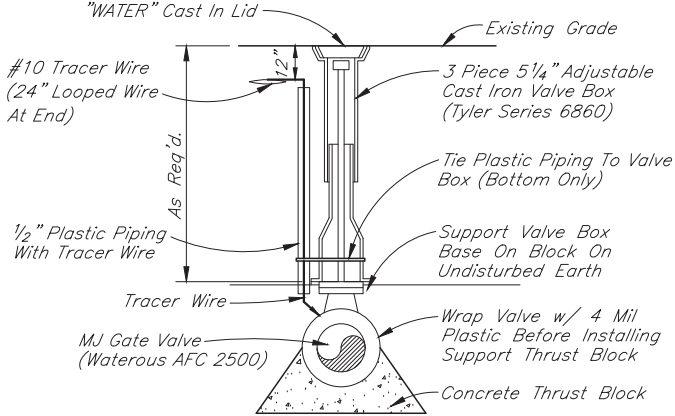
TYPICAL METER SETTING DETAIL

Scale: None



TYPICAL HYDRANT INSTALLATION DETAIL

Scale: None



TYPICAL VALVE INSTALLATION DETAIL

Scale: None

REVISIONS		
Rev. No.	Description	Date
1	Revised Meter Setting Details	8/11/2005
2	Revised Meter Setting Detail	3/14/2007
3	Rev. Typical Dual Meter Setting Plan, Add Tracer Wire To Typ. Hyd., Rev. Sheet Total	X/XX/2023

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	XX/XX/23
	DATE	
APPROVED	WATER SUPERINTENDENT	DATE

TOWN OF YORKTOWN	SHEET 8 OF 18
WATER MAIN DETAILS & NOTES	

SANITARY SEWER REINFORCED CONCRETE PIPE

- 1.) Reinforced Concrete Pipe For Use As Sanitary Sewers Shall Be Class III, IV, Or V, As Specified In ASTM C-76. Lift Holes Shall Not Be Permitted.
- 2.) Each Section Of Reinforced Concrete Pipe Shall Be Vacuum Tested By The Manufacturer Prior To Delivery To The Job Site. Only Pipe Sections Passing This Test Shall Be Marked As "Vacuum Tested". Vacuum Test Requirements Are As Follows:
- a. Each Section Of Pipe Shall Be Tested By Bringing The Internal Pressure Within The Pipe To 3.5 PSIG Below Atmospheric Pressure And The Pressure Must Not Drop To Less Than 2.5 PSIG Below Atmospheric Pressure Within The Time Limitation As Determined By The Following:
- $$T = \frac{0.22D^2}{2}$$
Where T=Time In Seconds
D=Diameter Of Pipe In Inches
L=Length Of Pipe In Feet
- b. Any Pipe Failing To Meet This Test Shall Not Be Permitted For Use As Sanitary Sewers In The Town Of Yorktown.
- 3.) Lateral Connections Shall Be Made With KOR-N-TEE Connector Or Town Approved Equal.
- 4.) Each Pipe Section Shall Be Marked With The Date Of Manufacture, Size And Class Of Pipe, Specification Designation, Manufacturer And Plant Identification.
- 5.) Pipe Shall Be Furnished With A Bell Or Groove On One End Of A Unit Of Pipe And A Spigot Or Tongue On The Adjacent End Of The Adjoining Pipe. All Joints Shall Have A Groove On The Spigot For Placement Of A Rubber "O"-Ring Gasket In Accordance With ASTM C-443. The Gasket Shall Be A Continuous Ring Which Fits Snugly Into The Annular Space Between The Overlapping Surfaces Of The Assembled Pipe Joint To Form A Flexible Watertight Joint Under All Conditions Of Service And Adequate For Hydrostatic Pressures Up To 13 psi Without Leakage.

SANITARY SEWER POLYVINYL CHLORIDE (P.V.C.) PIPE

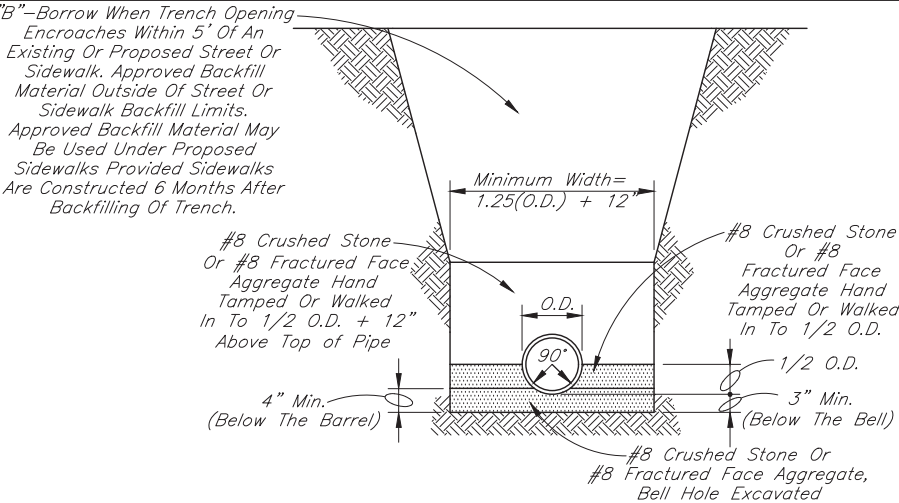
- 1.) PVC Pipe Diameters Of 4 Inches Through 15 Inches Shall Meet Or Exceed All The Requirements Of ASTM D-3034, And Shall Have A Minimum Cell Classification Of 12454-C. Reference Should Be Made To ASTM D-1784 For A Summarization Of Cell Class Properties. PVC Pipe Diameters Greater Than 15 Inches Shall Meet Or Exceed All Requirements Of ASTM F-679, And Shall Have A Minimum Cell Classification Of 12454-C.
- 2.) The Minimum Wall Thickness Of PVC Pipe 4 Inches Through 15 Inches In Diameter Shall Conform To SDR-35, Type PSM, As Specified In ASTM D-3034. The Minimum Wall Thickness For Pipe Diameters Greater Than 15 Inches Shall Conform To T-1 As Specified In ASTM F-679. P.V.C. Pipe Shall Have A Minimum Pipe Stiffness Of 46 Pounds Per Square Inch For Each Diameter When Measured At Five Percent Deflection And Tested In Accordance With ASTM D-2412.
- 3.) PVC Open Profile Or Closed Profile Sewer Pipe Shall Meet Or Exceed All Requirements Of ASTM F-794 Or ASTM F-949 And Shall Have A Minimum Cell Classification Of 12454-C. Minimum Uniform Pipe Stiffness Shall Be 50 Pounds Per Square Inch For Each Diameter When Measured At Five Percent Deflection And Tested In Accordance With ASTM D-2412.
- 4.) Pipe Joints Shall Have A Bell Wall, Gasket Groove And Spigot Which Is Integral With The Pipe. The Assembly Of Joints Shall Be In Accordance With Pipe Manufacturers' Recommendations And ASTM D-3212. No Solvent Cement Joints Shall Be Allowed.
- 5.) Pipe Fittings Shall Be Manufactured Fittings Made Of P.V.C. Plastic Having A Cell Classification Of 12454-B Or 12454-C As Defined In ASTM D-1784. Saddle Connections Shall Not Be Allowed For New Construction.
- 6.) Each Pipe Section Shall Be Marked With The Name Of Manufacturer, Trademark Or Tradename, Nominal Pipe Size, Production/Extrusion Code, Material And Cell Class Designation, And ASTM Number.
- 7.) Installation Shall Be In Accordance With ASTM Recommended Practice D-2321.

SANITARY SEWER LEAKAGE TESTING

- 1.) The Town Of Yorktown Shall Be Given 24 Hour Written Notice Of The Required Leakage Testing Procedure To Be Performed By The Contractor. Low Pressure Air Shall Be Slowly Introduced Into The Sealed Line Until The Internal Air Pressure Reaches 4 PSIG Plus The Groundwater Head Divided By 2.31 (Maximum Test Pressure Is 9 PSIG).
- 2.) At A Stable Internal Air Pressure Within 0.5 PSIG Of The Initial Internal Air Pressure, Timing Shall Commence With A Stopwatch Or Similar Device Of 99.8 Percent Accuracy. Timing Shall End When The Internal Air Pressure Drops 1 PSIG Below The Stable Internal Air Pressure.
- 3.) The Line Shall Be Accepted If The Time Shown In Table 1 For The Designated Pipe Size And Length Elapses Before The Air Pressure Drops 1 PSIG Below The Stable Internal Air Pressure At Which Time The Test Can Be Discontinued For The Accepted Line.

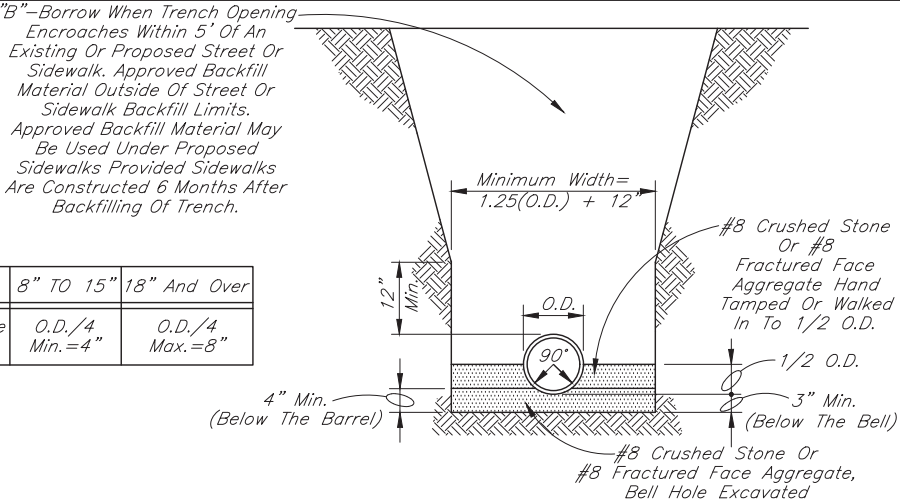
SANITARY SEWER DEFLECTION TESTING

- 1.) The Town Of Yorktown Shall Be Given 24 Hour Written Notice Of The Required Deflection Testing Procedure To Be Performed By The Contractor. An In-Place Deflection Test Shall Be Performed On All Flexible Pipe Installed Within The Town Of Yorktown For The Purposes Of Conveying Sanitary Sewage. An Allowable Deflection Of 5 Percent Internal Pipe Diameter Will Be Acceptable After All Backfilling Has Been In Place For 30 Days. A Nine-Point, "Go-No-Go" Mandrel Shall Be Used For The Defection Test And A Proving Ring Shall Be Provided For Each Mandrel.
- 2.) All Pipe Exceeding The Allowable Deflection Shall Be Replaced Or Rerounded. The Replaced Or Rerounded Section Shall Be Retested 30 Days After Replacement Or Rerounding. The Contractor Shall Bear All Costs For Testing And Testing Equipment. The "Go-No-Go" Mandrel Shall Be Manually Pulled Without The Use Of Any Winching Or Other Mechanical Device.
- 3.) All Testing Documentation Shall Be Delivered To The Wastewater Superintendent Prior To Acceptance.



PVC PIPE BEDDING DETAIL

Scale: None



RCP BEDDING DETAIL

Scale: None

LOW PRESSURE SEWER DESIGN:

1. Calculations Shall Be Developed For LPS System Design Including The Following:
- a. Topographical Map
b. Soil Conditions
c. Frost Depth
d. Water Table
e. Applicable Codes
f. Discharge Location
g. Lot Layout
h. Total Number Of Lots
i. Dwelling Types
j. Use And Flow Factors
k. Area Development Sequence And Timetable
2. Grinder Pumps Shall Be Sized Based Upon Recommended Flow In GPD And Must Consider The Following:
- a. Wet Well And Discharge Piping Must Be Protected From Freezing
b. Model And Basin Size Must Be Appropriate For Incoming Peak Flows
c. Appropriate Alarm Devices Must Be Used
3. Grinder Pumps Shall Be Owned By The Property Owner, Not The Town Of Yorktown.
4. Power For Grinder Pumps Shall Be Provide By Property Owner.
5. Pipe Shall Be Either PVC SDR 21 Or HDPE DR 11.
6. Air/Vacuum Valves Shall Be Installed At All System High Points And Significant Changes In Grade.
7. Air Release Valves Shall Be Installed At Intervals Of 2,000 Feet On All Horizontal Runs That Lack A Clearly Defined High Point.
8. Air Release Valves Shall Be Installed At The Beginning Of Each Downward Leg In The System That Exhibits A 30-Foot Or More Drop.
9. Cleanout And Flushing Stations Shall Be Incorporated Into The Pipe Layout. Cleanouts Shall Be Installed At The Terminal End Of Each Main, At Every 1,000 Feet On Straight Runs Of Pipe, And Whenever Two Or More Mains Come Together And Feed Into Another Main.
10. A Pipe Schedule And Zone Analysis Shall Be Developed To Ensure The Design Conforms With A Criteria Of Flow Velocity Greater Than Or Equal To 2.0 Feet Per Second And Total Design Head Of Less Than Or Equal To 185 Feet.

TABLE 1

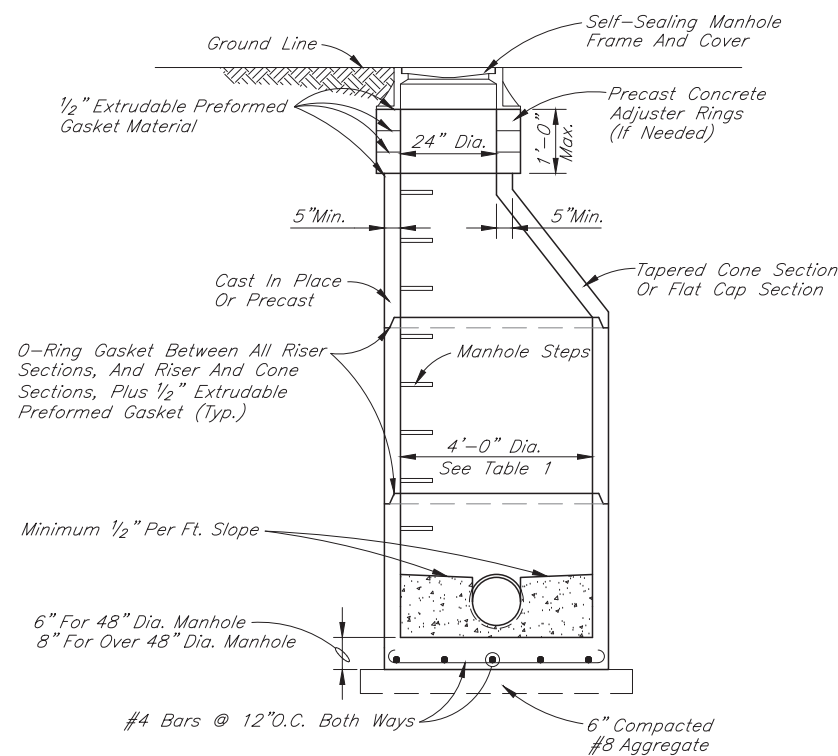
SPECIFICATION TIME REQUIRED FOR A 1.0 PSIG PRESSURE DROP FOR SIZE AND LENGTH OF PIPE INDICATED FOR Q=0.0015

1 Pipe Diameter (In.)	2 Minimum Time (Min:Sec)	3 Length For Minimum Time (Ft.)	4 Time For Longer Length (Sec.)	Specification Time For Length (L) Shown (Min.:Sec.)							
				100 Ft.	150 Ft.	200 Ft.	250 Ft.	300 Ft.	350 Ft.	400 Ft.	450 Ft.
4	3:46	597	.380L	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46
6	5:40	398	.854L	5:40	5:40	5:40	5:40	5:40	5:40	5:42	6:24
8	7:34	298	1.520L	7:34	7:34	7:34	7:34	7:36	8:52	10:08	11:24
10	9:26	239	2.374L	9:26	9:26	9:26	9:53	11:52	13:51	15:49	17:48
12	11:20	199	3.418L	11:20	11:20	11:24	14:15	17:05	19:56	22:47	25:38
15	14:10	159	5.342L	14:10	14:10	17:48	22:15	26:42	31:09	35:36	40:04
18	17:00	133	7.692L	17:00	19:13	25:38	32:03	38:27	44:52	51:16	57:41
21	19:50	114	10.470L	19:50	26:10	34:54	43:37	52:21	61:00	69:48	78:31
24	22:40	99	13.674L	22:47	34:11	45:34	56:58	68:22	79:46	91:10	102:33
27	25:30	88	17.306L	28:51	43:16	57:41	72:07	86:32	100:57	115:22	129:48
30	28:20	80	21.366L	35:37	53:25	71:13	89:02	106:50	124:38	142:26	160:15
33	31:10	72	25.852L	43:05	64:38	86:10	107:43	129:16	150:43	172:21	193:53
36	34:00	66	30.768L	51:17	76:55	102:34	128:12	153:50	179:29	205:07	230:46

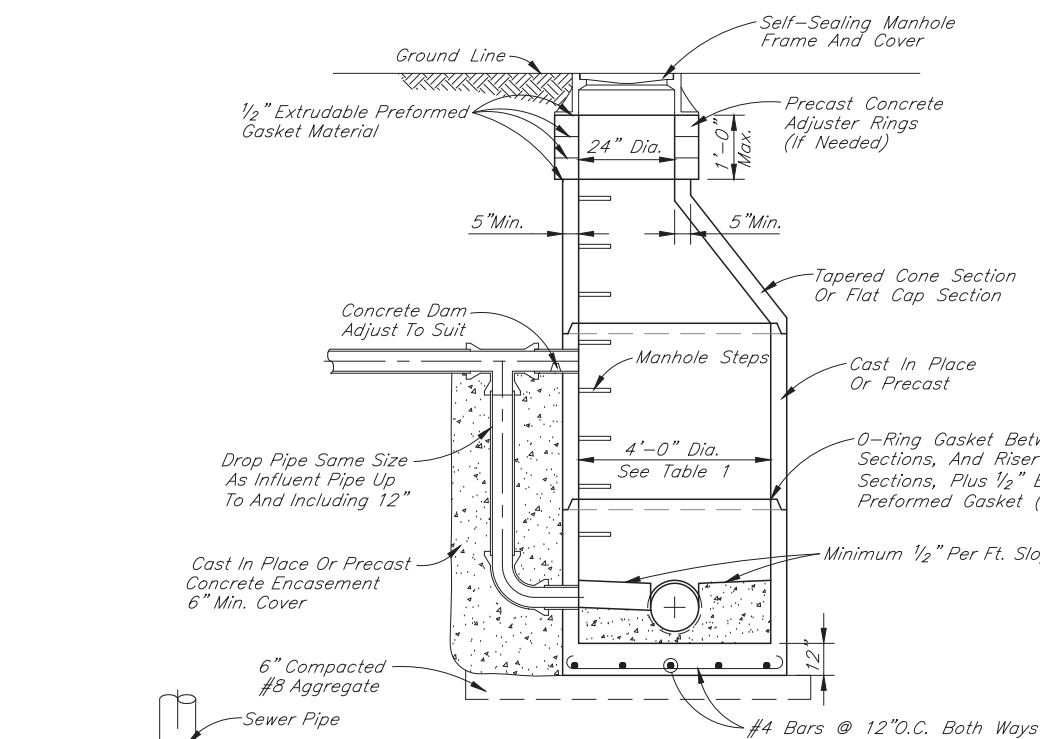
NOTE:

For More Efficient Testing Of Long Test Sections And/Or Sections Of Larger Diameter Pipes, A Timed Pressure Drop Of 0.5 PSIG May Be Used In Lieu Of The 1.0 PSIG Timed Pressure Drop. If A 0.5 PSIG Pressure Drop Is Used, The Required Test Time Shall Be Exactly Half As Long As Those Shown Above.

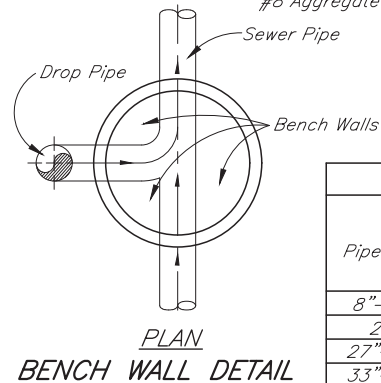
REVISIONS				RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	XX/XX/23 DATE	TOWN OF YORKTOWN		SHEET 9 OF 18
Rev. No.	Description	Date							
1	Added Sanitary Sewer Lateral Notes	3/14/2007							
2	Add Low Press. Sew. Design Notes, San.	X/XX/2023							
	Sew. Deflec. Test Note #3, & Rev. San.								
	Sew. Tele. Note #4 & Sheet Total								
				APPROVED	WASTEWATER TREATMENT PLANT SUPERINTENDENT	DATE	SANITARY SEWER BEDDING DETAILS AND NOTES		



TYPICAL MANHOLE TYPE A
Scale: 1/2" = 1'-0"



TYPICAL MANHOLE TYPE B
Scale: 1/2" = 1'-0"



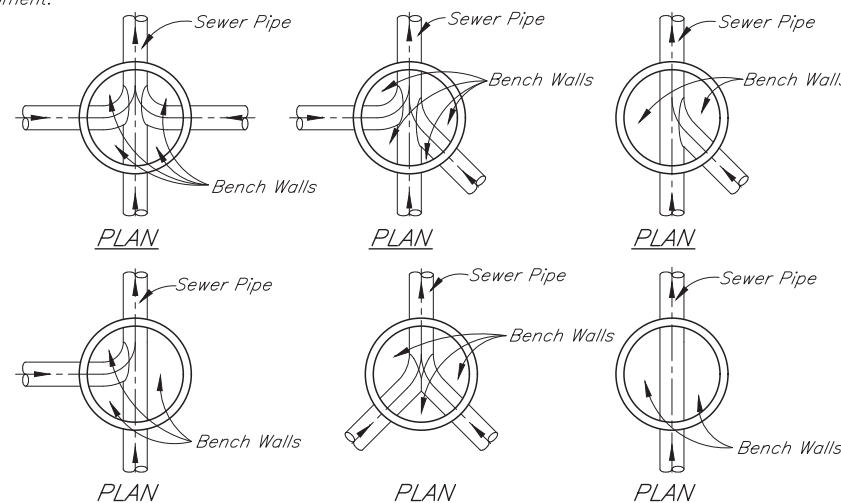
BENCH WALL DETAIL

TABLE 1		
Minimum Manhole Diameter		
Pipe Size	Pipe Entering/ Pipe Exiting At 0~d To 45~d Bend	Pipe Entering/ Pipe Exiting At 45~d To 90~d Bend
8"-21"	48"	48"
24"	48"	60"
27"-30"	60"	60"
33"-36"	60"	72"

* 72" With A-Lock Connector

MANHOLES

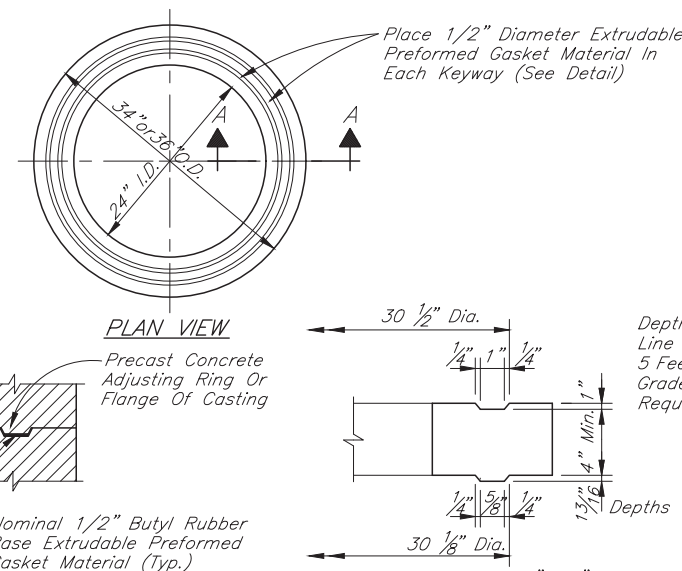
- 1.) Precast Concrete Manholes Shall Conform To ASTM C-478, With Rubber Type Gaskets Equal To ASTM C-443. Monolithic Cast-in-place Manholes Shall Only Be Used With The Prior Written Approval Of The Town. The Base And First Riser Section Of The Precast Concrete Manhole Shall Integrally Cast As One Complete Unit. Precast Concrete Cones Shall Be Of The Eccentric Cone Type. No "See Through" Lift Holes Shall Be Allowed On Precast Concrete Manholes 48 Inches In Diameter Or Less. In Addition To The Rubber Type Gaskets All Joints Shall Receive A 1/2 Inch Diameter Nonasphaltic Mastic (Kent-Seal Or Town Approved Equal) Conforming To ASTM C990.
- 2.) Where One Solid Riser Or Barrel Section Cannot Be Used, Final Adjustment In Elevation Of The Frame And Cover Shall Be Accomplished By The Use Of A 4 Inch Minimum Thickness Adjusting Ring As Detailed Herein To A Maximum Combined Thickness Of 12 Inches. Brick Or Block Shall NOT Be Used In The Construction Of A Manhole Or To Adjust The Elevation Of The Frame And Cover.
- 3.) Manhole Ladder Rungs Shall Be Neenah No. R-1981-J, East Jordan Iron Works No. 8512, A. Industries No. PS 1-PF Or Town Approved Equal.
- 4.) Manhole Frame And Cover Shall Be Neenah R-1642 Or Town Approved Equal. When Watertight Frame And Cover Is Required By The Town Or Developer, Neenah R-1916-F1 Or Town Approved Equal Shall Be Provided. All Covers Shall Be Stamped "SANITARY SEWER" With 2 Inch Raised Letters.
- 5.) All Sanitary Manholes Shall Be Vacuum Tested With Castings Per ASTM C1244 Following Full Installation. All Sanitary Manhole Sections Shall Be Vacuum Tested In The Shop Prior To Shipment.



Note: All Bench Walls To Be Sloped @ 1/2"/Ft.

BENCH WALL DETAILS

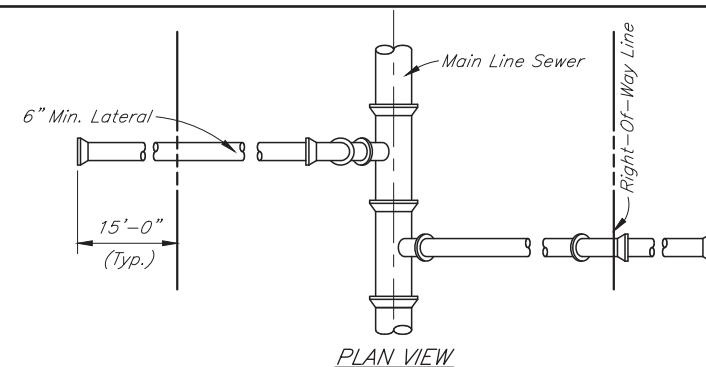
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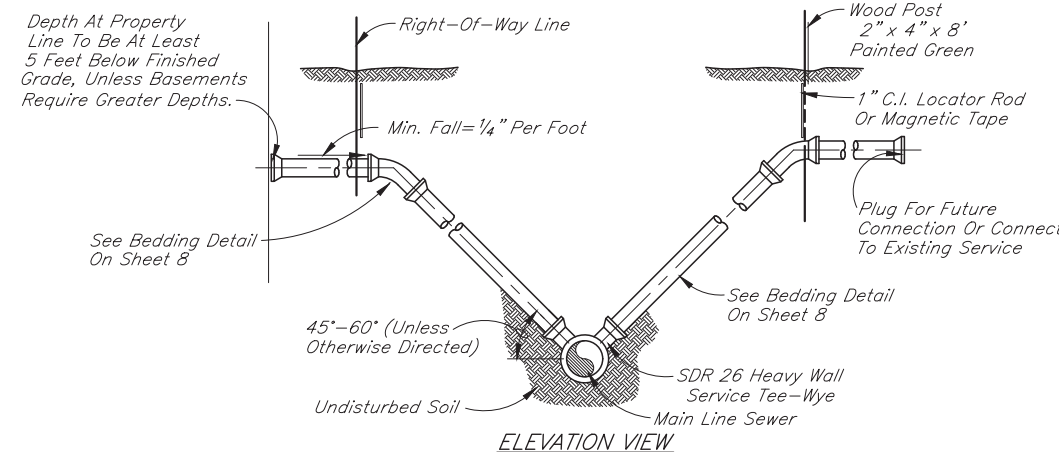
GASKET DETAIL

PRECAST ADJUSTING RING

Not To Scale:



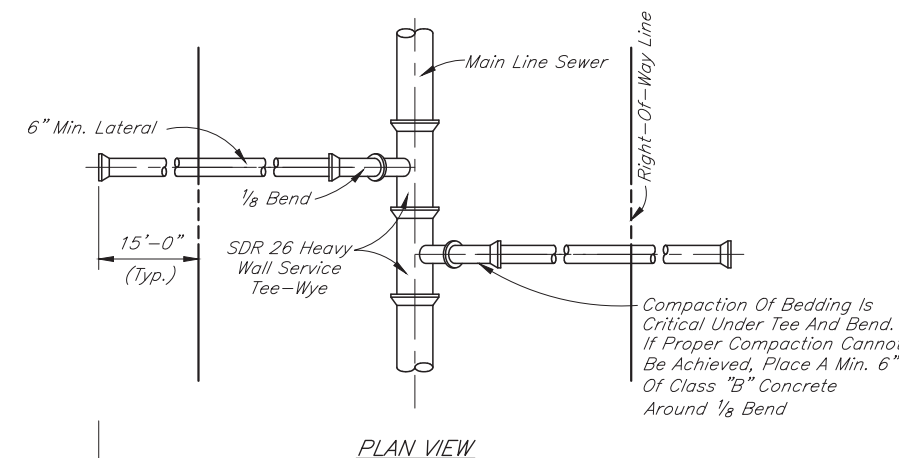
PLAN VIEW



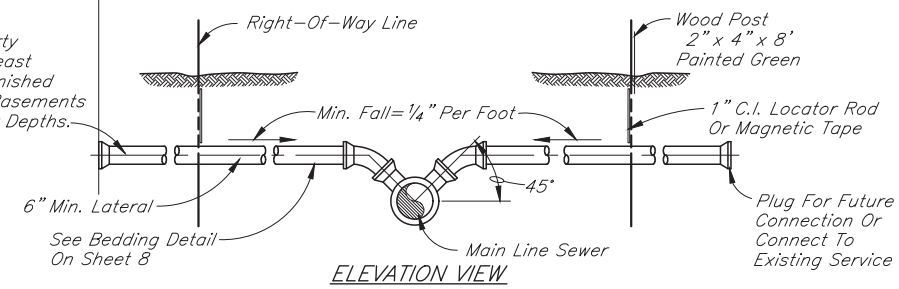
ELEVATION VIEW

SERVICE CONNECTION FOR DEEP SEWERS (15' DEEP AND OVER)

Not To Scale:



PLAN VIEW



ELEVATION VIEW

SERVICE CONNECTION FOR SHALLOW SEWERS (LESS THAN 15' DEPTH)

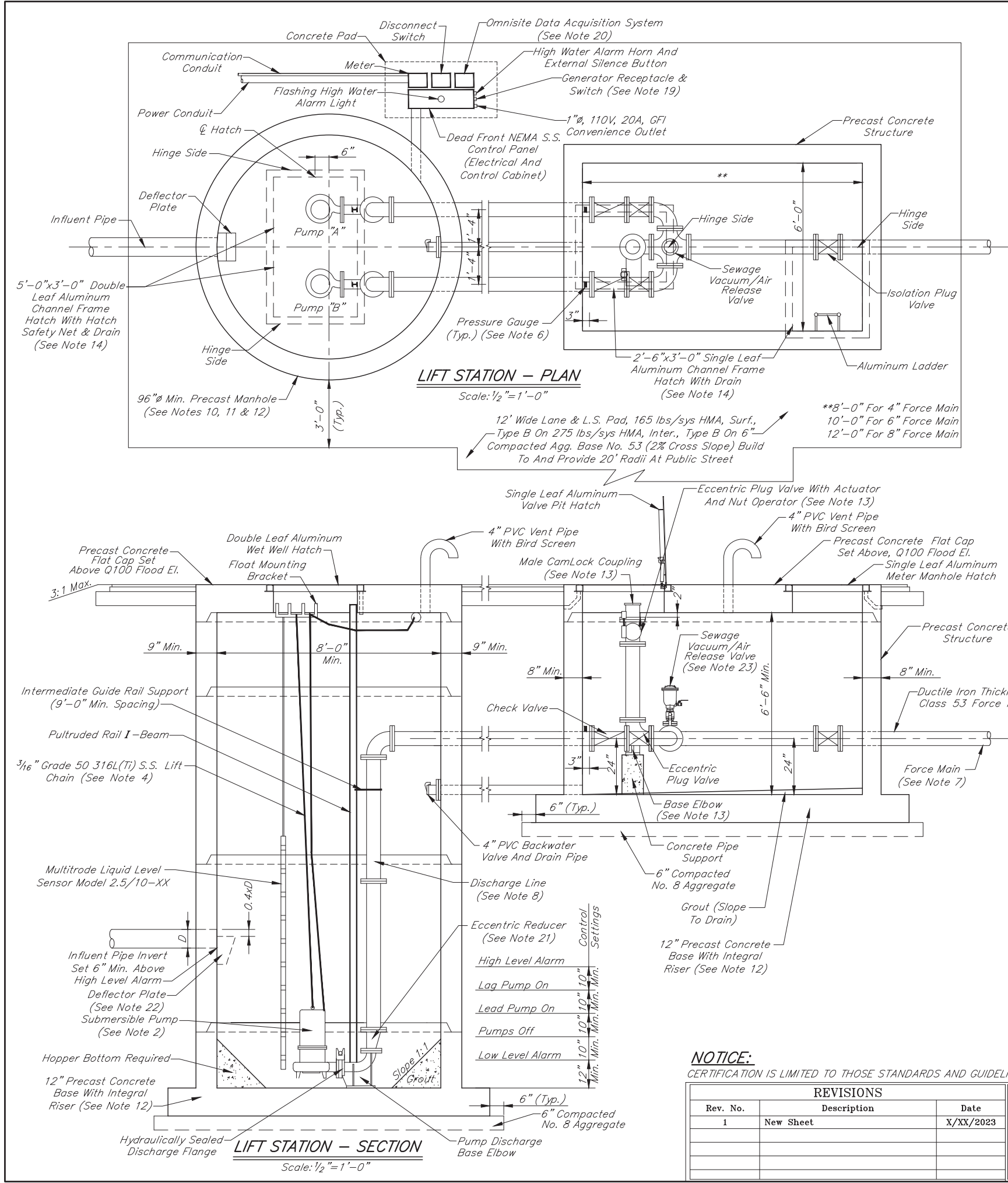
Not To Scale:

REVISIONS		
Rev. No.	Description	Date
1	Revised Manhole Notes And Connection Detail	3/14/2007
2	Rev. Service Connection For Deep Sewers & Sheet Total	X/XX/2023

RECOMMENDED FOR APPROVAL _____ XX/XX/23
DESIGN ENGINEER DATE
APPROVED _____
WASTEWATER TREATMENT PLANT SUPERINTENDENT DATE

TOWN OF YORKTOWN
SANITARY SEWER DETAILS AND NOTES

SHEET
10
OF
18



- GENERAL NOTES:**
- Actual Lift Station Dimensions, Control Settings, And Pump Selection To Be As Indicated By The Design Engineer's Certification Sheet.

Final Orientation And Location Of Hatches And Control Panel Are To Be Field Verified.
 - Pumps "A" And "B" Shall Be Identical, Centrifugal, Submersible, Solids Handling, Non-Clog Design Capable Of Handling 1 Inch Sphers Solids, Fibrous Material, Sludge, And Material Found In Typical Raw Sewage, Fit Replaceable Bronze Wear Ring To Volute. Pumps Shall Be Grundfos, Or Town Approved Equal. Manufacturer Shall Warrant The Pumps For One Year After Installation.

All Mating Surfaces Intended To Be Watertight Shall Be Machined And Fitted With Nitrile Rubber O-Rings With Sealing Complete When Metal To Metal Contact Is Made, Resulting In Controlled Compression Of O-Rings Without Specific Torque Limit. Fasteners Shall Be 316 S.S.

Mechanical Shaft Seal System Running In An Oil Reservoir Shall Have Separate, Constantly Lubricated Lapped Seal Faces. The Lower Seal Unit Between Media And Oil Reservoir Shall Consist Of One Stationary Seat And One Rotating Ring Held In Place By Its Own Spring. The Rotating Seat Ring And The Stationary Seat Ring Shall Be Made Of Tungsten-Carbide. The Lower Seal Shall Be Removable Without Disassembling The Seal Chamber. The Upper Seal Between Seal Chamber And Motor Shall Be Of The Same Design With Its Own Spring. Seals Shall Be Maintenance Free, But Shall Be Easily Inspectable.

Lower Seal Failure Alarm Shall Be Engaged By Seal Failure Sensor Provided In The Seal Chamber Which Senses Water Intrusion Through Lower Seal.

Over Temperature Alarm, And Pump Shut Down, Shall Be Engaged By Heat Sensor Attached To The Motor Windings. Motor Winding And Stator Lead Insulation Shall Be Class F With Maximum Temperature Capability Of 155° C Or Better. Housing Shall Be Filled With High Dielectric Oil. Air Filled Housing May Be Acceptable When Approved By Town. Pump And Motor Shall Be Designed To Operate Partially Or Fully Submerged In Pumped Media Without The Use Of Cooling Jackets.

Rail System Shall Enable The Easy Removal Of The Pump Without The Need For A Person To Enter The Wet Well. A Non-Corrosive FRP I-Beam Shall Be Provided For Each Pump. The Guide Rail Shall Be Supported At The Bottom By The Discharge Elbow, Aligned Perfectly Plumb And Securely Affixed To Access Frame. One Intermediate Guide Rail Support Is Required For Each 9' Of Guide Rail Length. Schedule 40 S.S. Guide Rails May Be Acceptable If Pump Is Approved By Town.
 - Check Valve Shall Be Bronze Seated And Shall Be Provided With Bolted Covers For Easy Access To The Discs. Valve Shall Be Outside Adjustable Weight And Lever As Mueller A-2600-B-01, Kennedy/Crow 1106LW, Or As Approved By Town. The Valve Shall Be Furnished With Fusion Bonded Epoxy Coating Inside And Out In Accordance With AWWA C550.
 - Provide Sufficient Lift Chain, Float Mounting Cable, And Pump Power And Sensor Cable To Enable Non-Spliced Field Adjustment. Lift Chain Shall Have A Minimum Work Load Limit Of 1100 Pounds. Float Mounting Cable Shall Be Held In Place By Weight, Floats Shall Be Fastened To Cable With S.S. Clamps Near Each Float Location. Pump Power And Sensor Cable Shall Be Suitable For Submersible Pump Applications And This Shall Be So Indicated By A Code/Legend Permanently Embossed On The Cable.
 - Plug Valve Shall Be An Eccentric Buna-N Rubber Faced Plug With Hand Lever Operation In-Line And Gear Operation On Bypass. Valve Shall Be Valmatic F-5800-R, Kennedy/Crow F-5412, Or As Approved By Town. The Valve Shall Be Furnished With Fusion Bonded Epoxy Coating Inside And Out In Accordance With AWWA C550.
 - Pressure Gauge Shall Be Trerice Model 450 LFB Or Town Approved Equal. Drill And Tap Run Of Pipe To Install Pressure Gauge.
 - Piping Not Within 2 Feet Of Wet Well And Valve Pit Shall Be DI AWWA C151, HDPE AWWA C906, PVC ASTM D2241, PVC AWWA C900, Or Town Approved Equal. See Design Engineer's Certification Sheet For Pipe Class.
 - Piping In And Within 2 Feet Of Wet Well And Valve Pit Shall Be Class 53 Flanged Ductile Iron Pipe And Shall Be Manufactured By Griffith, U.S. Pipe, Or As Approved By Town. All Fasteners Within Wet Well And Valve Vault Shall Be 316 S.S.
 - Piping And Fittings In Wet Well And Valve Pit Shall Be Factory Primed Tnemec Series Purple Prime To A Dry Film Thickness Of 5.0 To 11.0 Mils And Shall Be Field Painted With Tnemec Series 69-Color To A Dry Film Thickness Of 5.0 To 6.0 Mils. Fittings Shall Be Manufactured By Clow, Tyler, Mueller, Or As Approved By Town.
 - Damp Proof All Exterior Vertical Surfaces Which Are Backfilled Against With Bituminous Coating, Mastersseal 614.
 - Lift Station Manhole And Valve Pit Structures Shall Be Precast Concrete In Accordance With ASTM C478, With Rubber Gaskets Equal To Gasket Material Or Town Approved Equal. See Sanitary Sewer Details And Notes Sheet For Manhole Steps.
 - Horizontal Projections From Precast Integral Base And Riser May Be Required To Enable The Weight Of The Vertical Soil Ring Above The Projection To Resist Buoyancy Forces. See Design Engineer's Certification Sheet.
 - CamLock Coupling And Eccentric Plug Valve On Bypass Line Shall Be 4 Inch Diameter With Transition To Force Main Size Occurring With Concentric Reducer Placed On Top Of Base Elbow. Fix Operating Nut For Eccentric Plug In Vertical Position To Enable Wrench Operation From Surface. Layout Of All Valve Vault Fittings And Equipment To Be Based Upon Bypass Line Being Close To Hatch Opening, As Shown.
 - Aluminum Hatches Shall Be Channel Frame Type Flygt Safe-Hatch. Leaf Shall Be 1/2 Inch Aluminum Diamond Plate Live Load Rated To 300 PSF. Channel Frame Shall Be 1/2 Inch Extruded Aluminum With A Mill Finish And Bituminous Coating On Exterior Surfaces. Hatch Shall Be Provided With Type 316 S.S. Hardware Throughout, Automatic Hold-Open Arm With Release Handle, Slam Lock With Removable Handle, 1-1/2 Inch Drain Coupling, Padlock Hasp, And NSF Fabrication Fall-Through Protection Hatch Safety Net.
 - Sewer Connection To Wet Well Shall Be KOR-N-SEAL, A-LOK, Press-Seal, Or Town Approved Equal.
 - Force Main Penetrations Of Wet Well And Valve Pit Shall Be Made Watertight Through The Use Of Portland Cement Grout.
 - Automatic Pump Control Panel Shall Include All Necessary Items And Appurtenances Which Might Normally Be Considered A Part Of A Complete System, Including But Not Limited To: Condensate Heater; Push To Test Button (External); Push To Silence Button (External); Alternator Selector Switch For Manual Designation Of Lead Pump; Time Delay Relay For Lag Pump Start; And Pump Run Time Hour Meters. System Shall Be Supplied By One Manufacturer, Shall Be Factory Assembled, Wired, Tested, And Shall Be Per Complete Electrical Drawings And Instructions. Major Components And Sub-Assemblies Shall Be Identified By Their Function With Laminated, Engraved, Bakelite Nameplates. System Shall Be Built In A Minimum 60"x36"x12" NEMA 4X S.S. Enclosure Suited For The Specified Horsepower And Voltage Of The Pumps. The Outer Door Of The Panel Shall Be A Hinged Dead Front With Provisions For Padlocking. Inside Shall Be A Separate Hinged Panel To Protect All Electrical Components, H-O-A Switches, Run Lights, Circuit Breakers, Etc., Mounted Such That Only The Faces Protrude Through Said Panel With No Wiring Fixed To Said Panel. The Manufacturer Shall Warrant The Control Center For One Year After Installation Covering 100% Parts And Labor.

Provide The Services Of A Factory Trained, Qualified Representative To Inspect, Adjust, Place The System In Trouble Free Operation, And Instruct Operating Personnel In The Proper Operation And Care Of The System.

All Major Components Of Control Center Shall Be American-Made And Available From Local Sources. Pump Manufacturer Shall Accept The Control Center In Writing To Ensure Unit Responsibility And Warranty.

Provide A Manual Transfer Type Disconnect Switch Housed In A Separate NEMA 4X S.S. Enclosure With External Operation Handle Capable Of Being Locked In The "ON" Normal Position Or The "OFF" Secondary Position With A Middle "OFF" Position.

A Lightning Arrestor Shall Be Provided At The Phase Relay Block And Connected To Each Line Of The Incoming Side Of The Power Input Terminals. A Single Main Fusible/Breaker Disconnect Switch Of Adequate Size To Provide Power For Control, Operation, And Appurtenant Components Shall Be Provided. Provide A Circuit Breaker And Magnetic Starter With Each Leg Manual Reset Overload Protected For Each Pump. Starters Shall Have Auxiliary Contacts On 3ø Applications To Operate Both Pumps Simultaneously. Provide A Phase Monitor With Phase Fail Relay. Provide A Circuit Breaker And Transformer To Power The Control Panel With 1ø, 115 Volt Service For All Control Functions Including OMNISITE Data Acquisition System, Radio And Flowmeter. Provide A Green "Run" Light, And H-O-A Switch To Enable Field Connections.

Materials And Installation Of The Required Equipment Grounding Shall Be In Accordance With NEC Section 250-83(c). All Wiring Shall Have Not Less Than 600 Volt Insulation. Wiring And Buss Shall Be In Accordance With NEC, State, Local, And NEMA Standards. All Wiring Shall Be Color Coded, Minimum 4 Inch Diameter, Schedule 40 Conduit Shall Be Provided From Wet Well To Control Panel Enabling Pump Power And Sensor Cables, And Float Switch Cables To Be Easily Pulled. Seal Conduit At Control Panel To Prevent Sewer Gases From Entering. All Conduits, Fittings, Or Connections Shall Enter From The Bottom Of Enclosures.

Sump Level Rise To Lead Pump Run Float Causes Lead Pump To Operate. Lead Pump Operating And Sump Level Falling To Pumps Off Float Causes Lead Pump To Shut Off. Lead Pump Operating And Sump Level Rising To Lag Pump Run Float Causes Lag Pump To Operate. Lag Pump Operating And Sump Level Falling To Pumps Off Float Causes Both Pumps To Shut Off. Sump Level Rise To High Level Alarm Causes High Level Alarm To Operate. Sump Level Fall To Low Level Alarm Causes Low Level Alarm To Operate. An Alternating Relay Shall Be Provided To Cause Pumps To Alternate Whenever Pumps Off Float Is De-Energized. If One Pump Fails For Any Reason, The Remaining Pump Shall Operate Upon Sump Level Rise To Lag Pump Run Float. An Hour Meter Shall Be Provided For Each Pump To Record The Elapsed Operating Time Of Each Pump.
 - Four Manuals Shall Be Presented To The Owner Which Shall Include The Following Minimum Information: 1) Operation Instructions; 2) Maintenance Instructions; 3) Recommended Spare Parts List; 4) Lubrication Schedule; 5) Structural Diagrams; 6) As-Built Wiring Diagrams; And 7) Bill Of Materials.
 - Generator Receptacles To Be Crouse-Hinds Arkite AR1042 100amp Receptacle Or Crouse-Hinds Arkite AR2041 200amp Receptacle With Factory Sealed Switch For Receipt Of The Town Of Yorktown's Portable Generator Set.
 - Provide Data Acquisition System For Duplex Pump Stations And OMNISITE Crystal Ball Data Acquisition System For Triplex Pump Stations That Incorporates: 1 Spare Input/Output, 1 Input For Flowmeter, 5 Outputs To Control Being Lead Remote On, Lead Remote Off, Lag Remote On, Lag Remote Off, Remote Alarm Acknowledge, 10 Inputs From Control Being Hatch(es) Open Alarm, Panel(s) Open Alarm, Pump "A" On, Pump "B" On, Pump "A" Fail, Pump "B" Fail, Phase Fail Alarm, Power Fail Alarm, High Water Alarm, And Pump(s) Seal Failure. Remote Lead Pump Override And Remote Lag Pump Override.
 - Eccentric Reducer To Be Installed As Required For Force Main Size. Consult Town If Force Main Piping Is Greater Than 6 Inch Diameter.
 - 1/4" Stainless Steel Deflector Plate Required On All Influent Pipes. As Supplied by Mooresville Welding or Town Approved Equal.
 - Air/Vacuum Release Valve Shall Be A D025TP02 Combination Air Valve For Wastewater And Shall Be Sized By The Design Engineer According To The Volume Of Main And Maximum Force Main Operating Pressure. The Pipe Nipples And Gate Valve For The Air/Vacuum Release Valve Shall Be Stainless Steel.

NOTICE:
CERTIFICATION IS LIMITED TO THOSE STANDARDS AND GUIDELINES PER THIS SHEET. CONSTRUCTION IS SUBJECT TO CONSTRUCTION DRAWINGS, SHOP DRAWINGS, AND DESIGN ENGINEER'S CERTIFICATION SHEET.

REVISIONS		
Rev. No.	Description	Date
1	New Sheet	X/XX/2023

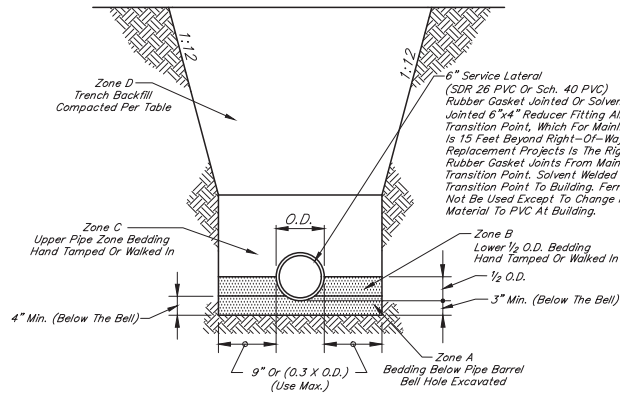
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	XX/XX/23
		DATE
APPROVED	WASTEWATER TREATMENT PLANT SUPERINTENDENT	DATE

TOWN OF YORKTOWN	SHEET
SANITARY SEWER LIFT STATION STANDARDS GUIDELINES	11
	OF
	18

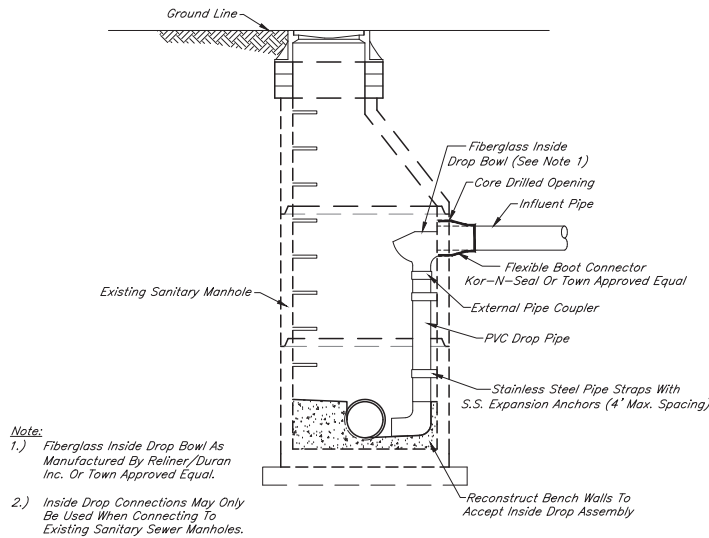
PVC LATERAL PIPE BEDDING & BACKFILL TABLE**					
Bedding/Backfill Zone As Indicated On Detail	Back Of Curb To Back Of Curb	Planting Strip Or Existing Sidewalk	Private Property For Repair/Replace	Future Sidewalk Under 6 Month Rule*	Private Property Under 6 Month Rule*
Zone D Trench Backfill Compacted Per Table	Flowable Fill Or Same As Zone "B"	Flowable Fill Or Same As Zone "B"	Approved Excavated Material @ 85% Standard Proctor	Approved Excavated Material @ 85% Standard Proctor	Approved Excavated Material @ 85% Standard Proctor
Zone C Upper Pipe Zone Bedding Hand Tamped Or Walked In	Flowable Fill Or Same As Zone "B"	Flowable Fill Or Same As Zone "B"	"B"--Borrow Or Well--Graded Sand	Coarse Aggregate No. 8	Coarse Aggregate No. 8
Zone B Lower 1/2 O.D. Bedding Hand Tamped Or Walked In	Coarse Aggregate No. 8	Coarse Aggregate No. 8	"B"--Borrow Or Well--Graded Sand	Coarse Aggregate No. 8	Coarse Aggregate No. 8
Zone A Bedding Below Pipe Barrel Bell Hole Excavated	Coarse Aggregate No. 8	Coarse Aggregate No. 8	"B"--Borrow Or Well--Graded Sand	Coarse Aggregate No. 8	Coarse Aggregate No. 8

*Approved Excavated Material May Be Used Under Proposed Sidewalks Provided Sidewalks Are Constructed 6 Months After Backfilling Of Trench And As Such Any Additional Lateral Pipe Built On Private Property Under Initial Sewer Construction Shall Be In Accordance With "Private Property Under 6 Month Rule" Column.

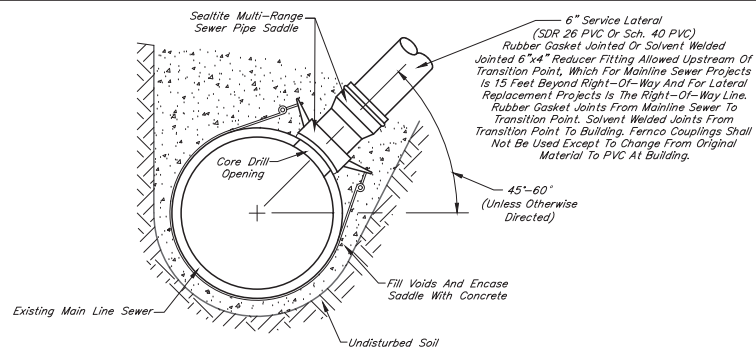
**The PVC Lateral Pipe Bedding And Backfill Table Is Intended To Show Minimum Material Requirements. Flowable Fill May Be Used For Any Zone C, Or Zone D Work. "B"--Borrow May Be Used Whenever Excavated Material Is Required By Table. #8 Crushed Stone Or #8 Fractured Face Aggregate May Be Used Whenever "B"--Borrow Is Required By Table.



PVC LATERAL PIPE BEDDING DETAIL
Not To Scale

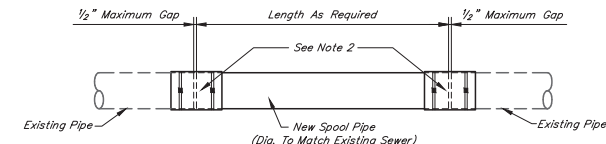


INSIDE DROP ASSEMBLY CONNECTION DETAIL
Not To Scale



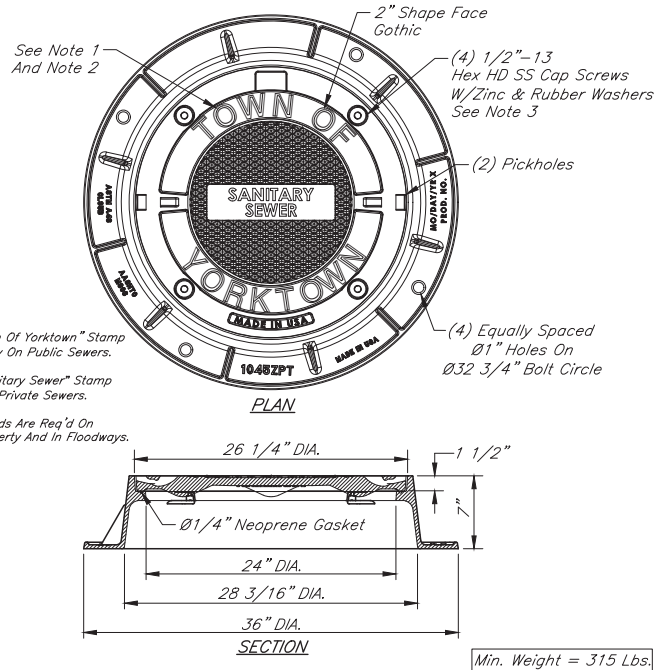
- NOTE:**
- 1.) Sewer Pipe Saddle Shall Be General Engineering Company Sealtite Type "U" For Laterals Connecting To Existing Mainline Sanitary Sewer With A 6.275" OD To 30.00" OD.
 - 2.) Sewer Pipe Saddle Shall Be General Engineering Company Sealtite Type "C" For Laterals Connecting To Existing Mainline Sanitary Sewer Over 30.00" OD.

SANITARY LATERAL SADDLE TAP
Not To Scale

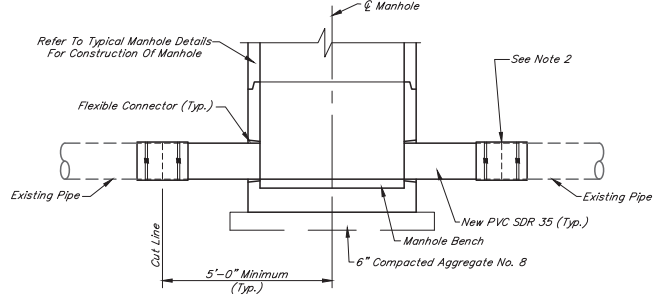
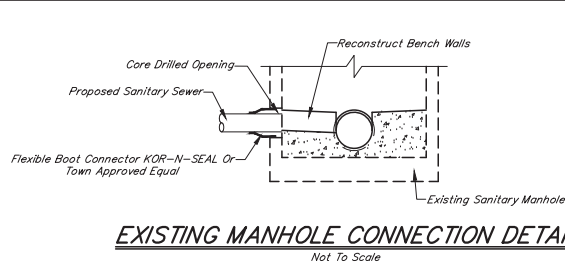


- NOTE:**
- 1.) Cut Existing Pipe(s) On Both Sides Of The Existing Lateral Service. Remove Existing Wye/Fitting(s) And Pipe(s) Section And Install New Spool Pipe As Detailed Above.
 - 2.) An Unshielded Hubless Pipe Repair Coupling Or PVC/ABS Cover w/ Unshielded Flexible Transition Coupling Shall Be Used For Connections Of Plastic (PVC) To Clay Or Cast Iron Pipe. Where New PVC Pipe Is Being Connected To Existing PVC Pipe A Ductile Iron Repair Sleeve With Romac Grip Rings Shall Be Used.

EXISTING SANITARY LATERAL ABANDONMENT
Not To Scale



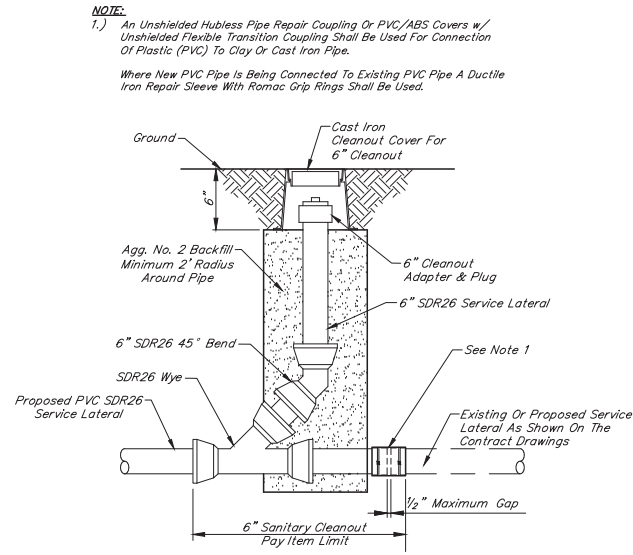
**NEENAH R-1916-F,
EJ 1045ZPT AND 1040APT
OR US FOUNDRY 755-NC BWT**
Not To Scale



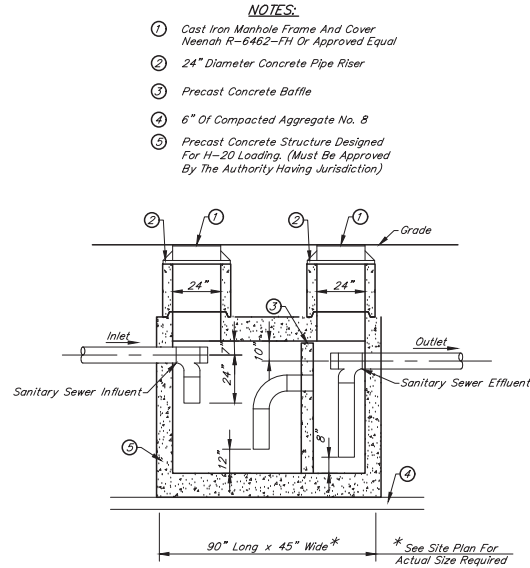
- NOTE:**
- 1.) Cut Existing Pipe(s) On The Side Of The Proposed Manhole. Remove Existing Pipe(s) Section And Install Manhole Base. Proceed With Typical Connections And Manhole Construction.
 - 2.) An Unshielded Hubless Pipe Repair Coupling Or PVC/ABS Cover w/ Unshielded Flexible Transition Coupling Shall Be Used For Connections Of Plastic (PVC) To Clay Or Cast Iron Pipe.

Where New PVC Pipe Is Being Connected To Existing PVC Pipe A Ductile Iron Repair Sleeve With Romac Grip Rings Shall Be Used.

SPECIAL MANHOLE CONNECTION DETAIL
Not To Scale

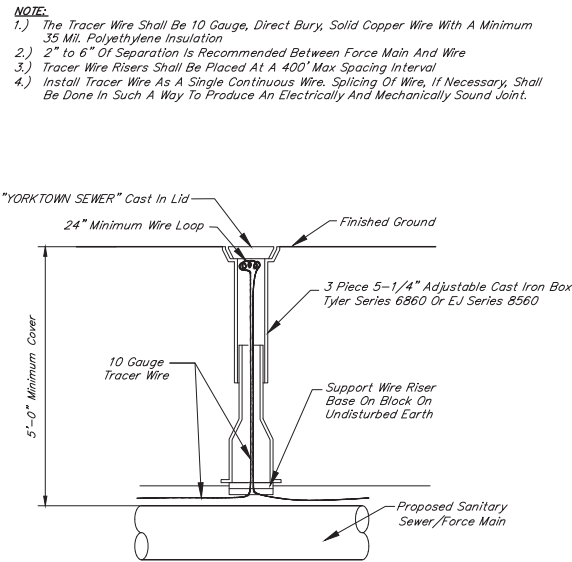


6" SANITARY CLEANOUT
Scale: None



Grease Interceptor Subject To Sanitary Sewer Manhole Construction Requirements Including Vacuum Testing

GREASE INTERCEPTOR DETAIL
Not To Scale



TRACER WIRE RISER DETAIL
Scale: None

REVISIONS		
Rev. No.	Description	Date
1	New Sheet	X/XX/2023

RECOMMENDED FOR APPROVAL _____ XX/XX/23
DESIGN ENGINEER DATE

APPROVED _____
WASTEWATER TREATMENT PLANT SUPERINTENDENT DATE

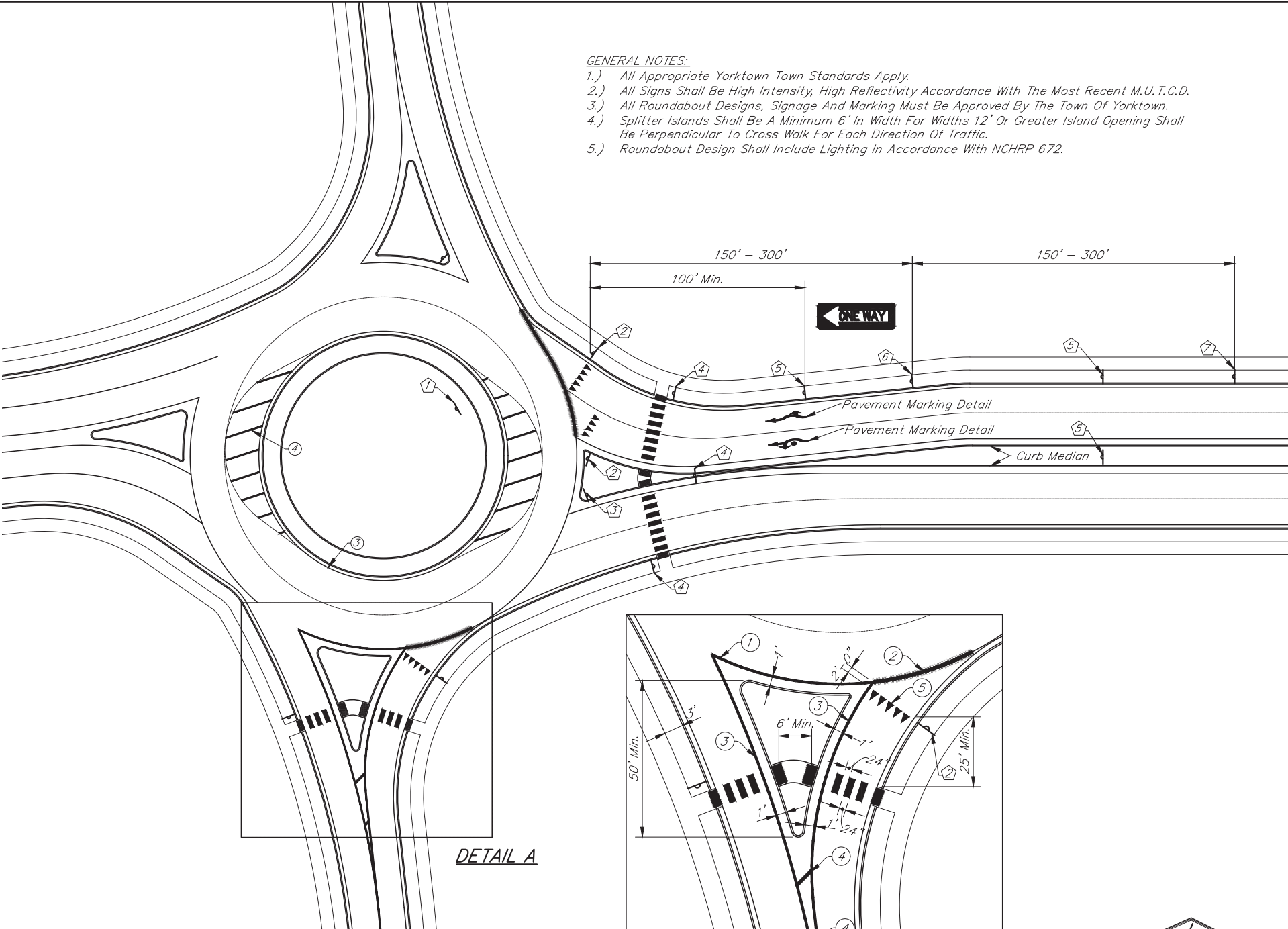
TOWN OF YORKTOWN

SANITARY SEWER (S)
DEVELOPMENT STANDARDS

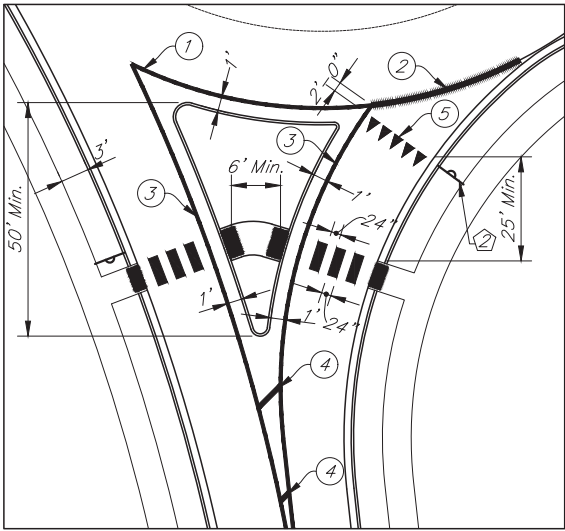
SHEET

12
OF
18

- GENERAL NOTES:
- 1.) All Appropriate Yorktown Town Standards Apply.
 - 2.) All Signs Shall Be High Intensity, High Reflectivity Accordance With The Most Recent M.U.T.C.D.
 - 3.) All Roundabout Designs, Signage And Marking Must Be Approved By The Town Of Yorktown.
 - 4.) Splitter Islands Shall Be A Minimum 6' In Width For Widths 12' Or Greater Island Opening Shall Be Perpendicular To Cross Walk For Each Direction Of Traffic.
 - 5.) Roundabout Design Shall Include Lighting In Accordance With NCHRP 672.



LOW SPEED URBAN / SUBURBAN ROUNDABOUT DETAIL
Scale: 1"=30'



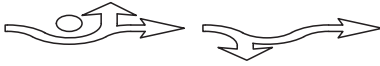
DETAIL A
Scale: 1"=20'

- LEGEND
- ① Line, Solid White, 8"
 - ② Line, Broken White, 8"
 - ③ Line, Solid Yellow, 8"
 - ④ Crosshatch 45°, Solid Yellow, 12" (20' Spacing)
 - ⑤ Shark Tooth Yield Triangle 2'W x 3'H
 - Sign

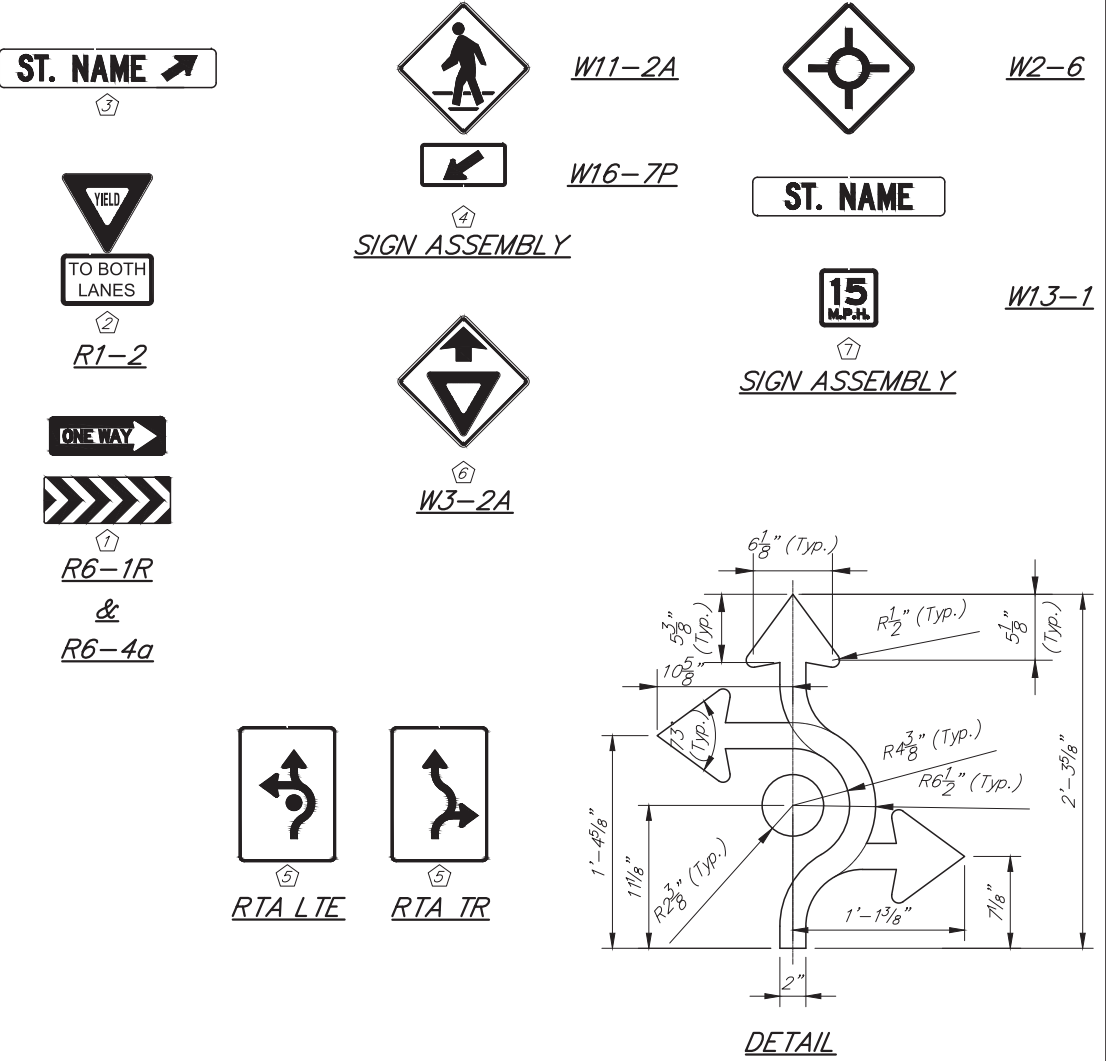


COMPONENT KEY

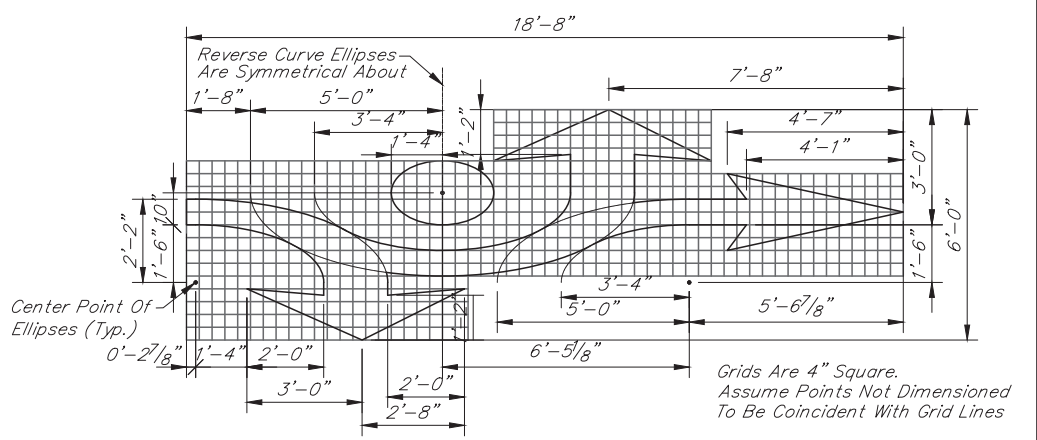
The Labeled Areas Above Correspond To The Portions Needed For Each Type Of Roundabout Traffic Arrow. For Example: The Roundabout Traffic Arrow Type That Requires The "Common", "T", "R", And "E" Areas.



MARKING DETAILS



SIGN DETAILS



PAVEMENT MARKING DETAILS

DETAIL B

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Notes:

Installation:
Lay Out The Diversion By Setting Grade And Alignment To Fit Site Needs And Topography, Maintaining A Stable, Positive Channel Grade Towards The Outlet.

Remove And Properly Dispose Of Brush, Trees, And Other Debris From The Foundation Area.

Construct The Diversion To Dimensions And Grades Shown In The Construction Plans.

Construct The Diversion Ridge In Six To Eight-Inch Lifts. Compact Each Lift By Driving Wheels Of Construction Equipment Along The Ridge. Overfill And Compact The Ridge To Design Height Plus 10 Percent To Allow For Settlement.

Stabilize Outlets Prior To Or During Construction Of The Diversion, Diverting Sediment-Laden Storm Water Flow To A Temporary Sediment Trap Or A Temporary Dry Sediment Basin.

Maintenance:
Inspect Within 24 Hours Of Each Rain Event And At Least Once Every Seven Calendar Days.

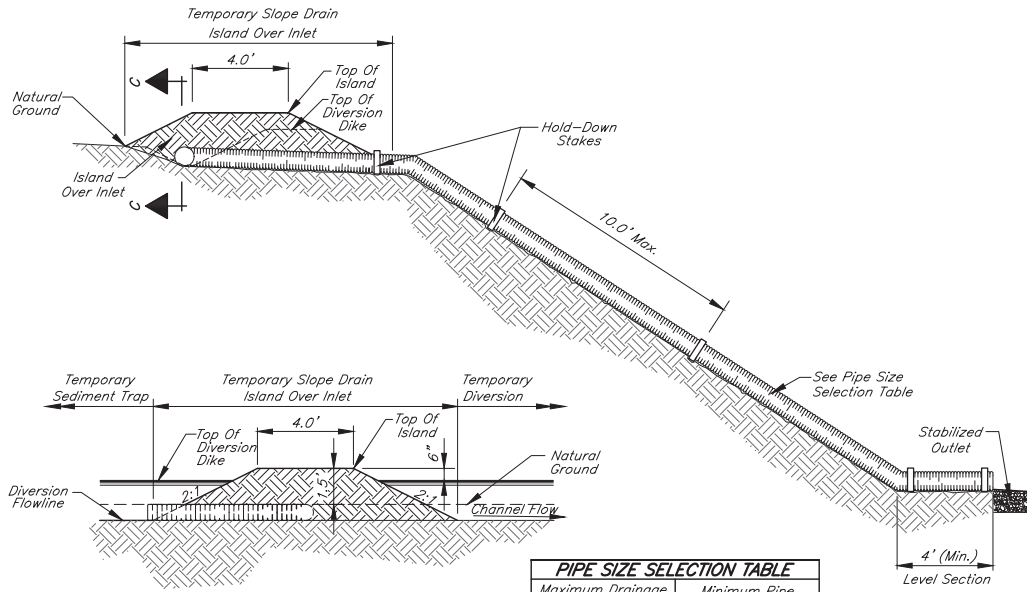
Remove Sediment From Channel To Maintain Positive Grade.

Check Outlets And Make Necessary Repairs Immediately.

Adjust Ridge Height To Prevent Overtopping.

TEMPORARY DIVERSION

Not To Scale



Notes:

Installation:
Place Temporary Slope Drains On Undisturbed Soil Or Well Compacted Fill. Set The Slope Drain Inlet At The Bottom Of The Diversion Channels. Connect The Pipe To The Inlet Section.

Construct The Diversion Ridge By Placing Fill Over The Pipe In 6 Inch Lifts. Compact Each Lift By Hand Tamping Under And Around The Inlet, And Along The Pipe.

Make The Top Of The Fill 6 Inches Higher Than The Adjoining Diversion.

Make All Pipe Connections Watertight And Secure So That Joints Will Not Separate In Use.

Anchor The Pipe To The Face Of The Slope With Stakes Spaced No More Than 10 Feet Apart. Extend The Pipe Beyond The Toe Of Slope To A Stable Grade. Protect The Outlet From Erosion.

Grade The Diversion Channel At The Top Of The Slope Toward The Temporary Slope Drain (Slope <2%).

Stabilize All Disturbed Areas Following Installation.

Maintenance:
Inspect Weekly And Following Each Storm Event. (Remove Sediment From The Channel And Reinforce The Ridge As Needed.)

Check The Inlet For Sediment Or Trash Accumulation.

Check The Fill Over The Pipe For Settlement, Cracking, Or Piping Holes; Repair Immediately.

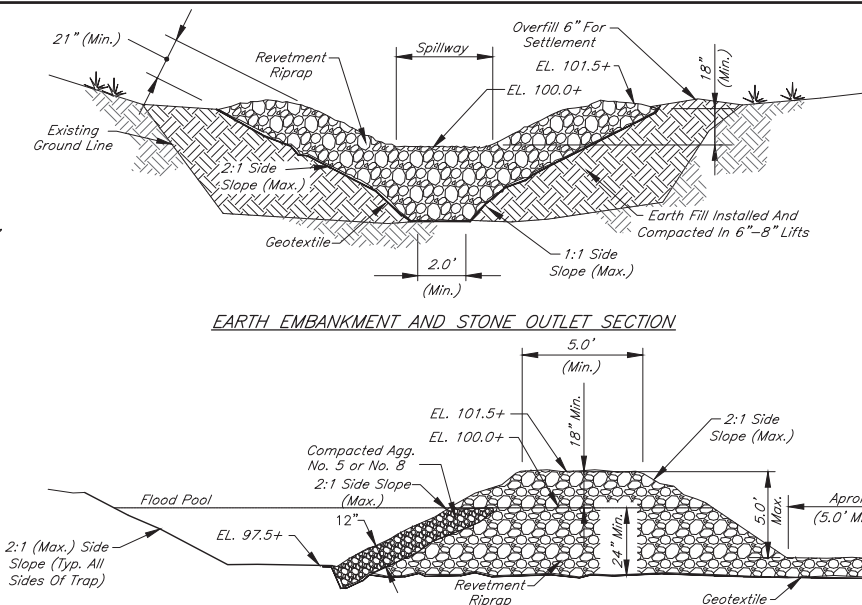
Check For Holes Where The Pipe Emerges Form The Dike; Repair Immediately.

Check The Conduit For Evidence Of Leaks Or Inadequate Anchoring; Repair Immediately.

Check The Outlet For Erosion Or Sedimentation; Clean & Repair Or Extend If Necessary.

TEMPORARY SLOPE DRAIN

Not To Scale



CROSS SECTION VIEW OF THE STONE OUTLET SECTION

Notes:

The Spillway Width Varies With The Drainage Area Contributing To The Temporary Sediment Trap.

Drainage Area (acres)	Width (ft.)
1	4
2	6
3	8
4	10
5	12

The Length And Width Of The Basin Are As Shown On The Erosion Control Plan (Maximum Drainage Area Is 5 Acres).

See The [Indiana Storm Water Quality Manual](#) For Additional Information.

Installation:
Clear, Grub, And Strip All Vegetation And Root Mat From The Embankment Area.

Create Embankment Using Material Free Of Roots, Rocks, Brush, And Debris. Overfill The Embankment 6 Inches To Allow For Settling.

Excavate A Trapezoidal Stone Outlet Section From The Compacted Embankment (Section A-A).

Install Geotextile And Place Specified Stone To The Lines And Grades Shown.

Stabilize The Embankment And Other Disturbed Areas With Seed And Mulch Or Another Suitable Erosion Resistant Cover

Maintenance:
Inspect Traps Weekly And Following Each Storm Event And Immediately Repair. Check Embankment For Any Erosion And Piping Holes And Repair.

Remove Sediment When It Has Accumulated To One Half The Design Depth. Check Pool Area Side Slopes For Erosion And Repair.

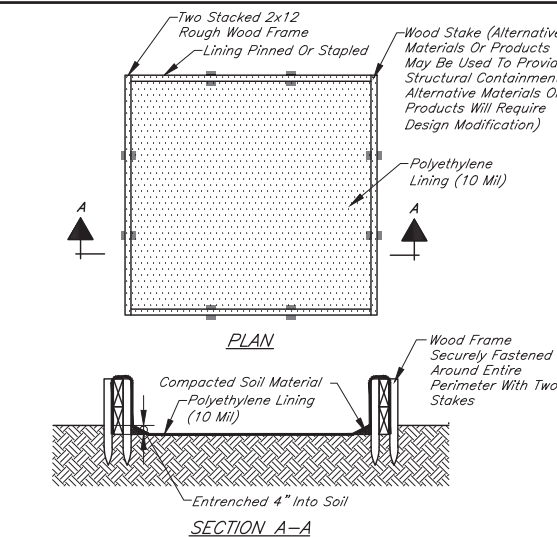
Replace Spillway Gravel Facing If Clogged.

Inspect Vegetation And Reseed Again, If Necessary.

Check The Spillway Depth Periodically To Ensure A Minimum 18 Inch Depth From The Lowest Point Of The Settled Embankment To Highest Point Of The Spillway Crest. Fill Any Low Areas To Maintain The Design Elevation.

TEMPORARY SEDIMENT TRAP

Not To Scale



Notes:
Prefabricated Washout Containers Or Roll-Off Dumpsters Are Preferred. Self-Installed Concrete Washouts With A Concrete Block Or Wood Frame Are Acceptable. Signage Should Be Installed Identifying Washout Areas.

Washouts Shall Not Be Used For Trash. Concrete Washouts Shall Be Located A Minimum Of 50 Feet Away From Inlets, Open Drainage Facilities, Watercourses And Construction Traffic.

Concrete Washouts Shall Be Of Sufficient Volume And Quantity To Contain All Liquid And Concrete Waste Generated By Washout Operations.

Once Concrete Wastes Are Washed Into The Designated Area And Allowed To Harden, The Concrete Should Be Broken Up, Removed, And Disposed Of Offsite. Washouts Shall Be Monitored Daily. Arrange For Clean-out When 1/2 Full, Potential For Heavy Rainfall, Or Prior To A Large Pour.

Plastic Lining Material Should Be A Minimum Of 10 Mil. Polyethylene Sheeting And Should Be Free Of Holes, Tears, Or Other Defects That Compromise The Impermeability Of The Material. The Lining Must Be Replaced Following Each Cleaning.

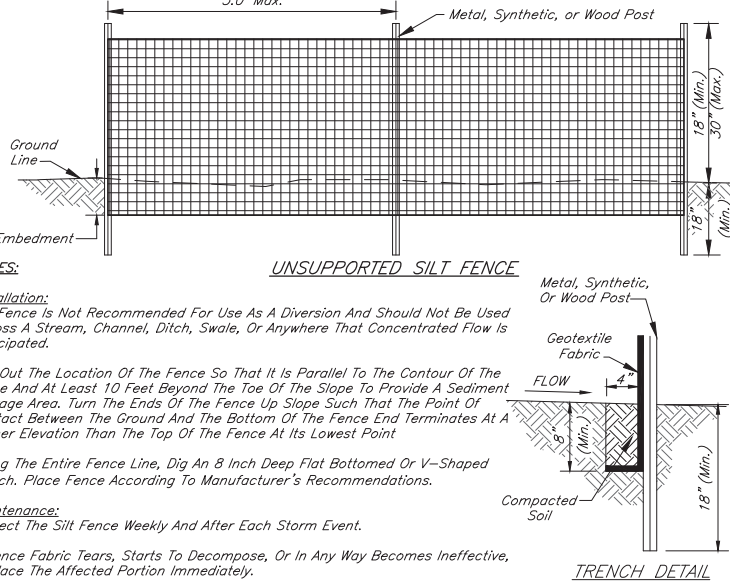
CONCRETE WASHOUT

Not To Scale



SILT FENCE JOINT DETAIL

Not To Scale



Notes:

Installation:
Silt Fence Is Not Recommended For Use As A Diversion And Should Not Be Used Across A Stream, Channel, Ditch, Swale, Or Anywhere That Concentrated Flow Is Anticipated.

Lay Out The Location Of The Fence So That It Is Parallel To The Contour Of The Slope And At Least 10 Feet Beyond The Toe Of The Slope To Provide A Sediment Storage Area. Turn The Ends Of The Fence Up Slope Such That The Point Of Contact Between The Ground And The Bottom Of The Fence End Terminates At A Higher Elevation Than The Top Of The Fence At Its Lowest Point

Along The Entire Fence Line, Dig An 8 Inch Deep Flat Bottomed Or V-Shaped Trench. Place Fence According To Manufacturer's Recommendations.

Maintenance:
Inspect The Silt Fence Weekly And After Each Storm Event.

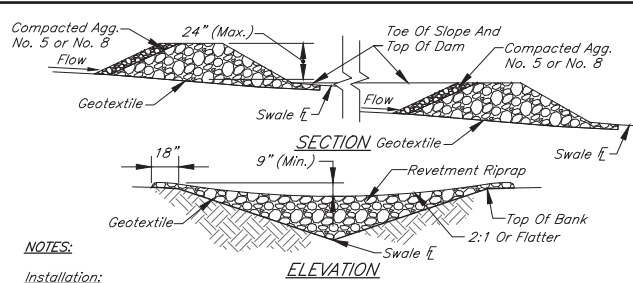
If Fence Fabric Tears, Starts To Decompose, Or In Any Way Becomes Ineffective, Replace The Affected Portion Immediately.

Remove Deposited Sediment When It Reaches Half The Height Of The Fence At Its Lowest Point Or Is Causing The Fabric To Bulge. Take Care To Avoid Undermining The Fence During Clean Out.

After The Contributing Drainage Area Has Been Stabilized, Remove The Fence And Sediment Deposits, Bring The Disturbed Area To Grade, And Stabilize.

SILT FENCE (SEDIMENT FENCE)

Not To Scale



Notes:

Installation:
Excavate A Cutoff Trench Into The Swale Banks And Extend It A Minimum Of 18 Inches Beyond The Top Of Bank. Place The Rock In The Cutoff Trench And Channel To The Limits And Dimensions Shown.

Extend The Rock At Least 18 Inches Beyond The Top Of Bank To Keep Overflow Water From Undercutting The Dam As It Re-Enters The Channel.

Space Dams So That The Upstream Dam Toe Elevation And The Overflow Weir Of The Downstream Dam Top Elevation Are The Same. (A 1% Swale Slope Would Equal 200' Spacing)

Stabilize The Channel Above The Uppermost Dam. Erosion Resistant Lining Shall Extend At Least 6" Below Lowest Dam.

Maintenance:
Inspect Check Dams And The Channel After Each Storm Event, And Repair Any Damage Immediately. If Significant Erosion Occurs Between Dams, Install A Riprap Liner In That Portion Of The Channel.

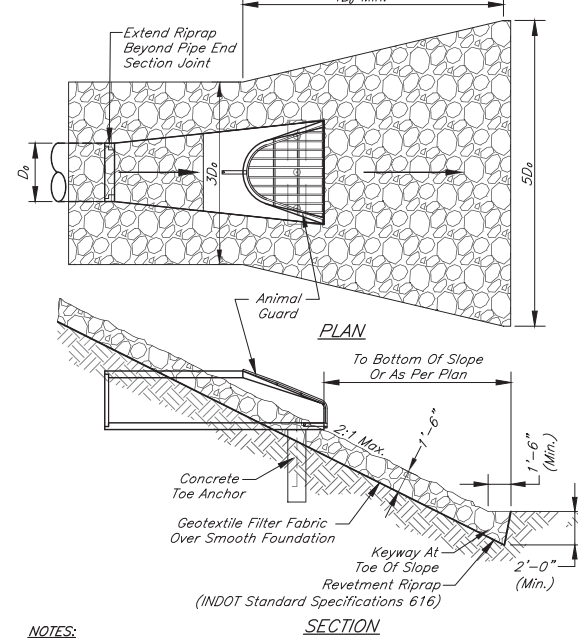
Remove Sediment Accumulated Behind Each Dam As Needed To Maintain Channel Capacity, To Allow Drainage Through The Dam, And To Prevent Large Flows From Displacing Sediment.

Add Aggregate To The Dams As Needed To Maintain Design Height And Cross Section.

When The Dams Are No Longer Needed, Remove The Aggregate And Stabilize Channel Using An Erosion Resistant Lining, If Necessary.

ROCK CHECK DAM

Not To Scale



Notes:

Installation:
Excavate Only Deep Enough For Both Filter And Riprap. Compact Any Fill Material To The Density Of The Surrounding Undisturbed Soil.

Cut A Keyway In Stable Material At The Base Of The Slope To Reinforce The Toe; Keyway Depth Should Be 1 1/2 Times The Design Thickness Of The Riprap And Should Extend A Horizontal Distance Equal To The Design Thickness.

Place Geotextile Fabric On The Smoothed Foundation, Overlapping The Edges 12 Inches Min. Secure With Anchor Pins Spaced Every 3 Feet Along The Overlap.

Immediately After Installing The Filter, Add The Riprap To Full Thickness In One Operation. Do Not Dump Through Chutes Or Use Any Method That Causes Segregation Of Rock Sizes Or That Will Dislodge Or Damage The Underlying Filter Material.

If Fabric Is Damaged, Remove The Riprap And Repair By Adding Another Layer Of Fabric, Overlapping The Damaged Area By 12 Inches.

Place Smaller Rock In Voids To Form A Dense, Uniform, Well Graded Mass. Blend The Rock Surface Smoothly With The Surrounding Area To Eliminate Protrusions Or Over-Falls.

Inspect Periodically For Displaced Rock Material, Slumping, And Erosion At Edges, Especially Downstream Or Downslope.

Maintenance:
Inspect Periodically For Displaced rock Material, Slumping And Erosion At Edges, Especially Downstream Or Downslope.

PRECAST CONCRETE END SECTION W/ RIP RAP

Not To Scale

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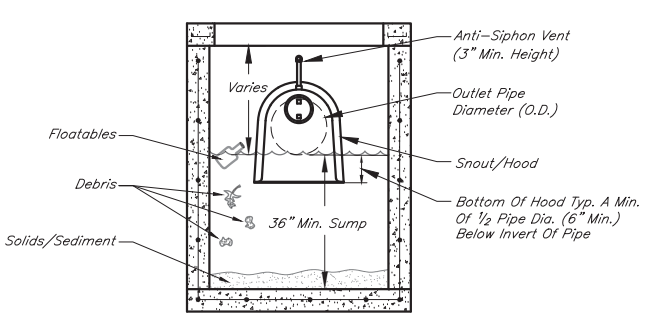
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NOTES:

Installation:

Snout/Hood Is Installed Over The Outlet Pipe Of A Catch Basin Or Stormwater Structure To Reduce Floatable Trash And Debris, Free Oils, And Other Solids From Stormwater Discharges.

Snout/Hood Shall Be Centered And Anchored Over The Outlet Pipe And Must Cover The Pipe O.D. To Ensure Proper Installation.

Structure Shall Be Sumped To Manufacturer's Recommended Depth. Minimum Sump Depth Is Typically 2.5 To 3 Times The I.D. Of The Outlet Pipe Size (Minimum Of 36").

Snout/Hood Shall Be Equipped With An Anti-Siphon Vent.

Maximum Flow And Velocity Shall NOT Exceed Manufacture's Recommendation.

Maintenance:

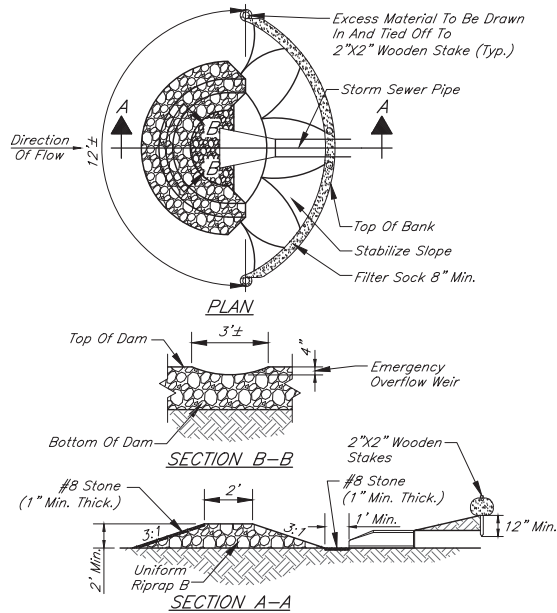
Sediment Depth And Surface Pollutants In The Sump Shall Be Measured Monthly And After Each Rain Event Of 8" or More.

The Sump Shall Be Emptied At Least Yearly And When The Sump Is Half Full, Or Six Inches Of Floatable Pollutants Accumulate On The Surface.

The Snout/Hood Shall Be Inspected Yearly And The Anti-Siphon Vent Shall Be Flushed To Ensure It Is Clear.

SNOUT/HOOD OIL WATER DEBRIS SEPARATOR

Not To Scale



NOTES:

Installation:

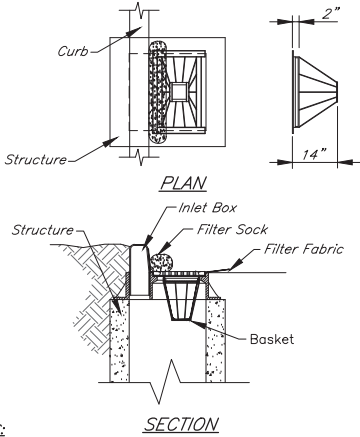
Around the Outer Perimeter Of The Excavated Area, Lay A Ring Of INDOT Uniform B Riprap To A Height Of 12 To 24 Inches Above The Top Of The Storm Drain. Foundation Shall Be Laid On Geotextile Fabric.

Maintenance:

Inspect The Structure Weekly And After Each Rainfall Event. After The Contributing Drainage Area Has Been Stabilized, Remove And Properly Dispose Of Any Unstable Sediment And Construction Material, And Stabilize.

ROCK DONUT

Not To Scale



NOTES:

Installation:

Install Basket Curb Inlet Protection As Soon As Inlet Boxes Are Installed (New Development) Or Prior To Land Disturbing Activities (Existing Development).

If Necessary, Adapt Basket Dimensions To Fit Inlet Box Dimensions.

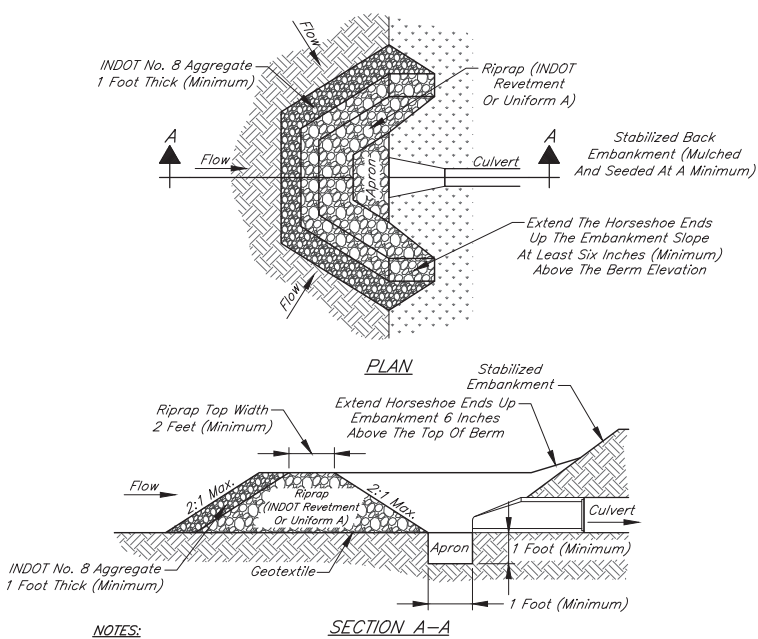
Remove The Grate And Install The Frame Into The Grate Opening. Cut And Install Geotextile Fabric According To The Manufacturer's Recommendations. Replace The Grate. Install Filter Sock Across Inlet Box Opening.

Maintenance:

Inspect Daily And After Each Storm And Remove Sediment. Replace Or Clean Geotextile Fabric And Filter Sock As Needed. Remove Tracked On Sediment From The Street (But Not By Flushing With Water) To Reduce The Sediment Load On This Curb Inlet Practice.

BASKET CURB INLET PROTECTION

Not To Scale



NOTES:

For Unstabilized Embankment Situation:

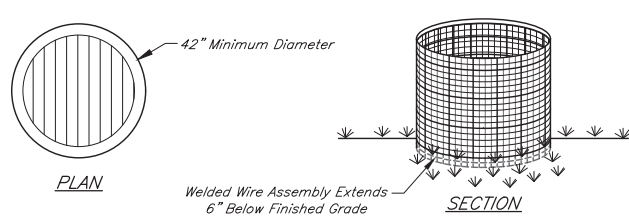
To Prevent Inflows Of Sediment-Laden Run-Off From Entry Behind The Rock Horseshoe Utilize Control Options Such As: Division Berms, Silt Fence, Or Tubular Sediment Control.

Horseshoe Spillway Crest Height:

Shall Be At The Design Elevation Or A Minimum 2 Feet Above The Bottom Culvert Elevation.

ROCK HORSESHOE

Not To Scale



NOTES:

Installation:

6" x 6" Welded Wire Mesh Shall Be Formed Of 10Ga. Steel Conforming To ASTM A-185.

Geotextile Shall Be Wrapped Three Inches Over The Top Member Of The 6" x 6" Welded Wire Mesh And Shall Be Secured With Fastening Rings Through Both Geotextile Layers And Close Around A Steel Member At Six Inches On Center. Fastening Rings Shall Be Constructed Of Wire Conforming To ASTM A-641, A-809, A-370, And A-938.

Geotextile Shall Be Secured To The Sides Of Welded Wire Mesh With Fastening Rings At A Spacing Of One Per Square Foot Except For The Bottom 2-Inches Which Shall Extend Past The Welded Wire And Be Left Unsecured For Entrenchment.

Welded Wire Assembly Shall Be Formed Into A Minimum 42" Diameter Circle With a 3" Minimum Overlap On The Ends Secured By Wire Or Zip Ties.

Welded Wire Assembly Shall Then Be Placed In A 6" Deep Trench And Backfilled And Compacted Over The Geotextile Flap.

Maintenance:

Inspect The Welded Wire Inlet Protector Weekly And After Each Rainfall Event.

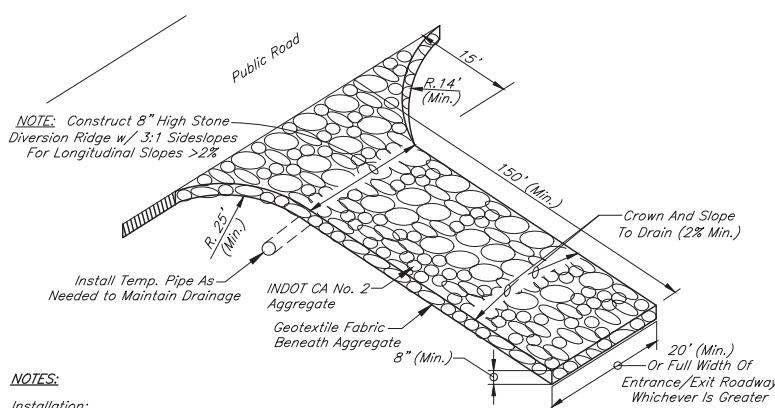
If Geotextile Tears, Start To Decompose, Or In Any Way Becomes Ineffective, Replace The Affected Portion Immediately.

Remove The Deposited Sediment When It Reaches Half The Height Of The Structure At Its Lowest Point Or Is Causing The Structure To Shift. Take Care To Avoid Undermining The Structure During Clean Out.

After The Contributing Drainage Area Has Been Stabilized, Remove The Structure And Sediment Deposits, Bring The Disturbed Area To Grade, And Stabilize.

WELDED WIRE INLET PROTECTION

Not To Scale



NOTES:

Installation:

A Stable Construction Entrance Must Be Provided At All Points Of Construction Traffic Ingress And Egress To The Project Site. Avoid Locating On Steep Slopes Or At Curves In Public Roads.

Remove All Vegetation And Other Objectionable Material From The Foundation Area, And Grade The Foundation And Crown For Positive Drainage.

If Longitudinal Slope Is In Excess Of 2%, Construct A Water Bar (Ridge) About 15 Feet From The Entrance To Divert Runoff Away From The Road (See Detail Above).

Install Pipe Under The Pad (If Needed) To Maintain Proper Public Road Drainage.

Place Geotextile Fabric On The Graded Foundation To Improve Stability.

Place Aggregate To Dimensions And Grade Shown On The Erosion Control Plan, Leaving The Surface Smooth And Sloped For Drainage.

Divert All Surface Runoff And Drainage From The Stone Pad To A Sediment Trap Or Basin.

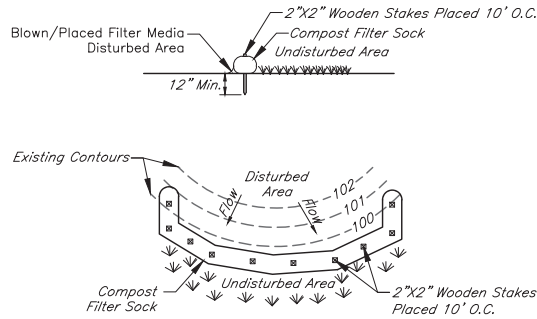
Maintenance:

Inspect Daily And After Each Storm Event Or Heavy Use.

Reshape Pad And Topdress As Needed For Drainage And Runoff Control. Immediately Remove Mud And Sediment Tracked Or Washed Onto Public Roads By Brushing Or Sweeping. Flushing Should Only Be Used If The Water Is Conveyed Into A Sediment Trap Or Basin.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

Not To Scale



NOTES:

Installation:

Filter Sock Should Maintain Solid Contact With The Soil And Be Installed In A Manner That Minimizes Gaps Between The Bottom Of The Sock And The Underlying Substrate.

Filter Socks Should Be Installed Parallel To The Contour With Both Ends Of The Sock Extended Upslope At A 45 Degree Angle To The Rest Of The Sock.

Socks Placed On Earthen Slopes Should Be Staked In The Center Of The Sock Or Immediately Downslope Of The Sock At The Interval Recommended By The Manufacturer. Socks Installed On Paved Surfaces Shall Have Concrete Blocks Placed Immediately Downslope Of The Sock At An Interval Recommended By The Manufacturer.

Maintenance:

Traffic Shall Not Be Permitted To Cross Filter Socks.

Inspect The Structure Weekly And After Each Rainfall Event. Damaged Socks Shall Be Repaired According To The Manufacturer's Specifications Or Replaced Within 24 Hours Of Inspection.

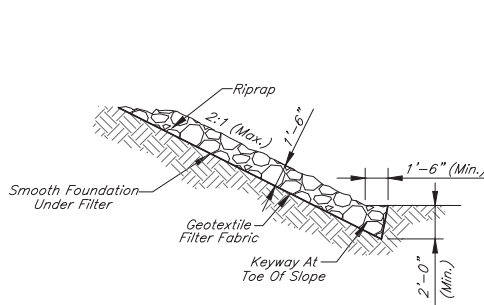
Remove Deposited Sediment When It Reaches Half The Height Of The Filter Sock At Its Lowest Point.

Take Care To Avoid Undermining The Filter Sock During Clean Out.

After The Contributing Drainage Area Has Been Stabilized, Remove And Properly Dispose Of Any Unstable Sediment And Construction Material, And Stabilize.

FILTER SOCK

Not To Scale



NOTES:

Installation:

Excavate Only Deep Enough For Both Filter And Riprap. Compact Any Fill Material To The Density Of The Surrounding Undisturbed Soil.

Cut A Keyway In Stable Material At The Base Of The Slope To Reinforce The Toe. Keyway Depth Should Be 1 1/2 Times The Design Thickness Of The Riprap, And Should Extend A Horizontal Distance Equal To The Design Thickness.

Place Geotextile Fabric On The Smoothed Foundation, Overlapping The Edges 12 Inches Minimum. Secure With Anchor Pins Spaced Every 3 Feet Along The Overlap.

Immediately After Installing The Filter, Add The Riprap To Full Thickness In One Operation. Do Not Dump Through Chutes Or Use Any Method That Causes Segregation Of Rock Sizes, Or That Will Dislodge Or Damage The Underlying Filter Material.

If Fabric Is Damaged, Remove The Riprap And Repair By Adding Another Layer Of Fabric, Overlapping The Damaged Area By 12 Inches.

Place Smaller Aggregate In Voids To Form A Dense, Uniform, Well Graded Mass. Blend The Riprap Surface Smoothly With The Surrounding Area To Eliminate Protrusions Or Over Falls.

Maintenance:

Inspect Periodically For Displaced Aggregate Material, Slumping And Erosion At Edges, Especially Downstream Or Downslope.

RIPRAP SLOPE PROTECTION

Not To Scale

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① Prepare Soil Before Installing Blankets, Including Any Necessary Application Of Lime, Fertilizer, Or Seed.

② Begin At The Top Of The Channel By Anchoring The Blanket In A 6 Inch Deep By 6 Inch Wide Trench With Approximately 12 Inches Of Blanket Extended Beyond The Upslope Portion Of The Trench. Anchor The Blanket With A Row Of Staples/Stakes Approximately 12 Inches Apart In The Bottom Of The Trench. Backfill And Compact The Trench After Stapling. Apply Seed To Compacted Soil And Fold Remaining 12 Inch Portion Of Blanket Back Over Seed And Compacted Soil. Secure Blanket Over Compacted Soil With A Row Of Staples/Stakes Spaced Approximately 12 Inches Apart Across The Width Of The Blanket.

③ Roll Center Blanket In Direction Of Water Flow In Bottom Of Channel. Blankets Will Unroll With Appropriate Side Against The Soil Surface. All Blankets Must Be Securely Fastened To Soil Surface By Placing Staples/Stakes In Appropriate Locations As Shown In The Staple Pattern Guide. When Using Optional Dot System, Staples/Stakes Should Be Placed Through Each Of The Colored Dots Corresponding To The Appropriate Staple Pattern.

④ Place Consecutive Blankets End Over End (Shingle Style) With A 4-6 Inch Overlap. Use A Double Row Of Staples Staggered 4 Inches Apart And 4 Inches On Center To Secure Blankets.

⑤ Full Length Edge Of Blankets At Top Of Side Slopes Must Be Anchored With A Row Of Staples/Stakes Approximately 12 Inches Apart In A 6 Inch Deep By 6 Inch Wide Trench. Backfill And Compact The Trench After Stapling.

⑥ Adjacent Blankets Must Be Overlapped Approximately 2-5 Inches, (Depending On Blanket Type) And Stapled, To Ensure Proper Seam Alignment. Place The Edge Of The Overlapping Blanket (Blanket Being Installed On Top) Even With The Colored Seam Stitch On The Blanket Being Overlapped.

⑦ In High Flow Channel Applications, A Staple Check Slot Is Recommended At 30-40 Foot Intervals. Use A Double Row Of Staples Staggered 4 Inches Apart And 4 Inches On Center Over Entire Width Of The Channel.

⑧ The Terminal End Of The Blankets Must Be Anchored With A Row Of Staples/Stakes Approximately 12 Inches Apart In A 6 Inch Deep By 6 Inch Wide Trench. Backfill And Compact The Trench After Stapling.

NOTE:

* Horizontal Staple Spacing Should Be Altered If Necessary To Allow Staples To Secure The Critical Points Along The Channel Surface.

** In Loose Soil Conditions, The Use Of Staple Or Stake Lengths Greater Than 6 Inches May Be Necessary To Properly Anchor The Blankets.

EROSION CONTROL BLANKET – FLOWLINE APPLICATION

Not To Scale

"SWPPP INFORMATION" Must Be Displayed Prominently Across The Top Of The Sign, As Shown In The Detail.

Sign To Be Constructed Of A Rigid Material, Such As Plywood Or Outdoor Sign Board. Sign Must Be Constructed In A Manner To Protect Documents From Damage Due To Weather (Wind, Sun, Moisture, Etc.)

SWPPP INFORMATION SIGN

Not To Scale

NOTES:

1.) The SWPPP Information Sign Must Be Located Near The Construction Entrance Of This Site, Such That It Is Accessible And Viewable By The General Public, But Not Obstructing Views As To Cause A Safety Hazard.

2.) All Posted Documents Must Be Maintained In A Clearly Readable Condition At All Times Throughout Construction And Until The Notice-Of-Termination (NOT) Is Filed For The Permit.

3.) Contractor Shall Post Other Storm Water And/Or Erosion And Sediment Control Related Permits On The Sign As Required.

4.) Sign Shall Be Located Outside Of Public Right-Of-Way And Easements Unless Approved By The Yorktown MS4 Operator.

① Prepare Soil Before Installing Blankets, Including Any Necessary Application Of Lime, Fertilizer, And Seed.

② Begin At The Top Of The Slope By Anchoring The Blanket In A 6 Inch Deep By 6 Inch Wide Trench With Approximately 12 Inches Of Blanket Extended Beyond The Upslope Portion Of The Trench. Anchor The Blanket With A Row Of Staples/Stakes Approximately 12 Inches Apart In The Bottom Of The Trench. Backfill And Compact The Trench After Stapling. Apply Seed To Compacted Soil And Fold Remaining 12 Inch Portion Of Blanket Back Over Seed And Compacted Soil. Secure Blanket Over Compacted Soil With A Row Of Staples/Stakes Spaced Approximately 12 Inches Apart Across The Width Of The Blanket.

③ Roll The Blankets (A.) Down Or (B.) Horizontally Across The Slope. Blankets Will Unroll With Appropriate Side Against The Soil Surface. All Blankets Must Be Securely Fastened To Soil Surface By Placing Staples/Stakes In Appropriate Locations As Shown In The Staple Pattern Guide. When Using Optional Dot System, Staples/Stakes Should Be Placed Through Each Of The Colored Dots Corresponding To The Appropriate Staple Pattern.

④ The Edges Of Parallel Blankets Must Be Stapled With Approximately 2-5 Inches Overlap Depending On Blanket Type. To Ensure Proper Seam Alignment, Place The Edge Of The Overlapping Blanket (Blanket Being Installed On Top) Even With The Colored Seam Stitch On The Previously Installed Blanket.

⑤ Consecutive Blankets Spliced Down The Slope Must Be Placed End Over End (Shingle Style) With An Approximate 3 Inch Overlap. Staple Through Overlapped Area, Approximately 12 Inches Apart Across Entire Blanket Width.

Overlap The Blankets With The Direction Of The Flow Of The Water.

EROSION CONTROL BLANKET – SLOPE APPLICATION

Not To Scale

NOTE:

* In Loose Soil Conditions, The Use Of Staple Or Stake Lengths Greater Than 6 Inches May Be Necessary To Properly Secure The Blankets.

SEEDING:

The Following Table Is For General Seeding Information Only. Consult The *Indiana Storm Water Quality Manual* For Recommendations Relating To Steep Banks And Cuts, High Maintenance Areas, And Channels And Areas Of Concentrated Flow.

SEEDS:

40 Percent Kentucky Bluegrass
40 Percent Creeping Red Fescue
20 Percent Annual Rye Grass

FERTILIZER:

Commercial Fertilizer (12-12-12)

STRAW:

Clean And Free Of Weed Seeds

Spread Fertilizer Uniformly Over Finish Graded Surfaces At A Rate Of 20 Pounds Per 1,000 Square Feet. Thoroughly Disk, Harrow, Or Rake Fertilizer Into Soil To Depth Not Less Than 2 Inches.

Distribute Seed Mix Same Day As Fertilizer Is Applied. Spread Evenly At A Rate Of 3 Pounds Per 1,000 Square Feet. Rake Lightly And Compact Areas With 100 Pound Roller.

Cover Areas With Straw Evenly Spread At A Rate Of 2 Tons Per Acre Immediately After Seeding. Water Areas With Fine Spray. Do Not Flood Or Create Washes. Protect Seeded Areas From Erosion.

Continue Watering Of These Areas On A Daily Basis For The Remainder Of The Construction Period.

Hold Sloped Areas Steeper Than 2 (Horizontal) To 1 (Vertical) With Wire Mesh Or Stakes And Wire.

Mulching Should Be Applied Year-Round For All Seeding Types.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Wheat Or Rye												
Oats												
Annual Rye Grass												
Non-Irrigated*												
Irrigated												
Dormant Seeding**												

Legend:

- Irrigation Required
- * Seeding Dates May Be Extended 5 Days If Mulch Applied And Planted Late Summer
- ** Increase Seeding Rate By 50%

TEMPORARY AND PERMANENT SEEDING CHART

Not To Scale

Extend Turf Reinforcement Mat To Accommodate Maximum Designed Flow Depth

NOTES:

Installation:

Select The Type Of Mat Recommended For The Site Conditions (Slope, Channel, Flow Velocity) And Problem To Be Addressed.

Install Any Practices Needed To Control Erosion And Runoff, Such As Temporary Or Permanent Diversions, Slope Drains, Sediment Basins/Traps, Silt Fence Or Straw Bale Dams.

Grade The Site As Specified.

Install The Mat According To Manufacturer's Specifications.

Backfill Topsoil To A Depth Equal To The Thickness Of The Mat.

Seed The Area After The Mat Has Been Installed And Backfilled With Soil.

Mulch The Area, Or Use Erosion Control Blankets To Stabilize The Surface.

Maintenance:

Until The Surface Is Stabilized, Inspect Weekly And After Each Storm Event For Erosion Exposing The Mat.

If A Specific Area Shows Erosion, Add Soil And Restabilize.

TURF REINFORCEMENT MAT

Not To Scale

TOWN OF YORKTOWN

SHEET

16

OF

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EROSION CONTROL MEASURES

REVISIONS

Rev. No.	Description	Date
1	New Sheet	X/XX/2023

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER

DATE

APPROVED

STREET SUPERINTENDENT

DATE

XX/XX/23

DATE

EROSION CONTROL NOTES

GENERAL:

Take Measures To Control Erosion And Sedimentation By Storm/Wind Events To Assure That Sediment Is Not Transported From The Site By Storm Events. Practices Such As Silt Traps Or Filters Shall Be Installed Prior To Land Disturbing Activities. New Drainage Swales Shall Be Seeded And/Or Sodded, Or Other Protective Practices Applied, Immediately Following Construction. All Practices Shall Be Maintained To Remove Sediment From Runoff Leaving The Site As Long As Unstabilized Soil Conditions Exist.

After Land Disturbing Activities Cease And The Soil Is Stabilized, Temporary Erosion Control Measures May Be Eliminated If Their Purpose Has Been Fulfilled. Any Disturbed Soil Resulting From Removal Of Such Practices Shall Be Stabilized By Approved Methods.

Dispose Properly All Waste And Unused Building Materials Including, But Not Limited To, Garbage, Debris, Cleaning Wastes, Water, Toxic Materials, And Hazardous Substances. Do Not Allow Substances To Be Carried By Runoff Into A Receiving Channel Or Storm Sewer System.

Clean Public Or Private Roadways Daily And After Major Storms Using Acceptable Methods Such as Sweeping To Remove Any Accumulated Sediment. The Developer's Contractors Are Responsible For Supervision Of The Construction Activity Within The Development And Shall Take All Necessary Actions To Remove Sediment From The Streets.

For Construction Sequence, Maintenance, And Other Soil Erosion Requirements, See Specifications For Site Clearing, Slope Protection, Erosion Control, Landscaping, And Seeding.

Erosion And Sediment Control Practices Must Adhere To, Or Exceed Those Shown On The Erosion Control Plan, And Shall Be In Accordance With The Construction Stormwater General Permit, And Indiana Storm Water Quality Manual, Indiana Department Of Environmental Managemnet.

Construct Silt Fence Around Soil Stockpiles Prior To Any Disturbance. Only Remove Silt Fence As Necessary To Access The Stockpile.

SURFACE STABILIZATION:

Cut Slopes Which Are To Be Topsoiled Should Be Scarified To A Minimum Depth Of 4 Inches Prior To Placement Of Topsoil. Install Erosion Control Blankets On All Slopes Of 3 (Horizontal) To 1 (Vertical).

Stabilize All Disturbed Ground Within Seven Days Of Being Left Inactive By Seeding, Sodding, Mulching, Or By Other Equivalent Erosion Control Practices. Immediate Stabilization Shall Be Planned To Aid In Surface Runoff And Stabilization Shall Follow A Linear Progression As The Site Is Developed.

Un-Vegetated Areas That Are Left Idle Or Scheduled To Be Left Inactive Must Be Temporarily Or Permanently Stabilized With Measures Appropriate For The Season To Minimize Erosion Potential. To Meet This Requirement, The Following Apply:

1. Stabilization Must Be Initiated By The End Of The Seventh Day The Area Is Left Idle. The Stabilization Activity Must Be Completed With Fourteen Days After Initiation. Initiation Of Stabilization Includes, But Is Not Limited To, The Seeding And/Or Planting Of The Exposed Area And Applying Mulch Or Other Temporary Surface Stabilization Methods Where Appropriate. Areas That Are Not Accessible Due To An Unexpected And Disruptive Event That Prevents Construction Activities Are Not Considered Idle.
2. Areas That Have Been Compacted May Be Excluded From The Stabilization Requirement When The Areas Are Intended To Be Impervious Surfaces Associated With The Final Land Use, Provided Run-off From The Area Is Directed To Appropriate Sediment Control Measures.

See The Landscape Plan For Permanent Ground Cover Requirements Adjacent To The Building And Parking Areas.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT PAD:

Construct The Temporary Gravel Drive Using 6 Inches INDOT No. 2 Stone Over A Stable Foundation. Geotextile Fabric Shall Be Used Under All Drives Including Individual Lots. Grade For Positive Drainage.

Inspect The Entrance Pad Area Weekly And After Storm Events Or Heavy Use. Reshape The Pad As Needed For Drainage And Runoff Control. Top Dress Pad With Clean Stone.

SODDING:

Do Not Install Sod On Hot, Dry Soil, Frozen Soil, Compacted Clay, Loose Sand Or Gravel, Or Pesticide Treated Soil. Ideal Sodding Time Is May 1-June 1, Or September 1-October 20. Although It Can Be Installed As Early As March 15, If Available And Temperatures Are Above 32° F, Or June 1-September 1 If Irrigated.

Install Sod After Other Erosion Control Practices Have Been Completed. Break Up Compacted Soils Sufficiently To Create A Favorable Rooting Depth Of 6-8 Inches, Using A Chisel Plow, Disk, Harrow, Or Rake.

Soil Compaction Is To Be Minimized, Especially In Areas Where Permanent Vegetation Will Be Established. Topsoil Must Be Preserved, Unless Infeasible.

Apply Topsoil If The Site Is Otherwise Unsuitable For Establishing Vegetation. Shape, Smooth, And Firm The Soil Surface.

Have The Soil In The Sod Bed Tested To Determine Its pH And Nutrient Level. If The pH Is Too Acidic For The Grass Sod To Be Installed, Apply Lime According To Test Results Or At The Rate Recommended By The Sod Supplier.

Fertilize As Recommended By The Soil Test. If Testing Was Not Done, Consider Applying 400-600 Lbs./Acre Of 12-12-12 Analysis Fertilizer, Or Equivalent Fertilizer, As Recommended By The Soil Test. Work The Fertilizer Into The Soil To 2-4 Inches Deep.

Apply Fertilizer At An Appropriate Time Of year For The Project Location, Taking Into Consideration Proximity To A Waterbody, And Preferably Timed To Coincide With The Period Of Maximum Vegetative Uptake And Growth.

Avoid Applying Fertilizer Immediately Prior To Precipitation Events That Are Anticipated To Result In Stormwater Run-Off From The Application Area.

TREE CONSERVATION/PROTECTION:

Protect Trees From Construction Equipment By Fencing Off An Area Equivalent To The Tree's Crown With Temporary Construction Safety Fence. If A Fence Cannot Be Erected, Cushion The Rooting Area With 6 Inches Of Wood Chips, Or Wood Or Brick Paths.

Create Traffic Patterns Such As To Keep Soil Compaction To A Minimum. Store Supplies And Equipment Away From Protected Tree Areas. Aerate Soil Where Compaction Has Been Excessive.

When Clearing Areas Adjacent To Protected Trees, Use Equipment Such As A Brush Cutter Or Rotary Ax, Or Cut By Hand. Where Root Areas Must Be Graded, Cut Large Roots Instead Of Tearing Them With Equipment.

Minimize Changes In The Drainage Pattern. Avoid Putting Fill Over The Root System.

Prune Low Hanging Limbs That Could Otherwise Be Broken Off By Equipment.

EROSION CONTROL NOTES CONT'D

EROSION CONTROL BLANKETS:

Erosion Control Blankets Shall Be Selected Based Upon Application And Shear Strength.

Use Machine Produced Mat Of Straw Fiber Matrix Or Curled Wood Excelsior Of 80 Percent, 6 Inch Or Longer Fiber Length.

Evenly Distribute Fibers Over Entire Area Of Blanket To Provide Consistent Thickness.

Provide Blanket With Top Side Covered With Biodegradable Extruded Plastic Mesh.

Treat Blankets To Impart Smolder Resistance Without Use Of Chemical Additives.

Provide "Curlex Blankets" By American Excelsior Company, Or "S150" By North American Green, Or Accepted Substitute.

EROSION CONTROL BLANKET STAPLES:

Use Minimum 0.091 Inch Diameter Steel Wire "U" Shape With Legs 6 Inches In Length With 1 Inch Crown.

CONCRETE AND CEMENTITIOUS WASHWATER:

Cementitious Washwater Results From The Cleaning Of Tools And Equipment Used In The Delivery, Mixing, Handling, And Working Of Cementitious Materials Often Associated With Concrete, Mortar, Plaster, Stucco, Grout And Flowable Fill.

Concrete Washouts Shall Be Of Sufficient Volume And Quantity To Contain All Liquid And Concrete Waste Generated By Washout Operations. The System Shall Be Designed To Eliminate Run-off And Minimize Precipitation From Entering The Washwater Containment System. Covering Of Containment When Not In Use Is Recommended.

Locate Washwater Containments At Least 50 Feet From Any Creeks, Wetlands, Ditches, Karst Features, Or Storm Drains/manmade Conveyance Systems. Locate When Practical In Relatively Flat Areas With Established Vegetative Cover In Areas That Provide Easy Access For Equipment That Will Require The Use Of Washwater Containment Facilities.

Prefabricated Washout Containers Or Roll-off Dumpsters Are Preferred. Structure Must Be Watertight And Have The Strength To Resist Failure Or Collapse For The Duration Of Use. Waterproof Lining Is Required To Have A Minimum Thickness Of 10 Mil, Be A Single Continuous Sheet Sufficient To Adequately Line The Entire Containment And Be Free Of Defects, Holes, Rips, Or Tears. Signage Is Required To Identify Washout Areas.

Washouts Shall Not Be Used For Trash Or Construction Debris. Containers Should Not Be Filled Beyond 75 Percent Of Containment Capacity. Washout Systems Are Not To Be Used For Disposal Of Hard Concrete Waste. Excess Concrete Or Residual Loads Due To Potential To Exceed The Capacity And Damage System. When A Containment Is At Capacity And Can No Longer Accept Washwater, Identify With "Closed" Sign. No Spillage Of Washwater Shall Occur From The Transport Of The Unit. Closure Of Washwater Shall Be Accomplished When All Fluids Are Removed Or Evaporated. The Remaining Solid Cementitious Material May Be Used As Clean Fill.

FLOATING OUTLET "SKIMMER":

Sediment Basins Where Feasible, Must Withdraw Water From The Surface Of The Water Column Unless Equivalent Sediment Reduction Can Be Achieved By Use Of Alternative Measures. Alternative Measures Include But Are Not Limited To Increasing The Basin Length To Width Ratio To 4:1 Or Greater, Implementation Of Porous Baffles, Use Of Flocculants/polymers, And Or Phasing Of Project Land Disturbance And Rapid Stabilization.

Floating Outlets Can Be Implemented With The Permanent Basin Outlet Structure. The Discharge Capacity:

Dewatering Zone Volume/Dewatering Time = Required Flow Rate Of Skimmer. Locate Floating Devices Where They Can Be Easily Accessed To Facilitate Maintenance Activities And To Be Appropriately Tethered Or Restrained To Prevent Flexible Boom Damage. If Ice Formation Is A Concern, Install Boom And Inlet At An Incline To Maintain Positive Drainage Through The Device. Install Following The Manufacturer's Recommendation.

The Floating Inlet Is Designed To Drain The Dewatering Zone In No Less Than 48 Hours And No Longer Than 72 Hours For The Minimum Required Storage Volume. Inspect Weekly And Prior To Anticipated Rain Events. The Floating Outlet Practice Shall Only Be Removed When The Contributing Drainage Area Has Been Properly Stabilized And No Longer Contributing Sediment-laden Run-off Or When Freezing Conditions Are Anticipated.

NATURAL BUFFERS:

Preserve Existing Natural Buffers That Are Adjacent To Waters Of The State To Promote Infiltration And Provide Protection Of The Water Resource. Natural Buffers Must Be Preserved, Including The Entire Buffer Bordering And/or Surrounding The Water Resource.

Buffers:

1. 50 Feet Or More In Width Must Be Preserved To A Minimum Of 50 Feet
2. Less Than 50 Feet In Width Must Be Preserved In Their Entirety.
3. May Be Enhanced With Vegetation That Is Native And Promotes Ecological Improvements And Sustainability.

Run-off Directed To The Natural Buffer Must Be Treated With Appropriate Erosion And Sediment Control Measures Prior To Discharging To The Buffer And Managed To Prevent Erosion From Occurring Within The Buffer Area.

Stormwater Conveyances And Outfalls Are Allowed To Impact The Buffer And Must Be Designed To Minimize The Width Of Disturbance And Impact To The Buffer.

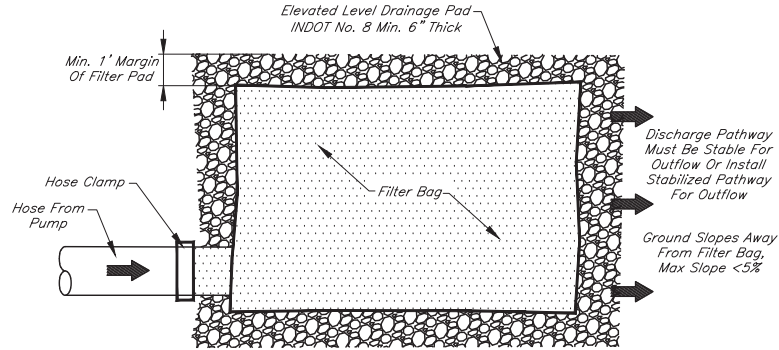
WASTE CONTAINERS (TRASH RECEPTACLES):

Must Be Managed To Reduce The Discharge Of Pollutants And Blowing Of Debris. If Stormwater Has The Potential To Come Into Contact With Waste, A Cover Is Required. Waste That Is Not Disposed Of In A Trash Receptacle Must Be Protected From Exposure To The Weather And/or Removed At The End Of The Day From The Site And Disposed Of Properly.

ANIONIC POLYMERS (FLOCCULANTS):

Are Authorized For Sediment Control Provided Their Use Is In Conformance With Current State Of Indiana Standards And Specifications, And The Use Is Identified In The Stormwater Pollution Prevention Plan (SWP3). The Manufacture Representative Or Properly Trained Individual Is Required To Oversee The Use Of All Polymers. Prior To The Use Of The Polymer, An Email Notification Must Be Made To The Town Of Yorktown.

IDEM And The Muncie Delaware County Department Of Stormwater Management Shall Be Notified Prior To Any Unanticipated Usage Of Anionic Polymers.



NOTES:

Dewatering Bags Are Used To Minimize The Discharge Of Sediment For Pump Induced Dewatering Activities.

Bag Size Is Dependent On The Pumping Rate And Soil Conditions.

Clamp Pump Hose With Steel Hose Clamp Over The Rigid Hose Connector Area To A Tight Secure Connection To Filter Bag.

Locate Filter Bags Where Outflows Can Easily Drain. Preferred Locations Are Areas Of Undisturbed Densely Vegetated Areas. Locate For Ease Of Access, Monitoring, Maintenance, And Removal.

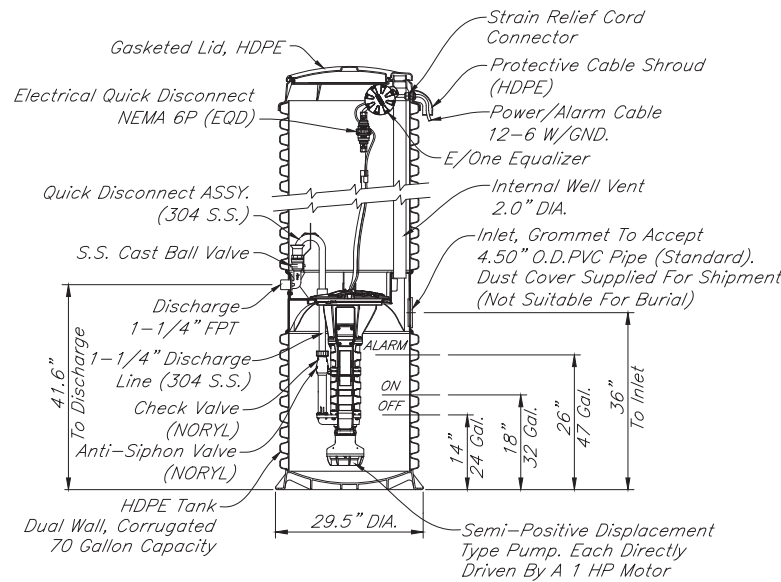
MATERIALS:

Nonwoven Polyethylene Geotextile Or Geotextile Bag.Steel Hose Clamps Or Equivalent To Tightly Attach Pump Hose To The Filter Bag.Elevated Drainage Pad (No. 8 Stone, Wood Mulch, Straw Bales, Wood Pallet). Secondary Containment Berm (Optional).

FILTER BAGS (PUMP DISCHARGE FILTER BAGS)

Not To Scale

REVISIONS				<div>RECOMMENDED FOR APPROVAL</div> <div>DESIGN ENGINEER</div> <div>XX/XX/23</div> <div>DATE</div> <div>APPROVED</div> <div>STREET SUPERINTENDENT</div> <div>DATE</div>	TOWN OF YORKTOWN	SHEET 17 OF 18
Rev. No.	Description	Date			<i>EROSION CONTROL MEASURES</i>	
1	New Sheet	X/XX/2023				



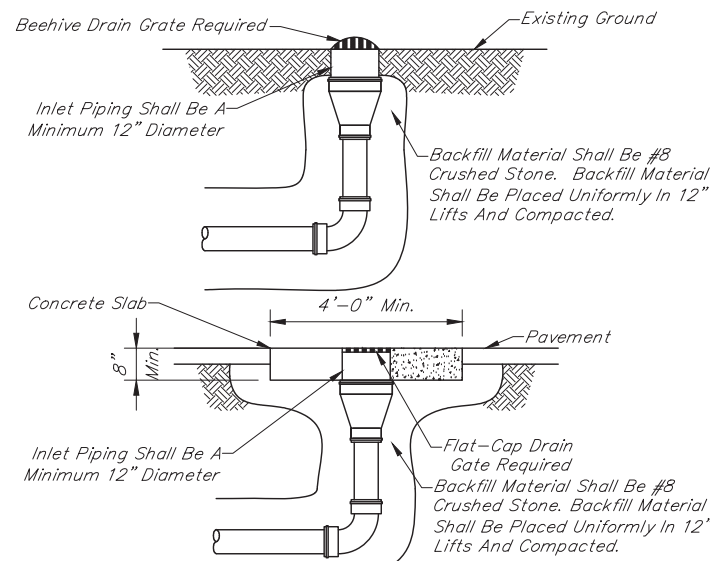
NOTE:

1.) Concrete Ballast May Be Required. See Manufacture Installation Instructions For Details.

2.) Dimensions Are For Reference Only.

GRINDER PUMP STATION DETAIL

Scale: None



MINOR STORM CONNECTION

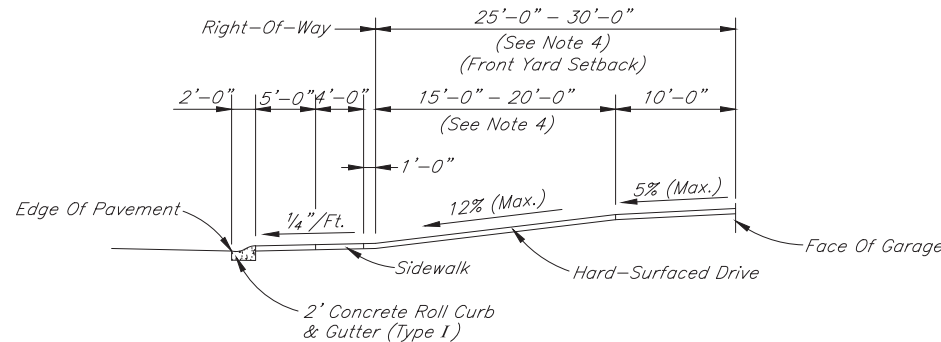
Scale: 1/2"=1'-0"

Notes:

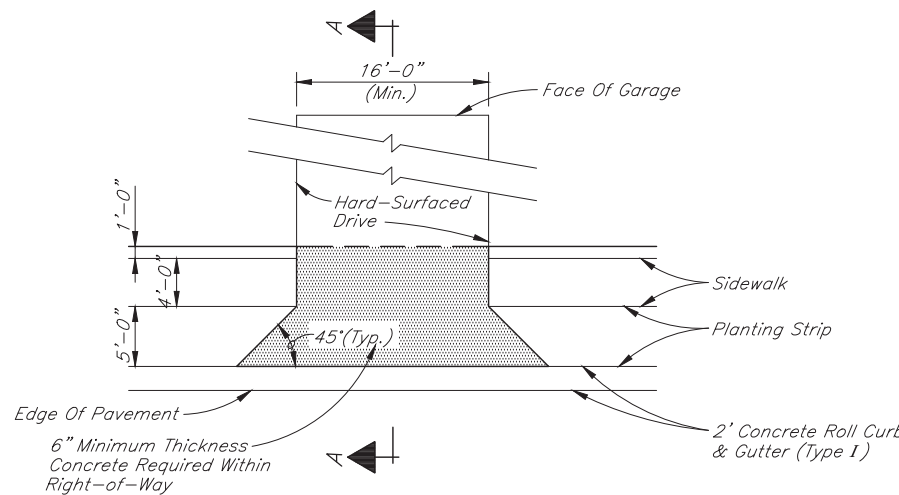
- 1.) This Connection Is For Single Family Residential Properties Only And Is NOT To Be Used For Direct Connections From Downspouts.
- 2.) Drainage Piping Shall Be A Minimum 6" Diameter And Pipe Material Shall Meet Town Standards.
- 3.) Piping Shall Be Core-Drilled Into Existing Structure And Annular Space Must Be Grouted.
- 4.) Clean-Outs Shall Be Required At Angular Bends And Every 100' Thereafter.

RESIDENTIAL DRIVES

- 1.) The Maximum Algebraic Difference In Grades For Any 10 Foot Interval Shall Not Exceed 8 % For Crest Vertical Curves, Nor 10 % For Sag Vertical Curves.
- 2.) All Lots Shall Drain To Adjacent Streets Except With The Prior Approval Of Town.
- 3.) Concrete Drives Require Control Joints At A Maximum Of Every 10 Feet Each Way.
- 4.) Use Actual Setback As Shown On Plat And As Provided By The Town Of Yorktown Zoning Ordinance.

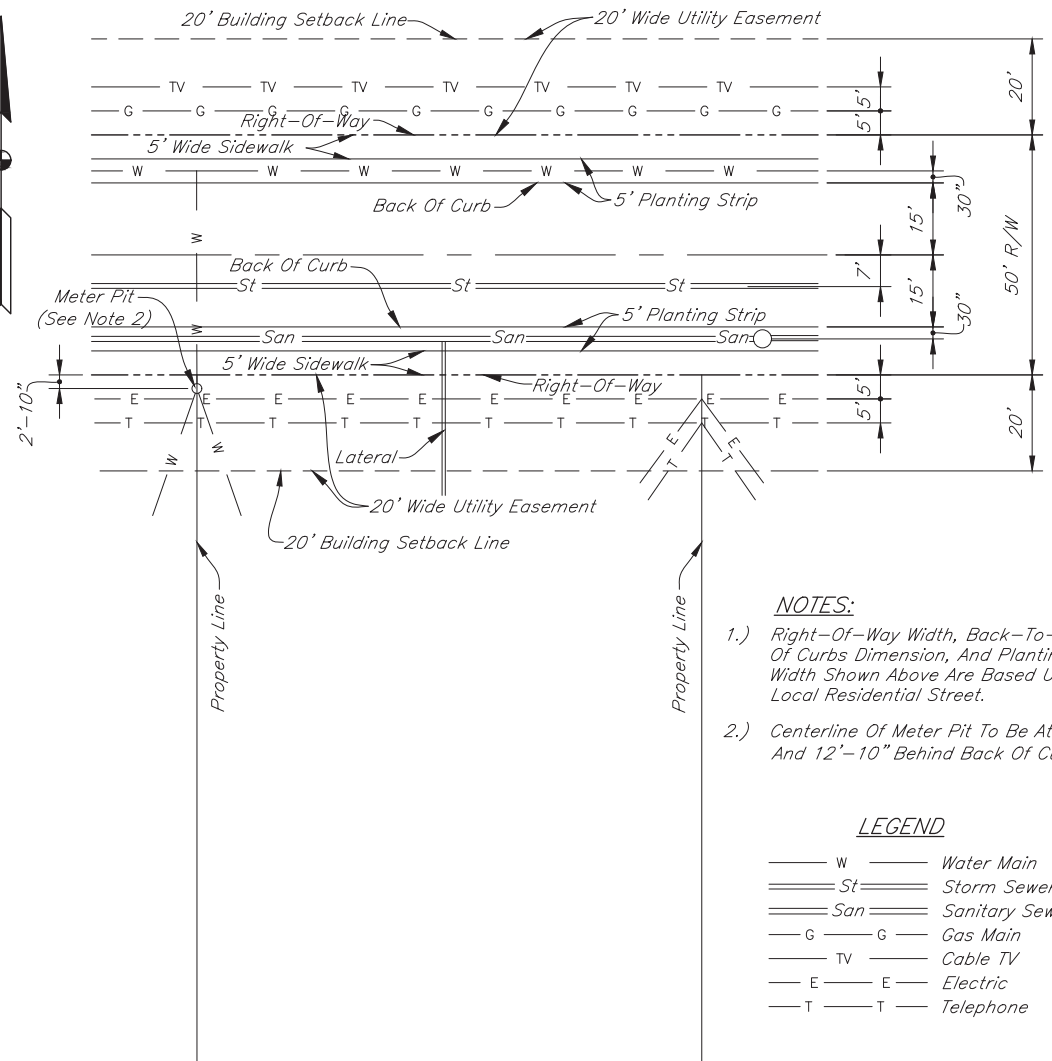


SECTION A-A



RESIDENTIAL DRIVE

Scale: 1/8"=1'-0"



NOTES:

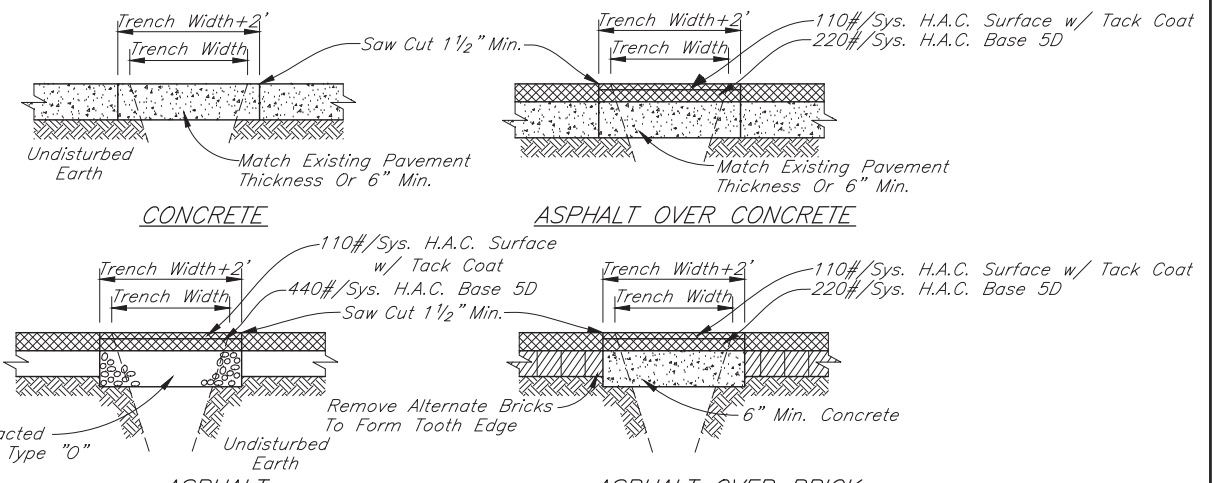
- 1.) Right-Of-Way Width, Back-To-Back Of Curbs Dimension, And Planting Strip Width Shown Above Are Based Upon Local Residential Street.
- 2.) Centerline Of Meter Pit To Be At Lot Line And 12'-10" Behind Back Of Curb.

LEGEND

W Water Main
St Storm Sewer
San Sanitary Sewer
G Gas Main
TV Cable TV
E Electric
T Telephone

TYPICAL LOT DETAIL

Scale: 1"=20'



NOTE:

- 1.) All Concrete Shall Be Air Entrained, 6 Bag Per Cubic Yard With 4,000 lb./in. Minimum 28 Day Strength. Concrete Surface Shall Be Broom Finished Perpendicular To Traffic Flow.

PAVEMENT RECONSTRUCTION DETAILS

Scale: None

REVISIONS		
Rev. No.	Description	Date
1	Added Grinder Pump Station & Minor Storm Connection Details, & Rev. Sheet Total	X/XX/2023

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER

XX/XX/23
DATE

APPROVED

STREET SUPERINTENDENT

DATE

TOWN OF YORKTOWN

MISCELLANEOUS DETAILS AND NOTES

SHEET

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OF

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