

RIVERS CROSSING WEST SECTION 2 - OUTLOT 4

GENERAL NOTES

- CONNECTION TO THE WATER SYSTEM AND CONSTRUCTION SHALL COMPLY WITH THE RULES, SPECIFICATIONS AND INSPECTION OF THE OFFICE OF THE WARREN COUNTY SANITARY ENGINEER. ALL OTHER PLANS AND CONSTRUCTION SHALL COMPLY WITH THE RULES, SPECIFICATIONS AND INSPECTION OF THE VILLAGE OF SOUTH LEBANON.
- ALL WORK AND MATERIALS ARE TO CONFORM TO THE 2010 EDITION OF ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS AND VILLAGE OF SOUTH LEBANON SPECIFICATIONS. WHEN IN CONFLICT, THE MORE STRINGENT REQUIREMENTS SHALL PREVAIL.
- UNLESS OTHERWISE NOTED ALL CONSTRUCTION DETAILS SHALL CONFORM WITH THE "STANDARD CONSTRUCTION DRAWINGS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION".
- ALL SANITARY SEWER MANHOLES, CASTINGS, PIPE, ETC., SHALL CONFORM WITH CURRENT SPECIFICATIONS OF THE VILLAGE OF SOUTH LEBANON AND THE OHIO ENVIRONMENTAL PROTECTION AGENCY.
- STORM SEWER PIPES DESIGNATED AS "STM" SHALL MEET THE MATERIAL & INSTALLATION REQUIREMENTS OF ODOT ITEM 603, TYPE B CONDUITS AND AS FOLLOWS:
 - NON-REINFORCED CONCRETE PIPE PER ODOT SPECIFICATION 706.01
 - REINFORCED CONCRETE CIRCULAR PIPE PER ODOT SPECIFICATION 706.02
 - PRECAST REINFORCED CONCRETE BOX SECTIONS PER ODOT SPECIFICATION 706.05
 - REINFORCED CONCRETE ELLIPTICAL CULVERT, STORM DRAIN, AND SEWER PIPE PER ODOT SPECIFICATION 706.04
 - ALUMINIZED TYPE 2 CORRUGATED STEEL PIPE AND PIPE ARCHES WITH PAVED INVERT PER ODOT SPECIFICATIONS 707.01 OR 707.02
 - CORRUGATED POLYETHYLENE SMOOTH LINED PIPE PER ODOT SPECIFICATION 707.33
 - POLYVINYL CHLORIDE PROFILE WALL PIPE PER ODOT SPECIFICATION 707.42
- PIPE BEDDING AND TRENCH BACKFILL SHALL BE PER ODOT 603 AND STANDARD DRAWING DM-1.4 CONDUIT INSTALLATION. CONTRACTOR SHALL PROVIDE AN ALTERNATE BID ITEM TO PROVIDE STRUCTURAL BACKFILL FOR ALL TRENCHES TO PAVEMENT SUBGRADE.
- ALL STORM STRUCTURES ARE ODOT TYPES UNLESS OTHERWISE INDICATED.
- ALL CATCH BASINS SHALL BE EQUIPPED WITH HEAVY DUTY, BICYCLE SAFE GRATES CAPABLE OF CARRYING AN HS-25 LOADING, UNLESS OTHERWISE NOTED.
- ANY EXISTING STORM SEWER CUT IN EXCAVATION WHICH DRAINS AN OFFSITE AREA MUST BE TIED INTO THE STORM SEWER SYSTEM.
- ALL CATCH BASINS IN THE PAVEMENT OR CURB ARE TO HAVE A MINIMUM OF TWO FOUR (4) INCH PERFORATED UNDERDRAINS EXTENDING TEN (10) LINEAR FEET FROM THE CATCH BASIN. UNDERDRAINS SHALL BE PLACED ONE ON EACH SIDE OF THE STORM SEWER AND AS NEAR TO PERPENDICULAR TO THE STORM SEWER AS IS PRACTICAL WITHOUT INTERFERING WITH STORM PIPES SHOWN ON THE PLANS.
- AS THE INSTALLATION OF THE STORM SEWER PROGRESSES, EROSION CONTROL MEASURES SHALL BE PLACED AT INLET AND OUTLET OF SEWERS TO CONTROL THE SILT
- SUMP LINE CONDUITS ARE TO BE SDR 35, ARMOCO 2000, OR EQUIVALENT.
- ALL JOINTS SHALL BE SOIL SEAL JOINTS UNLESS SPECIFICALLY NOTED ON THE PLANS.
- STORM WATER AND EXTRANEOUS FLOWS ARE PROHIBITED FROM ENTERING THE EXISTING SYSTEM DURING CONSTRUCTION. NO OPEN CUT TRENCHES WILL BE ALLOWED TO REMAIN OPEN OVERNIGHT. STORM DRAINS, DIVERSION DITCHES, PUMPS ETC., SHALL BE USED AS REQUIRED TO MAINTAIN THE INTEGRITY OF THE SYSTEM AT ALL TIMES.
- ALL STORM SEWER SHALL HAVE A MAXIMUM MANNING'S ROUGHNESS COEFFICIENT OF 0.012.
- ROOF DRAINS ARE TO BE PER ODOT 707.33, 707.42, OR 707.45.
- BED AND BACKFILL STORM PIPE PER ODOT ITEM 611 TO 12" ABOVE TOP OF PIPE. BACKFILL REMAINDER OF TRENCH WITH NATIVE MATERIALS PER ODOT ITEM 203.
- NO STRUCTURE OF ANY KIND WHICH CAN INTERFERE WITH ACCESS TO SANITARY SEWER, WATER MAIN, OR STORM SEWER IN OR UPON A PERMANENT EASEMENT, EXCEPT ITEMS SUCH AS RECREATIONAL SURFACES, PAVED AREAS FOR PARKING LOTS, DRIVEWAYS OR OTHER SURFACES USED FOR INGRESS AND EGRESS, PLANTS, TREES, SHRUBBERY, FENCES, LANDSCAPING OR SIMILAR ITEMS BEING NATURAL OR ARTIFICIAL.
- SANITARY SEWERS ARE TO RECEIVE SANITARY WASTES ONLY. ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.
- ANY DISTURBANCE OF EXISTING NATURAL FEATURES SHALL BE SAFEGUARDED SO AS NOT TO CAUSE DETRIMENTAL EROSION. AS EARTHWORK IS PERFORMED, DANDY BAGS AND SILT FENCES SHALL BE UTILIZED TO MANAGE STORM RUNOFF AND TO FILTER SOME OF THE EXISTING SOILS. ALL NATURAL VEGETATION TO REMAIN EXCEPT IN AREAS AFFECTED BY IMPROVEMENTS.
- STORM WATER AND EXTRANEOUS FLOWS ARE PROHIBITED FROM ENTERING THE EXISTING SYSTEM DURING CONSTRUCTION. NO OPEN CUT TRENCHES WILL BE ALLOWED TO REMAIN OPEN OVERNIGHT. STORM DRAINS, DIVERSION DITCHES, ETC., SHALL BE USED AS REQUIRED TO MAINTAIN THE INTEGRITY OF THE SYSTEM AT ALL TIMES.
- ALL WATER MAINS, FIRE HYDRANTS AND RELATED ITEMS SHALL CONFORM WITH CURRENT SPECIFICATIONS OF THE WARREN COUNTY SANITARY ENGINEER AND THE OHIO ENVIRONMENTAL PROTECTION AGENCY.
- VILLAGE OF SOUTH LEBANON WATER AND SEWER DEPARTMENT SHALL ESTABLISH PROCEDURES FOR REPAIRS TO WATER MAIN OR WATER SERVICES DAMAGED.
- LOCATION OF ALL EXISTING UTILITIES TO BE DETERMINED IN THE FIELD PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL MAINTAIN SILT BARRIERS, BMPs AND OTHER EROSION CONTROL MEASURES FROM THE START OF CONSTRUCTION UNTIL COMPLETION OF ITS WORK.
- ITEM NUMBERS REFER TO THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) CONSTRUCTION AND MATERIAL SPECIFICATIONS (2016) AND ALL CONSTRUCTION WORK SHALL BE DONE ACCORDING TO SAID SPECIFICATIONS AND IN ACCORDANCE WITH APPLICABLE STANDARDS OF THE GOVERNING AGENCIES. WHEN IN CONFLICT, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN.
- THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND ELEVATIONS OF ALL EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION OR EARTH MOVING OPERATIONS.
- FORTY- EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTOR SHALL NOTIFY THE OHIO UTILITY PROTECTION SERVICE (OUPS) AND ALL OTHER AGENCIES WHICH MAY HAVE UNDERGROUND UTILITIES INVOLVED IN THIS PROJECT AND ARE NOT MEMBERS OF OHIO UNDERGROUND PROTECTION, INC.
- CONTRACTOR AND OWNER SHALL VERIFY AND ACCEPT ALL QUANTITIES PRIOR TO BEGINNING CONSTRUCTION.
- CONTRACTOR SHALL VERIFY THAT COORDINATES, IF USED, MATCH PLAN DIMENSIONS. WHEN IN CONFLICT, THE PLANS DIMENSIONS SHALL GOVERN OVER COORDINATES, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- UNLESS OTHERWISE NOTED, ALL CONSTRUCTION DETAILS SHALL CONFORM WITH THE "STANDARD CONSTRUCTION DRAWINGS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION".
- EXISTING SITE TOPOGRAPHY PROVIDED BY BAYER BECKER, INC. & WARREN COUNTY GIS.
- CHES WIDE WHITE HIGHWAY-TYPE STRIPING APPLIED IN ACCORDANCE WITH THE PLAN.

SECTION 2, TOWN 4, RANGE 3 UNION TOWNSHIP VILLAGE OF SOUTH LEBANON WARREN COUNTY, OHIO JUNE, 2019



VICINITY MAP
NO SCALE

BENCHMARK

WARREN COUNTY GEODETIC SYSTEM

INDEX OF SHEETS

DRAWING NO.	DRAWING TITLE	ISSUE DATE	REVISION NO.	REVISION DATE
C1.0	TITLE SHEET	6/07/19		
C2.0	SITE LAYOUT PLAN	6/07/19		
C2.1	SITE DETAILS	6/07/19		
C3.0	UTILITY PLAN	6/07/19		
C3.1	UTILITY NOTES AND DETAILS	6/07/19		
C3.2	UTILITY NOTES AND DETAILS	6/07/19		
C3.3	UTILITY NOTES AND DETAILS	6/07/19		
C4.0	GRADING AND EROSION CONTROL PLAN	6/07/19		
C4.1	EROSION CONTROL NOTES AND DETAILS	6/07/19		
L1.0	LANDSCAPE PLAN	6/07/19		
L2.0	LANDSCAPE NOTES AND DETAILS	6/07/19		

OWNER/DEVELOPER

MORELIA GROUP
8600 GOVERNORS HILL DRIVE, SUITE 160
CINCINNATI, OH 45249
PH: (513) 469-1500

LAND PLANNER/ENGINEER/

SURVEYOR

BAYER BECKER
6900 TYLERSVILLE ROAD, SUITE A
MASON, OHIO 45040
PH: (513) 336-6600

UTILITY CONTACTS

OHIO UTILITIES PROTECTION SERVICE (OUPS)
CONTACT 48 HOURS "BEFORE YOU DIG"
1-800-362-2764

CABLE
TIME WARNER CABLE
11254 CORNELL PARK DRIVE
CINCINNATI, OHIO 45242
(513) 489-5957

WATER
VILLAGE OF SOUTH LEBANON
99 HIGH STREET
SOUTH LEBANON, OHIO 45065
(513) 494-2296

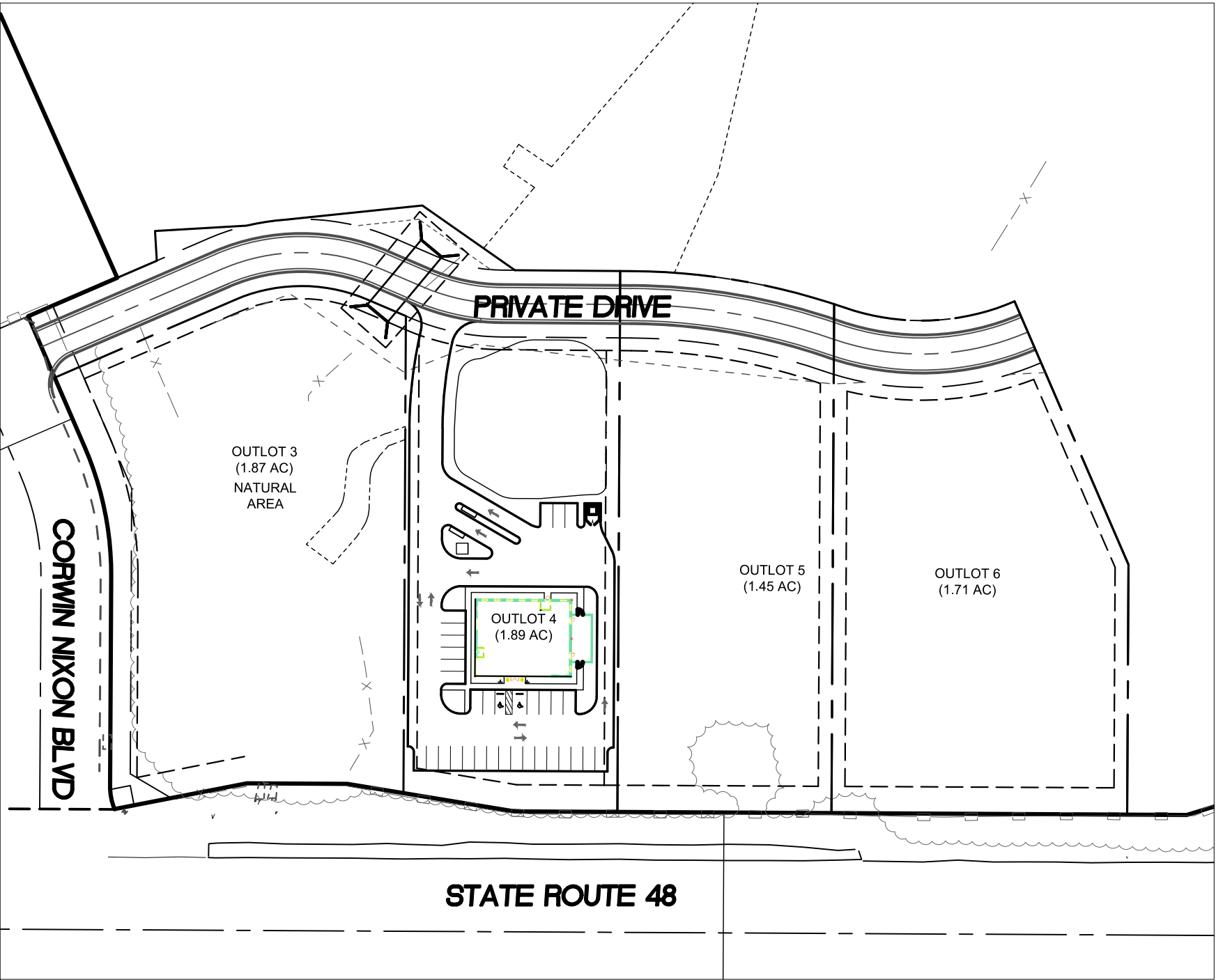
ELECTRIC
DUKE ENERGY
5445 AUDRO DRIVE
CINCINNATI, OHIO 45247
(513) 287-1487
GREG FINLEY

SANITARY
VILLAGE OF SOUTH LEBANON
99 HIGH STREET
SOUTH LEBANON, OHIO 45065
(513) 494-2296

TELEPHONE
SPRINT UNITED TELEPHONE
185 HARMON AVENUE
LEBANON, OH 45035
(513) 933-3561

STORM
VILLAGE OF SOUTH LEBANON
99 HIGH STREET
SOUTH LEBANON, OHIO 45065
(513) 494-2296

GAS
DUKE ENERGY
5445 AUDRO DRIVE
CINCINNATI, OH 45247
(513) 287-1487
TONY GSKA



VICINITY MAP

1"=100'

- BACKFILL OF ALL UTILITY EXCAVATIONS IN STRUCTURAL AREAS INCLUDING UNDER PAVEMENTS OR WITHIN TEN (10) FEET OF ANY BUILDING ARE AS SHOULD CONTINUALLY MONITORED BY A REPRESENTATIVE OF THE PROJECT GEOTECHNICAL ENGINEER TO VERIFY THAT PROPER LIFT THICKNESS, MOISTURE CONDITION, AND COMPACTIVE EFFORT ARE MAINTAINED.
- PARKING LOT STRIPING SHALL BE FOUR (4) INCHES WIDE WHITE HIGHWAY-TYPE STRIPING APPLIED IN ACCORDANCE WITH THE PLAN.
- ALL DIMENSIONS AND PROPOSED ELEVATIONS ARE TO THE TOP OF FINISHED PAVEMENT/FACE OF CURB UNLESS OTHERWISE NOTED.
- ALL RADII ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
- ALL RADII ARE 5' UNLESS OTHERWISE NOTED EXCEPT IN ROADWAY AND ROADWAY/DRIVEWAY INTERSECTIONS WHERE RADII ARE 25' UNLESS OTHERWISE NOTED.
- CURB IN PARKING AREAS IS TYPE 6 UNLESS OTHERWISE NOTED (SEE SHEET C2.1).
- PARKING STALLS ARE 9'x18' UNLESS OTHERWISE NOTED.
- WHERE CONNECTING TO EXISTING ASPHALT PAVEMENT, THE CONTRACTOR SHALL SAW CUT THE EXISTING EDGE OF PAVEMENT TO PROVIDE A CLEAN AND SOUND EDGE. ITEM 407 TACK COAT SHALL BE APPLIED TO THE ENTIRE CUT FACE OF THE EXISTING PAVEMENT PRIOR TO THE PLACEMENT OF THE PROPOSED PAVEMENT.
- PARKING LOT PAVEMENT MARKINGS SHALL CONFORM TO ITEM 641 PAVEMENT MARKINGS AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAVEMENT MARKING MATERIAL SHALL BE PER ITEM 642 TRAFFIC PAINT UNLESS OTHERWISE NOTED.
- ALL SITE CONCRETE SHALL BE PER ODOT ITEM 499 CLASS C UNLESS OTHER WISE NOTED ON THE PLANS.



Know what's below.
Call before you dig.

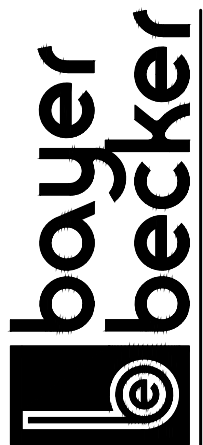
LOCATION OF ALL EXISTING UTILITIES TO BE
DETERMINED IN THE FIELD PRIOR TO CONSTRUCTION



RIVERS CROSSING WEST
SECTION 2 - OUTLOT 4

SECTION 2, TOWN 4, RANGE 3
UNION TOWNSHIP
VILLAGE OF SOUTH LEBANON
WARREN COUNTY, OHIO

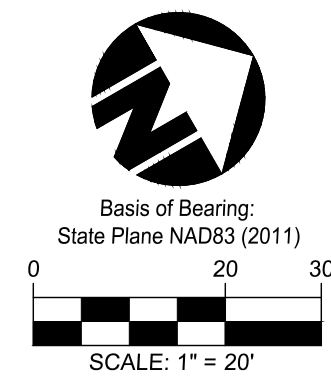
TITLE SHEET



www.bayerbecker.com
1404 Race Street, Suite 204
Cincinnati, OH 45202 - 513.834.6151

Drawing: 19-0008 OUTLOT 4 CD
Drawn by: CJO
Checked By: MPD
Issue Date: 06/07/19

Sheet:
C1.0



EXISTING ZONING: B2-GENERAL BUSINESS
PROPOSED USE: FINANCIAL INSTITUTION

LOT AREA = 1.50 ACRES
OPEN SPACE: = 0.79 ACRES (52.6%)

PARKING REQUIRED = 32 SPACES
1/PER 250 S.F. OF FLOOR AREA= 17 SPACES
AND 1 PER EMPLOYEE = 15 SPACES
PARKING PROVIDED = 33 SPACES
ADA SPACES = 2 SPACES
STANDARD VEHICLE SPACES = 31 SPACES

	ROADWAY IMPROVEMENTS BY OTHERS
	CONCRETE WALK SEE DETAIL SHEET C2.1
	HEAVY DUTY ASPHALT PAVEMENT SEE DETAIL SHEET C2.1
	DUMPSTER ENCLOSURE PAD SEE DETAIL SHEET C2.1



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19-0008 OUTLOT 4 CD

Drawn by: **CJO**

Checked By: **MPD**

Issue Date: **06/07/19**

Sheet: **C2.0**

RIVERS CROSSING WEST

SECTION 2 - OUTLOT 4

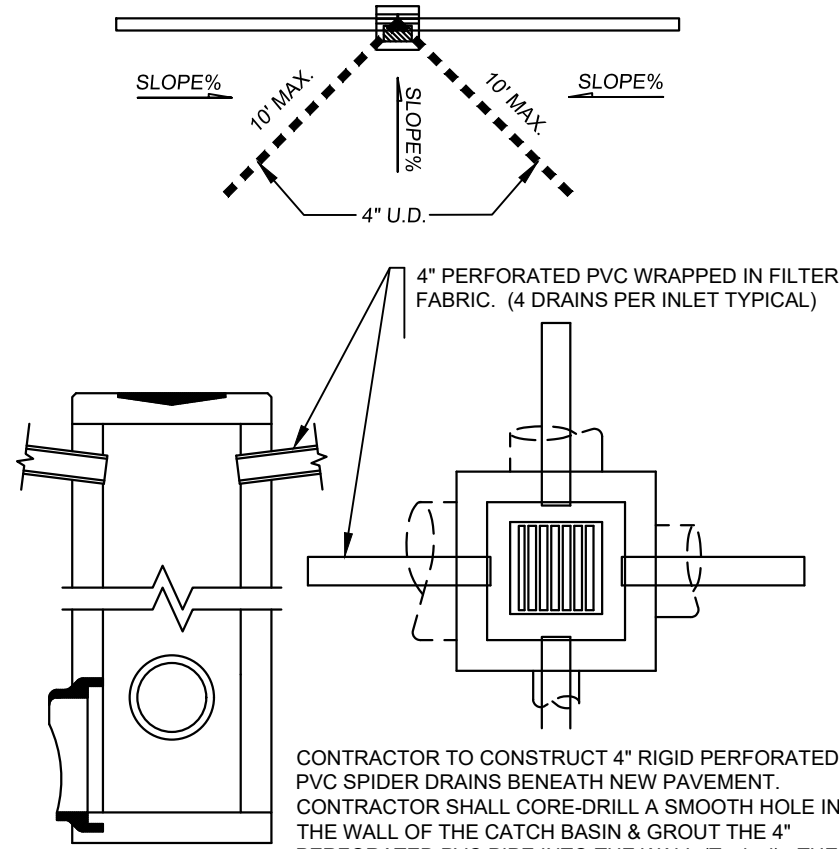
SECTION 2, TOWN 4, RANGE 3
 UNION TOWNSHIP
 VILLAGE OF SOUTH LEBANON
 WARREN COUNTY, OHIO

SITE LAYOUT PLAN

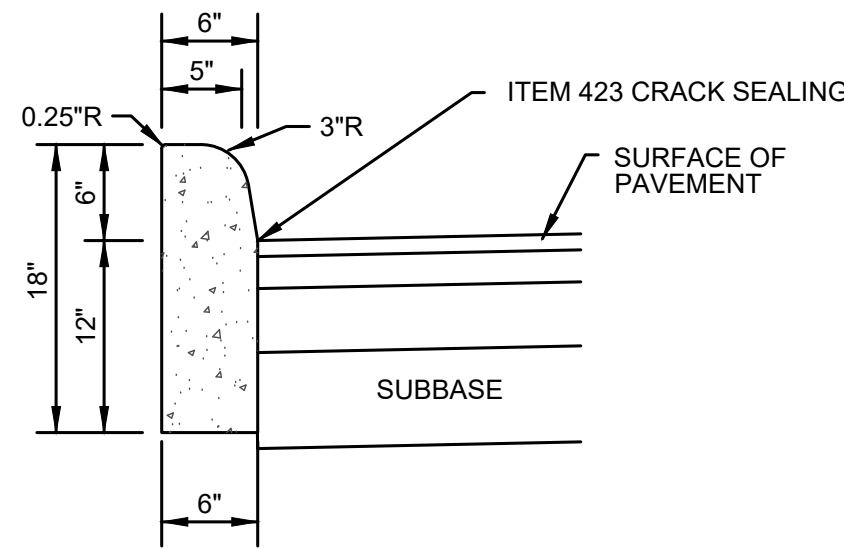
Item	Revision Description	Date	Drawn	Chk:
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Plot time: Jun 12, 2019 - 1:05pm
Drawing name: J:\2019\19-0008\CD\DWG\19-0008 Outlot 4 CD.dwg - Layout Tab: C2.1 Site Details



TYPICAL CATCH BASIN WITH SPIDER DRAINS
NOT TO SCALE



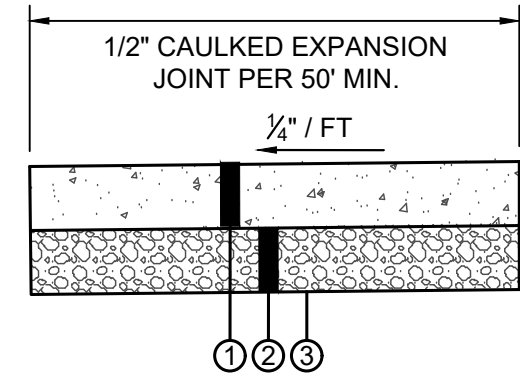
ODOT TYPE 6 CURB DETAIL
NOT TO SCALE

LIGHT-DUTY PARKING PAVEMENT DETAIL
NOT TO SCALE

- 1 ITEM 448 - 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1
- 2 ITEM 407 - TACK COAT @ 0.10 GAL/SY
- 3 ITEM 411 - 2" ASPHALT CONCRETE LEVELING COURSE
- 4 ITEM 304 - 8" AGGREGATE BASE
- 5 ITEM 204 - SUBGRADE COMPACTION

HEAVY-DUTY PARKING PAVEMENT DETAIL
NOT TO SCALE

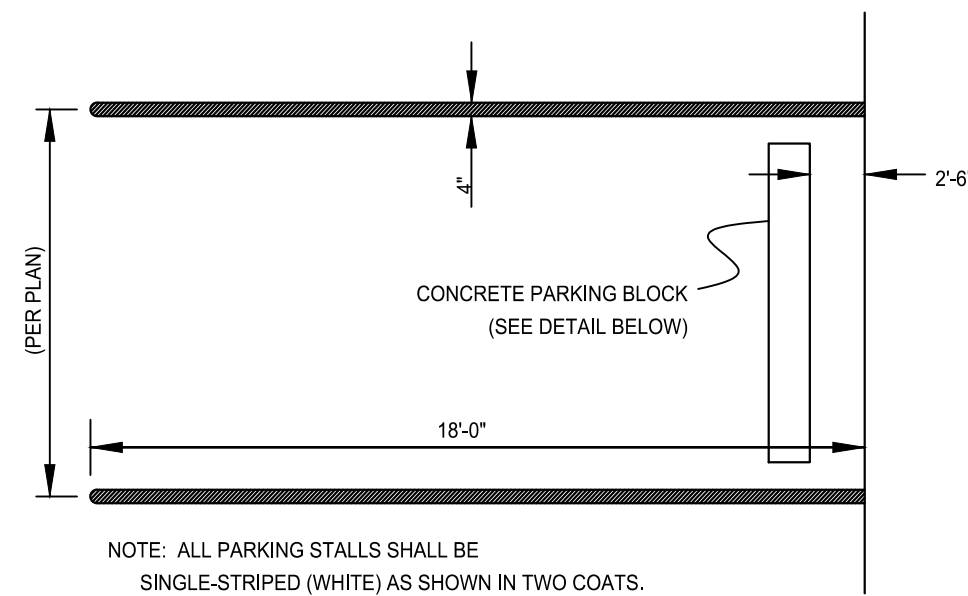
- 1 ITEM 448 - 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1
- 2 ITEM 407 - TACK COAT @ 0.10 GAL/SY
- 3 ITEM 411 - 3" ASPHALT CONCRETE LEVELING COURSE
- 4 ITEM 304 - 8" AGGREGATE BASE
- 5 ITEM 204 - SUBGRADE COMPACTION



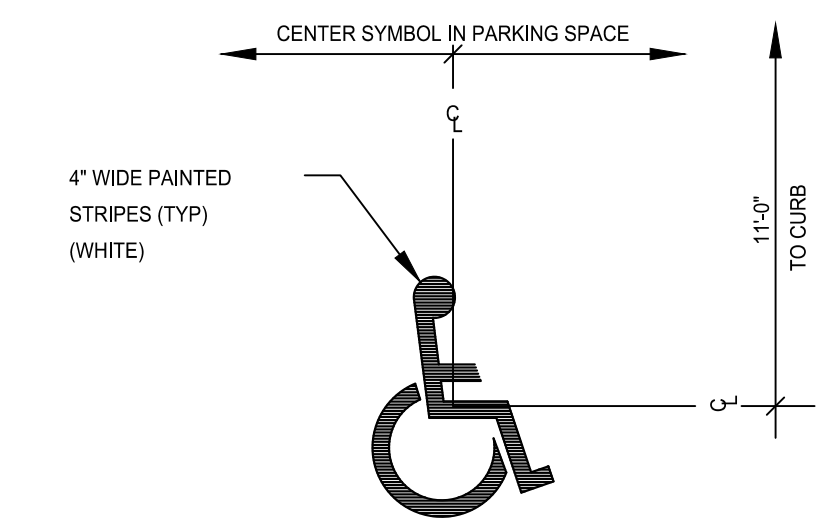
TYPICAL SIDEWALK SECTION
Not To Scale

NOTE: Sidewalk Joints Shall Be In Accordance With Item 608.03 Unless Otherwise Detailed as a Part of the Architectural Plans.

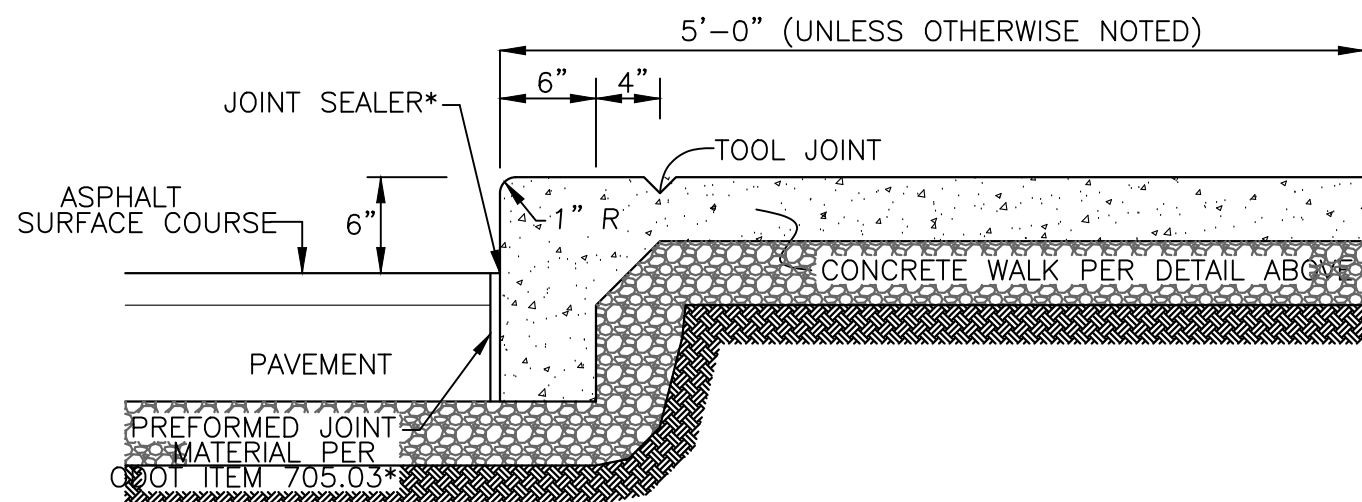
- 1 ITEM 608 - 4" CLASS C
- 2 ITEM 304 - 4" AGGREGATE BASE
- 3 ITEM 204 - SUBGRADE COMPACTION



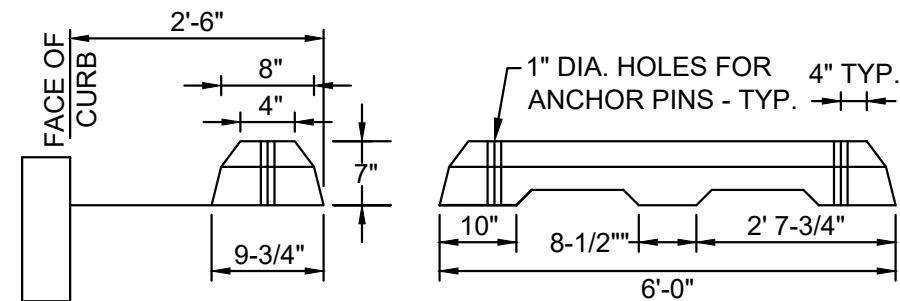
STRIPING DETAIL
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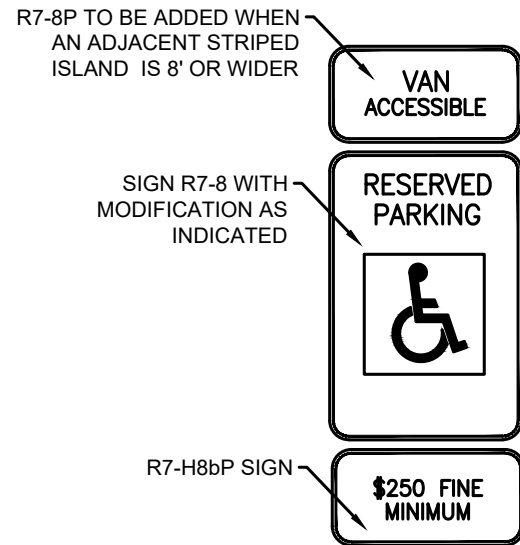
ACCESSIBLE SYMBOL DETAIL
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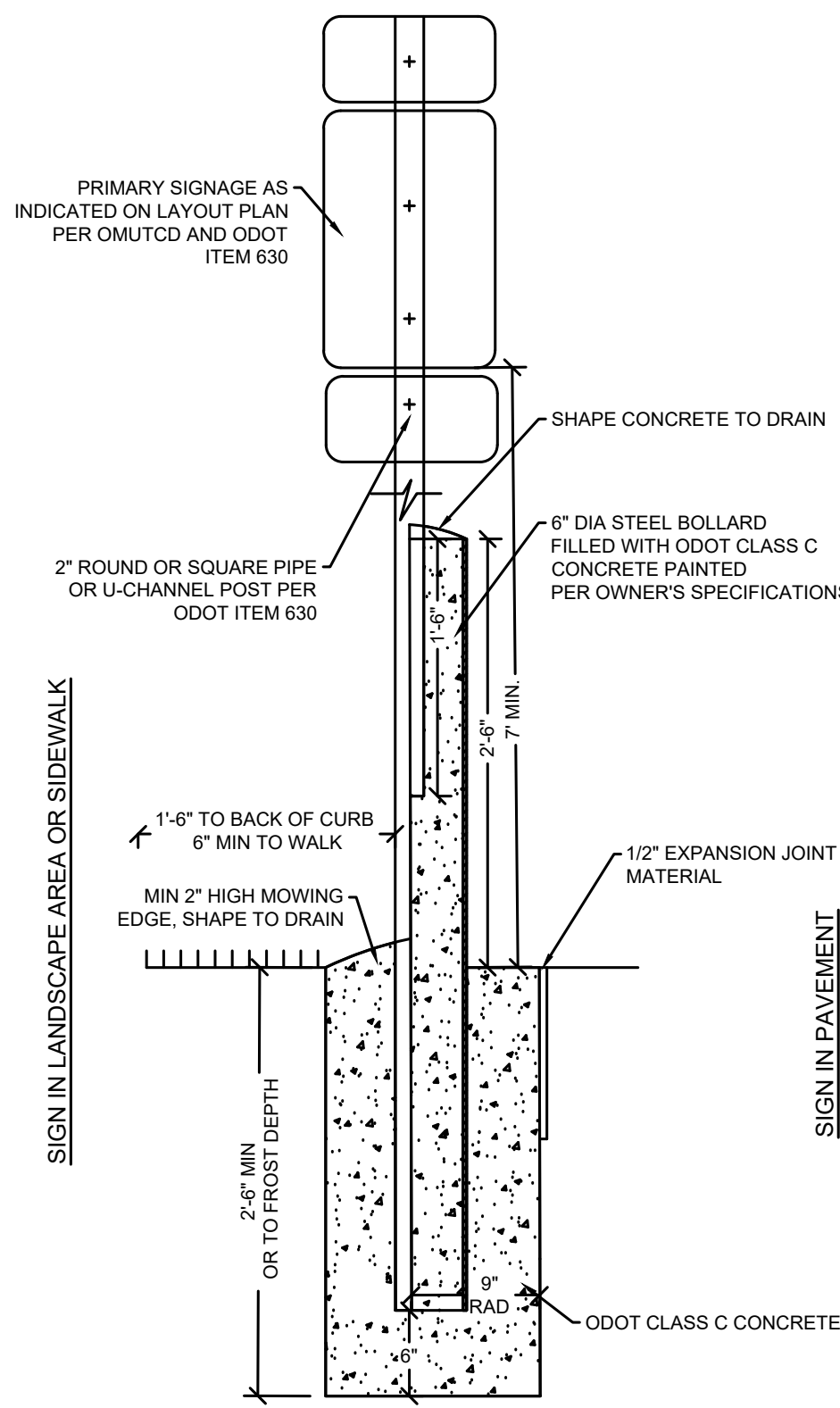
INTEGRAL CURB & WALK DETAIL
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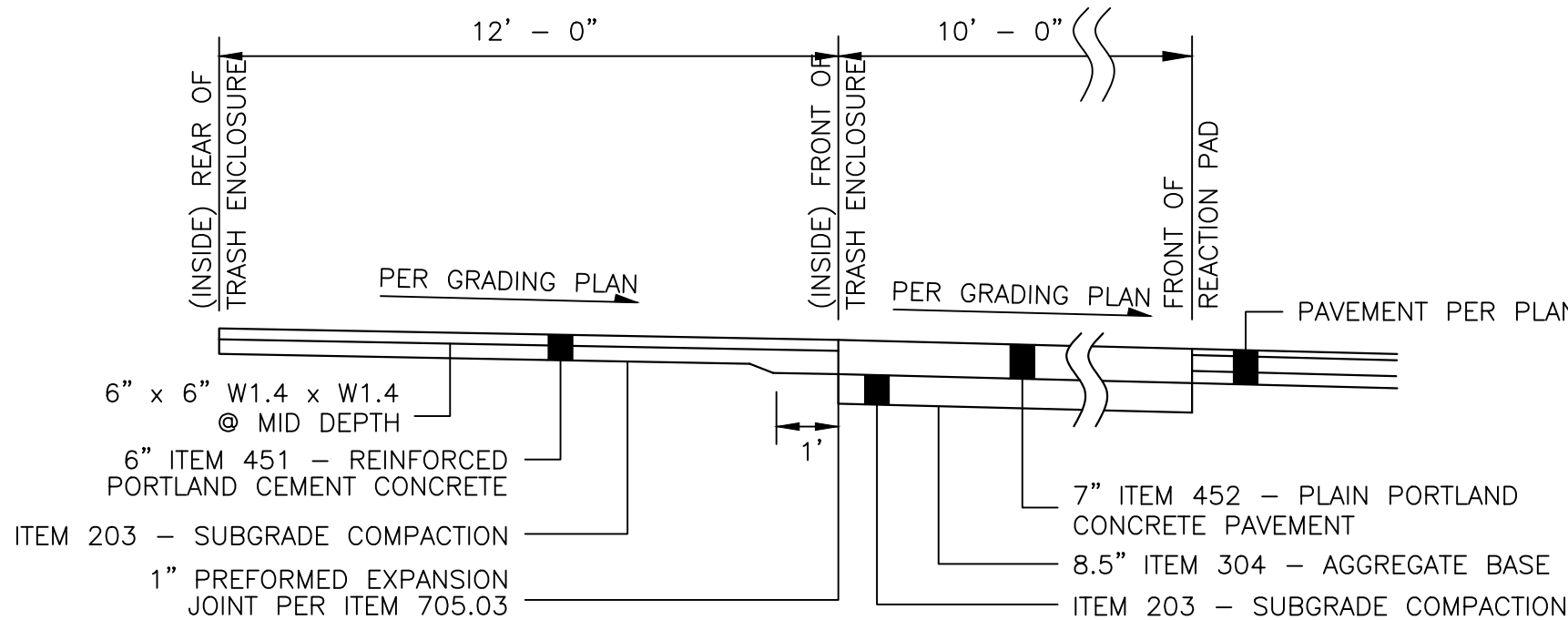
CONCRETE PARKING BLOCK DETAIL
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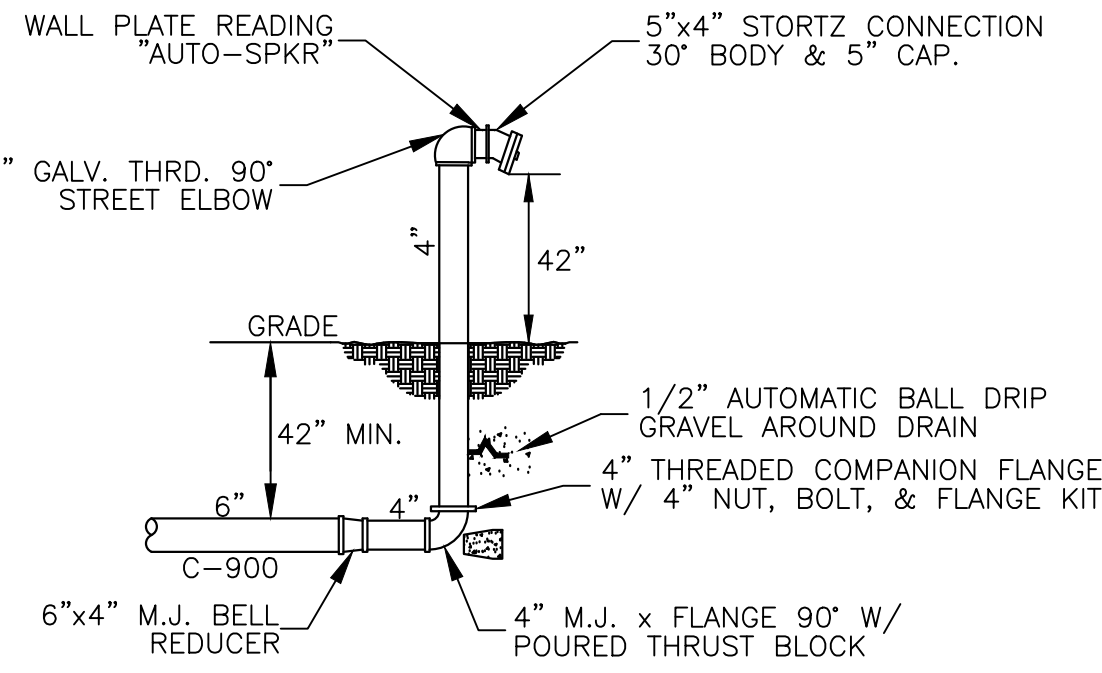
TYPICAL HANDICAP SIGNAGE



TYPICAL SIGNAGE

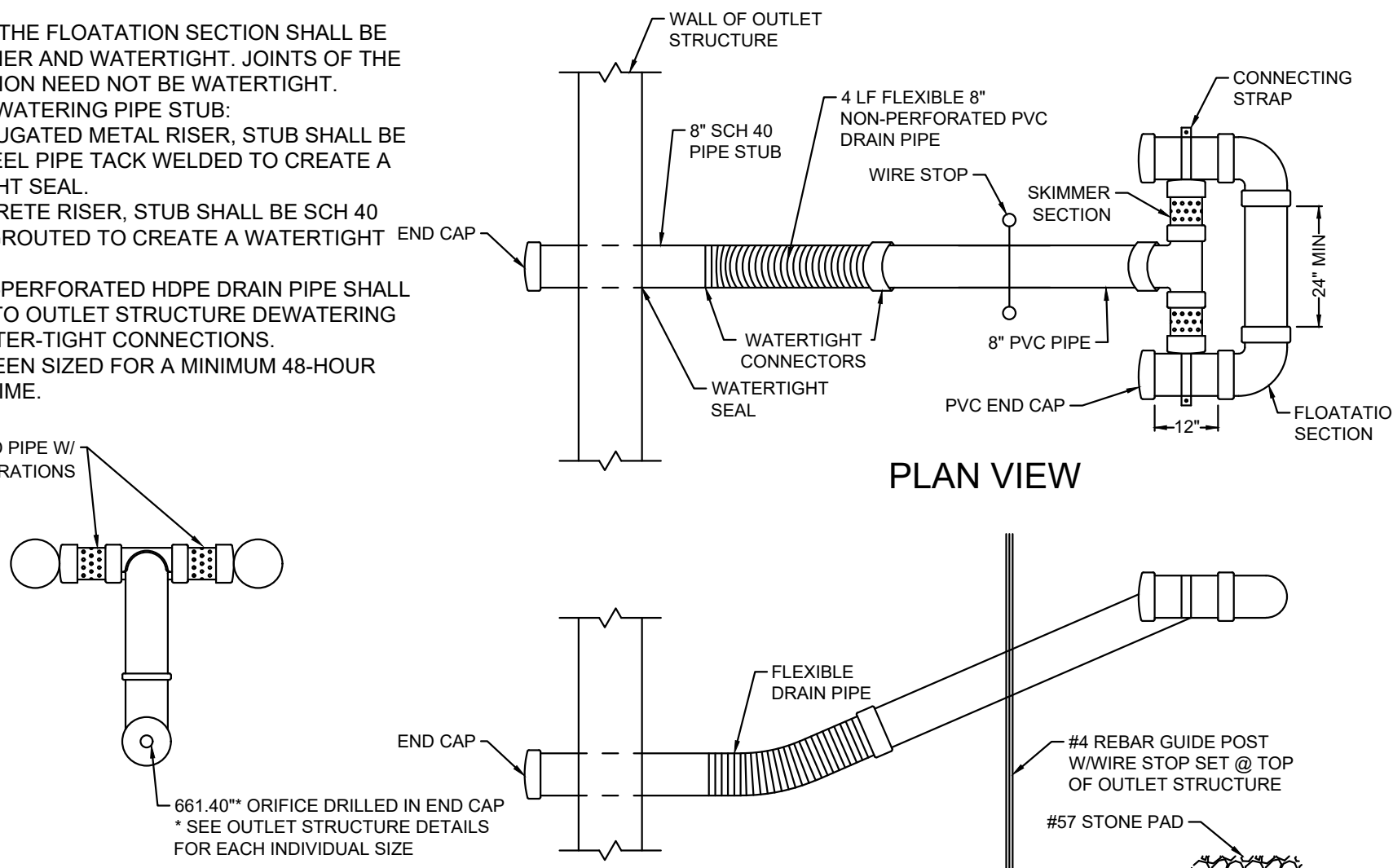


DUMPSTER ENCLOSURE PAD DETAIL
NOT TO SCALE

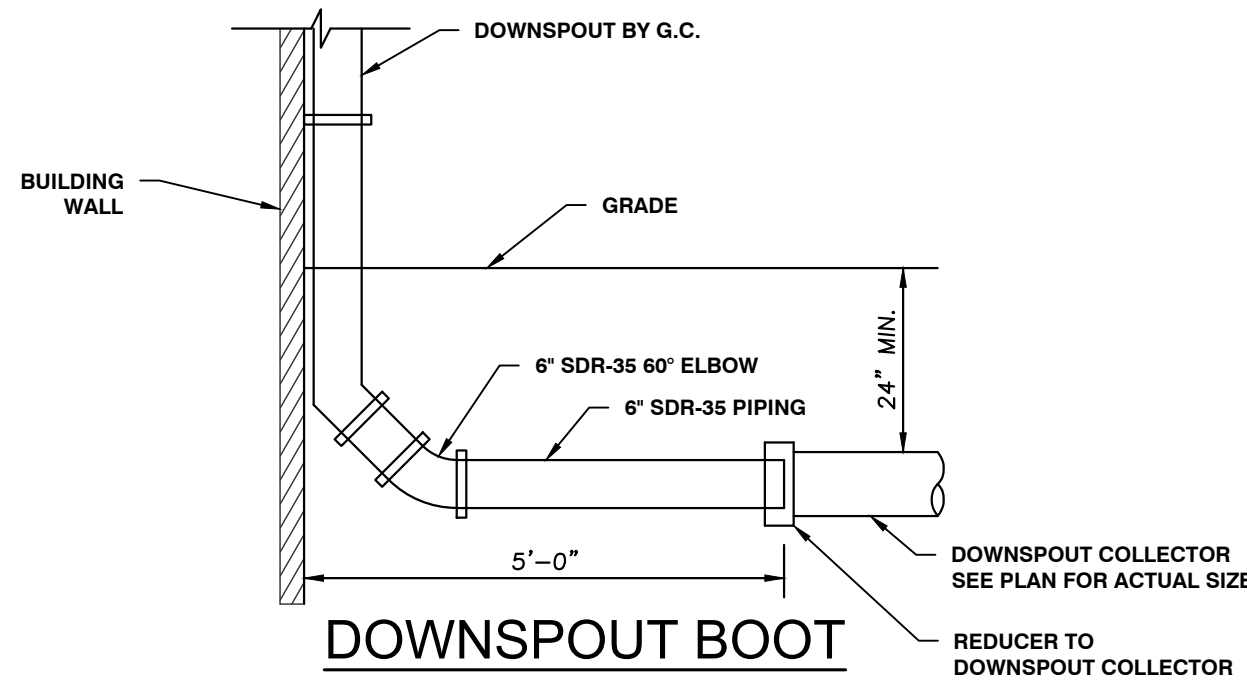


FREE STANDING FIRE DEPARTMENT CONNECTION (FDC) DETAIL
NOT TO SCALE

- NOTES:
1. ALL JOINTS OF THE FLOATATION SECTION SHALL BE GLUED TOGETHER AND WATERTIGHT. JOINTS OF THE SKIMMER SECTION NEED NOT BE WATERTIGHT.
 2. TO INSTALL DEWATERING PIPE STUB:
 - 2.1. FOR CORRUGATED METAL RISER, STUB SHALL BE SCH 40 STEEL PIPE TACK WELDED TO CREATE A WATERTIGHT SEAL.
 - 2.2. FOR CONCRETE RISER, STUB SHALL BE SCH 40 PVC PIPE GROUTED TO CREATE A WATERTIGHT SEAL.
 3. FLEXIBLE, NON-PERFORATED HDPE DRAIN PIPE SHALL BE ATTACHED TO OUTLET STRUCTURE DEWATERING STUB WITH WATER-TIGHT CONNECTIONS. ORIFICE HAS BEEN SIZED FOR A MINIMUM 48-HOUR DEWATERING TIME.
 - 4.



SKIMMER DEWATERING DEVICE
NOT TO SCALE



DOWNSPOUT BOOT

STATE OF OHIO
MICHAEL J. DOOLEY
E-73575
REGISTERED PROFESSIONAL ENGINEER

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Revision Description

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UNION TOWNSHIP
VILLAGE OF SOUTH LEBANON
WARREN COUNTY, OHIO

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Drawing

19-0008 OUTLOT 4 CD

Drawn by

CJO

Checked by

MPD

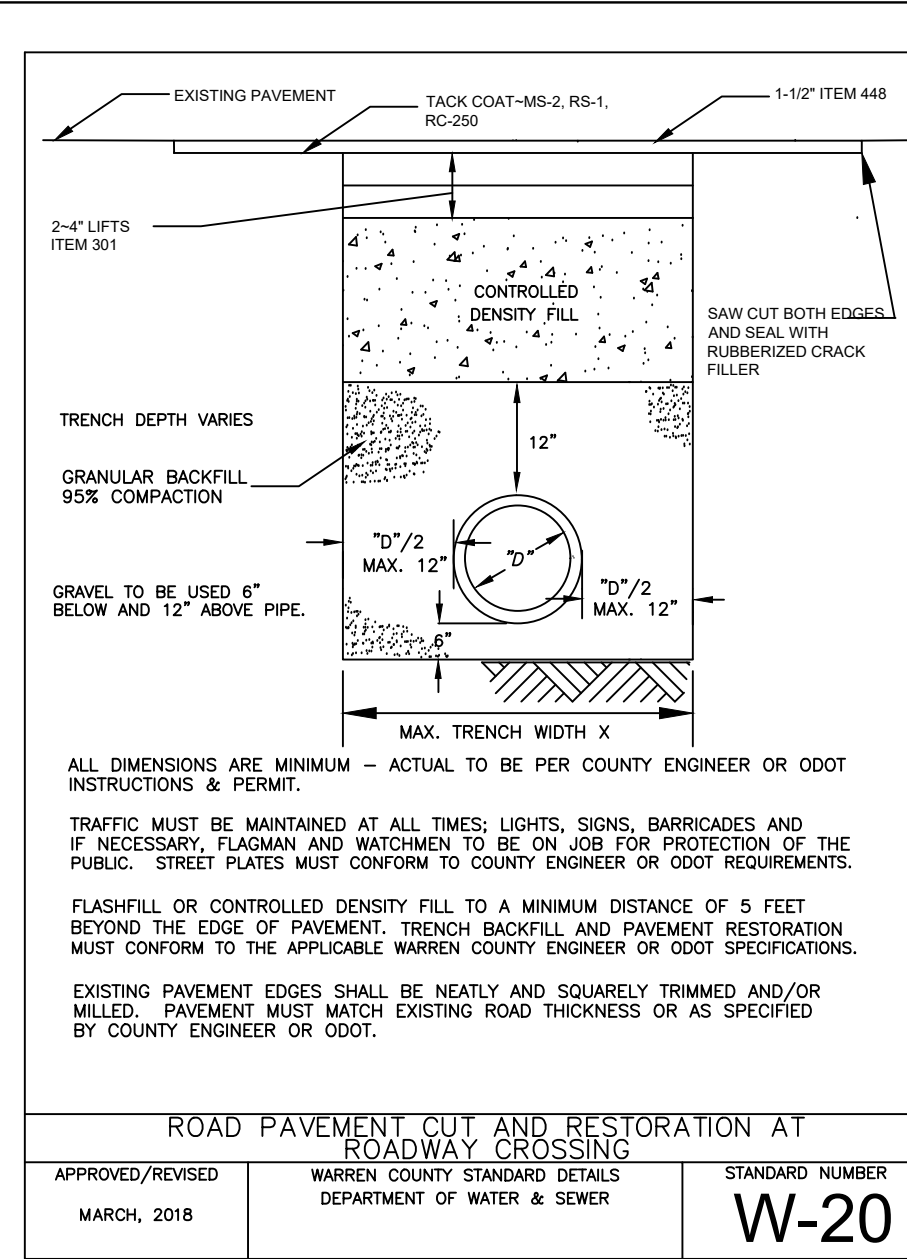
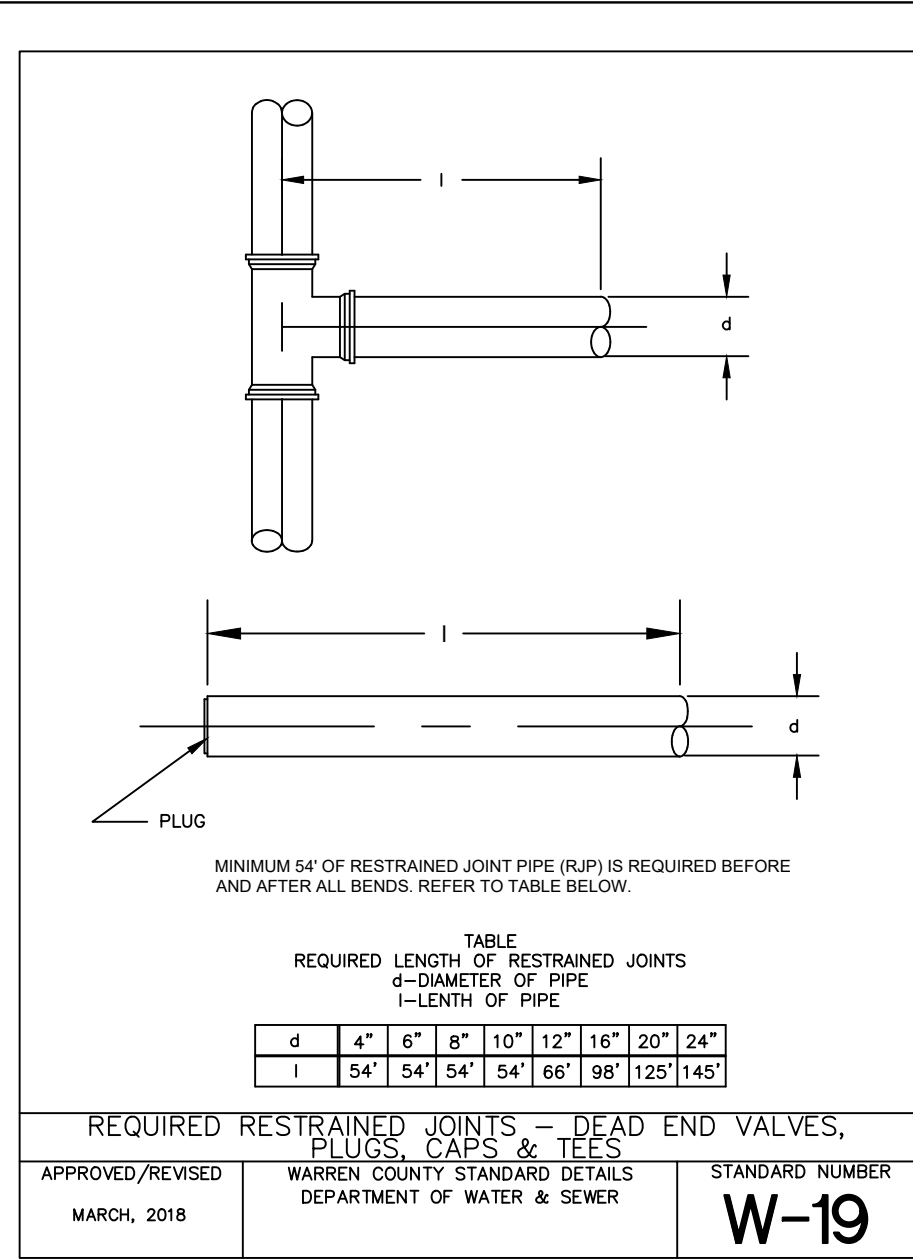
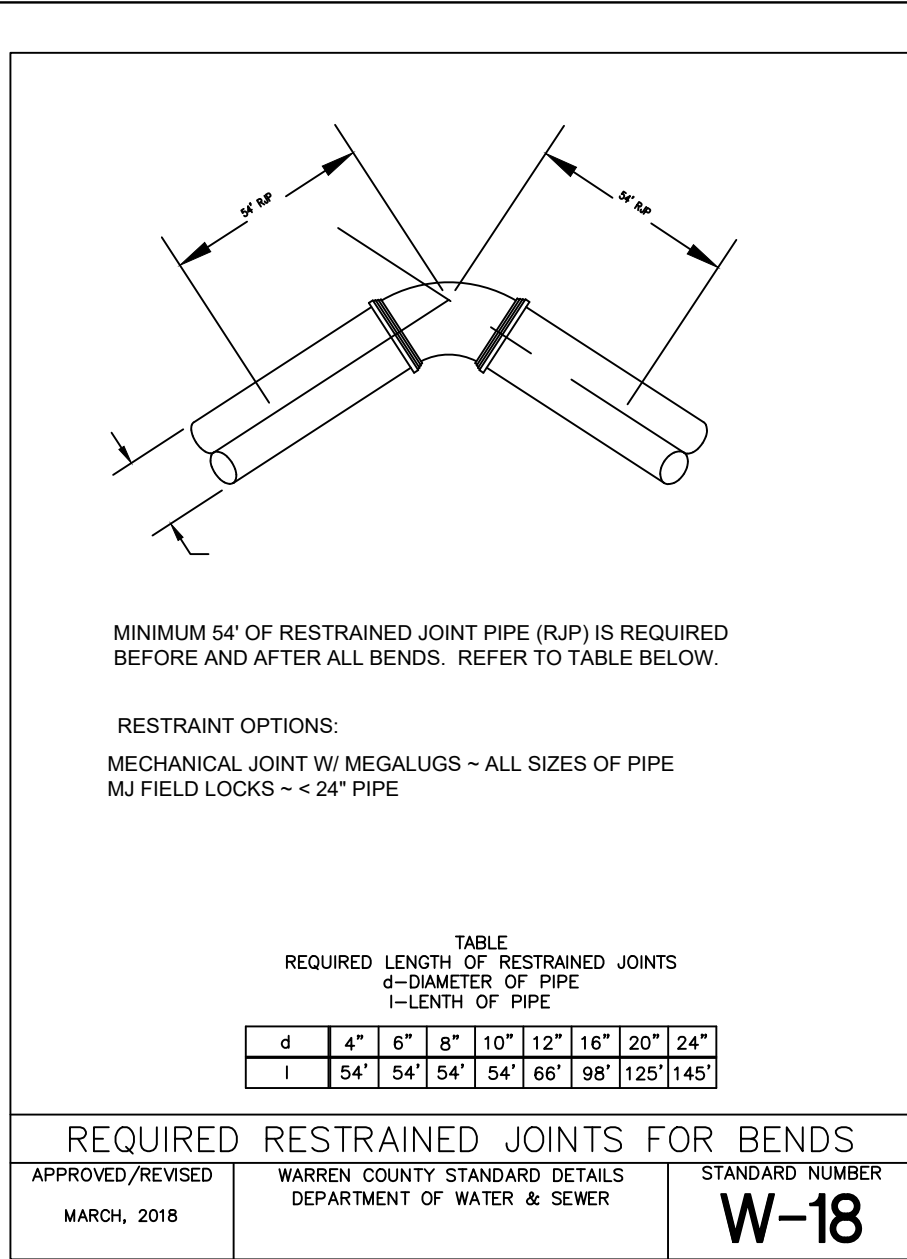
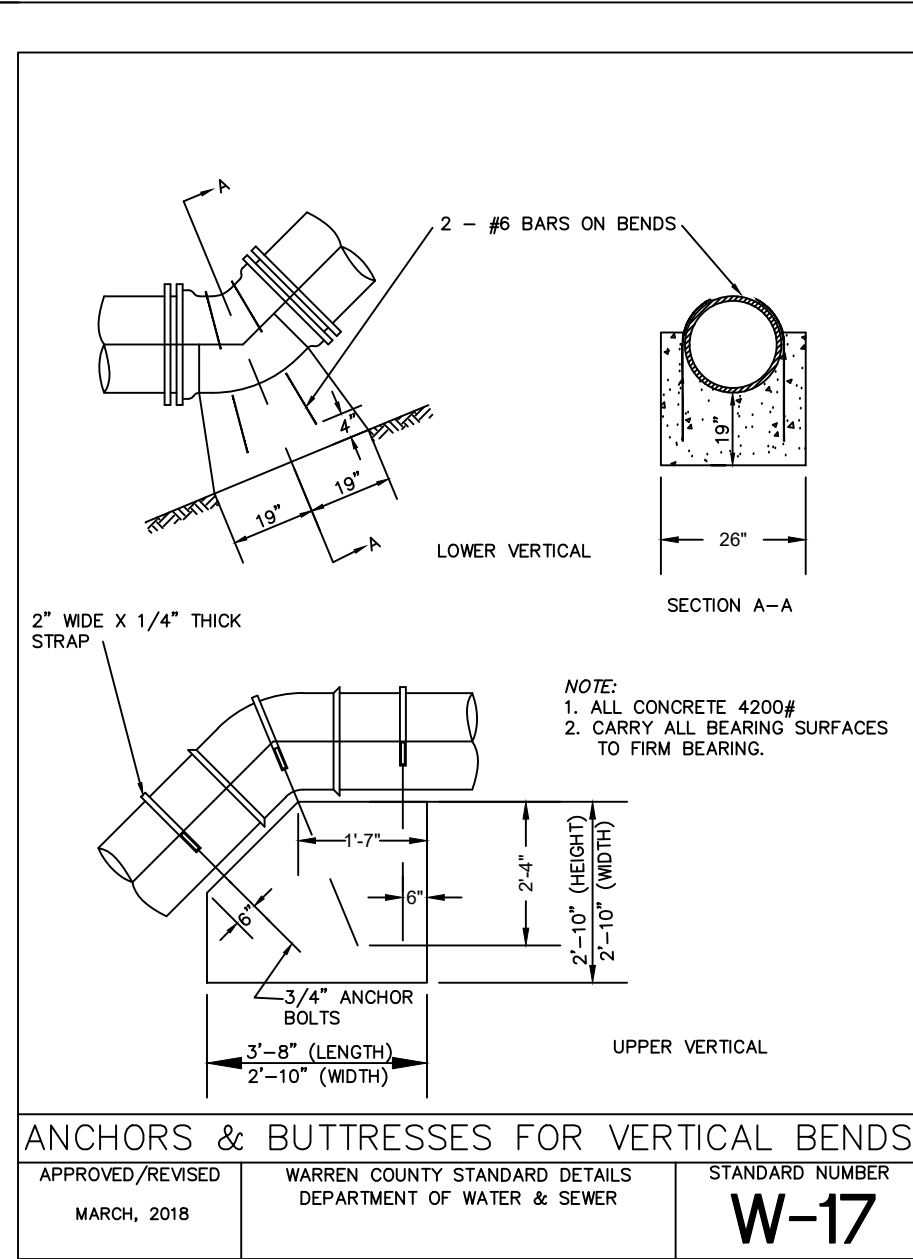
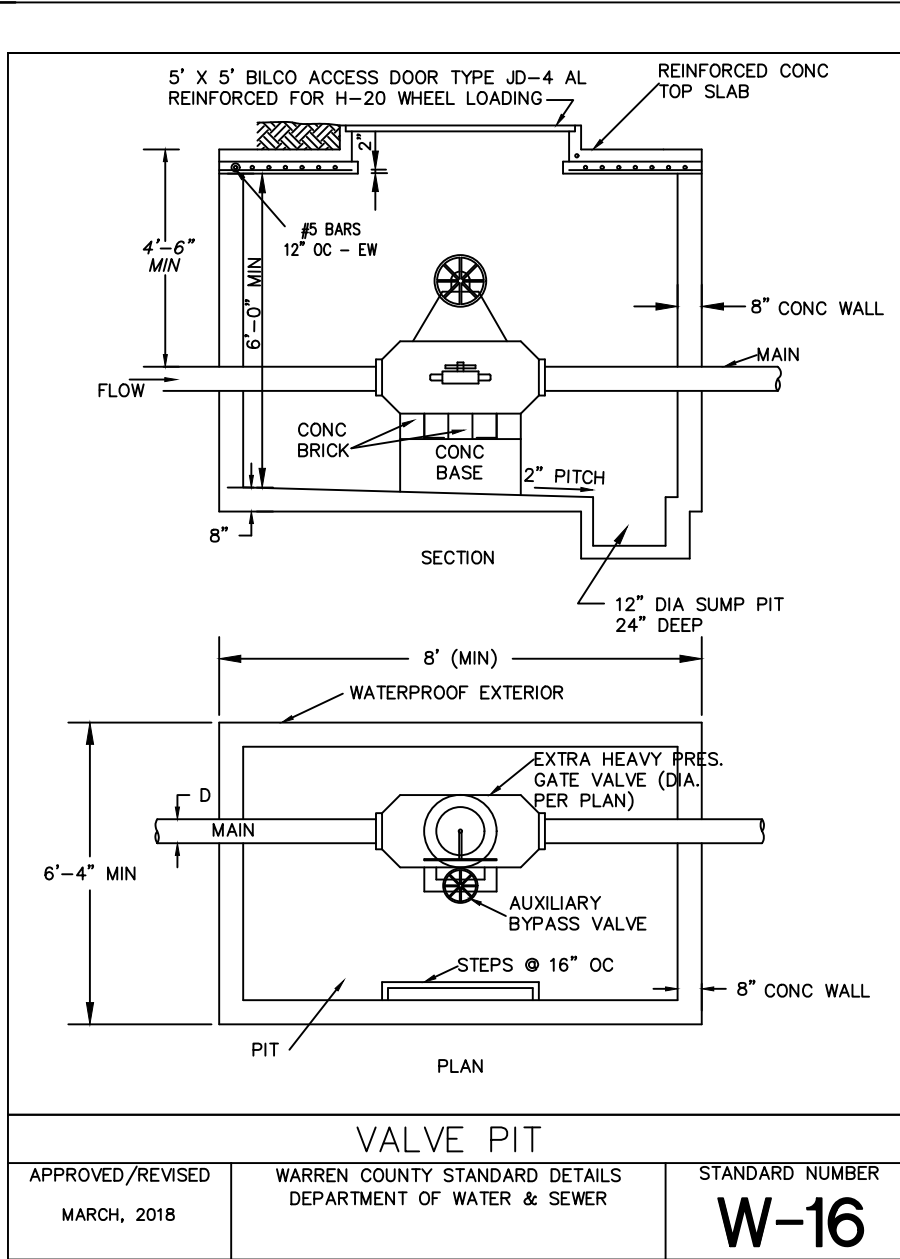
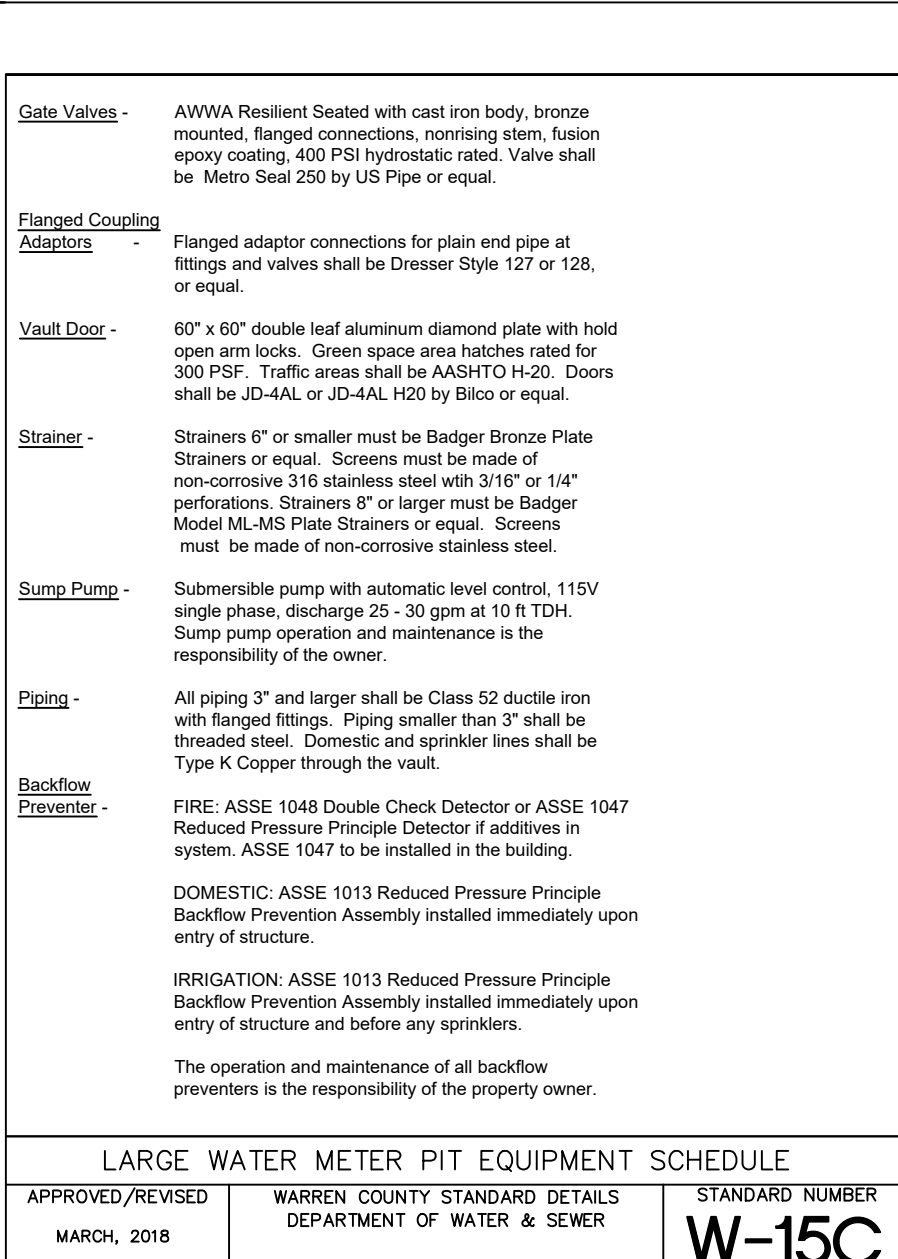
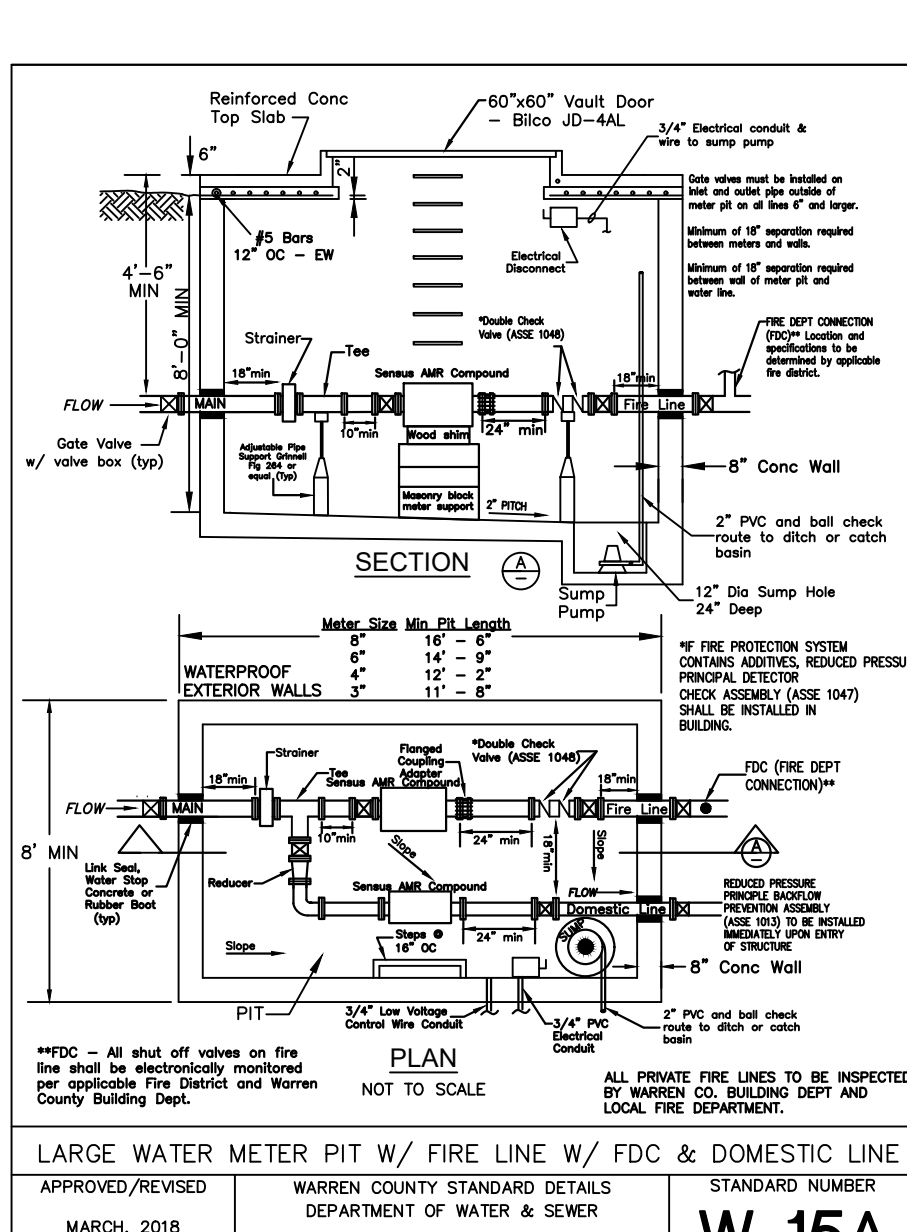
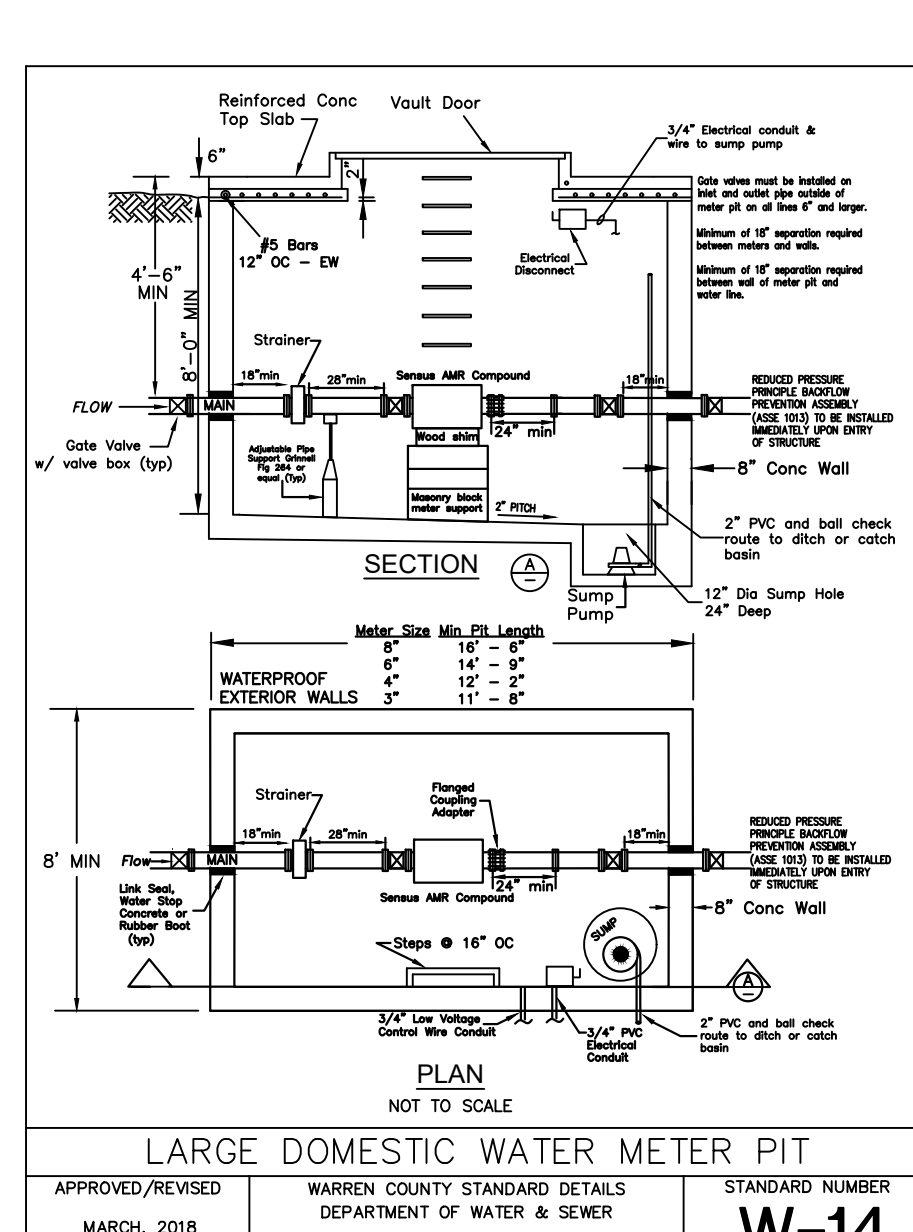
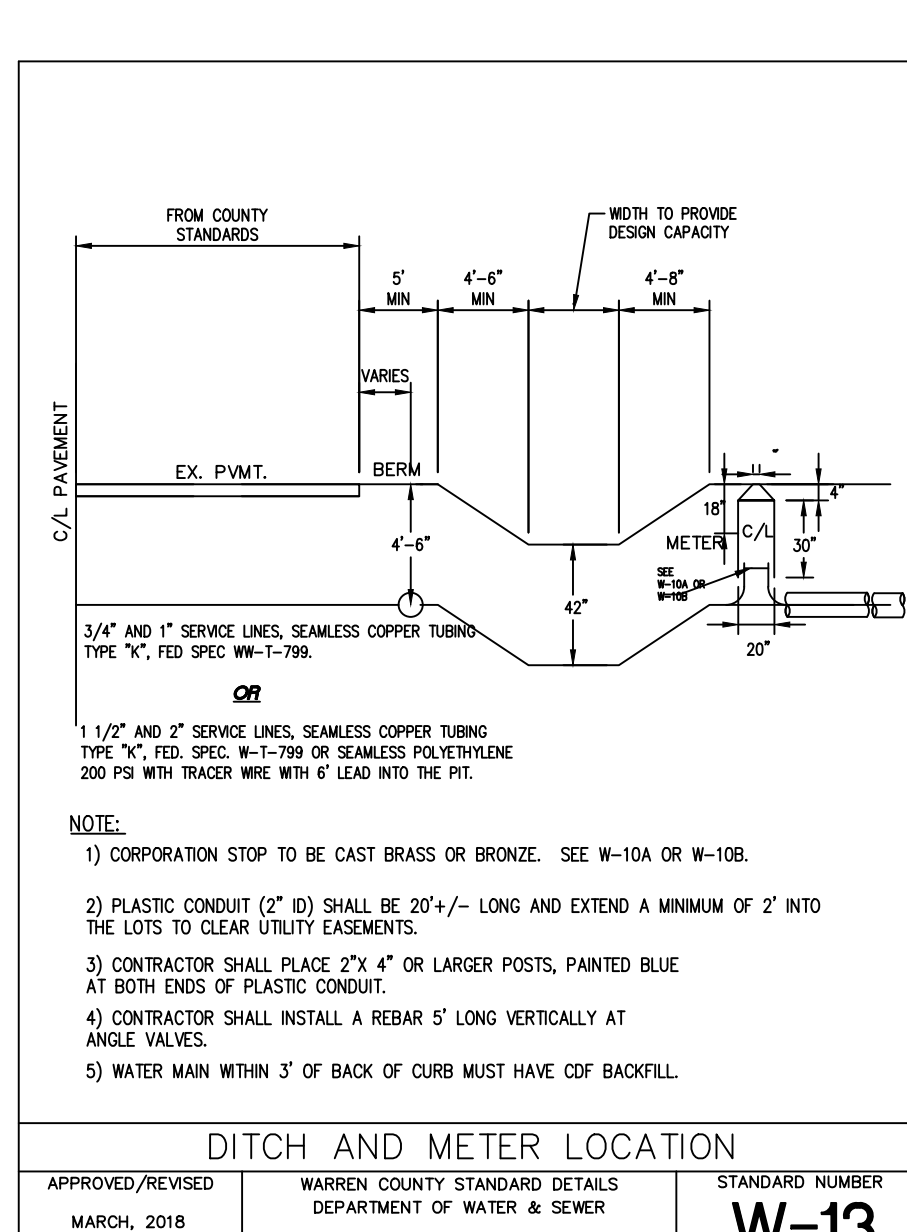
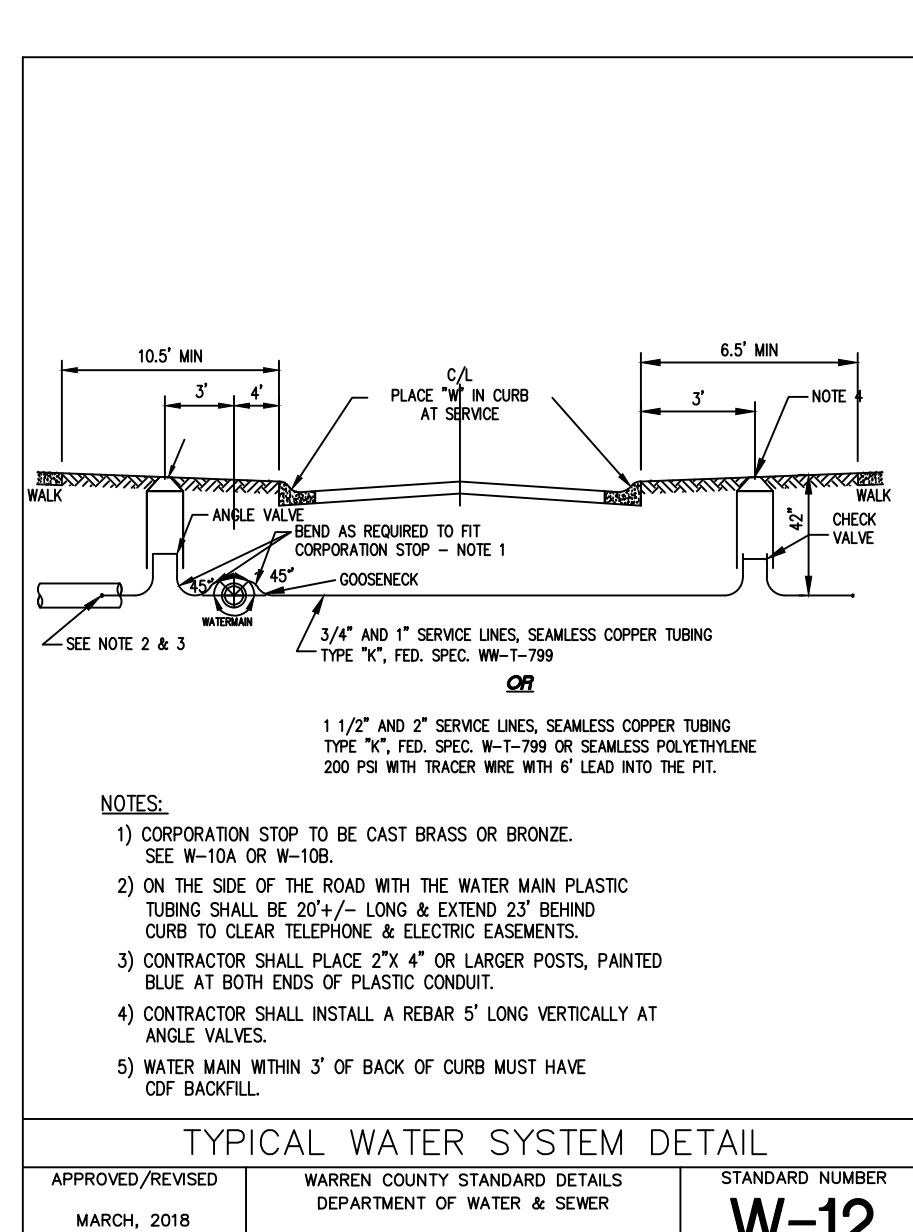
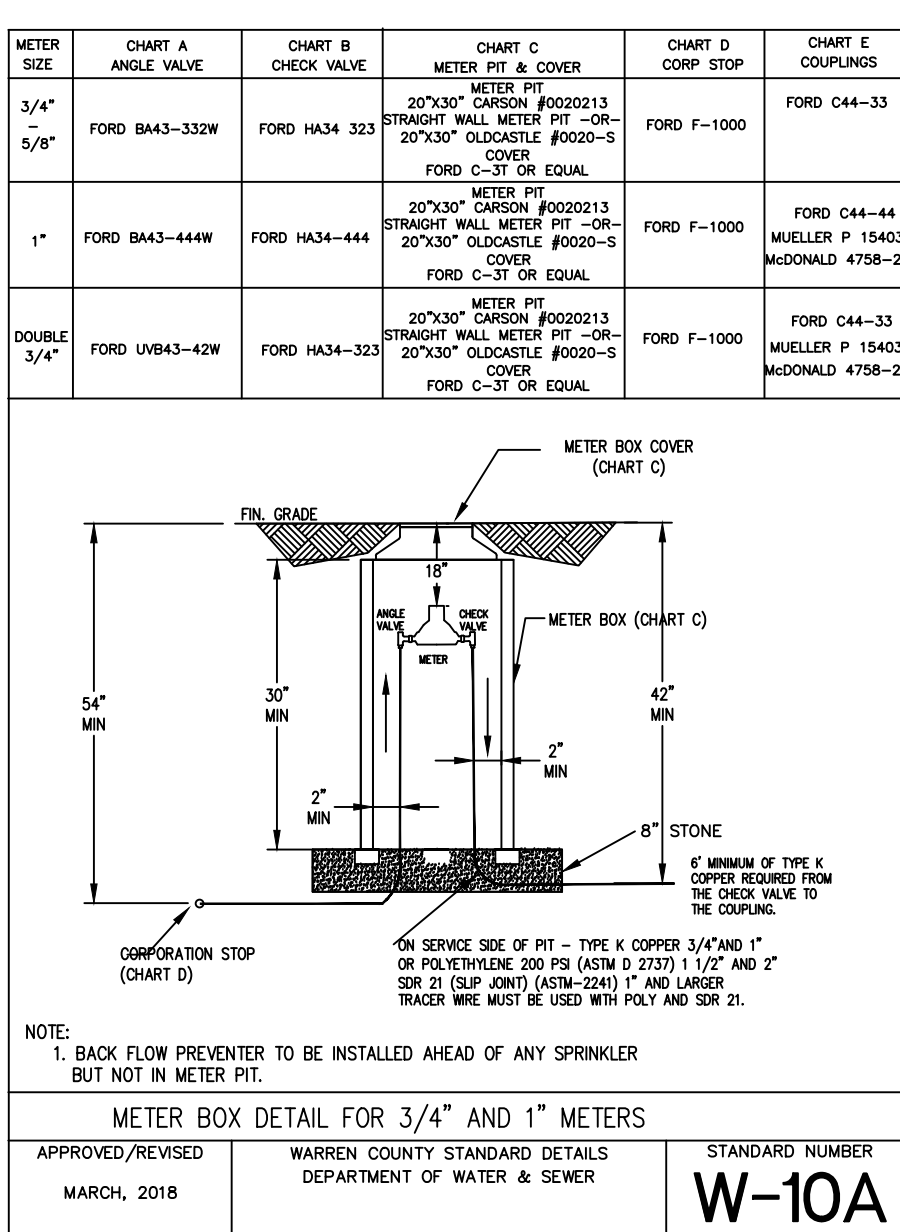
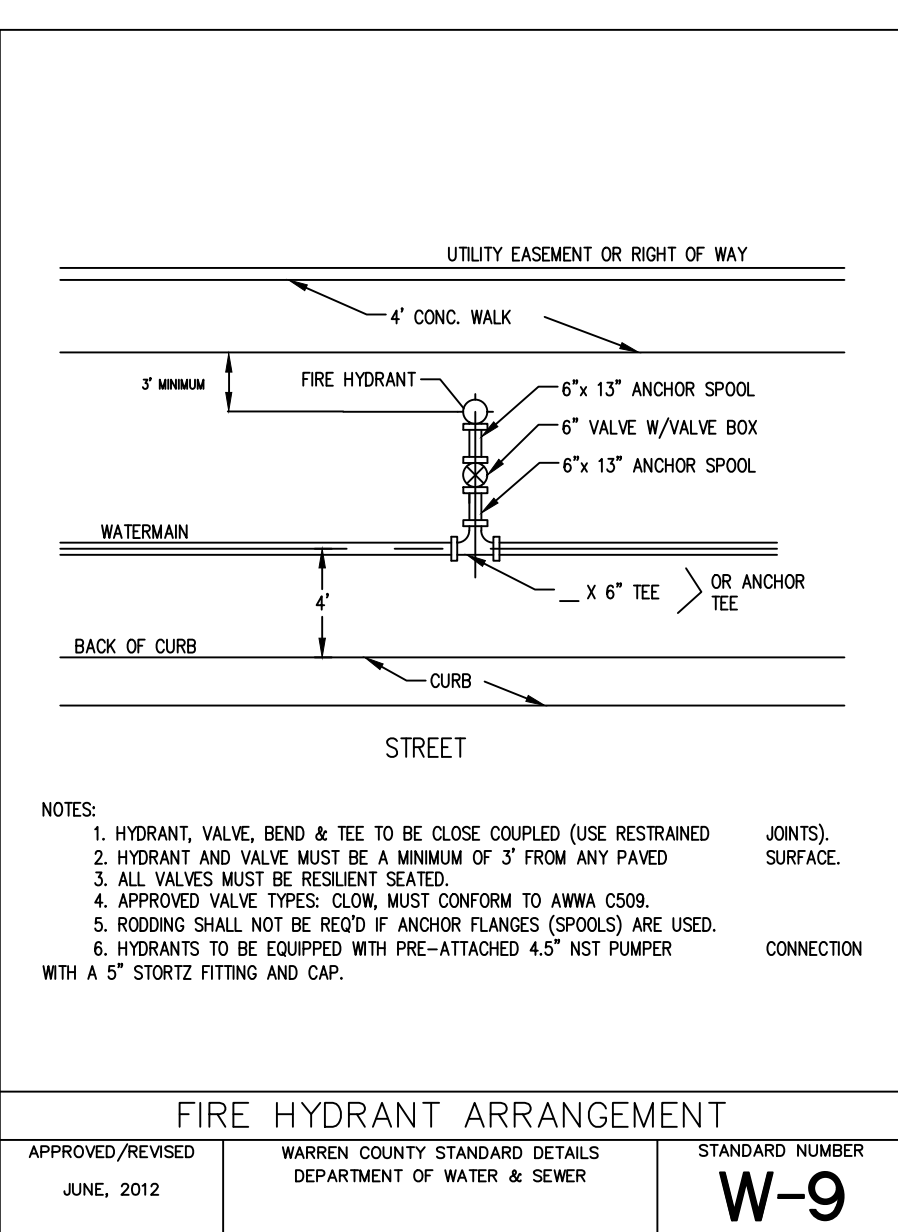
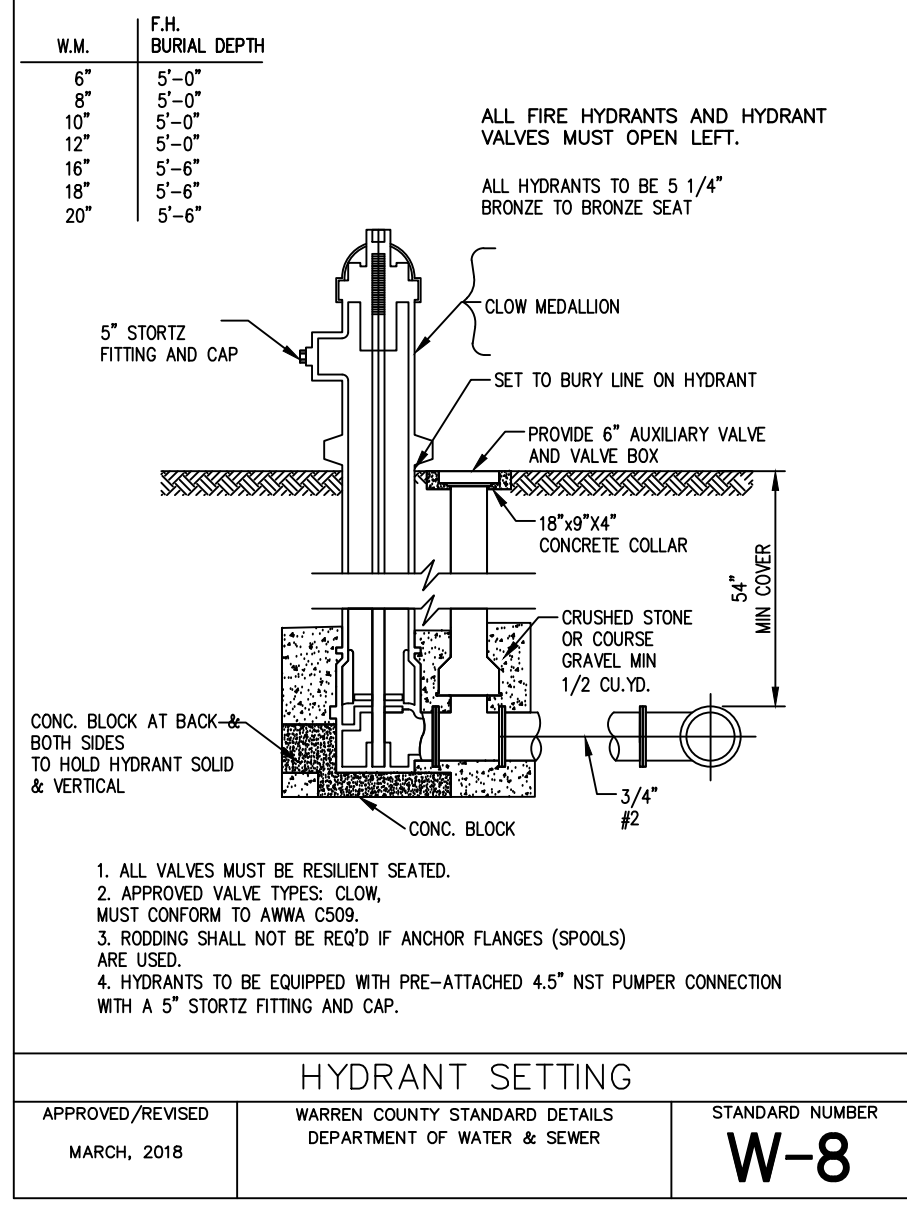
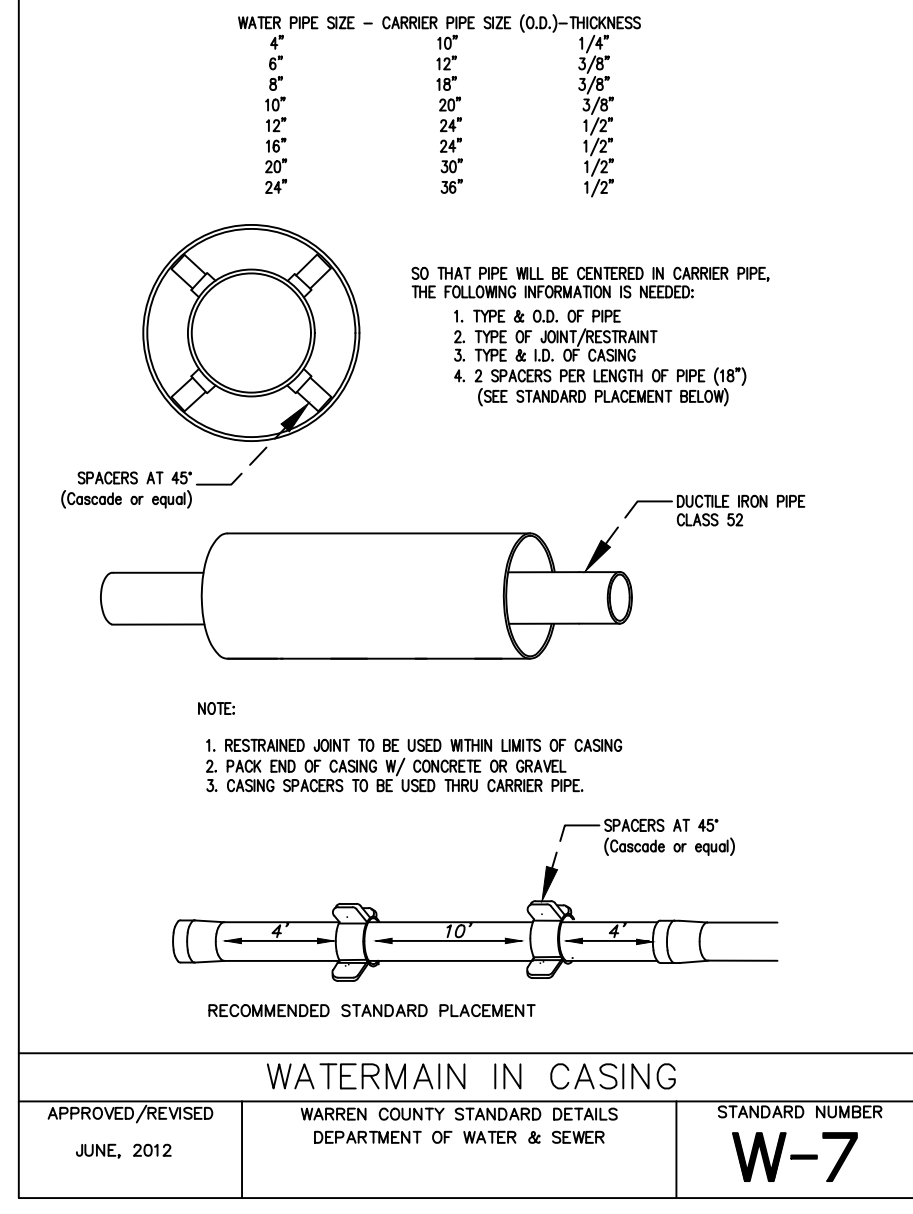
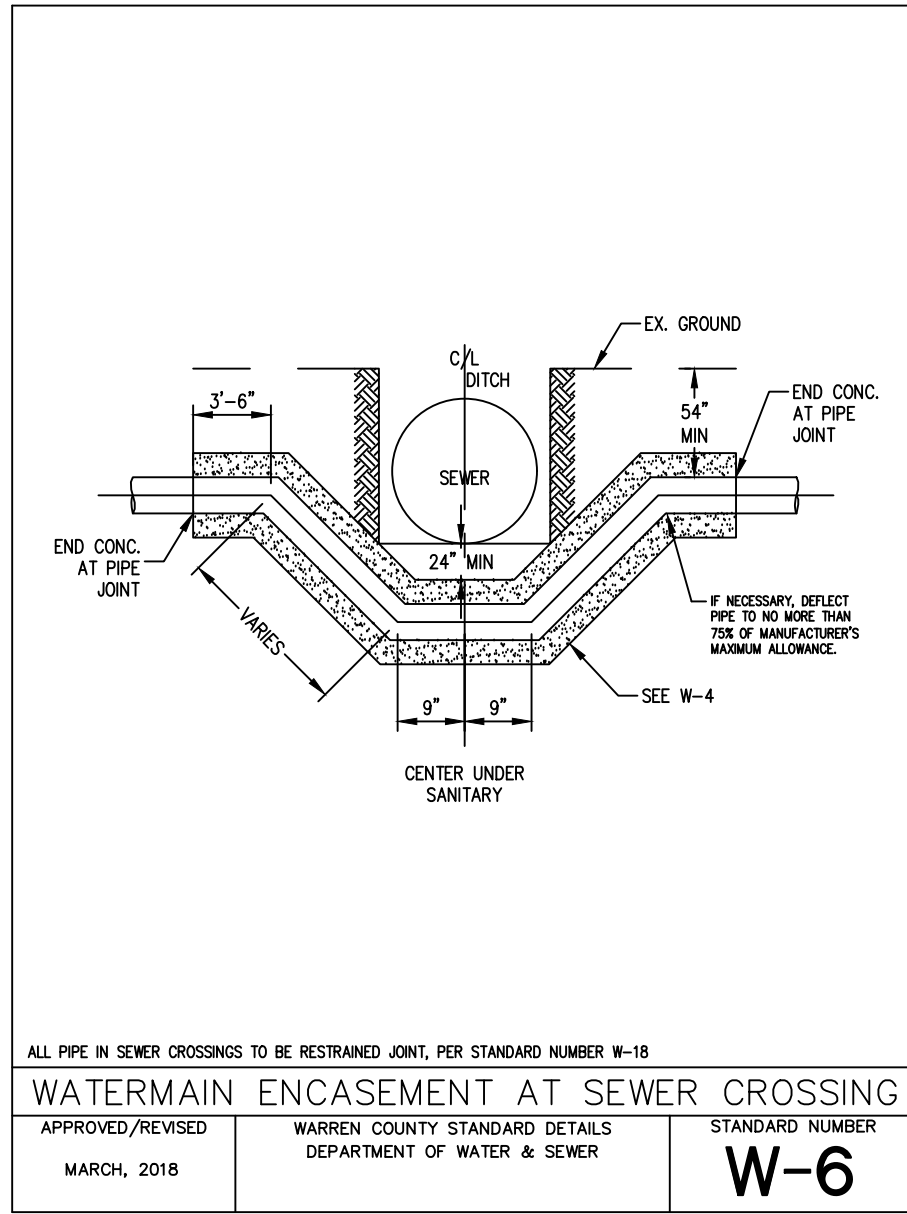
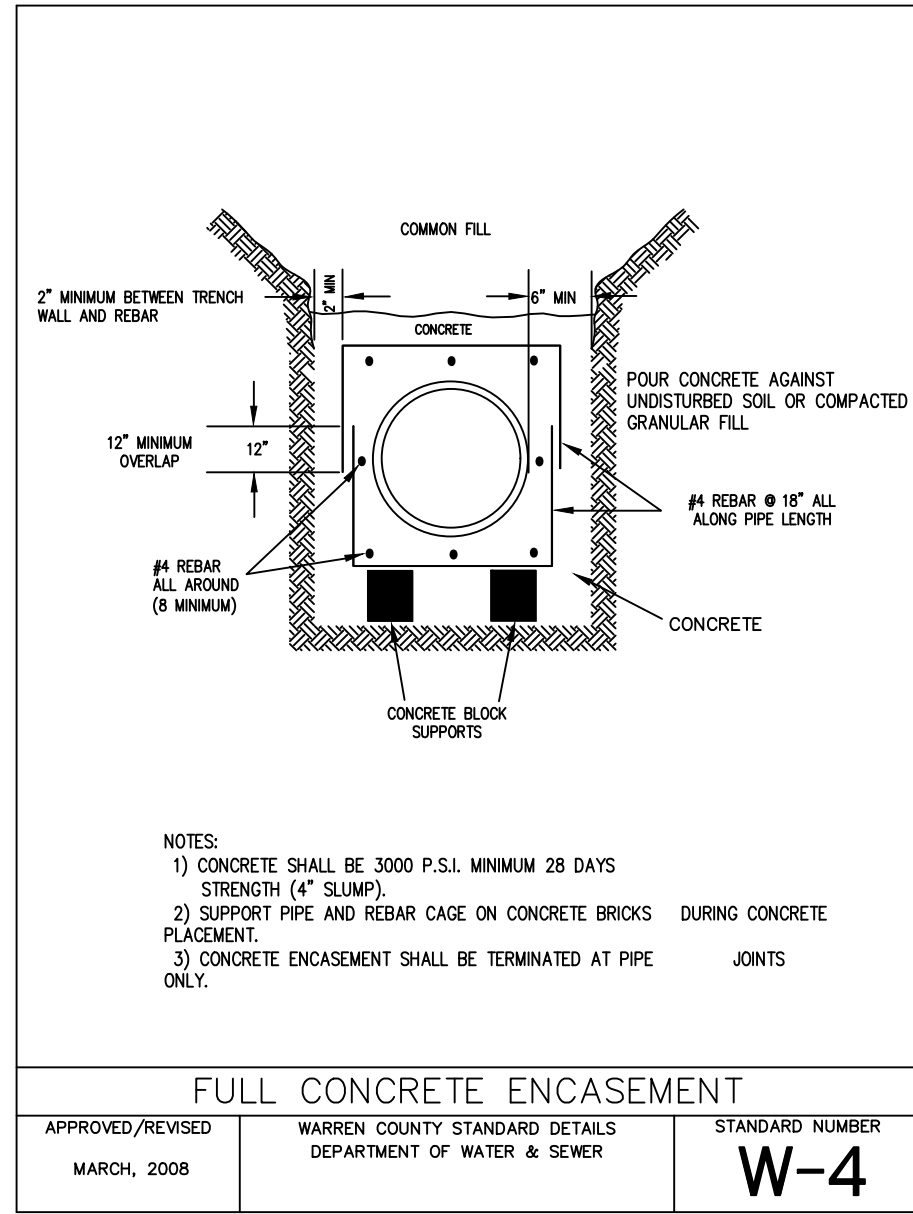
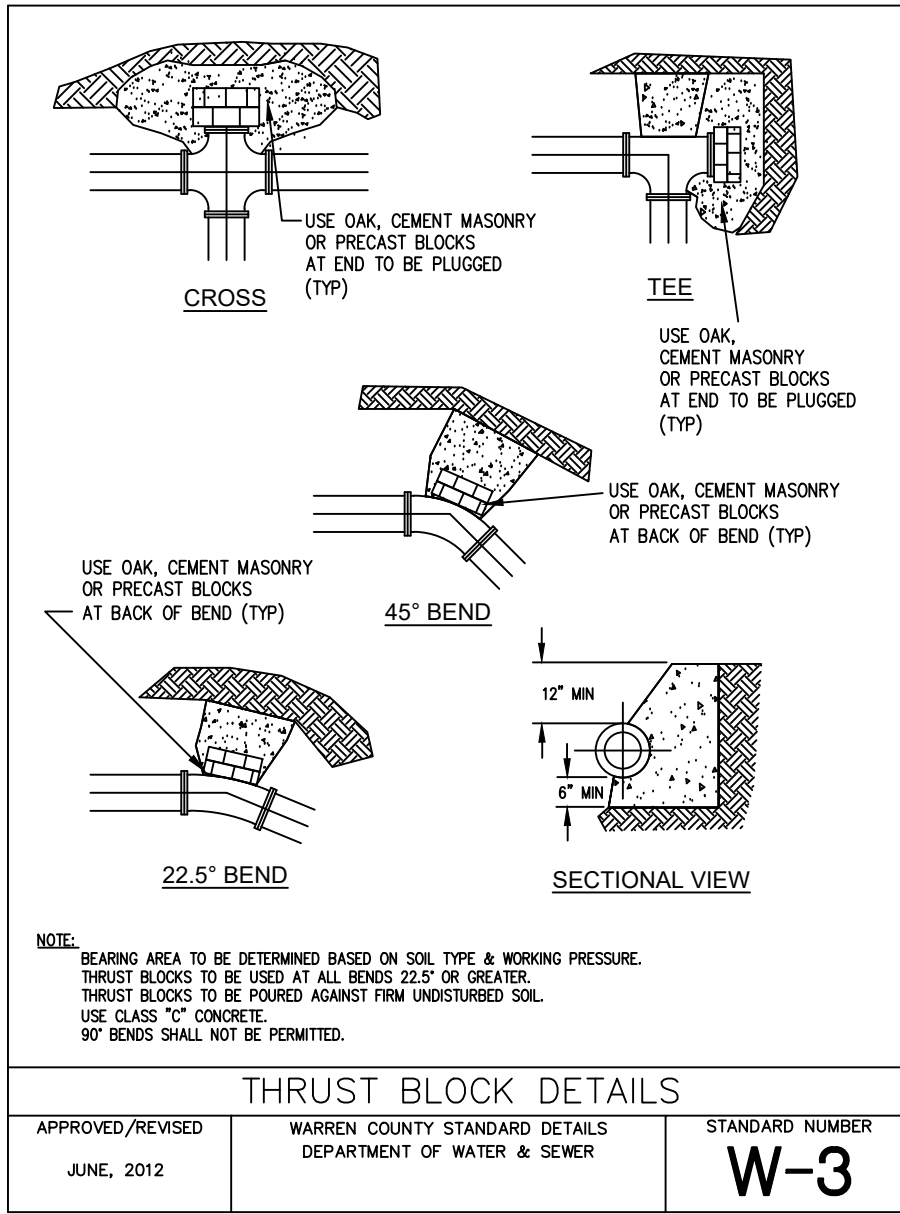
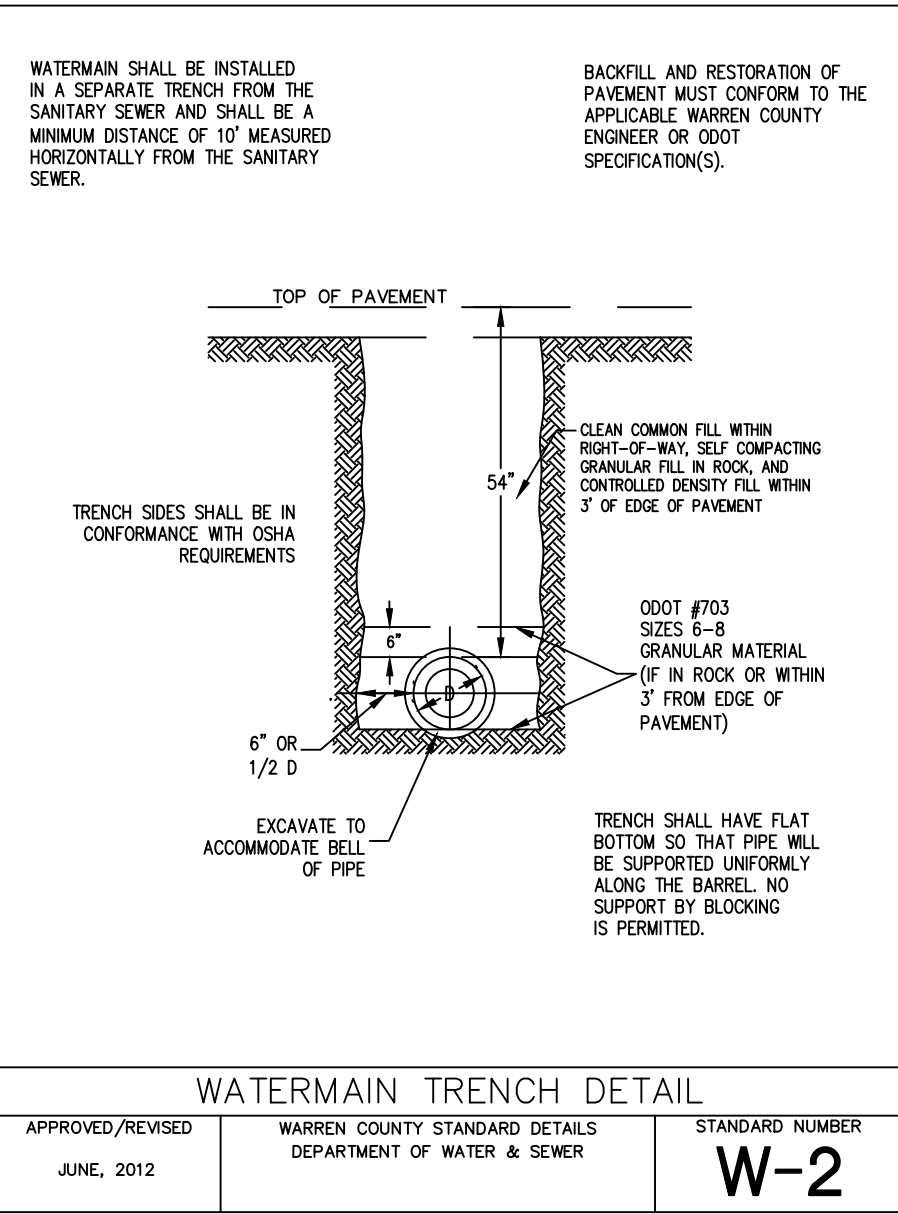
Issue Date

06/07/19

Sheet

C2.1





Plot time: Jun 07 2019 - 7:16pm
Drawing name: J:\2019\19-0008\CV\DWG\19-0008 Outlot 4 CD.dwg - Layout Tab: C3.1 Utility Details

WATER		
1. ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 4'-6".		
A) ALL WATER SERVICE LATERALS SHALL HAVE A MINIMUM COVER OF 42".		
2. ALL WATER MAINS SHALL BE DUCTILE IRON CONFORMING WITH AWWA SPEC. C-151 CLASS 52 IN SIZES 4"-16" AND PSI CLASS 350 FOR 20" AND ABOVE.		
3. COMPACT FITTINGS ARE PERMITTED.		
4. ALL WATER VALVES MUST OPEN LEFT. ALL VALVE BOX LIDS MUST BE CAST/STAMPED "WCMD" IN 1 1/2" LETTERS AND BE NEEDHAM NF-19130002 OR EQUAL. ALL VALVE EXTENSIONS TO HAVE SET SCREWS.		
5. A CONCRETE SLAB MUST BE PROVIDED AT FINAL GRADE AROUND ALL MAIN VALVE BOXES. THE SLABS MUST BE EIGHTEEN INCHES (18") SQUARE /CIRCLE AND NINE INCHES (9") THICK. PRE-FABRICATED CONCRETE RINGS ARE ACCEPTABLE.		
6. WATER AND SEWER LINES SHALL HAVE A MINIMUM OF TEN FEET (10') HORIZONTAL SEPARATION AND/ OR TWO FEET (2') VERTICAL SEPARATION.		
7. NO GATE VALVE, METER PIT, BLOW OFF OR CORPORATION STOP SHALL BE LOCATED UNDER OR WITHIN THREE FEET (3') OF DRIVEWAYS, ROADWAYS OR SIDEWALKS.		
8. NO DRIVEWAY SHALL BE INSTALLED WITHIN FIVE FEET (5') OF A FIRE HYDRANT.		
9. A MINIMUM OF THREE FEET (3') IS REQUIRED BETWEEN CORPORATION STOPS. NO TAP SHALL BE MADE WITHIN THREE (3') OF A BELL.		
10. THE LOCATION OF WATER SERVICE LATERALS MUST BE STAMPED IN THE CURB AT THE TIME THE CURB IS PLACED TO PERMANENTLY INDICATE THE LOCATION OF SAID LATERALS.		
11. THE LOCATION OF ALL WATER SERVICE LATERALS, BENDS, TEES, ETC. MUST BE PROVIDED ON THE AS-BUILT PLANS. ALL OF THESE APPURTENANCES SHOULD BE SURVEYED IN STATE PLANE COORDINATES AND ELECTRONICALLY DELIVERED WITH AS-BUILT.		
12. CONTRACTOR SHALL SUBMIT AS-BUILT PLANS OF SANITARY AND WATER LATERALS TO THE OWNER.		
13. ALL WATER MAINS CROSSING UNDER STORM DRAINS SHALL BE BACK-FILLED WITH GRANULAR MATERIAL, O.D.O.T. ITEM 310.02, BETWEEN MAINS AND DRAINS.		
APPROVED/REVISED MARCH, 2018	WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER	STANDARD NUMBER WG-1A

WATER		
14. EACH SERVICE LATERAL MUST BE A CONTINUOUS PIECE OF PIPE FROM THE CORP STOP TO THE METER. COUPLINGS SHALL NOT BE ALLOWED. TYPE K COPPER SHALL BE USED FOR 3/4" AND 1" SERVICES. POLYETHYLENE 200 PSI (COPPER TUBE SIZE) MAY BE USED FOR 1 1/2" AND 2" SERVICES. TRACER WIRE MUST BE USED WITH POLY AND SDR 21.		
15. SERVICE LINES 1" AND LARGER MUST BE EITHER TYPE K COPPER, POLY 200 PSI (ASTM D-2733) OR SDR 21 (SLIP JOINT) (ASTM-2201). TRACER WIRE MUST BE TAPED EVERY 3' ON POLY AND SDR 21 FROM THE METER PIT INTO THE STRUCTURE BEING SERVED (A 3' LEAD IS REQUIRED INSIDE THE PIT).		
16. 1 1/2" AND 2" SERVICE LINES FROM THE CORP STOP TO THE METER PIT MUST BE TYPE K COPPER OR POLYETHYLENE 200 PSI. POLY MUST HAVE A TRACER WIRE. SEE W-108.		
17. FIRE HYDRANTS MUST BE PROVIDED AT THE ENTRANCE TO ALL SUBDIVISIONS AND AT ALL STREET INTERSECTIONS.		
18. AN APPROVED BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED ON ALL WATER SERVICE LATERALS BY THE PROPERTY OWNER PRIOR TO ANY POINT OF CONNECTION OR USAGE. THE FOLLOWING DRINKS AND LOCATIONS ARE REQUIRED:		
A) RESIDENTIAL DWELLING UNITS (3 FAMILY OR LESS), LOCATED IMMEDIATELY UPON ENTRY OF STRUCTURE. DUE CHECK VALVE A.S.S.E. 1004.		
B) LANDSCAPE IRRIGATION SYSTEMS, REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY A.S.S.E. 1013 LOCATED IMMEDIATELY UPON ENTRY OF STRUCTURE.		
C) FIRE PROTECTION SYSTEMS, DOUBLE CHECK DETECTOR CHECK ASSEMBLY A.S.S.E. 1048 OR REDUCED PRESSURE PRINCIPLE DETECTOR CHECK AS.S.E. 1047 IF SYSTEM CONTAINS ADDITIVES, A.S.S.E. 1048 LOCATED IN VAULT AND A.S.S.E. 1047 LOCATED IN BUILDING.		
D) NON-RESIDENTIAL SERVICES, REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY A.S.S.E. 1013 LOCATED IMMEDIATELY UPON ENTRY OF STRUCTURE.		
19. SHAD PIPE WITH 50 PPM CHLORINE SOLUTION BEFORE INSTALLATION.		
20. ALL NEW WATER MAINS SHALL BE PRESSURE TESTED FOR 2 HOURS AT 200 PSI. MINIMUM IS GREATER. ALLOWABLE LEAKAGE SHALL BE PER TABLE 6 OF AWWA C-600.		
21. DEDUCT METERS SHALL NOT BE ALLOWED.		
22. NO IRRIGATION CONNECTIONS SHALL BE ALLOWED IN THE METER PIT.		
23. BACK FLOW PREVENTER THAT COMPLIES WITH A.S.S.E. 1013 IS TO BE INSTALLED AHEAD OF ANY SPRINKLER BUT NOT IN METER PIT.		
24. ALL MATERIALS USED SHALL BE DOMESTIC, MADE IN THE UNITED STATES OF AMERICA.		
APPROVED/REVISED MARCH, 2018	WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER	STANDARD NUMBER WG-1B

PROCEDURE FOR CONNECTION TO EXISTING WATER SYSTEM		
1. MUST NOTIFY WARREN COUNTY WATER DEPARTMENT THREE (3) DAYS IN ADVANCE OF ANY SHUT DOWN. WARREN COUNTY WILL ISSUE THE SHUT DOWN NOTIFICATION AND/OR BOX ADJUDICATORY TO AFFECTED CUSTOMERS PER OHIO EPA REQUIREMENTS IF DETERMINED NECESSARY BY WARREN COUNTY.		
2. EXPOSE EXISTING MAIN AT PROPOSED CONNECTION POINT. NO NET TAP SHALL BE MADE WITHIN THREE (3) FEET OF A BELL OR PIPE CONNECTION.		
3. COUNTY PERSONNEL TO OPERATE CLOSING OF APPROPRIATE VALVES TO ISOLATE LINE TO BE TAPPED.		
4. INSTALL PROPER TAPPING SLEEVE AND TAPPING VALVE. THE TAPPING SLEEVE AND VALVE SHALL BE TESTED AT 200 PSI FOR A PERIOD OF AT LEAST 5 MINUTES. THE PIPE SUE MUST BE REMOVED AND INSPECTED BY COUNTY PERSONNEL.		
5. IF THE TAPPING SLEEVE AND VALVE WILL BE UNDER FUTURE PAVEMENT, THE BURIED VALVE MUST BE LEFT OPEN AND A NEW VALVE SET OUT OF PAVEMENT.		
6. FIELD OUT EXISTING MAIN AS NECESSARY TO ACCOMMODATE TEE AND CLOSE COUPLED VALVES AT EACH END OF TEE. CARE IS TO BE TAKEN SO TAP DOES NOT GET DIRT IN EXISTING MAIN.		
7. THOROUGHLY CLEAN AND DISINFECT PIPE AND APPURTENANCES TO BE INSTALLED.		
8. INSTALL TEE AND VALVES - DRESSER COUPLINGS CAN BE USED IF NECESSARY. PROPOSED MAIN VALVE IS TO BE CAPPED AND SHUT OFF. EXISTING MAIN IS THEN TO BE RETURNED TO SERVICE BY COUNTY PERSONNEL.		
9. CONSTRUCTION OF PROPOSED MAIN IS TO BE COMPLETED WITH A JOINT OF CONNECTION TO TEE AND VALVES INSTALLED ABOVE.		
10. ENTIRE LINE IS TO BE PRESSURE TESTED AND DISINFECTED TO COUNTY STANDARDS.		
11. ENTIRE LENGTH OF PIPE IS TO BE THOROUGHLY CLEANED AND DISINFECTED PRIOR TO INSTALLATION. PERMANENT CHLORINE TABLETS TO BE USED FOR DISINFECTION. DISGAGE SHALL BE PER MANUFACTURER'S SPECIFICATIONS BASED ON PIPE MATERIAL.		
12. NEW MAIN IS TO BE PUT INTO SERVICE BY COUNTY PERSONNEL.		
13. TAPPING SLEEVES/SADDLES TO BE TWO-PIECE CAST IRON OR DUCTILE IRON (MUELLER HUBS). JOINTS/DR FOR FITS TAPPING SLEEVES PERMITTED ON C-900. SIZE ON SIZE TAPPING SLEEVES ARE NOT PERMITTED.		
APPROVED/REVISED MARCH, 2018	WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER	STANDARD NUMBER WG-2

MANHOLE SHALL CONFORM TO A.S.T.M. SPECIFICATION C-478.		
NOTES: 1.) Minimum wall thickness and steel reinforcing to conform with A.S.T.M. designation C-478. Steel shall be cold drawn wire in accordance with A.S.T.M. designation A-62. 2.) Water tight gaskets are required at all joints (C-443 for rubber type joints). 3.) Except as otherwise noted on the sewer staking plan, where pipe sizes change at the manhole, the inside tops of pipes to be set at the same elevation. 4.) Top of casing shall be even with finished grade at paved locations (roadways and parking lots) and at developed lots. In undeveloped lots, top of casing to be a minimum of 12" above finished grade or as otherwise shown on plan. 5.) Within a new subdivision, temporary adjusting collar must be provided 1 foot above rough/finished grade. Risers (12" maximum) are permitted. Manholes shall be lowered to finished grade when subdivision improvements are completed and the lot is built on. 6.) No manhole, or any portion of a manhole, shall be located under a sidewalk or driveway. Manholes shall only be allowed in roadway pavement upon permission by the County Sanitary Engineer. 7.) A minimum drop of 0.20" must be maintained between inlet and outlet inverts.		
APPROVED/REVISED MARCH, 2018	WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER	STANDARD NUMBER S-1

MANHOLE SHALL CONFORM TO A.S.T.M. SPECIFICATION C-478.		
NOTES: 1.) Minimum wall thickness and steel reinforcing to conform with A.S.T.M. designation C-478. Steel shall be cold drawn wire in accordance with A.S.T.M. designation A-62. 2.) Water tight gaskets are required at all joints (C-443 for rubber type joints). 3.) Except as otherwise noted on the sewer staking plan, where pipe sizes change at the manhole, the inside tops of pipes to be set at the same elevation. 4.) Top of casing shall be even with finished grade at paved locations (roadways and parking lots) and at developed lots. In undeveloped lots, top of casing to be a minimum of 12" above finished grade or as otherwise shown on plan. 5.) Within a new subdivision, temporary adjusting collar must be provided 1 foot above rough/finished grade. Risers (12" maximum) are permitted. Manholes shall be lowered to finished grade when subdivision improvements are completed and the lot is built on. 6.) No manhole, or any portion of a manhole, shall be located under a sidewalk or driveway. Manholes shall only be allowed in roadway pavement upon permission by the County Sanitary Engineer. 7.) A minimum drop of 0.20" must be maintained between inlet and outlet inverts.		
APPROVED/REVISED MARCH, 2018	WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER	STANDARD NUMBER S-2

MANHOLE SHALL CONFORM TO A.S.T.M. SPECIFICATION C-478.		
NOTES: 1.) Minimum wall thickness and steel reinforcing to conform with A.S.T.M. designation C-478. Steel shall be cold drawn wire in accordance with A.S.T.M. designation A-62. 2.) Water tight gaskets are required at all joints (C-443 for rubber type joints). 3.) Except as otherwise noted on the sewer staking plan, where pipe sizes change at the manhole, the inside tops of pipes to be set at the same elevation. 4.) Top of casing shall be even with finished grade at paved locations (roadways and parking lots) and at developed lots. In undeveloped lots, top of casing to be a minimum of 12" above finished grade or as otherwise shown on plan. 5.) Within a new subdivision, temporary adjusting collar must be provided 1 foot above rough/finished grade. Risers (12" maximum) are permitted. Manholes shall be lowered to finished grade when subdivision improvements are completed and the lot is built on. 6.) No manhole, or any portion of a manhole, shall be located under a sidewalk or driveway. Manholes shall only be allowed in roadway pavement upon permission by the County Sanitary Engineer. 7.) A minimum drop of 0.20" must be maintained between inlet and outlet inverts.		
APPROVED/REVISED MARCH, 2018	WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER	STANDARD NUMBER S-3

MANHOLE CHANNELS		
NOTE: MODIFY MANHOLE CHANNEL ENTRANCE CONDITIONS SHOWN TO SUIT ENTRANCE NEEDS OF INDIVIDUAL CASES, MAINTAINING CHANNEL CONCEPT.		
CHANNELS MUST BE SUITABLE FOR INSTALLATION & REMOVAL OF EXPANSION PLUG USED FOR FLUSHING.		
ALL CONSTRUCTION DETAILS & DIMENSIONS ARE TO CONFORM TO THOSE SHOWN FOR STANDARD MANHOLES.		
ALL CHANNELS MUST BE SMOOTH AND UNIFORM. TRANSITION MUST NOT CREATE OBSTRUCTION TO FLOW.		
APPROVED/REVISED MARCH, 2018	WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER	STANDARD NUMBER S-4

SANITARY M.H. INVERT TRANSITION BASE SECTIONS		
NOTE: Drop manholes are to be used when the sewer entering the manhole is two (2) feet or greater above the manhole invert.		
APPROVED/REVISED MARCH, 2018	WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER	STANDARD NUMBER S-5

SANITARY GRAVITY SEWER TRENCH DETAIL		
NOTES: 1. TRENCH SIDES SHALL MEET OSHA REQUIREMENTS. 2. TRENCH SHALL HAVE FLAT BOTTOM SO THAT PIPE WILL BE SUPPORTED UNIFORMLY ALONG THE BARREL. 3. NO SUPPORT BY BLOCKING IS PERMITTED.		
APPROVED/REVISED MARCH, 2018	WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER	STANDARD NUMBER S-6

ROAD PAVEMENT CUT AND RESTORATION AT ROADWAY CROSSING		
TRAFFIC MUST BE MAINTAINED AT ALL TIMES; LIGHTS, SIGNS, BARRICADES AND IF NECESSARY, FLAGMAN AND WATCHMEN TO BE ON JOB FOR PROTECTION OF THE PUBLIC. STREET PLATES MUST CONFORM TO COUNTY ENGINEER OR ODOT REQUIREMENTS.		
EXISTING PAVEMENT EDGES SHALL BE NEATLY AND SQUARELY TRIMMED AND/OR MILLED. PAVEMENT MUST MATCH EXISTING ROAD THICKNESS OR AS SPECIFIED BY COUNTY ENGINEER OR ODOT.		
APPROVED/REVISED MARCH, 2018	WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER	STANDARD NUMBER S-7

SEWER IN CASING		
NOTE: 1. RESTRAINED JOINT TO BE USED WITHIN LIMITS OF CASING. 2. SEAL END OF CASING WITH RUBBER BOOT OR BRICK AND MORTAR. 3. CASING SPACERS TO BE USED THRU CARRIER PIPE.		
APPROVED/REVISED MARCH, 2018	WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER	STANDARD NUMBER S-8

CONCRETE ANCHOR		
Sewers on 20 percent slope or greater shall be Class 53 Restrained Joint Ductile Iron anchored with concrete anchors spaced as follows: 1) Not over 36 feet center to center on grades 20 percent to 35 percent. 2) Not over 24 feet center to center on grades 35 percent to 50 percent. 3) Not over 16 feet center to center on grades 50 percent and over.		
APPROVED/REVISED MARCH, 2018	WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER	STANDARD NUMBER S-9

FULL CONCRETE ENCASUREMENT		
NOTES: 1) CONCRETE SHALL BE 3000 P.S.I. MINIMUM 28 DAYS STRENGTH (4" SLUMP). 2) SUPPORT PIPE AND REBAR CAGE ON CONCRETE BRICKS DURING CONCRETE PLACEMENT. 3) CONCRETE ENCASUREMENT SHALL BE TERMINATED AT PIPE JOINTS ONLY.		
APPROVED/REVISED MARCH, 2018	WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER	STANDARD NUMBER S-10

SANITARY SEWER CREEK CROSSING		
NOTE: CONCRETE SHALL BE 3000 P.S.I. MINIMUM 28 DAYS STRENGTH (4" SLUMP). 2) SUPPORT PIPE AND REBAR CAGE ON CONCRETE BRICKS DURING CONCRETE PLACEMENT. 3) CONCRETE ENCASUREMENT SHALL BE TERMINATED AT PIPE JOINTS ONLY.		
APPROVED/REVISED MARCH, 2018	WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER	STANDARD NUMBER S-11

DEEP HOUSE CONNECTIONS		
NOTES: 1. ALL JOINTS SHALL BE WATER TIGHT. 2. PIPE TO BE BEDDED SO THAT PIPE LOADS ARE NOT IMPOSED ON EXISTING WYES OR SADDLES. 3. EXCAVATION CLOSER THAN TWO FEET (2') FROM PIPE, WYES OR SADDLES SHALL BE DONE BY HAND. 4. DEEP HOUSE CONNECTION TO BE USED WHEN HOUSE CONNECTION IS MADE TO A SEWER DEEPER THAN 12'.		
APPROVED/REVISED MARCH, 2018	WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER	STANDARD NUMBER S-13

HOUSE CONNECTIONS		
NOTE: HOUSE SERVICE IS TO RUN AT RIGHT ANGLE TO C/L OF SEWER MAIN.		
APPROVED/REVISED MARCH, 2018	WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER	STANDARD NUMBER S-14A

HOUSE CONNECTIONS		
NOTE: HOUSE SERVICE IS TO RUN AT RIGHT ANGLE TO C/L OF SEWER MAIN.		
APPROVED/REVISED MARCH, 2018	WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER	STANDARD NUMBER S-14B

HOUSE CONNECTIONS		
NOTE: USE TYPE "B" WHEN SEWER INVERT ELEVATION IS 5' TO 10' BELOW THE ELEVATION REQUIRED AT R/W LINE. USE DHC (S-13) WHEN SEWER INVERT ELEVATION IS 10' OR MORE BELOW THE ELEVATION REQ'D AT R/W LINE. IN ALL OTHER CASES USE TYPE "A" OR TYPE "C".		
APPROVED/REVISED MARCH, 2018	WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER	STANDARD NUMBER S-14C

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Revision Description

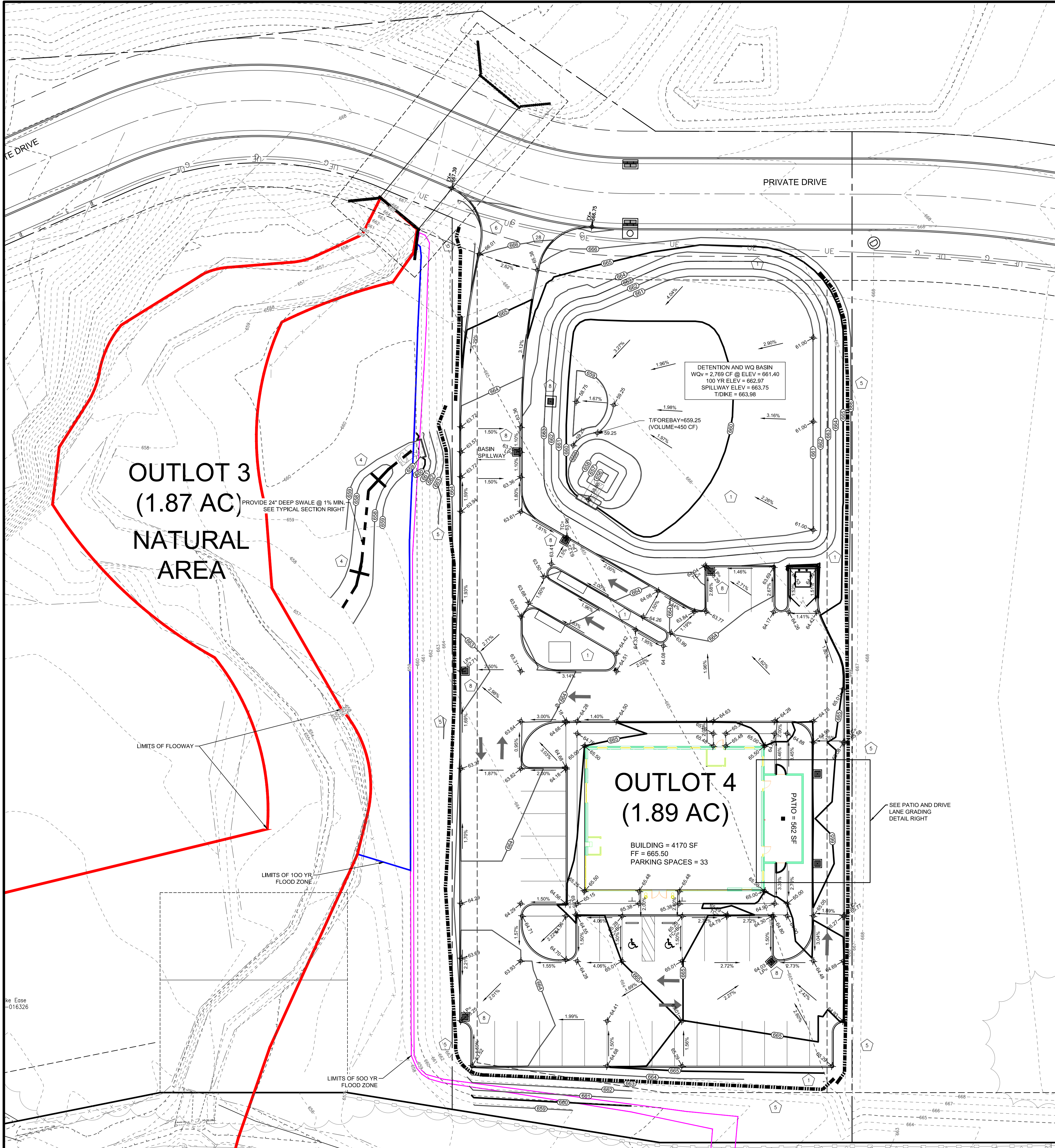
**RIVERS CROSSING WEST
PHASE 2 - OUTLOT 4**
SECTIONS 2, TOWN 4, RANGE 3
UNION TOWNSHIP
VILLAGE OF SOUTH LEBANON
WARREN COUNTY, OHIO

UTILITY NOTES & DETAILS

**bayer
becker**
www.bayerbecker.com
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Mason, OH 45040 • 513-336-6600

Drawing: 19-0008 OUTLOT 4 CD
Drawn by: CJO
Checked by: MPD
Issue Date: 06/07/19
Sheet: **C3.2**

Plot time: Jun 12, 2019, 1:10:07pm
Drawing name: J:\2019\19-0008\CD\DWG\19-0008 Outlot 4 CD.dwg - Layout Tab: C4.0 Grading and Erosion Control Plan

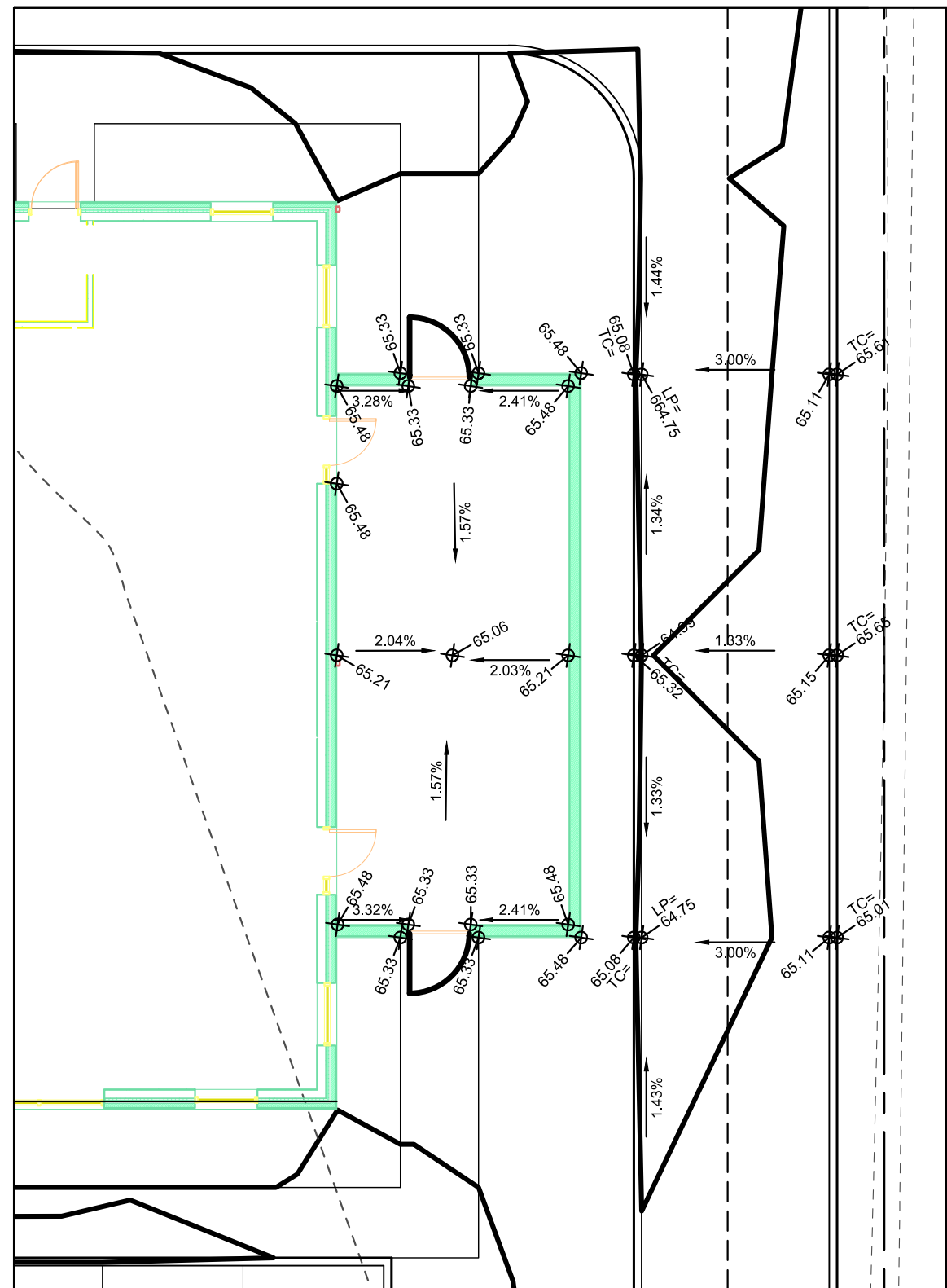


GRADING NOTES

1. LOCATION OF EXISTING UTILITIES TO BE DETERMINED IN THE FIELD PRIOR TO BEGINNING WORK.
2. THE GRADING PLAN IS TO BE USED FOR GRADING PURPOSES ONLY.
3. CONTRACTOR SHALL OBTAIN A COPY OF THE COMPLETE GEOTECHNICAL REPORT AND ALL ADDENDUMS PRIOR TO BIDDING THE PROJECT.
4. CONTRACTORS SHALL SET UP AN ON-SITE PRE-CONSTRUCTION MEETING WITH THE DEVELOPER, PROJECT GEOTECHNICAL ENGINEER, EARTHWORK CONTRACTOR, SITE CIVIL ENGINEER, AND THE VILLAGE OF NEW RICHMOND PRIOR TO BEGINNING CONSTRUCTION.
5. ALL EARTHWORK AND CONSTRUCTION ACTIVITY SHALL BE PERFORMED PER THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER AS DESCRIBED IN THE GEOTECHNICAL EXPLORATION REPORT AND ALL ADDENDUMS.
6. CONTRACTOR SHALL INSTALL AND MAINTAIN A CONCRETE WASHOUT FACILITY PER WARREN COUNTY STANDARDS. CONTRACTOR SHALL COORDINATE LOCATION WITH WARREN COUNTY SOIL & WATER CONSERVATION DISTRICT.
7. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO CONSTRUCTION AND MAINTAINED DURING CONSTRUCTION.
8. BEST MANAGEMENT PRACTICES (BMPs) SHOWN ON PLANS SHALL BE REVISED OR IMPLEMENTED AS REQUIRED. CONTRACTOR SHALL MONITOR CONSTRUCTION BMPs AND PROVIDE ADDITIONAL BMPs AS REQUIRED TO PREVENT SEDIMENT RUNOFF FROM CONSTRUCTION SITE ONTO PAVEMENT AND NON-WORK AREAS.
9. AT A MINIMUM, ALL EROSION AND SEDIMENT CONTROLS ON THE SITE SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN ONE-HALF INCH OF RAIN PER 24 HOUR PERIOD. QUALIFIED INSPECTION PERSONNEL (THOSE WITH KNOWLEDGE AND EXPERIENCE IN THE INSTALLATION AND MAINTENANCE OF SEDIMENT AND EROSION CONTROLS) SHALL CONDUCT THESE INSPECTIONS TO ENSURE THAT THE CONTROL PRACTICES ARE FUNCTIONAL AND TO EVALUATE WHETHER THE EROSION CONTROL IS ADEQUATELY IMPLEMENTED OR WHETHER ADDITIONAL CONTROL MEASURES ARE REQUIRED. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE VEHICLE TRACKING.
10. SITE STABILIZATION SHALL BEGIN WITHIN 7 DAYS ON AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED FOR 14 DAYS.
11. ALL MUD OR DEBRIS TRACKED ON EXISTING STREETS SHALL BE CLEANED AT THE END OF EACH DAY OR AS DIRECTED BY WARREN COUNTY OR THE OWNER. PERIODIC STREET SWEEPING MAY BE REQUIRED.
12. IN ADDITION TO ANY TEMPORARY EROSION, MUD, AND DEBRIS CONTROL DETAILS AND NOTES SHOWN ON THE PLANS, THE CONTRACTOR SHOULD PLACE TEMPORARY OR PERMANENT SEEDING, MULCHING AND/OR MULCH NETTING OR ANY OTHER GENERALLY ACCEPTED METHODS TO PREVENT EROSION, MUD, AND DEBRIS FROM BEING DEPOSITED ON OTHER PROPERTY, ON NEWLY CONSTRUCTED OR EXISTING ROADS, OR INTO EXISTING SEWERS OR NEW SEWERS WITHIN THE DEVELOPMENT. THE CONTRACTOR SHOULD CONTINUALLY MONITOR THE CONSTRUCTION PROGRESS AND MAKE ANY NECESSARY TEMPORARY ADJUSTMENTS TO MAINTAIN THIS CONTROL.
13. AFTER THE VEGETATION HAS BECOME WELL ESTABLISHED, TEMPORARY EROSION AND SEDIMENT CONTROLS CAN BE REMOVED.

EROSION CONTROL LEGEND

- 1 SEEDING & MULCHING (SEE DETAIL ON SHEET C4.1)
- 4 DITCH CHECK (SEE DETAIL ON SHEET C4.1)
- 5 SILT FENCE (SEE DETAIL ON SHEET C4.1)
- 6 ROCK CONSTRUCTION ENTRANCE (SEE DETAIL ON SHEET C4.1)
- 8 DANDY BAG/DANDY CURB (OR APPROVED EQUAL) (SEE DETAIL ON SHEET C4.1)
- 28 CONCRETE WASHOUT



PATIO & DRIVE LANE GRADING DETAIL

SCALE: 1" = 10'

STATE OF OHIO

MICHAEL J. DOOLEY

E-73575

REGISTERED PROFESSIONAL ENGINEER

19-0008 OUTLOT 4 CD

CJO

MPD

06/07/19

RIVERS CROSSING WEST

SECTION 2 - OUTLOT 4

SECTION 2, TOWN 4, RANGE 3

UNION TOWNSHIP

VILLAGE OF SOUTH LEBANON

WARREN COUNTY, OHIO

GRADING AND EROSION CONTROL PLAN

bayer becker

www.bayerbecker.com

6800 Tyersville Road, Suite A

Mason, OH 45040 - 513.336.6600

GENERAL NOTES

EROSION AND SEDIMENT CONTROLS

Vegetative practices
Such practices may include: temporary seeding, permanent seeding, mulching, matting, sod stabilization, vegetative buffer strips, phasing and protection of trees. The contractor shall provide temporary seeding on all disturbed areas within seven (7) days of the most recent disturbance if the area will be dormant for more than fourteen (14) days but less than one year, and is not within 50 feet of a surface water of the state. Temporary seeding must be provided for any disturbed area within 50 feet of a surface water of the state and not at final grade within two (2) days of the most recent disturbance if the area will remain dormant for more than fourteen (14) days. Temporary seeding must be provided for areas that will remain dormant over the winter prior to the onset of winter weather. Permanent seeding must be provided for areas that will lie dormant for one year or more within seven (7) days of the most recent disturbance and within two (2) days of reaching final grade for areas within 50 feet of a surface water of the state and at final grade. Permanent seeding shall be provided to all other areas at final grade within seven (7) days of reaching final grade within that area.

Structural Practices
Structural practices shall be used to control erosion and trap sediment from all sites remaining disturbed for more than fourteen (14) days.

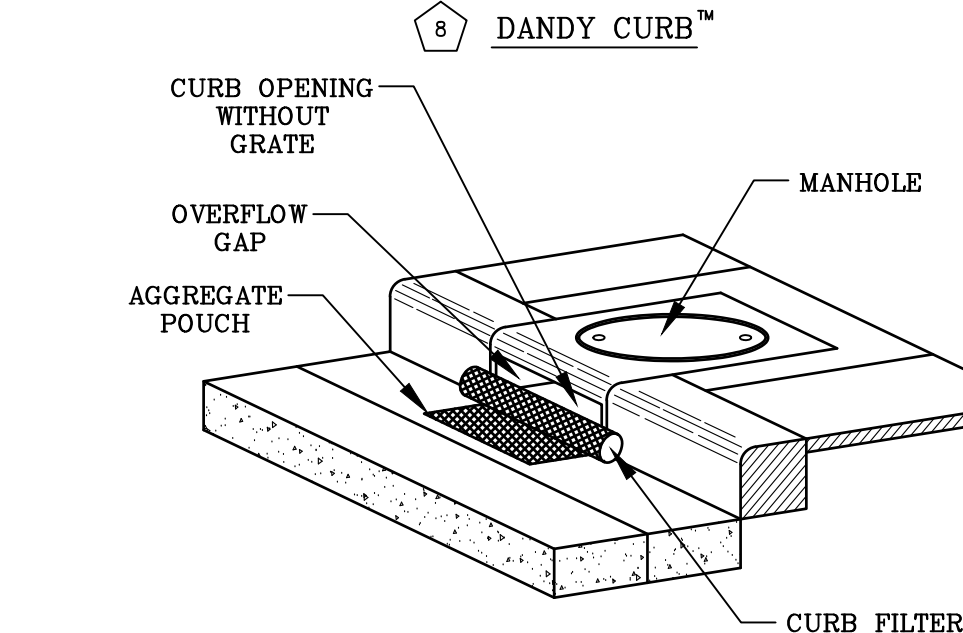
Timing
Sediment control structures shall be functional throughout earth disturbing activity. Sediment ponds and perimeter sediment barriers shall be implemented as the first step of grading and within seven days from the start of grubbing. They shall continue to function until the upslope development area is restabilized.

Sediment Barriers
Sheet flow runoff from denuded areas shall be intercepted by sediment barriers. Sediment barriers, such as sediment fences or diversions direction runoff to settling facilities, shall protect adjacent properties and water resources from sediment transported by sheet flow.

Erosion and sediment control practices used to satisfy the conditions of this plan shall meet the standards and specifications in the current edition of Water Management and Sediment Control in Urbanized Areas (Soil Conservation Service.)

Waste Disposal
No solid or liquid waste, including building materials, shall be discharged in storm water runoff. Off-site vehicle tracking of sediments shall be minimized. The plan shall ensure and demonstrate compliance and applicable State of local waste disposal, sanitary sewer or septic system regulations.

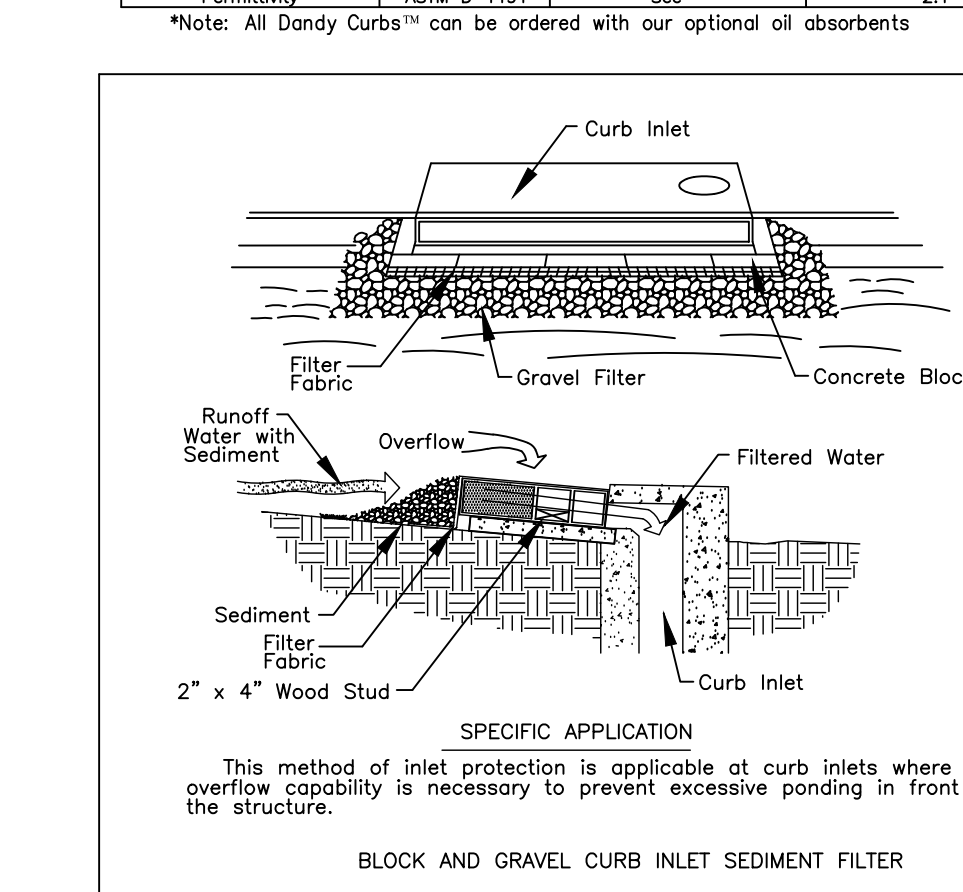
Maintenance
All temporary and permanent control practices shall be maintained and repaired as needed to assure continued performance of their intended function. The contractor shall be responsible for the maintenance described above.



NOTE: THE DANDY CURB™ WILL BE MANUFACTURED IN THE U.S.A. FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 X 10
Puncture Strength	ASTM D 4633	kN (lbs)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.51 (115) X 0.33 (75)
UV Resistance	ASTM D 4355	%	
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/m² (gal/min/ft²)	9902 (145)
Permeability	ASTM D 4491	sec	

*Note: All Dandy Curbs™ can be ordered with our optional oil absorbents

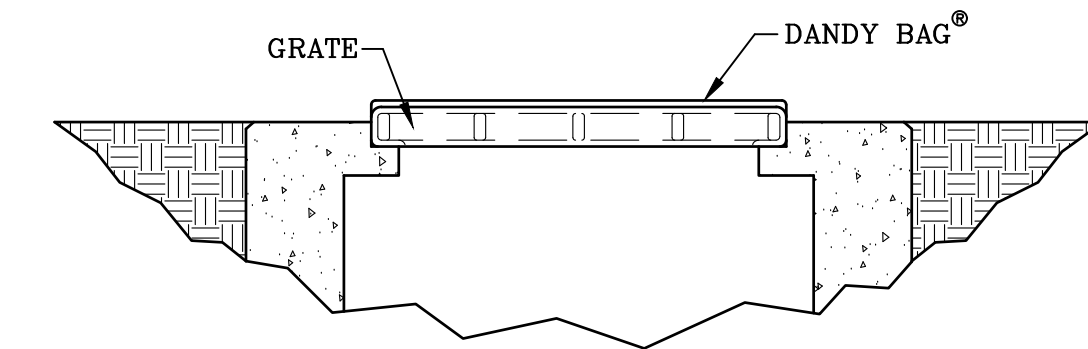
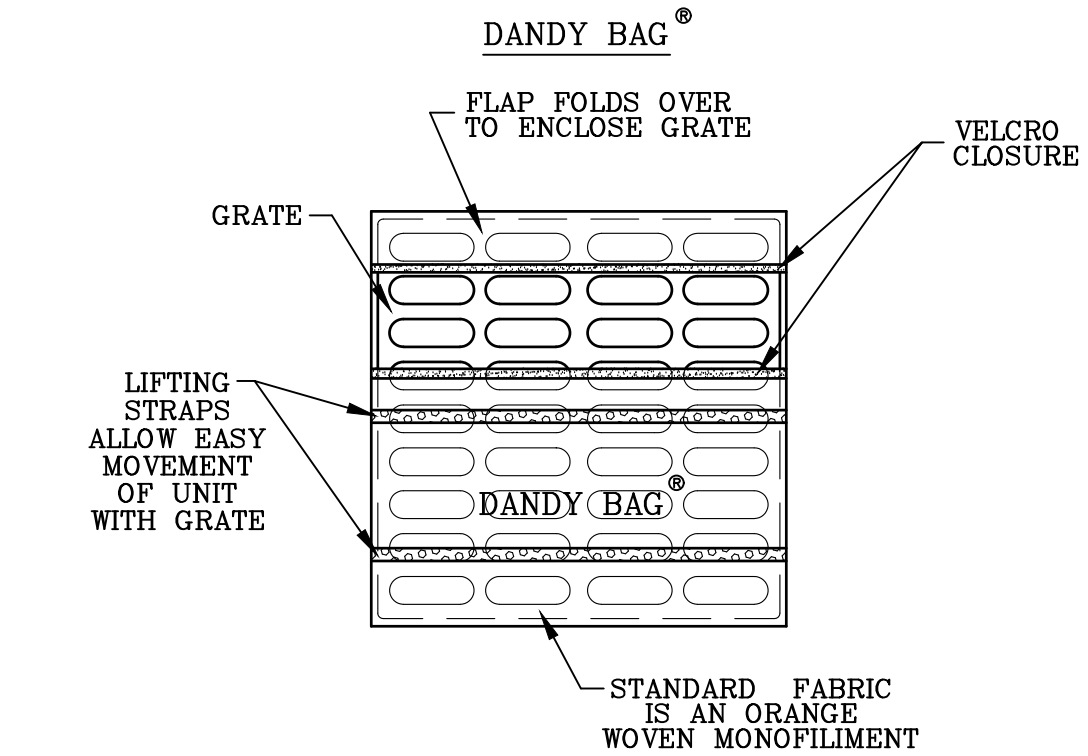


BLOCK AND GRAVEL CURB INLET SEDIMENT FILTER

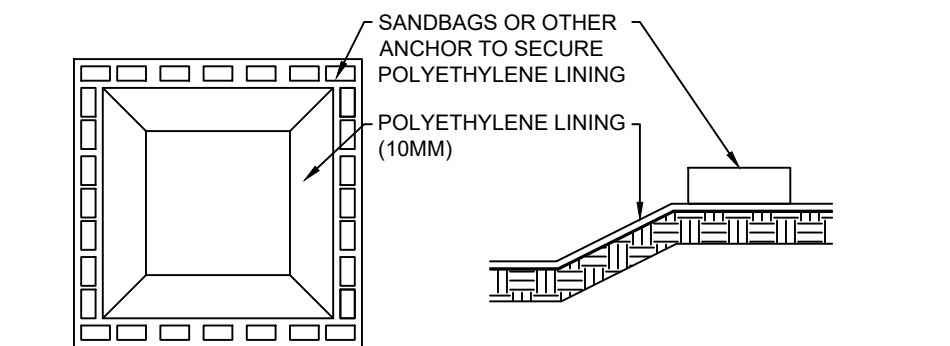
8 DANDY BAG® Installation and Maintenance Guidelines

Installation: The empty Dandy Bag® should be placed over the grate as the grate stands on end. If using optional oil absorbents; place absorbent pillow in pouch, on the bottom (below-grade side) of the unit. Attach absorbent pillow to tether loop. Tuck the enclosure flap inside to completely enclose the grate. Holding the lifting devices (do not rely on lifting devices to support the entire weight of the grate), place the grate into its frame.

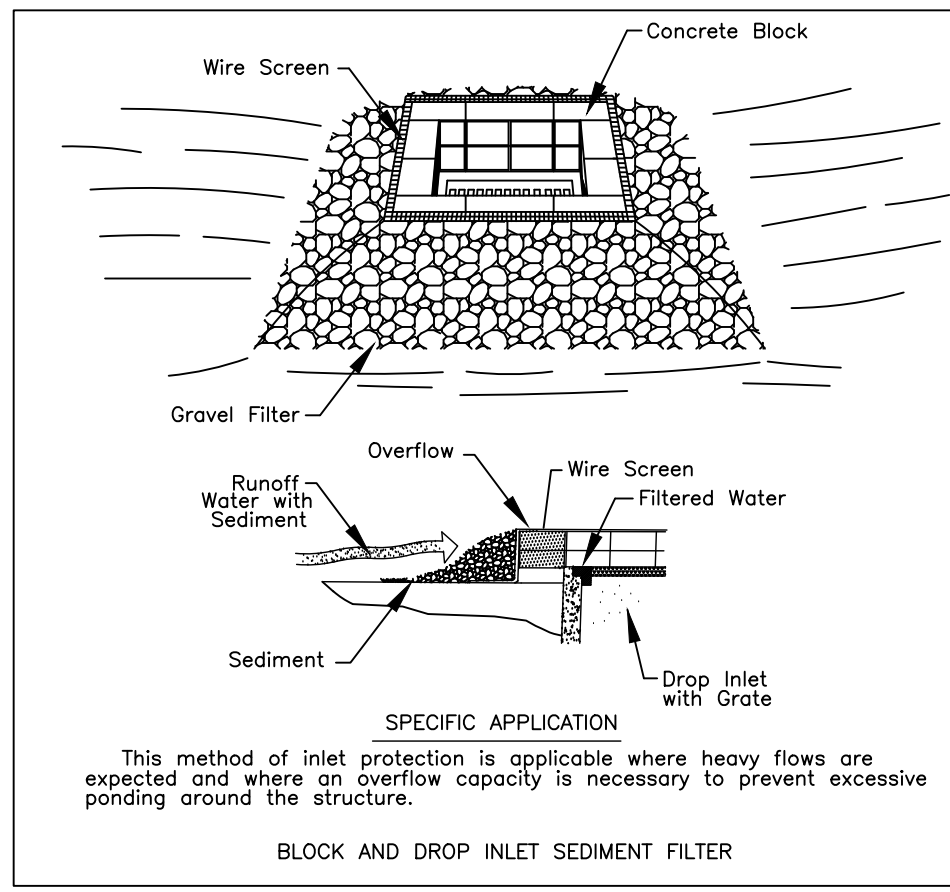
Maintenance: Remove all accumulated sediment and debris from surface and vicinity of unit after each storm event. Remove sediment that has accumulated within the containment area of the Dandy Bag® as needed. If using optional oil absorbents; remove and replace absorbent pillow when near saturation.



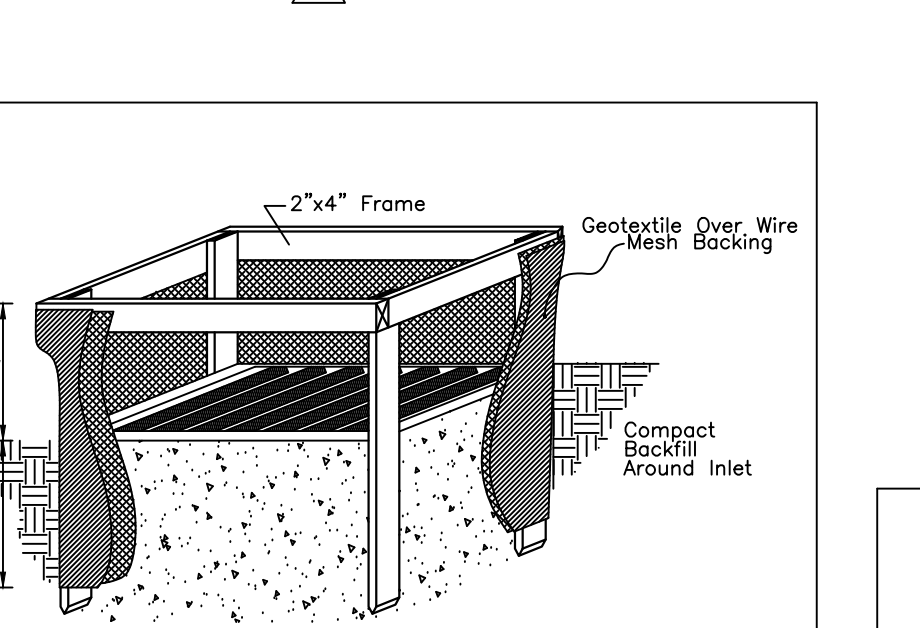
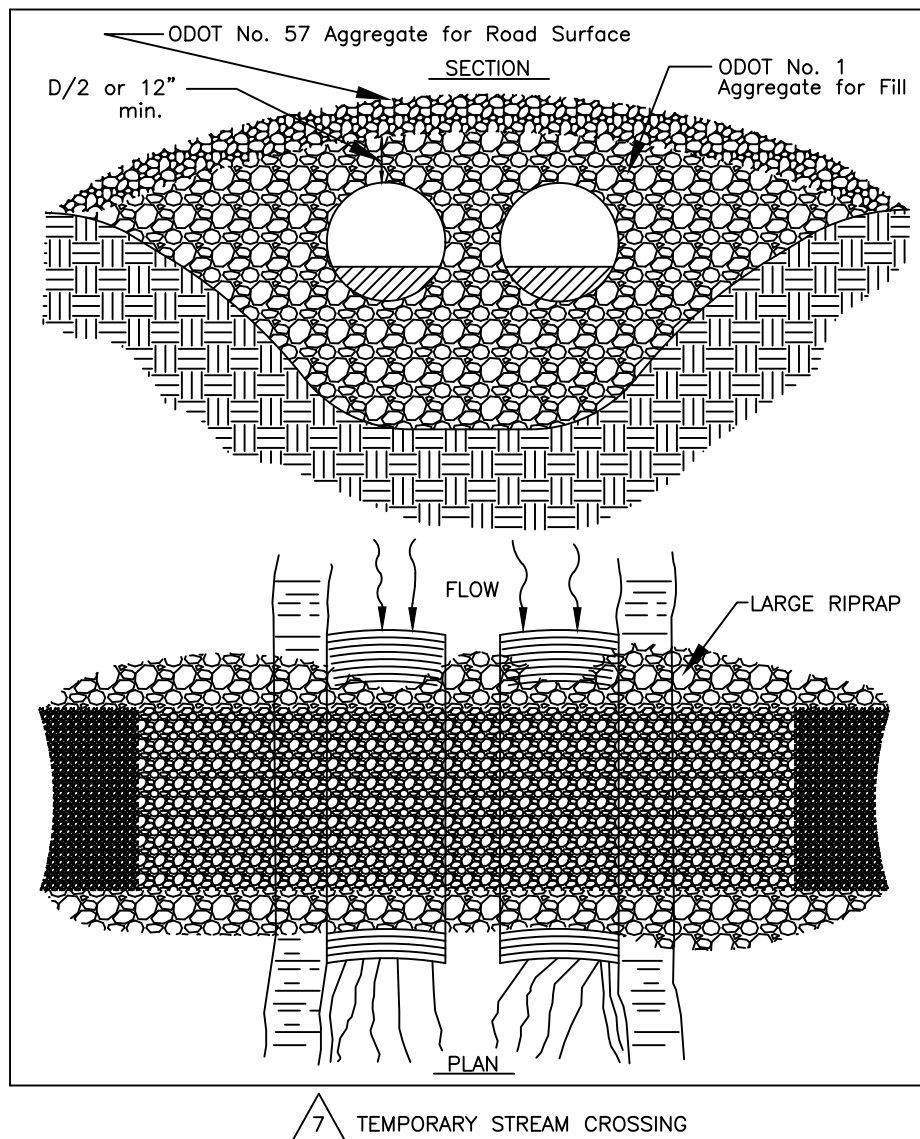
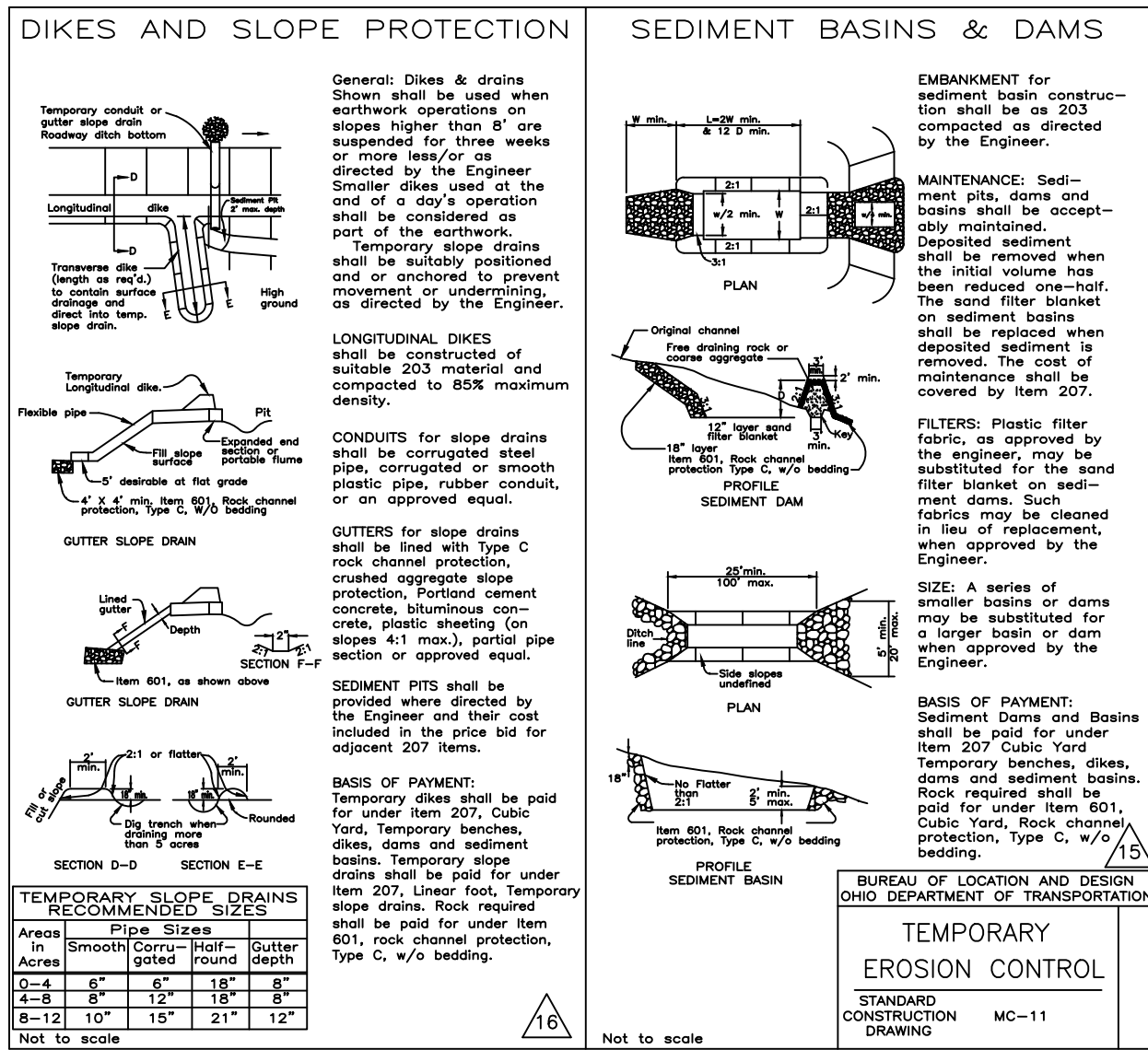
28 CONCRETE WASHOUT BASIN



- INSTALL ON RELATIVELY FLAT AREAS.
- INSPECT WEEKLY AND AS DIRECTED IN THE STORMWATER POLLUTION PREVENTION PLAN. REPAIR/REPLACE AS NEEDED
- REMOVE COLLECTED CONCRETE WHEN THE APPEARS 1/3 FULL
- DISPOSE OF INORGANIC MATERIAL PROPERLY.



BLOCK AND DROP INLET SEDIMENT FILTER

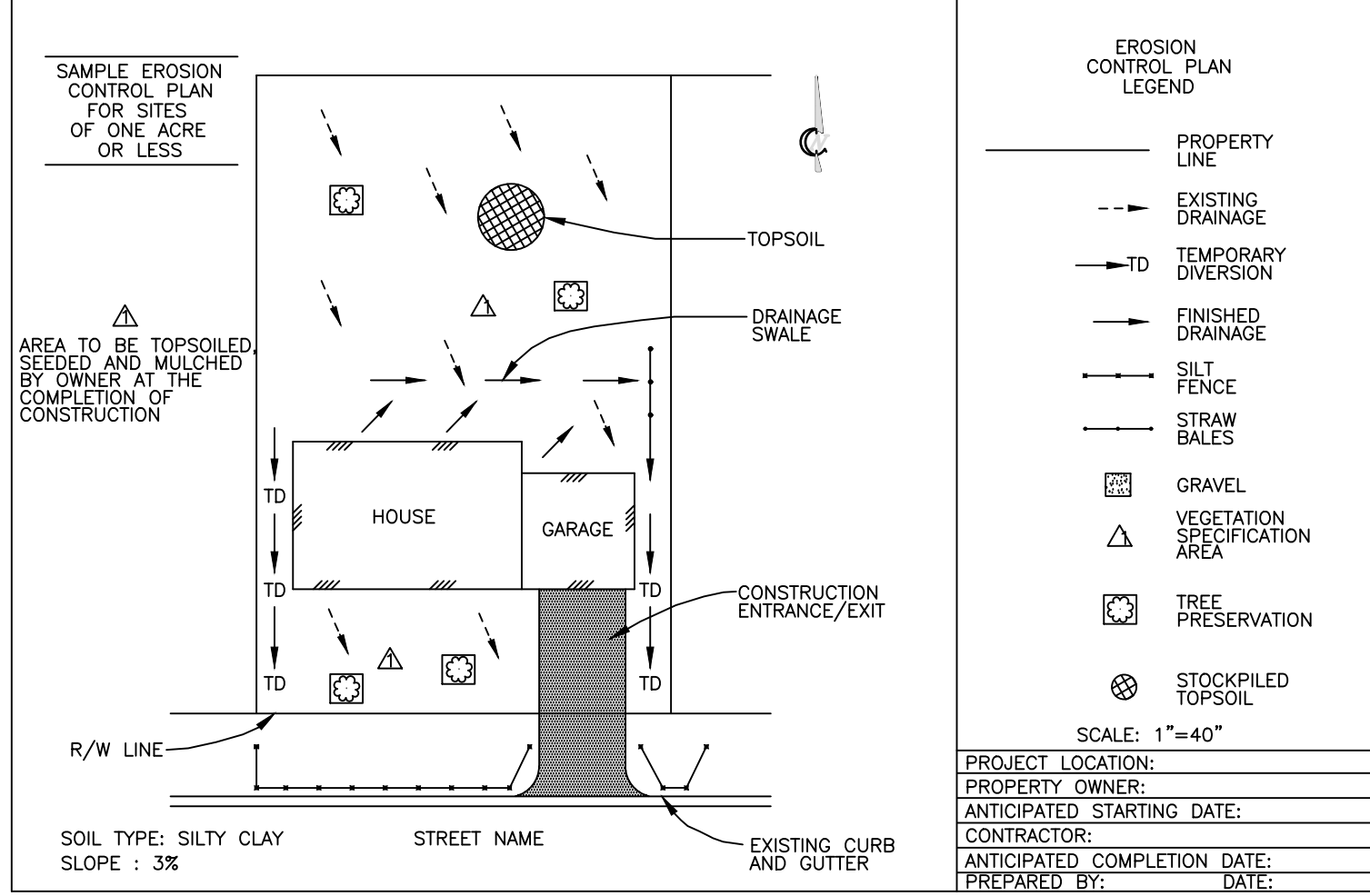


9 GEOTEXTILE INLET PROTECTION

- SPECIFICATIONS FOR INLET PROTECTION IN SWALES, DITCH LINES OR YARD INLETS
- Inlet protection shall be constructed either before upslope land disturbance begins or before the storm drain becomes operational.
 - The earth around the inlet shall be excavated completely to a depth at least 18 in.
 - The wooden frame shall be constructed of 2-by-4-in construction-grade lumber. The 2-by-4-in posts shall be driven 1 ft into the ground at four far corners of the inlet and the top portion of 2-by-4-in frame assembled using the overlap joint shown. The top of the frame shall be at least 6 in below adjacent roads if ponded water would pose a safety hazard to traffic.
 - Wire mesh shall be of sufficient strength to support fabric with water fully impounded against it. It shall be stretched tightly around the frame and fastened securely to the frame.
 - Geotextile shall have an equivalent opening size of 20-40 sieve and be resistant to sunlight. It shall be stretched tightly around the frame and fastened securely. It shall extend from the top of the frame to 18 in below the inlet notch elevation. The geotextile shall overlap across one side of the inlet so the ends of the cloth are not fastened to the same post.
 - Backfill shall be placed around the inlet in compacted 6-in layers until the earth is even with notch elevation on ends and top elevation on sides.
 - A compacted earth dike or a check dam shall be constructed in the ditch line below the inlet if the inlet is not in a depression and if runoff bypassing the inlet will not flow to a settling pond. The top of earth dikes shall be at least 6 in. higher than the top of the frame
- INLET PROTECTION - PAGE 125

Source: Rainwater and Land Development, Ohio's Standards for Stormwater Management, Land Development, and Urban Stream Protection. Second Edition-1996

EROSION CONTROL FOR SMALL SITES



WARNING! Extra measures may be needed if your site:

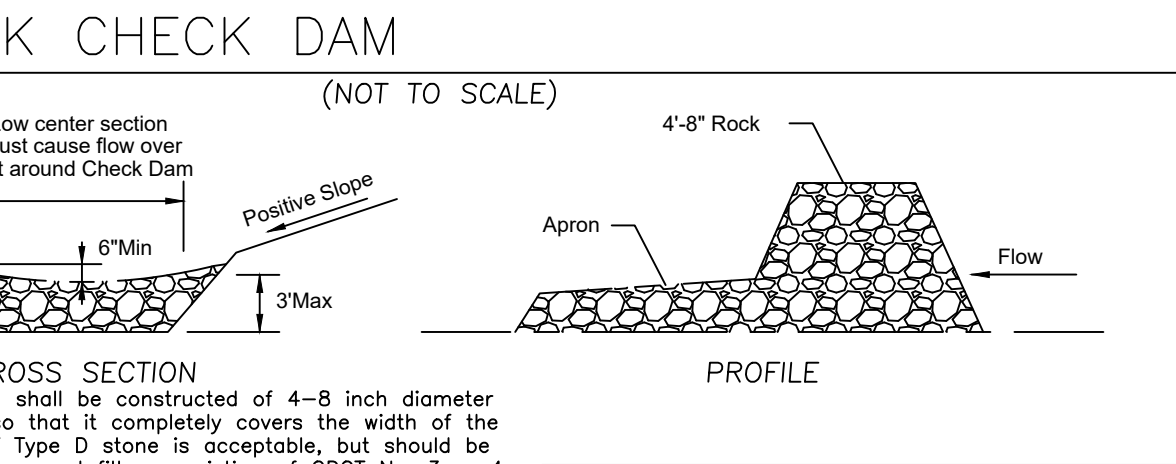
- Is within 300 feet of a stream or wetland
- Is within 1000 feet of a lake
- Is steep (slopes of 12% or more)
- Receives runoff from 10,000 sq. ft. or more of adjacent land
- Has more than an acre of disturbed ground

Typical Lawn Seed Mixtures

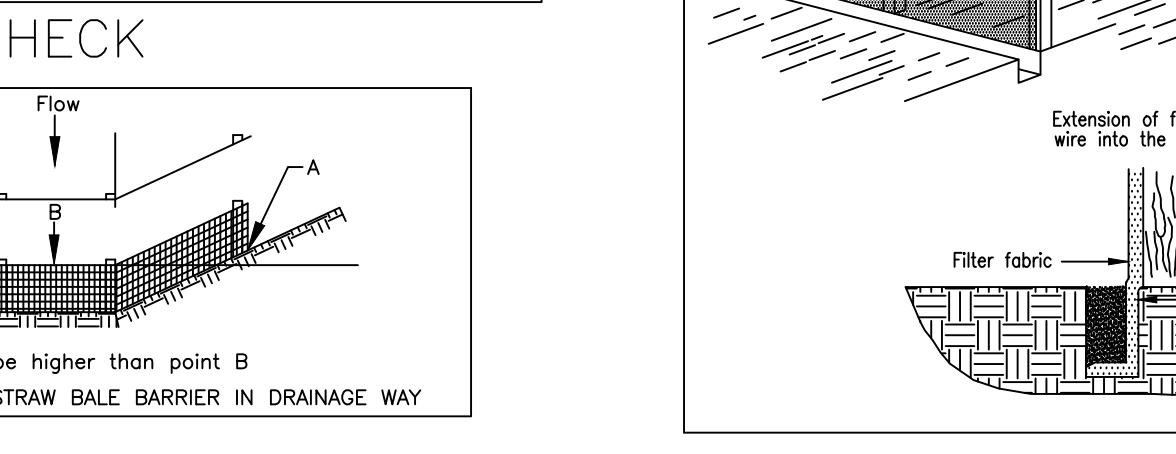
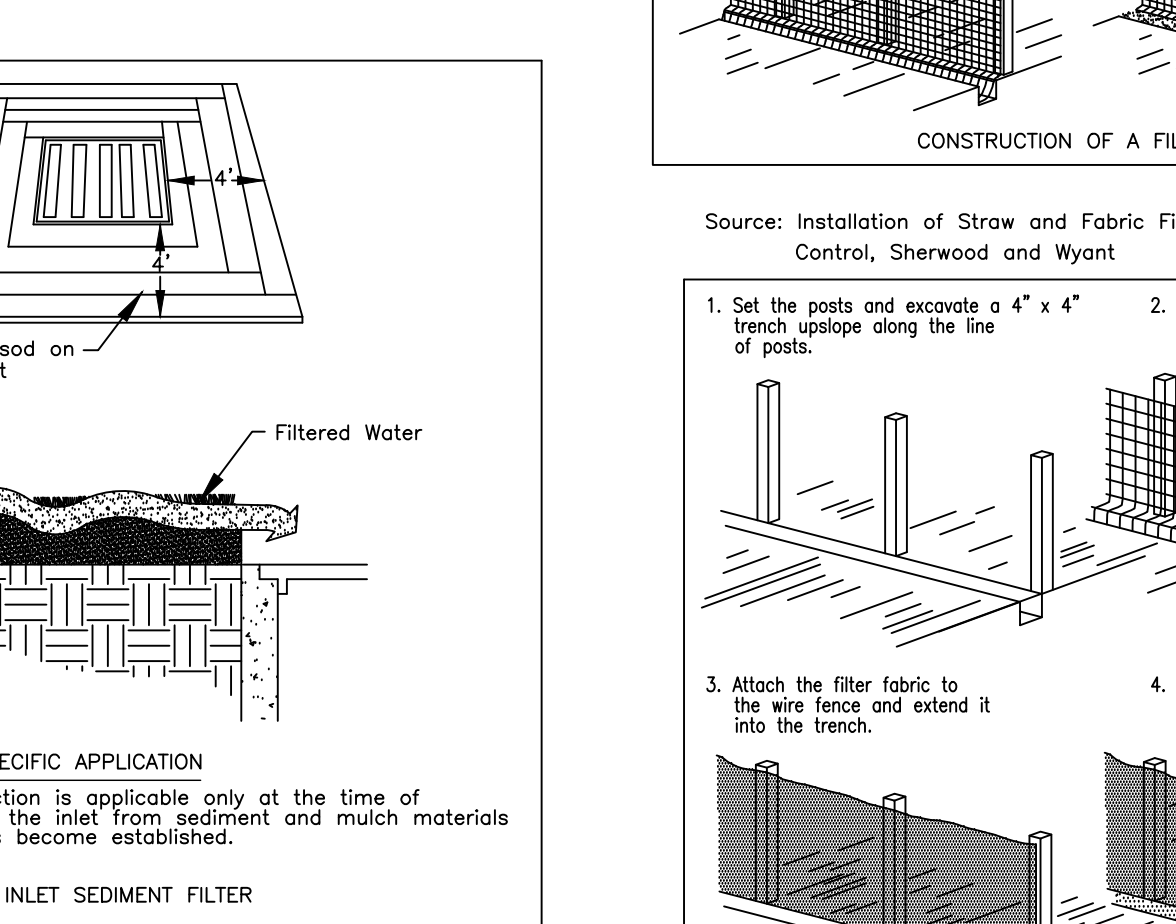
Grass	Sunny Site	Shady Site
Kentucky bluegrass	65%	15%
Fine fescue	20%	70%
Perennial ryegrass	15%	15%

Seeding rate (lb./1000 sq. ft.)

3-4	4-5
-----	-----



- CROSS SECTION
- The check dam shall be constructed of 4-8 inch diameter stone, placed so that it completely covers the width of the channel. ODOT Type D stone is acceptable, but should be underlain with a gravel filter consisting of ODOT No. 3 or 4 or suitable filter fabric.
 - Maximum height of check dam shall not exceed 3.0 feet.
 - The midpoint of the rock check dam shall be a minimum of 6 inches lower than the sides in order to direct across the center and away from the channel sides.
 - The base of the check dam shall be entrenched approximately 6 inches.
 - Spacing of check dams shall be in a manner such that the toe of the upstream dam is at the same elevation as the top of the downstream dam.
 - A Splash Apron shall be constructed where check dams are expected to be in use for an extended period of time, a stone apron shall be constructed immediately downstream of the check dam to prevent flows from undercutting the structure. The apron should be 6 in. thick and its length two times the height of the dam.
 - Side slopes shall be a minimum of 2:1.



Source: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood and Wyant

- REVEGETATION
Seed, sod or mulch bare soil as soon as possible
- SEEDING AND MULCHING
Spread topsoil.
Fertilize according to soil test (or apply 10 lb./1000 sq. ft. of 20-19-19 or 10-10-10 fertilizer.)
Seed with an appropriate mix for the site (see table.) Rake lightly to cover seed with 1/4" of soil.
Mulch with straw (90 lb. or one bale per 1000 sq. ft.)
Anchor mulch by punching 2 inches into the soil with a dull, weighted disk or by using netting or other measures on steep slopes, or windy areas.
- SODDING Spread 4 to 6 inches of topsoil.
Fertilize according to soil test (or apply 10lb./1000 sq. ft. of 20-10-10 or 10-10-10 fertilizer.)
Lightly water the soil.
Lay sod. Tamp or roll lightly.
On slopes, lay sod starting at the bottom and work toward the top. Peg each piece down in several places.
Initial watering should wet soil 6 inches deep (or until water stands 1 inch deep in a straight-sided container.) Then water lightly every day or two for 2 weeks.
- PRESERVING EXISTING VEGETATION
Wherever possible, preserve existing trees, shrubs, and other vegetation.
To prevent root damage, do not grade, place soil piles, or park vehicles near trees marked for preservation.
Place plastic mesh or snow fence barriers around trees to protect the area below their branches.
- SILT FENCE
Put up before any other work is done.
Install on downslope side(s) of site with ends extended up sideslopes a short distance.
Place parallel to the contour of the land to allow water to pond behind fence.
Entrench 4 inches deep.
Stake (1 stake every 8 feet for silt fence.)
- Leave no gaps between sections of silt fence. Inspect and repair once a week or after every 1/2 inch rain. Remove sediment if deposits reach half the fence.
- Maintain until lawn is installed.
- SOIL PILES
Located away from any downslope street, driveway, stream, lake, wetland, ditch or drainage way.
Temporary seed with annual rye as needed.
- Surround silt fence as needed.
- GRAVEL DRIVE
Install a single access drive using 3 to 5 inch aggregate over a geotextile material. Lay gravel 6 inches deep and 10 feet wide from the foundation to the street.
Use to prevent tracking dirt onto the road by all vehicles.
Maintain throughout construction until driveway is paved.
Park all construction vehicles on the street and off of the site.
- SEDIMENT CLEANUP
By the end of each work day, sweep or scrape up soil tracked onto the road.
By the end of the next work day after a storm, clean up soil washed off-site, and check geotextile inlet protection and silt fence for damage or sediment buildup.
- DOWNSPOUT EXTENDERS
Not required, but highly recommended.
Install as soon as gutters and downspouts are completed.
Route water to a grassed or paved area.
Maintain until a lawn is established.

RIVERS CROSSING WEST SECTION 2 - OUTLOT 4 SECTION 2, TOWN 4, RANGE 3 UNION TOWNSHIP VILLAGE OF SOUTH LEBANON WARREN COUNTY, OHIO

EROSION CONTROL NOTES & DETAILS

bayer becker
www.bayerbecker.com
6800 Tyensville Road, Suite A
Mason, OH 45040 • 513-336-6600

Drawing: 19-0008 OUTLOT 4 CD
Drawn by:
Checked By: MPD
Issue Date: 06/07/19
Sheet:
C4.1



PLANT SCHEDULE						
DECIDUOUS TREES		QTY	BOTANICAL NAME	COMMON NAME	TYPE	MIN. SIZE
ACE F23	2		Acer rubrum `Frank Jr.`	Redpointe Maple	B & B	2.5" Cal
GIN PR2	3		Ginkgo biloba `Princeton Sentry`	Princeton Sentry Ginkgo	B & B	2.0" Cal
GLE INE	2		Gleditsia triacanthos inermis `Skycole` TM	Skyline Thornless Honey Locust	B & B	2.5"Cal
LIQ ROT	3		Liquidambar styraciflua `Rotundiloba` TM	Round-Lobed Sweet Gum	B & B	2.5" Cal
ULM EM2	3		Ulmus propinqua `Emerald Sunshine`	Emerald Sunshine Elm	B & B	2.5" Cal
EVERGREEN TREES		QTY	BOTANICAL NAME	COMMON NAME	TYPE	MIN. SIZE
PIN CEM	1		Pinus cembra	Swiss Stone Pine	B & B	5' Ht.
THU EL2	4		Thuja orientalis `Elegantissima`	Elegantissima Arborvitae	B & B	5' Ht.
ORNAMENTAL TREES		QTY	BOTANICAL NAME	COMMON NAME	TYPE	MIN. SIZE
AME GRZ	2		Amelanchier x grandiflora `Autumn Brilliance`	A.B. Serviceberry	B & B	1.5" Cal
CER CAN	1		Cercis canadensis	Eastern Redbud	B & B	1.5"Cal
MAG SWE	1		Magnolia virginiana	Sweet Bay	B & B	1.5" Cal
DECIDUOUS SHRUBS		QTY	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT
ARO ARB	6		Aronia arbutifolia `Brilliantissima`	Brilliant Red Chokeberry/Red Chokeberry	B&B	30" Ht.
CAR PE2	7		Caryopteris x clandonensis `Petite Blue`	Petit Bleu	3 gal	18" Ht.
FOR LYN	6		Forsythia x intermedia `Lynwood Gold`	Lynwood Gold Forsythia	B&B	30" Ht.
HYD QUE	2		Hydrangea quercifolia	Oakleaf Hydrangea	B & B	30" Ht.
HYD RU2	6		Hydrangea quercifolia `Ruby Slippers`	Ruby Slippers Hydrangea	5 gal	24" Ht.
PHY DIA	4		Physocarpus opulifolius `Diablo`	Diablo Ninebark	B & B	30" Ht.
RHU GRO	10		Rhus aromatica `Gro-Low`	Gro-Low Fragrant Sumac	3 gal	30" Ht.
SYR RED	4		Syringa x `Red Pixie`	Red Pixie Lilac	5 gal	30" Ht.
EVERGREEN SHRUBS		QTY	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT
BUX MNT	4		Buxus microphylla insularis `Green Mountain`	Green Mountain Boxwood	B&B	24" Ht.
ILE DEN	15		Ilex glabra `Densa`	Inkberry Holly	5 gal	30" Ht.
JUN SEA	12		Juniperus chinensis `Sea Green`	Sea Green Juniper	B&B	30" Ht.
JUN SP2	3		Juniperus chinensis `Spartan`	Spartan Juniper	B & B	48" Ht.
JUN VIR	4		Juniperus virginiana `Grey Owl`	Grey Owl Juniper	B&B	30" Ht.
GROUND COVERS		QTY	BOTANICAL NAME	COMMON NAME	CONT	FIELD2
HYP CAL	10		Hypericum calycinum	Creeping St. John`s Wort	1 gal	24" o.c.
NEP JU6	16		Nepeta x faassenii `Junior Walker`	Junior Walker Catmint	1 gal	30" o.c.

 PARKING LOT AREA
21,173 SQ. FT.

 INTERIOR LANDSCAPE AREAS
SEEDED LAWN OR HARDWOOD MULCH

 HARDWOOD MULCH IN PLANTING BEDS

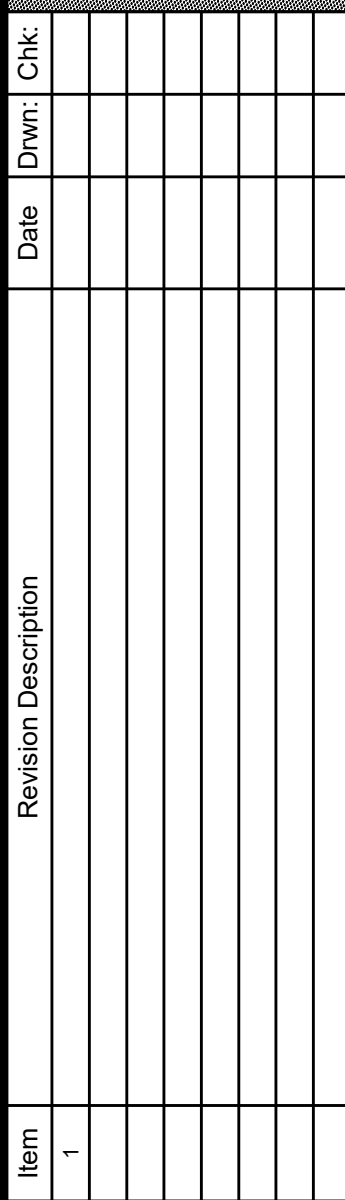
 ROOT BARRIER

A. SEE SHEET L2.0 FOR PLANTING NOTES & DETAILS.

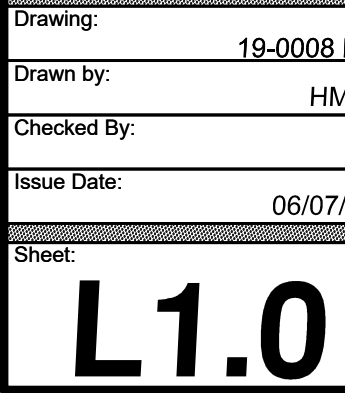
B. BURLAP TO BE PARTIALLY REMOVED FROM ROOTBALLS AND TWINE REMOVED ENTIRELY. SEE NOTE SHEET L2.0.

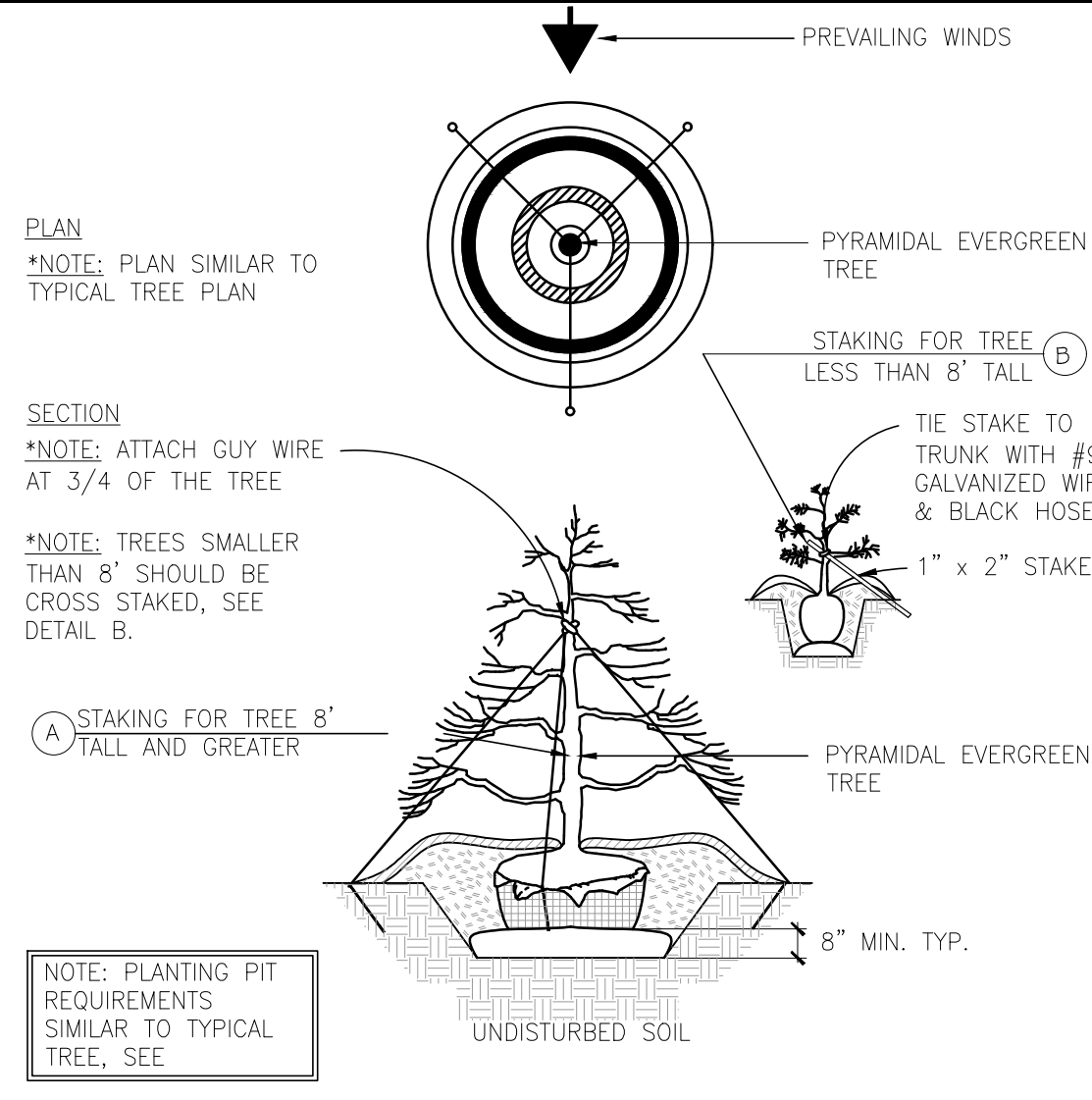
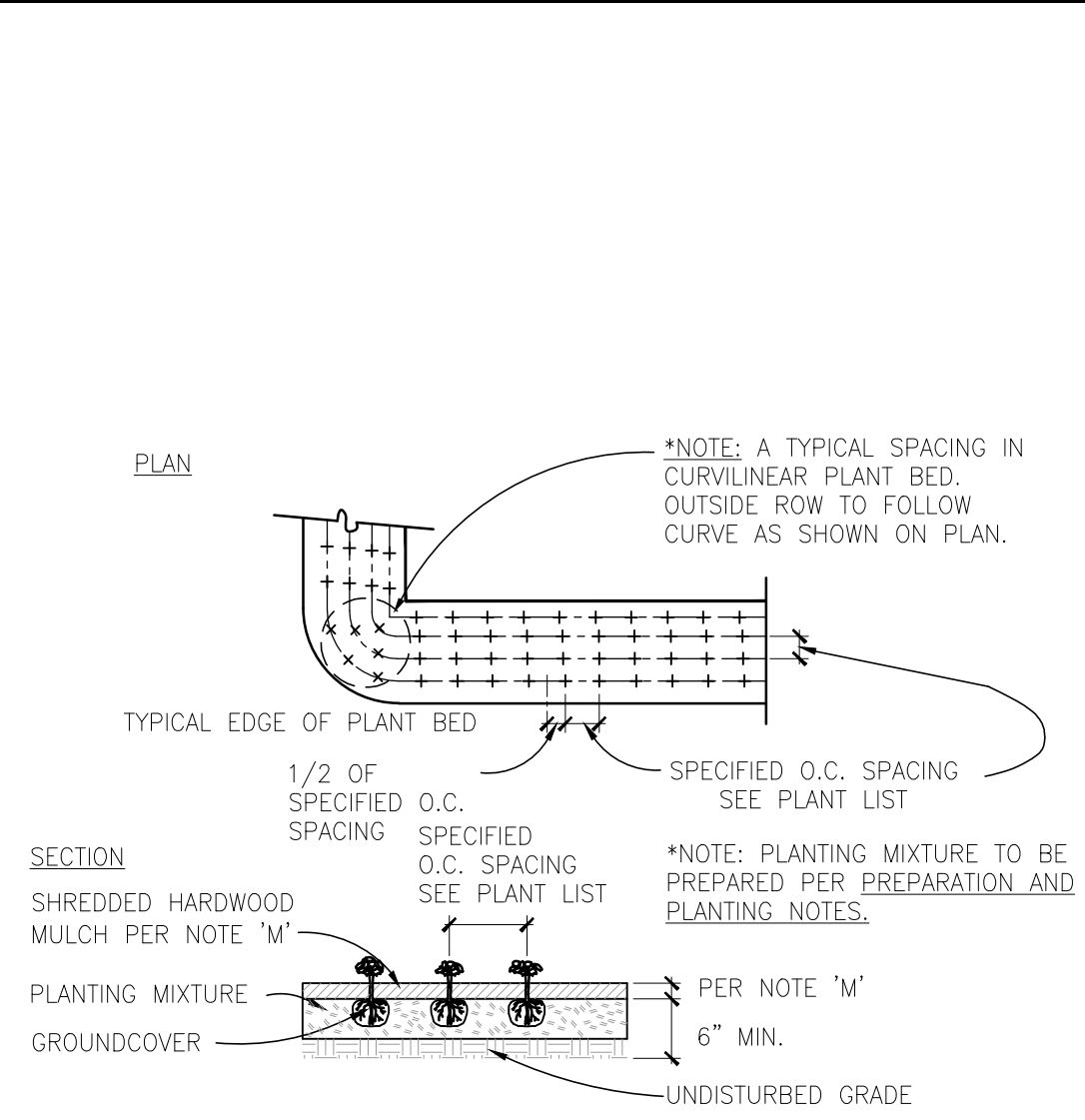
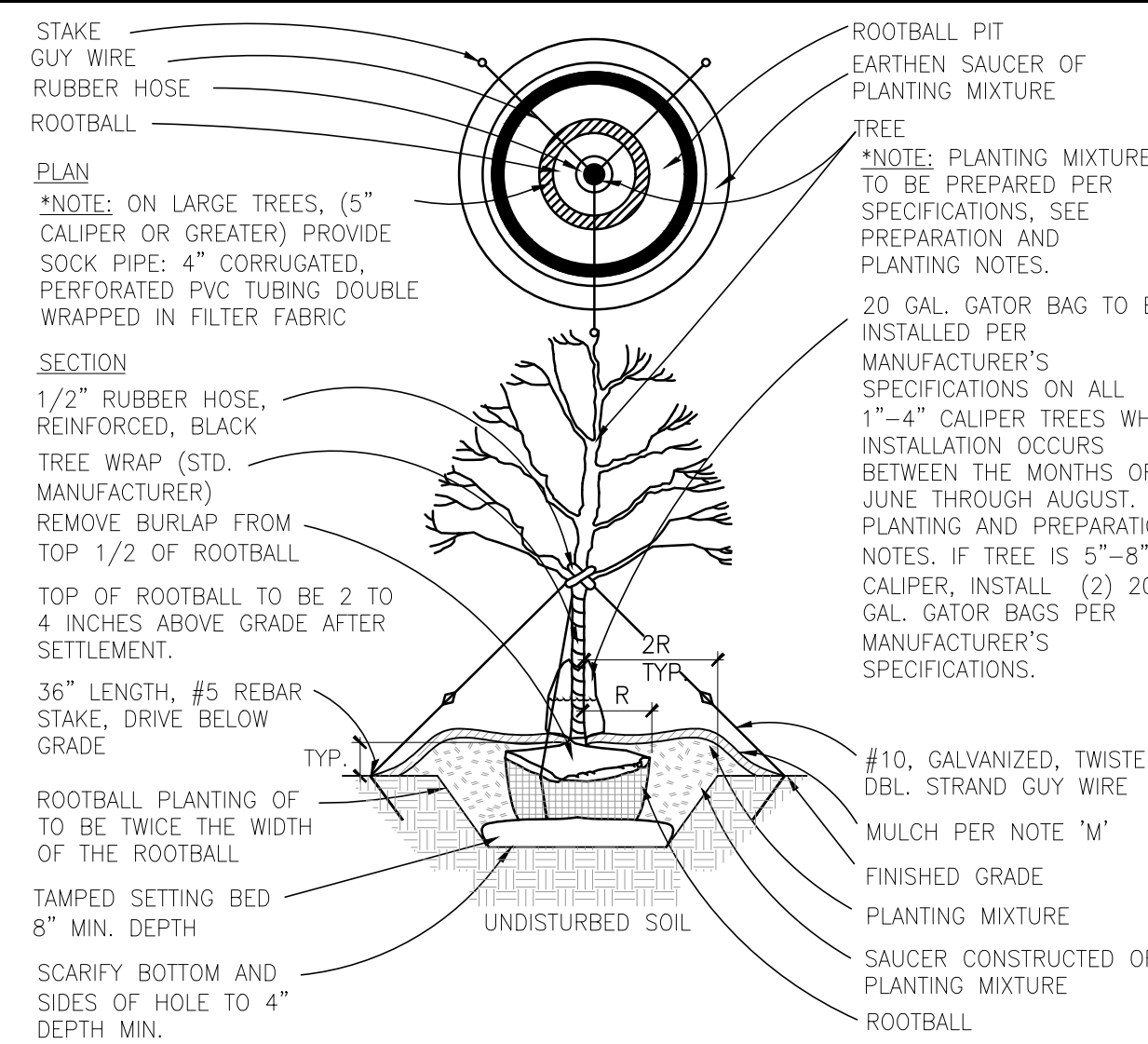
C. MULCH SHOULD NOT TOUCH TREE TRUNK AND VOLCANO MULCHING IS PROHIBITED. SEE NOTES SHEET L2.0.

1. INSTALL REROOT RIBBED ROOT BARRIER BY WWW.GREENBLUE.COM OR EQUIVALENT, ALONG ALL CONCRETE EDGES WITHIN 8' OF NEW TREE PLANTING REROOT DEPTH TO EXTEND THE FULL DEPTH OF ADJACENT CONCRETE. SEE DETAIL SHEET L2.0



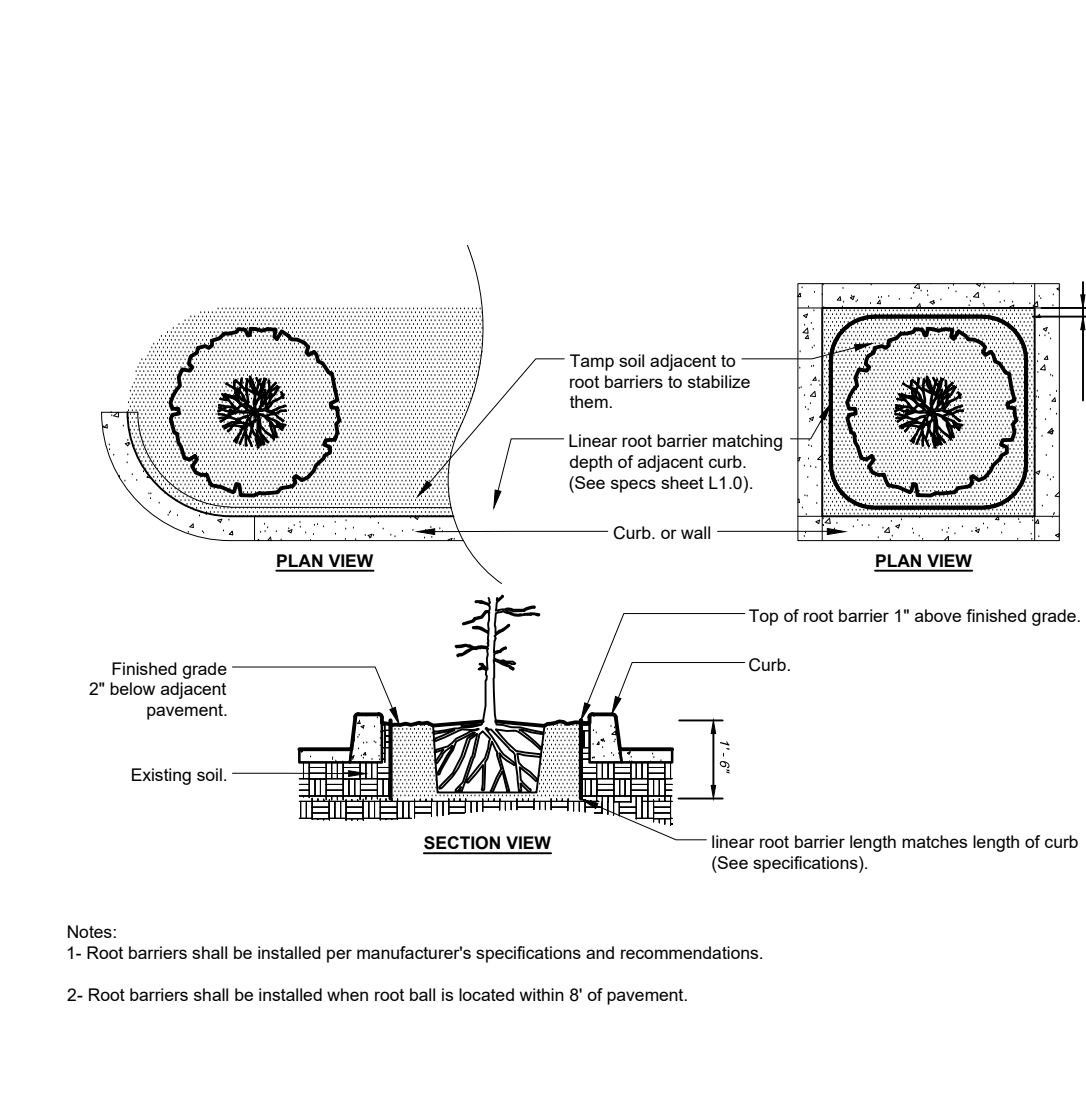
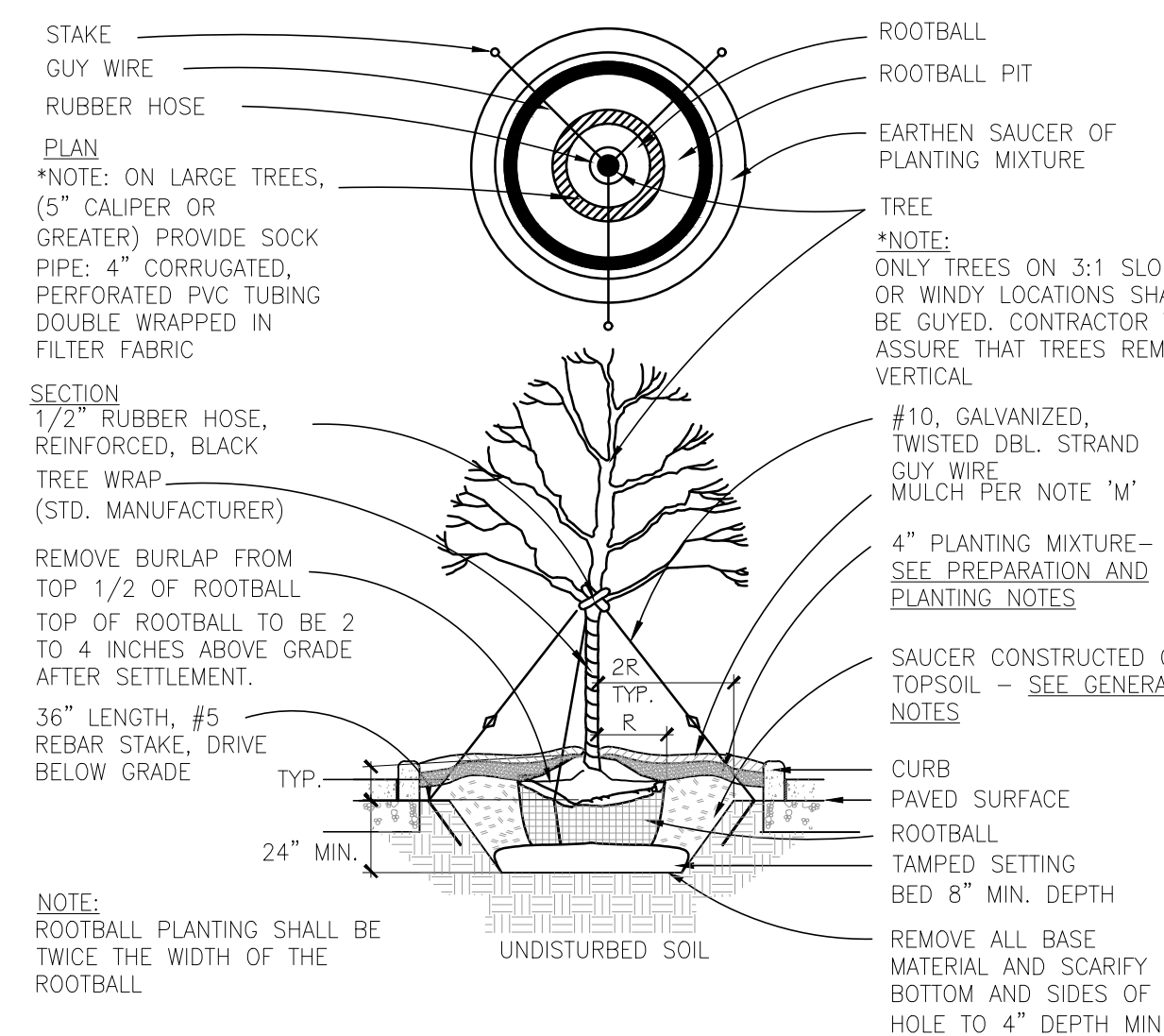
**RIVERS CROSSING WEST
SECTION 2 - OUTLOT 4**
SECTION 2, TOWN 4, RANGE 3
UNION TOWNSHIP
VILLAGE OF SOUTH LEBANON
WARREN COUNTY, OHIO



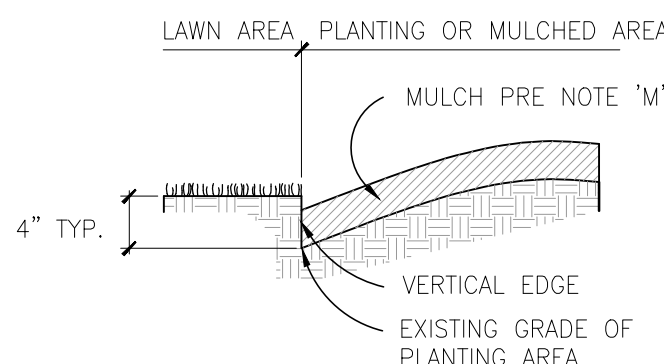


PREPARATION AND PLANTING

3. NOTIFY LANDSCAPE ARCHITECT OF WORK COMMENCEMENT AND SCHEDULE.
4. LANDSCAPE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES PRIOR TO STARTING WORK. LOCAL UTILITY PROTECTION SERVICES AS NOTED ON THE DRAWINGS. IF A PLANT IS SHOWN ON THE PLANS THAT IS KNOWN TO CROSS AN UNDERGROUND UTILITY, NOTIFY LANDSCAPE ARCHITECT FOR ADJUSTMENT INSTRUCTIONS.
5. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, OTHER FACILITIES, LAWNS, AND EXISTING EXTERIOR PLANTS FROM DAMAGE CAUSED BY PLANTING OPERATIONS.
6. PROVIDE EROSION-CONTROL MEASURES TO PREVENT SOIL EROSION OR DISPLACEMENT AND WASHING OF SOIL-BEARING RUNOFF OR AIRBORNE DUST TO ADJACENT PROPERTIES AND WALKWAYS.
7. LANDSCAPE CONTRACTOR SHALL LAY OUT INDIVIDUAL TREE AND SHRUB LOCATIONS AND BED EDGES FOR ALL EXTERIOR PLANTINGS. STAKE LOCATIONS, OUTLINE AREAS, ADJUST LOCATIONS WHEN REQUESTED, AND OBTAIN LANDSCAPE ARCHITECT'S, OWNER AND/OR THE ARCHITECT'S REPRESENTATIVE'S SIGNATURES IN WRITING BEFORE PLANTING. MAKE MINOR ADJUSTMENTS AS REQUIRED PER SITE CONDITIONS.
8. TREES SHALL BE SITED IN FIELD BY LANDSCAPE ARCHITECT WHERE NOTED ON PLANS.
9. ALL PLANTING BEDS ARE TO BE PREPARED AS FOLLOWS:
- LOOSEN SUBGRADE TO A DEPTH OF 6" - 7". REMOVE STONES LARGER THAN 1" IN DIAMETER, REMOVED STICKS, ROOTS, RUBBER, AND OTHER EXTRANEOUS MATTER, AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.
 - SPREAD COMPOST AT A DEPTH OF 4" AND PEAT MOSS AT A DEPTH OF 1".
 - TILL WITH LOOSENED SUBGRADE MIXING THOROUGHLY.
 - GRADE PLANTING BEDS TO A SMOOTH, UNIFORM SURFACE PLANE FOR A UNIFORM FINE TEXTURE. ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET FINISH GRADES.
10. EDGE BEDS 3" TO 4" DEEP (SEE DETAILS ON THIS SHEET).
11. LANDSCAPE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IF SUBSOIL CONDITIONS SHOW EVIDENCE OF UNEXPECTED WATER SEEPAGE OR RETENTION IN TREE OR SHRUB PITS.
12. REFER TO TYPICAL PLANTING DETAILS ON THIS SHEET FOR PLANT INSTALLATION.
13. IT IS THE CONTRACTOR'S OPTION WHETHER OR NOT TO STAKE A TREE, BUT IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO ASSURE PLANTS REMAIN IN AN UPRIGHT POSITION UNTIL THE END OF THE WARRANTY PERIOD. CONTRACTOR TO REMOVE STAKES & WIRE.
14. PRIOR TO MULCHING, APPLY PRE-EMERGENT HERBICIDE (PREEN OR EQUIVALENT) PER MANUFACTURER'S RECOMMENDATIONS.
15. IT IS THE CONTRACTOR'S RESPONSIBILITY TO:
- MAINTAIN ADJACENT PAVEMENT IN GOOD CONSTRUCTION CLEAN, AND MAINTAIN WORK AREA IN AN ORDERLY CONDITION, FOR DURATION OF PROJECT.
 - PROTECT EXTERIOR PLANTS FROM DAMAGE DUE TO LANDSCAPE OPERATIONS, OPERATIONS BY OTHER CONTRACTORS AND TRADES, AND OTHERS, MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIODS. TREAT, REPAIR, OR REPLACE DAMAGED EXTERIOR PLANTS.
 - REMOVE SURPLUS SOIL AND WASTE MATERIAL, INCLUDING EXCESS SUBSOIL, UNSUITABLE SOIL, TRASH, AND DEBRIS, AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.
16. ALL SHRUB PLANTING BEDS AND INDIVIDUAL TREES AND SHRUBS ARE TO BE MULCHED AT A DEPTH OF 4" - ALL ANNUAL, PERENNIAL, AND/OR GROUNDCOVER PLANTING BEDS ARE TO BE MULCHED AT A DEPTH OF 2" - 3".
17. ALL NEW TREE RINGS SHALL BE FIVE FEET IN DIAMETER AND MULCHED PER NOTE "M". DO NOT PILE MULCH UP AROUND THE TREE BARK.
18. ALL DECIDUOUS TREES SHALL BE WRAPPED WITH STANDARD MANUFACTURER'S TREE WRAP TO PREVENT WINTER DAMAGE WHICH SHALL BE REMOVED AFTER THE FIRST WINTER BY THE LANDSCAPE CONTRACTOR.
19. ALL PLANT MATERIAL SHALL BE PRUNED AND/OR SHAPED IN ACCORDANCE WITH STANDARD HORTICULTURE PRACTICES TO RETAIN THE NATURAL CHARACTER OF THE PLANT. ALL INJURED, DAMAGED, OR CROSSED BRANCHES SHALL BE REMOVED. DO NOT REMOVE THE TREE LEADER.
20. LANDSCAPE CONTRACTOR SHALL INSTALL GATOR BAGS, PER MANUFACTURER'S SPECIFICATIONS WITH ALL NON-IRREVERSIBLE PLANTINGS.
21. LANDSCAPE CONTRACTOR SHALL INSTRUCT OWNER OR OWNER'S REPRESENTATIVE ON WATERING NEEDS OF INSTALLED PLANTINGS.
22. THE CONTRACTOR SHALL VISIT THE SITE AND COMPLETELY REVIEW THESE DOCUMENTS AND FULLY UNDERSTAND THE NATURE AND SCOPE OF WORK NEEDED TO ACHIEVE THE FINISHED PROJECT INTENDED BY THE OWNER. IN ADDITION, THE CONTRACTOR SHALL AT ONCE REPORT TO THE OWNER ANY DISCREPANCIES, OMISSIONS, OR INCONSISTENCIES DETECTED. FAILURE TO REASONABLY RECOGNIZE OR NOTIFY THE LANDSCAPE ARCHITECT OF SUCH ITEMS SHALL RELEASE THE LANDSCAPE ARCHITECT AND OWNER OF ALL LIABILITY. ANY DEVIATIONS FROM THESE DOCUMENTS WITHOUT WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT SHALL BE CORRECTED AT THE CONTRACTORS' EXPENSE.
23. PRIOR TO ANY EXISTING PLANTATION TO BE REMOVED AS PER PLANS AND SPECIFICATIONS.
24. PRIOR TO CONSTRUCTION, THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS NECESSARY TO COMPLETE THE WORK, LOCATING ALL UNDERGROUND UTILITIES, AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING INSTALLATION. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS FOR ALL UTILITIES, SITE APPOINTANCES, ETC., WHICH MAY OCCUR AS A RESULT OF LANDSCAPE CONSTRUCTION.
25. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS NECESSARY TO COMPLETE THE WORK.
26. LANDSCAPE CONTRACTOR MUST CERTIFY THAT ITS SAFETY PROGRAM MEETS REGULATORY REQUIREMENTS AT A MINIMUM. CONTRACTOR TO PROVIDE DOCUMENTATION OF THE OSHA RECORD KEEPING SUMMARY.
27. LANDSCAPE ARCHITECT MAY OBSERVE TREES AND SHRUBS EITHER AT PLACE OF GROWTH OR AT SITE BEFORE PLANTING FOR COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, VARIETY, SIZE, AND QUALITY. LANDSCAPE ARCHITECT RETAINS RIGHT TO OBSERVE TREES AND SHRUBS FURTHER FOR SIZE AND CONDITION OF BALLS, ROOT SYSTEMS, INSECTS, INJURIES, AND LATENT DEFECTS AND TO REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. LANDSCAPE CONTRACTOR SHALL REMOVE REJECTED TREES OR SHRUBS IMMEDIATELY FROM PROJECT SITE.
28. IF EXISTING ECOLOGICAL CAUSES ADJUSTMENTS OF LANDSCAPE PLANS TO FIT THE CONDITIONS, A STAKE OUT BY LANDSCAPE CONTRACTOR AND ADJUSTMENTS BY LANDSCAPE ARCHITECT SHALL BE REQUIRED PRIOR TO INSTALLATION.
29. THE OWNER AND/OR THE OWNER'S REPRESENTATIVE WILL APPROVE STAKED LOCATIONS OF ALL MATERIAL PRIOR TO INSTALLATION, OR AS DEEMED NECESSARY BY OWNER/OWNER'S REP.
30. ALL PLANTING AREAS SHOWN ON PLANS SHALL BE TO WITHIN 2" OF FINAL GRADE BEFORE LANDSCAPE CONSTRUCTION COMMENCES INSTALLATION.
31. FOR LOCATION AND DESCRIPTION OF PROPOSED SITE UTILITIES, STORM STRUCTURES, EASEMENTS, ETC., REFER TO THE SITE PLAN AND CIVIL ENGINEERING DRAWINGS.
32. ALL PLANT MATERIAL MUST BE INSTALLED ACCORDING TO THE APPROVED LANDSCAPING PLAN BY NO LATER THAN THE NEXT PLANTING SEASON OR WITHIN 6 MONTHS FROM THE COMPLETION OF LANDSCAPE CONSTRUCTION.
33. PLANT QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR TO VERIFY ALL PLANT QUANTITIES. ANY DISCREPANCY BETWEEN THE PLANTING LIST AND THE PLAN SHALL BE VERIFIED BY THE LANDSCAPE ARCHITECT. ALL SUBSTITUTIONS AND/OR CHANGES SHALL BE REQUESTED IN WRITING TO THE OWNER OR OWNER'S REPRESENTATIVE AND BE APPROVED BY THE LANDSCAPE ARCHITECT AND APPROVED BY THE OWNER PRIOR TO INSTALLATION.
34. THE CONTRACTOR SHALL PROVIDE QUALITY, SIZE, GENUS, SPECIES, AND VARIETY OF EXTERIOR PLANTS INDICATED, COMPLYING WITH APPLICABLE REQUIREMENTS IN ANSI Z60.1, "AMERICAN STANDARD FOR NURSERY STOCK."
35. THE CONTRACTOR SHALL FURNISH NURSERY-GROWN TREES AND SHRUBS COMPLYING WITH ANSI Z60.1, with HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPICUOUS OR ROOT PRUNING. GROWN WELL-SELECTED, HEALTHY, FULLY DEVELOPED, VIGOROUS STOCK, FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT.
36. TREES AND SHRUBS OF A LARGER SIZE MAY BE USED, IF ACCEPTABLE TO LANDSCAPE ARCHITECT, WITH A PROPORTIONATE INCREASE IN SIZE, ROOTS OR BALLS.
37. IF FORMAL ADJUSTMENTS OR CONSEQUENTLY, THE CONTRACTOR SHALL, IF SHOWN, SELECT STOCK FOR UNIFORM HEIGHT AND SPREAD, AND NUMBER LABEL TO ASSURE SYMMETRY IN PLANTING.
38. THE CONTRACTOR SHALL LABEL ONE TREE AND ONE SHRUB OF EACH VARIETY AND CALIPER WITH A SECURALLY ATTACHED, WATERPROOF TAG BEARING LEGIBLE DESIGNATION OF BOTH THE BOTANICAL AND COMMON NAME.
39. TOPSOIL SHALL BE ASTM D 5268, pH RANGE OF 5.5 TO 7, A MINIMUM OF 4 PERCENT ORGANIC MATERIAL CONTENT; FREE OF STONES 1 INCH OR LARGER IN ANY DIMENSION AND OTHER EXTRANEOUS MATERIALS HARMFUL TO PLANT GROWTH. STANDARD TOPSOIL PLANTING DEPTH SHALL BE 6 INCHES.



- *NOTES:
1. EDGE SHALL CREATE A CLEAN SEPARATION BETWEEN AREAS AND SHALL CREATE SMOOTH AND EVEN LINES AS INDICATED ON PLANS.
 2. EDGE DETAIL SHALL BE USED AT ALL LAWN EDGES AND AT EDGES OF MULCHED AREAS FOR CONTAINMENT.



WARRANTY

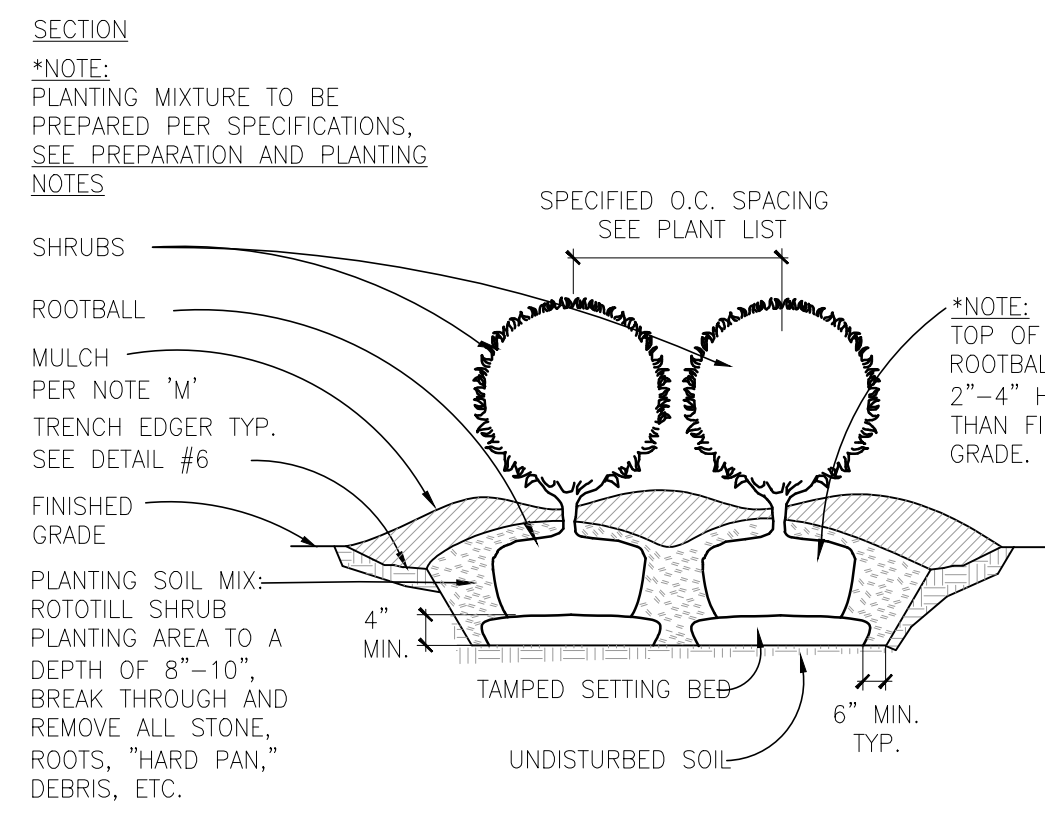
- A. CONTRACTOR SHALL PROVIDE OWNER WITH A MINIMUM ONE YEAR WRITTEN WARRANTY FOR LABOR AND MATERIALS.
- B. CONTRACTOR SHALL WARRANT EXTERIOR PLANTS AGAINST DEFECTS, INCLUDING DETH AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM LACK OF ADEQUATE MAINTENANCE, NEGLIGENCE OR ABUSE BY OWNER, OR INCIDENTS THAT ARE BEYOND CONTRACTOR'S CONTROL.
- C. WARRANTY SHALL INCLUDE SPECIFIC WARRANTY PERIODS FROM DATE OF ACCEPTANCE FOR TREES AND SHRUBS, GROUND COVERS, AND OTHER EXTERIOR PLANTS.
- D. WARRANTY SHALL BE LIMITED TO ONE REPLACEMENT OF EACH EXTERIOR PLANT, EXCEPT FOR LOSSES OR REPLACEMENTS DUE TO FAILURE OF CONTRACTOR TO COMPLY WITH REQUIREMENTS.
- E. WARRANTY FOR IRRIGATION SERVICE, PLUMBING, & DRAINAGE SHALL BE GUARANTEED FOR A PERIOD OF 1 YEAR AND WILL INCLUDE START-UP, WINTERIZATION, AND SECOND SEASON START-UP. WARRANTY SHALL INCLUDE ALL LABOR, MATERIAL, TOOLS, AND EQUIPMENT AS NECESSARY TO PROVIDE A FUNCTIONING SYSTEM, FREE FROM DEFECTS AND ADJUSTED PROPERLY FOR APPROPRIATE WATER DELIVERY TO ALL PLANT MATERIAL.
- TRAFFIC & SAFETY**
- A. REFER TO BID DOCUMENTS AND COMPLY WITH ALL STATE & LOCAL REQUIREMENTS REGARDING APPROVED WORK TIMES, SCHEDULING OF INSTALLATION, AND ALL OTHER REQUIREMENTS.
- SODDING**
- TURFGRASS SOD**
- A. TURFGRASS SOD SHALL BE OF GOOD QUALITY, FREE OF WEEDS, DISEASE AND INSECTS.
- PASSING THROUGH ONE INCH SIEVE; SOLUBLE SALT CONTENT OF 5 TO 10 DECISEMS/M; NOT EXCEEDING 0.5 PERCENT INERT CONTAMINANTS AND FREE OF SUBSTANCES TOXIC TO PLANTINGS.
- F. FERTILIZER SHALL BE SLOW-RELEASE, GRANULAR OR PELLETS CONSISTING OF 50 PERCENT WATER-SOLUBLE NITROGEN, PHOSPHORUS, AND POTASSIUM IN AMOUNTS RECOMMENDED FOR TYPE OF PLANT BEING GROWN.
- G. MULCH TO BE FREE FROM DELETERIOUS MATERIALS AND DISEASE AND SUITABLE AS THE TOP DRESSING OF TREES AND SHRUBS. MULCH SHALL BE CLEAN, NON-DYED, TOXIC FREE, DOUBLE-SHREDDED HARDWOOD, DARK BROWN IN COLOR, UNLESS NOTED OTHERWISE. CRUSHED ROCK AND PEA GRAVEL OR SIMILAR MATERIALS ARE NOT ACCEPTABLE.
- H. MULCH/GROUNDCOVER, ALL LANDSCAPE ISLANDS SHALL BE MULCHED BY THE LANDSCAPE CONTRACTOR UNLESS OTHERWISE STATED IN THE LANDSCAPE PLANS.
- I. PLANT TAGS SHALL BE INSTALLED AT THE TIME OF PLANTING. THE WORK HAS BEEN APPROVED BY LOCAL INSPECTOR AND/OR THE OWNER OR OWNERS REPRESENTATIVE.
- J. LANDSCAPE CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE FROM ALL PLANT BEDS WITHOUT ADVERSELY AFFECTING SITE DRAINAGE. GRADES BEHIND CURBS FOR AREAS RECEIVING MULCH SHALL BE 3 INCHES BELOW TOP OF CURB & 2 INCHES BELOW TOP OF CURB FOR SOD.
- K. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR FULLY MAINTAINING, INCLUDING, BUT NOT LIMITED TO, WATERING, MULCHING, SPRAYING, MOWING, ETC. ALL PLANTING AREAS AND LAWN UNTIL THE WORK IS ACCEPTED BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
- L. ISLAND AND PLANTER GRADES (IF APPLICABLE) SHALL BE MOUND IN THE CENTER SLOPING DOWNWARD FROM THE MIDDLE OUTWARD AT A MINIMUM 2% AND A MAXIMUM 4%.
- M. ALL PLANT MATERIAL INSTALLATION TO BE COORDINATED WITH IRRIGATION CONTRACTOR. ACTIVATE IRRIGATION SYSTEM UPON COMPLETION OF ALL LAWN AREAS. ALL IRRIGATION COMPONENTS SHALL BE OF THE SAME MANUFACTURER & INSTALLED PER MANUFACTURER SPECIFICATIONS.
- N. PLANT BEDS SHALL BE PLANTED WITHIN 10"-6" OF FIREHYDRANTS.

TRAFFIC & SAFETY

- A. REFER TO BID DOCUMENTS AND COMPLY WITH ALL STATE & LOCAL REQUIREMENTS REGARDING APPROVED WORK TIMES, SCHEDULING OF INSTALLATION, AND ALL OTHER REQUIREMENTS.

SODDING

- TURFGRASS SOD**
- A. TURFGRASS SOD SHALL BE OF GOOD QUALITY, FREE OF WEEDS, DISEASE AND INSECTS AND OF GOOD COLOR AND DENSITY
 - B. INDIVIDUAL PIECES OF TURFGRASS SOD SHALL BE CUT TO THE SUPPLIER'S STANDARD WIDTH AND LENGTH, MAXIMUM ALLOWABLE DEVIATION FROM STANDARD WIDTHS AND LENGTHS SHALL BE 5 PERCENT.
 - C. STANDARD SIZE SECTIONS OF TURFGRASS SOD SHALL BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY FROM A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION.
 - D. LANDSCAPE CONTRACTOR SHALL PROVIDE SPECIFIED AREAS, THE FINAL GRADE AND TOPSOIL WITHIN 4" - 10" FEET WILL BE IN PLACE FOR SOD CONTRACTOR.
 - E. TILL AREA TO BE SODDED TO A DEPTH OF 4". RAKE TILLED AREA TO REMOVE DEBRIS OR LARGER IN SIZE THAT HAS BEEN BROUGHT TO THE SURFACE DURING TILLING.
 - F. AFTER ALL GRADING HAS BEEN COMPLETED, THE SOIL SHALL BE IRRIGATED WITHIN 12-24 HOURS PRIOR TO LAYING THE TURFGRASS SOD. TURFGRASS SOD SHOULD NOT BE LAID ON SOIL THAT IS DRY AND POWDERY.
 - G. THE FIRST ROW OF TURFGRASS SOD SHALL BE LAID IN A STRAIGHT LINE, WITH SUBSEQUENT ROWS PLACED PARALLEL TO, AND TIGHTLY AGAINST, EACH OTHER. LATERAL JOINTS SHALL BE STAGGERED TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. CARE SHALL BE EXERCISED TO INSURE THAT THE TURF IS NOT STRETCHED OR OVERLAPPED, AND THAT THE SOIL SURFACE IS TIGHT IN ORDER TO PREVENT VOID, WHICH WOULD CAUSE AIR-DRYING OF THE ROOTS.
 - H. ON SLOPES ARE WHERE EROSION MAY BE A PROBLEM, TURFGRASS SOD SHALL BE LAID WITH STAGGERED JOINTS AND SECURED BY PEGGING.
 - I. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING TURFGRASS SOD IMMEDIATELY DURING THE INSTALLATION TO PREVENT DRYING. IT SHALL THEN BE THOROUGHLY IRRIGATED TO A DEPTH SUFFICIENT THAT THE UNDERSIDE OF THE NEW TURFGRASS SOD PAD AND SOIL IMMEDIATELY BELOW THE TURFGRASS SOD ARE THOROUGHLY WET (USUALLY 1 INCH OF WATER IS NEEDED). THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING ADEQUATE WATER AVAILABLE AT THE SITE PRIOR TO THE INSTALLATION.
 - J. LANDSCAPE CONTRACTOR IS TO SET GRADE TO PROMOTE POSITIVE DRAINAGE AWAY FROM THE BUILDING AND TO DETENTION BASINS.
 - K. UNLESS OTHERWISE SPECIFIED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE ACCEPTED SODDED TURFGRASS AREAS UNTIL THE EFFECTIVE DATE OF THE MAINTENANCE AGREEMENT. THE EFFECTIVE DATE SHALL BE SPECIFIED IN WRITTEN NOTICE FROM THE GENERAL CONTRACTOR.



SHRUB PLANTING DETAIL

SCALE: NOT TO SCALE

IRRIGATIONS SYSTEMS

- A. GENERAL CONTRACTOR SHALL PROVIDED AN IRRIGATION SYSTEM (IF APPLICABLE, VERIFY WITH CLIENT). PLAN SHALL PROVIDED FULL SITE COVERAGE ON THE PROPERTY.
- B. COMPLETE DESIGN DRAWINGS & EQUIPMENT TO BE SUBMITTED TO OWNER FOR REVIEW

*IRRIGATION SYSTEM DESIGN / BUILD NOTES:

1. IRRIGATION SYSTEM SHALL HAVE A REMOVABLE EXTERIOR BACK-FLOW PREVENTER WITH FAKE ROCK COVER IN GRASS AREA OUTSIDE OF METER PIT AT POINT OF CONNECTION.
2. IRRIGATION HEADS(DRIPLINE IN PLANTING BEDS; COMPLETE ROTOR SPRINKLER IN LAWN).
3. RAIN BIRD SPO OR HUNTER I-CORE CONTROLLER LOCATED IN MECH ROOM WITH RAIN SENSOR.
4. SLEEVES ARE REQUIRED UNDER ALL PAVEMENT / SIDEWALK FOR SYSTEM, COORDINATE WITH GENERAL CONTRACTOR.
5. IRRIGATION CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR LAYOUT APPROVAL.

GENERAL LANDSCAPE NOTES

- A. THE CONTRACTOR SHALL VISIT THE SITE AND COMPLETELY REVIEW THESE DOCUMENTS AND FULLY UNDERSTAND THE NATURE AND SCOPE OF WORK NEEDED TO ACHIEVE THE FINISHED PRODUCT INTENDED BY THE OWNER. IN ADDITION, THE CONTRACTOR SHALL AT ONCE REPORT TO THE LANDSCAPE ARCHITECT, ANY DISCREPANCIES, INCONSISTENCIES DISCOVERED, FAILURE TO REASONABLY RECOGNIZE THE LANDSCAPE ARCHITECT'S DESIGN OF SUCH ITEMS SHALL RELEASE THE LANDSCAPE ARCHITECT AND OWNER OF ALL LIABILITY, ANY DEVIATIONS FROM THESE DOCUMENTS WITHOUT WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT SHALL BE CORRECTED AT THE CONTRACTORS EXPENSE.
- B. PROTECT ALL EXISTING VEGETATION TO REMAIN AS PER PLANS AND SPECIFICATIONS.
- C. PRIOR TO ANY WORK BEING DONE, THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS NECESSARY TO COMPLETE THE WORK, LOCATING ALL UNDERGROUND UTILITIES, AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING INSTALLATION. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC., WHICH MAY OCCUR AS A RESULT OF LANDSCAPE CONSTRUCTION.
- D. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS NECESSARY TO COMPLETE THE WORK.
- E. LANDSCAPE CONTRACTOR MUST CERTIFY THAT ITS SAFETY PROGRAM MEETS REGULATORY REQUIREMENTS AT A MINIMUM. CONTRACTOR TO PROVIDE DOCUMENTATION OF THE OSHA RECORD KEEPING SUMMARY.
- F. LANDSCAPE CONTRACTOR SHALL OBSERVE TREES AND SHRUBS EITHER AT PLACE OF GROWTH OR AT SITE BEFORE PLANTING FOR COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, VARIETY, SIZE, AND QUALITY. LANDSCAPE ARCHITECT RETAINS RIGHT TO OBSERVE TREES AND SHRUBS FURTHER FOR SIZE AND CONDITION OF BALLS, ROOT SYSTEMS, INSECTS, INJURIES, AND LATENT DEFECTS AND TO REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING COURSE OF WORK. LANDSCAPE CONTRACTOR SHALL REMOVE REJECTED TREES OR SHRUBS IMMEDIATELY FROM PROJECT SITE.
- G. IF EXISTING ECOLOGY CAUSES ADJUSTMENTS OF LANDSCAPE PLANS TO FIT THE SITE CONDITIONS, A STAKE OUT BY LANDSCAPE CONTRACTOR AND ADJUSTMENTS BY LANDSCAPE ARCHITECT SHALL BE REQUIRED PRIOR TO INSTALLATION.
- H. THE OWNER AND/OR THE OWNER'S REPRESENTATIVE WILL APPROVE STAKED LOCATIONS OF ALL MATERIAL, PRIOR TO INSTALLATION, OR AS DEEMED NECESSARY BY OWNER/OWNER'S REP.
- I. ALL PLANT MATERIAL SHALL BE DELIVERED TO THE WITHIN 2" OF FINAL GRADE BEFORE LANDSCAPE CONTRACTOR COMMENCES INSTALLATION.
- J. FOR LOCATION AND DESCRIPTION OF PROPOSED SITE UTILITIES, STORM STRUCTURES, EASEMENTS, ETC., REFER TO THE SITE PLAN AND CIVIL ENGINEERING DRAWINGS.
- K. ALL PLANT MATERIAL MUST BE INSTALLED ACCORDING TO THE APPROVED LANDSCAPING PLAN AND NO LATER THAN THE NEXT PLANTING SEASON OR WITHIN 6 MONTHS FROM THE COMPLETION OF ALL SITE CONSTRUCTION.
- L. PLANT QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR TO VERIFY ALL PLANT QUANTITIES. ANY DISCREPANCY BETWEEN THE PLANTING LIST AND THE PLAN SHALL BE VERIFIED BY THE LANDSCAPE ARCHITECT. ALL SUBSTITUTIONS AND/OR CHANGES SHALL BE REQUESTED IN WRITING TO THE OWNER OR OWNER'S REPRESENTATIVE AND BE APPROVED BY THE LANDSCAPE ARCHITECT AND THE LOCAL MUNICIPALITY PRIOR TO INSTALLATION.
- M. TREES AND SHRUBS SHALL BE SPECIES, SIZE, QUALITY, AND VARIETY OF EXTERIOR PLANTS INDICATED, COMPLYING WITH QUALIFICATION REQUIREMENTS IN ANSI Z60.1, "AMERICAN STANDARD FOR NURSERY STOCK."
- N. THE CONTRACTOR SHALL FURNISH NURSERY-GROWN TREES AND SHRUBS COMPLYING WITH ANSI Z60.1, WITH HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPLANTING OR ROOT PRUNING. INSIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK, FREE OF DISEASE, PESTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND OTHER DEFECTS.
- O. TREES AND SHRUBS OF A LARGER SIZE MAY BE USED, IF ACCEPTABLE TO LANDSCAPE ARCHITECT, WITH A PROPORTIONATE INCREASE IN SIZE OF ROOTS OR BALLS.
- P. IF SECTOR ARRANGEMENTS OR CONSECUTIVE ORDER OF TREES OR SHRUBS IS SHOWN, SELECT STOCK FOR UNIFORM HEIGHT AND SPREAD, AND NUMBER LABEL TO ASSURE SEQUENTIAL PLANTING.
- Q. THE CONTRACTOR SHALL LABEL ONE TREE AND ONE SHRUB OF EACH VARIETY AND CALIPER WITH A SECURELY ATTACHED, WATERPROOF TAG BEARING LEGIBLE DESIGNATION OF BOTH THE BOTANICAL AND COMMON NAME.
- R. TOPSOIL SHALL BE ASTM D 5288, pH RANGE OF 5.5 TO 7, A MINIMUM OF 4 PERCENT ORGANIC MATTER, FREE OF STONES, 1/8" OR LARGER IN ANY DIMENSION AND OTHER EXTERNAL MATERIALS HARMFUL TO PLANT GROWTH. STANDARD TOPSOIL PLANTING MATERIAL SHALL CONSIST OF 60% NATIVE SOIL, 10% PEAT HUMUS, AND 30% COMPOST.
- S. COMPOST SHALL BE WELL-COMPOSTED, STABLE, AND WEED-FREE ORGANIC MATTER, pH RANGE OF 5.5 TO 8; MOISTURE CONTENT 35 TO 55 PERCENT BY WEIGHT; 100 PERCENT PASSING THROUGH ONE INCH SIEVE; SOLUBLE SALT CONTENT OF 5 TO 10 DECIGRAMS/M; NOT EXCEEDING 0.5 PERCENT INERT CONTAMINANTS AND FREE OF SUBSTANCES TOXIC TO PLANTINGS.
- T. FERTILIZER SHALL BE SLOW-RELEASE, GRANULAR OR PELLETS CONSISTING OF 50 PERCENT WATER-INSOLUBLE NITROGEN, PHOSPHORUS, AND POTASSIUM IN AMOUNTS RECOMMENDED FOR TYPE OF PLANT BEING GROWN.
- U. MULCH SHALL BE FREE OF HARMFUL EXTERNAL MATERIALS AND DISEASE AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS. MULCH SHALL BE CLEAN, NON-DYED, TOXIC FREE, DOUBLE-SHREDDED HARDWOOD, DARK BROWN IN COLOR, UNLESS NOTED OTHERWISE. CRUSHED ROCK AND PEA GRAVEL OR SIMILAR MATERIALS ARE NOT ACCEPTABLE.
- V. MULCH/GROUNDCOVER. ALL LANDSCAPE ISLANDS SHALL BE MULCHED BY THE LANDSCAPE CONTRACTOR UNLESS OTHERWISE STATED IN THE LANDSCAPE PLANS.
- W. PLANT MATERIAL SHALL BE INSTALLED AS SHOWN ON PLANS. THE WORK HAS BEEN APPROVED BY LOCAL INSPECTOR AND/OR THE OWNER OR OWNERS REPRESENTATIVE.
- X. LANDSCAPE CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE FROM ALL PLANT BEDS WITHOUT ADVERSELY AFFECTING SITE DRAINAGE. GRADES BEHIND CURBS FOR AREAS RECEIVING MULCH SHALL BE 3 INCHES BELOW TOP OF CURB & 2 INCHES BELOW TOP OF CURB FOR SOD.
- Y. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR FULLY MAINTAINING, INCLUDING, BUT NOT LIMITED TO SPRAYING, MULCHING, AND FERTILIZING, ALL PLANTING AREAS AND LAWN UNTIL THE WORK IS ACCEPTED BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
- Z. ISLAND AND PLANTER GRADES (IF APPLICABLE) SHALL BE MOUNDING IN THE CENTER SLOPING DOWNWARD FROM THE MIDDLE OUTWARD AT A MINIMUM 2% AND A MAXIMUM 4%.
- AA. ALL PLANT MATERIAL INSTALLATION TO BE COORDINATED WITH IRRIGATION CONTRACTOR. ACTIVATE IRRIGATION SYSTEM UPON COMPLETION OF ALL LAWN AREAS. ALL IRRIGATION COMPONENTS SHALL BE OF THE SAME MANUFACTURER & INSTALLED PER MANUFACTURER SPECIFICATIONS.
- AB. TREES SHALL BE PLANTED WITHIN 10'-0" OF FIREHYDRANTS.

[illegible]

**RIVERS CROSSING WEST
SECTION 2 - OUTLOT 4**

SECTION 2, TOWN 4, RANGE 3
UNION TOWNSHIP
VILLAGE OF SOUTH LEBANON
WARREN COUNTY, OHIO

PLANTING NOTES AND DETAILS



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