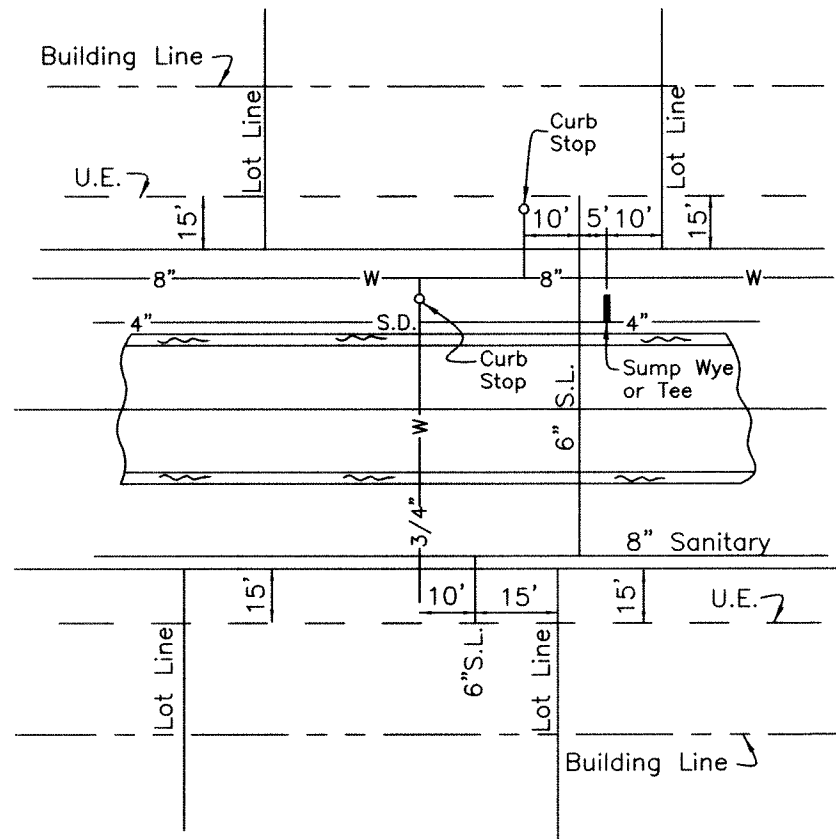


INDEX TO SHEETS

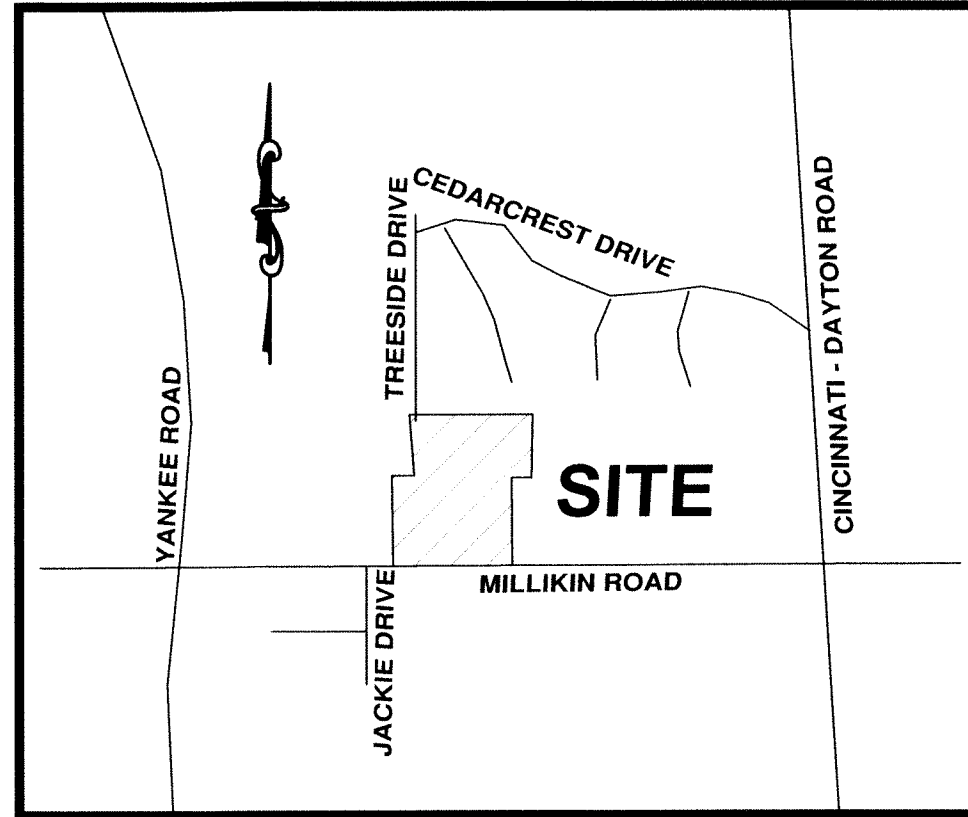
Title Sheet	1
Miscellaneous Details	2
Plan & Profile Sheets	3-5
Grading Plan & Intersection Details	6-7
Utility Detail Sheets	8-10
Soil Erosion & Sedimentation Control Detail Sheet	11

LEGEND

EXISTING CONTOURS	
PROPOSED CONTOURS	
CENTERLINE	
PROPERTY LINE	
EXISTING SANITARY SEWER & MANHOLE	
PROPOSED SANITARY SEWER & MANHOLE	
EXISTING WATER MAIN	
FIRE HYDRANT	
WATER VALVE	
PROPOSED WATER MAIN	
EXISTING GAS MAIN	
SUMP DRAIN LINE	
EXISTING STORM PIPE & CATCH BASIN	
STORM CATCH BASIN	
STORM MANHOLE	
PROPOSED STORM PIPE	
EXISTING TELEPHONE	
EXISTING CABLE	
DIRECTION OF DRAINAGE	
PROPOSED SWALE	
LOT SWALE	



STANDARD SERVICE DETAIL



VICINITY MAP

OWNER/DEVELOPER

Sunesis Properties, LLC
2610 Crescentville Road
West Chester, Ohio 45069
513-326-6000

BENCHMARK

Existing Sanitary Manhole Rim
near Fieldstone Farms Boulevard
N515371.46
E1437777.20
Elevation = 836.57

GENERAL NOTES

- Item numbers refer to the Ohio Department of Transportation construction and material specifications, and all construction work shall be done according to said specifications of Butler County requirements and standards for subdivisions. When in conflict, the County requirements shall prevail.
- Items that pertain to underground utilities such as watermain pipe, sanitary sewer pipe, water valves and manhole frames and covers, etc., will remain under specifications of the utility serving the area. Storm sewers shall be designed and constructed in accordance with the requirements of the Butler County Engineer.
- All trenches within the right-of-way and 10' utility easement shall be compacted and backfilled in accordance with item 203 and 603 in the state specifications.
- Surface course (Item 448) and tack coat (Item 407) are to be applied no sooner than nine (9) months after the leveling course, (Item 448), and fifty (50) percent of the homes are completed. If after two (2) years fifty (50) percent of the homes have not been completed, then the top course may be applied.
- A minimum 10' utility easement shall be shown on the record plat parallel and immediately adjacent to the right-of-way line allowing for installation, operation and maintenance of sewers, water, electric and telephone conduits and any other public or quasi public utility.
- Developer shall be responsible for the installation of conduits for the full width of the public right-of-way at a depth of 36" for use by the electric, telephone and cable services. The location of the lines shall be coordinated with utility companies by the developer.
- All electrical transformers shall be located so that they do not interfere with the existing manholes or water main appurtenances.
- Sump line conduits are to be SDR 35, Armo 2000, or equivalent.
- WATER MAIN
 - Water main materials, valves, fire hydrants, fittings and appurtenances and installation to be as per Butler County specifications, using class 53 Ductile Iron as per AWWA C-151 with minimum 4' cover.
 - All water main valves to have a minimum depth of 2.5' and a maximum depth of 4' from proposed grade to the top of the Valve Operating Nut.
 - Minimum 10' horizontal, 18" vertical separation between water main and sanitary and/or storm sewer.
 - If meter pits cannot be initially installed at the location shown on the typical section, a curb stop can be set up at this location.
- SANITARY SEWER
 - Sanitary sewer materials and installation to be as per Butler County specifications, using Section 3110 for PVC SDR-35 & 26 pipe; Section 3140 for ABS or PVC composite pipe; Section 3410 for manholes.
 - Crossings Whenever a sanitary sewer and water main must cross, the sewer shall be at such an elevation that the crown of the sewer is at least 18 inches measured between the outside pipe walls, below the bottom of the water main. If it is absolutely impossible to maintain the 18 inch vertical separation, the water main shall be relocated or the sewer shall be constructed as follows:
 - A sewer passing over or under the water main shall be encased or constructed of materials that are equivalent to water main standards of construction for a minimum distance of 10 feet on each side of the water main.
 - The sewer crossing shall be constructed so that the sewer joints will be equidistant and as far as possible from the water main joints.
 - Where a water main passes under a sewer, adequate structural support shall be provided for the sewer to prevent damage to the water main.
 - Sanitary laterals shall be extended to at least ten (10) feet beyond the Property / Right-of-Way or to the edge of the easement, whichever is greater.
 - Sanitary sewer laterals, which shall include all pipe and appurtenances from the building to the public sewer main, and the connection to the public sewer main shall be considered private and the responsibility of the property owner to maintain. The connection to the sewer would be any piping that extends out from the main barrel of the sewer main.
 - All buildings to be served by the public sewer system shall be constructed so as to provide a minimum of four feet (4') of vertical separation between the public sanitary sewer, at the point of connection, and the lowest building level served by a gravity sewer connection and shall not exceed a depth of 12 feet below finish grade at the end of the lateral at the right-of-way unless specifically authorized by the County. In addition, said building level shall be at least one (1) foot above the lowest point of free-overflow (non-sealed manhole cover) upstream of any treatment facility of wastewater pumping facility that receives discharge from said building. Said minimum service levels shall be recorded on the "As-built" plans for the development which will be kept on file in the office of the Butler County Department of Environmental Services.
- Butler County Water and Sewer Department does not accept any responsibility for the relocation, repair, or replacement of any other utility installed within five (5) feet of the center line of any sanitary sewer main or water main.
- Private driveways, parking lots and other paved areas, earthen berms or structures should not be constructed over private water or sewer service lines within the public road right of way or within the easement areas for public utilities. Should this occur, the property owner shall be held responsible for the protection and repair and for providing access to any curb stops, meter pits, manholes, clean-outs, etc. installed in conjunction with these private service lines and for any damage or restoration of the paved surfaces or structures that may result from the future operation, maintenance, repair or replacement of said service lines and appurtenances.
- STORM SEWER
 - Storm sewer pipe shall meet the requirements as follows:
 - PVC pipe as per ODOT Specification 707.42 for all diameters
 - HDPE pipe as per ODOT Specification 707.33
 - Corrugated steel pipe as per ODOT Specification 707.01 or 707.02 for all diameters
 - Reinforced concrete pipe as per ODOT Construction and Material Specification 706.02 for all diameters. Class shall be specified at the contractor's request. (Cincinnati Concrete Pipe, Duracrete or equal).
 - Bituminous coated corrugated steel pipe as per ODOT Specification 707.05 or 707.07

Installation shall meet Butler County Specifications. All joints shall be soil seal joints unless specifically noted on the plans.

Deflection Testing for Storm Sewers and Culverts 15% of all storm sewers shall be tested for deflection within thirty days after they are complete. Butler County Engineer or his designated representative will determine what 15% shall be tested. If any storm sewer in the original 15% is found out of compliance, deflection tests will be required on 100% of the remaining storm sewer. A vertical ring deflection greater than 5% will not be allowed. This deflection is defined as 5% reduction in the vertical base or average inside diameter. The method of testing shall be subject to the approval of the engineer. If rigid balls or mandrels are used to test pipe deflection, no mechanical pulling devices shall be used. The deflection test may be conducted with a nine prong mandrel, a ball or a cylinder or another manner acceptable to the Butler County Engineer or his designated representative. The testing will be accomplished from manhole to manhole or catchbasin to catchbasin, following the complete flushing of the line. The contractor shall furnish all equipment required to complete the deflection testing. The deflection test shall be witnessed by the County Engineer or his designated representative. Any contractor that fails to meet the aforementioned requirements shall be reburied by a procedure acceptable to the County or be excavated and either be relayed or replaced, and retested until the requirements are met.

All catch basins and manholes with a depth greater than 4' shall be provided with steps. Steps shall meet the requirements of ODOT STD. 604 and shall conform to the details as shown on Butler County Standard Drawing MH-1A.

Headwall: HW-4A to be used with Corrugated Metal pipe or HW-4B to be used with Concrete Pipe.

- Road drains, foundation drains, and other clean water connections to the sanitary sewer system are prohibited.
- Any detention basin on site should be constructed prior to the clearing of topsoil and grading of the site. All trees and vegetation shall be removed from all proposed detention basins regardless of maintenance responsibility.
- SEDIMENTATION CONTROL

The project has been designed to control erosion and prevent damage to other property. All stripping, earthwork, and grading shall be performed to minimize erosion. Natural vegetation shall be retained wherever possible. The proposed plan will allow almost all eroded material to be retained on site.

All areas disturbed by the construction of the roadways, ditches and sediment basins shall be seeded and stowed as soon as possible to limit the erosion and stabilize the soil. Payment will be by the number of square yards disturbed as per the grading plan. For additional sedimentation control details, see grading plan.
- Butler County will not be responsible for any pavement or storm sewer repairs resulting from water main and sanitary sewer repairs. Butler County also will not be responsible for adjusting manholes, valves, fire hydrants, meter pits, etc. as a result of grade changes. The grantor shall be responsible for proper adjustment of manholes, valves, fire hydrants, meter pits, etc. to the satisfaction of Butler County, due to grade changes, paving, repairing, etc. initiated by the grantor.
- A typical five (5) foot drainage easement is to be provided on both sides of every lot line.
- Any roadway settlement greater than one inch will be required to be repaired with Item 613 Low Strength Mortar Backfill (Type 1). See Detail on Sheet #8.
- Provide the Butler County Engineer's Office with a forty-eight (48) hour notice prior to the start of any construction, including sanitary installation. Phone 785-4145.
- Contractors to accept all Quantities as correct prior to beginning construction.
- Contractor shall include the cost of County inspection and extension fees in unit price bid.
- Existing Zoning: R-PUD

Frontage: 52'
Setbacks: Front = 25', unless otherwise noted on plan
Side = 5' Min., 11' Total
Rear = 25' Typical, 20' on lots that adjoin Open Space, unless otherwise noted on plan
- Total Acreage: 20.9030 Acres
- Total # Single Family Lots: 62

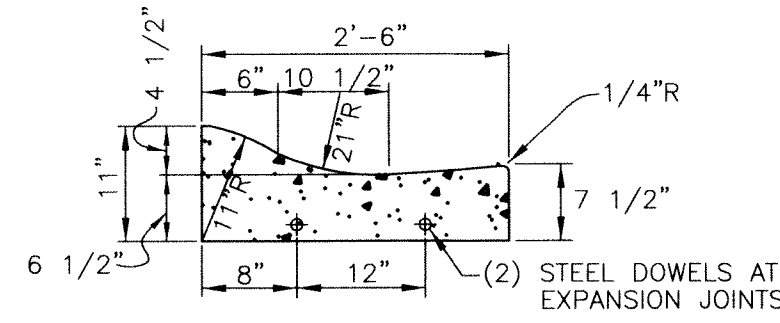
JOB LOG	
DATE	COMMENT
9-20-19	Submitted to Butler County Planning
10-1-19	Resubmitted to BCWS & BCEO
7-14-20	Resubmitted to Butler County Planning, BCWS & BCEO

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS	
C-1	
Std.MH-1A	
Std.HW-0	
CB-3	
CB-3(Mod.)	
CB-3A	
CB-3A(Mod.)	
CB-2-2-A(O.D.O.T.)	
CB-2-2-B(O.D.O.T.)	
Std.R-1	

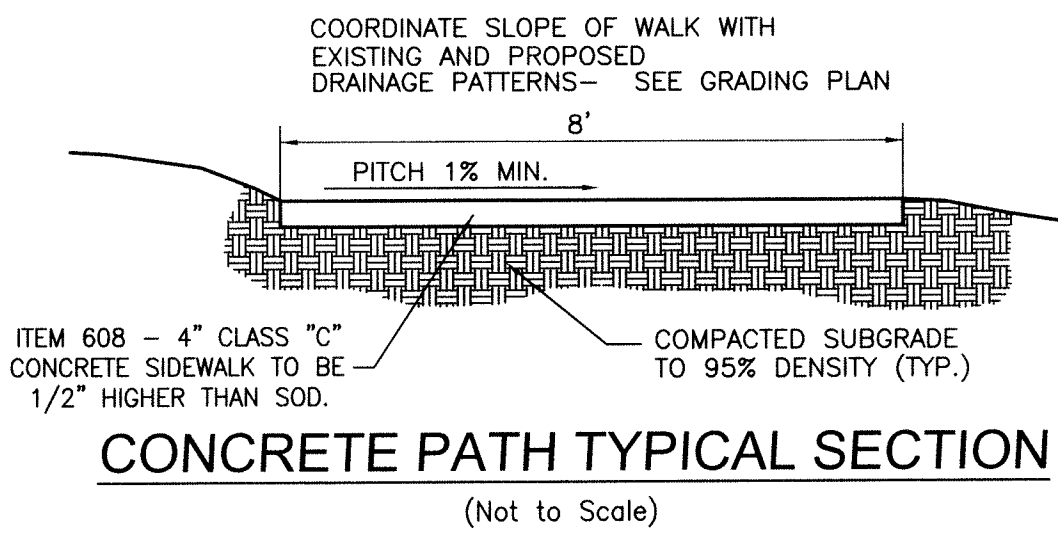
CONSTRUCTION APPROVAL	
	Date
Butler Co. Water & Sewer Dept.	10-9-19
Butler Co. Engineer's Office	10-4-19
These plans are not for construction until all approval dates have been filled in.	



Know what's below.
Call before you dig.

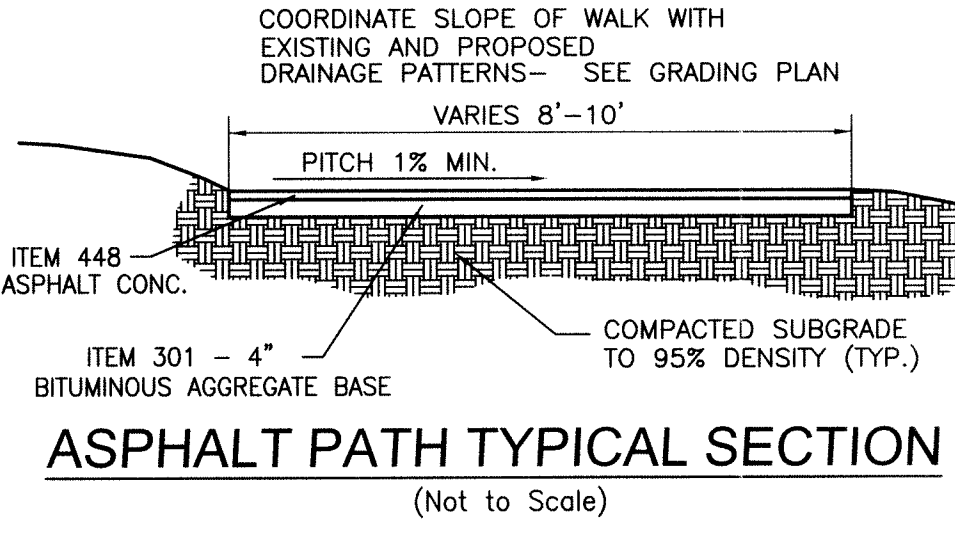


STANDARD ROLL TYPE CURB & GUTTER C-1



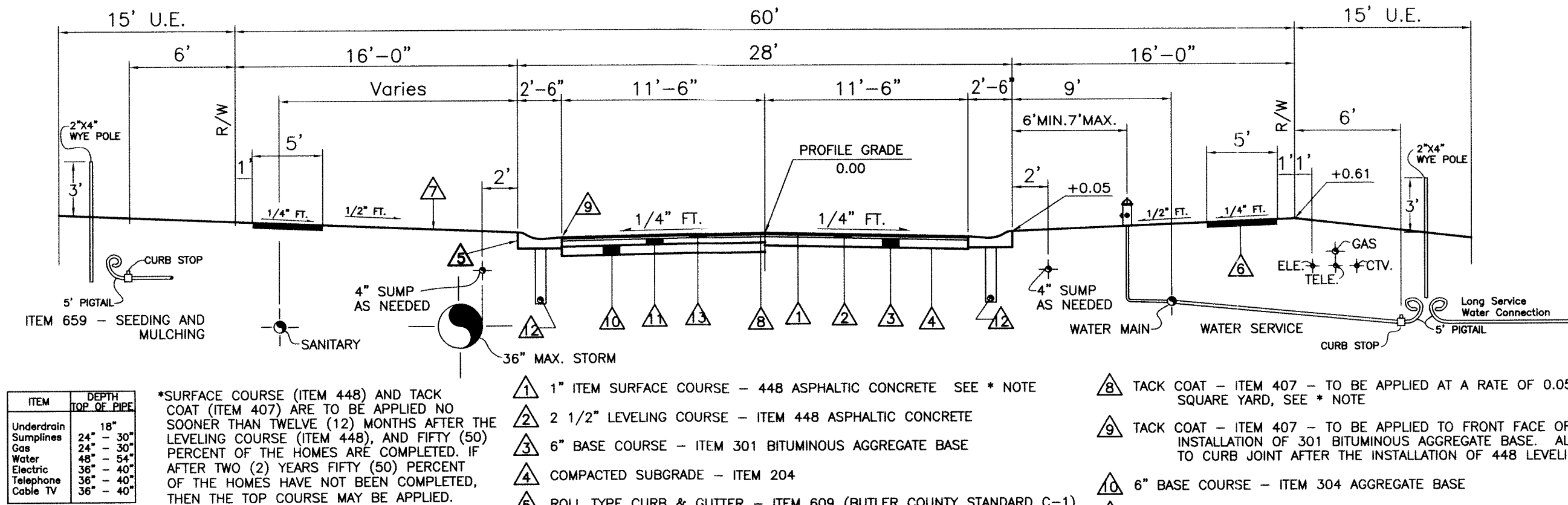
CONCRETE PATH TYPICAL SECTION

(Not to Scale)



ASPHALT PATH TYPICAL SECTION

(Not to Scale)

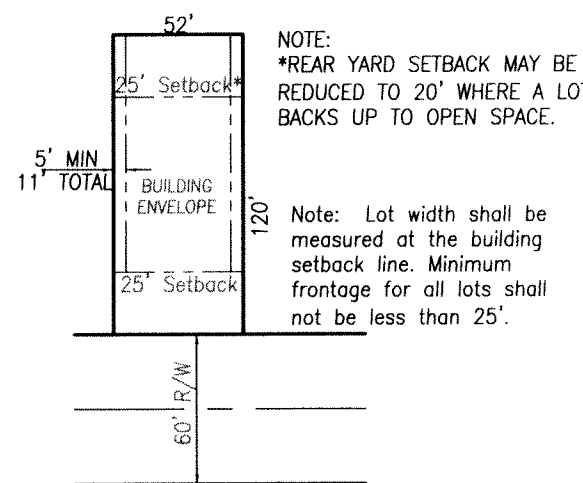


ITEM	DEPTH
Underdrain	18"
Sumppipes	24"
Gas	24"
Electric	36"
Telephone	36"
Cable TV	36"

*SURFACE COURSE (ITEM 448) AND TACK COAT (ITEM 407) ARE TO BE APPLIED NO SOONER THAN TWELVE (12) MONTHS AFTER THE LEVELING COURSE (ITEM 448), AND FIFTY (50) PERCENT OF THE HOMES ARE COMPLETED. IF AFTER TWO (2) YEARS FIFTY (50) PERCENT OF THE HOMES HAVE NOT BEEN COMPLETED, THEN THE TOP COURSE MAY BE APPLIED.

- 1" ITEM SURFACE COURSE - 448 ASPHALTIC CONCRETE SEE * NOTE
- 2 1/2" LEVELING COURSE - ITEM 448 ASPHALTIC CONCRETE
- 6" BASE COURSE - ITEM 301 BITUMINOUS AGGREGATE BASE
- COMPACTED SUBGRADE - ITEM 204
- ROLL TYPE CURB & GUTTER - ITEM 609 (BUTLER COUNTY STANDARD C-1)
- FOUR INCH THICK CLASS "C" CONCRETE SIDEWALK, FOUR FEET WIDE ITEM 608 WALK TO BE 1/2" HIGHER THAN SOD.
- SEEDING & MULCHING - ITEM 659

- TACK COAT - ITEM 407 - TO BE APPLIED AT A RATE OF 0.05 GAL. PER SQUARE YARD, SEE * NOTE
- TACK COAT - ITEM 407 - TO BE APPLIED TO FRONT FACE OF CURB PRIOR TO INSTALLATION OF 301 BITUMINOUS AGGREGATE BASE. ALSO TO BE APPLIED TO CURB JOINT AFTER THE INSTALLATION OF 448 LEVELING COURSE.
- 6" BASE COURSE - ITEM 304 AGGREGATE BASE
- 5" BASE COURSE - ITEM 301 BITUMINOUS AGGREGATE BASE
- 4" UNDERDRAIN - ITEM 605. CONNECT UNDERDRAIN TO CENTERLINE OF CURB AND GUTTER. CONNECT TO SIDEWALL OF NEAREST CATCH BASIN
- 1 1/2" LEVELING COURSE - ITEM 448 ASPHALTIC CONCRETE
- ODOT TYPE 6 CURB
- ASPHALT PATH (SEE TYPICAL SECTION ON SHEET #1)



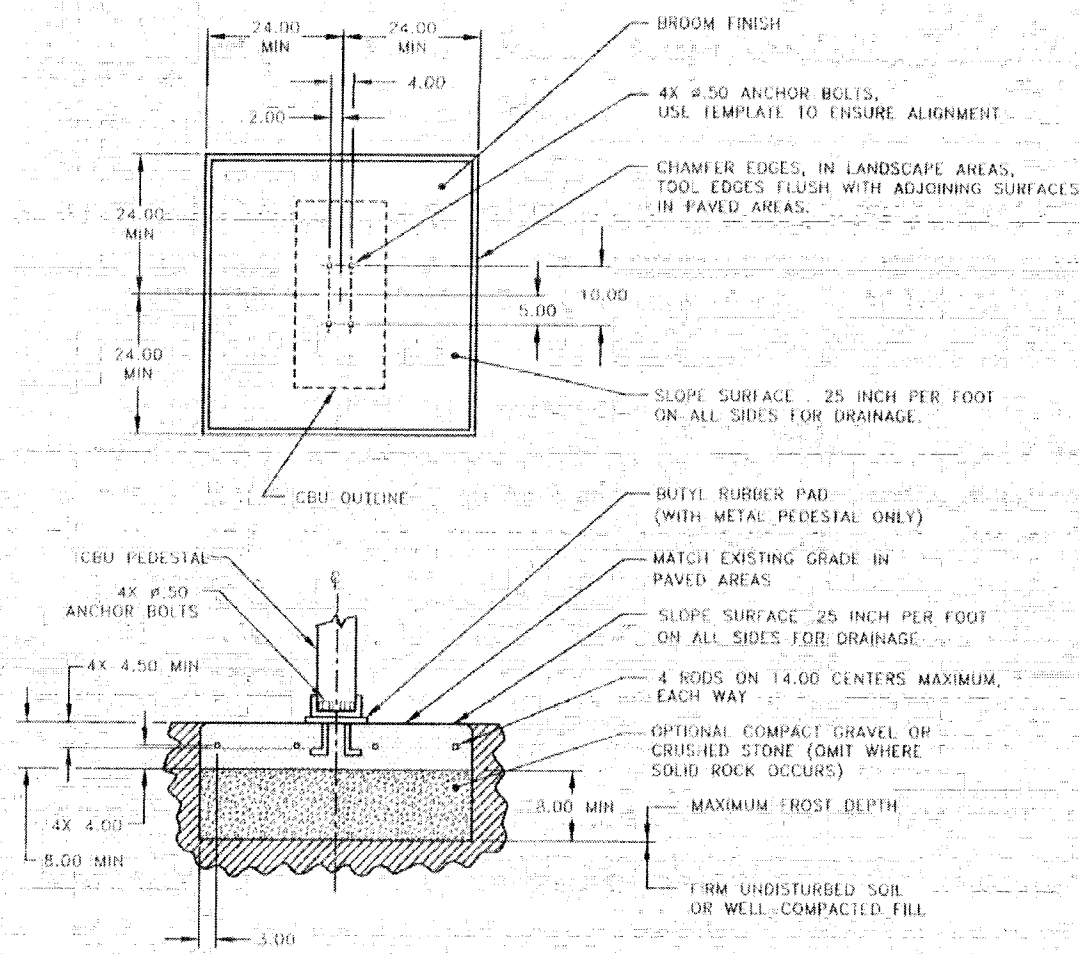
TYPICAL LOT

FIELDSTONE FARMS
SECTIONS TWO & THREE
SINGLE FAMILY
SECTION 15, TOWN 3, RANGE 3
LIBERTY TOWNSHIP, BUTLER COUNTY, OHIO
TITLE SHEET



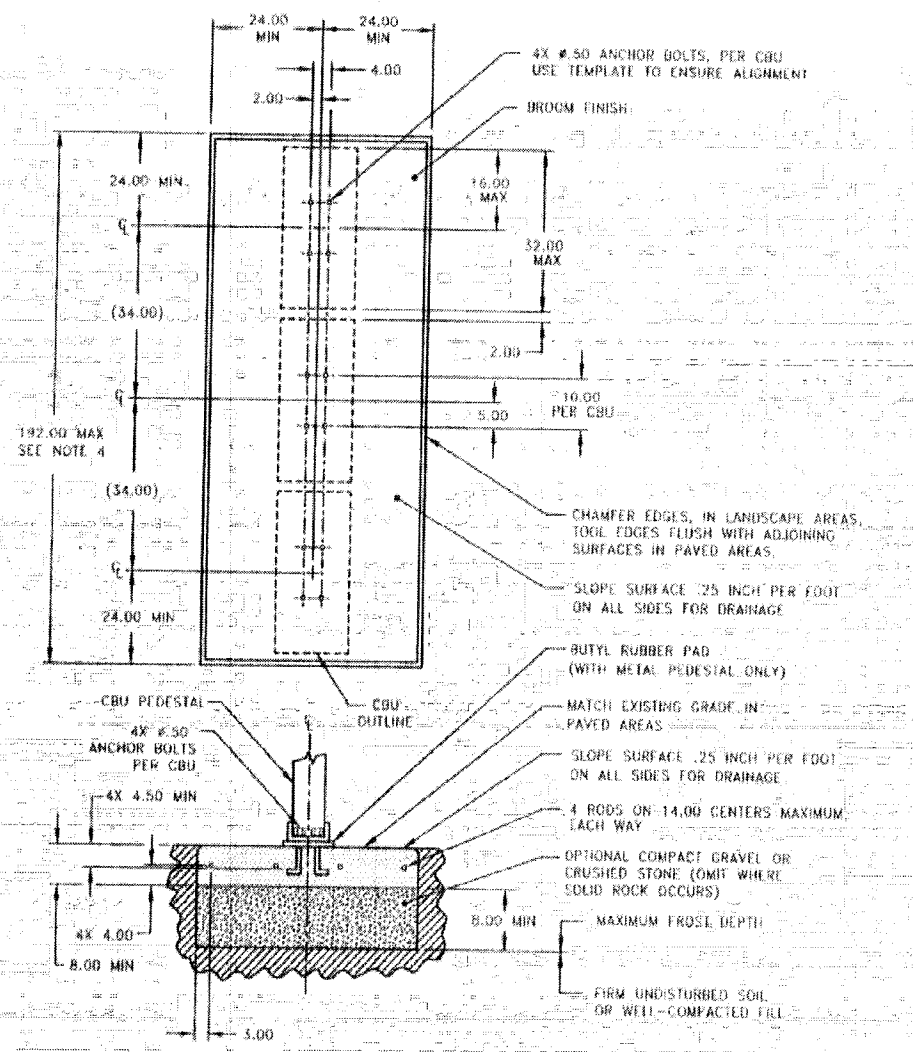
Drawing	16-0294 S CD3
Drawn by	TAC
Checked by	EMR
Issue Date	9-20-19
Sheet	1/11

USPS APPROVED SPECIFICATIONS – CONCRETE PAD (SINGLE UNIT)
(All measurements are in inches)



- NOTES:
- CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, CONTAIN 4% MIN - 6% MAX AIR ENTRAINMENT AND BE PLACED WITH A 3.50 - 4.50 SLUMP IN ACCORDANCE WITH ACI 301.
 - REINFORCING STEEL RODS SHALL CONFORM TO ASTM A615, GRADE 60.
 - ANCHOR BOLTS SHALL CONFORM TO ASTM A193, GRADE B8M, TYPE 316 STAINLESS STEEL.

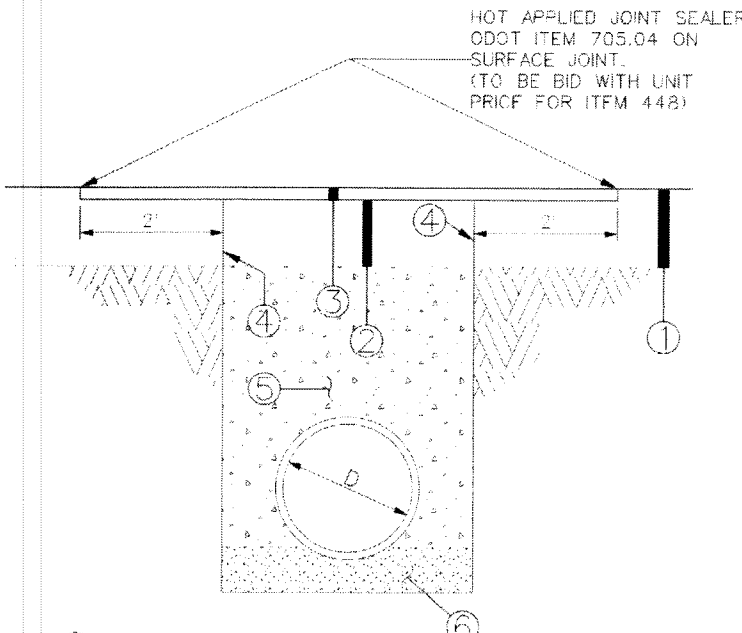
USPS APPROVED SPECIFICATIONS – CONCRETE PAD (MULTIPLE UNIT)



- NOTES:
- CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, CONTAIN 4% MIN - 6% MAX AIR ENTRAINMENT AND BE PLACED WITH A 3.50 - 4.50 SLUMP IN ACCORDANCE WITH ACI 301.
 - REINFORCING STEEL RODS SHALL CONFORM TO ASTM A615, GRADE 60.
 - ANCHOR BOLTS SHALL CONFORM TO ASTM A193, GRADE B8M, TYPE 316 STAINLESS STEEL.

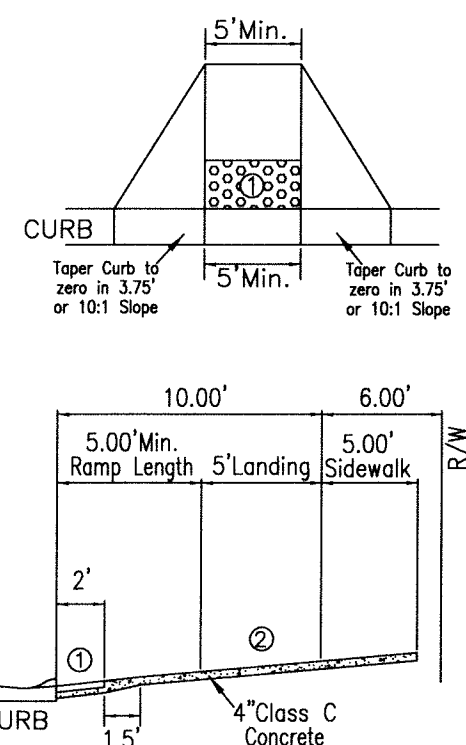
CLUSTER MAILBOX CONCRETE PAD DETAIL

BUTLER COUNTY ENGINEER'S OFFICE
STANDARD DETAIL FOR
ROADWAY PAVEMENT RESTORATION



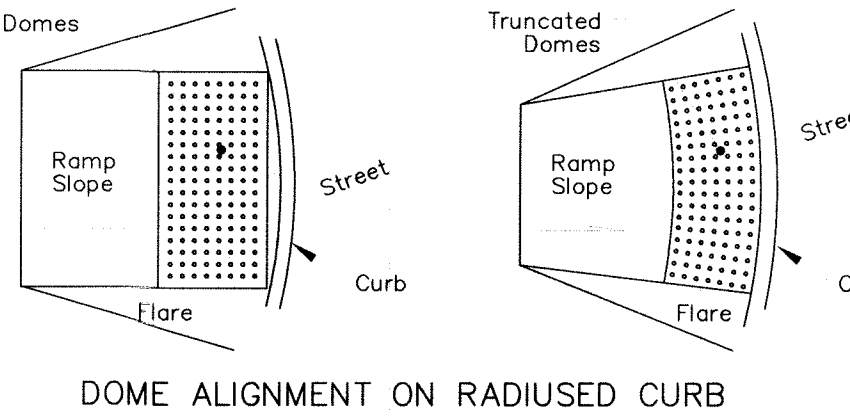
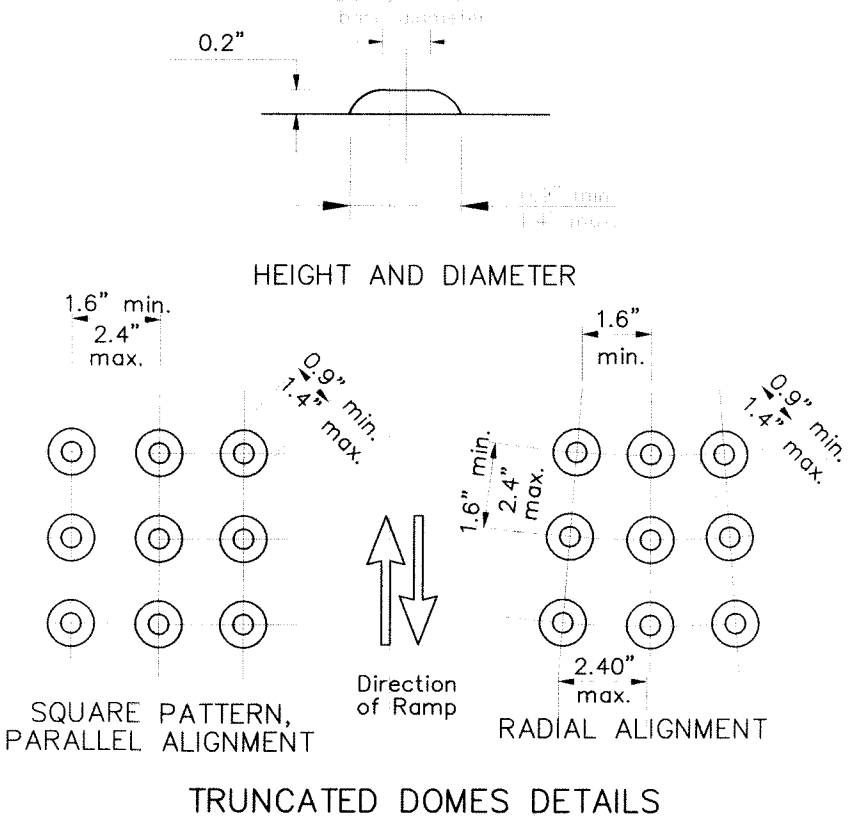
- EXISTING PAVEMENT
- 8" ITEM 301 BITUMINOUS AGGREGATE BASE IN TWO 4" LIFTS
- 2" ITEM 448 ASPHALT CONCRETE SURFACE COURSE MIN. 2" EACH SIDE OF CUT
- ITEM 407 TACK COAT APPLIED AT 0.10 GAL/SY
- LOW STRENGTH MORTAR BACKFILL MATERIAL CLASS LSM 50
- MIN. 6" GRANULAR PIPE BEDDING (OPTION - USE GRANULAR BEDDING EXTENDED 12" ABOVE PIPE FOR FULL WIDTH OF TRENCH)

16-0294 S CD3



- Detectable Warning (Truncated Domes) are to be installed in the location shown. Dimensions of the domes are 24" from the back of the curb by the width of the ramp.
- Minimum Landing is to be 4' but 5' is preferred. The slope of the ramp is preferred to be 12:1 or flatter related to the horizontal, but the slope shall be relative to the existing or proposed walk slope.
- Curb ramps shall be design A or design B per ODOT Drawing 7-12-02, sheets 1 thru 3. Truncated domes are to meet the specifications of ODOT drawing 7-12-02 sheet 3.

CURB RAMP DETAIL



CURB RAMP NOTES

DRAINAGE: Contractor is to ensure the base of each constructed curb ramp allows for proper drainage, without exceeding allowable cross slope or ramp slopes. Vertical change in level exceeding 1/8" between the 1) pavement and gutter, and 2) gutter and ramp, are not allowed. See Intersection Details.

SURFACE TEXTURE: texture concrete surfaces by coarse brooming transverse to the ramp slopes to be rougher than the adjacent walk.

The edge of the curb shall be flush with the edge of the adjacent pavement and gutter and surface slopes that meet grade breaks shall also be flush.

DETECTABLE WARNINGS NOTES

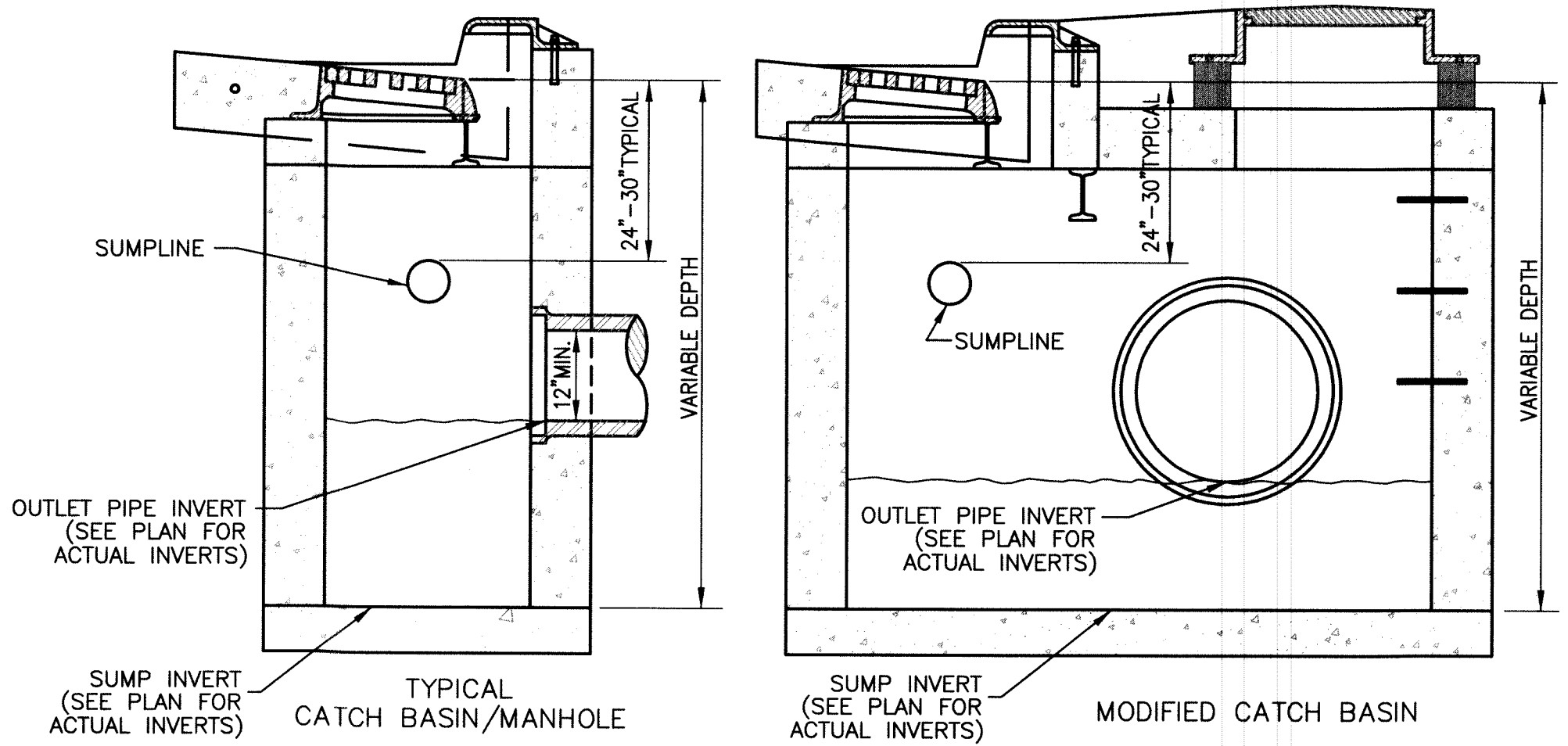
GENERAL: Detectable Warnings are a distinctive surface pattern of truncated domes which are detectable by cane or underfoot to alert people with vision impairments of their approach to streets and hazardous drop-offs.

PLACEMENT: Detectable warnings are to be installed at any location where pedestrians might cross paths with vehicular traffic lanes, such as the base of curb ramps or at blended curbs. A 24" strip of domes is to be installed for the full width of the ramp or walk. See plan locations of curb ramps.

The depth of concrete underneath detectable warning products shall be a minimum of 4".

ALIGNMENT: Truncated domes should be aligned with the primary direction of the ramp as shown on the DETECTABLE WARNING ALIGNMENT Detail. Normally the detectable warnings should be flush with the back of the curb, but in skewed conditions at least one corner of the 24" strip should be adjacent to the back of curb. For non-standard layouts, detectable warning materials may have to be mitered and placed segmentally.

PRODUCTS & COLORS: Color of the detectable warnings should contrast with surrounding concrete walk and ramp. Black is not an acceptable color. Contractor to submit Armor-Tile Detectable/Tactile Warning Surface Cast in Place Tile or approved equal cut sheets for color selection approval to Owner. Install as per manufacturer's printed instructions.



NOTE:
STORM STRUCTURES THAT PROVIDE WATER QUALITY ARE TO BE INSPECTED AND MAINTAINED FOUR (4) TIMES PER YEAR

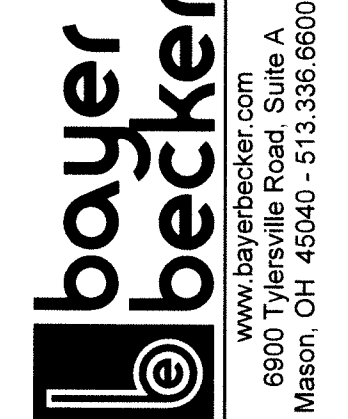
STRUCTURE TYPE	INNER STRUCTURE FLOOR AREA*
48" MANHOLE	12.57 S.F.
CB-3A	4.87 S.F.
CB-3A(MOD)	14.44 S.F.
CB-3	10.69 S.F.
CB-3(MOD)	31.68 S.F.
CB-2-2	4.00 S.F.
CB-2-3	9.00 S.F.
CB-2-4	16.00 S.F.
CB-2-5	25.00 S.F.
CB-2-6	36.00 S.F.

* AS PER ODOT & BUTLER COUNTY STANDARD DETAILS

STORM WATER QUALITY STRUCTURE DETAILS

(Not to Scale)

FIELDSTONE FARMS
SECTIONS TWO & THREE
SINGLE FAMILY
SECTION 15, TOWN 3, RANGE 3
LIBERTY TOWNSHIP, BUTLER COUNTY, OHIO
MISCELLANEOUS DETAILS



Drawing: 16-0294 S CD3

Drawn by: TAC


Checked by: EMR


Issue Date: 9-20-19

Sheet: 2/11

Plot time: Jul 14, 2020 - 5:00

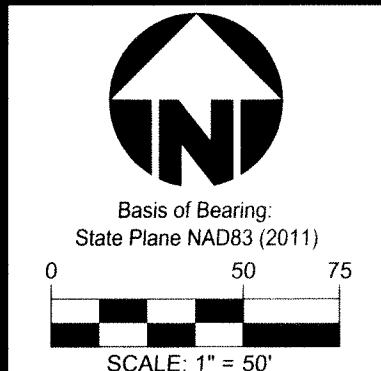
1. 48 hours notice to be given to affected residents before construction begins.
2. All Catch Basin B/C Elevations located within the curb are set to the Back of Curb Elevations.
3. Lower 3/4" Water Services as needed to avoid conflicts with Storm with Min. 4' Cover.
4. Location of existing utilities to be determined in the field prior to work beginning.
5. All lots Sump to Sump Drain unless otherwise noted in plan.
6. Sump Lines to be installed as per Standard Service Detail. Wyes or Tees are to be placed ten feet past lot line, on the low side of specified lots, and marked with Wye poles.
7. Contractors to accept all quantities as correct prior to beginning construction.

 REGULATED WATERWAY
OF UNITED STATES

 CONSERVATION EASEMENT
(SEE VERBIAGE ON SHEET #4)

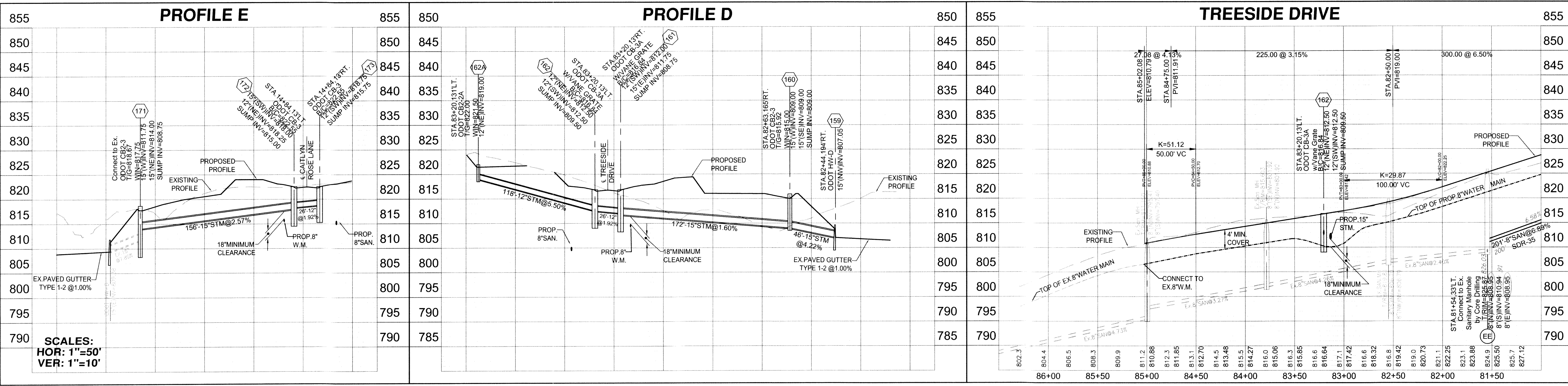
The area in the conservation easement contains a stream that has been identified as a jurisdictional waterway of the united states and is protected under the federal clean water act. the conservation easement shown hereon restricts disturbance and use of the area. Natural water courses and adjacent riparian buffers may not be dredged, straightened, filled, channelized, impeded, diverted or otherwise altered in the conservation area, other than as part of activities that are authorized by the nationwide permit program regulated by the army corps of engineers. There shall be no clearing, disturbance of existing vegetation or placement of manmade modifications such as buildings, structures and fences within conservation area except as approved by the army corps of engineers.

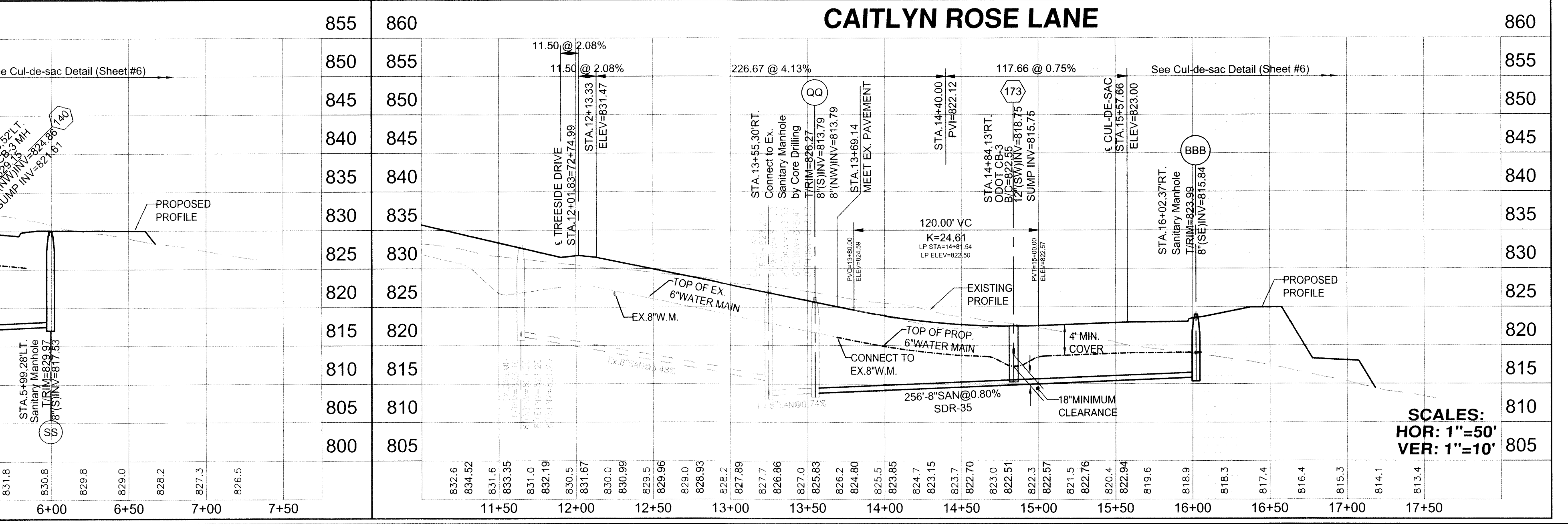
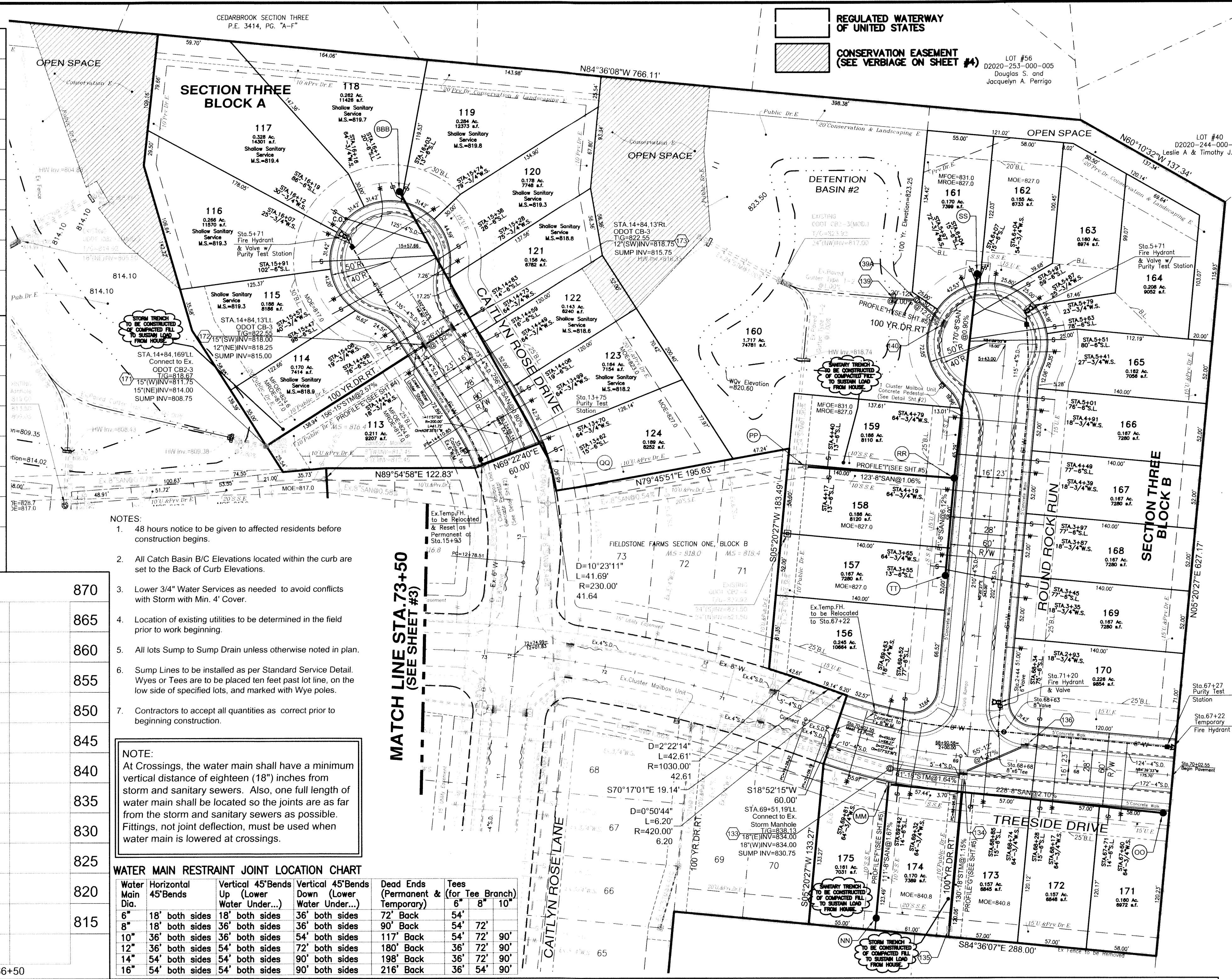
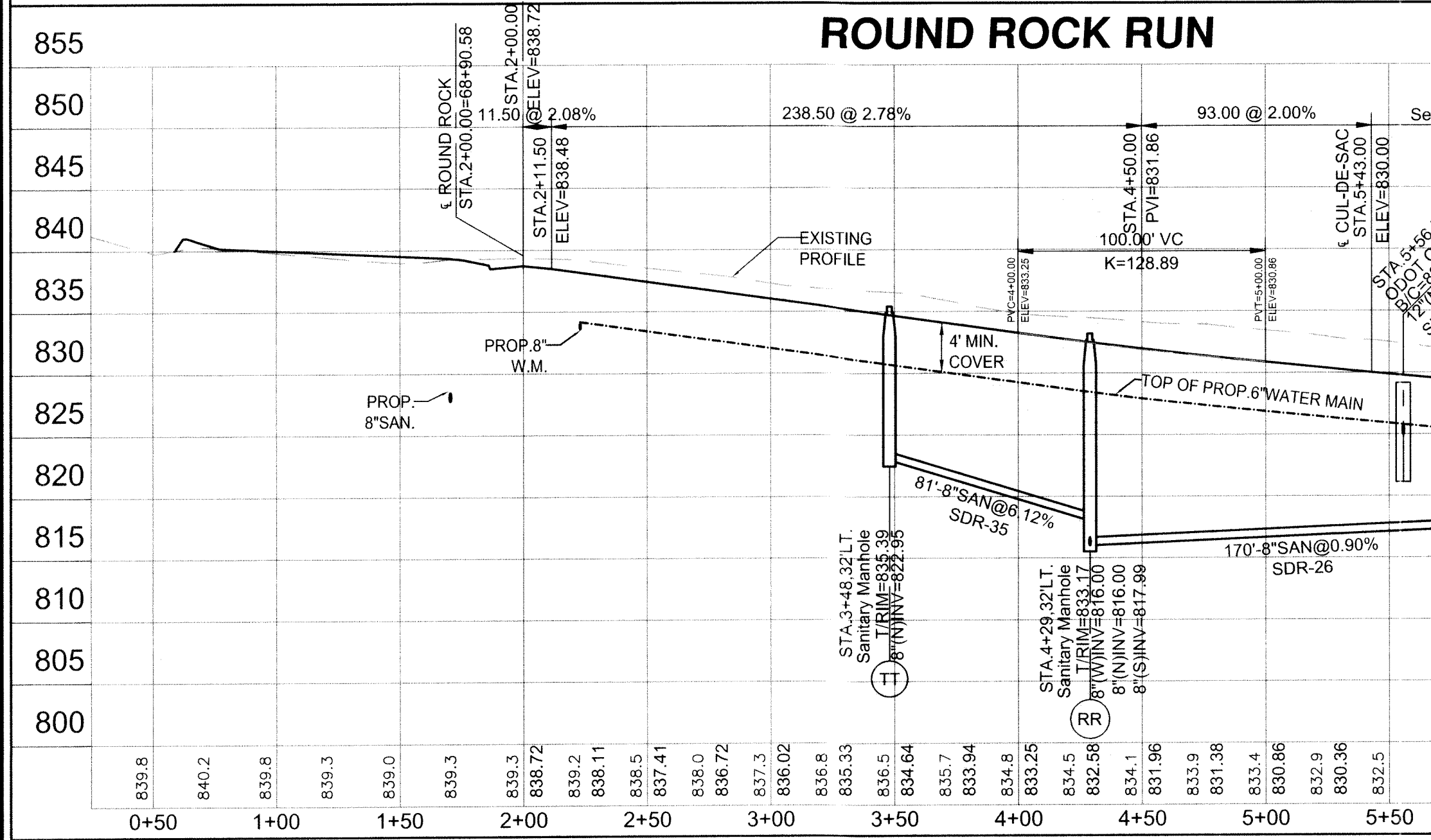
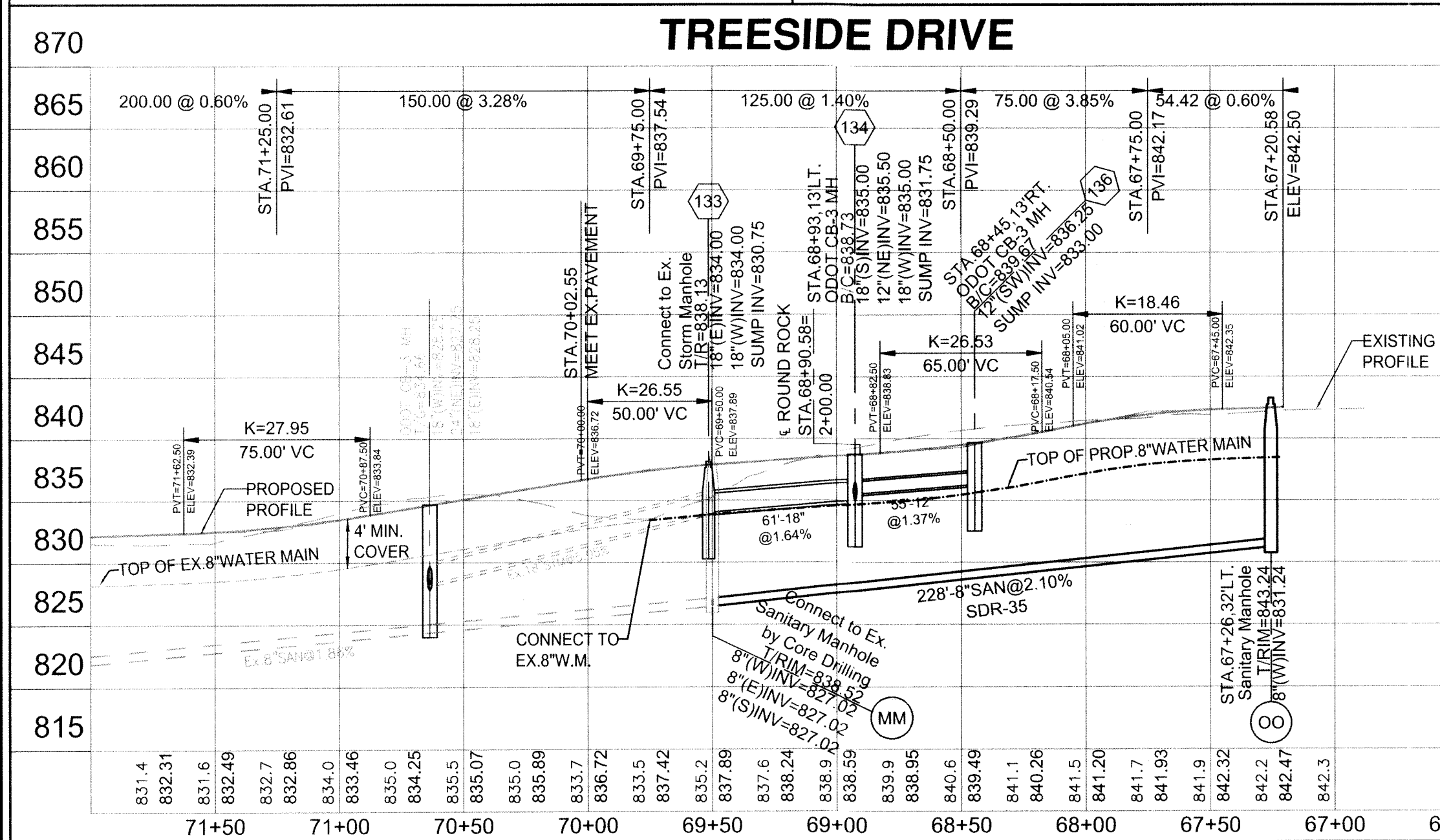
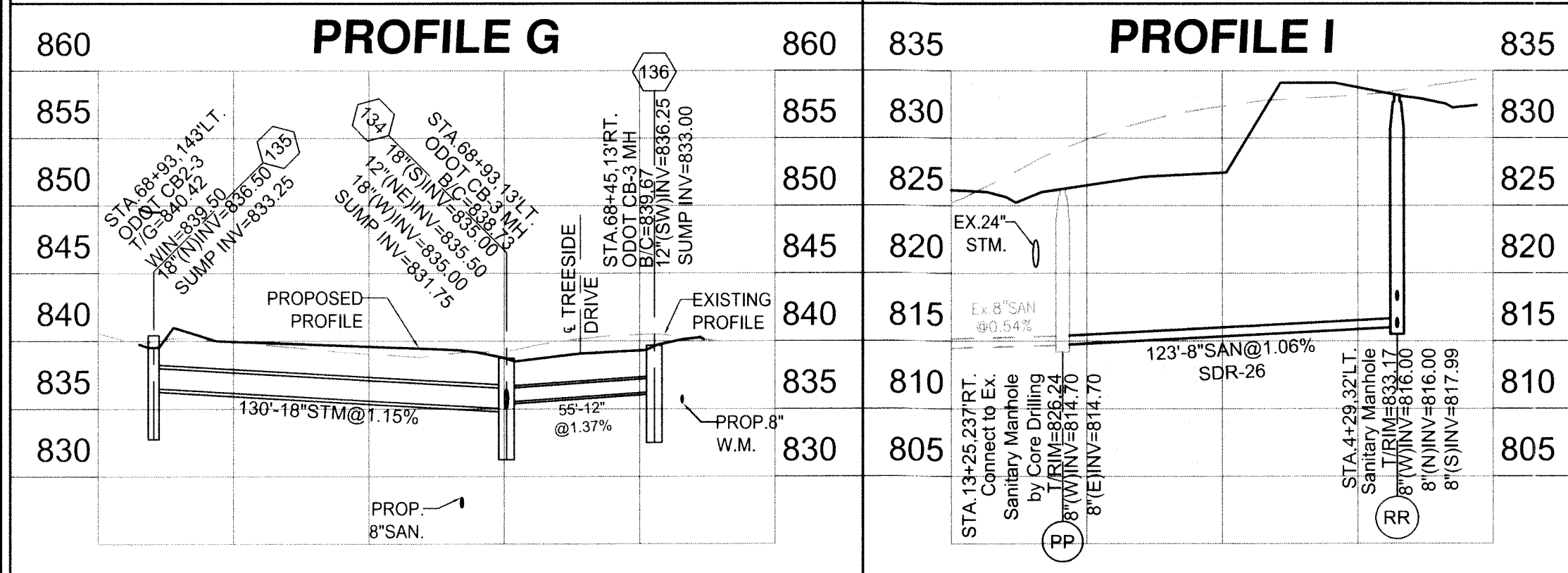
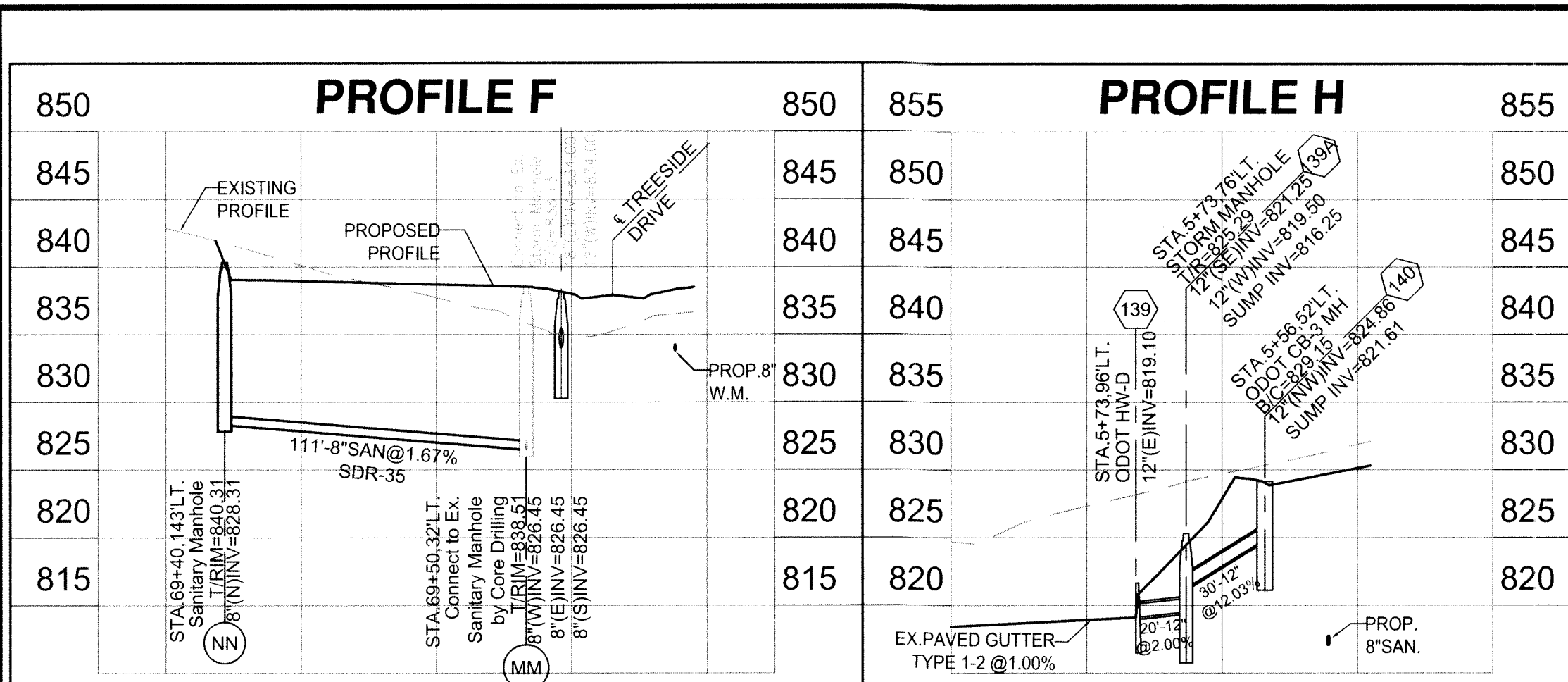
The conservation and landscaping easement shown hereon restricts disturbance and use of this area. "Conservation" shall mean there is to be no clearing, grading, construction, filling or disturbance of existing vegetation for the purpose of retaining wooded areas, predominately and as nearly as practical, in their natural, scenic and undeveloped condition except as approved by the Liberty Township Zoning Department. "Landscape" shall mean the general care and upkeep of the easement area shall be the responsibility of the individual property owner which permits the removal of dead trees and vegetation. Construction activity by the developer may take place within the easement area, but no existing trees are to be removed. Any area disturbed within the easement during the construction process will be re-established and re-vegetated by the contractor on site.



**FIELDSTONE FARMS
SECTIONS TWO & THREE
SINGLE FAMILY
SECTION 15, TOWN 3, RANGE 3
LIBERTY TOWNSHIP, BUTLER COUNTY, OHIO
PLAN & PROFILE**

Drawing	16-0294 S CD3
Drawn by:	TAC
Checked By:	
Issue Date:	3-22-18





- NOTES:**
- 48 hours notice to be given to affected residents before construction begins.
 - All Catch Basin B/C Elevations located within the curb are set to the Back of Curb Elevations.
 - Lower 3/4" Water Services as needed to avoid conflicts with Storm with Min. 4" Cover.
 - Location of existing utilities to be determined in the field prior to work beginning.
 - All lots Sump to Sump Drain unless otherwise noted in plan.
 - Sump Lines to be installed as per Standard Service Detail. Wyes or Tees are to be placed ten feet past lot line, on the low side of specified lots, and marked with Wye poles.
 - Contractors to accept all quantities as correct prior to beginning construction.

NOTE:
At Crossings, the water main shall have a minimum vertical distance of eighteen (18") inches from storm and sanitary sewers. Also, one full length of water main shall be located so the joints are as far from the storm and sanitary sewers as possible. Fittings, not joint deflection, must be used when water main is lowered at crossings.

WATER MAIN RESTRAINT JOINT LOCATION CHART

Water Main Dia.	Horizontal 45° Bends	Vertical 45° Bends Up (Lower Water Under...)	Vertical 45° Bends Down (Lower Water Under...)	Dead Ends (Permanent & Temporary)	Tees (for Tee Branch 6" 8" 10")
6"	18' both sides	18' both sides	36' both sides	72' Back	54' 72' 90'
8"	18' both sides	36' both sides	36' both sides	90' Back	54' 72' 90'
10"	36' both sides	36' both sides	54' both sides	117' Back	54' 72' 90'
12"	36' both sides	54' both sides	72' both sides	180' Back	36' 72' 90'
14"	54' both sides	54' both sides	90' both sides	198' Back	36' 72' 90'
16"	54' both sides	54' both sides	90' both sides	216' Back	36' 54' 90'

- NOTES:
1. Regular inspection and maintenance will be provided for all erosion and sediment control practices. Permanent records of maintenance and inspections must be kept throughout the construction period. Inspections must be made a minimum of once every seven (7) days and immediately after storm events greater than 0.5 inches of rain in a 24 hour period. Provided will be name of inspector, major observations, date of inspection and corrective measures taken.
 2. All erosion and sediment control practices must conform to the specifications of Rainwater and Land Development, Ohio's standards for storm water management, land development and urban stream protection.
 3. Perimeter Sedimentation control and basins/traps shall be implemented as the first step of grading and within seven (7) days of initial grubbing or grading and shall continue to function until upland areas are stabilized.
 4. Disturbed areas which will remain unworked for a period of fourteen (14) days or more, shall be stabilized with seeding and mulching or other approved means within seven (7) days. All disturbed areas within fifty (50) feet of an intermittent or solid blue line stream shall be stabilized within two (2) days. All areas of a site which are at final grade shall be stabilized with seeding and mulching or other approved means within seven (7) days.
 5. Quantities for Erosion Control may vary between detailed plans and field conditions during construction. Plan quantities are a minimum; more erosion control may be necessary due to environmental conditions.
 6. Sedimentation control and ditch swales are subject to change upon completion of entire set of construction drawings.
 7. No solid or liquid waste shall be discharged into storm water runoff.
 8. Home builders are responsible for erosion control on each individual lot.

NOTE:
Contractors to accept all quantities as correct prior to beginning construction.

NOTE:
Quantities for Erosion Control may vary between detailed plans and field conditions during construction. Plan quantities are a minimum; more erosion control may be necessary due to environmental conditions.

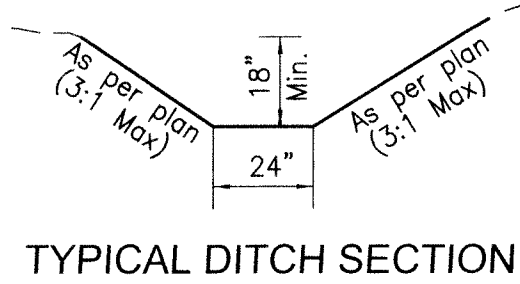
NOTE:
Sedimentation control and ditch swales are subject to change upon completion of entire set of construction drawings.

- CLEARING LIMITS
- SILT FENCE OR MULCH BERM
- REGULATED WATERWAY OF UNITED STATES
- RIPARIAN AREA: NO DISTURBANCE PERMITTED
- CONSERVATION EASEMENT (SEE VERBIAGE ON SHEET #4)

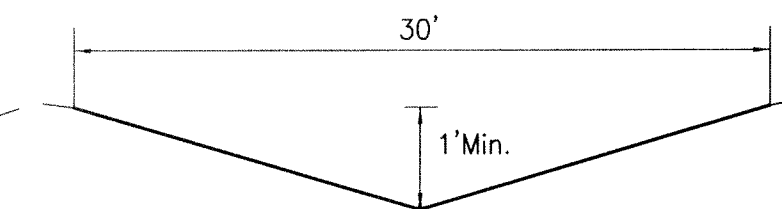
EROSION CONTROL NOTES

- SEEDING AND MULCHING
 - SODDING
 - PRESERVE EXISTING VEGETATION
 - STRAW BALE
 - SILT FENCE OR MULCH BERM
 - SOIL PILES
 - TEMPORARY STREAM CROSSING
 - GRAVEL CURB INLET SEDIMENT FILTER
 - GEOTEXTILE INLET SEDIMENT FILTER
 - GABIONS
 - STRAW BALE DROP INLET SEDIMENT FILTER
 - SOD DROP INLET SEDIMENT FILTER
 - GRAVEL & WIRE MESH DROP INLET SEDIMENT FILTER
 - BLOCK & GRAVEL CURB INLET SEDIMENT FILTER
 - TEMPORARY SEDIMENT TRAPS & DAMS
 - DIKES & SLOPE PROTECTION
 - ROLLED GRAVEL CURB INLET SEDIMENT FILTER
 - CHECK DAM
 - TEMPORARY DETENTION SEDIMENT FILTER/BASIN
 - DANDY BAG/BEAVER DAM® OR EQUAL
 - CONSTRUCTION ENTRANCE
 - CONCRETE WASHOUT AREA
- SEE SOIL EROSION & SEDIMENTATION CONTROL DETAIL SHEET (Page #11)

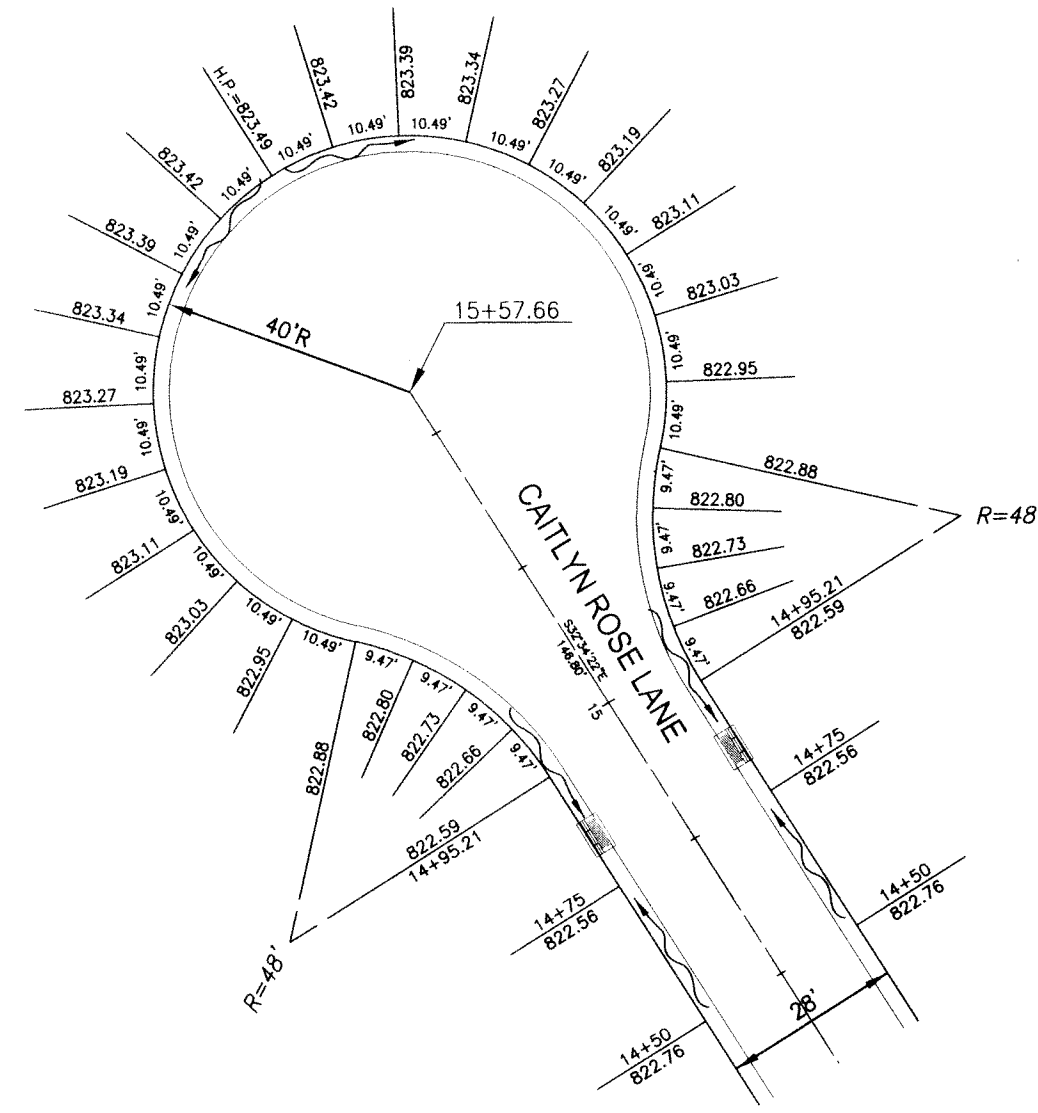
Note: All ditches constructed by the Developer shall be sodded or hydro-seeded.



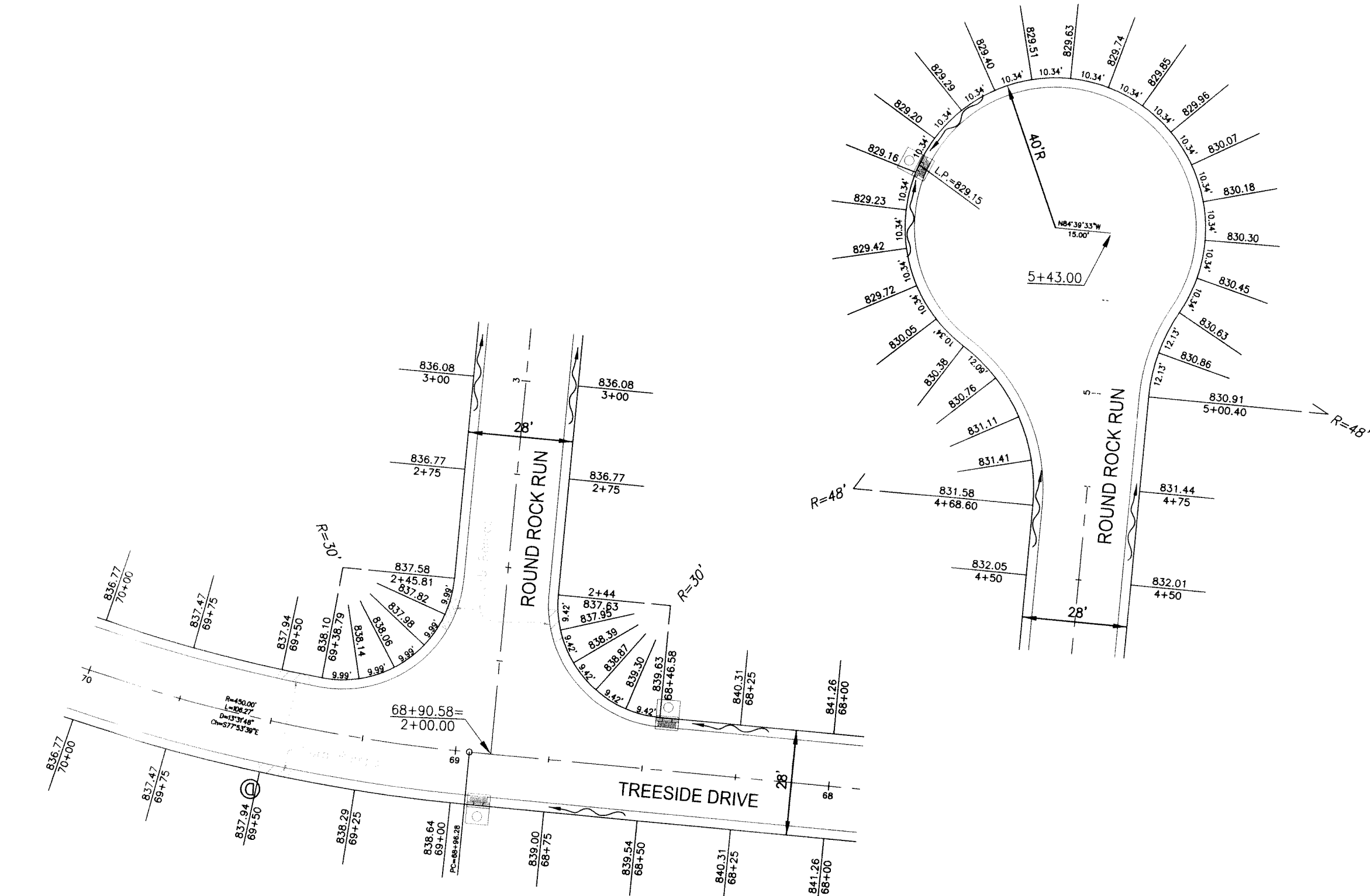
TYPICAL DITCH SECTION



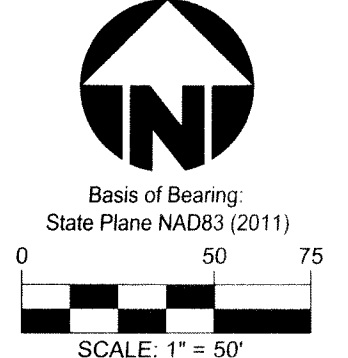
TYPICAL DRAINAGE ROUTE SECTION



DETAIL SCALE: 1"=30'



NOTE:
All Existing Structures, pavement, fencing and utilities are to be removed from site.

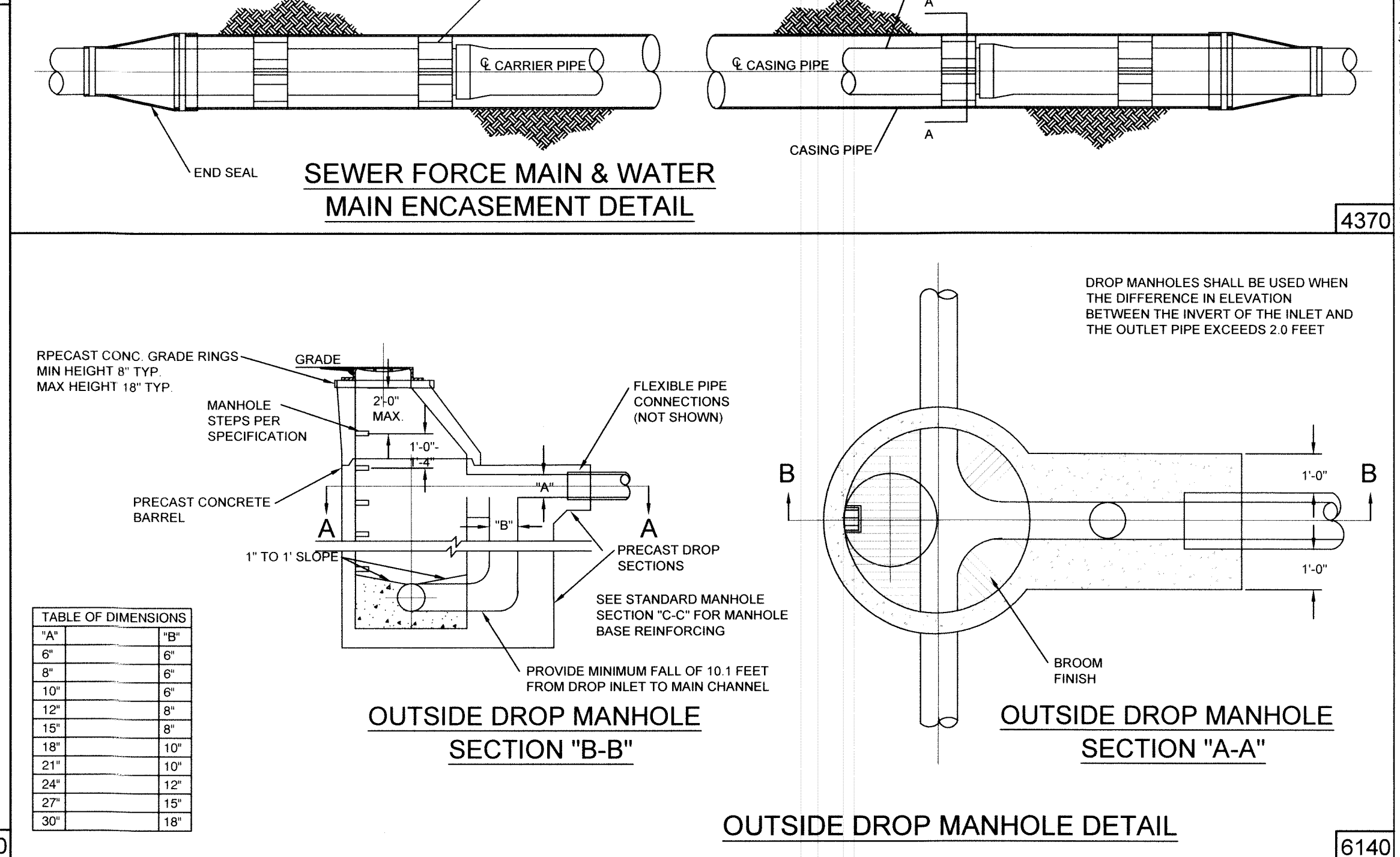
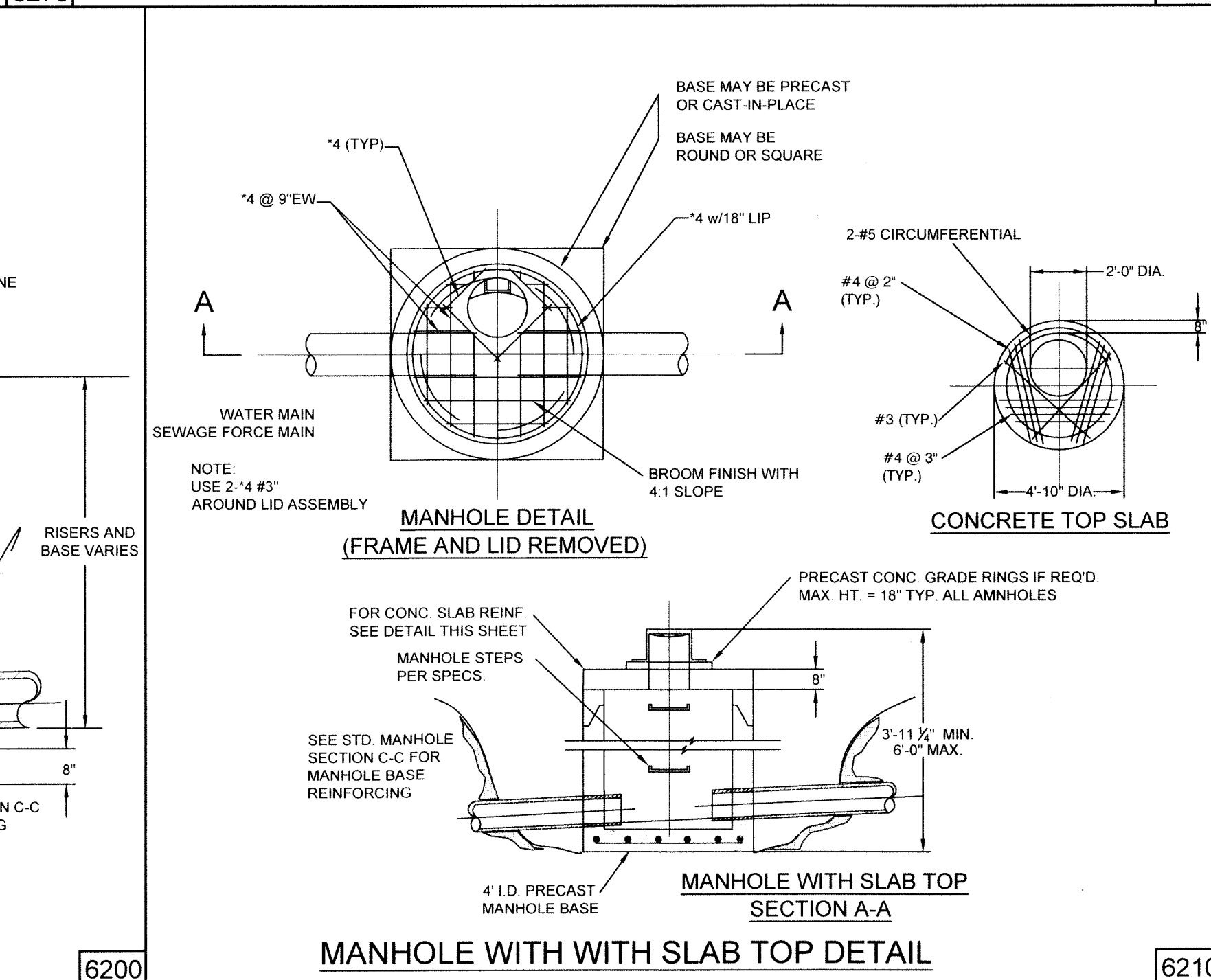
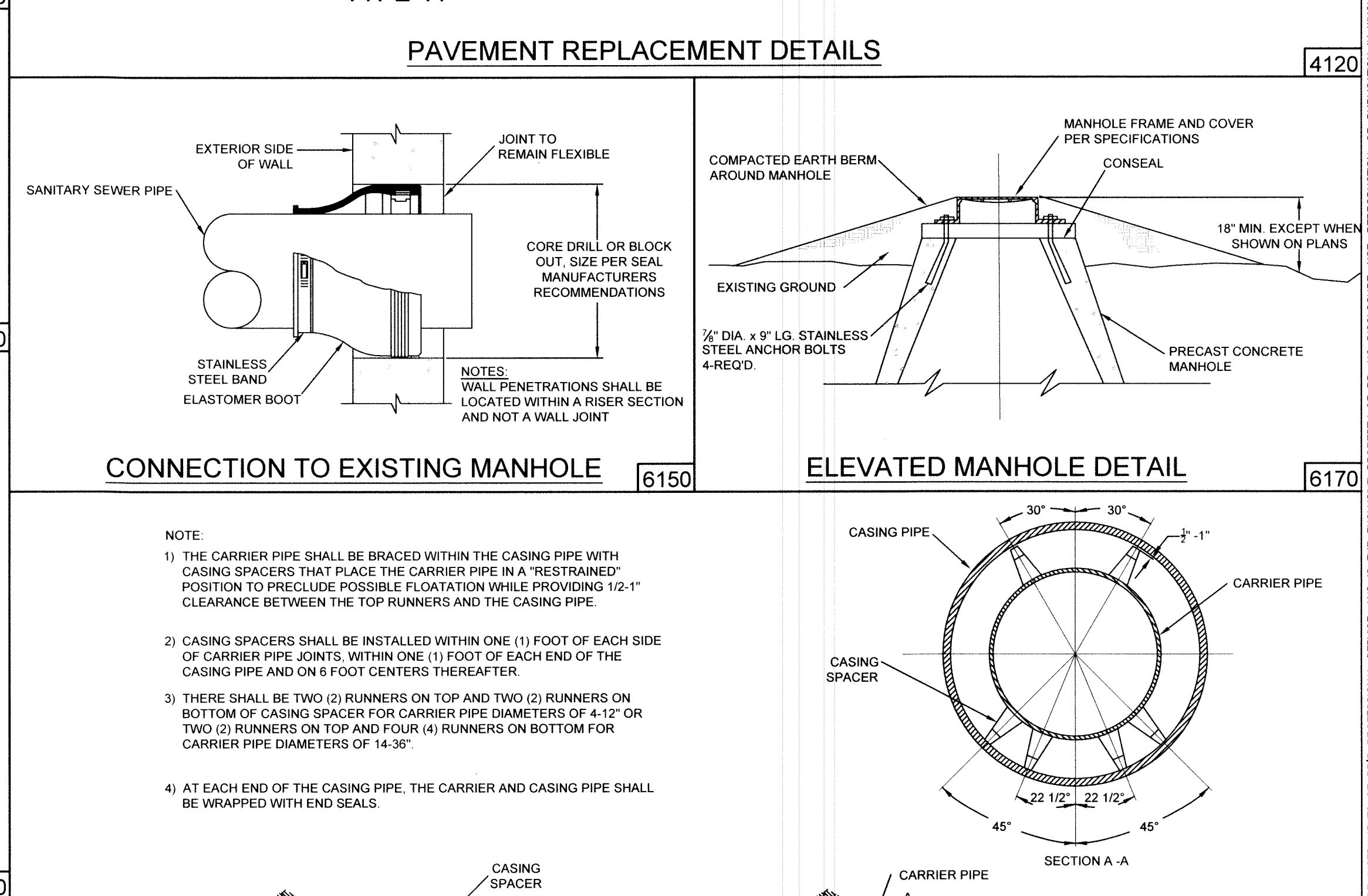
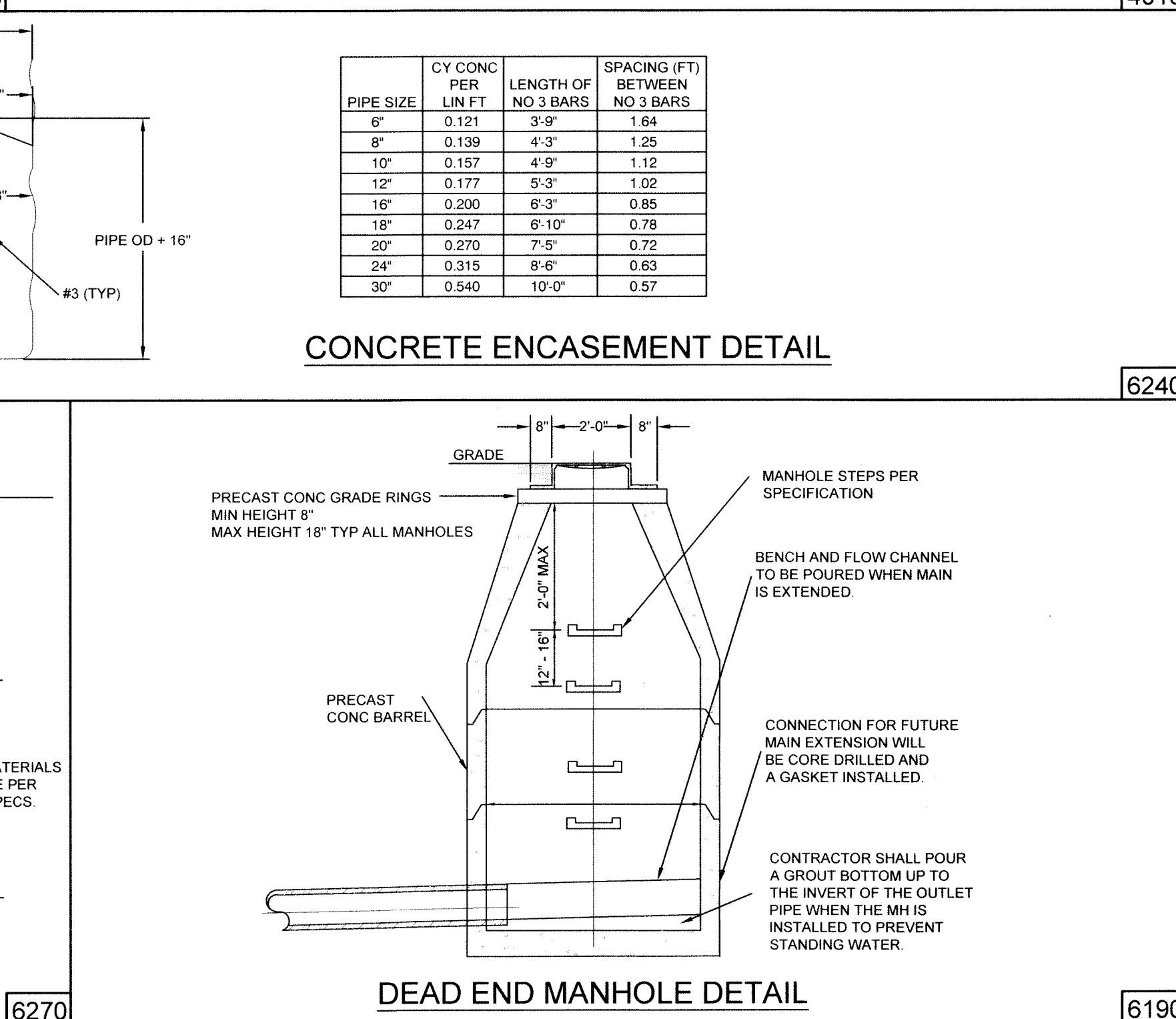
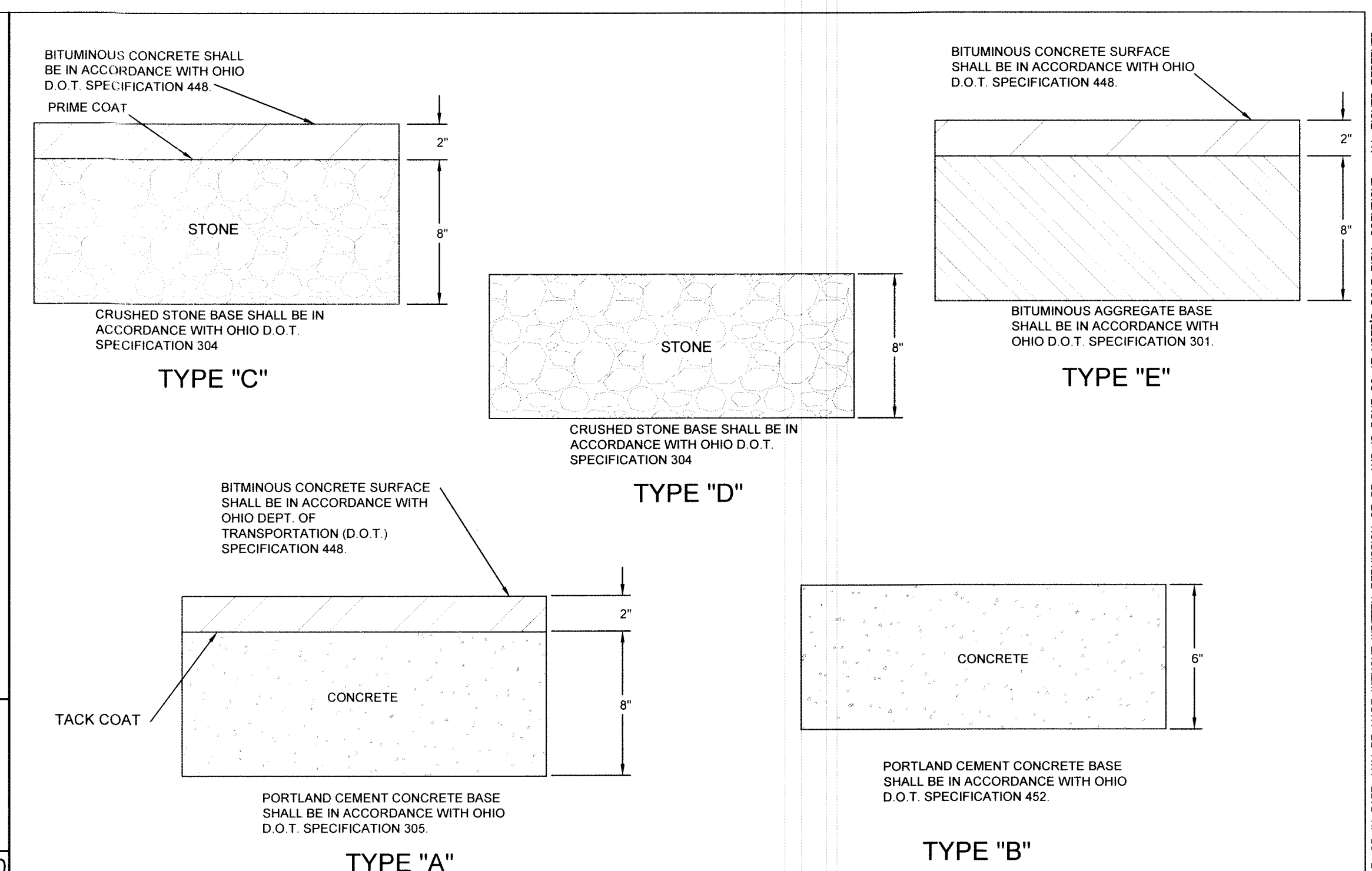
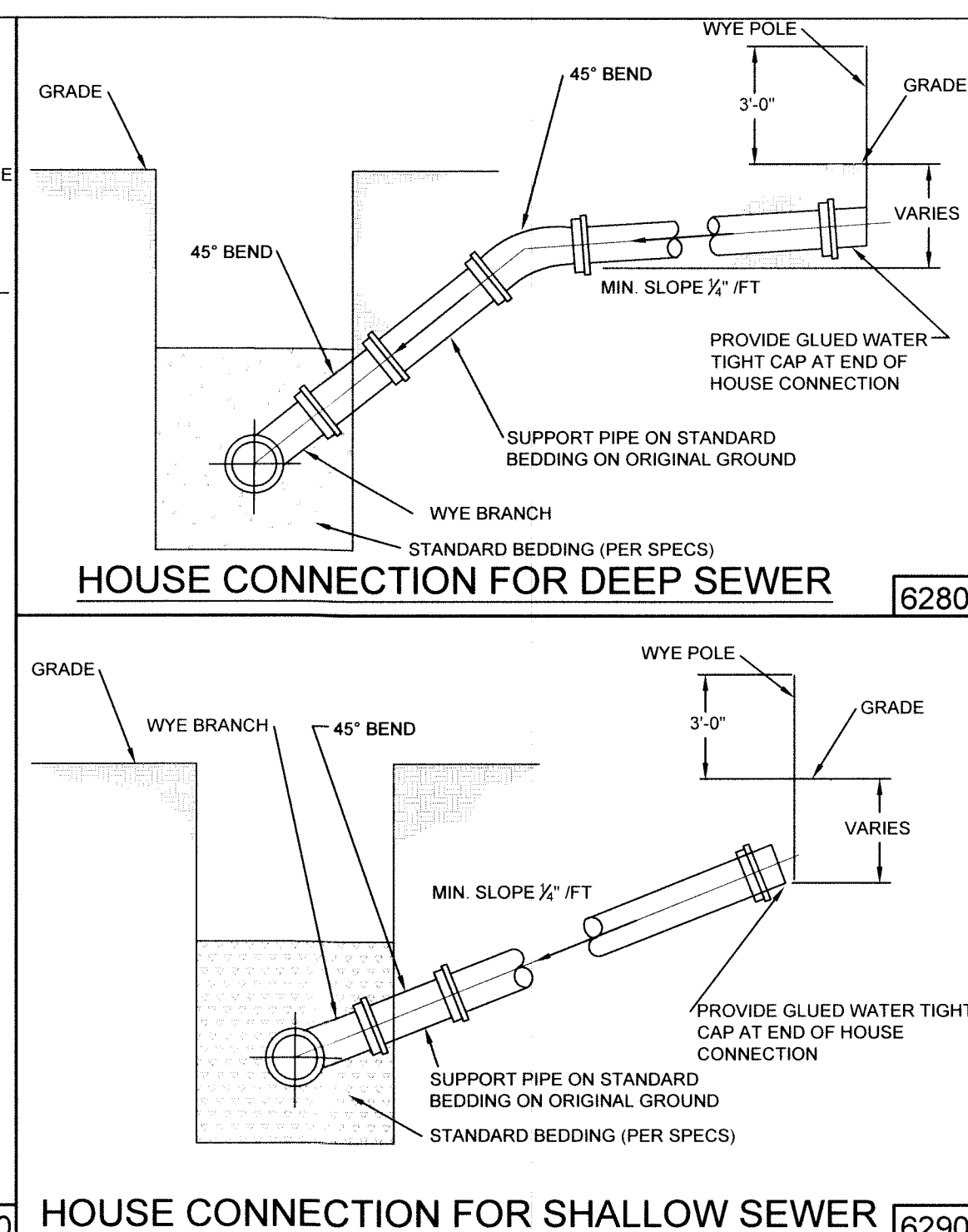


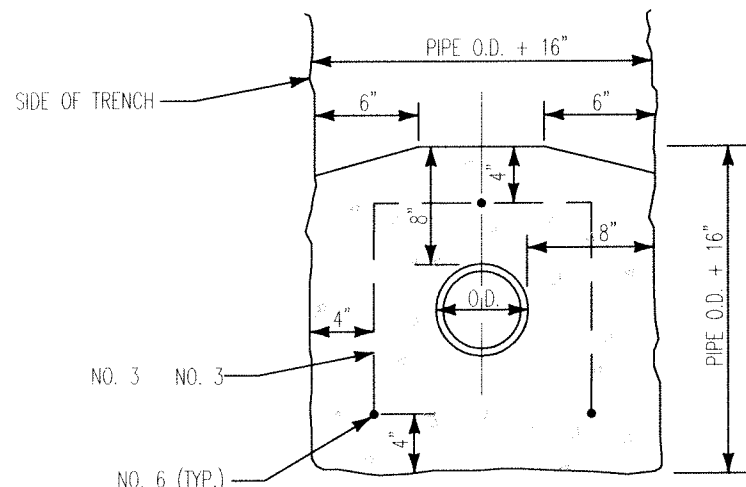
Item	Revision Description	Date	Drawn	Chk
1				
2				
3				
4				
5				
6				
7				
8				
9				

FIELDSTONE FARMS SECTIONS TWO & THREE SINGLE FAMILY SECTION 15, TOWN 3, RANGE 3 LIBERTY TOWNSHIP, BUTLER COUNTY, OHIO GRADING PLAN



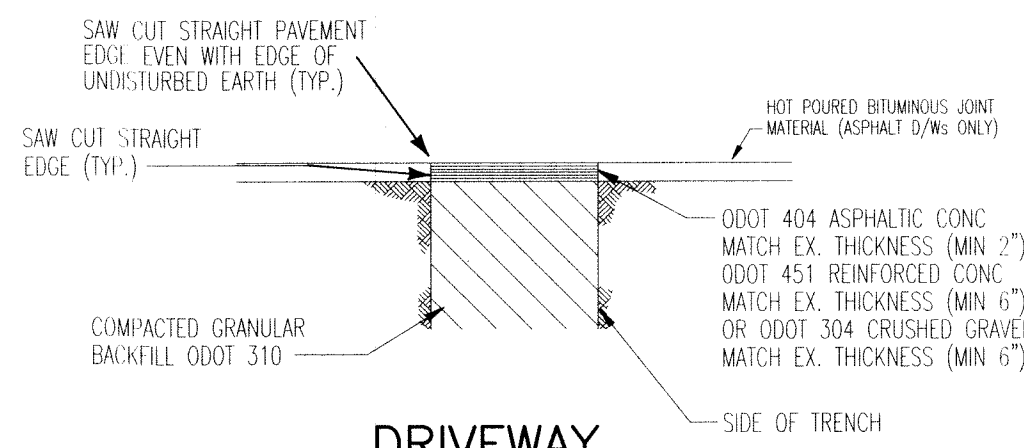
Drawing: 16-0294 S CD3
Drawn by: TAC
Checked By:
Issue Date: 9-20-19
Sheet: 6/11

[illegible]

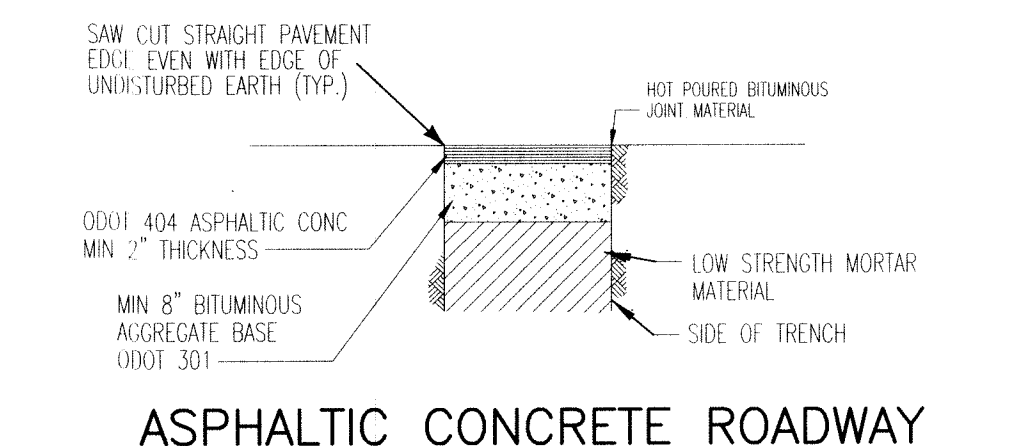


PIPE SIZE	C.Y. CONC. PER LIN. FT.	LENGTH OF NO. 3 BARS BETWEEN NO. 3 BARS	SPACING (FT) BETWEEN NO. 3 BARS
6"	0.121	3'-9"	1.64
8"	0.139	4'-3"	1.25
10"	0.157	4'-9"	1.12
12"	0.177	5'-3"	1.02
16"	0.200	6'-3"	0.85
18"	0.247	6'-10"	0.78
20"	0.270	7'-5"	0.72
24"	0.315	8'-6"	0.63
30"	0.540	10'-0"	0.57

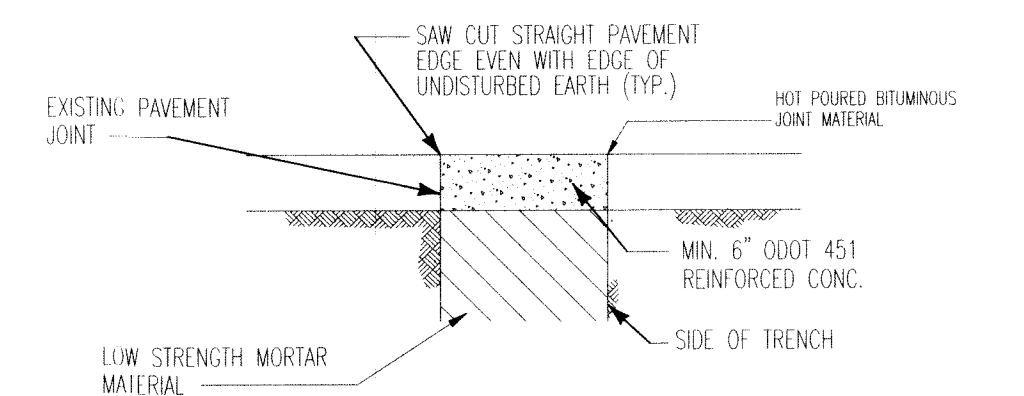
CONCRETE ENCASEMENT



DRIVEWAY

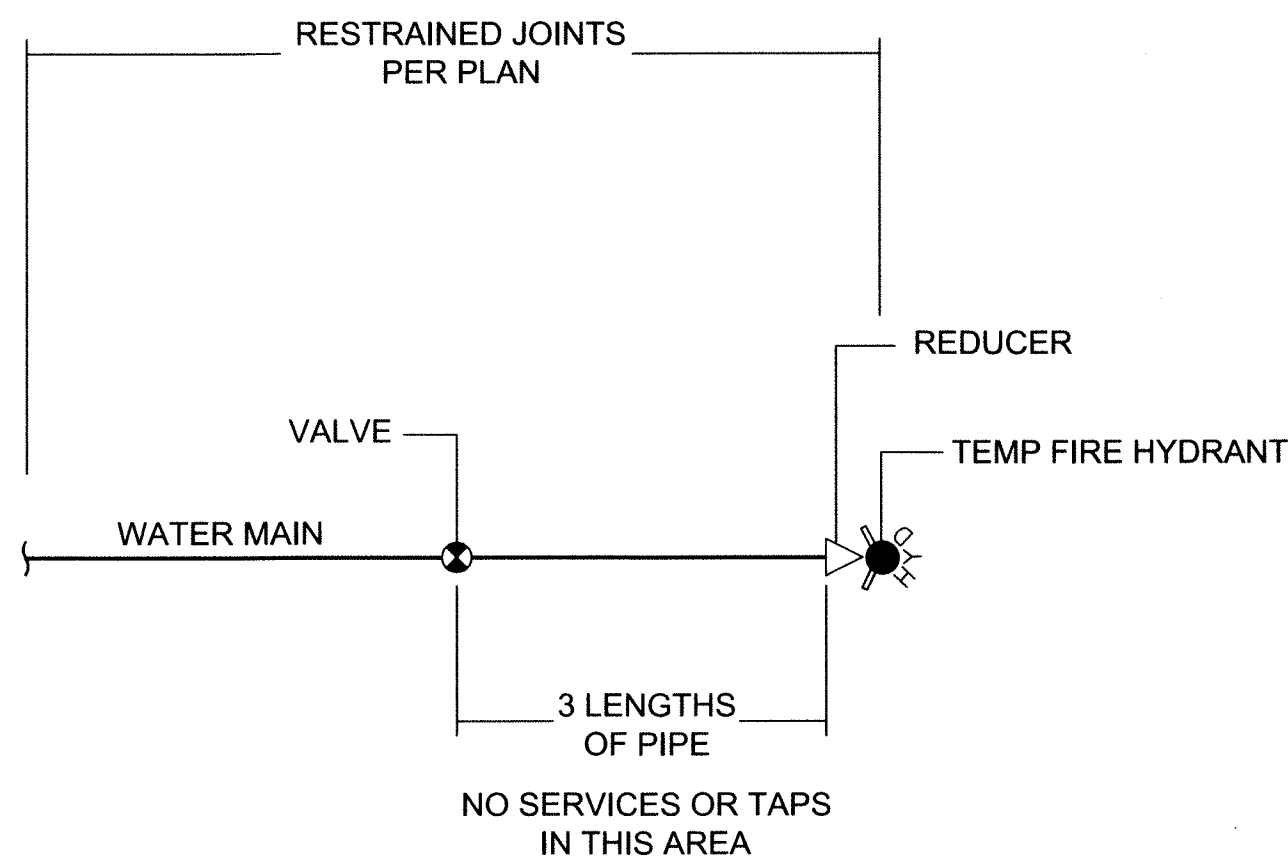


ASPHALTIC CONCRETE ROADWAY



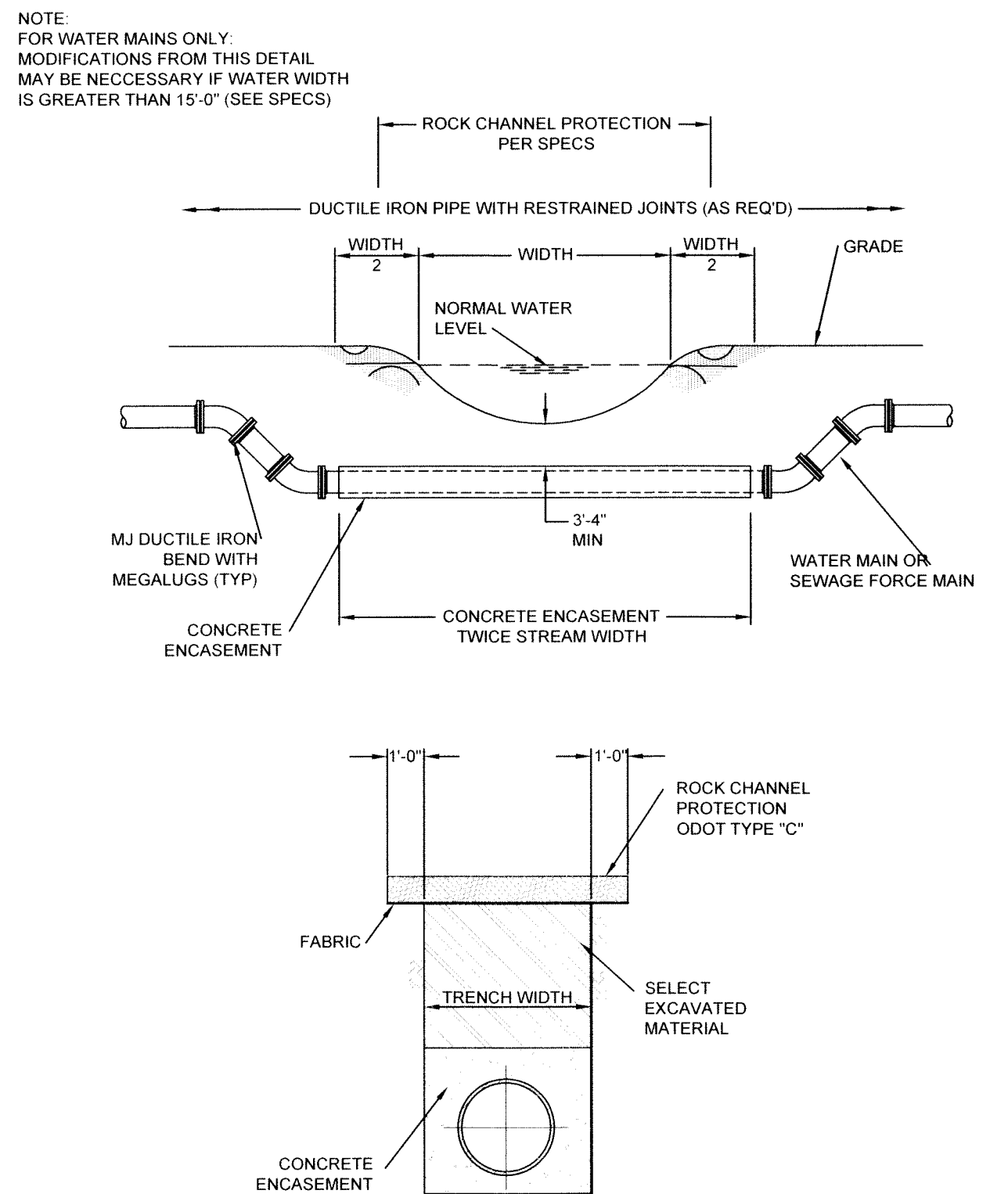
CONCRETE ROADWAY

PAVEMENT REPLACEMENT DETAILS



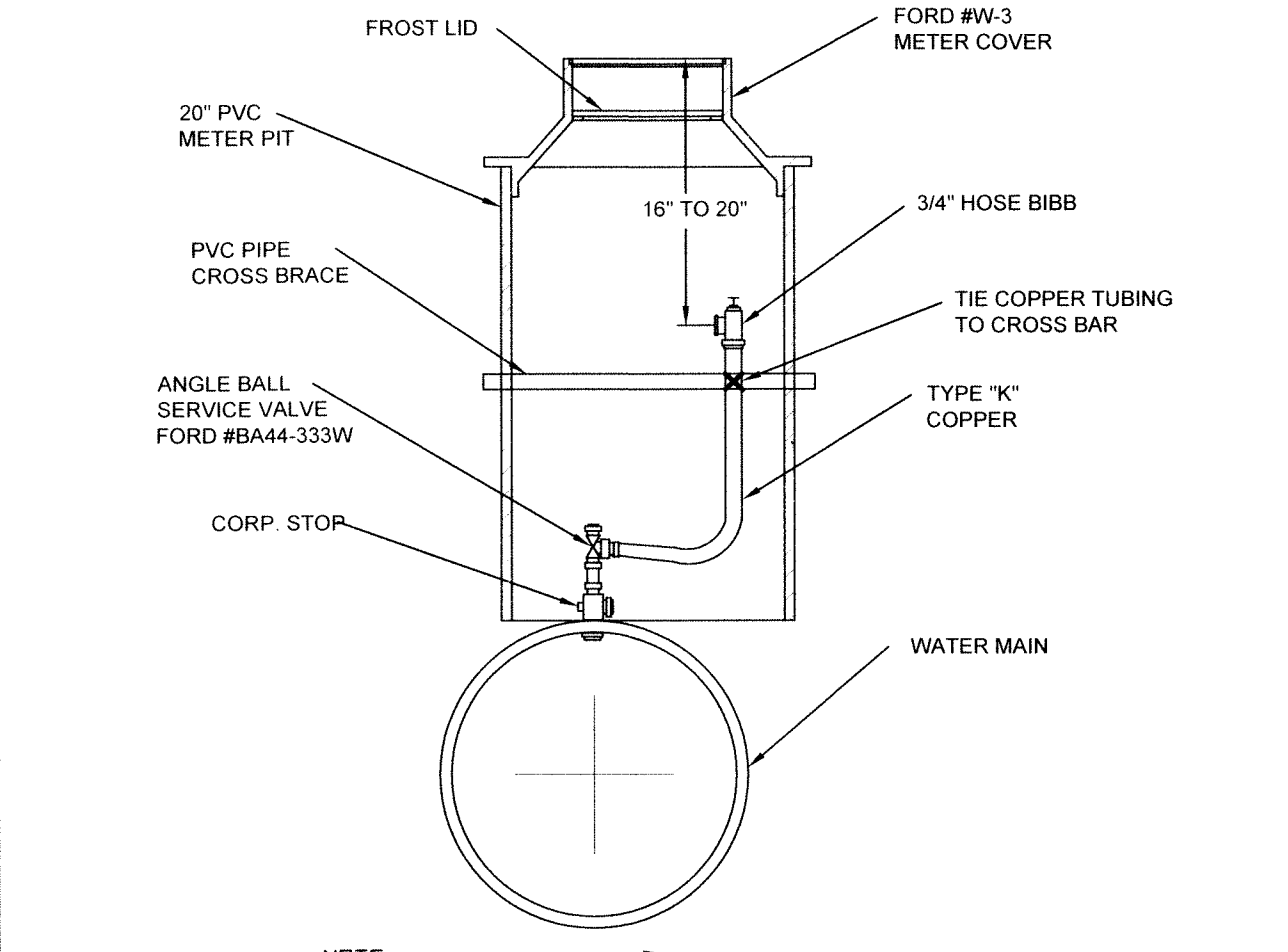
DEAD END DETAIL WITH TEMPORARY FIRE HYDRANT

5140



TYPICAL CREEK CROSSING & TRENCH DETAIL FOR WATER & SEWER FORCE MAINS

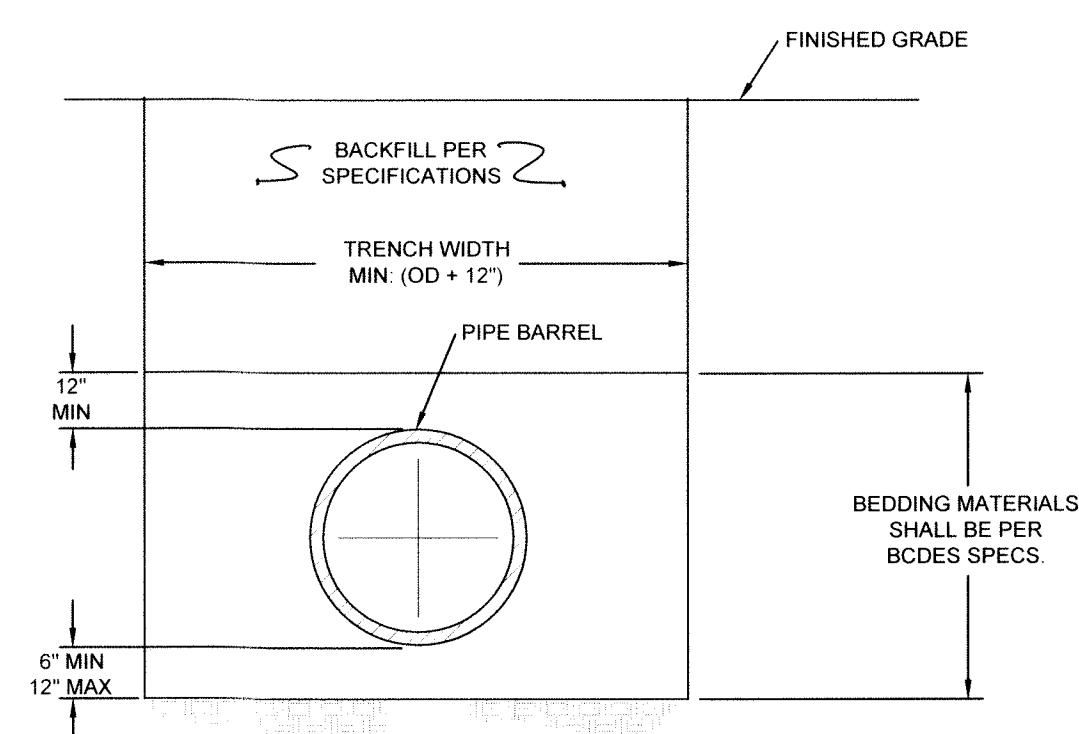
4170



- NOTE:
- 1) PIPE LESS THAN OR EQUAL TO 12" MUST USE 3/4" CORP. STOP, ANGLE BALL VALVE AND SERVICE PIPE.
 - 2) PIPE GREATER THAN 12" TO USE 1" CORP. STOP, ANGLE BALL VALVE AND SERVICE PIPE.

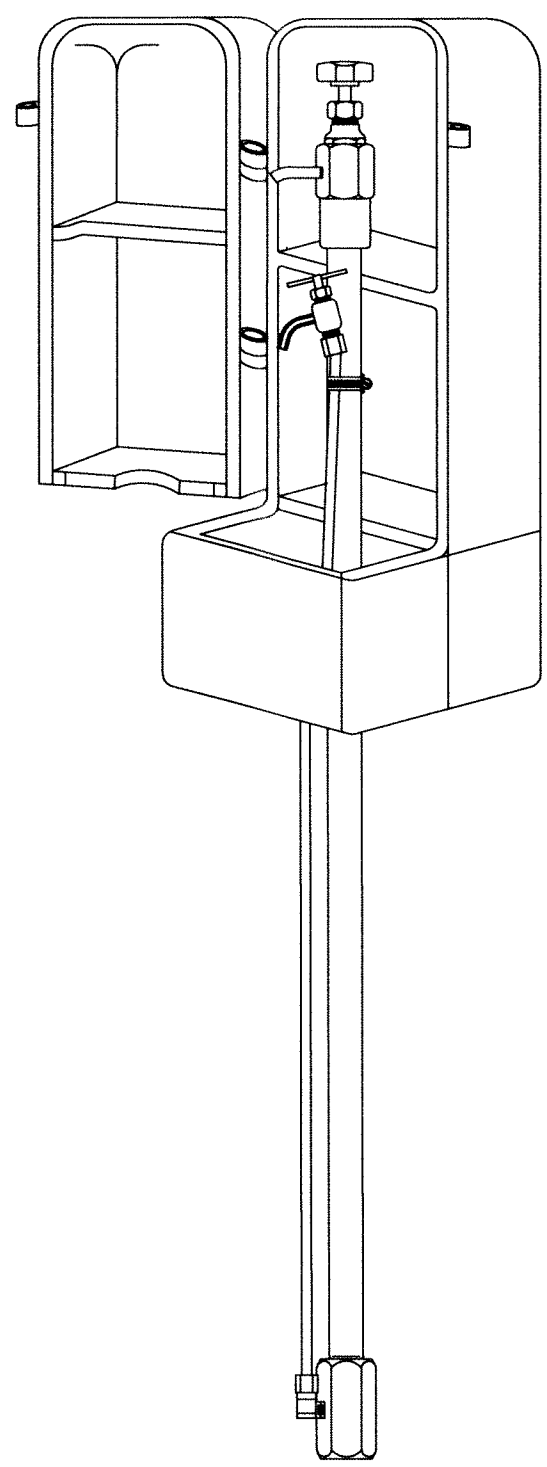
AIR RELEASE VALVE DETAIL

5290



TYPICAL TRENCH DETAIL WATER MAIN INSTALLATION

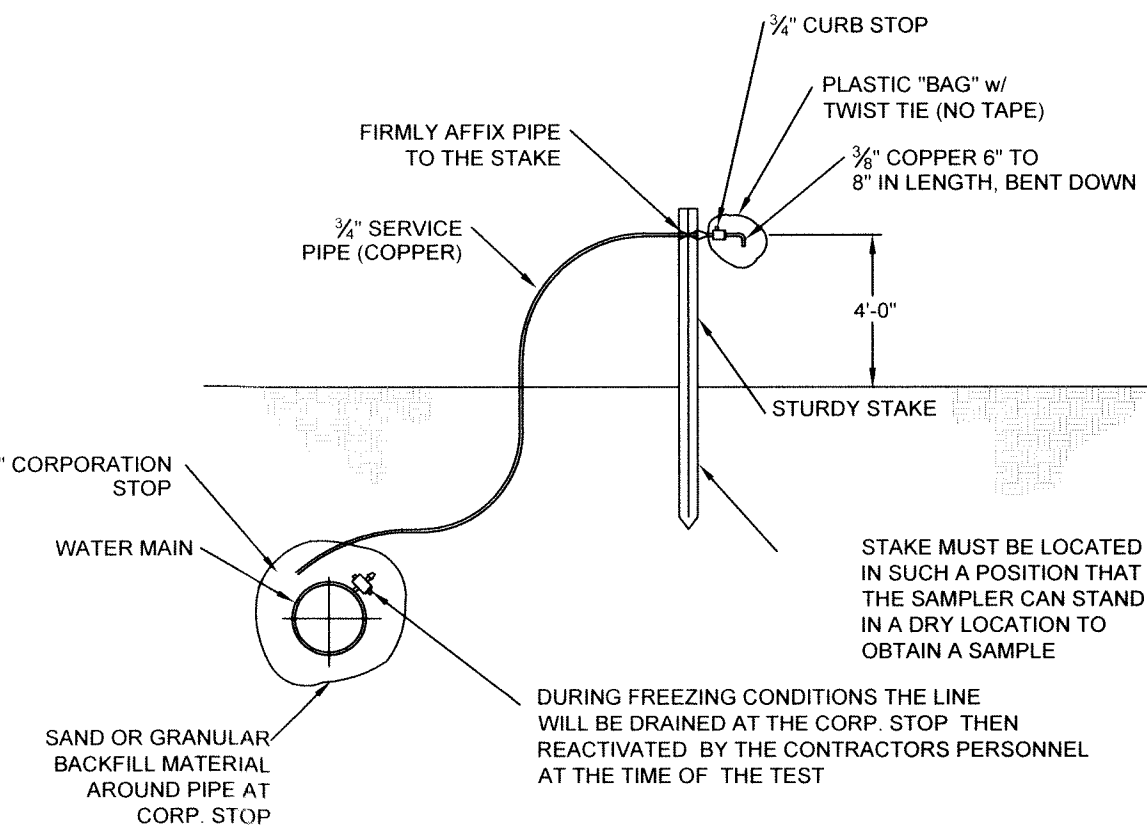
5280



- NOTE:
- 1) SAMPLING STATIONS SHALL BE INSTALLED PER BCWS SPECS.

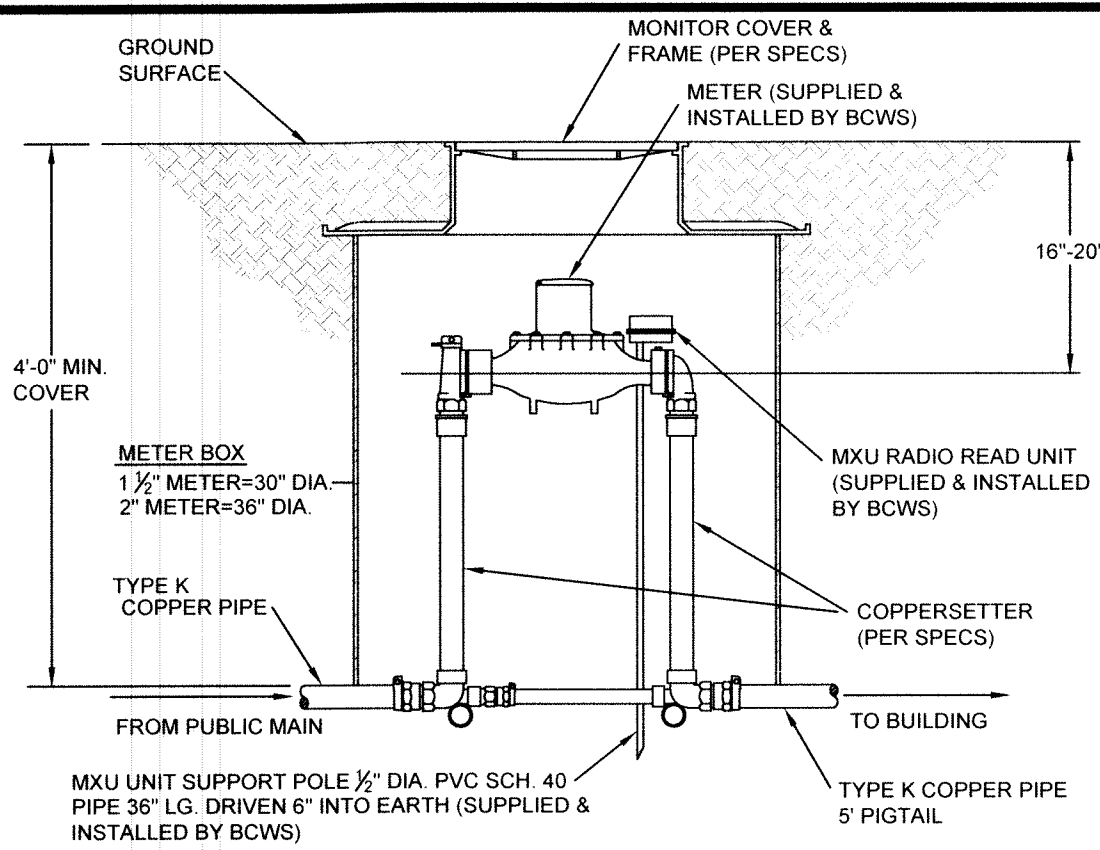
PERMANENT LAB SAMPLING STATION

5270



TEMPORARY PURITY TEST STATION

5260

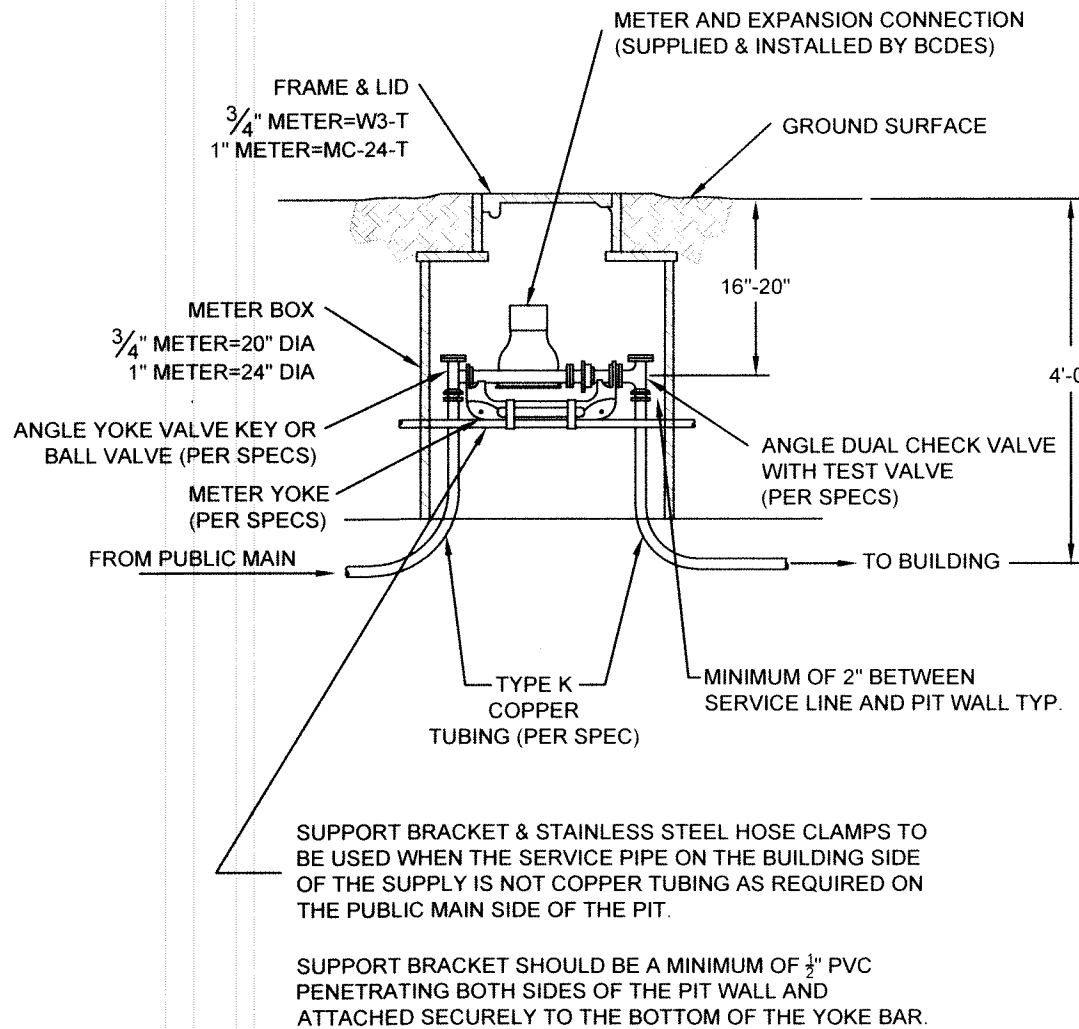


METER TYPE	LAYING LENGTH
1 1/2" C2 OMNI	13"
1 1/2" T2 OMNI	13"
2" C2 OMNI AS SUPPLIED BY BUTLER COUNTY SEE NOTE 3	17"
2" C2 OMNI FACTORY ORDERED	15 1/2"
2" T2 OMNI	17"

- NOTE:
- 1) FOR METERS 3" AND LARGER, REFER TO THE STD. INSTALLATION FOR 3" AND LARGER WATER METERS.
 - 2) ALL DOMESTIC WATER METERS SHALL BE SENSUS OMNI C2 TYPES FOR SIZES OF 1 1/2" AND LARGER NON-DOMESTIC, (IE. DEDUCT. IRRIGATION), MAY BE EITHER SENSUS OMNI T2 OR C2 TYPES FOR SIZES OF 1 1/2" AND LARGER.
 - 3) BUTLER COUNTY ORDERS 2" C2 OMNI METERS WITH A 17" LAYING LENGTH TO ACCOMMODATE THE STANDARD COPPERSETTER. IF THE FACTORY ORDERED SIZE IS UTILIZED AN ADAPTER FLANGE PLATE WILL BE REQUIRED.

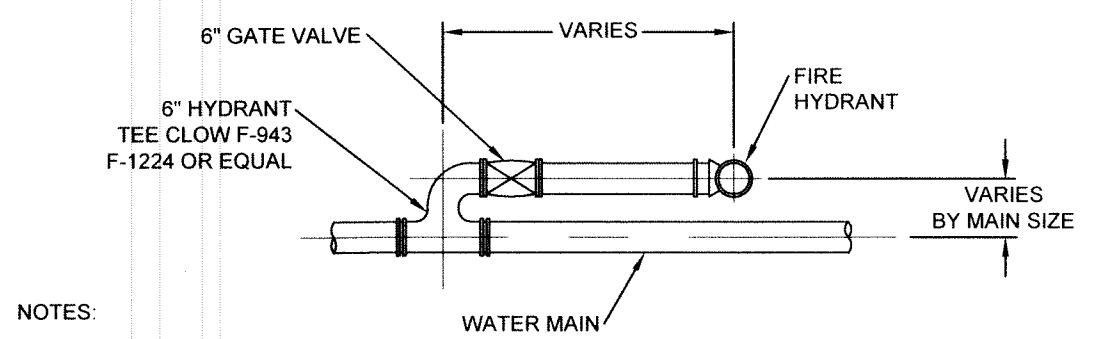
STANDARD INSTALLATION FOR 1-1/2" & 2" WATER METER SETTINGS

5170



STANDARD INSTALLATION FOR 3/4" AND 1" WATER METER SETTINGS

5150

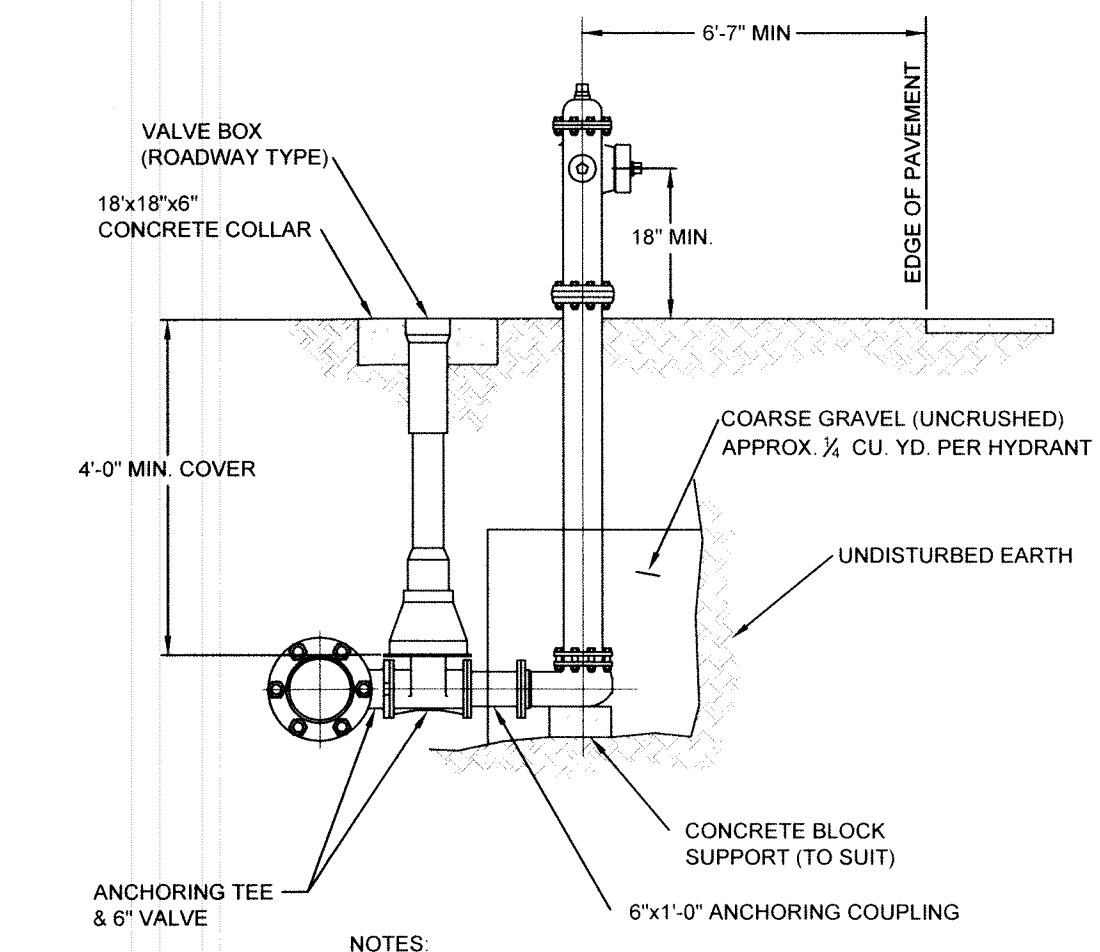


NOTES:

- 1) FITTINGS TO BE MECHANICAL JOINT HYDRANT ANCHOR FITTINGS.
- 2) SEE TYPICAL FIRE HYDRANT INSTALLATION DETAIL FOR ADDITIONAL DETAILS (#5110).

SETTING FOR HYDRANT ADJACENT TO MAIN

5120



NOTES:

- 1) VERIFY LOCATION OF F.H. RELATIVE TO WATER MAIN ON PLANS.
- 2) CHECK STREET DETAILS FOR RELATIONSHIP BETWEEN MAIN, STREET AND F.H.

TYPICAL FIRE HYDRANT INSTALLATION

5110

