MUNICIPALITY OF MONROEVILLE

ALLEGHENY COUNTY, PENNSYLVANIA

ORDINANCE NO. 2530

AN ORDINANCE OF THE MUNICIPALITY OF MONROEVILLE, ALLEGHENY COUNTY, PENNSYLVANIA, A HOME RULE CHARTER COMMUNITY, REPEALING ORDINANCE NOS. 744 AND 1533 AND ADOPTING NEW STANDARDS FOR CONSTRUCTION.

NOW, THEREFORE, BE IT ORDAINED AND ENACTED by the Council of the Municipality of Monroeville, County of Allegheny, Commonwealth of Pennsylvania, and it is hereby ordained and enacted by the authority of the same as follows:

Section 1. The Municipality of Monroeville desires to repeal Ordinance Nos. 744 and 1533 and adopt new Standards for Construction as more particularly described in Exhibit "A" attached hereto.

Section 2. All Ordinances or Resolutions or parts of Ordinances or Resolutions in conflict herewith are hereby repealed.

Section 3. This Ordinance shall take effect January 1, 2012.

ORDAINED AND ENACTED into law the 9th day of November 2011.

ATTEST:

Timothy J. Little
Municipal Manager

MUNICIPALITY OF MONROEVILLE

Gregory Erosenko
Mayor

ENTERED INTO LEGAL BOOK ON: November 19, 2011

STANDARDS FOR CONSTRUCTION

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STANDARDS FOR CONSTRUCTION

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STANDARDS FOR CONSTRUCTION

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GENERAL NOTES

1. THE PURPOSE OF THESE STANDARDS IS TO DEFINE THE MINIMUM ACCEPTABLE QUALITY OF MATERIALS AND WORKMANSHIP. THEY ARE NOT INTENDED TO PRECLUDE OTHER MATERIALS OR DESIGNS. OTHER MATERIALS AND/OR DESIGN DETAILS MAY BE PROPOSED, HOWEVER, THEY MAY ONLY BE USED WHEN DEEMED TO BE EQUAL OR BETTER THAN THE STANDARDS CONTAINED HEREIN, AND AFTER WRITTEN PERMISSION TO USE THE PROPOSED ALTERNATE MATERIALS OR DESIGN IS GRANTED BY THE MUNICIPALITY.

2. CONDITIONS AT THE SITE, WHICH CAN NOT ALWAYS BE ANTICIPATED, MAY NECESSITATE DEVIATIONS FROM STANDARD DETAILS; THEREFORE THE MUNICIPALITY RESERVES THE RIGHT TO DIRECT CHANGES IN THE FIELD AS NEEDED AT ITS DISCRETION.

3. MATERIALS AND CONSTRUCTION REQUIREMENTS SHALL CONFORM TO THESE DETAILS AND TO THE LATEST EDITION OF THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FORM 408 (PENNDOT PUBLICATION 408). PENNDOT MATERIALS CERTIFICATIONS MUST BE SUBMITTED TO THE MUNICIPALITY, OR ITS AUTHORIZED AGENT, FOR ALL MATERIALS DELIVERED TO THE SITE.

4. EROSION AND SEDIMENTATION CONTROL FACILITIES SHALL BE PROVIDED ON ALL SITES PURSUANT TO MUNICIPAL ORDINANCES, WHERE THE GROUND SURFACE IS DISTURBED. THESE FACILITIES SHALL BE DESIGNED IN ACCORDANCE WITH THE CURRENT MANUALS PUBLISHED BY THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THE ALLEGHENY COUNTY CONSERVATION DISTRICT.

5. ALL DISTURBED AREAS SHALL BE PROMPTLY SEEDED, MULCHED AND FERTILIZED. THE FOLLOWING MINIMUM SEEDING FORMULAS SHALL BE USED IN ACCORDANCE WITH PENNDOT, PUBLICATION 408:

LAWN AREAS:	FORMULA B
SLOPE AREAS 3:1 AND STEEPER	FORMULA W
TEMPORARY SEEDING	FORMULA E

6. ALL TRENCHES FOR UTILITIES, INCLUDING STORM SEWERS, SANITARY SEWERS, WATERLINES GAS LINES, ELECTRIC LINES, TELEPHONE LINES, AND CABLE TELEVISION LINES CROSSING OR RUNNING IN MUNICIPAL CARTWAYS SHALL BE BACKFILLED WITH AASHTO No. 57 OR 2A CRUSHED STONE MECHANICALLY TAMPED TO PROVIDE 100 PERCENT OF THE DETERMINED DRY WEIGHT DENSITY IN ACCORDANCE WITH PTM No. 112 OR PTM No. 402. NO PIPES IN ANY RIGHT-OF-WAY SHALL BE BACKFILLED WITHOUT INSPECTION BY THE MUNICIPALITY. ALL UTILITIES SHALL HAVE A MINIMUM COVER OF 24 INCHES. SLAG IS NOT PERMITTED AS BACKFILL.

7. ALL STORM SEWERS WITHIN MUNICIPAL RIGHTS-OF-WAY SHALL BE A MINIMUM OF 15 INCH DIAMETER. ALL STORM SEWERS SHALL BE LAID TO LINE AND GRADE WITH A FULL MOON.

8. THE MUNICIPALITY MUST BE NOTIFIED 72 HOURS PRIOR TO ANY WORK WITHIN A MUNICIPAL RIGHT-OF-WAY, OR PRIOR TO THE START OF ANY PHASE OF CONSTRUCTION OR ANY APPROVED DEVELOPMENT PLAN.

9. WHEREIN THESE STANDARDS, DESIGNATIONS TO AASHTO SIEVE SIZES ARE MADE, THEY ARE CROSS REFERENCED TO THE OLD PENNDOT DESIGNATIONS AS FOLLOWS:

PENNDOT	AASHTO
4	1
3A	3
2B	57
PA#2	67
1B	8
1A	10
2A	NONE

REVISIONS		
NO.	DESCRIPTION	DATE

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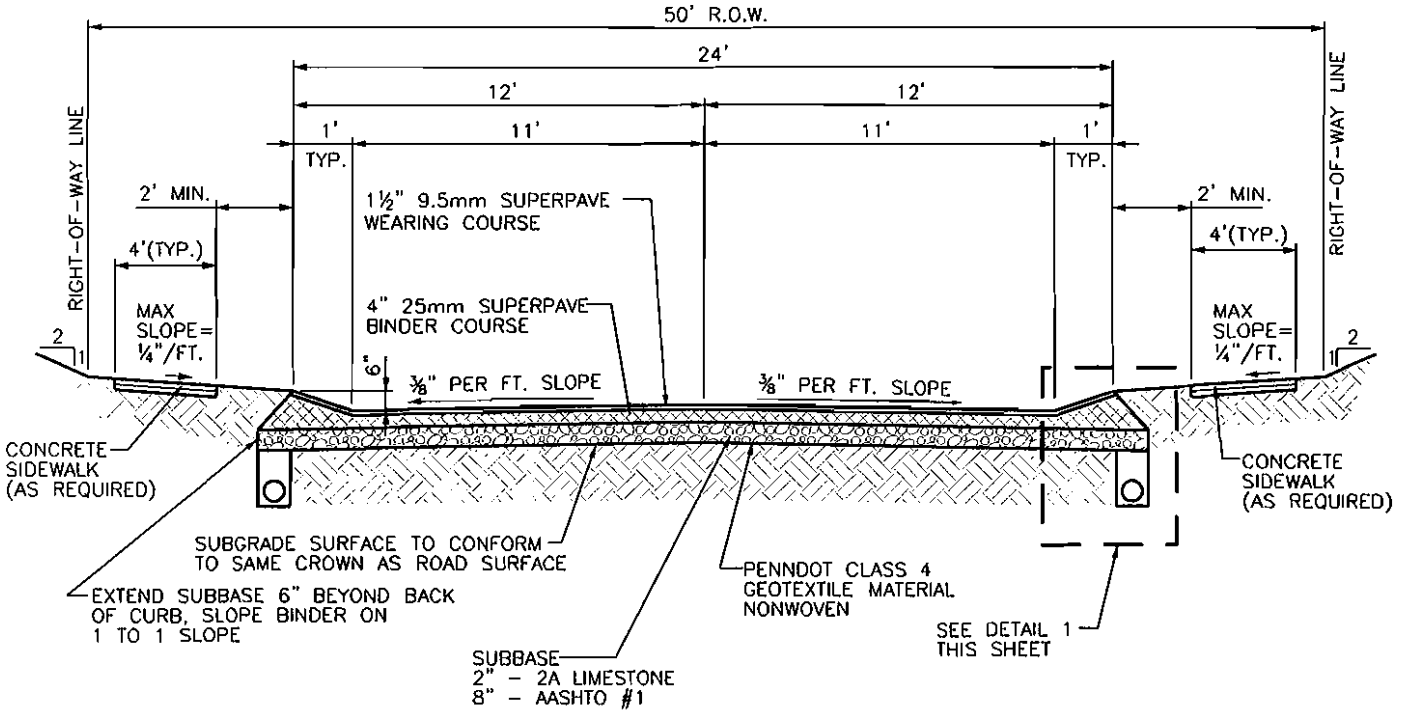
$DATE$/$TIME$

STANDARDS FOR CONSTRUCTION GENERAL NOTES

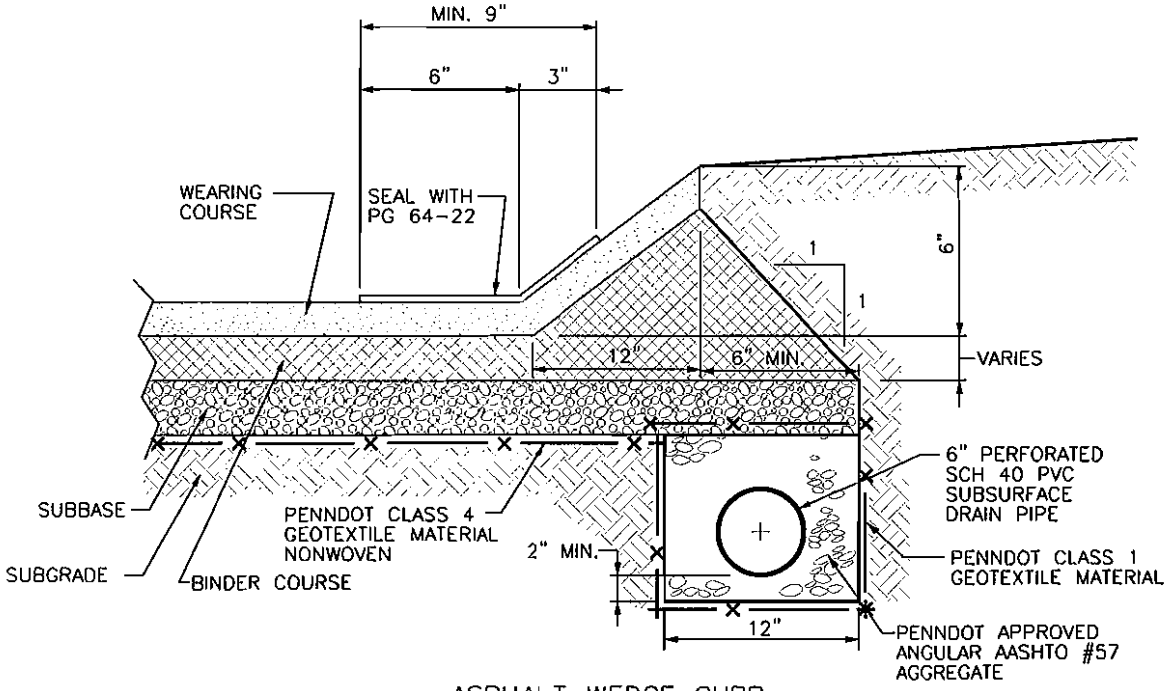
Drawing:

DT-01

MONROEVILLE



TYPICAL STREET SECTION



ASPHALT WEDGE CURB

DETAIL 1

NOTES:

1. WEARING COURSE SHALL BE SRL-H OR BETTER.

NOT TO SCALE

REVISIONS		
NO.	DESCRIPTION	DATE

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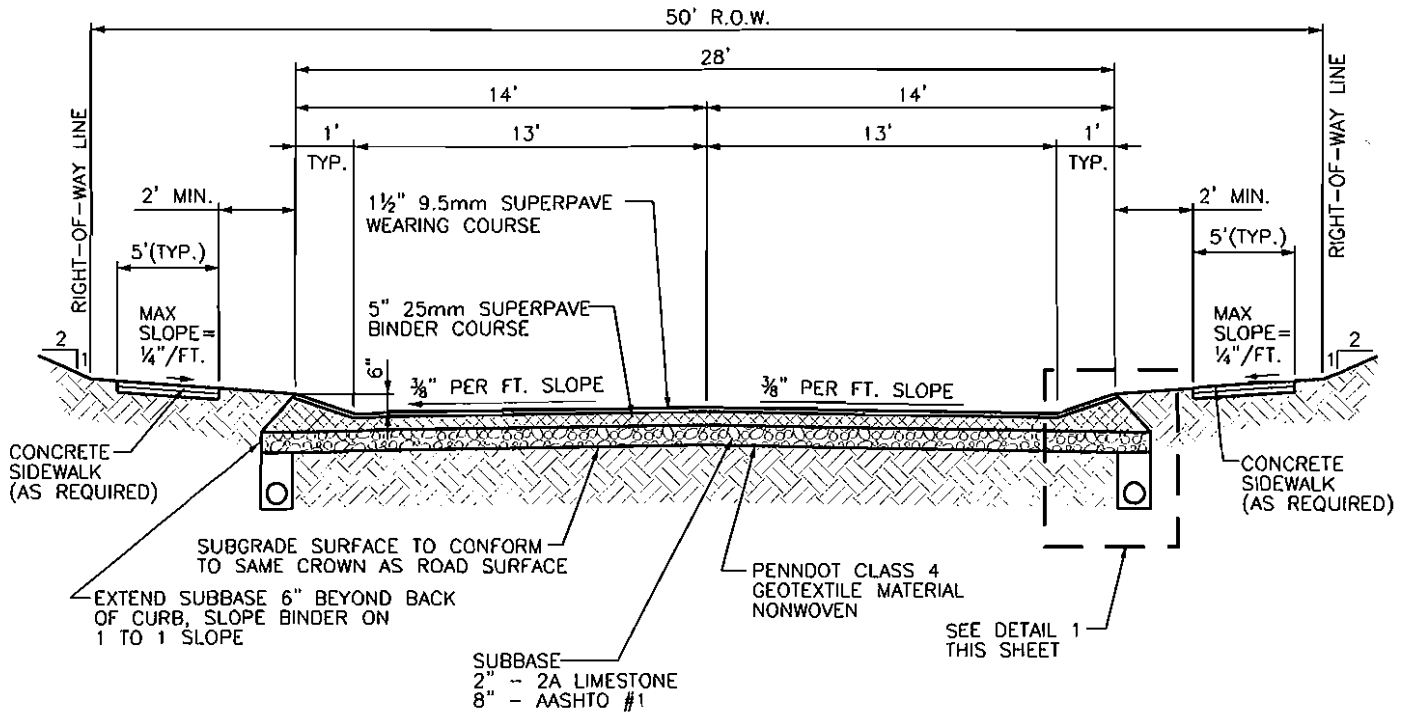
TYPICAL STREET SECTION
LOCAL STREET

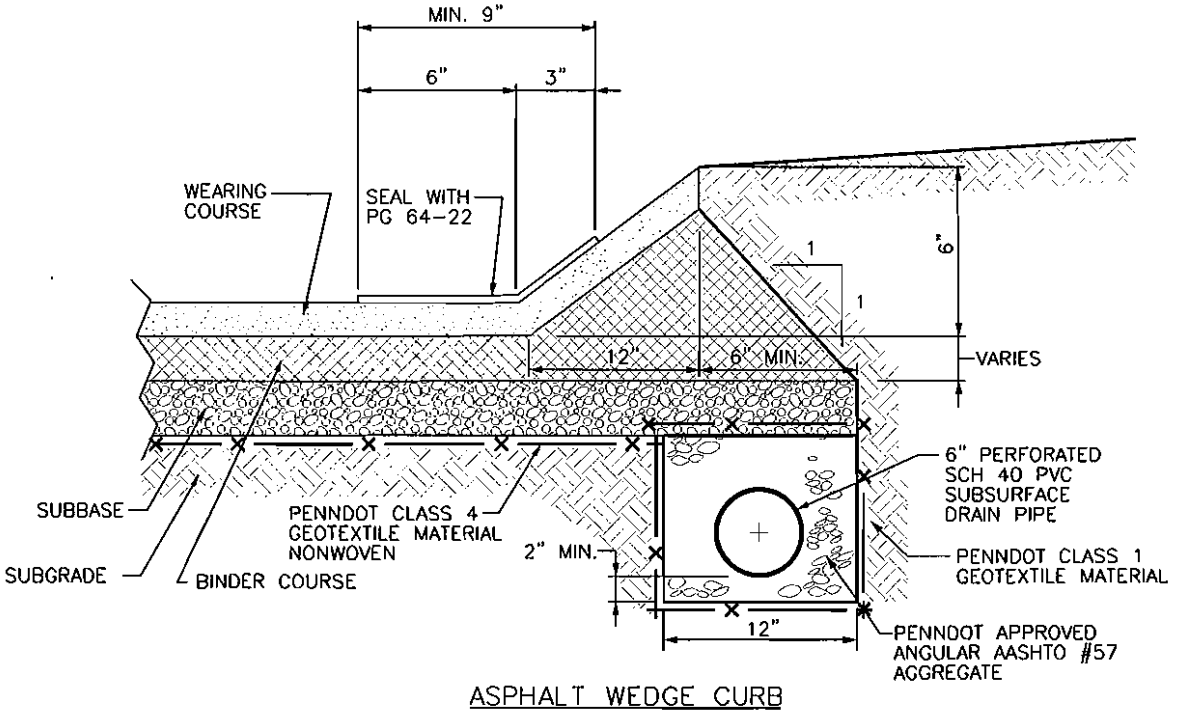
Drawing:

DT-05

MONROEVILLE



TYPICAL STREET SECTION



ASPHALT WEDGE CURB

DETAIL 1

NOTES:

1. WEARING COURSE SHALL BE SRL-H OR BETTER.

NOT TO SCALE

REVISIONS		
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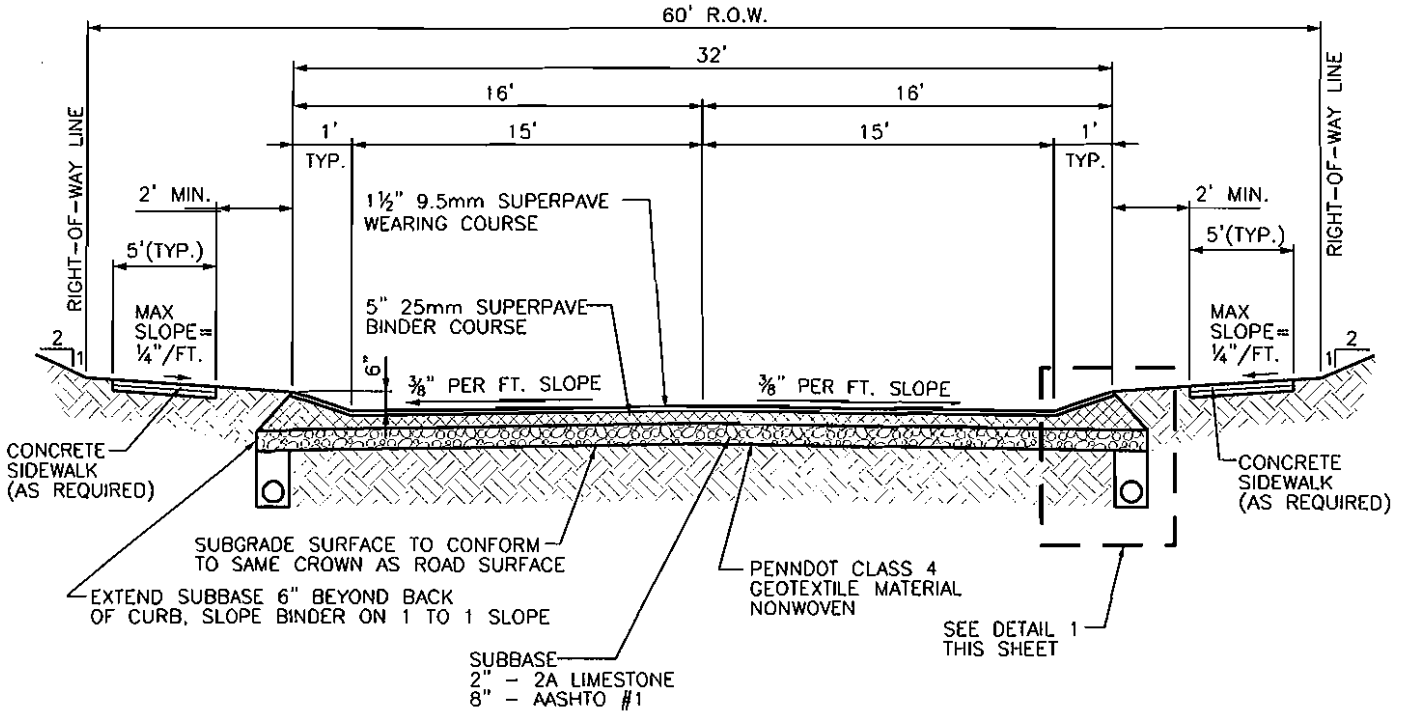
TYPICAL STREET SECTION
HEAVY DUTY LOCAL STREET

Drawing:

DT-06



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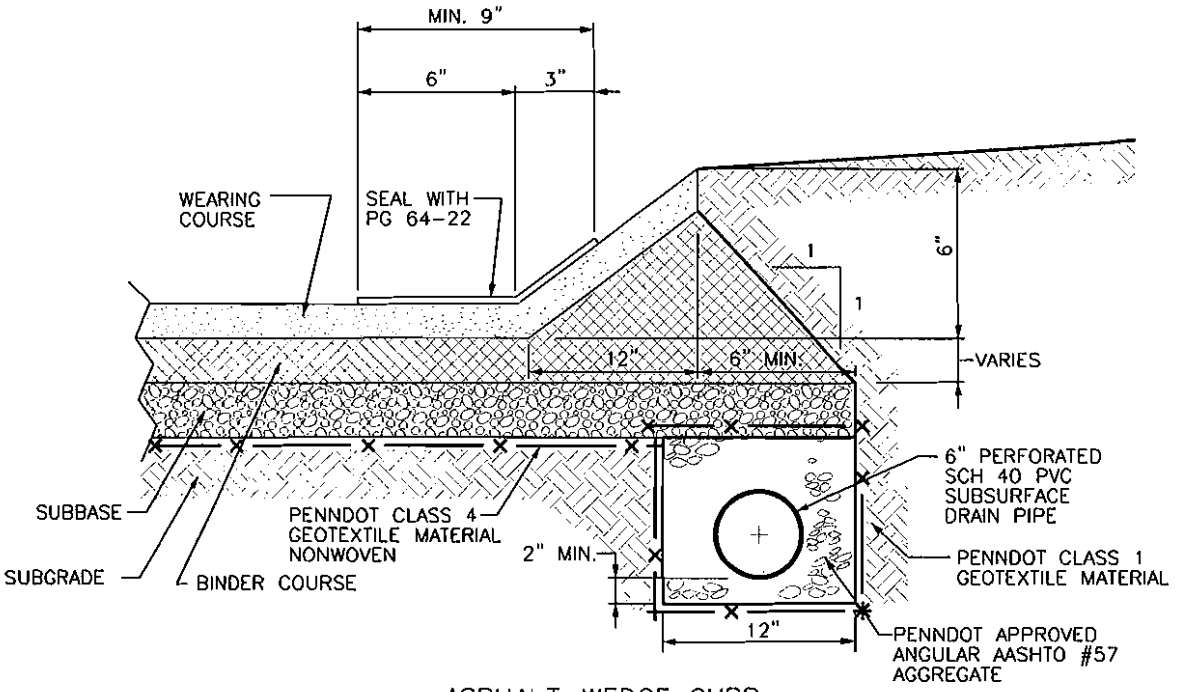

ASPHALT WEDGE CURB

DETAIL 1

NOTES:

1. WEARING COURSE SHALL BE SRL-H OR BETTER.

NOT TO SCALE

REVISIONS		
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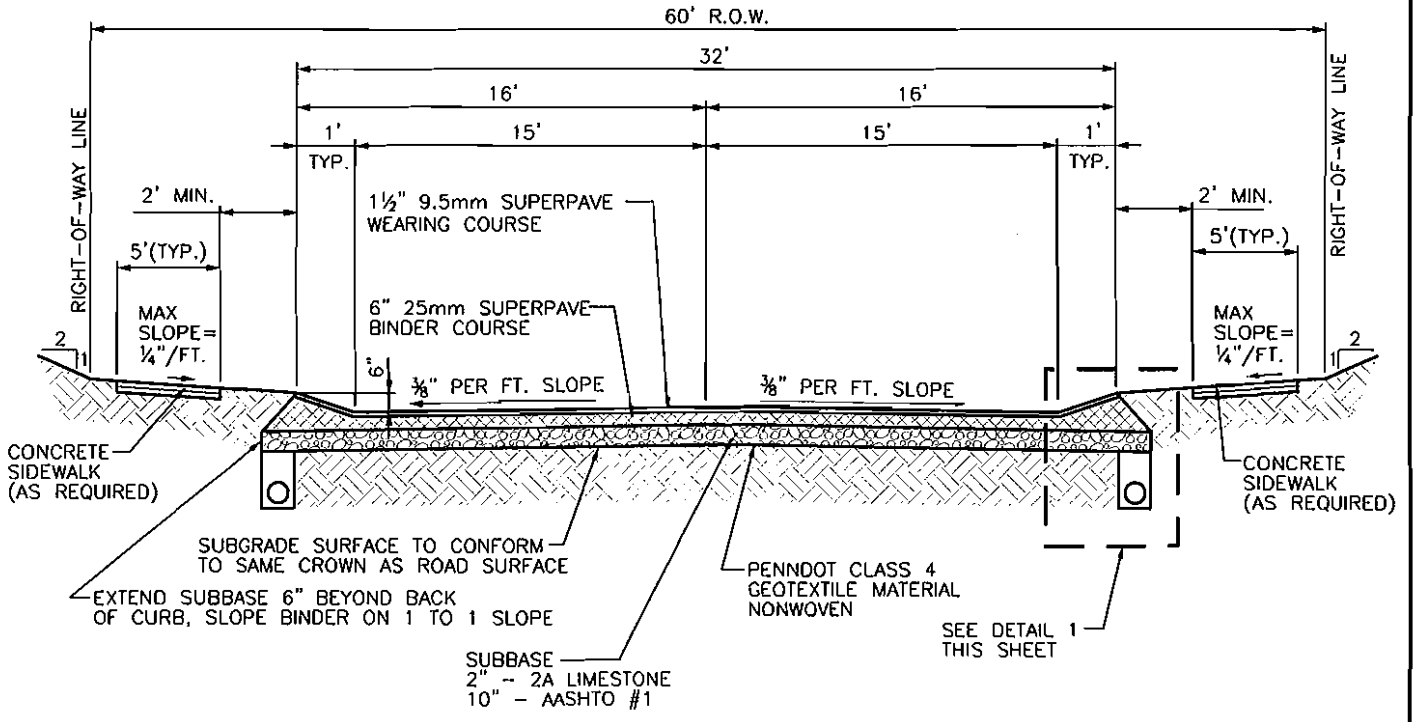
TYPICAL STREET SECTION
COLLECTOR STREET

Drawing:

DT-07



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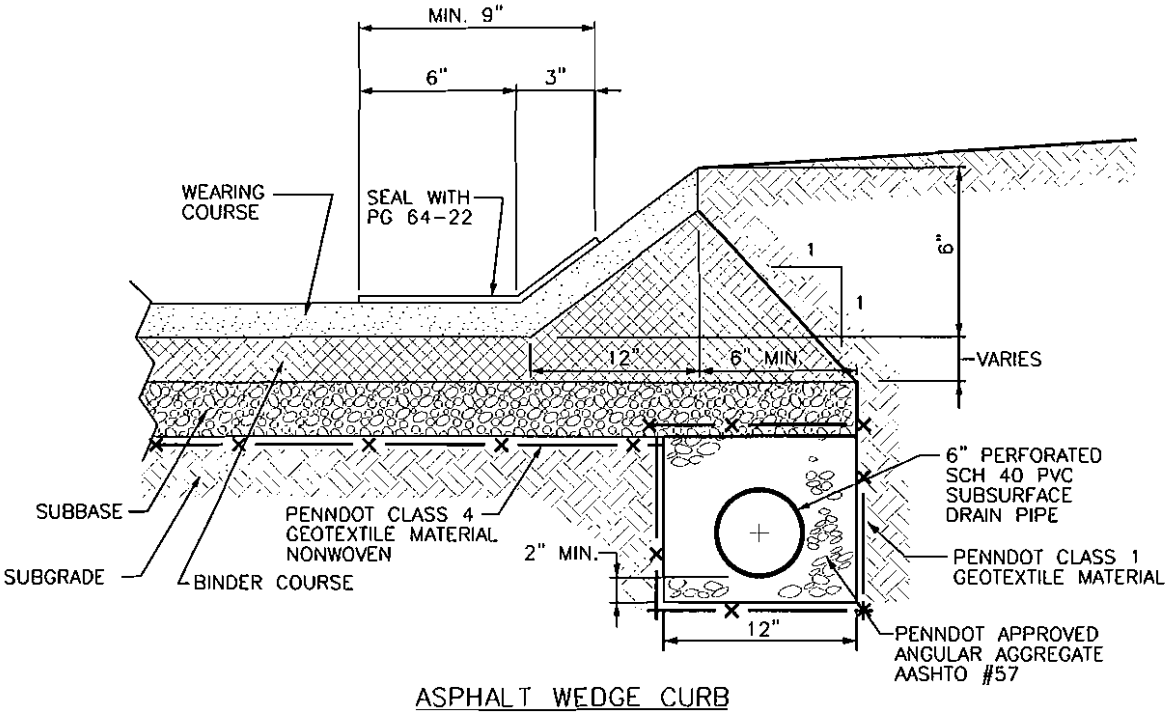

ASPHALT WEDGE CURB

DETAIL 1

NOTES:

1. WEARING COURSE SHALL BE SRL-H OR BETTER.

NOT TO SCALE

REVISIONS		
NO.	DESCRIPTION	DATE

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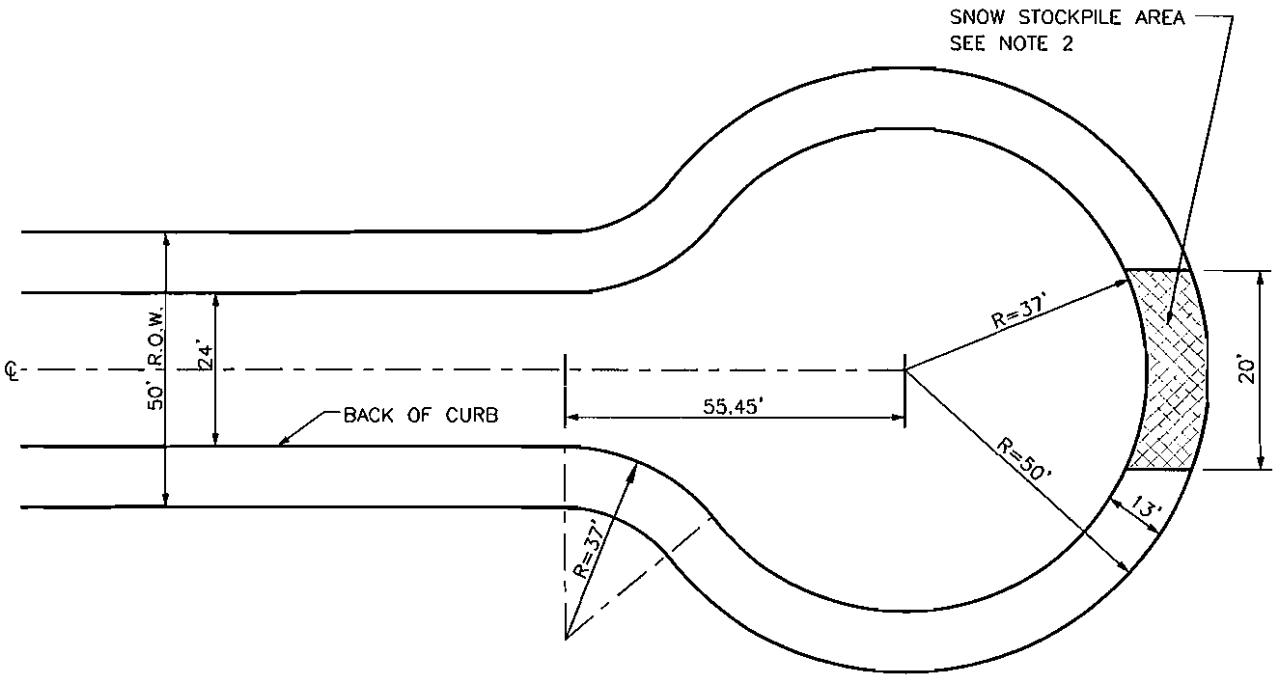
TYPICAL STREET SECTION
ARTERIAL STREET

Drawing:

DT-08

MONROEVILLE



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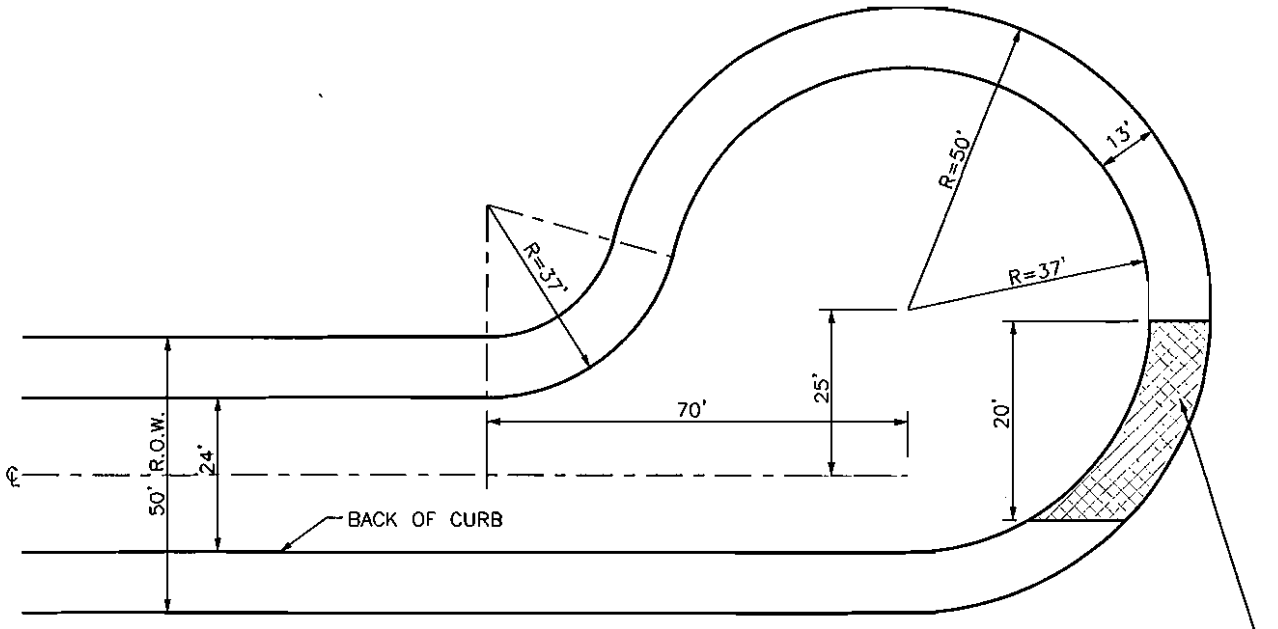


NOTES:

1. SIDEWALKS OMITTED FOR CLARITY PURPOSES
2. PERMITTED USES LIMITED TO SIDEWALKS, LAWN AREA & UNDERGROUND UTILITIES.

OFFSET

NOT TO SCALE

REVISIONS		
NO.	DESCRIPTION	DATE

$FILEL$

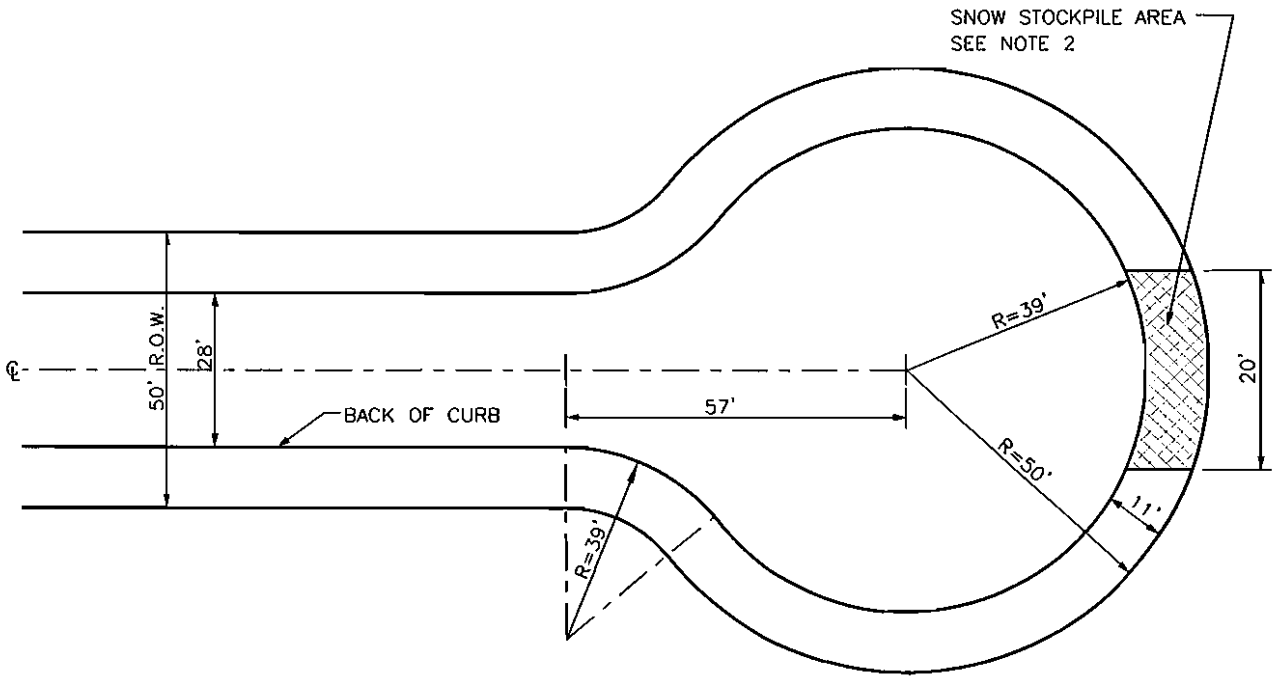
$DATE$/$TIME$

TYPICAL AND OFFSET CUL DE SAC LOCAL STREET

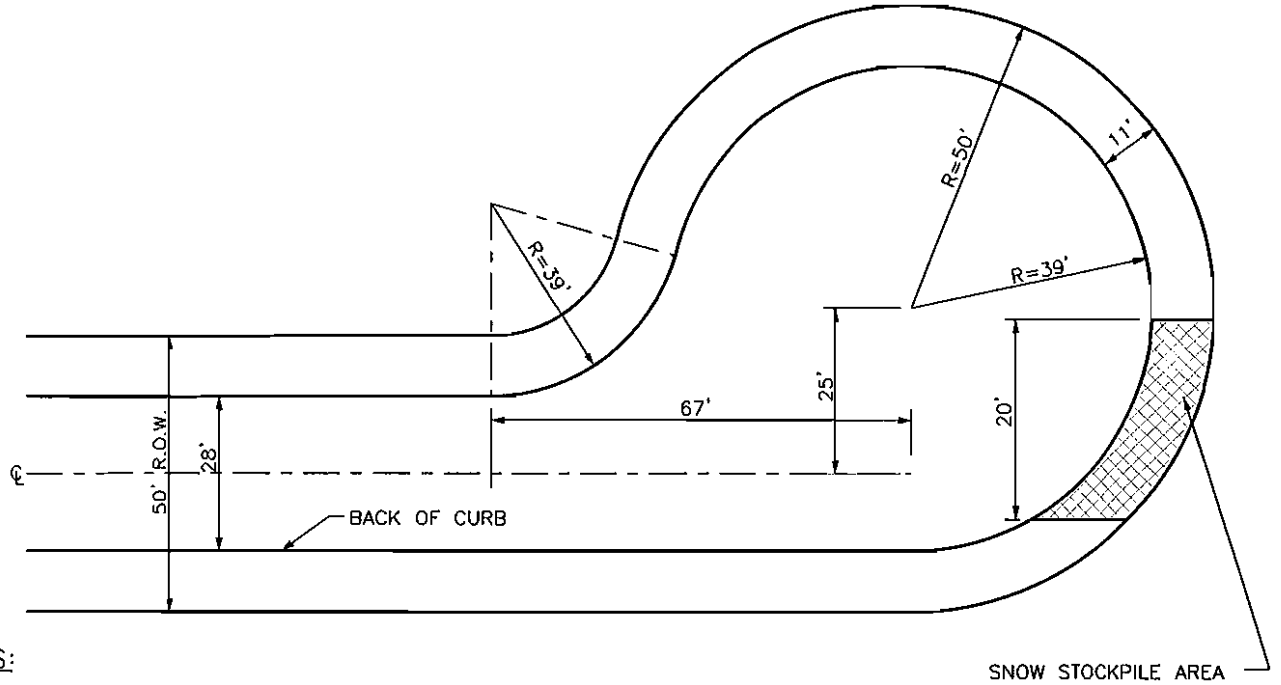
Drawing:

DT-09

MONROEVILLE



TYPICAL



NOTES:

1. SIDEWALKS OMITTED FOR CLARITY PURPOSES
2. PERMITTED USES LIMITED TO SIDEWALKS, LAWN AREA & UNDERGROUND UTILITIES.

OFFSET

NOT TO SCALE

REVISIONS		
NO.	DESCRIPTION	DATE

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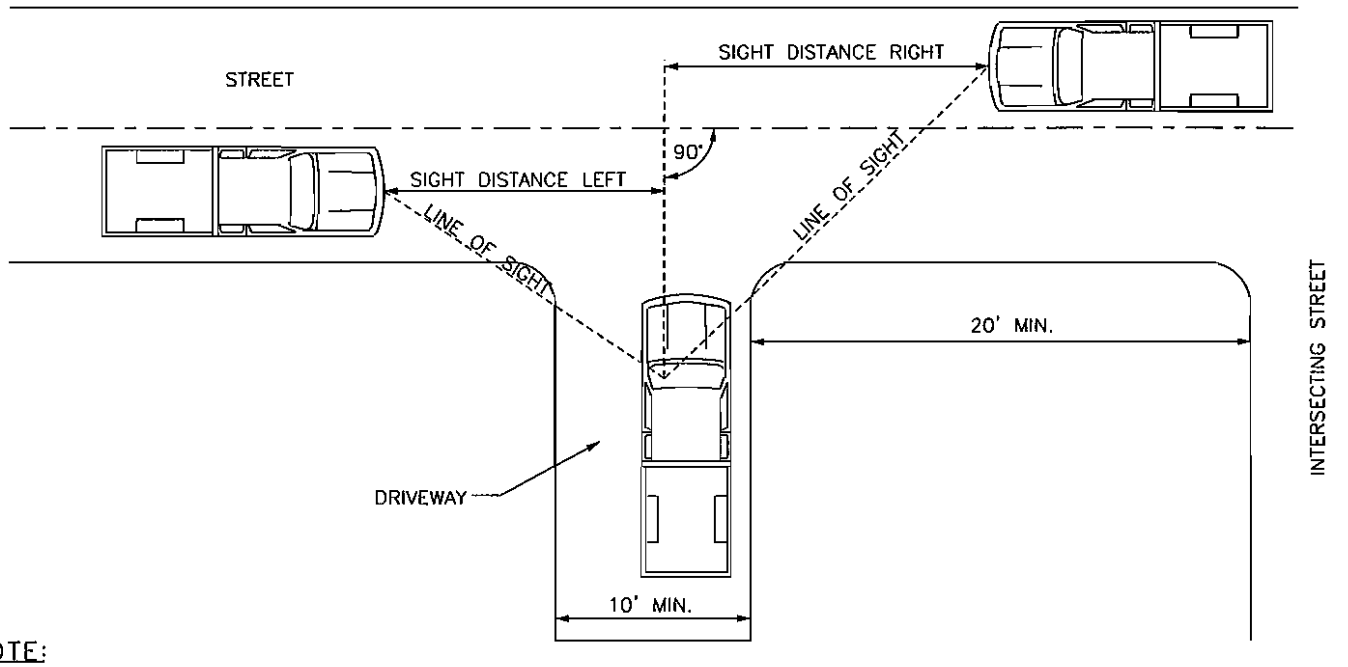
$DATE$/$TIME$

TYPICAL AND OFFSET CUL DE SAC HEAVY DUTY LOCAL STREET

Drawing#

DT-10

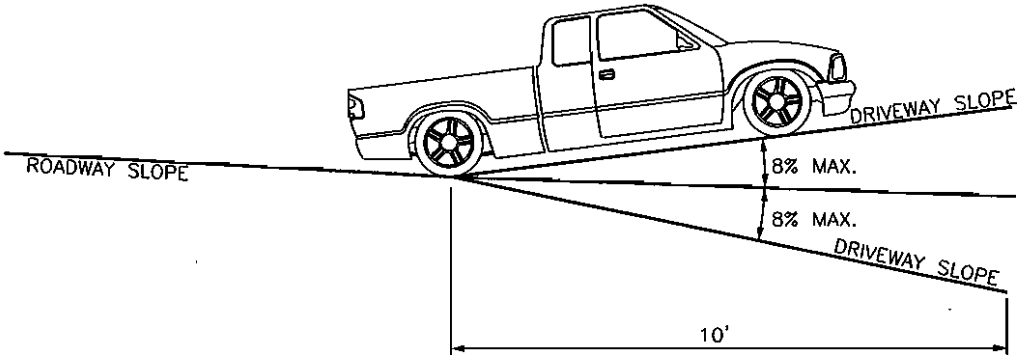
MONROEVILLE



NOTE:

1. REFER TO ROADWAY OCCUPANCY ORDINANCE SIGHT DISTANCE REQUIREMENTS AND PENNDOT FORM M-950S

PLAN



NOT TO SCALE

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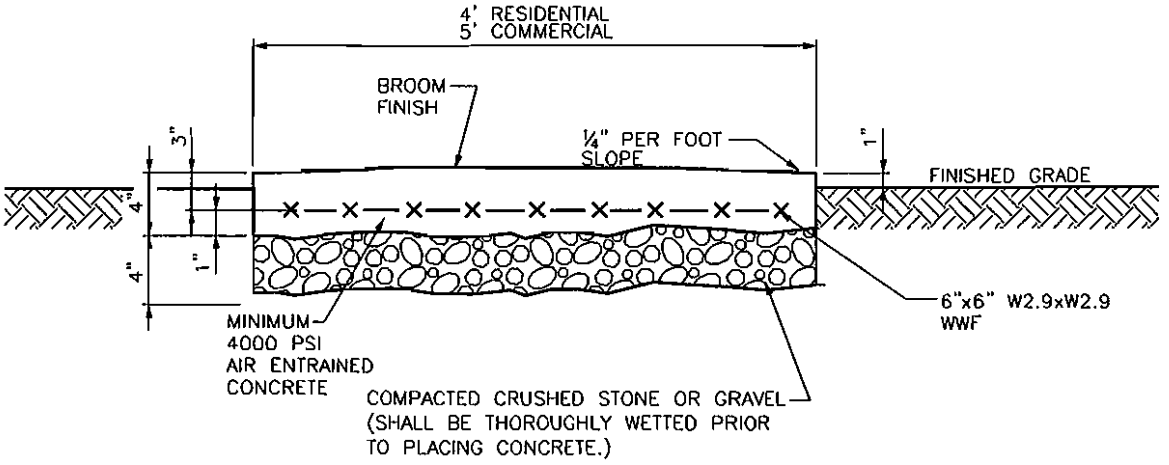
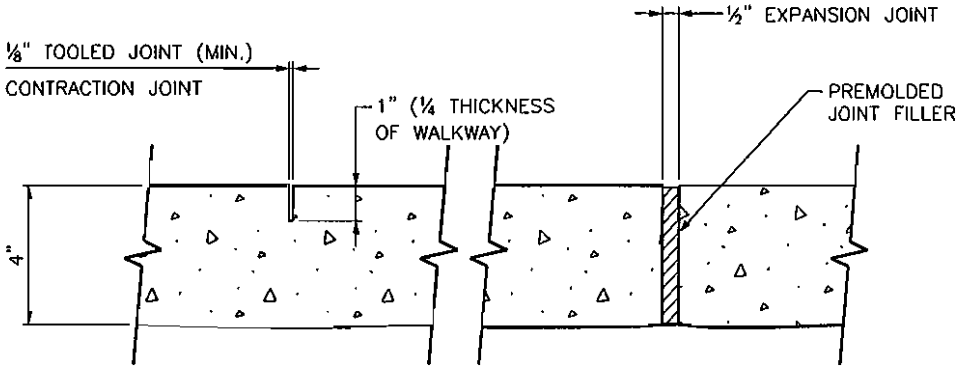
DRIVEWAY REGULATIONS

Drawing:

DT-11

MONROEVILLE





CONTRACTION - EXPANSION JOINT DETAIL

NOTES:

1. CONTRACTION JOINTS TO BE CROSS SCORED APPROXIMATELY EVERY 4 FEET. INSTALL ½" PREMOLDED EXPANSION JOINTS EVERY 24 FEET AND AT BACK OF CURB, CHANGE OF DIRECTION, OTHER WALK, UTILITY APPURTENANCE, OR FACE OF STRUCTURE.
2. PROVIDE MINIMUM 6" THICKNESS CONCRETE FOR APRONS AND SIDEWALKS CROSSING DRIVEWAYS, ROADWAYS, AND AREAS SUBJECT TO VEHICULAR TRAFFIC.
3. WWF MUST BE SUPPORTED ON CHAIRS

NOT TO SCALE

REVISIONS		
NO.	DESCRIPTION	DATE

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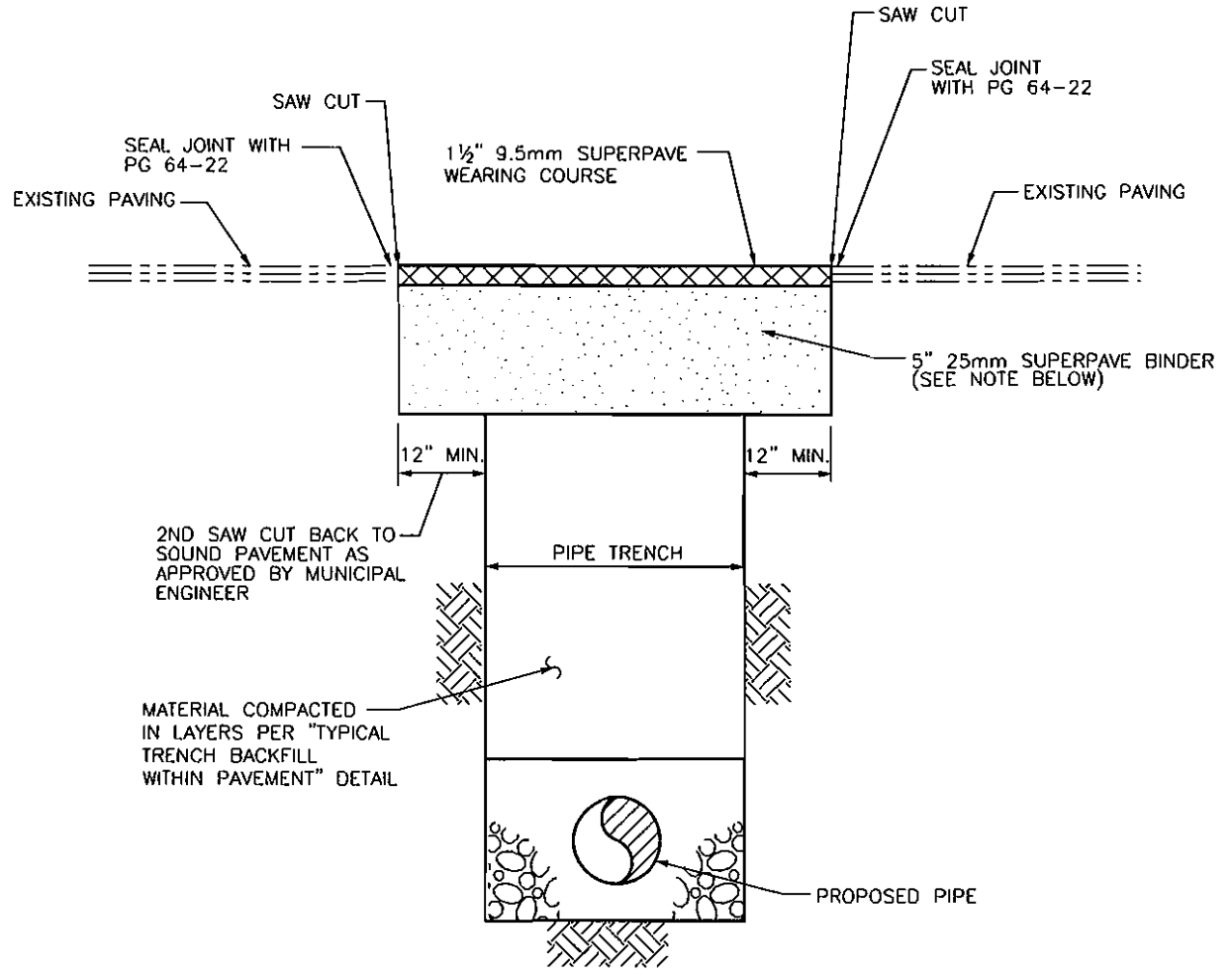
CONCRETE SIDEWALK

Drawing:

DT-12

MONROEVILLE



NOTES:

1. HMA WEARING COURSE, PG 64-22, 9.5mm SUPERPAVE MIX SHALL BE 1½" AFTER COMPACTION
2. HMA BINDER COURSE, PG 64-22, 25mm SUPERPAVE MIX SHALL BE AS THICK AS EXISTING OR 5" (MIN.), WHICHEVER IS GREATER.
3. IF ASPHALT PLANTS ARE CLOSED, TEMPORARILY RESTORE TRENCH BY FILLING WITH PENNDOT APPROVED ANGULAR AASHTO #57 TO WITHIN 2" OF ROAD SURFACE, FOLLOWED BY COMPACTING COLD PATCH MATERIAL FLUSH WITH ADJOINING ROAD SURFACE.
4. SAW CUT TWICE
   ONE CUT BEFORE CONSTRUCTION
   ONE CUT BEFORE FINAL PAVING

NOT TO SCALE

REVISIONS		
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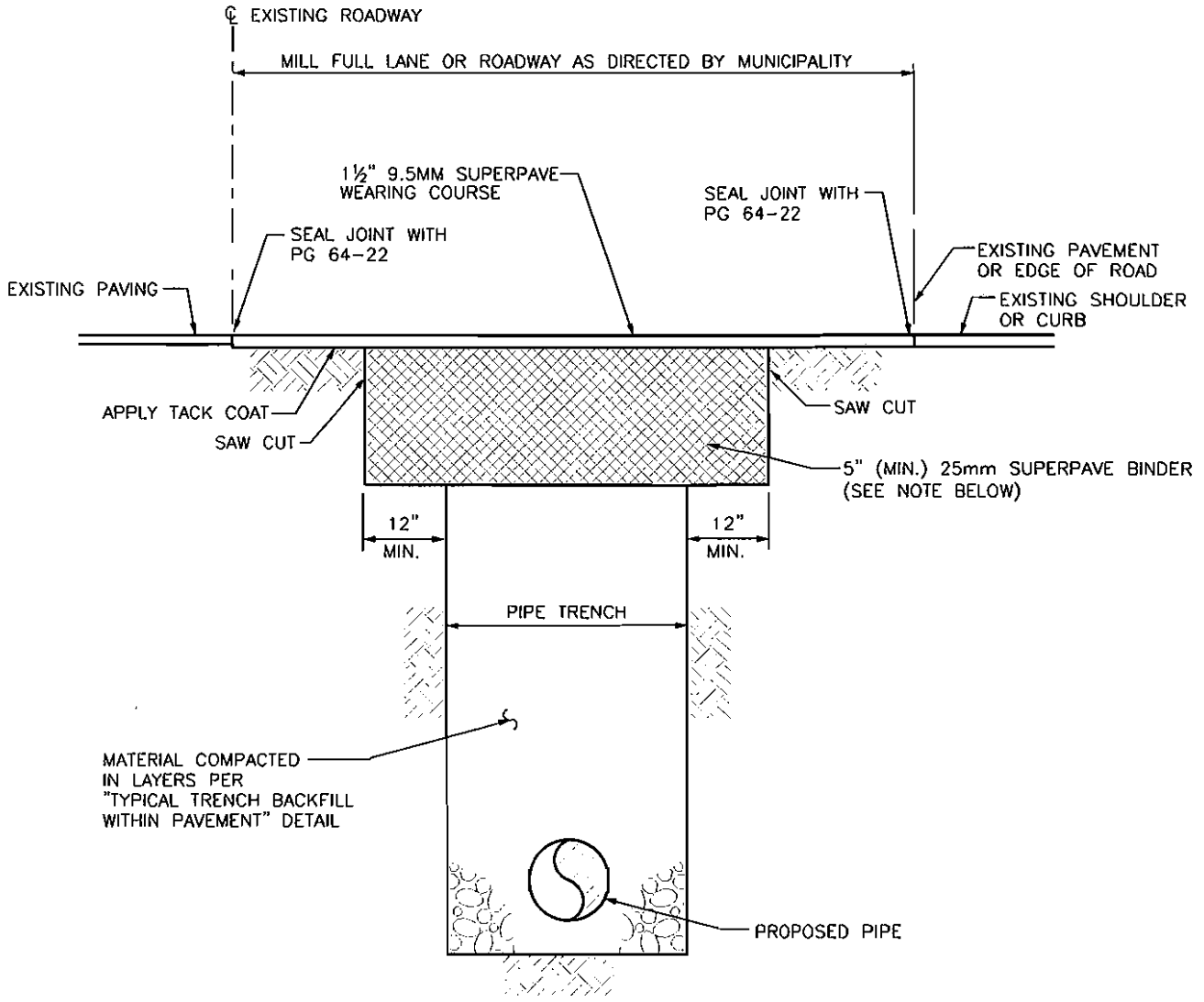
$DATE$/$TIME$

PIPE TRENCH ASPHALT PAVEMENT REPLACEMENT

Drawing:

DT-20

MONROEVILLE



NOTES:

1. HMA WEARING COURSE, PG 64-22, 9.5mm SUPERPAVE MIX SHALL BE 1½" AFTER COMPACTION
2. HMA BINDER COURSE, PG 64-22, 25mm SUPERPAVE MIX SHALL BE AS THICK AS EXISTING OR 5" (MIN.), WHICHEVER IS GREATER.
3. MILL THE EXISTING ROAD SURFACE TO A DEPTH OF 1½".
4. REPAINT ALL PAVEMENT MARKERS.
5. PAVEMENT MILLING AND REPLACEMENT SHALL EXTEND 10 FEET LONGITUDINALLY IN BOTH DIRECTIONS OF THE EXCAVATION.

NOT TO SCALE

REVISIONS		
NO.	DESCRIPTION	DATE

$FILE$

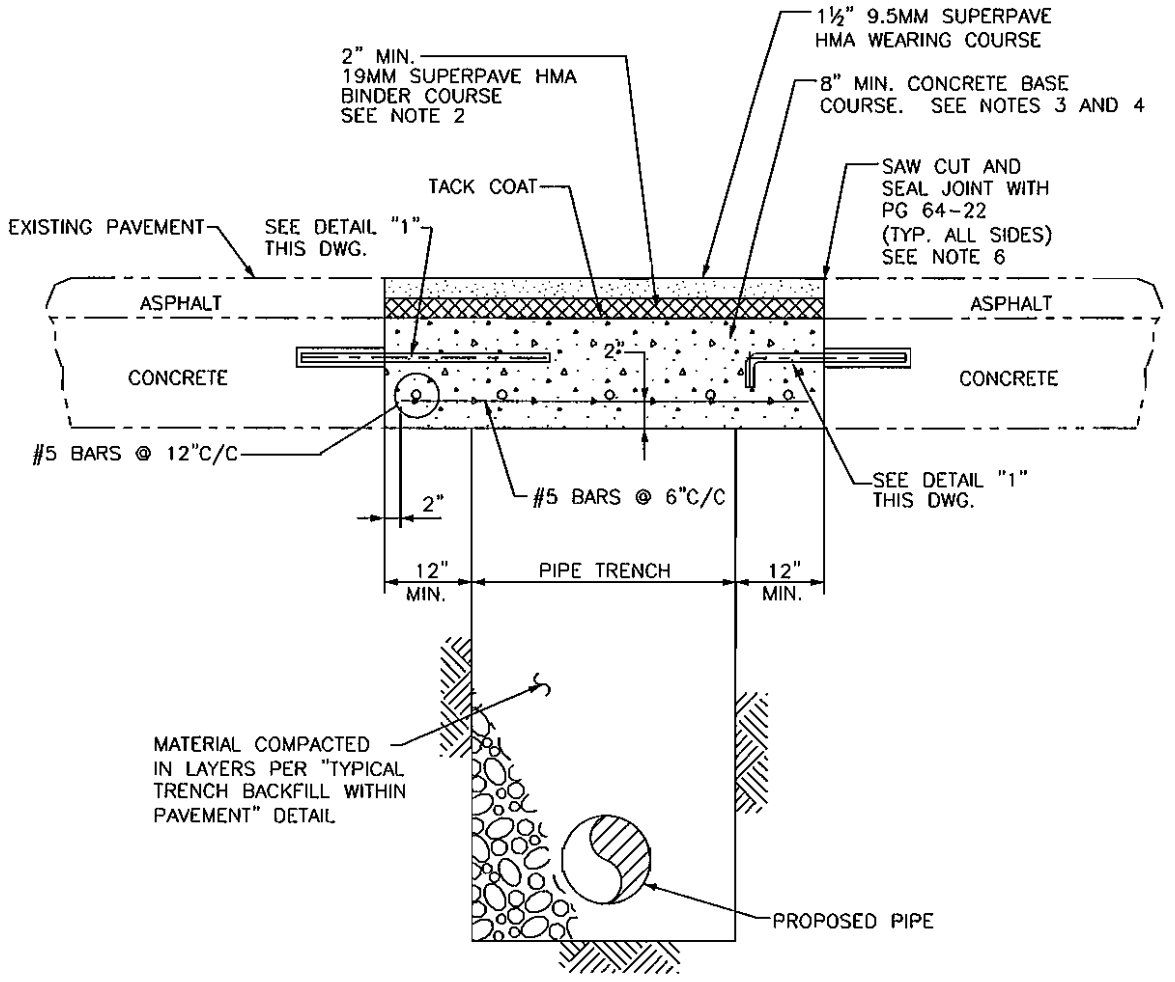
$DATE$/$TIME$

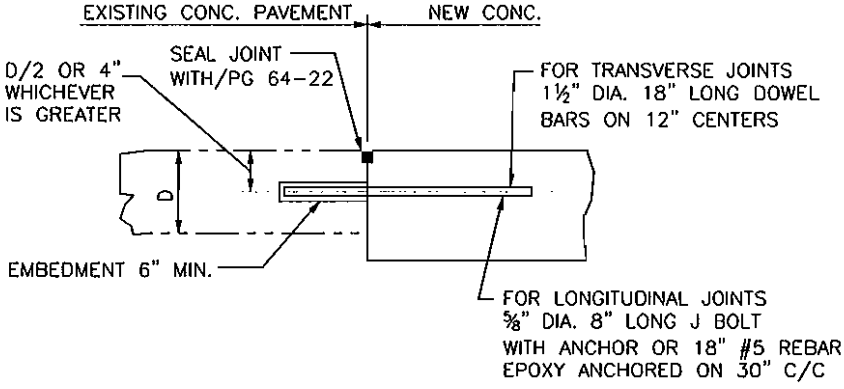
PIPE TRENCH AND FULL LANE/ROADWAY ASPHALT PAVEMENT REPLACEMENT

Drawing:

DT-21

MONROEVILLE





DETAIL "1"

NOTES:

1. HMA WEARING COURSE PG 64-22, 9.5 mm SUPERPAVE MIX SHALL BE 1½"
2. HMA BINDER COURSE PG 64-22, 19 mm SUPERPAVE MIX SHALL BE AS THICK AS EXISTING OR 2" MINIMUM (AFTER COMPACTION), WHICHEVER IS GREATER.
3. CONCRETE SHALL BE AS THICK AS EXISTING OR 8" MINIMUM, WHICHEVER IS GREATER.
4. USE AIR ENTRAINED HIGH EARLY STRENGTH (PER PENNDOT LATEST REQUIREMENTS) MIN. 4000 PSI CONCRETE.
5. ALL HOT MIX ASPHALT (HMA) SHALL BE SUPERPAVE ASPHALT MIXTURE DESIGN.
6. SAW CUT TWICE
   ONE CUT BEFORE CONSTRUCTION
   ONE CUT BEFORE FINAL PAVING

NOT TO SCALE

REVISIONS		
NO.	DESCRIPTION	DATE

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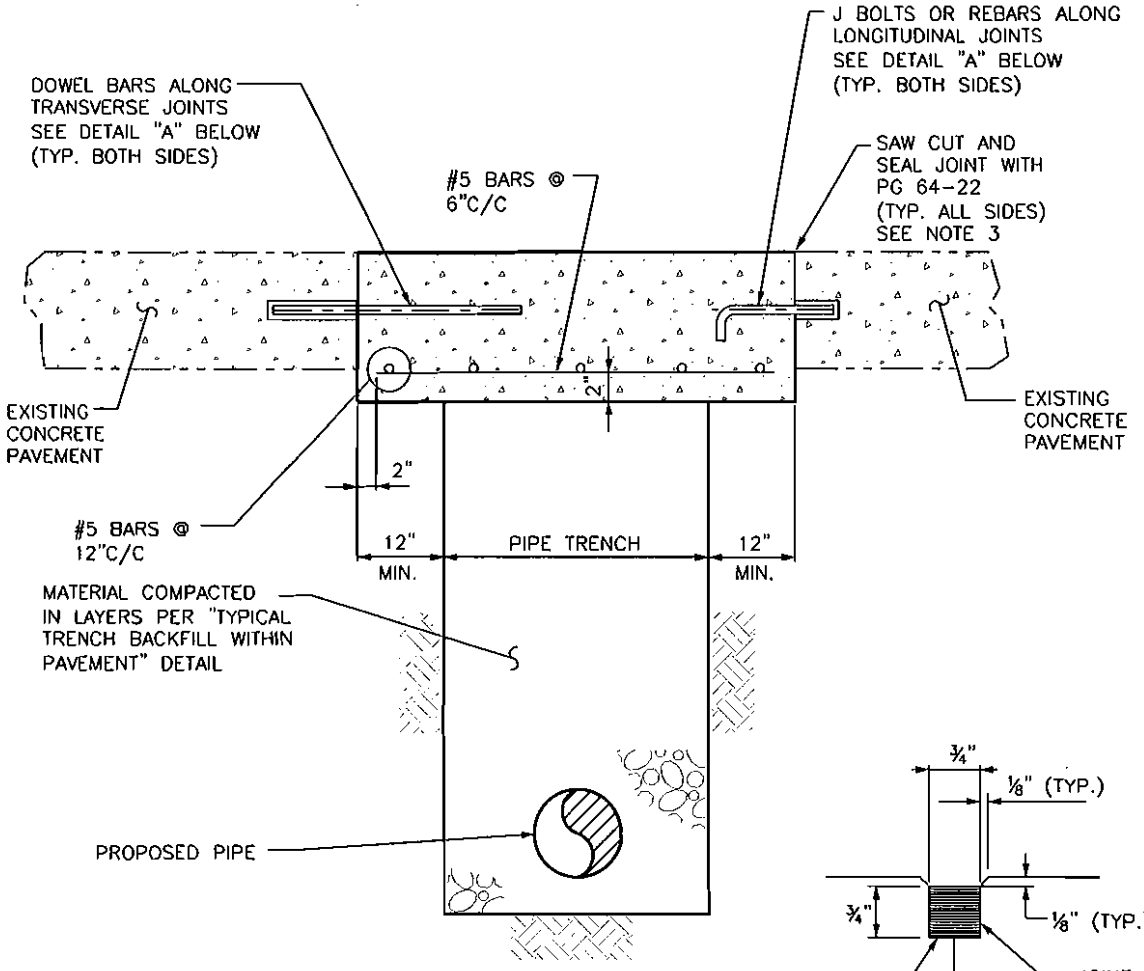
$DATE$/$TIME$

PIPE TRENCH ASPHALT OVER CONCRETE PAVEMENT REPLACEMENT

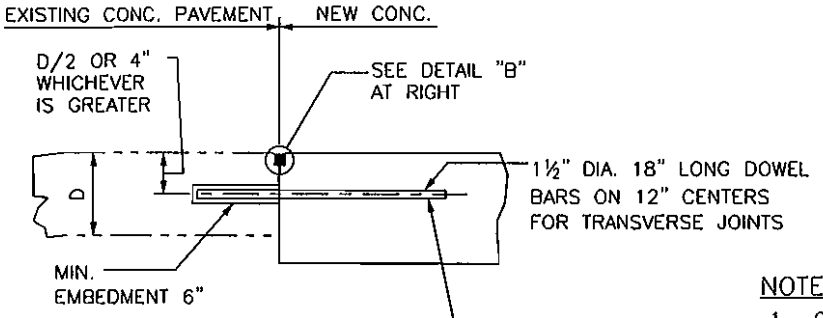
Drawing:

DT-22

MONROEVILLE



DETAIL "B"



DETAIL "A"

NOTES:

1. CONCRETE SHALL BE AS THICK AS EXISTING OR 8" MINIMUM WHICHEVER IS GREATER.
2. USE AIR ENTRAINED HIGH EARLY STRENGTH (PER PENNDOT LATEST REQUIREMENTS) MIN. 4000 PSI CONCRETE.
3. SAW CUT TWICE
   ONE CUT BEFORE CONSTRUCTION
   ONE CUT BEFORE FINAL PAVING

NOT TO SCALE

REVISIONS		
NO.	DESCRIPTION	DATE

$FILE$

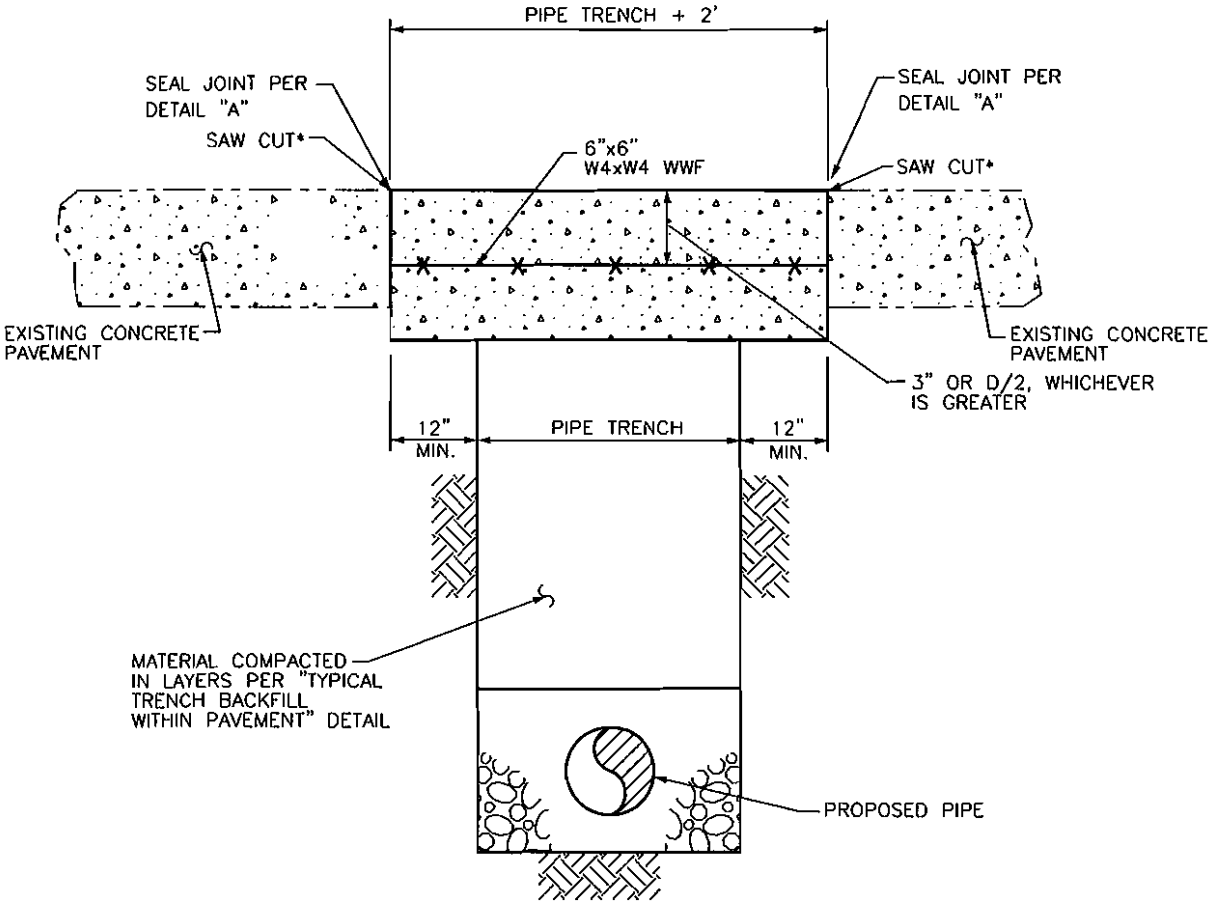
$DATE$/$TIME$

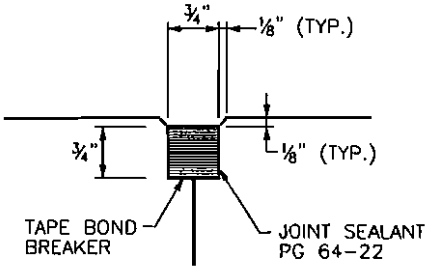
PIPE TRENCH CONCRETE PAVEMENT REPLACEMENT

Drawing:

DT-23

MONROEVILLE





DETAIL "A"

NOTES:

1. SAW CUT TWICE
   ONE CUT BEFORE CONSTRUCTION
   ONE CUT BEFORE FINAL PAVING
2. CONCRETE SHALL BE AS THICK AS EXISTING OR 6" MINIMUM, WHICHEVER IS GREATER
3. USE AIR-ENTRAINED HIGH EARLY STRENGTH MIN. 4000 PSI CONCRETE

NOT TO SCALE

REVISIONS		
NO.	DESCRIPTION	DATE

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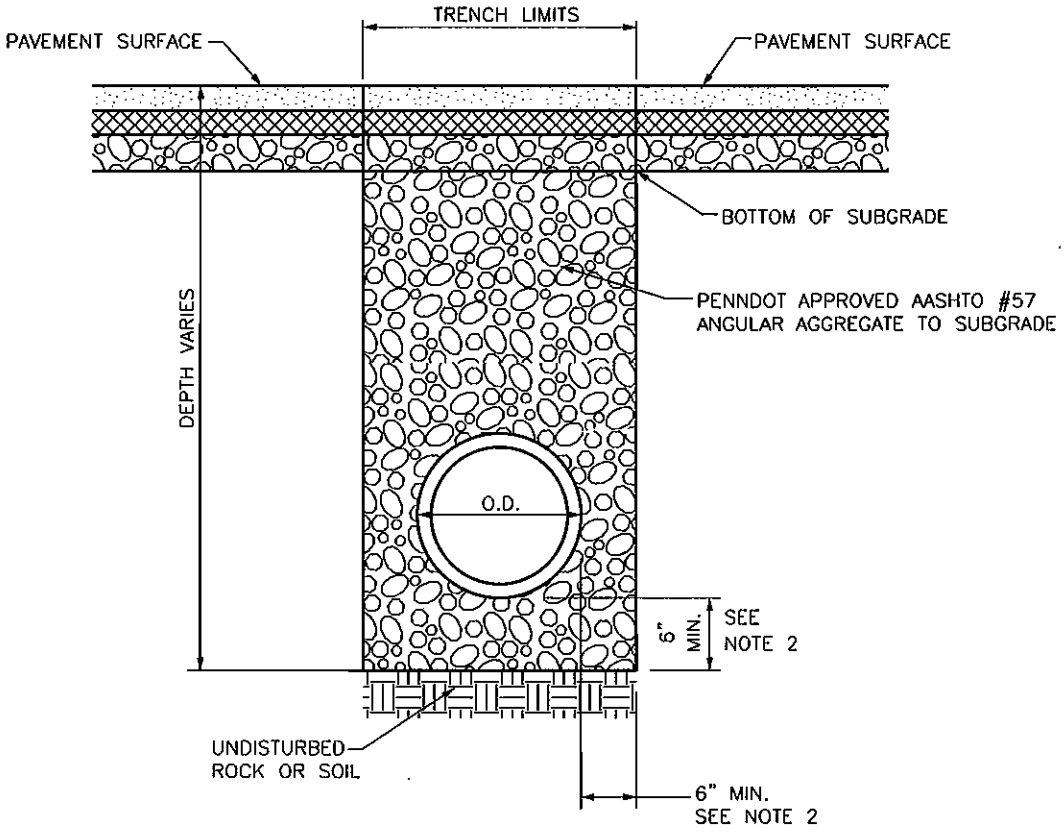
$DATE$/$TIME$

PIPE TRENCH CONCRETE DRIVEWAY PAVEMENT REPLACEMENT

Drawing:

DT-24

MONROEVILLE



NOTES:

1. AGGREGATE MATERIAL SHALL BE PLACED IN LAYERS NOT TO EXCEED 8" AND COMPACTED TO REQUIREMENTS OF MUNICIPALITY.

2. DIMENSIONS AS RECOMMENDED BY PIPE MANUFACTURER, AS APPROVED BY MUNICIPALITY.

NOT TO SCALE

REVISIONS		
NO.	DESCRIPTION	DATE

$FILE$

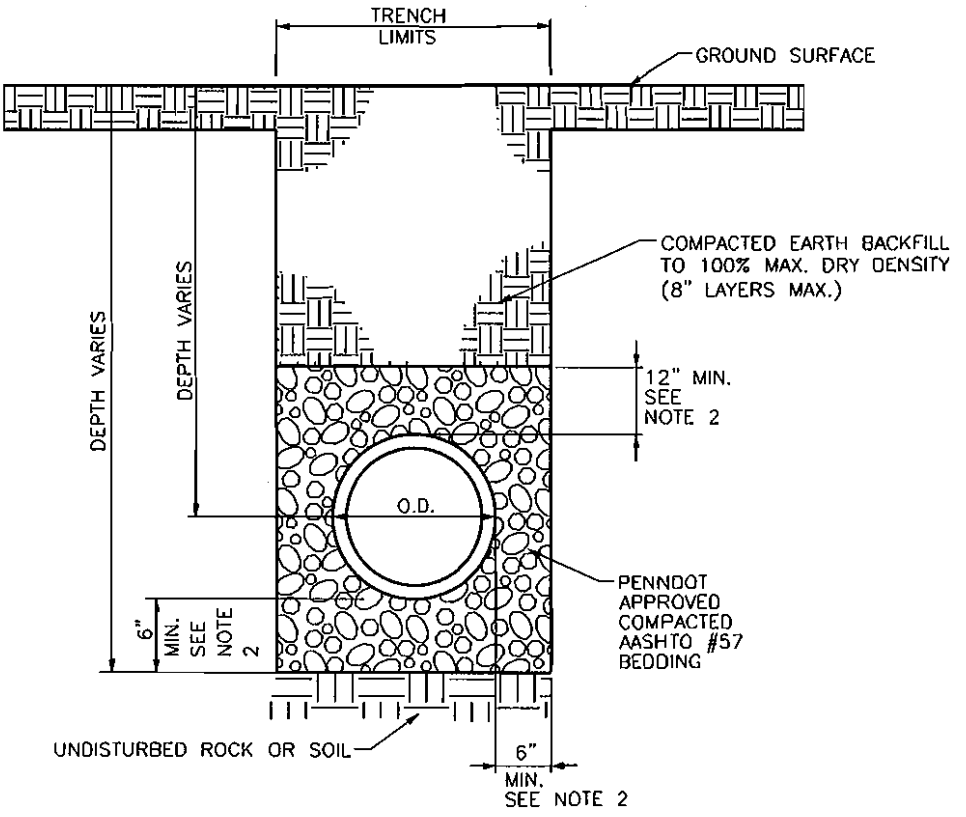
$DATE$/$TIME$

TYPICAL TRENCH BACKFILL WITHIN PAVEMENT

Drawing:

DT-25

MONROEVILLE



NOTES:

1. EARTHEN MATERIAL SHALL BE PLACED IN LAYERS NOT TO EXCEED 8" AND COMPACTED TO THE FOLLOWING MINIMUM REQUIREMENTS:

MAXIMUM DRY WEIGHT OF BACKFILL MATERIAL (AS DETERMINED IN ACCORDANCE WITH AASHTO T99 OR CURRENT)	MAXIMUM FIELD COMPACTION REQUIREMENT (PERCENT OF MAXIMUM DRY WEIGHT)
95.0 LB/CU.FT.	UNSUITABLE MATERIAL
95.0–99.9 LB./CU. FT.	100%
100.0–109.9 LB./CU. FT.	100%
110.0 OR MORE	95%

2. DIMENSIONS AS RECOMMENDED BY PIPE MANUFACTURER, AS APPROVED BY MUNICIPALITY.

3. IF THE MUNICIPALITY DEEMS THE EXCAVATED EARTH TO BE UNSUITABLE, SELECT EARTH BACKFILL OR AGGREGATE MAY BE REQUIRED.

NOT TO SCALE

REVISIONS		
NO.	DESCRIPTION	DATE

$FILE$

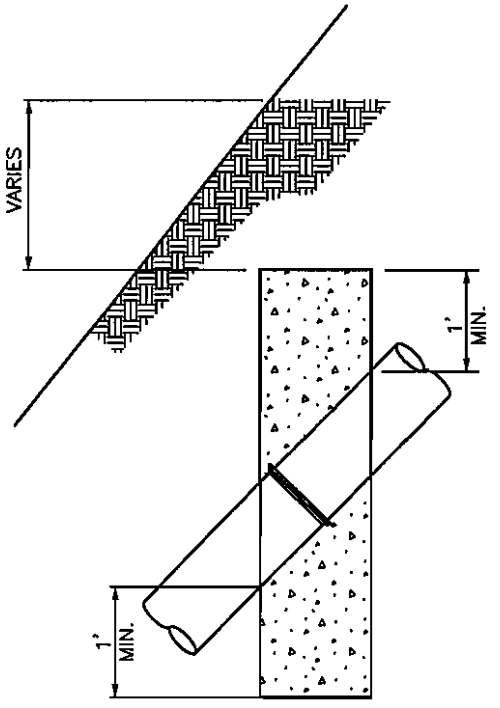
$DATE$/$TIME$

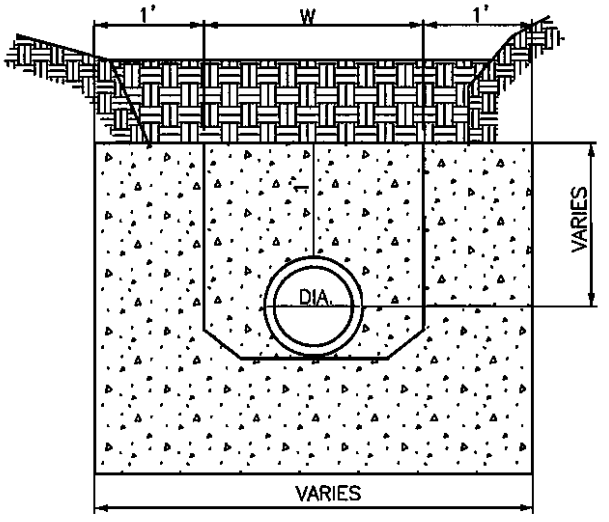
TYPICAL TRENCH OUTSIDE OF PAVEMENT

Drawing:

DT-26

MONROEVILLE





W = 4/3 DIA. + 16" (MIN.)

NOTES:

1. CONCRETE ANCHORS SPACED AS FOLLOWS:
   NOT OVER 36 FEET CENTER TO CENTER ON GRADES 20% AND UP TO 35%
   NOT OVER 24 FEET CENTER TO CENTER ON GRADES 35% AND UP TO 50%
   NOT OVER 16 FEET CENTER TO CENTER ON GRADES 50% AND OVER

NOT TO SCALE

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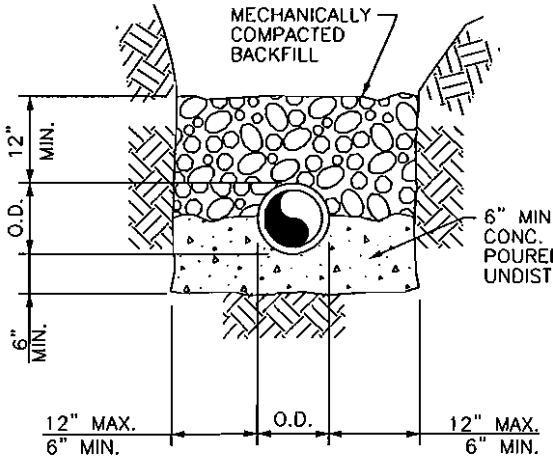
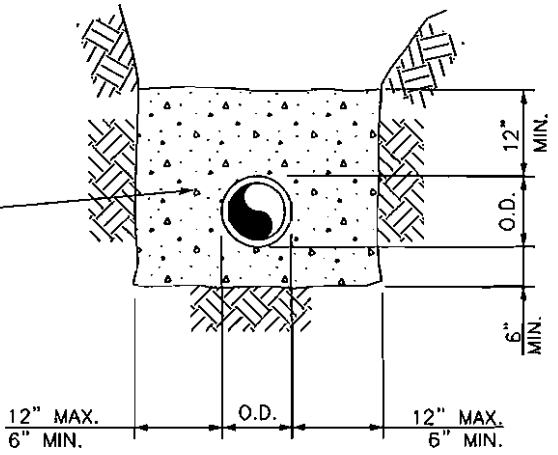
CONCRETE ANCHOR FOR STORM SEWER PIPE

Drawing:
DT-27

MONROEVILLE



TYPICAL CONCRETE CRADLE



TYPICAL CONCRETE ENCASEMENT

NOTE:

1. CONCRETE TO BE 4,000 PSI, AIR ENTRAINED.

NOT TO SCALE

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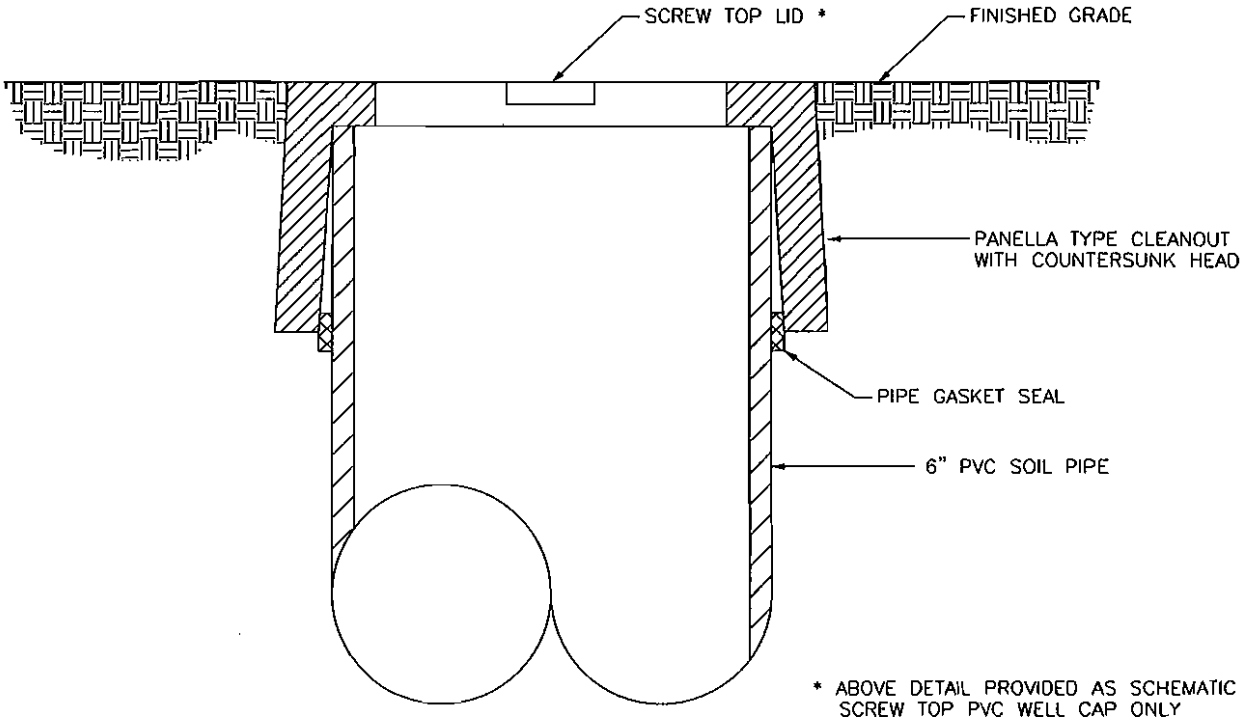
$DATE$/$TIME$

CONCRETE SUPPORT FOR STORM SEWER PIPES

Drawing:

DT-28

MONROEVILLE



EACH OBSERVATION WELL/CLEANOUT SHALL INCLUDE THE FOLLOWING:

1. FOR AN UNDERGROUND FLUSH MOUNT OBSERVATION WELL/CLEANOUT, PROVIDE A TUBE MADE OF NON-CORROSIVE MATERIAL, SCHEDULE 40 OR EQUAL, AT LEAST THREE FEET LONG WITH AN INSIDE DIAMETER OF AT LEAST 6 INCHES.
2. THE TUBE SHALL HAVE A FACTORY ATTACHED CAST IRON OR HIGH IMPACT PLASTIC COLLAR WITH RIBS TO PREVENT ROTATION WHEN REMOVING SCREW TOP LID. THE SCREW TOP LID SHALL BE CAST IRON OR HIGH IMPACT PLASTIC THAT WILL WITHSTAND ULTRA-VIOLET RAYS.

DETAIL
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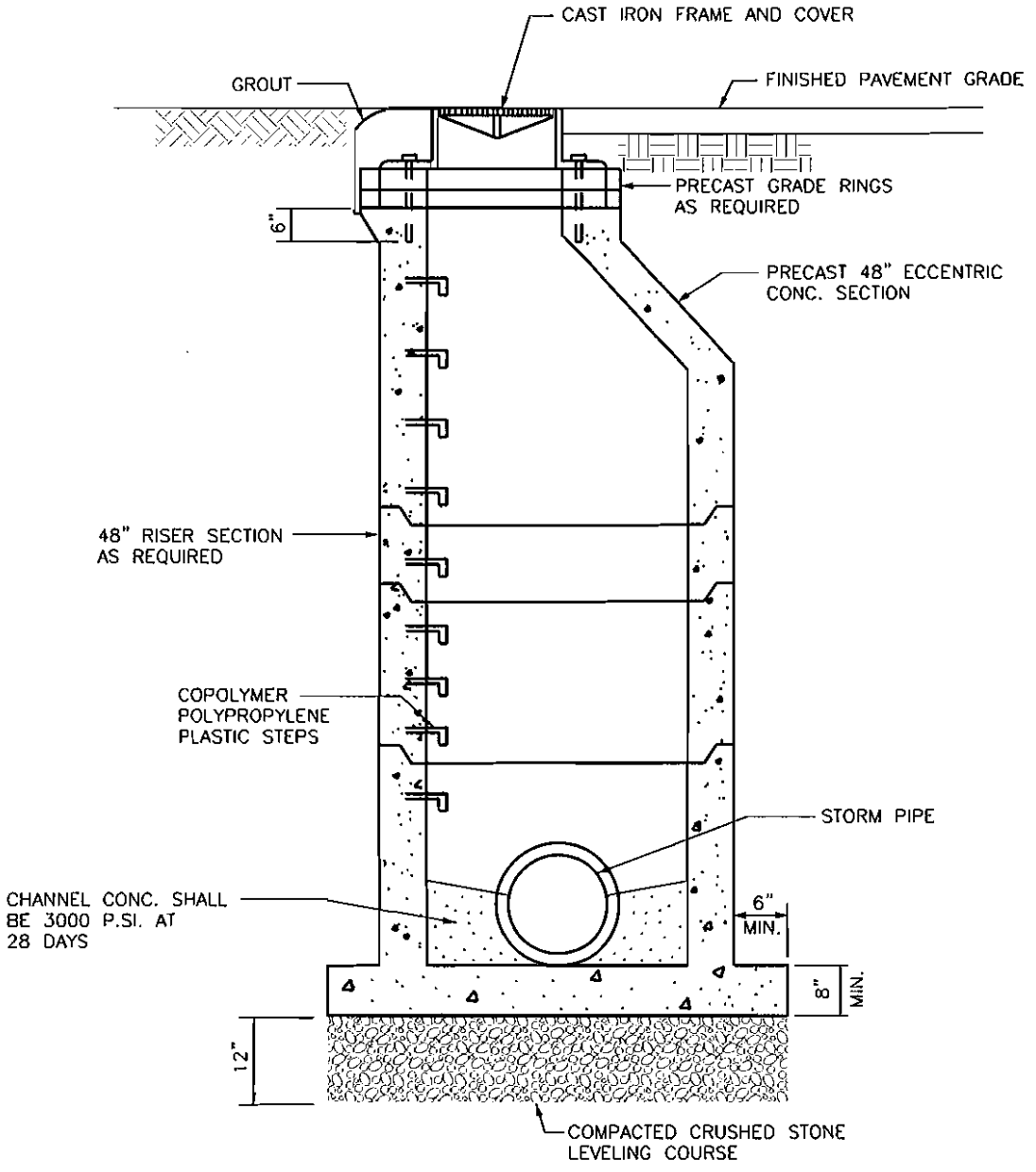
OBSERVATION WELL DETAIL

Drawing:
DT-29

MONROEVILLE



NOTES:

1. JOINTS SHALL BE EQUIPPED WITH 2 COMPLETE RINGS OF FLEXIBLE BUTYL RUBBER JOINT SEALANT APPROVED BY THE ENGINEER
2. ALL MATERIALS AND CONSTRUCTION SHALL MEET REQUIREMENTS OF PENNDOT PUBLICATION 408 REFERENCE RC-39 PENNDOT PUBLICATION 72
3. USE 60" DIA. MANHOLES FOR SEWERS 24" TO 33"
4. FOR PIPES EXCEEDING 33" IN DIAMETER, A DESIGN FROM A PROFESSIONAL ENGINEER MUST BE PROVIDED FOR REVIEW AND APPROVAL BY THE MUNICIPALITY.

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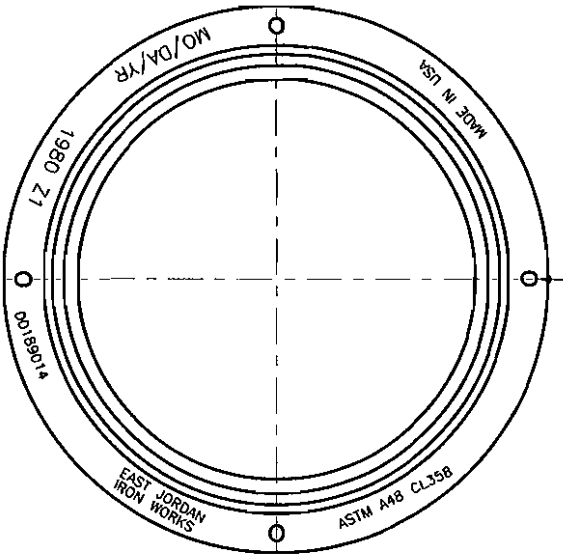
TYPICAL STORM MANHOLE

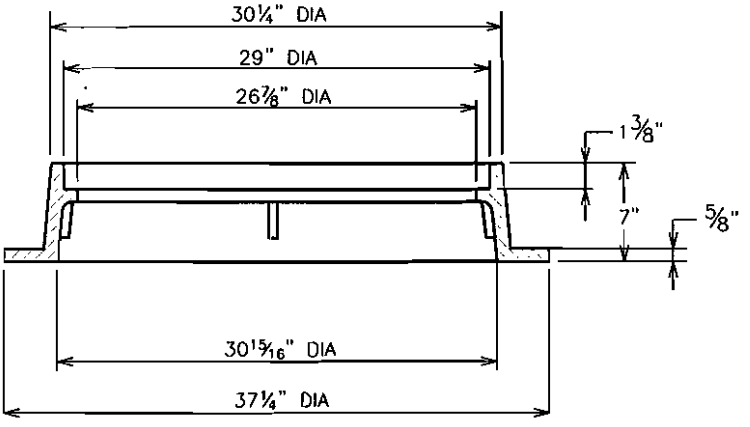
Drawing:

DT-30

MONROEVILLE



(4) 1" HOLE SLOTS (EQUALLY SPACED) ON 34" TO 34½" DIA. BOLT CIRCLE



FRAME SECTION

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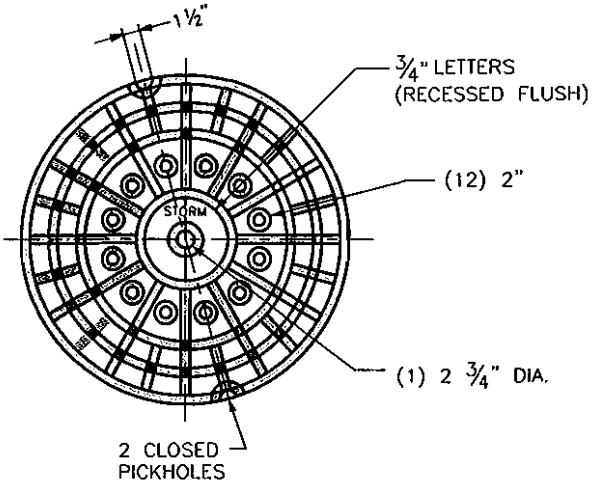
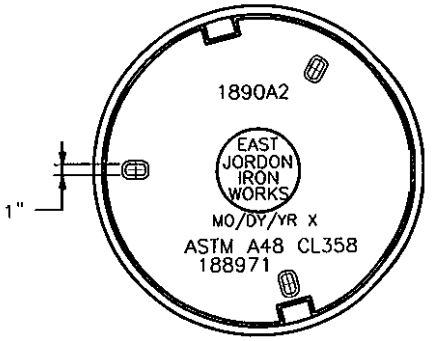
STORM MANHOLE FRAME

Drawing:

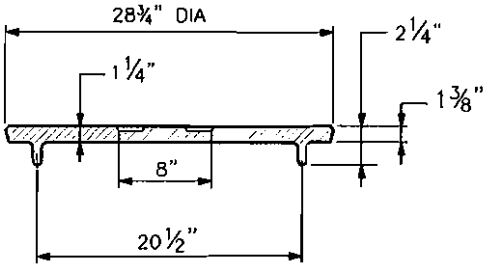
DT-31

MONROEVILLE

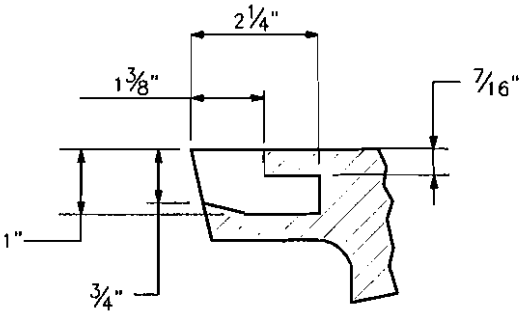




BOTTOM VIEW



COVER SECTION



PICKHOLE DETAIL

NOTE:

1. MACHINED SURFACE

NOT TO SCALE

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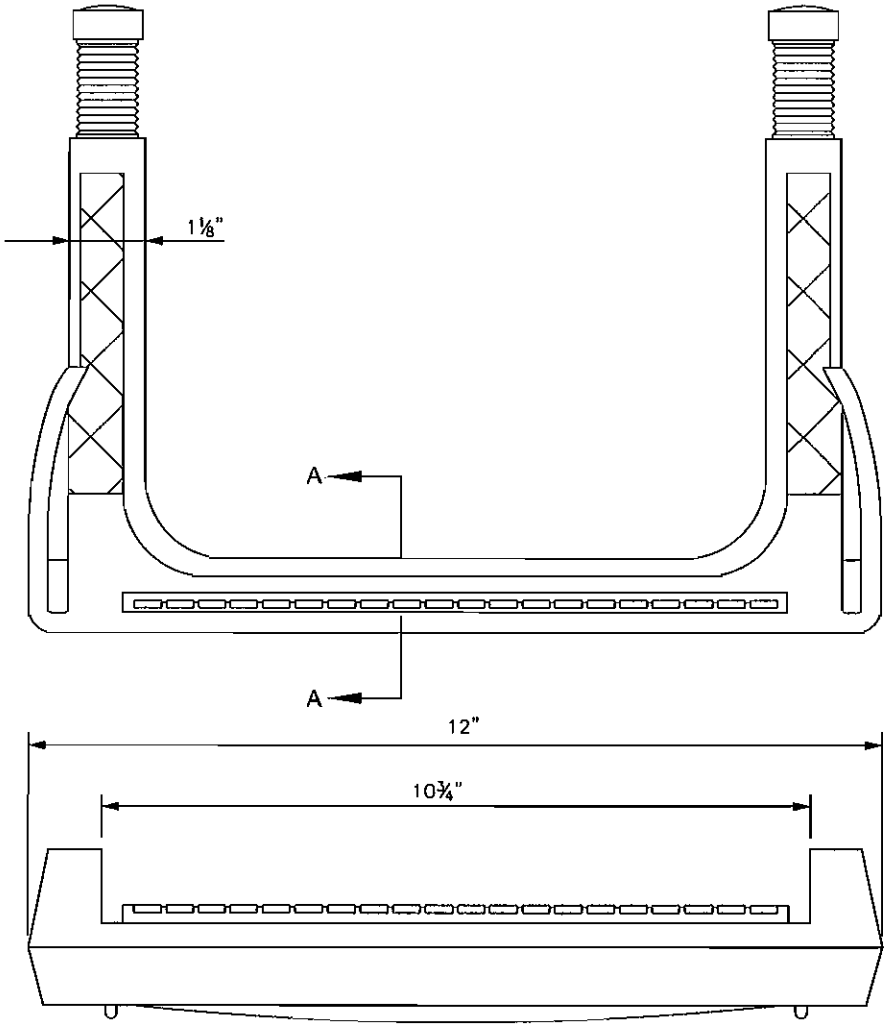
$DATE$/$TIME$

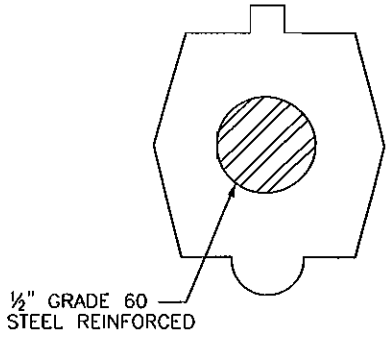
STORM MANHOLE COVER

Drawing:

DT-32

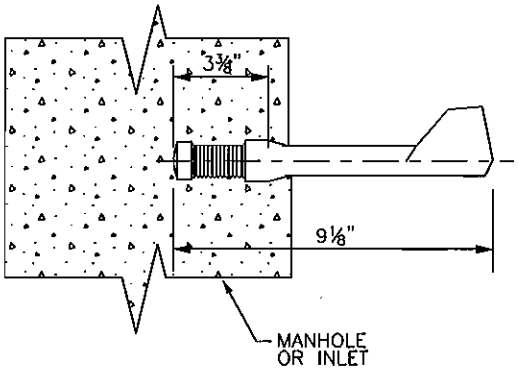
MONROEVILLE





SECTION A-A

COPOLYMER POLYPROPYLENE PLASTIC



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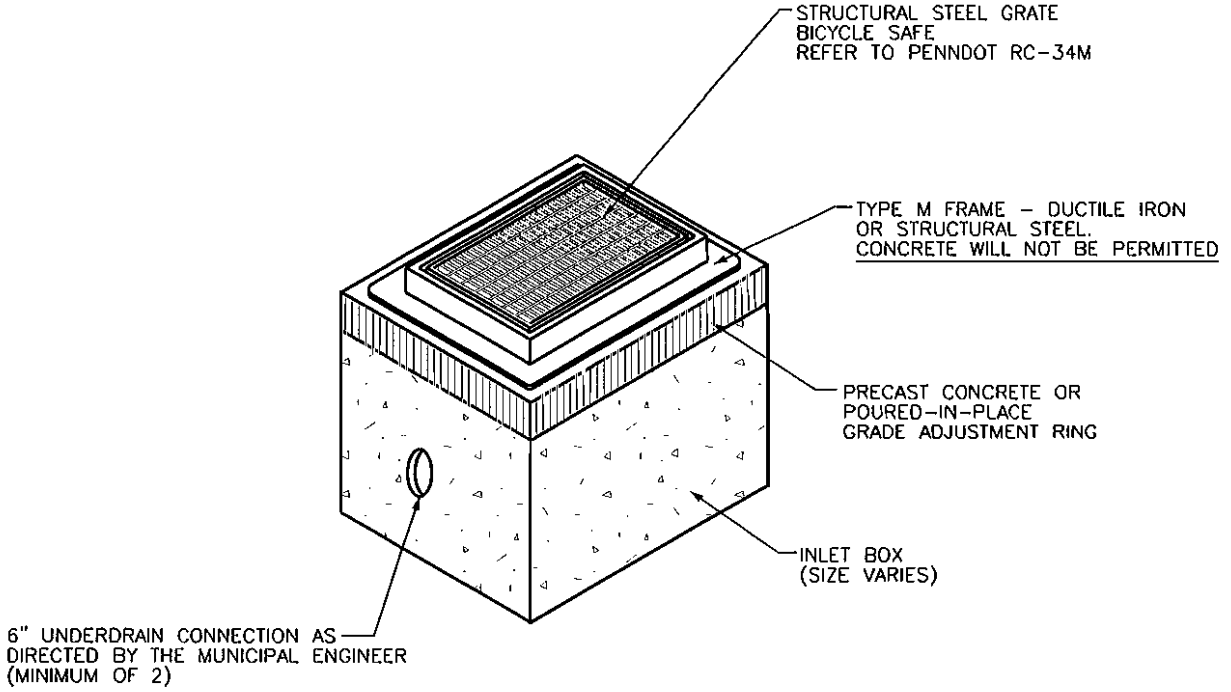
MANHOLE/INLET STEP

Drawing:

DT-33

MONROEVILLE



NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 605 AND STANDARDS FOR ROADWAY CONSTRUCTION, RC-34M CONTRACTOR SHALL VERIFY INLET BOX SIZING BASED ON PIPE SIZES AND ALIGNMENT PRIOR TO ORDERING PRECAST STRUCTURES. SIZE MUST BE APPROVED BY THE MUNICIPAL ENGINEER.
2. ALL DRAINAGE STRUCTURES SHALL HAVE POURED-IN-PLACE CONCRETE CHANNEL BOTTOMS.
3. LADDER BARS TO BE INSTALLED IN STRUCTURES EXCEEDING A DEPTH OF 5 FEET.
4. HOODED STRUCTUAL STEEL OR DUCTILE IRON CASTING MAY BE ALLOWED W/MUNICIPAL APPROVAL.
5. VANE GRATES MAY BE REQUIRED AS DIRECTED BY MUNICIPAL ENGINEER.

NOT TO SCALE
REFERENCE RC-34M - PENNDOT PUBLICATION 72.

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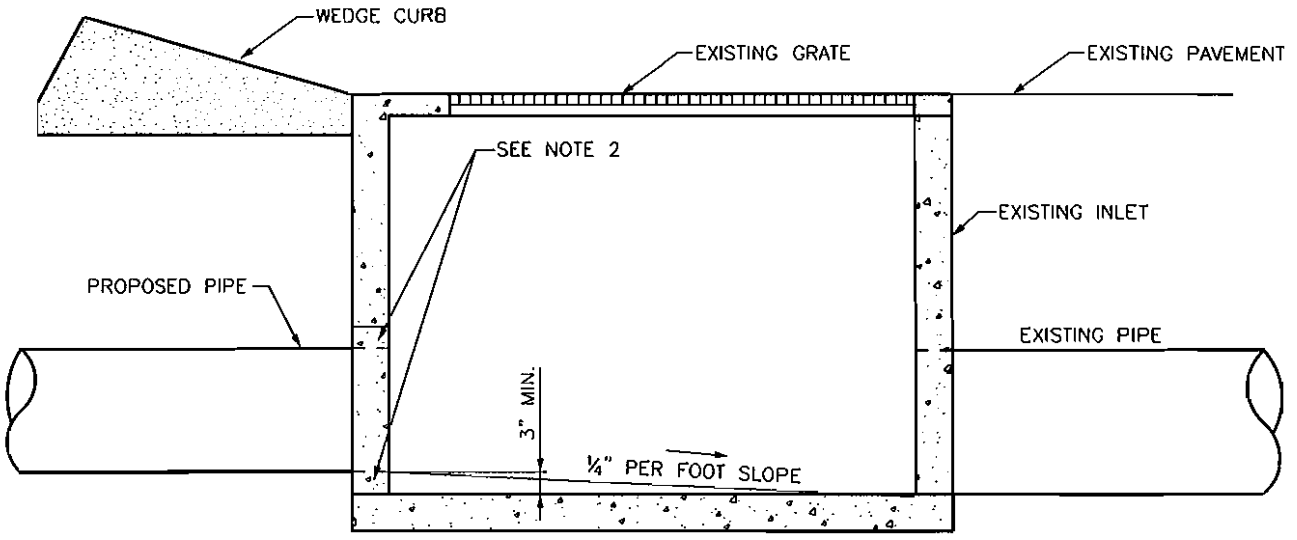
TYPE "M"
INLET

Drawing:
DT-34

MONROEVILLE



NOTES:

1. AT THE DIRECTION OF THE MUNICIPALITY CORE DRILL CONNECTION. OTHERWISE DRILL HOLES AROUND THE CIRCUMFERENCE OF THE PROPOSED CONNECTION AND KNOCK OUT WASTE.
2. REPAIR DAMAGED AREA RESULTING FROM THE CONNECTION. PATCH BOTH SIDES OF BOX USING NON-SHRINK GROUT. PIPE TO BE FLUSH WITH INLET WALL.
3. PROVIDE POSITIVE DRAINAGE TO EXISTING OUTLET UNLESS OTHERWISE DIRECTED BY THE MUNICIPALITY.

NOT TO SCALE

REFERENCE RC-31M - PENNDOT PUBLICATION 72.

REVISIONS		
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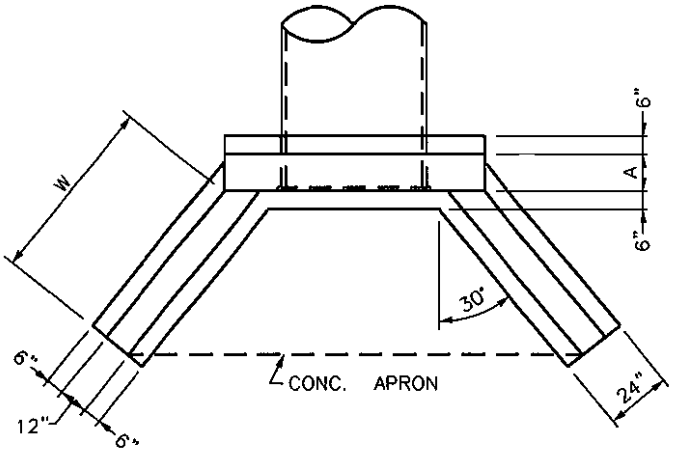
PIPE CONNECTIONS TO EXISTING INLET

Drawing:

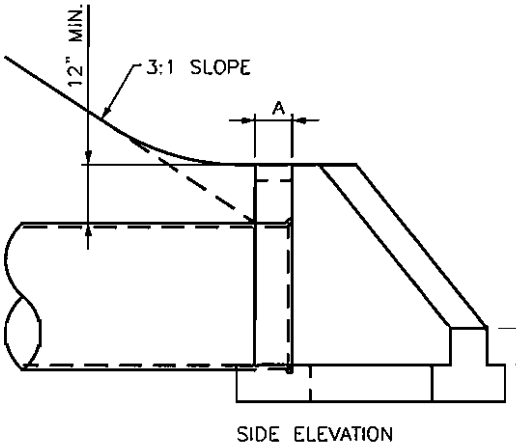
DT-35

MONROEVILLE

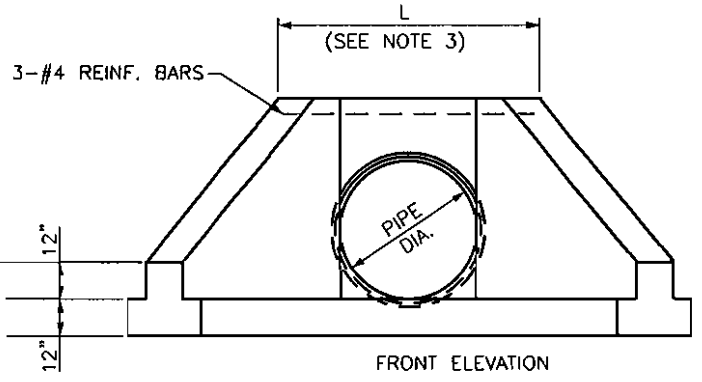
PIPE DIA.	L*	W	A
15"	4.0'	4.0'	12"
18"	4.0'	4.0'	12"
24"	4.5'	4.25'	12"
36"	4.5'	4.6'	12"
48"	5.0'	6.9'	12"
54"	7.5'	8.0'	12"
60"	8.1'	9.2'	12"
72"	9.2'	11.5'	12"



PLAN



SIDE ELEVATION



FRONT ELEVATION

NOTES:

1. CONCRETE SHALL BE CLASS "A"
2. EXPOSED EDGES SHALL BE CHAMFERED ONE (1) INCH.
3. ADD 1'-0" TO DIMENSION 'L' WHEN ORIFICE PLATE IS TO BE PLACED ON HEADWALL.
4. PLASTIC FLARED END SECTIONS CAN BE SUBSTITUTED W/MUNICIPAL APPROVAL.

NOT TO SCALE

REFERENCE RC-31M - PENNDOT PUBLICATION 72.

REVISIONS		
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$FILE$

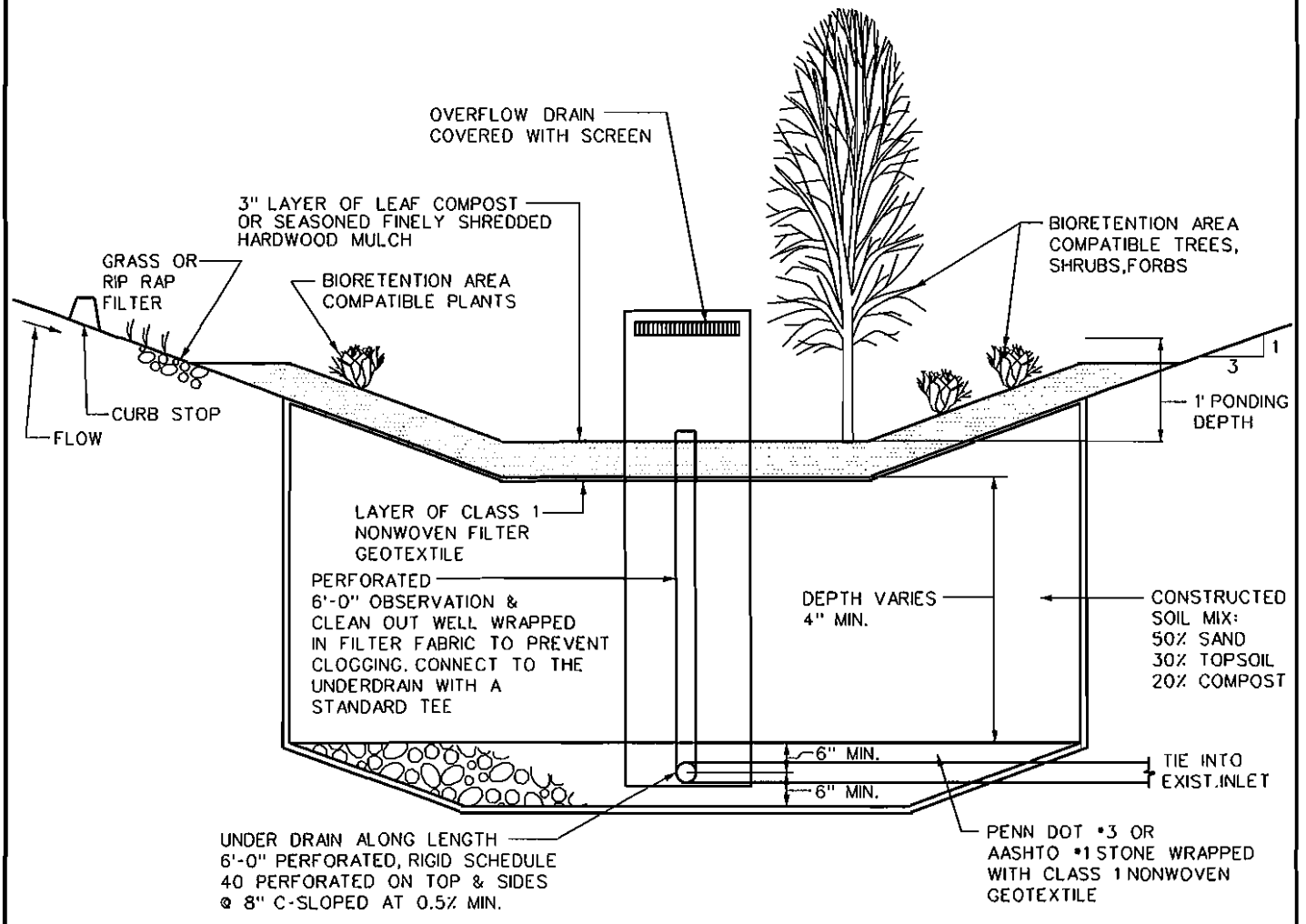
$DATE$/$TIME$

STANDARD TYPE D-W
ENDWALL/HEADWALL

Drawing:

DT-36

MONROEVILLE



NOTES:

1. RATIO OF SURFACE AREA OF TRIBUTARY IMPERVIOUS AREA TO THAT OF BIORETENTION AREA SHOULD NOT EXCEED 5:1.
2. TREES MAY BE OMITTED FROM BIORETENTION AREAS ONLY WITH MUNICIPAL PERMISSION IF NECESSITATED DUE TO SITE DISTANCE CONSIDERATIONS OR OTHER SITE LIMITATIONS.
3. PLANTS SHOULD BE INSTALLED AT A DENSITY OF 700 SHRUBS, 700 FORBS AND 300 TREES PER ACRE.
4. WHERE POSSIBLE EACH PLANT CLASS (TREE, SHRUB, FORB) SHALL BE REPRESENTED BY AT LEAST THREE DIFFERENT SPECIES.
5. BIORETENTION COMPATIBLE PLANTS CAN BE SELECTED FROM THE PADEP MANUAL OR ANOTHER ACCEPTABLE LIST. PREFERENCE SHOULD BE GIVEN TO NATIVE PLANTS.
6. A LEAF COMPOST MULCH LAYER IS PREFERRED OVER HARDWOOD MULCH. THE MULCH LAYER MUST BE RENEWED/REPLENISHED ANNUALLY. WOOD CHIPS ARE PROHIBITED.
7. THE HIGHEST PERMEABILITY CLASS 1 GEOTEXTILE AVAILABLE SHOULD BE USED.

NOT TO SCALE

REVISIONS		
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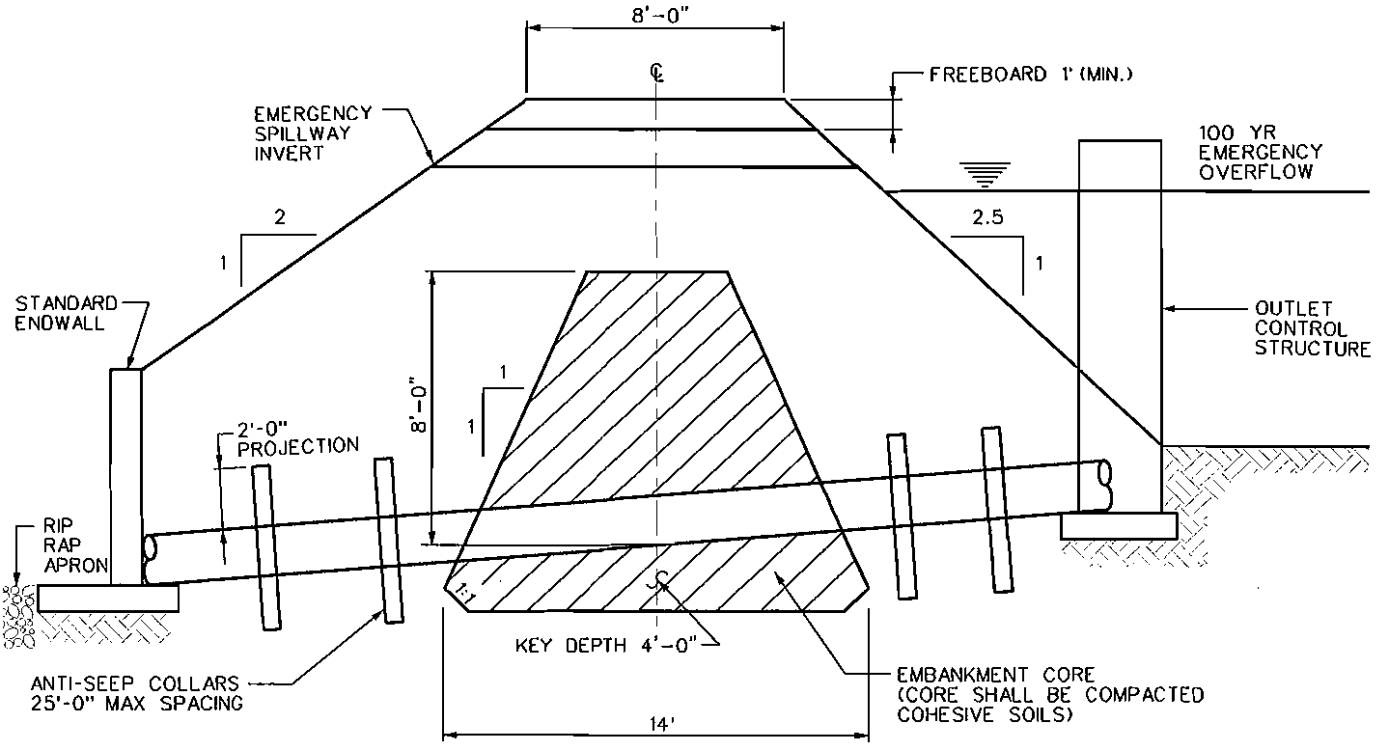
TYPICAL BIORETENTION AREA

Drawing:

DT-40

MONROEVILLE



NOTES:

1. ANTI-SEEP COLLAR TO BE INSTALLED IN ACCORDANCE WITH PENN DOT R.C. 71M INSTALL GASKET BETWEEN BAND AND PIPE CORRUGATION. 4 ANTI-SEEP COLLARS REQUIRED.

NOT TO SCALE

REVISIONS		
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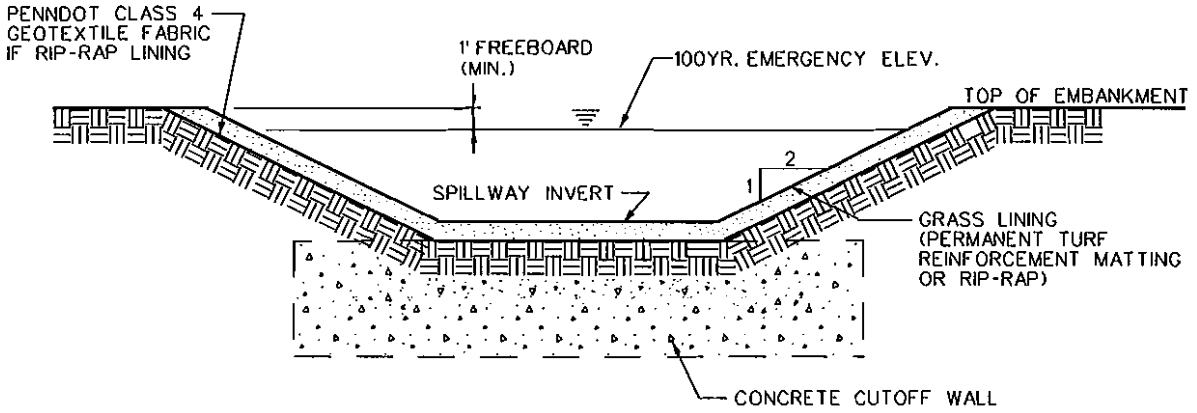
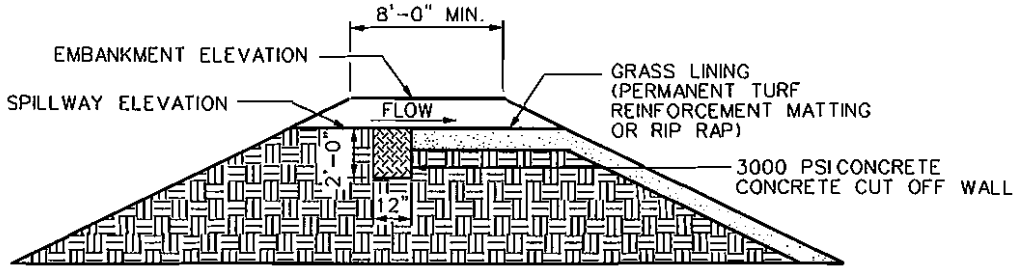
TYPICAL BASIN EMBANKMENT

Drawing:

DT-41

MONROEVILLE





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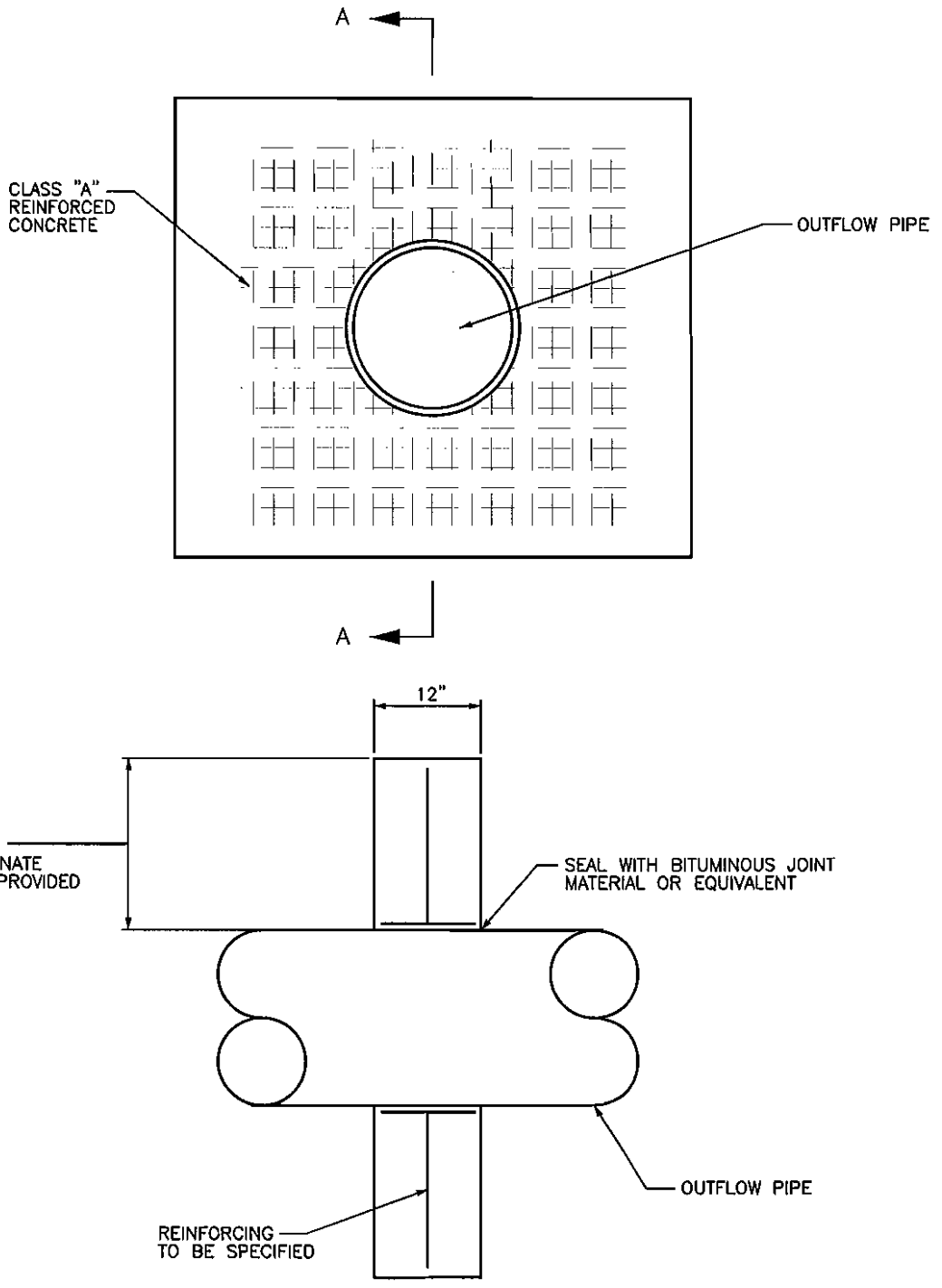
TYPICAL BASIN SPILLWAY AND CHANNEL

Drawing:

DT-42

MONROEVILLE



SECTION A

NOTES:

1. NUMBER OF ANTI-SEEPAGE COLLARS TO BE INSTALLED AND SPACING TO BE SPECIFIED ON DETENTION FACILITY PROFILE.

NOT TO SCALE

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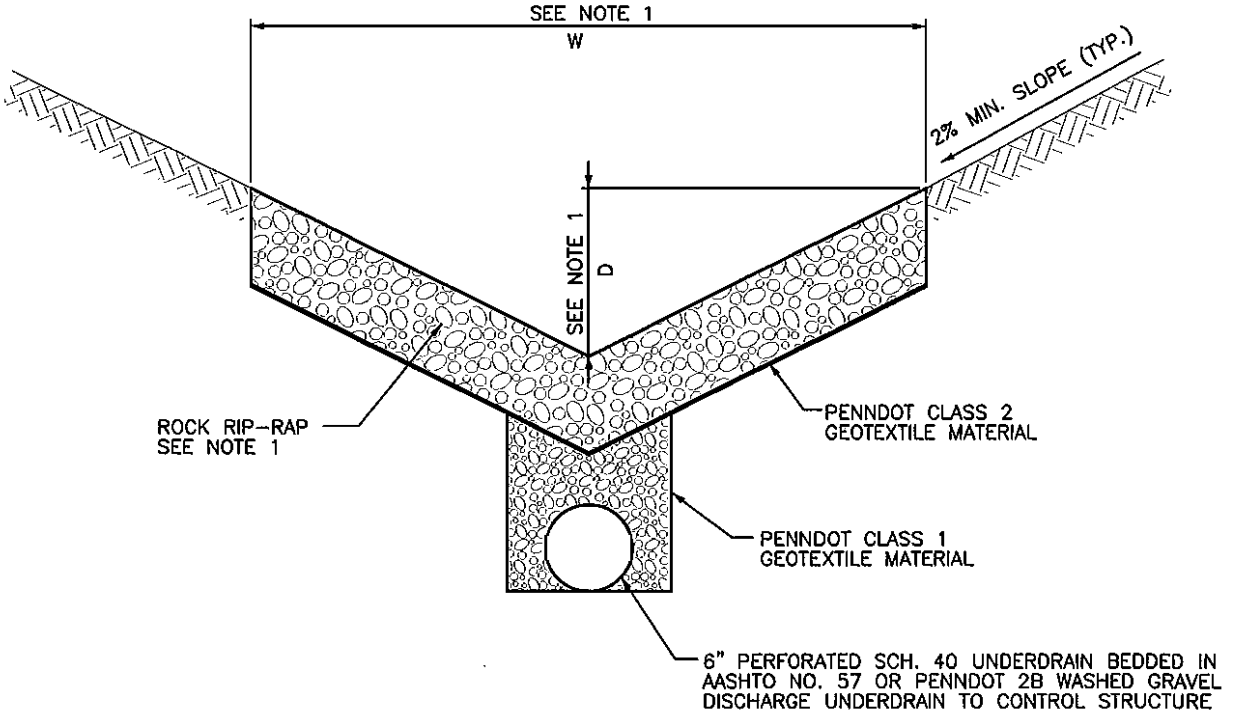
ANTI-SEEPAGE COLLAR

Drawing:
DT-43

MONROEVILLE



NOTES:

1. CHANNEL DIMENSIONS (W,D) AND RIP-RAP SIZE AND THICKNESS TO BE DETERMINED BASED ON DESIGN FLOW AND VELOCITY.
2. CHANNEL SHOULD BE DESIGNED TO HAVE A MINIMUM LONGITUDINAL SLOPE OF 1% TOWARD CONTROL STRUCTURE. A GREATER SLOPE SHOULD BE DESIGNED IF AN UNDERDRAIN IS NOT DISCHARGED TO THE OUTLET STRUCTURE.

NOT TO SCALE

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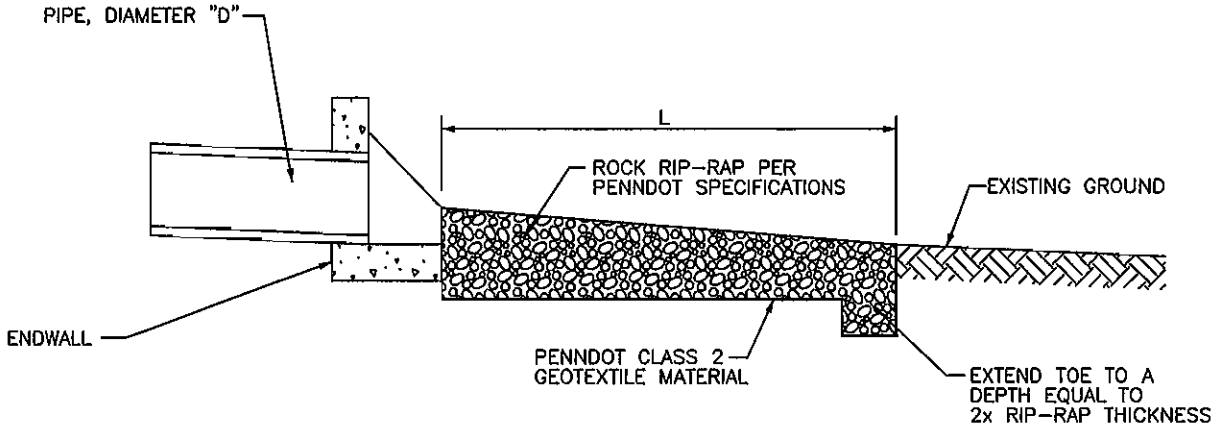
TYPICAL RIP-RAP PILOT CHANNEL

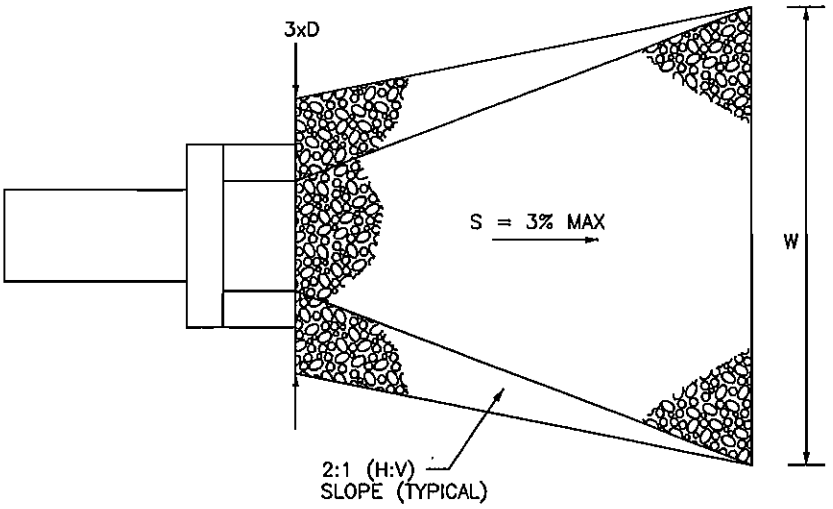
Drawing:

DT-44

MONROEVILLE



PROFILE



PLAN

NOTES:

1. RIP-RAP APRON TO BE UTILIZED FOR OUTFALLS DISCHARGING TO UNCONFINED AREAS.
2. RIP-RAP DESIGN DATA AND SPECIFICATIONS, DIMENSIONS "W", AND "L" TO BE SPECIFIED AS PER PADEP CHAPTER 102, EROSION AND SEDIMENT POLLUTION CONTROL MANUAL.
3. FOR PIPE DISCHARGING TO A CONFINED AREA OR SWALE, DESIGN SHALL BE BASED ON THE REQUIREMENTS OF THE PADEP CHAPTER 102, EROSION AND SEDIMENT POLUTION CONTROL MANUAL.

NOT TO SCALE

REVISIONS		
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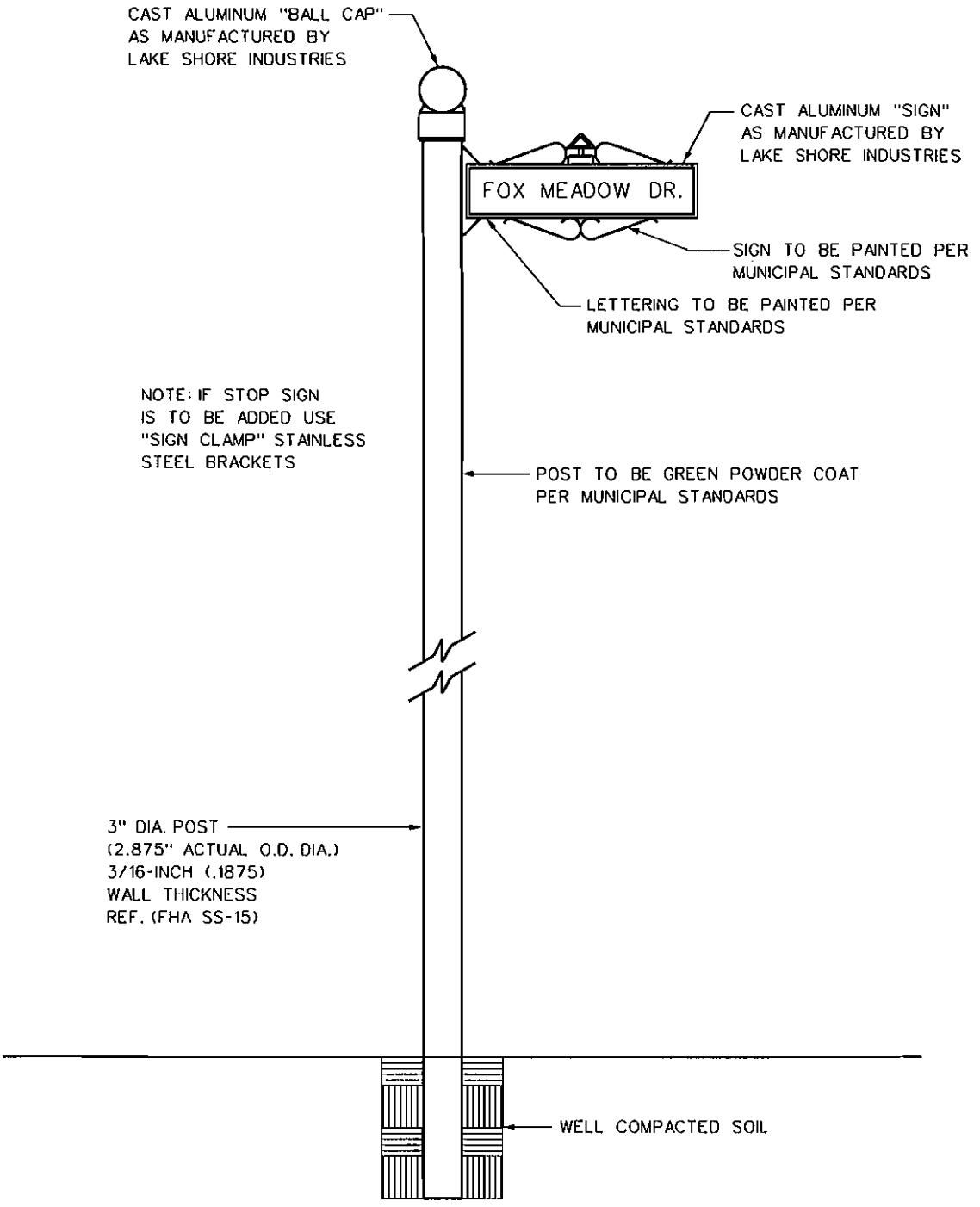
TYPICAL RIP-RAP APRON ENERGY DISSIPATOR

Drawing:
DT-45

MONROEVILLE



STREET SIGN DETAIL
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STREET SIGN

Drawing:

DT-51

MONROEVILLE

POLYETHYLENE PIPE SPECIFICATIONS

1. PIPE AND FITTINGS SHALL BE MADE OF POLYETHYLENE COMPOUNDS WHICH MEET OR EXCEED THE REQUIREMENTS OF TYPE III, CATEGORY 4 OR 5, GRADE P33 OR P34, CLASS C PER ASTM D-1248 WITH THE APPLICABLE REQUIREMENTS DEFINED IN ASTM D-1248

2. MIN. COVER IS TO BE 2 FT. WITH AASHTO NO. 57 STONE A MIN. OF 12" ABOVE THE TOP OF PIPE. IF THE PIPE IS TO BE LAID UNDER DRIVEWAYS, STREETS OR PARKING AREAS WITH MINIMUM COVER, THE 2 FEET SHALL BE PADOT 2A STONE. MAXIMUM COVER OVER THE PIPE IS NOT TO EXCEED 30 FEET

3. ALL STORM SEWER WITHIN THE RIGHT-OF WAY TO BE CPP, BELL AND SPIGOT WITH SOILTIGHT GASKETS

4. MANNING'S "n" FOR DESIGN SHALL BE 0.012 FOR SMOOTH INTERIOR, AND SHALL BE 0.018 FOR SIZES UP TO AND INCLUDING 15", AND 0.020 FOR SIZES FROM 18" UP TO AND INCLUDING 36" FOR CORRUGATED INTERIOR.

5. POLYETHYLENE PIPE SHALL BE IN ACCORDANCE WITH PENNDOT FORM 408, SECTION 601, BELL AND SPIGOT TYPE WITH SOILTIGHT GASKETS.

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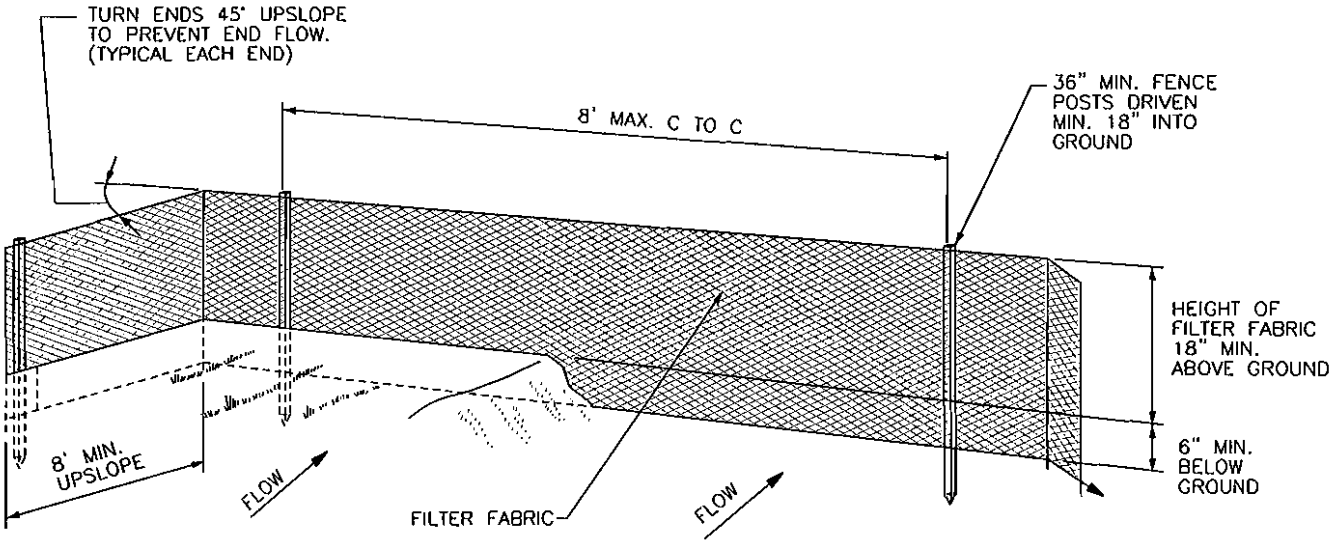
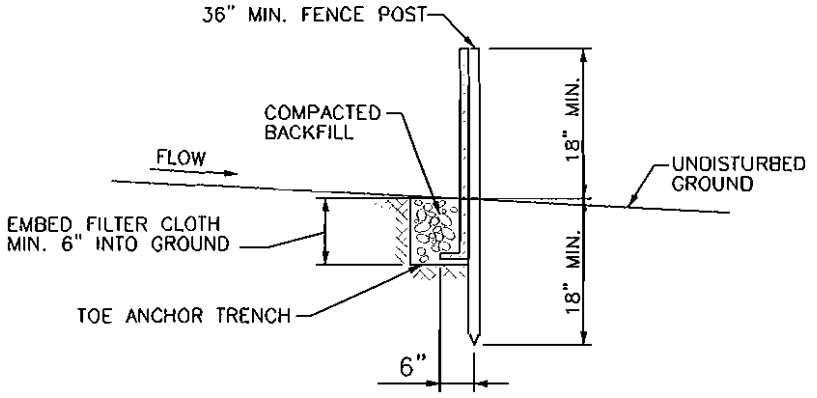
POLYETHYLENE
PIPE SPECIFICATIONS

Drawing:

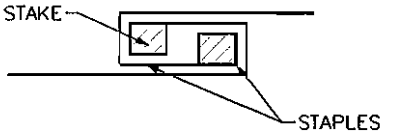
DT-52

MONROEVILLE





SECTION



JOINING FENCE SECTIONS

NOTES:

1. FILTER FABRIC FENCE MUST BE INSTALLED AT EXISTING LEVEL GRADE.
2. FILTER CLOTH TO BE FASTENED SECURELY TO FENCE POSTS WITH TIES OR STAPLES.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE, AND IN ALL CASES WHERE ACCUMULATIONS ARE ½ THE ABOVE GROUND HEIGHT OF THE FENCE.
5. INSPECT FENCE INSTALLATION WEEKLY AND AFTER EVERY RUNOFF EVENT. REPLACE POSTS, FENCE, AND FILTER CLOTH AS NEEDED.
6. ANY FENCE SECTION WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET.
7. SILT FENCE MATERIALS:
   POSTS: 2" X 2" HARDWOOD
   FILTER CLOTH: LINQ INDUSTRIAL GTF180, NICOLON MIRAFI 100X, AMOCO 2155 OR EQUAL.

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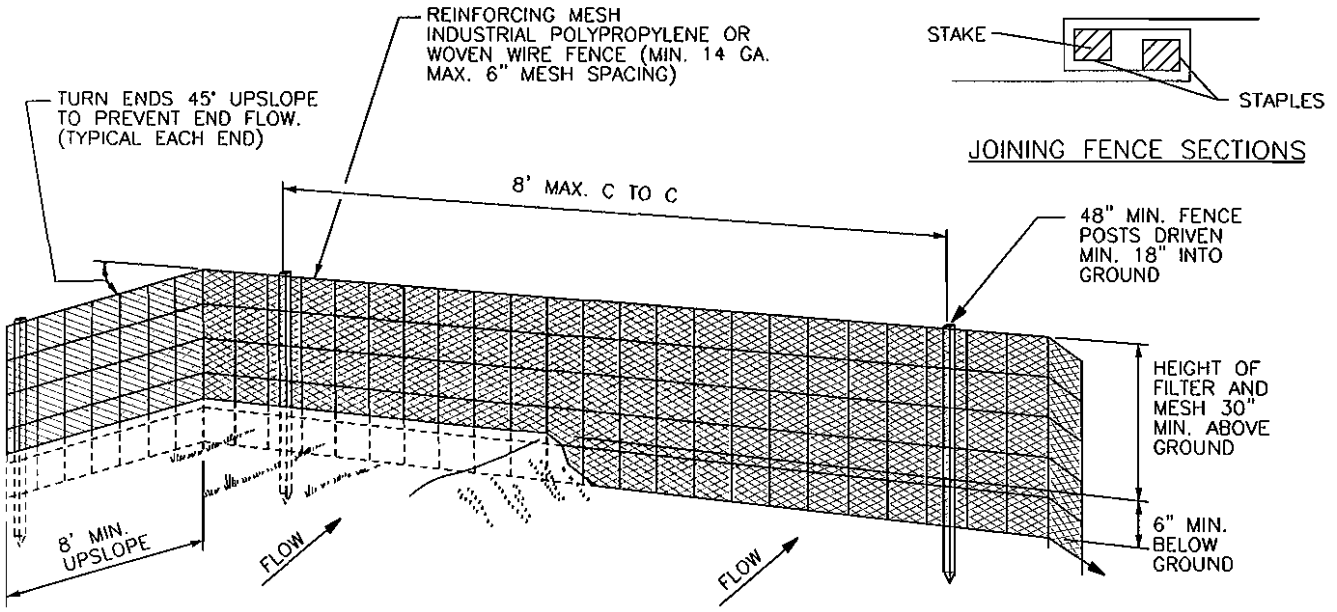
STANDARD SILT FENCE

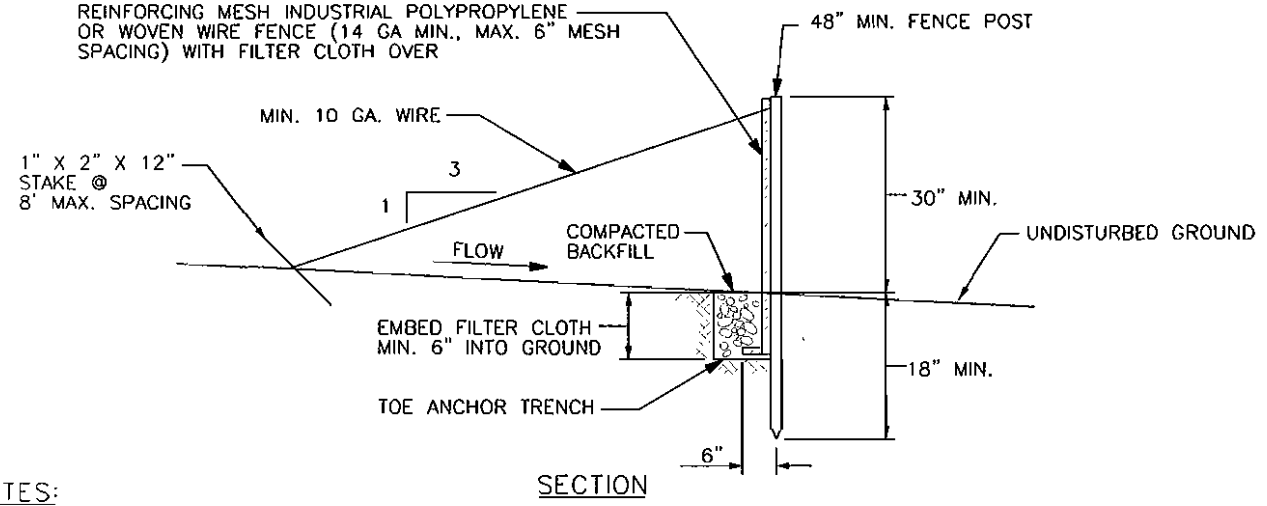
Drawing:

DT-55

MONROEVILLE



JOINING FENCE SECTIONS



SECTION

NOTES:

1. FILTER FABRIC FENCE MUST BE INSTALLED AT EXISTING LEVEL GRADE.
2. REINFORCING MESH FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
3. FILTER CLOTH TO BE FASTENED SECURELY TO REINFORCING MESH WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
4. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE, AND IN ALL CASES WHERE ACCUMULATIONS ARE ½ THE ABOVE-GROUND HEIGHT OF THE FENCE.
6. INSPECT FENCE INSTALLATION WEEKLY AND AFTER EVERY RUNOFF EVENT. REPLACE POSTS, FENCE, AND FILTER CLOTH AS NEEDED.
7. ANY FENCE SECTION WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET.
8. SILT FENCE MATERIALS:
   POSTS: STEEL
   REINFORCING MESH: INDUSTRIAL POLYPROPOLENE OR STEEL MESH WITH 6" MAX. MESH OPENING (14 GA. MIN.)
   FILTER CLOTH: LINQ INDUSTRIAL GTF180, NICOLON MIRAFI 100X, AMOCO 2155 OR OWNER APPROVED EQUAL.
   PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR EQUAL.

NOT TO SCALE

REVISIONS		
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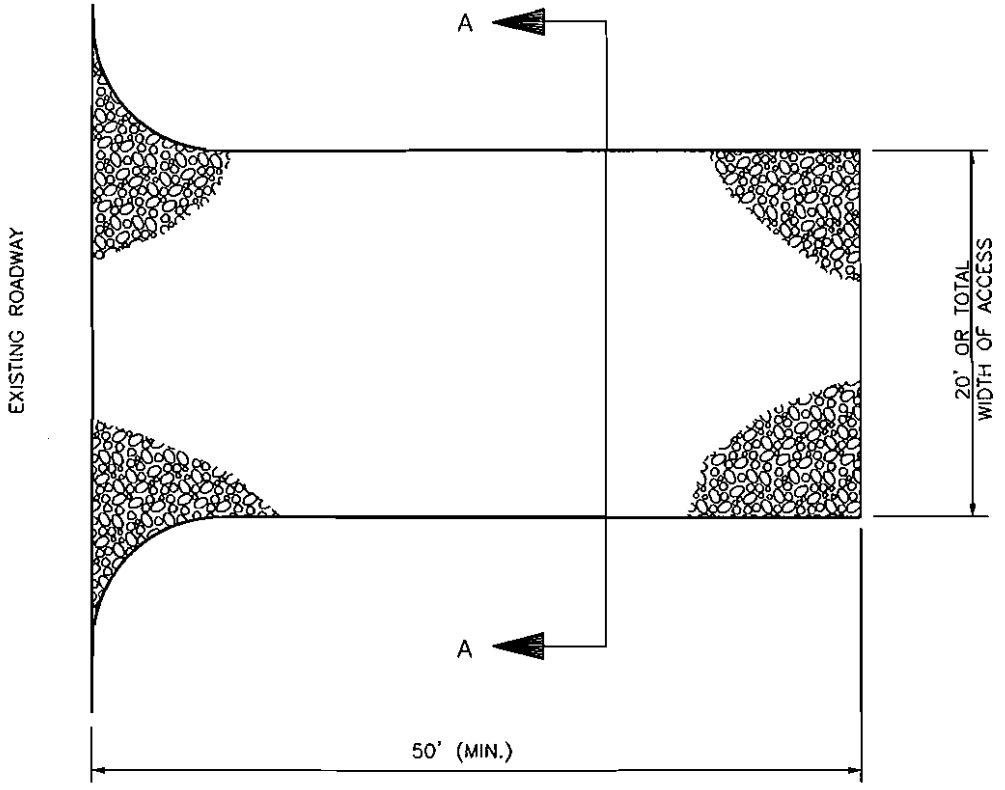
STANDARD REINFORCED SILT FENCE

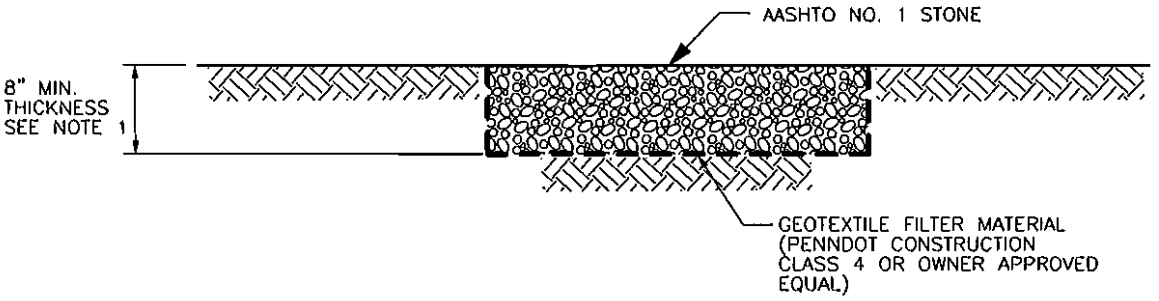
Drawing:

DT-56

MONROEVILLE



PLAN



SECTION A-A

NOTES:

1. CONTRACTOR SHALL MAINTAIN/REPLACE STONE MATERIAL AS NEEDED THROUGHOUT CONSTRUCTION CONTRACT TO MAINTAIN MINIMUM THICKNESS DURING USE OF ACCESS ROAD. A STOCKPILE OF ROCK MATERIAL WILL BE MAINTAINED ON SITE FOR THIS PURPOSE. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PUBLIC ROADWAYS, WILL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE. WASHING OF THE ROADWAY IS NOT PERMITTED UNLESS APPROVED BY THE MUNICIPALITY.
2. TO BE INSTALLED AT ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC EXITS ONTO A PAVED ROADWAY.

NOT TO SCALE

REVISIONS		
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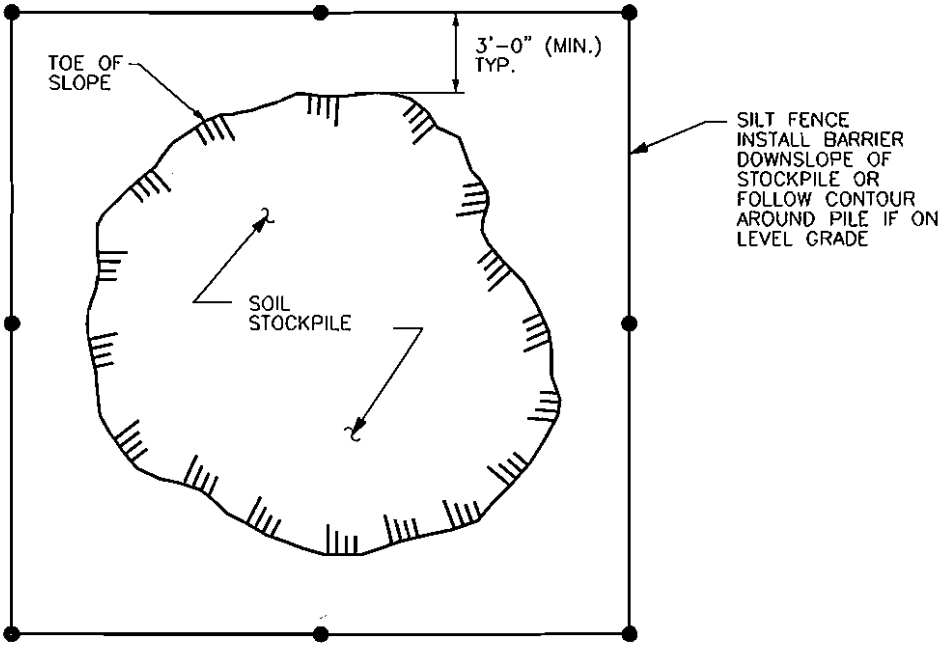
ROCK CONSTRUCTION ENTRANCE

Drawing:

DT-57

MONROEVILLE



NOTES:

1. COVER SOIL STOCKPILE WITH MULCH OR EROSION CONTROL FABRIC.
2. IF STOCKPILE IS TO BE IN PLACE FOR AN EXCESS OF 20 DAYS, TEMPORARY SEEDING MUST BE INSTALLED.
3. AFTER COMPLETE UTILIZATION, RETURN STOCKPILE AREA TO NATURAL PRECONSTRUCTION STATE, INCLUDING ALL NECESSARY GRADING AND REVEGETATION.
4. WHERE POSSIBLE LOCATE STOCKPILE AREAS ON UPSLOPE SIDE OF EXCAVATION, AWAY FROM NEARBY STREAMS, DRAINAGE DITCHES, OR WATER COURSES.
5. STOCKPILE HEIGHT MUST NOT EXCEED 35 FEET.

NOT TO SCALE

REVISIONS		
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TYPICAL SOIL STOCKPILE AREA

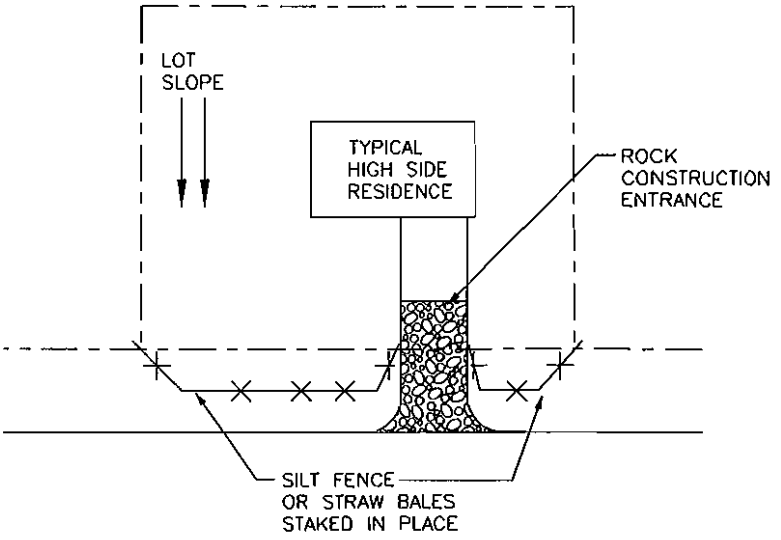
Drawing:

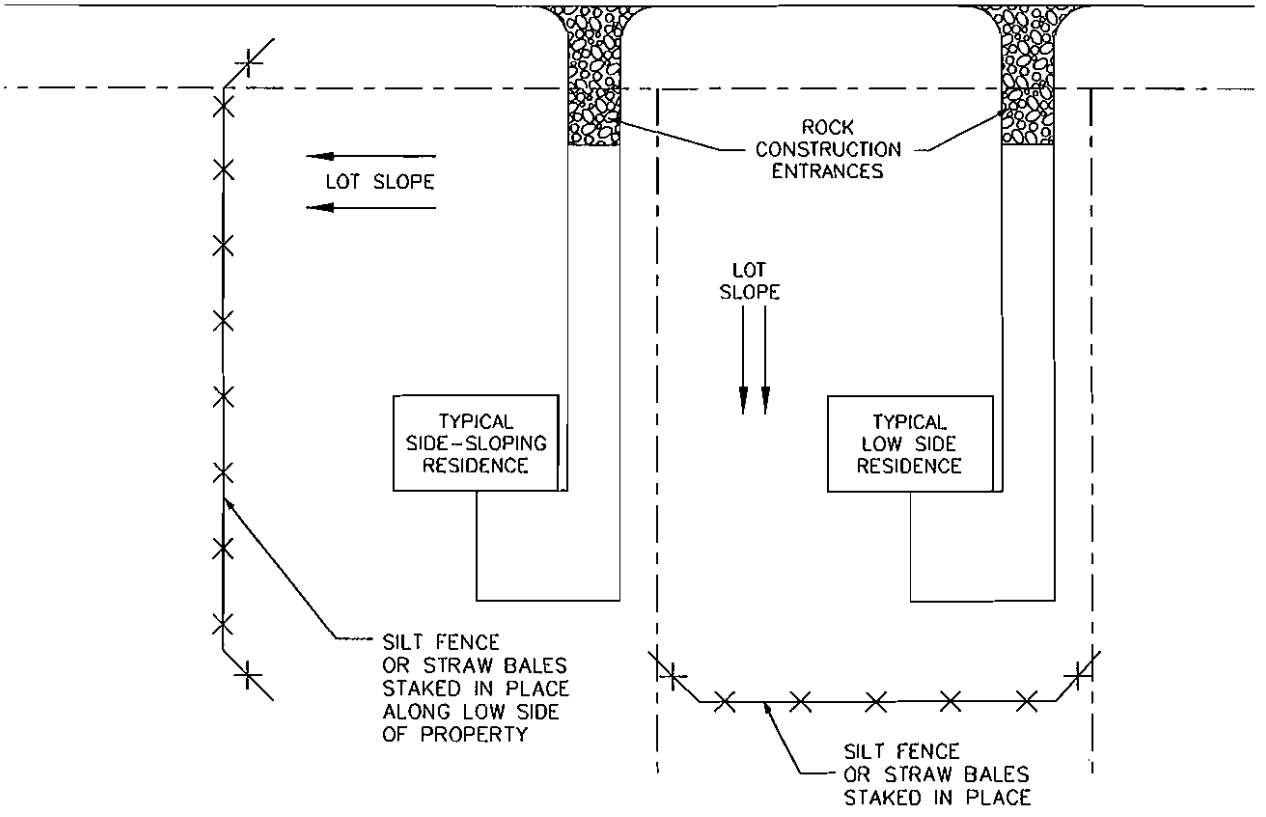
DT-58

MONROEVILLE

NOTE:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE INSTALLED AS PER THE MOST RECENT VERSION OF THE PADEP EROSION AND SEDIMENT POLLUTION CONTROL MANUAL





NOT TO SCALE

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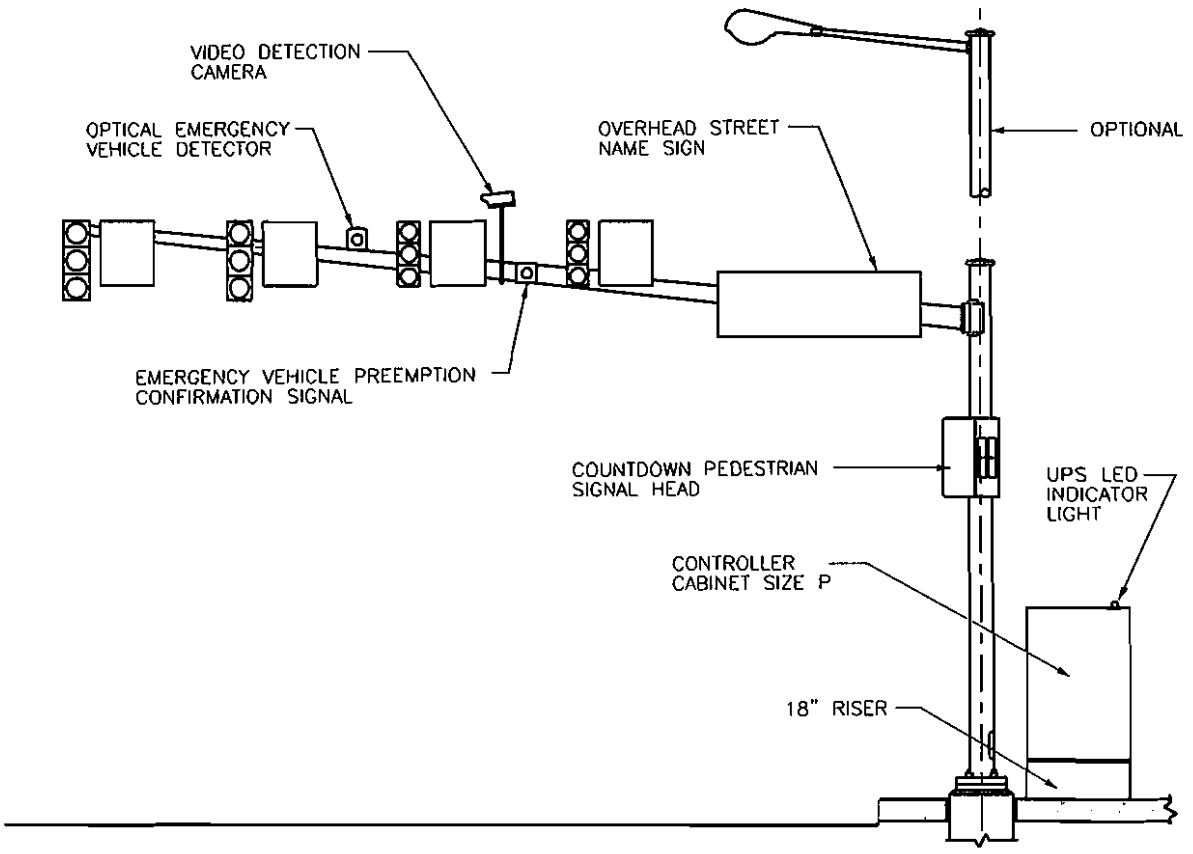
TYPICAL INDIVIDUAL ON-LOT E&S CONTROLS

Drawing:

DT-59

MONROEVILLE



NOTES:

1. TRAFFIC SIGNAL SUPPORTS: MAST ARMS ARE REQUIRED FOR ALL NEW SIGNAL INSTALLATIONS OR SIGNIFICANT SIGNAL REVISIONS
2. PEDESTRIAN SIGNALS: AS REQUIRED.
3. TRAFFIC SIGNALS: AS REQUIRED.
4. STREET NAME SIGN: AS REQUIRED BY PENNDOT.
5. LUMINAIRE AND POLE EXTENSION: REQUIRED AT THE DISCRETION OF MUNICIPALITY.
6. SIGNAL CONTROLLER ASSEMBLY: BASE MOUNTED REQUIRED FOR ALL NEW SIGNAL INSTALLATIONS OR SIGNIFICANT REVISIONS.

NOT TO SCALE

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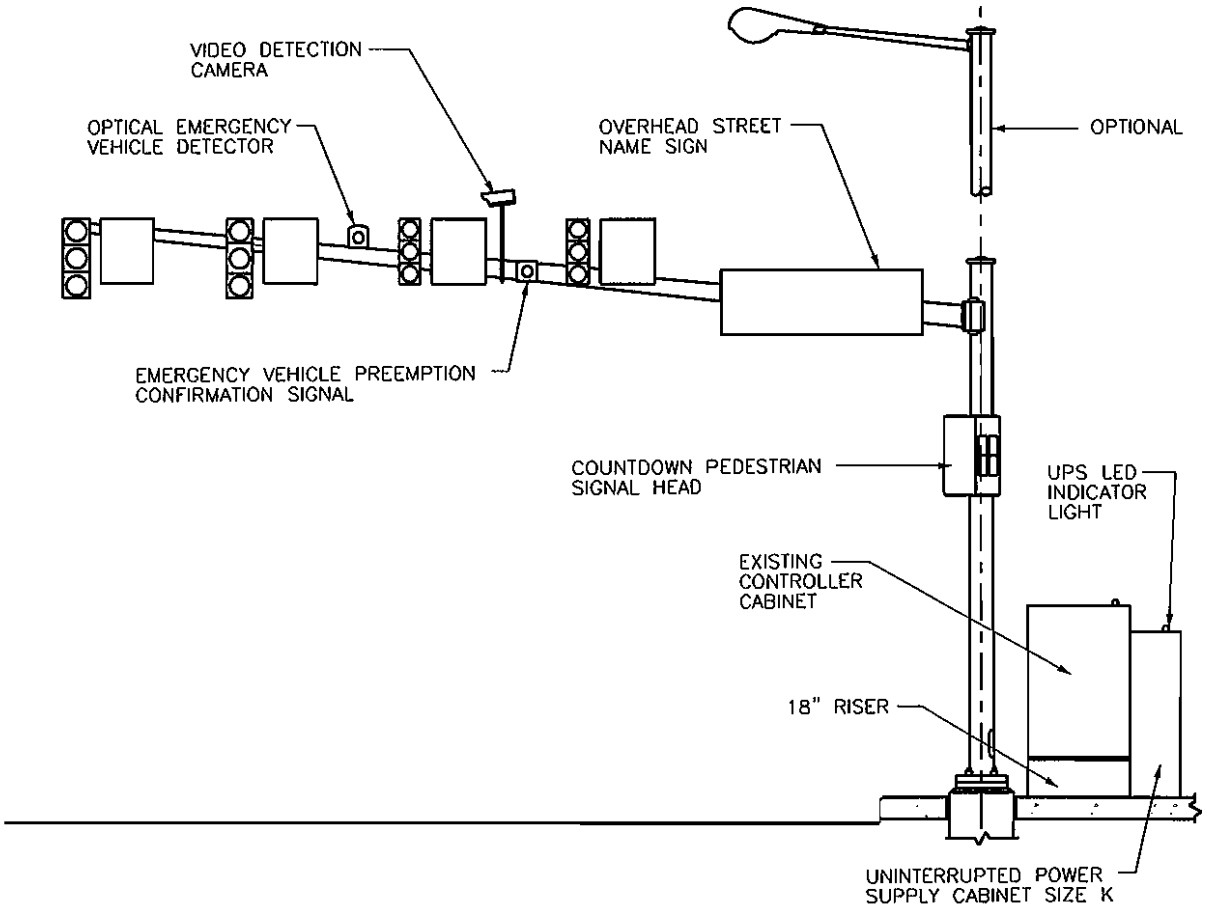
STANDARD TRAFFIC SIGNAL

Drawing:

DT-65

MONROEVILLE



NOTES:

1. TRAFFIC SIGNAL SUPPORTS: MAST ARMS ARE REQUIRED FOR ALL NEW SIGNAL INSTALLATIONS OR SIGNIFICANT SIGNAL REVISIONS
2. PEDESTRIAN SIGNALS: AS REQUIRED.
3. TRAFFIC SIGNALS: AS REQUIRED.
4. STREET NAME SIGN: AS REQUIRED BY PENNDOT.
5. LUMINAIRE AND POLE EXTENSION: REQUIRED AT THE DISCRETION OF MUNICIPALITY.
6. UNINTERUPTED POWER SUPPLY (UPS) CABINET: REQUIRED FOR EXISTING SIGNAL OPERATIONS WHERE CONTROLLER CABINETS ARE NOT ABLE TO ACCOMMODATE UPS AND BATTERIES.

NOT TO SCALE

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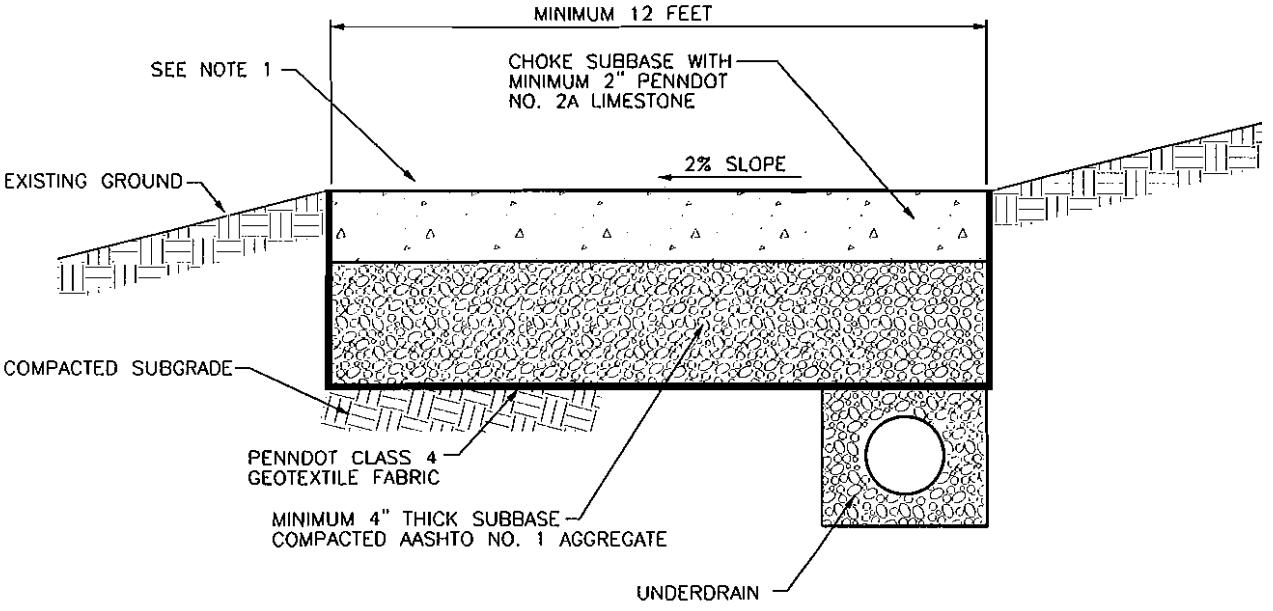
STANDARD TRAFFIC SIGNAL (RETROFIT)

Drawing:

DT-66

MONROEVILLE



NOTES

1. GRAVEL BASE MAY BE BURIED WITH 4" OF TOPSOIL AND SEEDED. TOPSOIL SHALL BE PLACED ON A GEOTEXTILE FABRIC SEPARATING SOIL FROM GRAVEL BASE, WITH MUNICIPAL APPROVAL.
2. ALTERNATIVE STABILIZATION METHODS MAY BE ACCEPTABLE UPON APPROVAL BY THE MUNICIPALITY.
3. SLOPE OF ACCESS ROAD SHOULD NOT EXCEED 15%.

NOT TO SCALE

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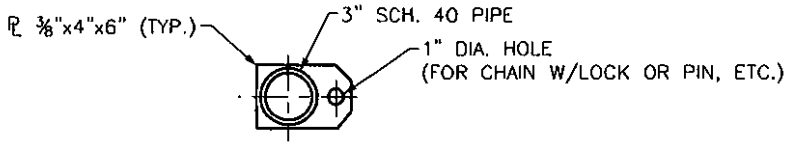
STABILIZED ACCESS ROAD

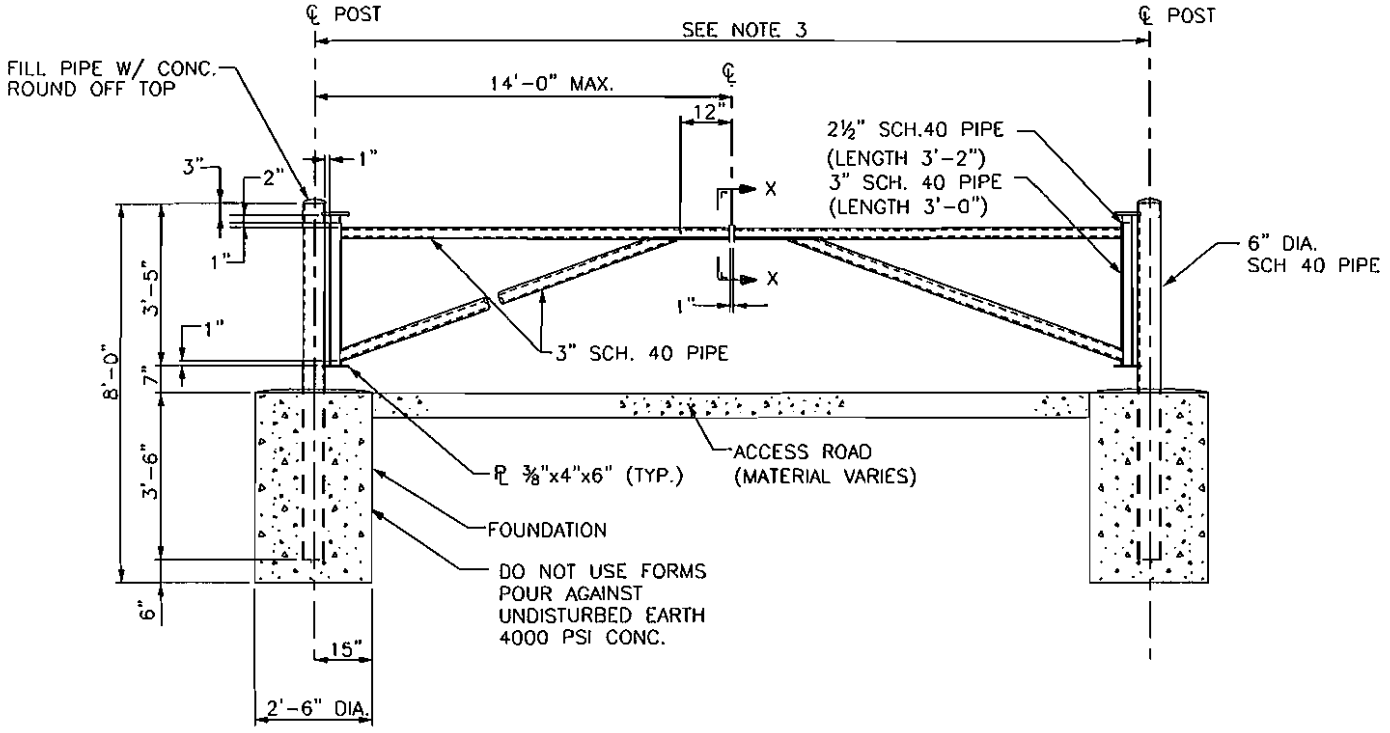
Drawing:

DT-70

MONROEVILLE



SECTION X-X



NOTES:

1. SHOP FABRICATE/SHIP GATE ASSEMBLY IN FOUR PIECES (2 "POST" PIECES AND 2 "GATE" PIECES) W/TOP GUSSET PLATES TACK WELDED TO 6" & 2½" PIPES. DURING "GATE" PIECE ERECTION BURN OFF TACK WELDS, INSTALL "GATE" PIECE OVER 2½" PIPE, AND FIELD WELD GUSSET PLATE TO 6" & 2½" PIPES INSURING 2½" PIPE IS IN TRUE VERTICAL ALIGNMENT.

2. SHOP FABRICATE "GATE" PIECES SUCH THAT HORIZONTAL PIPE WILL BE LEVEL IN INSTALLED POSITION, CONSIDERING TILT ASSOCIATED WITH THE HINGE MECHANISM (GAP BETWEEN THE 2½" & 3" PIPES).

3. ACCESS ROAD GATES UP TO 14' MAXIMUM WIDTH MAY BE OF SINGLE POST/ SINGLE GATE DESIGN. ACCESS ROAD GATES GREATER THAN 14' WIDTH MUST HAVE SUPPORTS ON BOTH SIDES OF THE ROAD, WITH GATE SECTIONS FABRICATED TO ½ OF THE TOTAL REQUIRED WIDTH.

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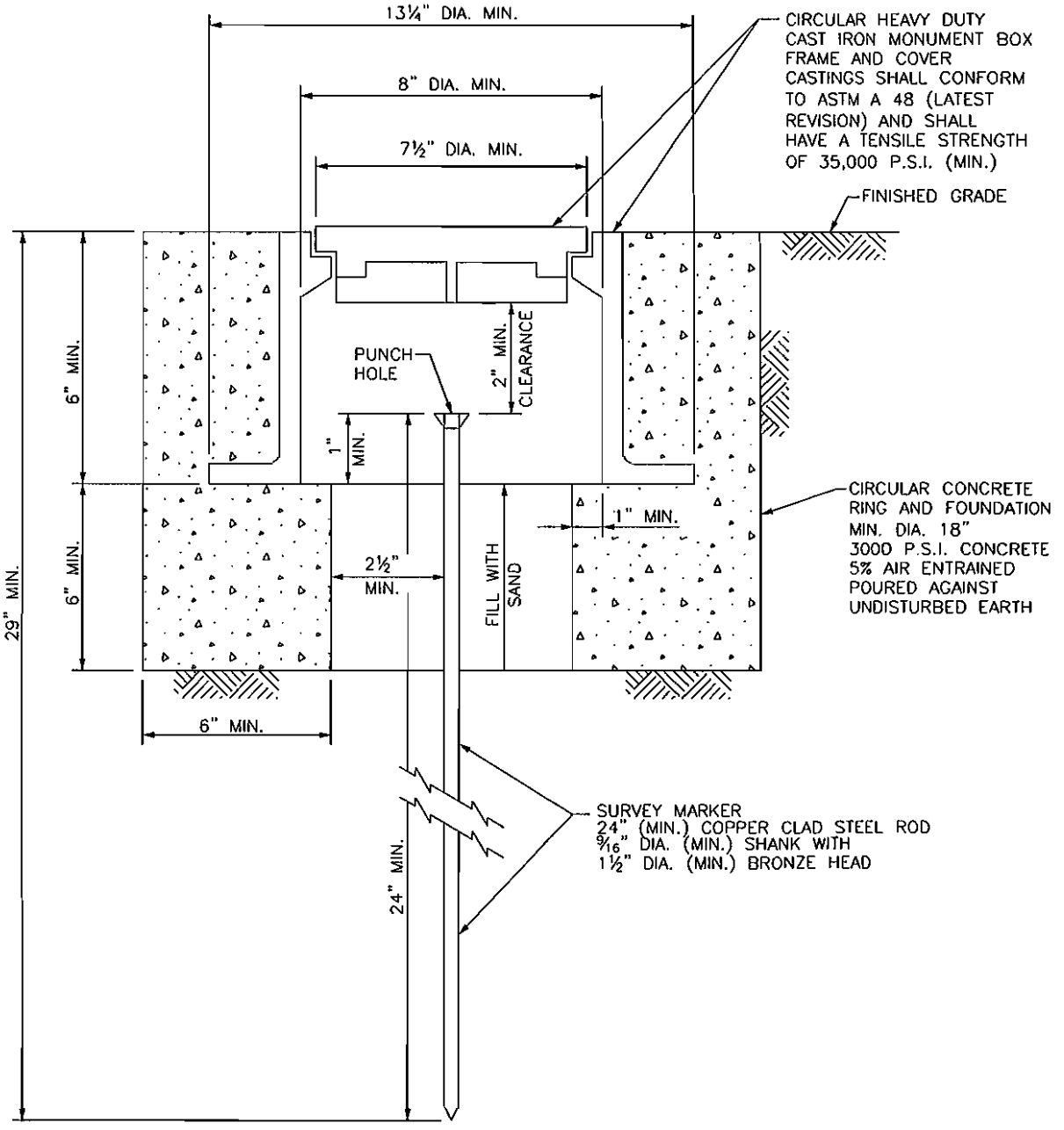
ACCESS ROAD GATE

Drawing:

DT-71

MONROEVILLE



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PERMANENT SURVEY MONUMENT ASSEMBLY

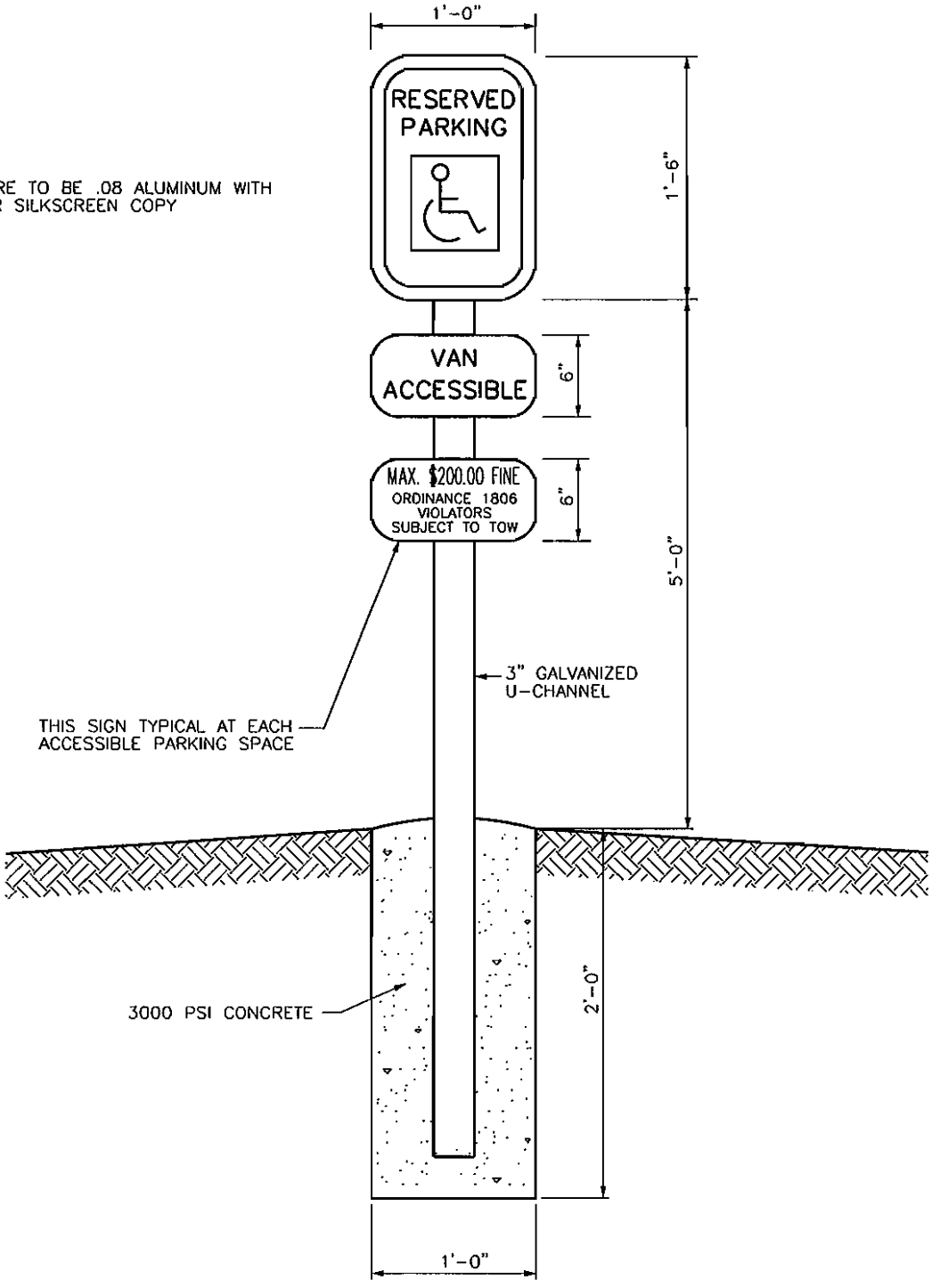
Drawing:

DT-72

MONROEVILLE

NOTE:

1. PANELS ARE TO BE .08 ALUMINUM WITH RAISED OR SILKSCREEN COPY



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TYPICAL ACCESSIBLE PARKING SPACE SIGNAGE

Drawing:

DT-73

MONROEVILLE