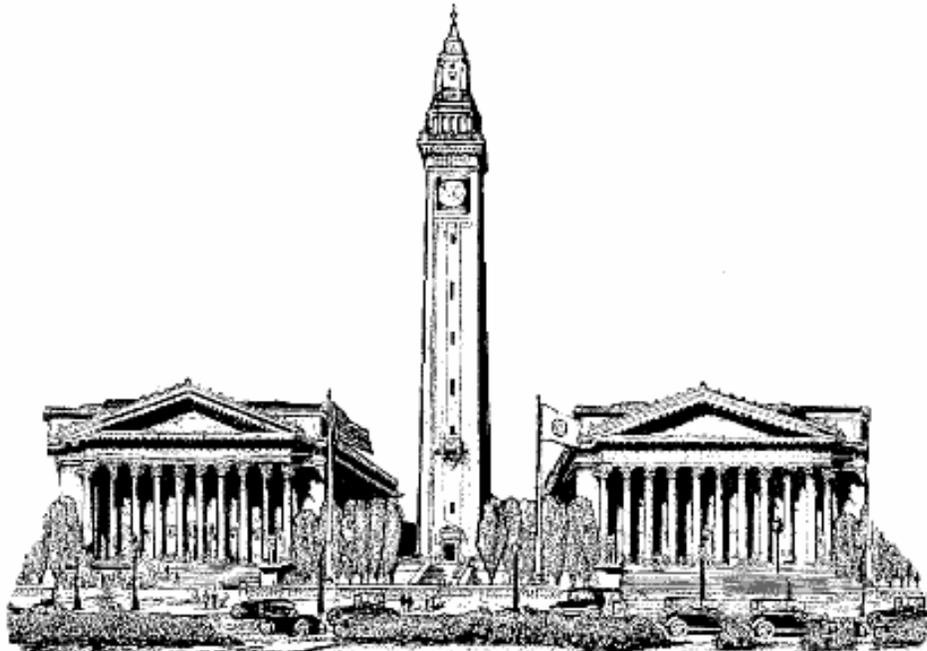


Springfield

Department of Public Works

Standard Engineering Details



SPRINGFIELD
Dpw
DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION NOTES

- 1.** CALL DIG-SAFE (1-800-322-4844) A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION.
- 2.** CONTRACTOR IS RESPONSIBLE FOR STREET OCCUPANCY PERMITS FROM THE ENGINEERING DIVISION, DEPARTMENT OF PUBLIC WORKS.
- 3.** NOTIFY FIELD INSPECTOR 48 HOURS PRIOR TO CONSTRUCTION.
- 4.** APPROVED PLANS SHALL BE ON SITE AT ALL TIMES.
- 5.** CHANGES TO THIS PLAN MAY OCCUR AS UNFORSEEN CONDITIONS ARISE. ALL CHANGES SHALL BE APPROVED BY FIELD INSPECTOR.
- 6.** CALCIUM CHLORIDE/ WATER FOR DUST CONTROL SHALL BE AVAILABLE AT ALL TIMES.
- 7.** ALL MATERIALS AND METHODS SHALL CONFORM TO CITY OF SPRINGFIELD D.P.W. AND WATER AND SEWER COMMISSION STANDARDS.
- 8.** THE CONTRACTOR SHALL ENSURE THE MAINTENANCE OF SAFETY AND TRAFFIC ON THE PUBLIC AND PRIVATE WAYS AFFECTED BY THE CONSTRUCTION OF THIS PROJECT.
- 9.** THE CONTRACTOR SHALL PROTECT ALL SLOPES, VEGETATION, PAVING, WALKS AND IMPROVEMENTS OUTSIDE THE AREAS TO BE AFFECTED BY THE CONSTRUCTION OF THIS PROJECT.
- 10.** ALL DRAINAGE STRUCTURES (CATCH BASINS / LEECHING BASINS) IN THE AREA SHALL BE PROTECTED FROM RUNOFF.
- 11.** "AS-BUILT" UTILITY DRAWINGS ARE TO BE SUBMITTED TO THE ENGINEERING DIVISION UPON COMPLETION OF THIS PROJECT.
- 12.** ALL PAVEMENT MARKINGS CHANGED, ALTERED OR REMOVED SHALL BE RE-APPLIED.
- 13.** SPRINGFIELD D.P.W. APPROVAL IS NOT TO BE CONSTRUED AS AN ALL-INCLUSIVE APPROVAL, AS OTHER APPROVALS MAY BE NECESSARY, I.E. CITY FORESTER, CONSERVATION, FIRE DEPT. AND WATER AND SEWER COMMISSION, ETC.
- 14.** THE CONTRACTOR SHALL HAVE AN APPROVED S.W.P.P.P. ON SITE AS NEEDED.
- 15.** (OTHER NOTES AS NEEDED)

DETAILS 2006

0001 - TYPICAL STANDARD SECTION FOR SIDEWALK CONSTRUCTION AT CURB LINE (ASPHALT)

0002 - TYPICAL STANDARD SECTION FOR SIDEWALK CONSTRUCTION (ASPHALT)

0003 - TYPICAL STANDARD SECTION FOR SIDEWALK CONSTRUCTION WITH UNSUITABLE SUB BASE (ASPHALT)

0004 - TYPICAL STANDARD SECTION FOR SIDEWALK CONSTRUCTION AT CURB LINE (CONCRETE)

0005 - TYPICAL STANDARD SECTION FOR SIDEWALK CONSTRUCTION (CONCRETE)

0006 - TYPICAL STANDARD SECTION FOR SIDEWALK CONSTRUCTION WITH UNSUITABLE SUB BASE (CONCRETE)

0007 - STANDARD SIDEWALK CONSTRUCTION AT COMMERCIAL DRIVEWAYS

0008 - STANDARD SIDEWALK CONSTRUCTION AT RESIDENTIAL DRIVEWAYS

0009 - TYPICAL SECTION 40' STREET LINE 28' PAVEMENT

0010 - TYPICAL SECTION 40' STREET LINE 26' PAVEMENT CAPE COD BERM

0011 - TYPICAL SECTION 50' STREET LINE 28' PAVEMENT CAPE COD BERM

0012 - TYPICAL SECTION 50' STREET LINE 24' PAVEMENT

0013 - TYPICAL SECTION 80' STREET LINE 28' PAVEMENT

0014 - BERM 6"

0015 - CAPE COD BERM

0016 - BERM TYPE A

0017 - BRICK SIDEWALK, SIDEWALK TREATMENT AT UTILITIES

0018 - BRICK SIDEWALK, SIDEWALK TREATMENT AT DRIVEWAYS

0019 - TREE PIT TYPE E

0020 - BRICK WHEELCHAIR RAMP

0021 - BRICK TREE PLANTING

0022 - TRAFFIC SIGNAL CONDUIT TRENCH

0023 - RCP. CLASS IV PIPE TRENCH

0024 - PIPE SUBDRAIN

0025 - CLASS 'A' CONCRETE ARCH

0026 - CURTAIN DRAIN

0027 - PVC SDR35 PIPE TRENCH

0028 - SILT FENCE

0029 - STAKED HAY BALES

0030 - TYPICAL PRECAST CONCRETE MANHOLE

0031 - TYPICAL SECTION OF DROP TYPE MANHOLE

0032 - TYPICAL SECTION FOR UTILITIES

0033 - PRECAST CB OFFSET

0034 - TWO LANE TWO - WAY TRAFFIC CONTROL

0035 - MDC GASOLINE TRAP MANHOLE

0036 - LIGHT POST STREETLIGHT HEAD

0037 - DECORATIVE LIGHTING IVY STYLE

0038 - DECORATIVE LIGHTING BOROUGH STYLE

0039 - PRECAST LIGHT POLE FOUNDATION

0040 - TYPICAL LEACHING TRENCH

0041 - DECORATIVE LIGHTING BISHOP'S CROOK

0042 - HEADWALL

0043 - STEEL BEAM GUARD RAIL

0044 - PRECAST CONCRETE CATCH BASIN

0045 - PRECAST CONCRETE CATCH BASIN WITH WEEPHOLE

0046 - CATCH BASIN WITH PREFORATED PIPE OUTLET

0047 - TYPICAL LEACHING GALLEY

0048 - CATCH BASIN HOOD

0049 - CATCH BASIN WITH CASTING

0050 - SPRINGFIELD CITY SEAL

0051 - ACCEPTANCE PLAN KEY 1

0052 - ACCEPTANCE PLAN KEY 2

0053 - ACCEPTANCE PLAN KEY 3

0054 - TRENCH REPAIR SPECIFICATION RESIDENTIAL STREET

0055 - TRENCH REPAIR SPECIFICATION ARTERIAL STREET

0056 - TYPICAL RESIDENTIAL DRIVEWAY

0057 - GRANITE CURBING

0058 - SEWER CONNECTION

0059 - SIGNING AND BARRICADE PLAN TWO- WAY STREET CENTER OF ROAD WORK AREA

0060 - SIGNING AND BARRICADE PLAN TWO- WAY STREET SIDE OF ROAD
WORK AREA

0061 - SIGNING AND BARRICADE PLAN TWO- WAY STREET ALL TWO- WAY
STREETS @INTERSECTIONS

0062 - SIGNING AND BARRICADE PLAN TWO- WAY STREET TRENCH
EXCAVATION

0063 - SIGNING AND BARRICADE PLAN SIDEWALK & TREEBELT AREA

0064 - SIGNING AND BARRICADE PLAN ROADWAY CRANE SERVICE AREA

0065 - SIGN FACE DETAILS

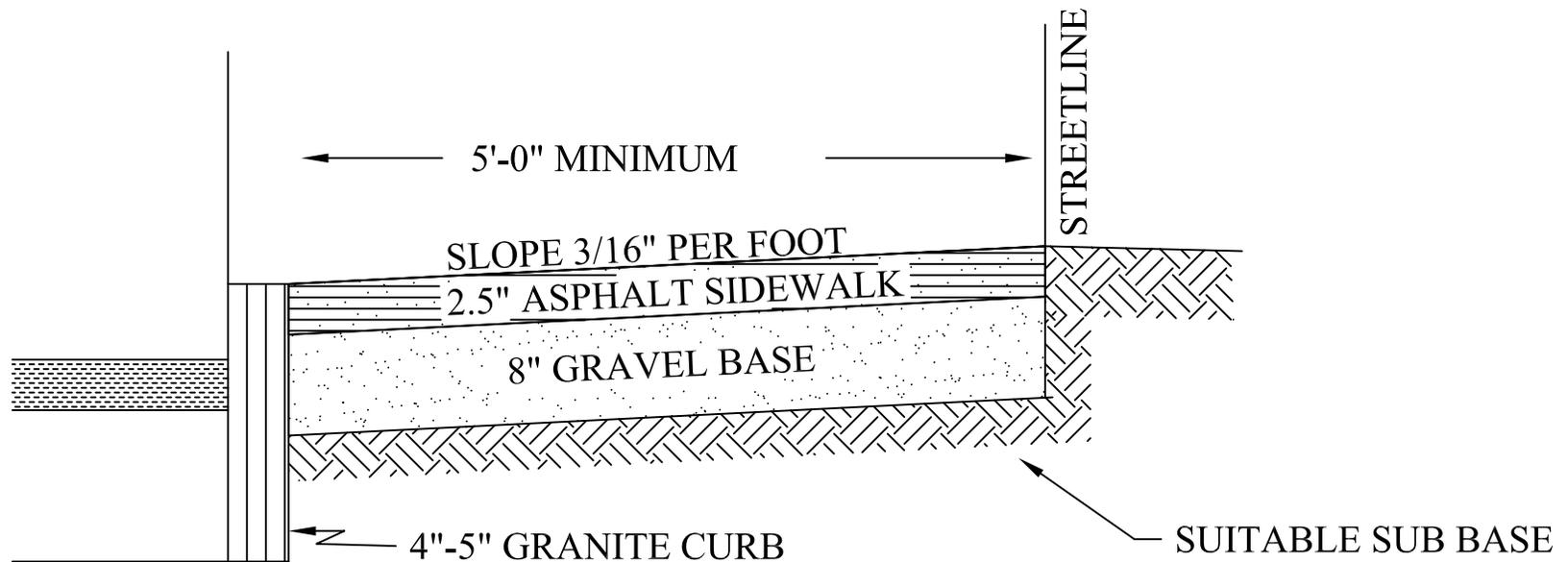
0066 - BERM TYPE A

0067 - BERM TYPE B

0068 - BERM TYPE C

0069 - BERM TYPE D

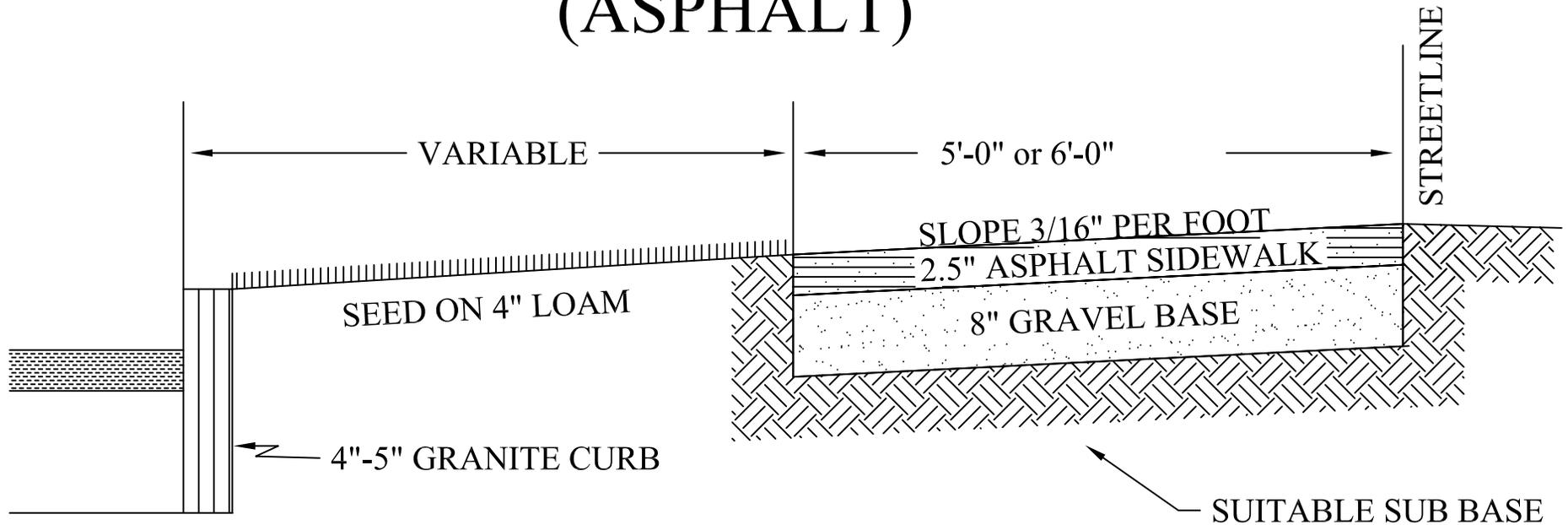
TYPICAL STANDARD SECTION FOR SIDEWALK CONSTRUCTION AT CURB LINE (ASPHALT)



NOTES:

- STANDARD SIDEWALK SLOPE IS 3/16 PER FT.
- ALL WORK TO CONFORM WITH SECTION 701.62 OF THE MASSACHUSETTS HIGHWAY DEPARTMENT'S STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES

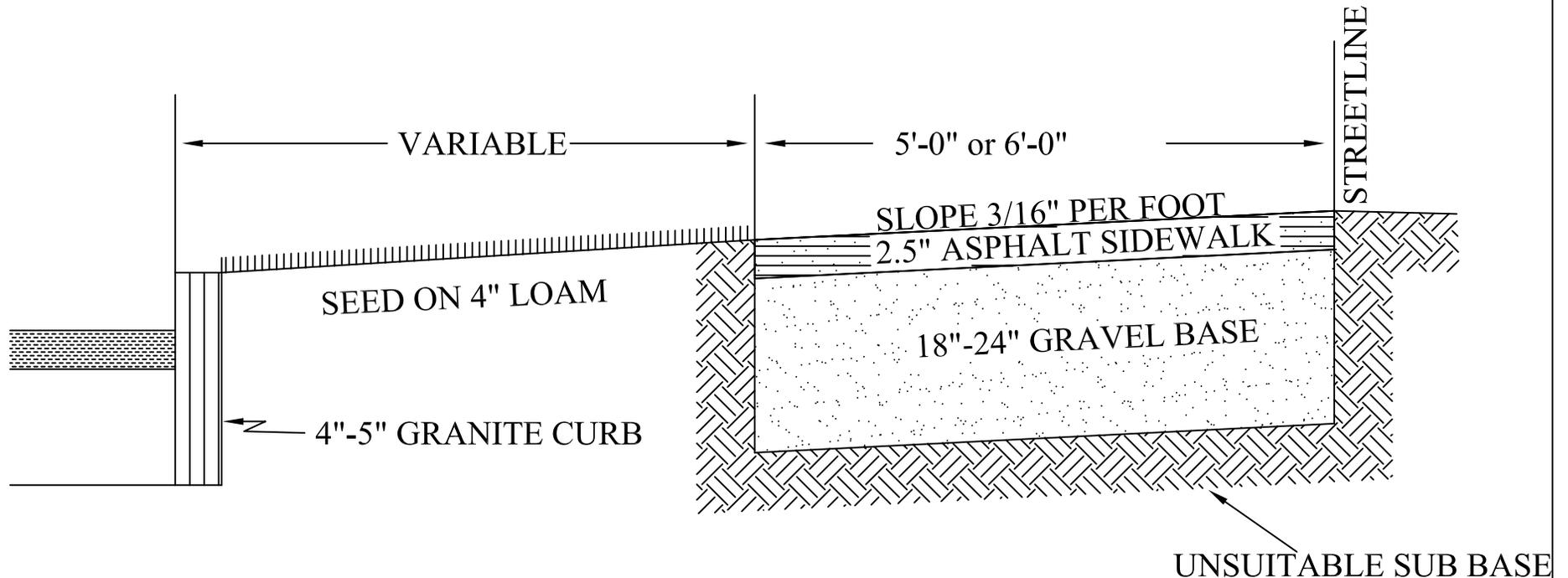
TYPICAL STANDARD SECTION FOR SIDEWALK CONSTRUCTION (ASPHALT)



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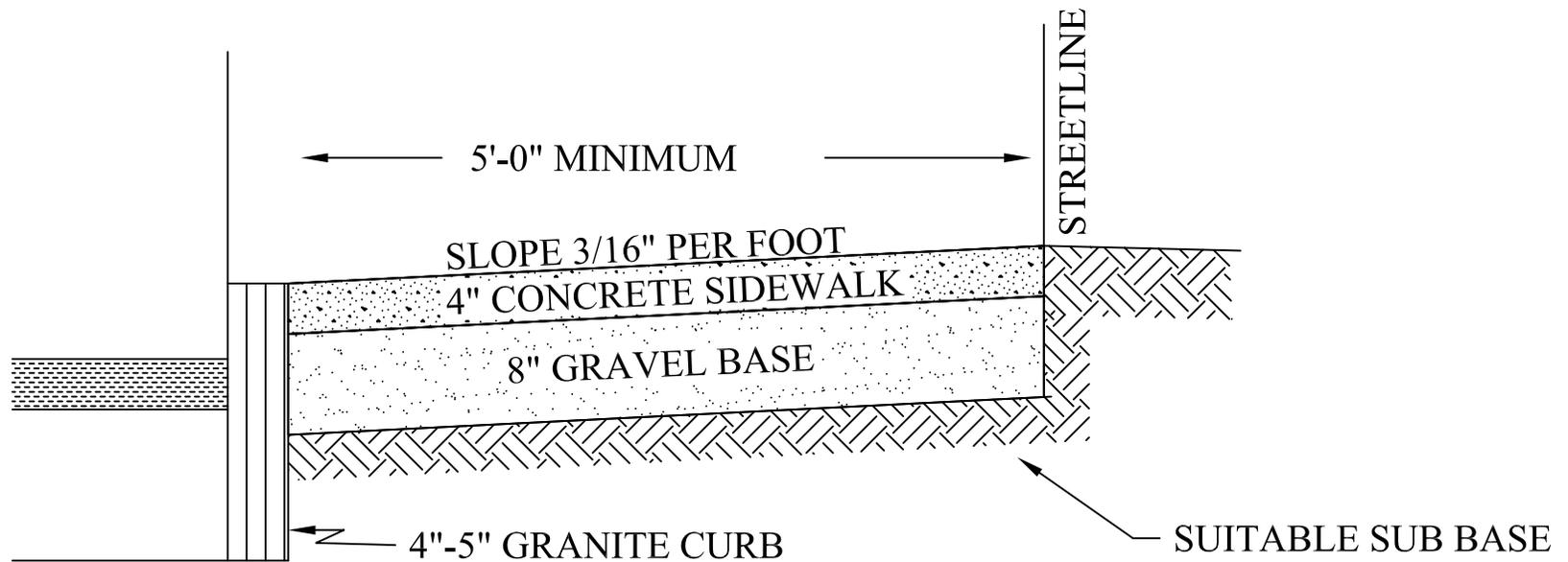
TYPICAL STANDARD SECTION FOR SIDEWALK CONSTRUCTION WITH UNSUITABLE SUB BASE (ASPHALT)



NOTES:

- STANDARD SIDEWALK SLOPE IS 3/16 PER FT.
- ALL WORK TO CONFORM WITH SECTION 701.62 OF THE MASSACHUSETTS HIGHWAY DEPARTMENT'S STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES

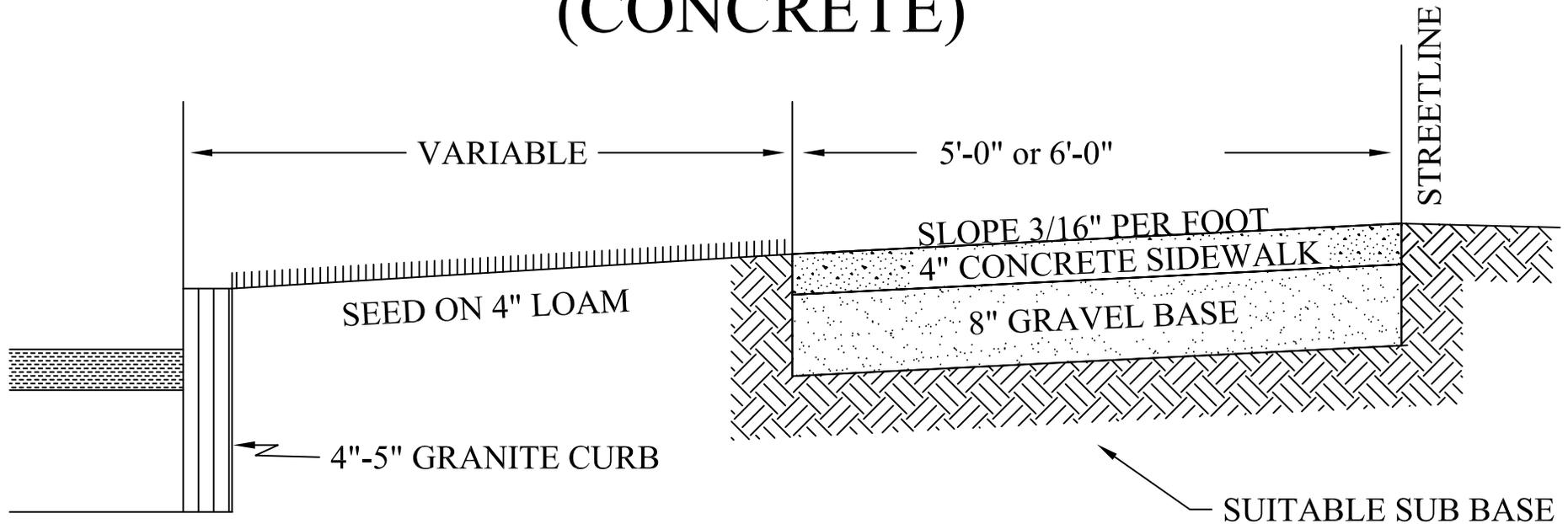
TYPICAL STANDARD SECTION FOR SIDEWALK CONSTRUCTION AT CURB LINE (CONCRETE)



NOTES:

- STANDARD SIDEWALK SLOPE IS 3/16 PER FT.
- MINIMUM CONCRETE STENGTH WILL BE 4,000#, CLASS D

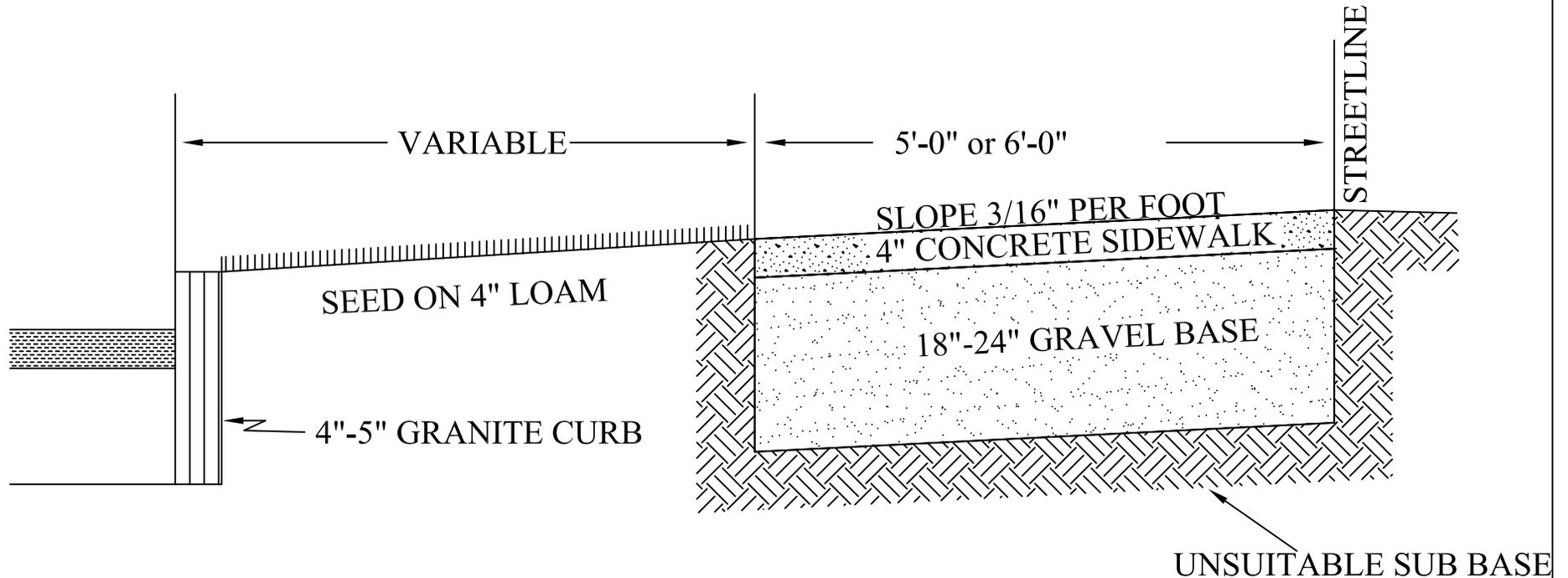
TYPICAL STANDARD SECTION FOR SIDEWALK CONSTRUCTION (CONCRETE)



NOTES:

- STANDARD SIDEWALK SLOPE IS 3/16 PER FT.
- MINIMUM CONCRETE STENGTH WILL BE 4,000#, CLASS D

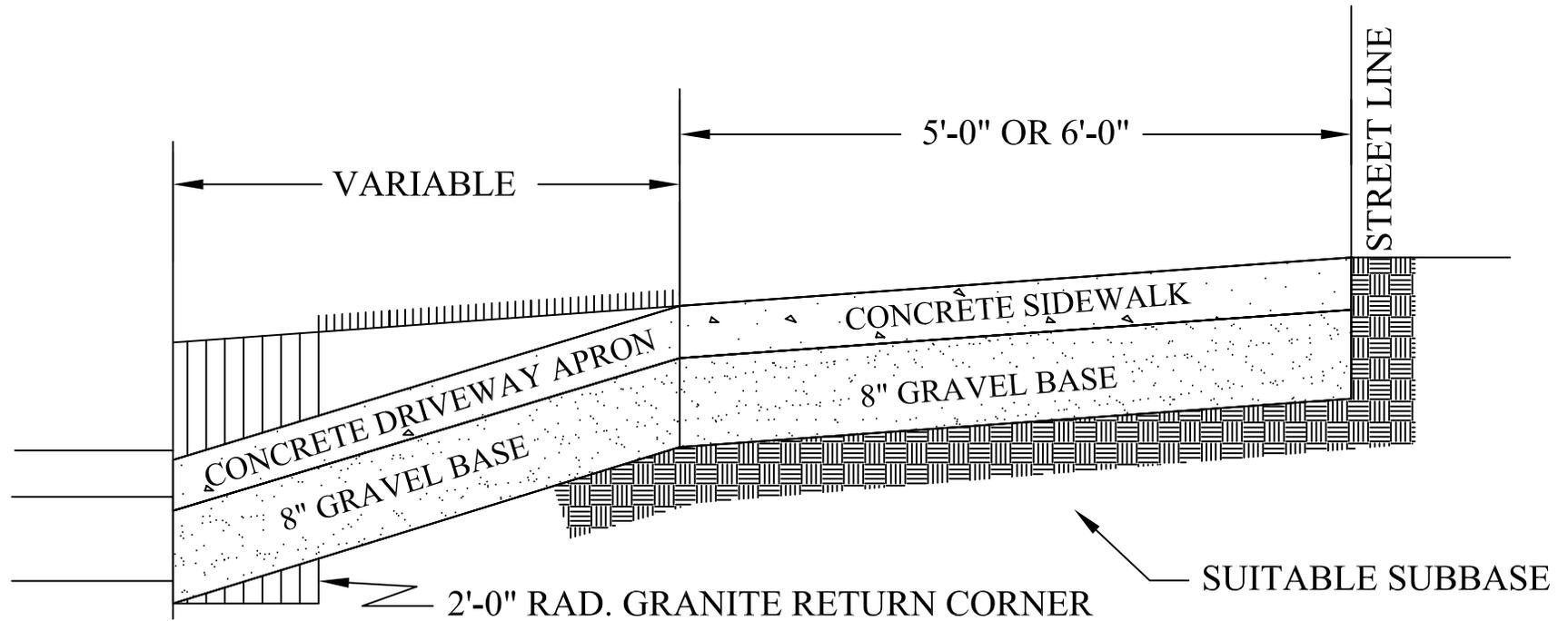
TYPICAL STANDARD SECTION FOR SIDEWALK CONSTRUCTION WITH UNSUITABLE SUB BASE (CONCRETE)



NOTES:

- STANDARD SIDEWALK SLOPE IS 3/16 PER FT.
- MINIMUM CONCRETE STRENGTH WILL BE 4,000#, CLASS D

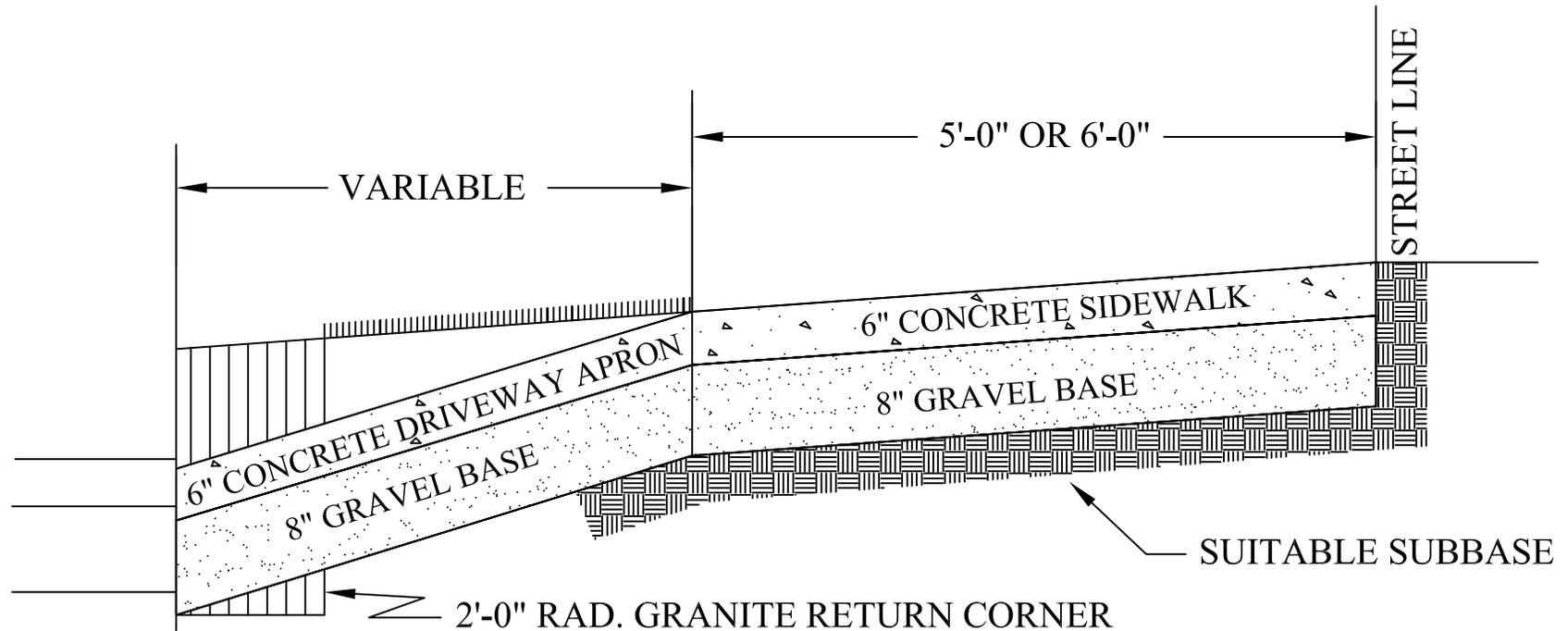
STANDARD SIDEWALK CONSTRUCTION AT COMMERCIAL DRIVEWAYS



NOTES:

- 9" CONCRETE MAY BE REPLACED BY 6" ASPHALT IF APPROVED
- STANDARD SIDEWALK SLOPE IS 3/16 PER FT.
- MAXIMUM DRIVEWAY WIDTH IS 40' WITH TWO 2' CURB RETURNS (36' OPENING)
- #3 REINFORCEING BARS SHALL BE PLACED 12" O.C., 3" FROM GRAVEL BASE
- MINIMUM CONCRETE STRENGTH WILL BE 4,000#, CLASS D

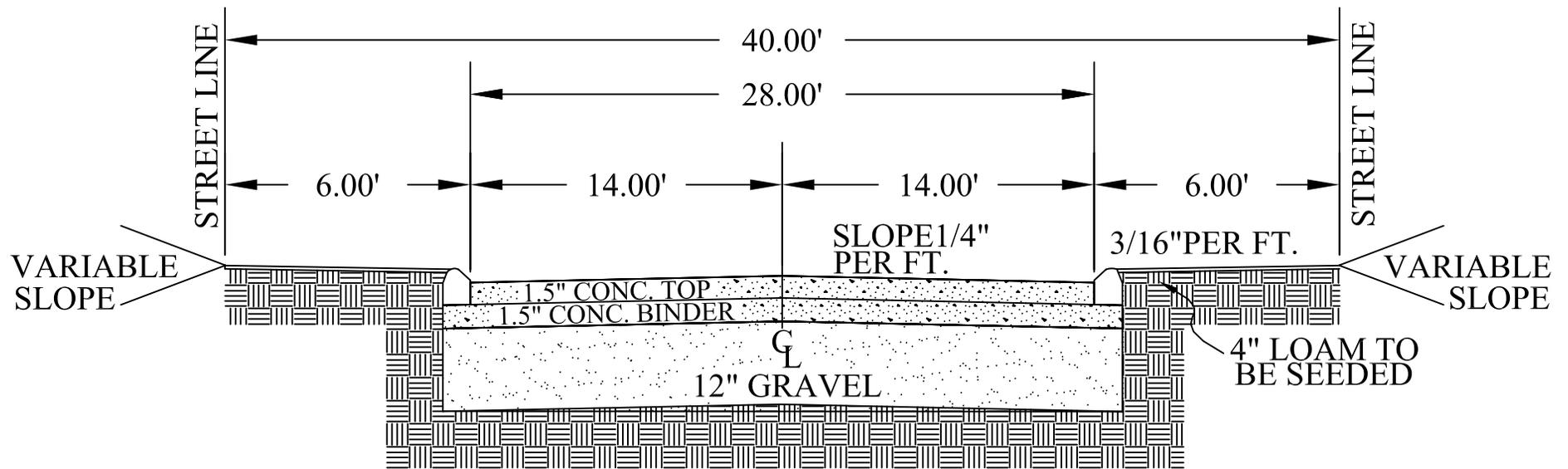
STANDARD SIDEWALK CONSTRUCTION AT RESIDENTIAL DRIVEWAYS



NOTES:

- 6" CONCRETE DEPTH TO BE REPLACED BY 3-1/2" ASPHALT(2" BINDER, 1- 1/2" TOP) AS DIRECTED BY THE ENGINEER
- STANDARD SIDEWALK SLOPE IS 3/16 PER FT.
- MAXIMUM DRIVEWAY WIDTH IS 24' WITH TWO 2' CURB RETURNS (20' OPENING)
- WIRE WELDED FABRIC PLACED 1-1/2" ABOVE GRAVEL BASE
- MINIMUM CONCRETE STRENGTH WILL BE 4,000#, CLASS D

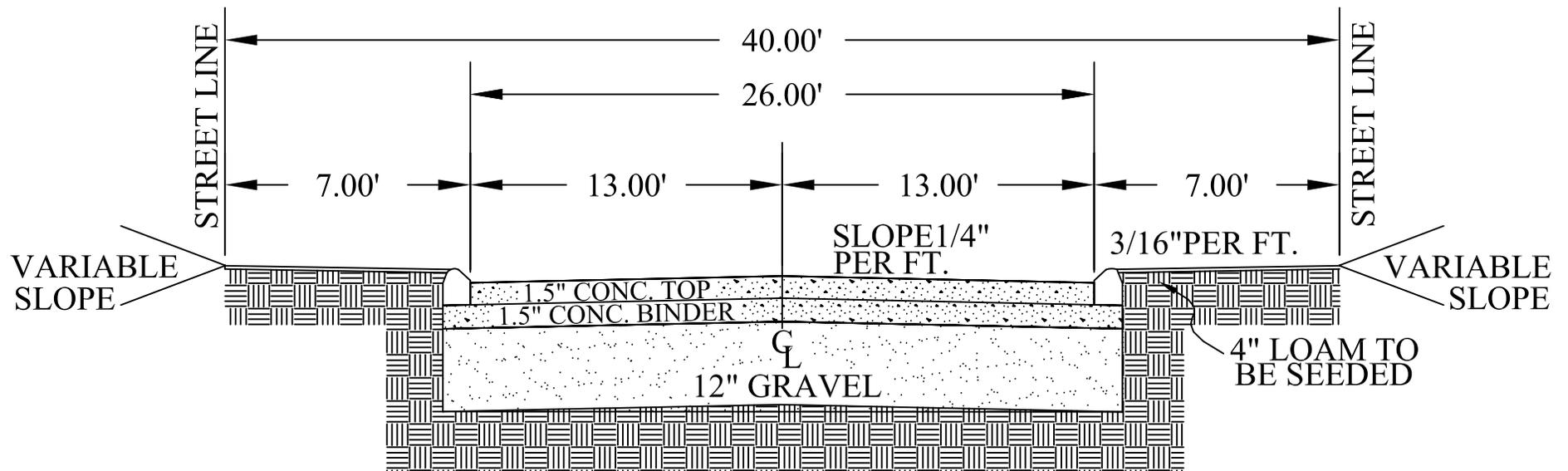
TYPICAL SECTION 40' STREET LINE 28' PAVEMENT



NOTES:

- EXISTING SUBGRADE TO BE SHAPED AND COMPACTED
- USE CALCIUM CHLORIDE APPLIED AT 1.5 LBS PER SQ. YD. OR APPROVED ALTERNATE
- SURFACE COURSE:
1.5" BITUMINOUS CONCRETE TOP, 1.5" BITUMINOUS CONCRETE BINDER
- BASE:
12" GRAVEL

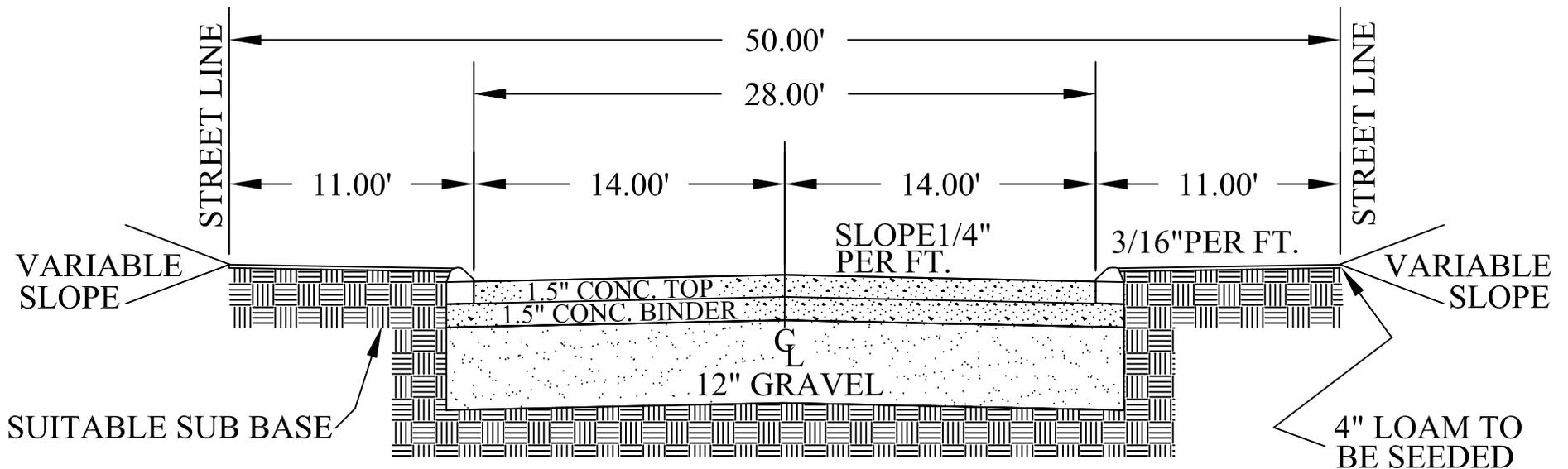
TYPICAL SECTION 40' STREET LINE 26' PAVEMENT CAPE COD BERM



NOTES:

- EXISTING SUBGRADE TO BE SHAPED AND COMPACTED
- USE CALCIUM CHLORIDE APPLIED AT 1.5 LBS PER SQ. YD. OR APPROVED ALTERNATE
- SURFACE COURSE:
1.5" BITUMINOUS CONCRETE TOP, 1.5" BITUMINOUS CONCRETE BINDER
- BASE:
12" GRAVEL

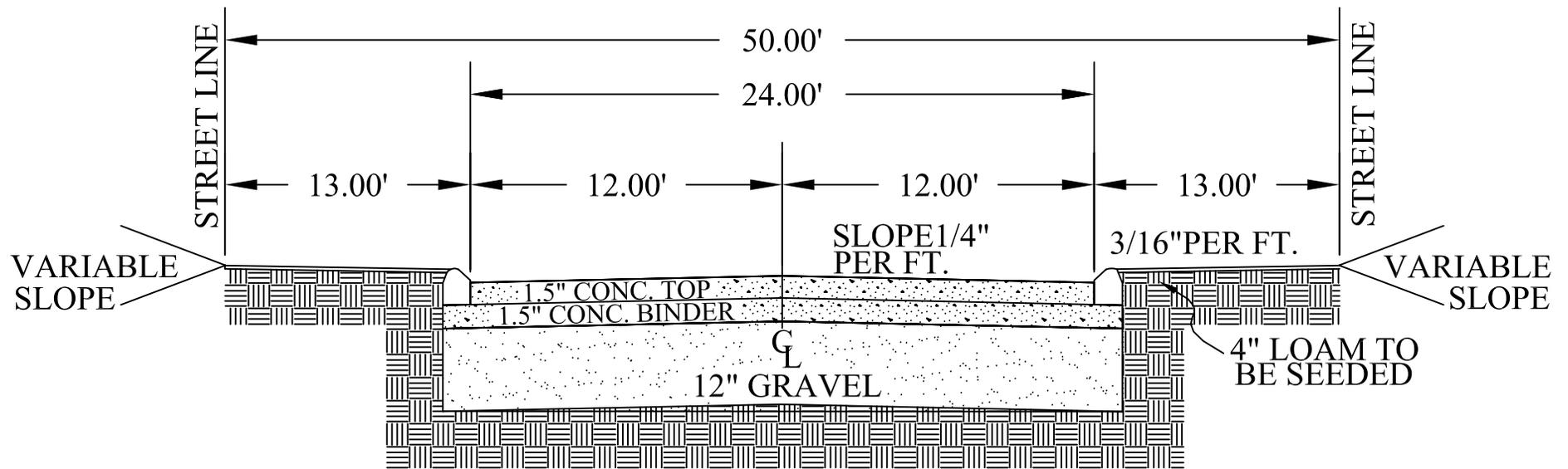
TYPICAL SECTION 50' STREET LINE 28' PAVEMENT CAPECOD BERM



NOTES:

- EXISTING SUBGRADE TO BE SHAPED AND COMPACTED
- USE CALCIUM CHLORIDE APPLIED AT 1.5 LBS PER SQ. YD. OR APPROVED ALTERNATE
- SURFACE COURSE:
1.5" BITUMINOUS CONCRETE TOP, 1.5" BITUMINOUS CONCRETE BINDER
- BASE:
12" GRAVEL

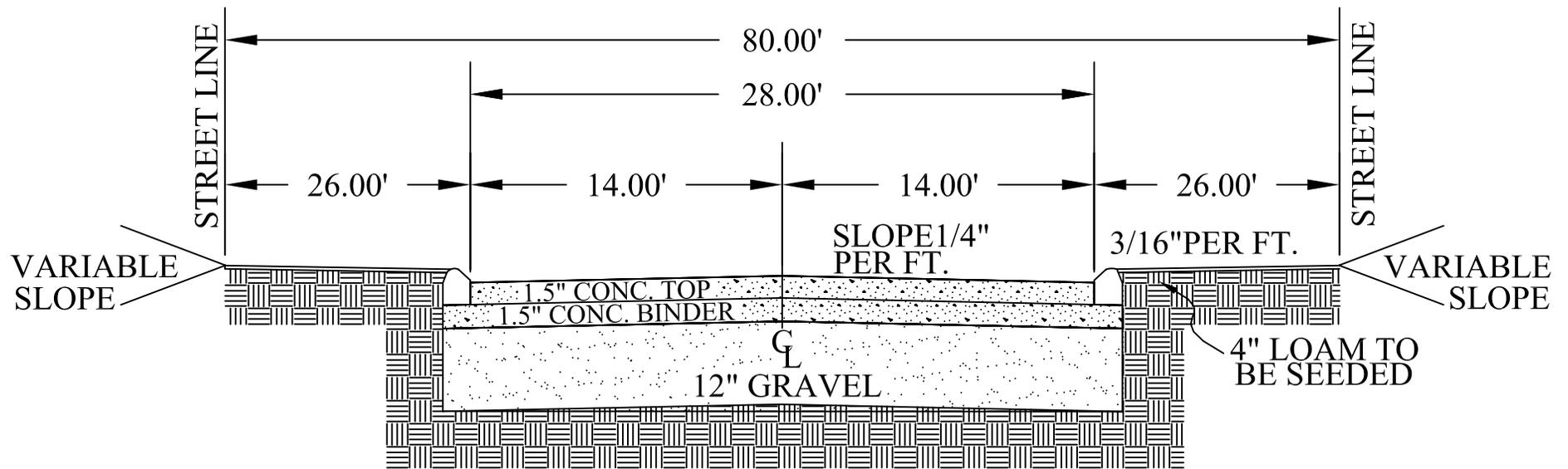
TYPICAL SECTION 50' STREET LINE 24' PAVEMENT



NOTES:

- EXISTING SUBGRADE TO BE SHAPED AND COMPACTED
- USE CALCIUM CHLORIDE APPLIED AT 1.5 LBS PER SQ. YD. OR APPROVED ALTERNATE
- SURFACE COURSE:
1.5" BITUMINOUS CONCRETE TOP, 1.5" BITUMINOUS CONCRETE BINDER
- BASE:
12" GRAVEL

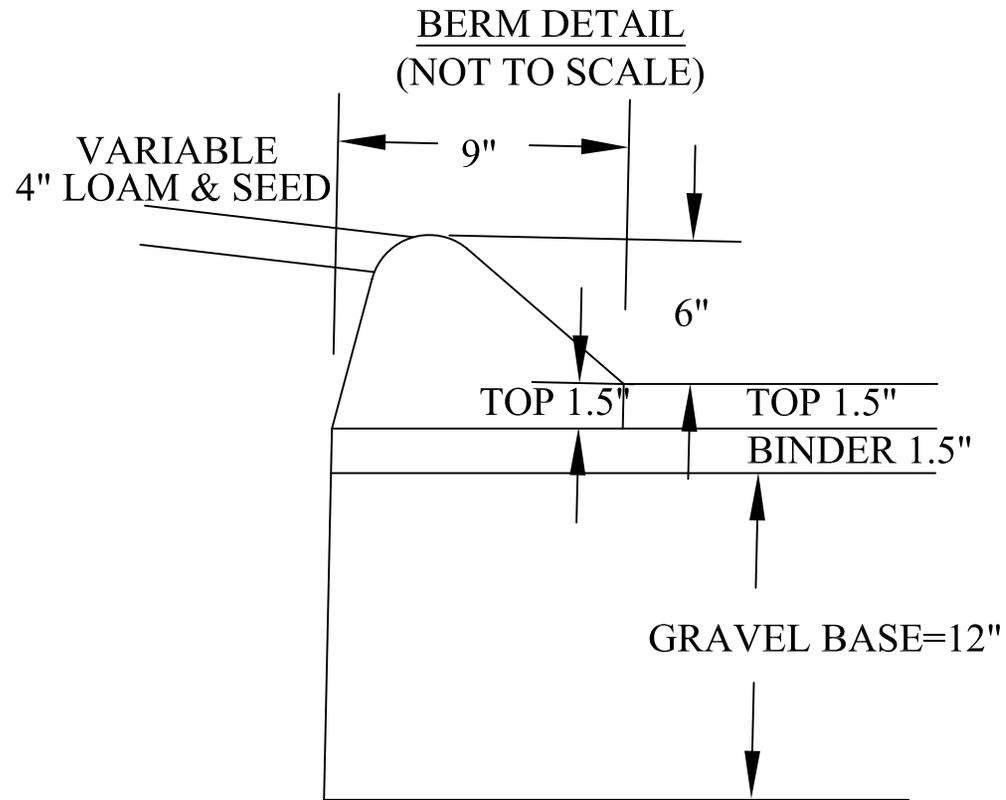
TYPICAL SECTION 80' STREET LINE 28' PAVEMENT



NOTES:

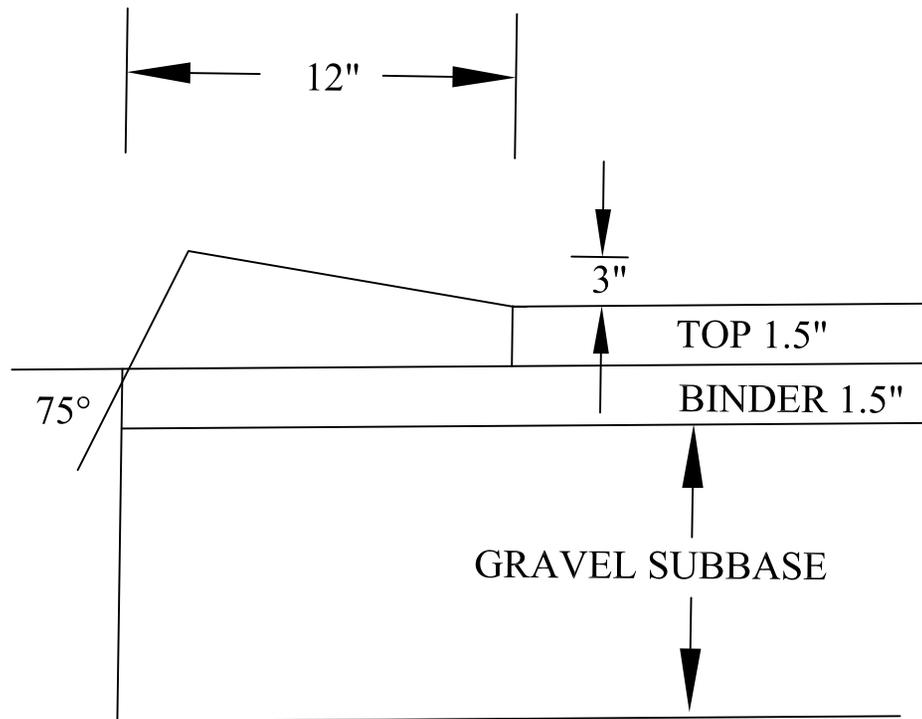
- EXISTING SUBGRADE TO BE SHAPED AND COMPACTED
- USE CALCIUM CHLORIDE APPLIED AT 1.5 LBS PER SQ. YD. OR APPROVED ALTERNATE
- SURFACE COURSE:
1.5" BITUMINOUS CONCRETE TOP, 1.5" BITUMINOUS CONCRETE BINDER
- BASE:
12" GRAVEL

BERM 6"

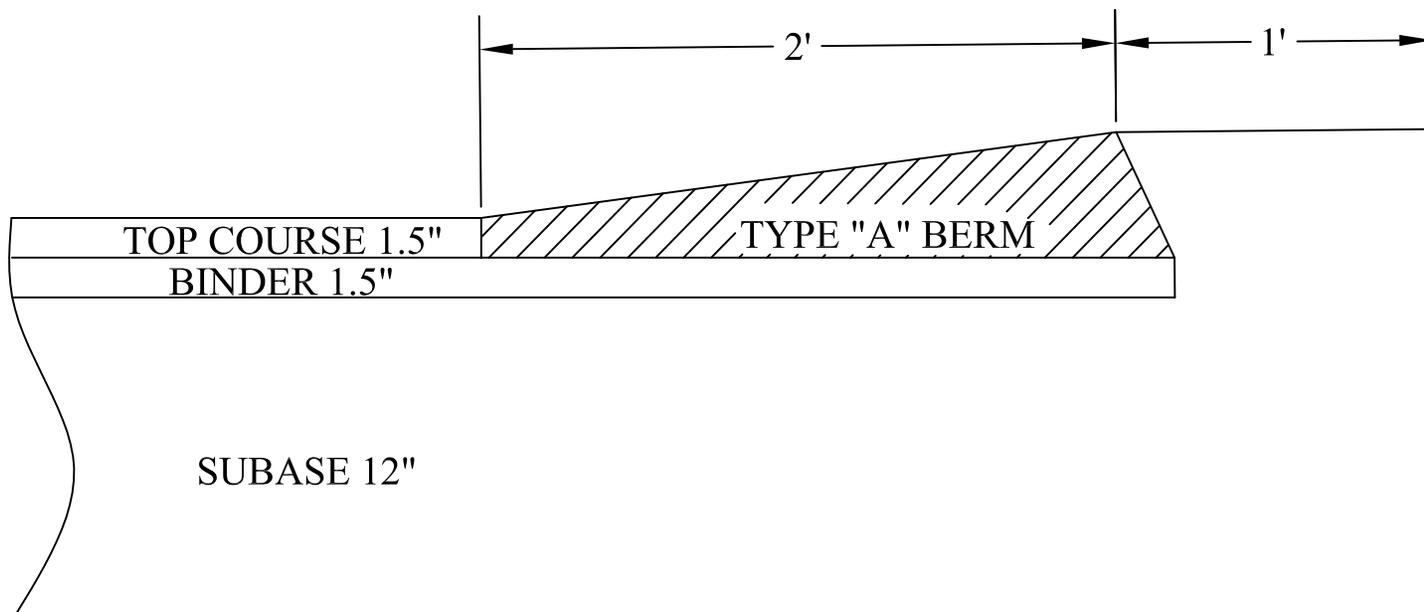


CAPE COD BERM

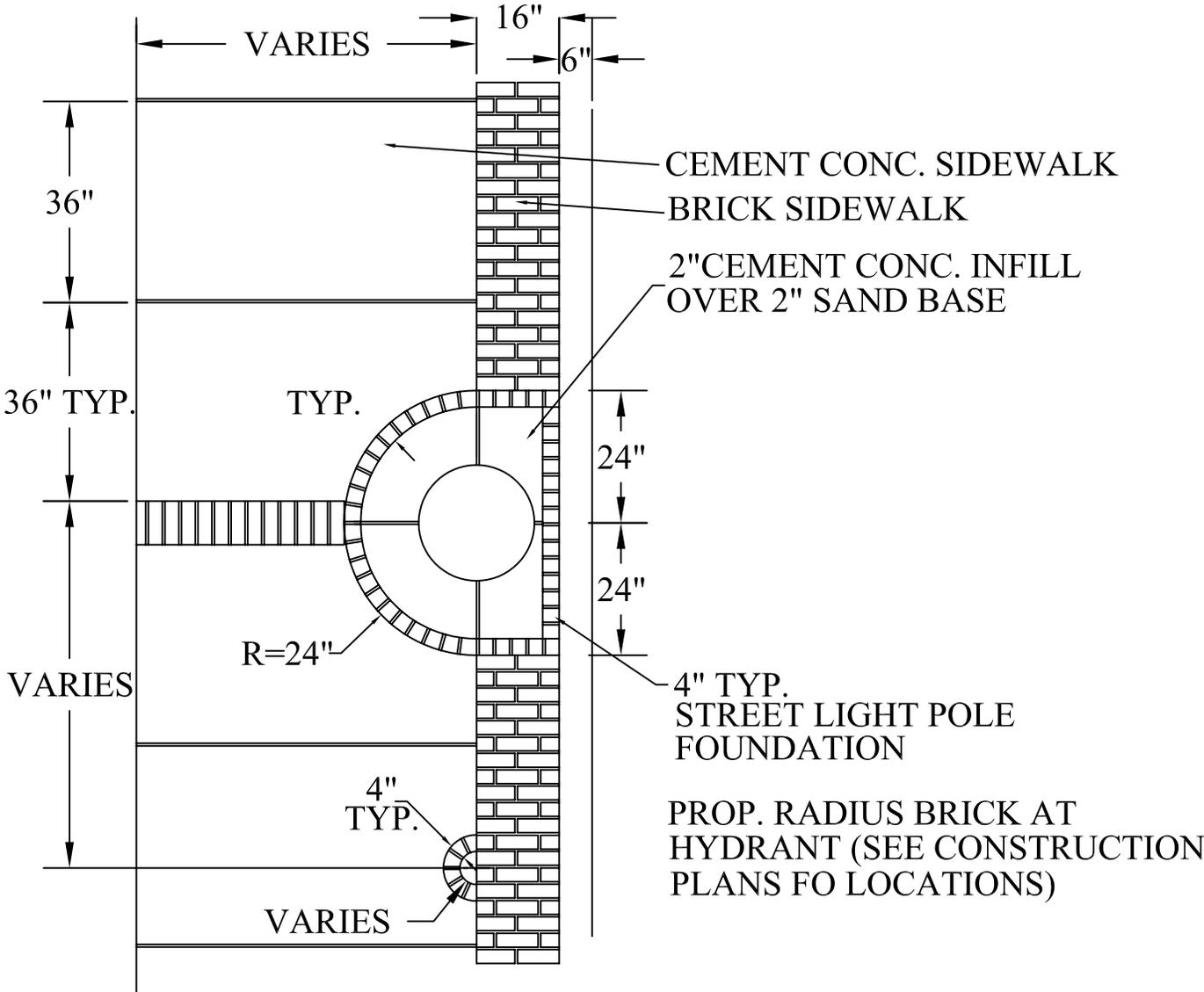
CAPE COD BERM DETAIL
(NOT TO SCALE)



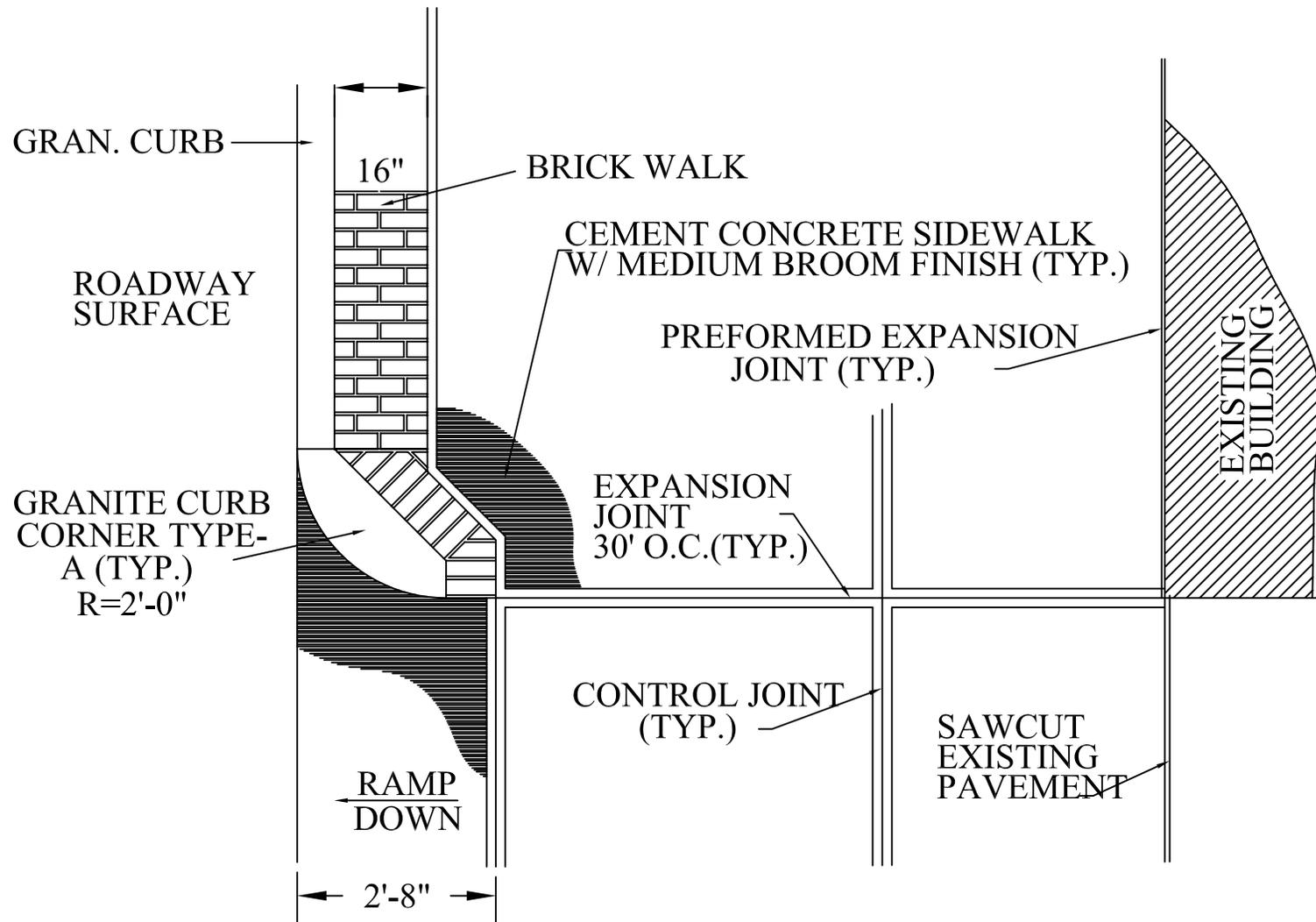
BERM TYPE A



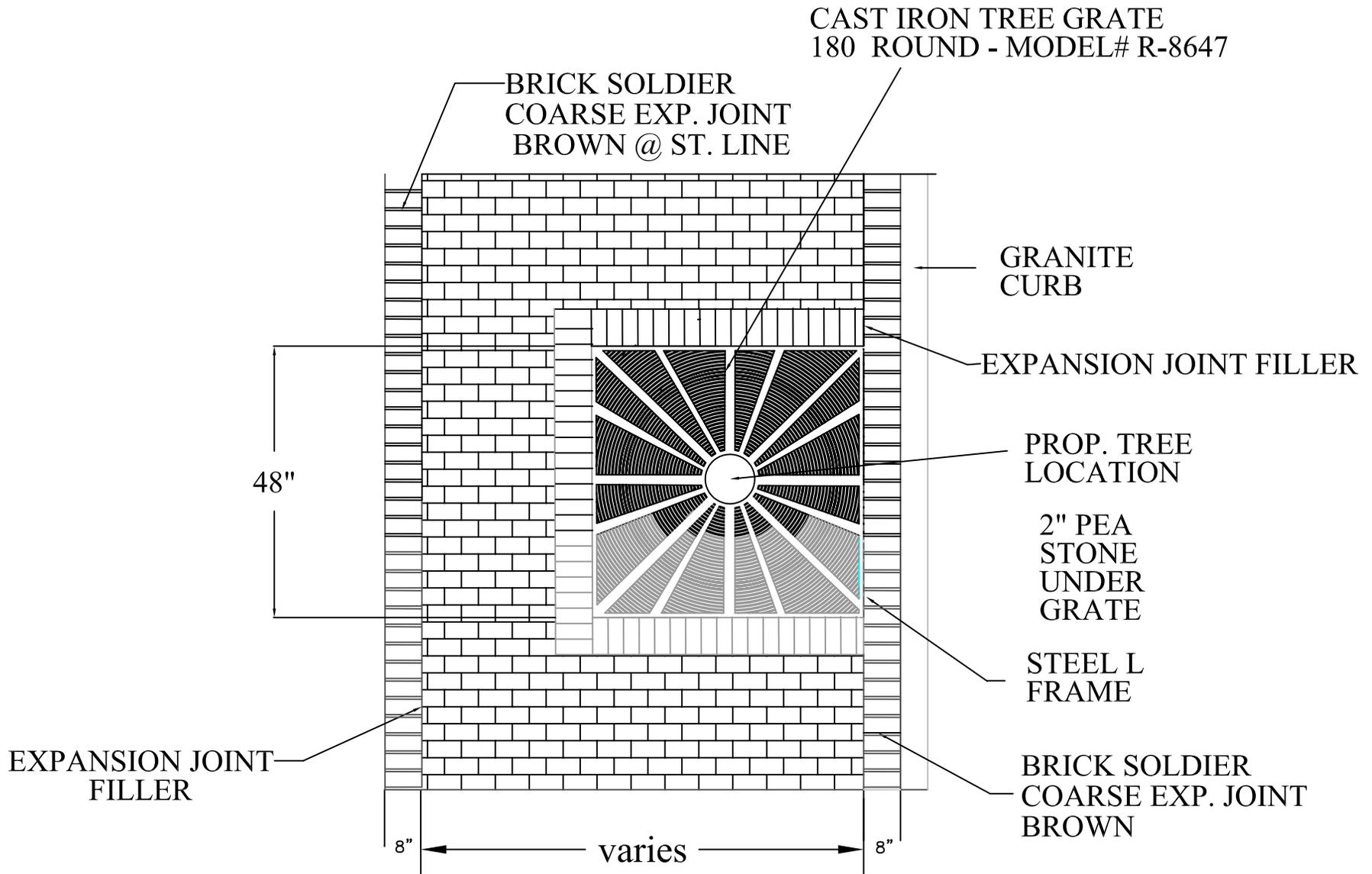
BRICK SIDEWALK SIDEWALK TREATMENT AT UTILITIES



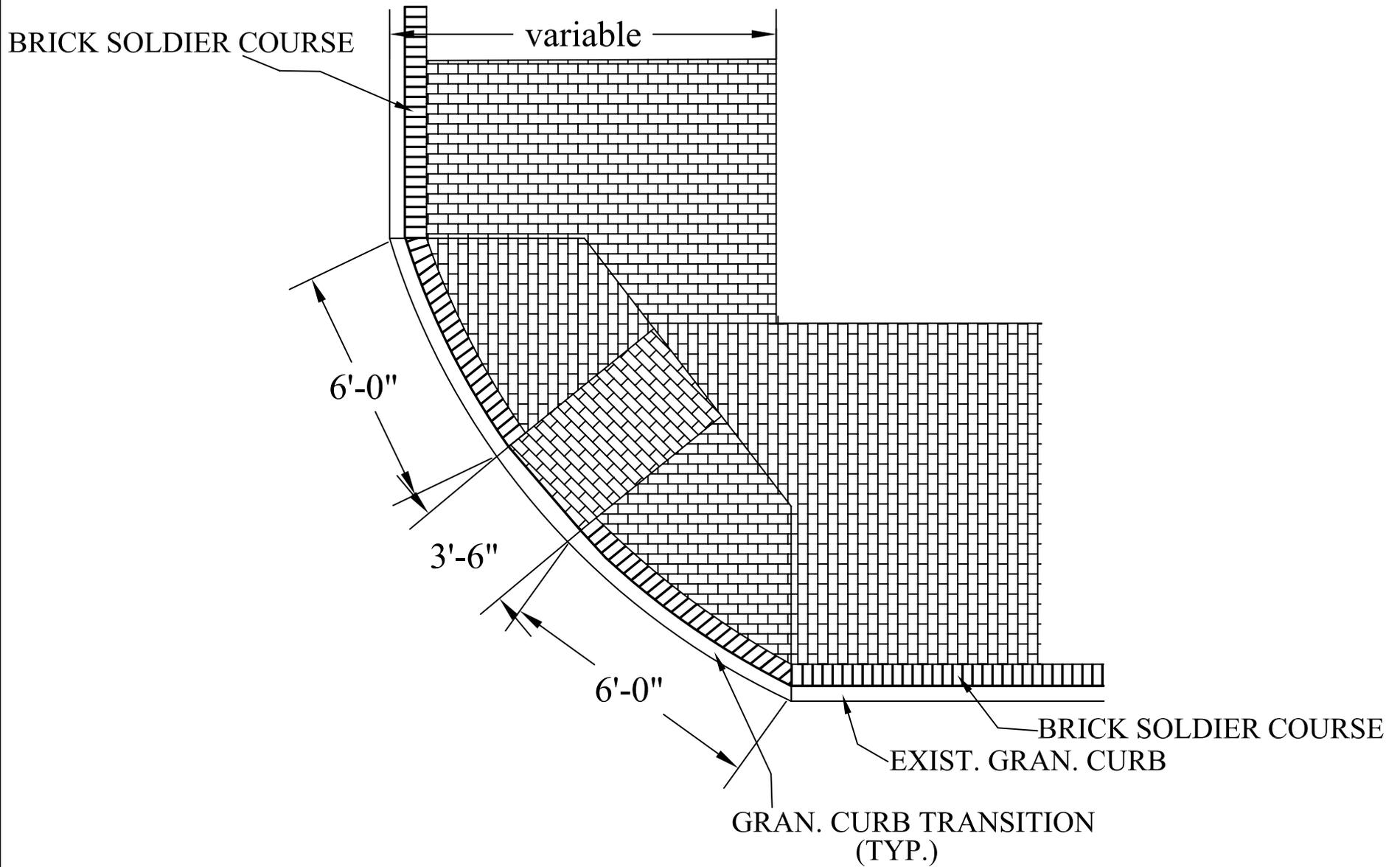
BRICK SIDEWALK SIDEWALK TREATMENT AT DRIVES



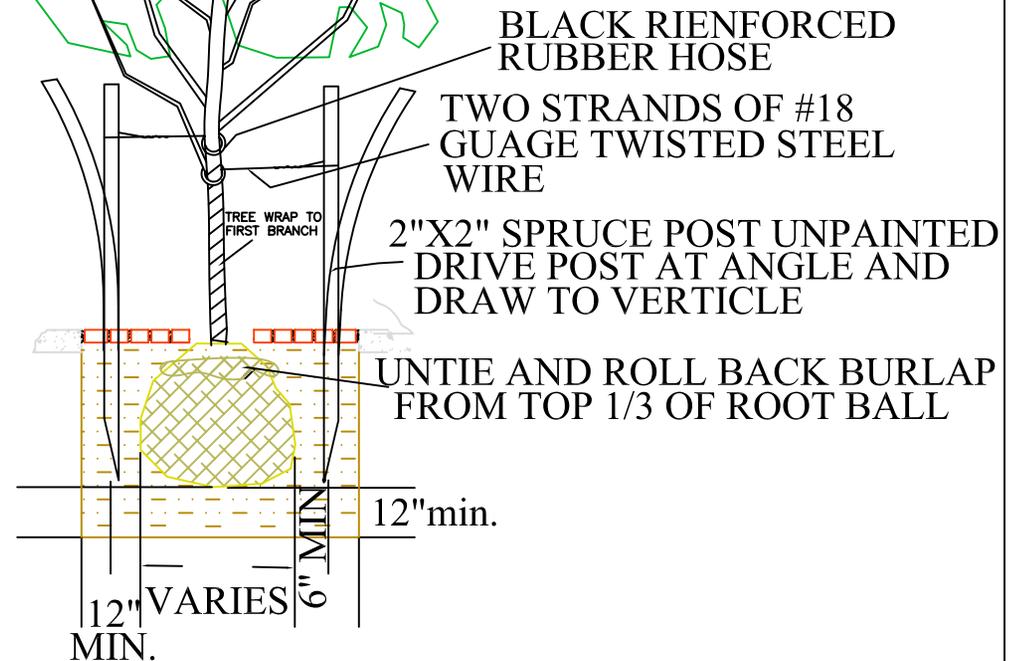
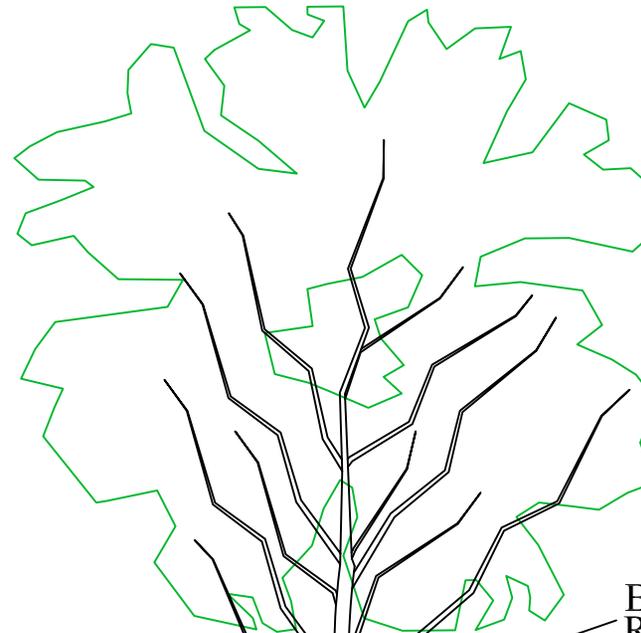
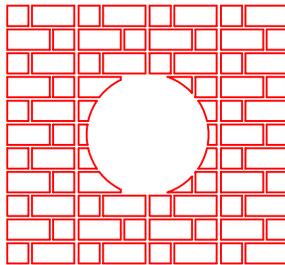
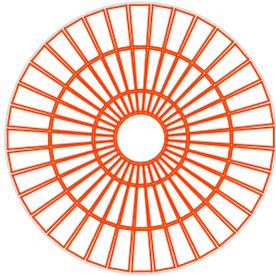
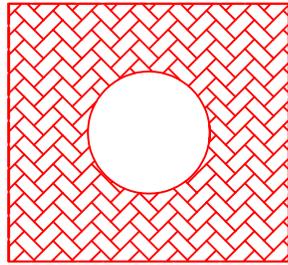
TREE PIT- TYPE- E



BRICK WHEELCHAIR RAMP



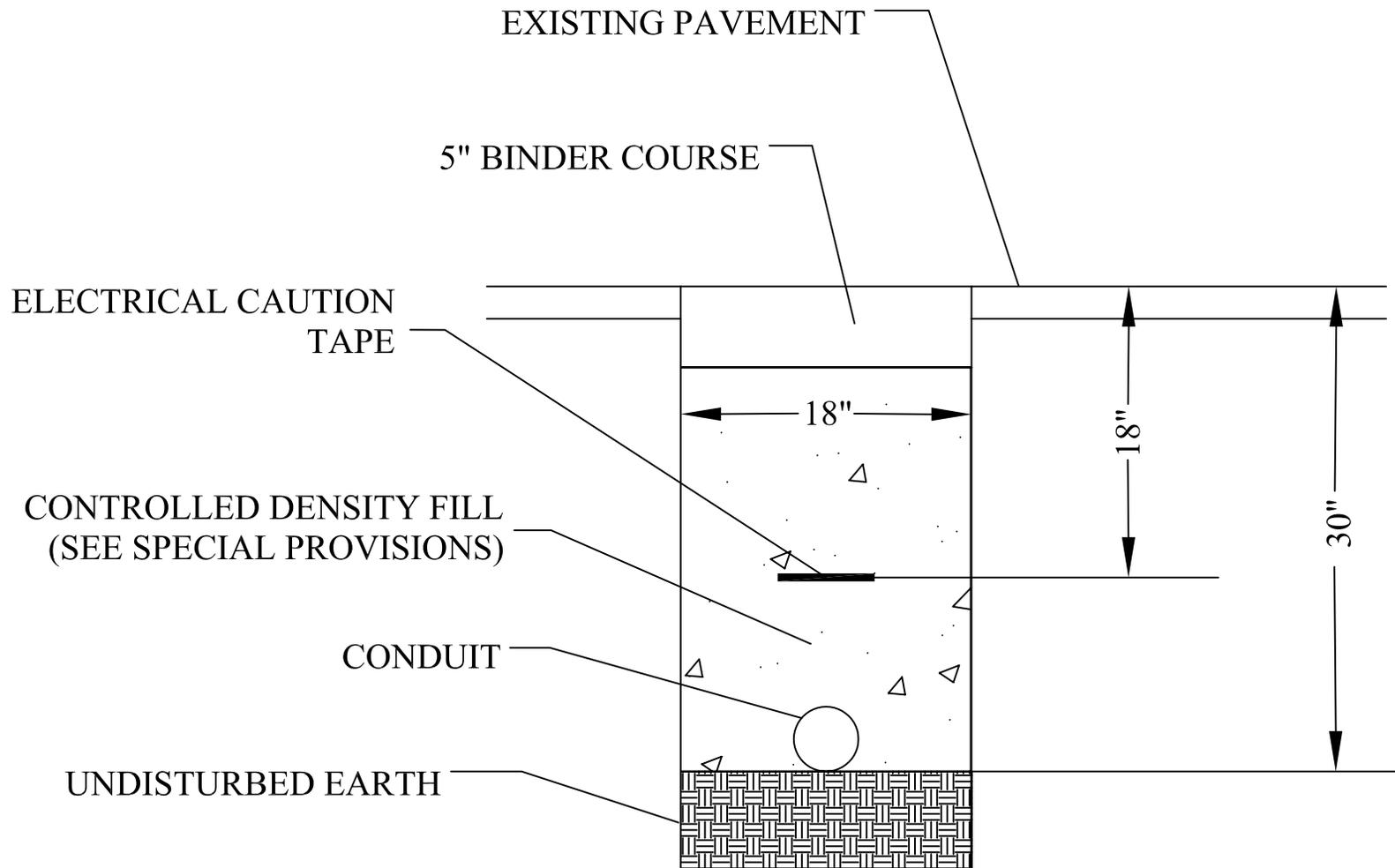
BRICK TREE PLANTING



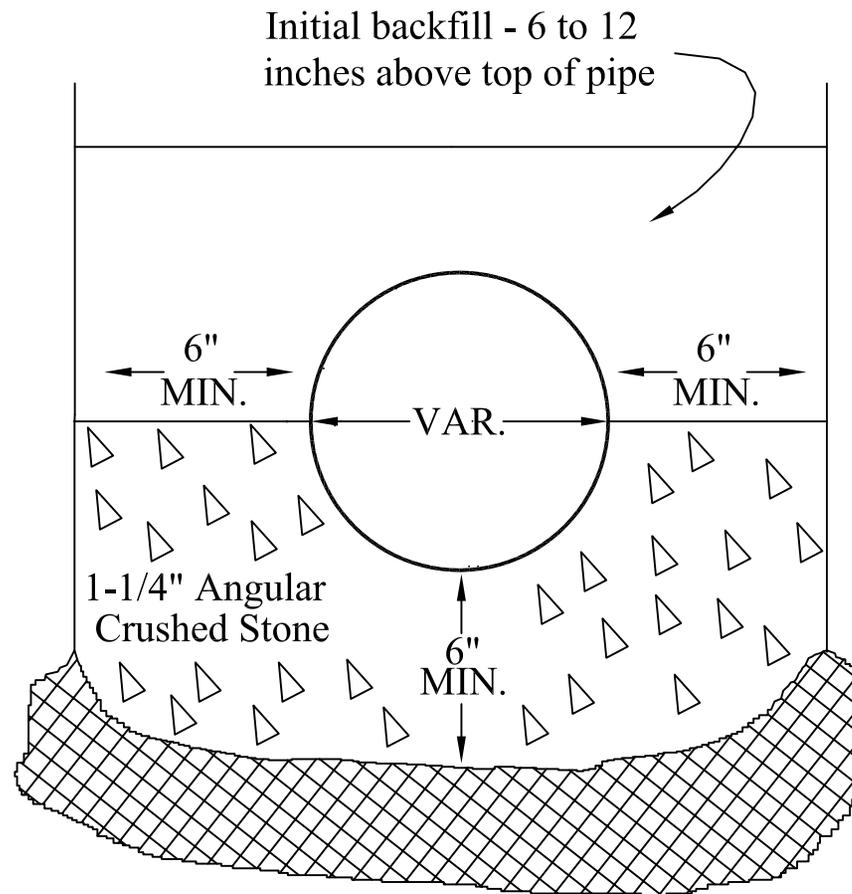
NOTES:

- TREES SHALL BE PLANTED PLUMB
- BRICK PAVERS SET ON A 2" LAYER OF SAND PLANTABLE SOIL MIXTURE (SEE SPECIAL PROVISIONS) COVERED BY A LAYER OF WEED BLOCKING FABRIC

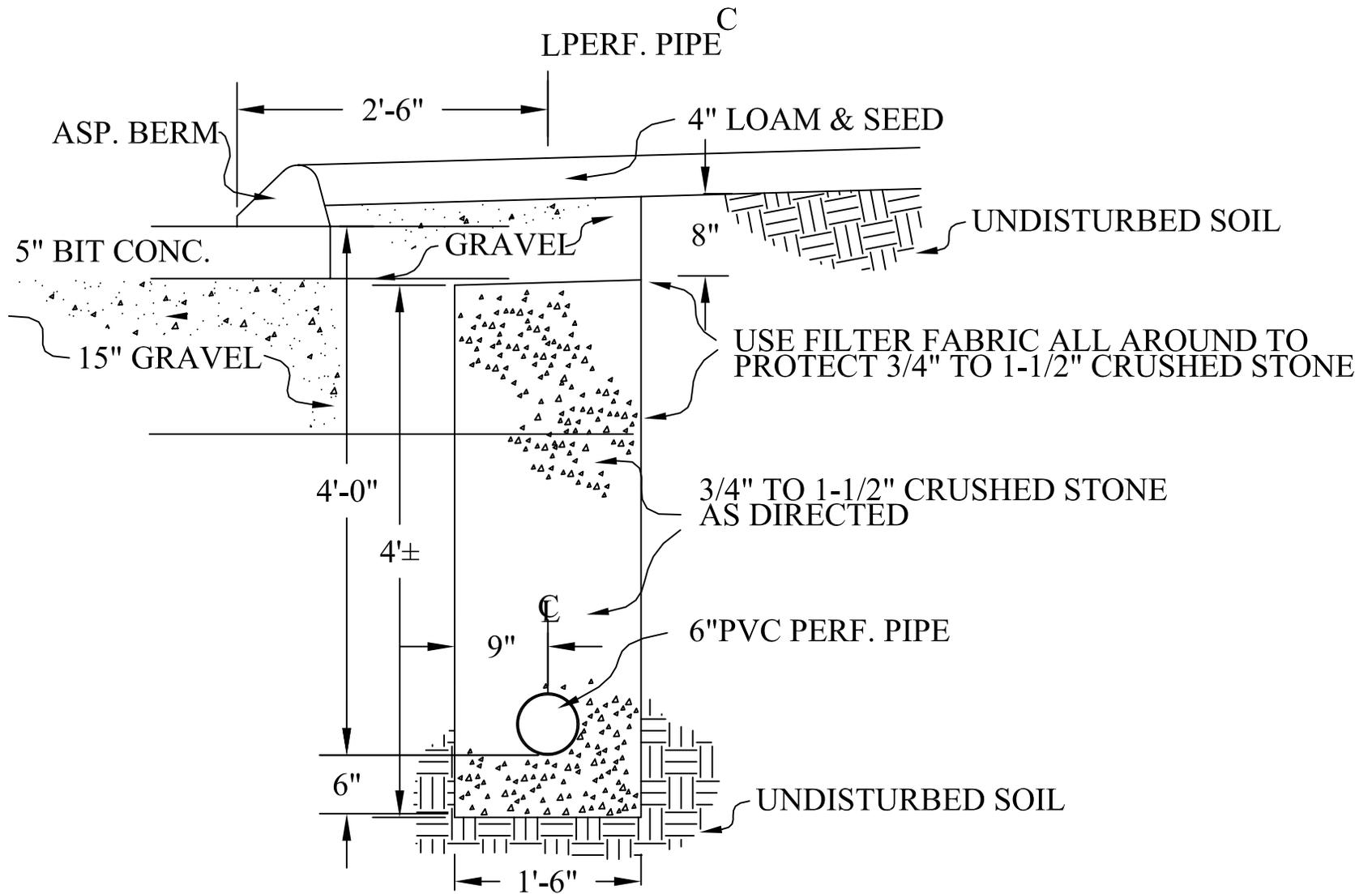
TRAFFIC SIGNAL CONDUIT TRENCH



RCP. CLASS IV PIPE TRENCH



PIPE SUBDRAIN



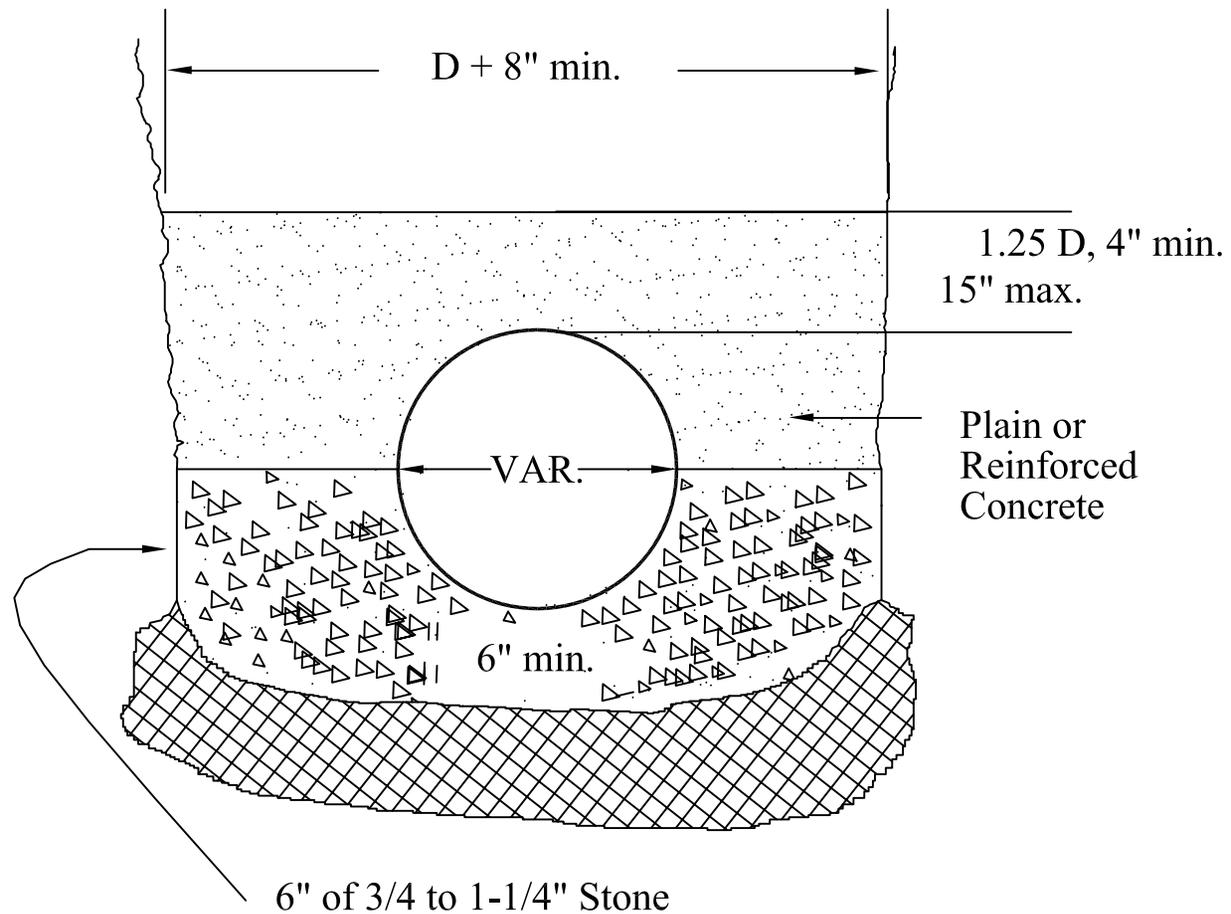
TYPICAL TRENCH DETAIL

6" SUB DRAIN

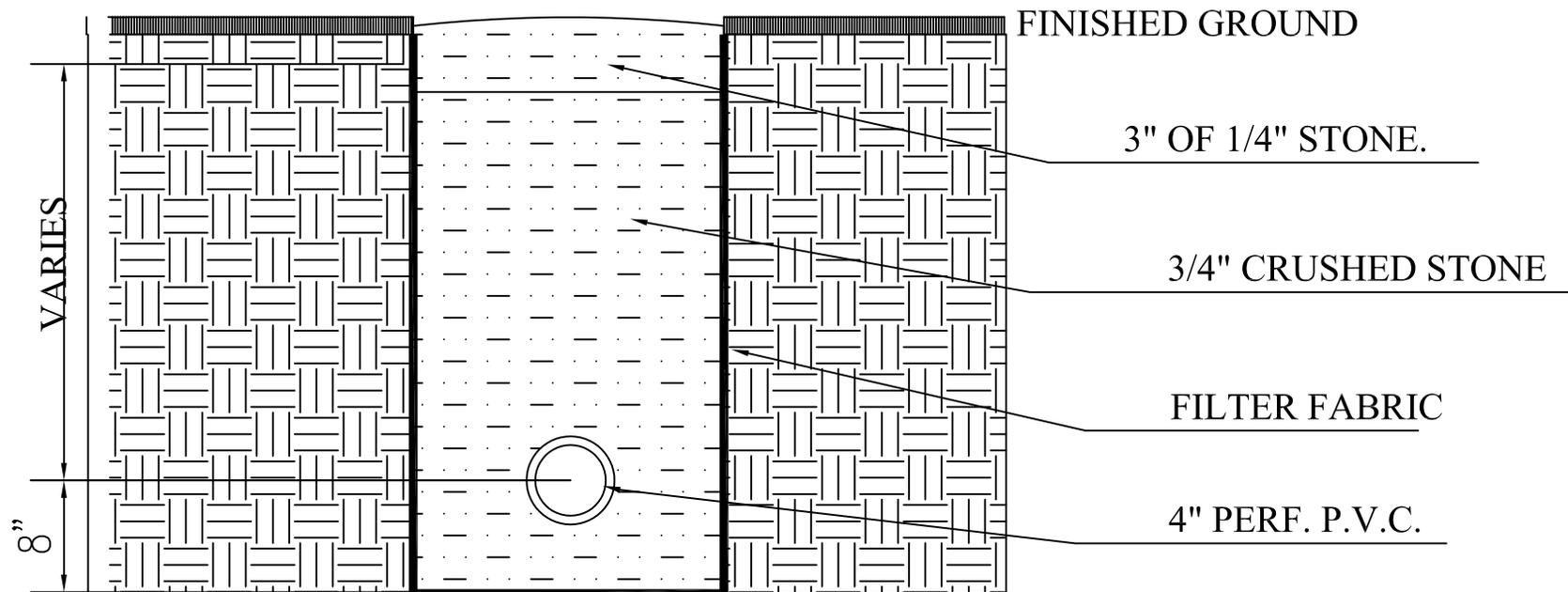
NOT TO SCALE

STA 4+50± TO 14+00±

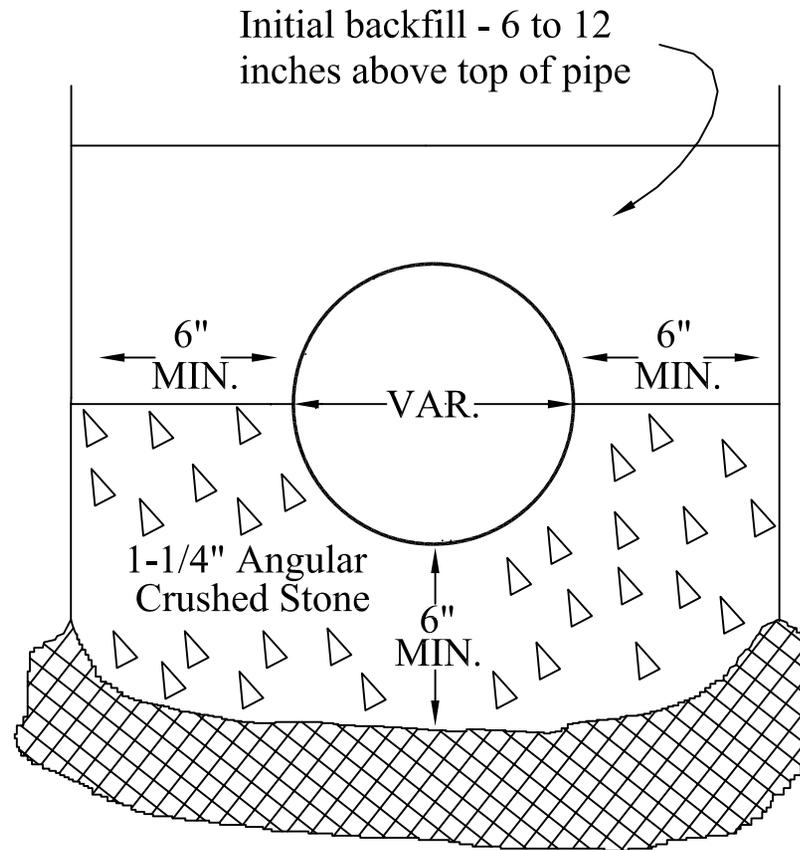
CLASS 'A' CONCRETE ARCH



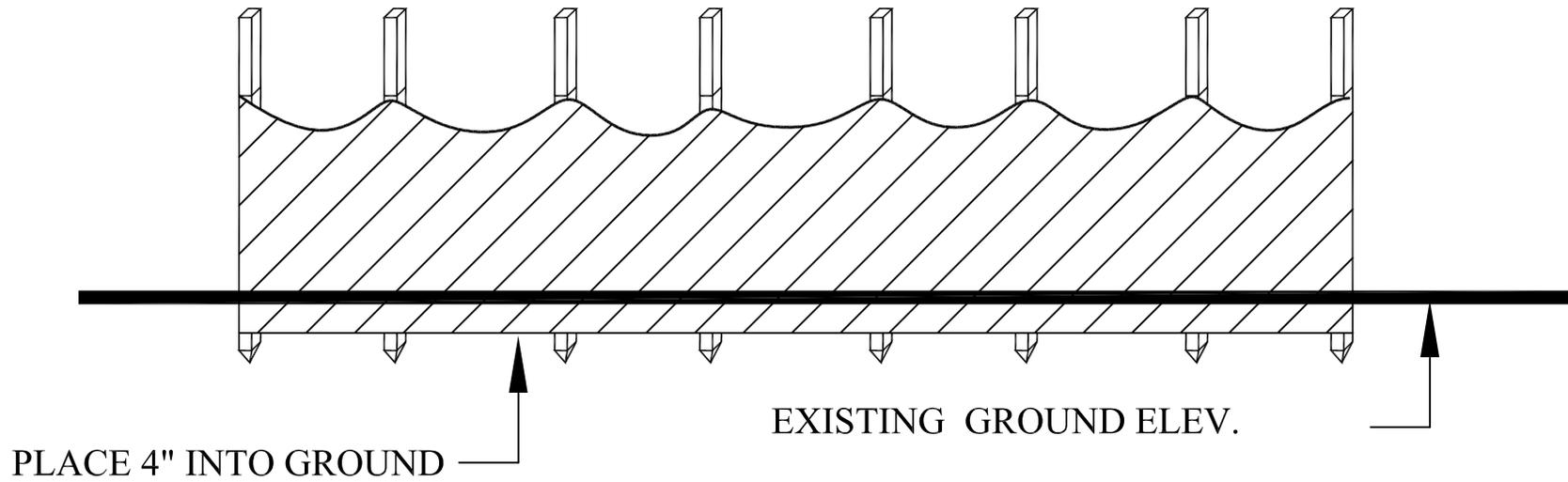
CURTAIN DRAIN



PVC-SDR35 PIPE TRENCH

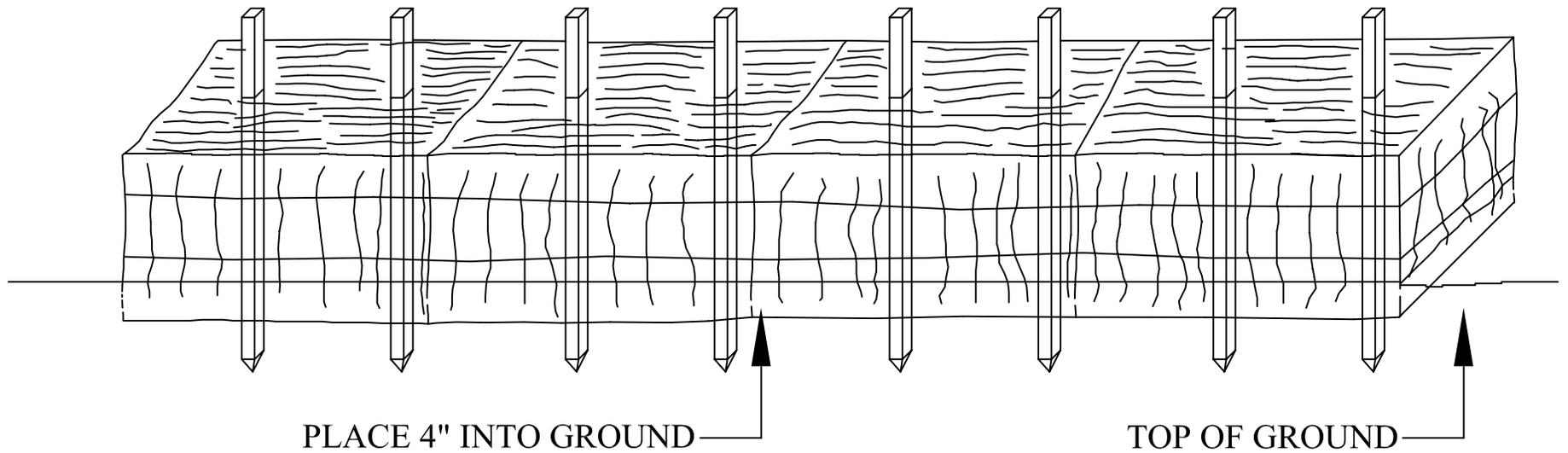


SILT FENCE

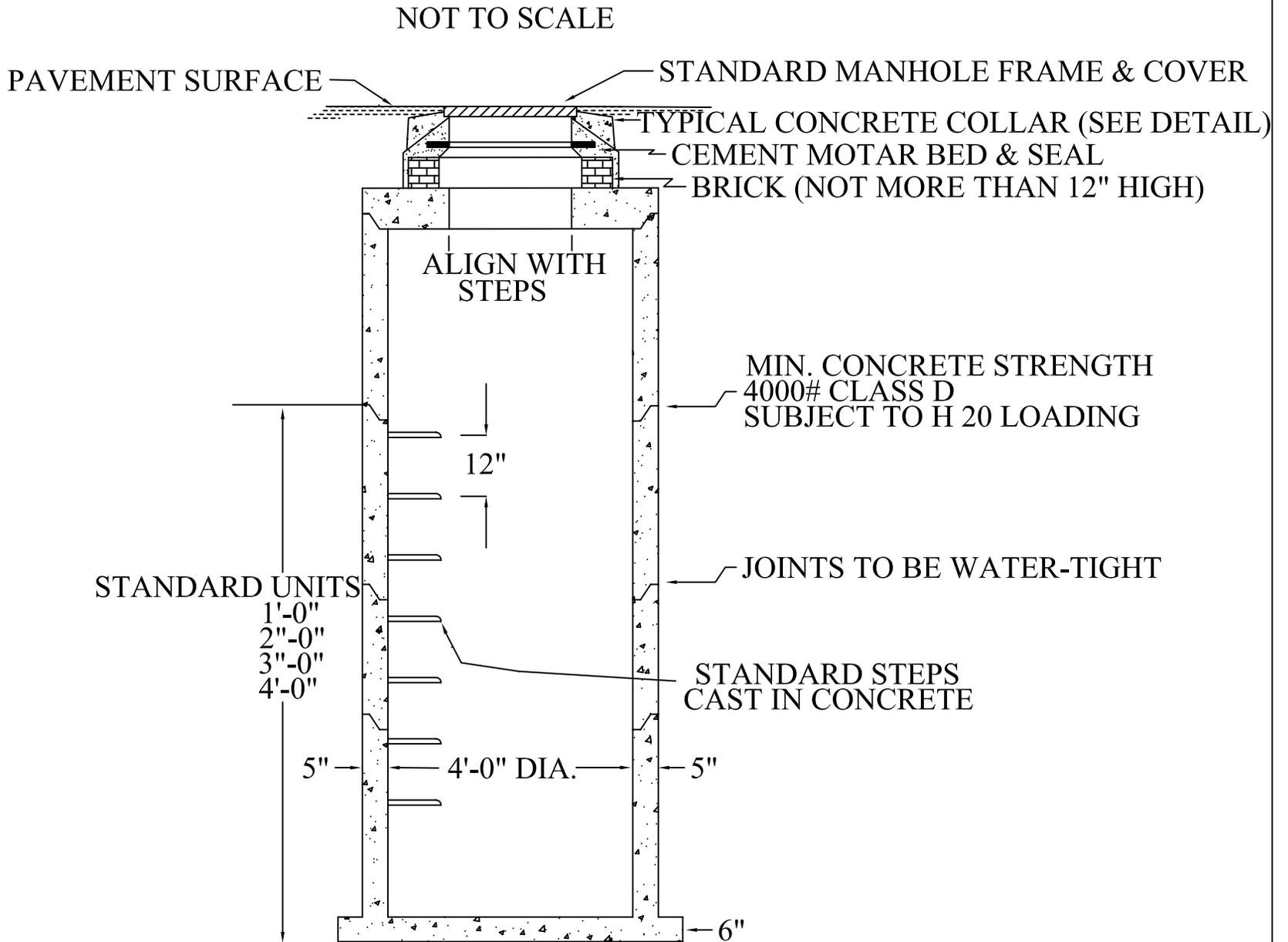


MITAGATION MEASURE

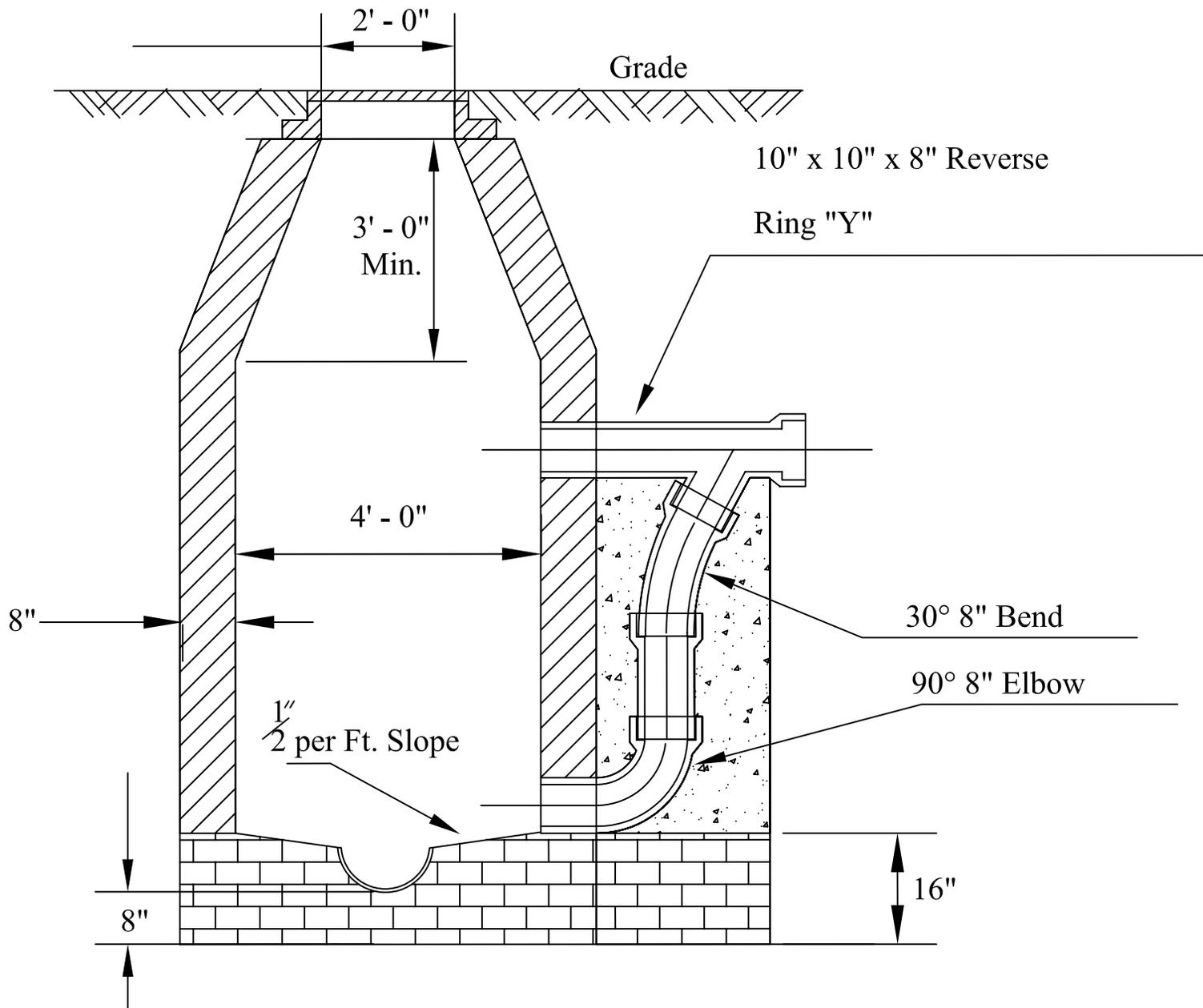
STAKED HAY BALES



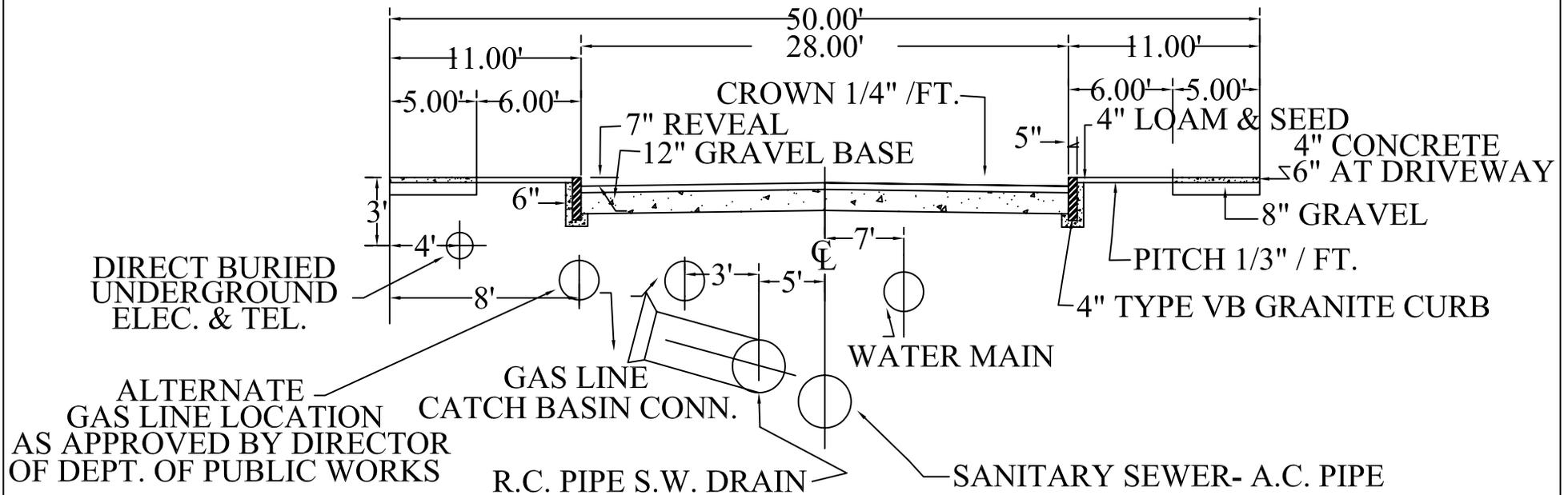
TYPICAL PRECAST CONCRETE MANHOLE



TYPICAL SECTION OF DROP TYPE MANHOLE



STREET TYPICAL SECTION FOR UTILITIES



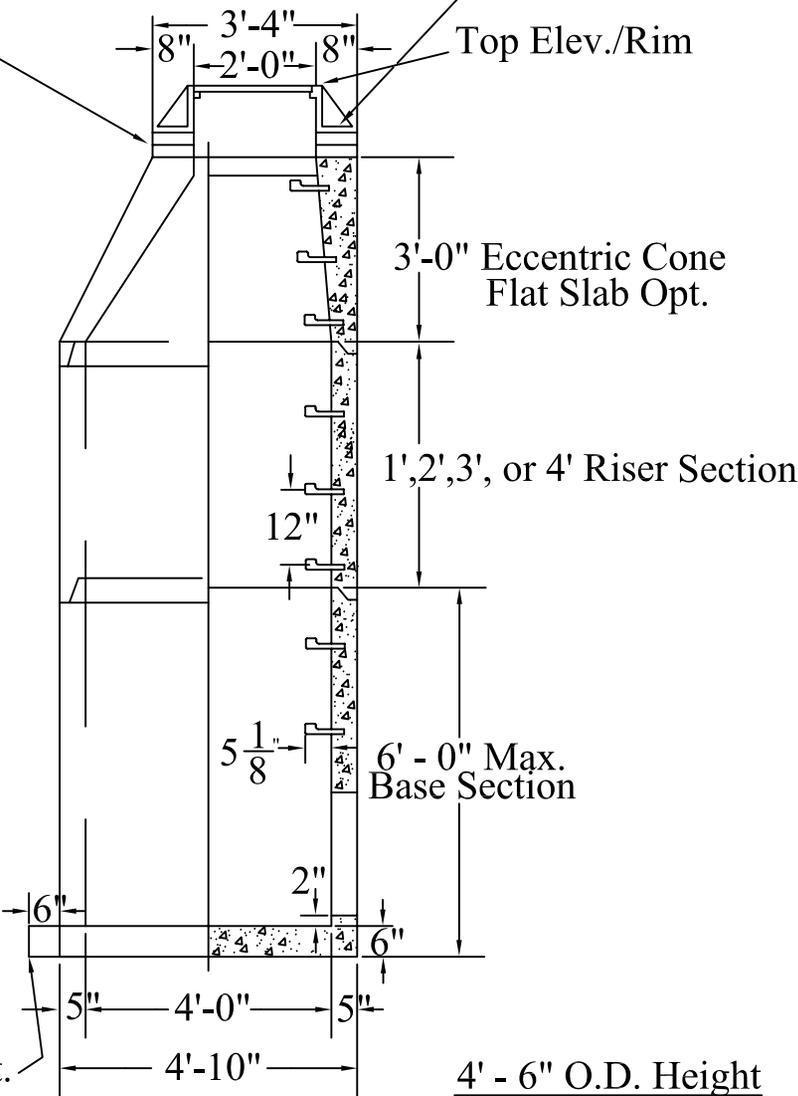
NOTES:

- WHERE PRACTICABLE STORMWATER LINES ARE PLACED 5' OFF THE CENTER LINE ON THE SOUTH OR WEST SIDE OF THE STREET
- WATER MAINS ARE 18' OFF STREET LINE, EITHER NORTH OR EAST SIDE OF THE STREET
- CONNECTIONS FROM CATCH BASINS TO MANHOLES- V.C. PIPE- CLASS 200-64T OR EQUAL
- SURFACE COURSE 3" TYPE I BIT. CON. LAID IN TWO COURSES- 1 1/2" TOP COURSE
1 1/2" BINDER COURSE

PRECAST CB OFFSET

Frame & cover - by others

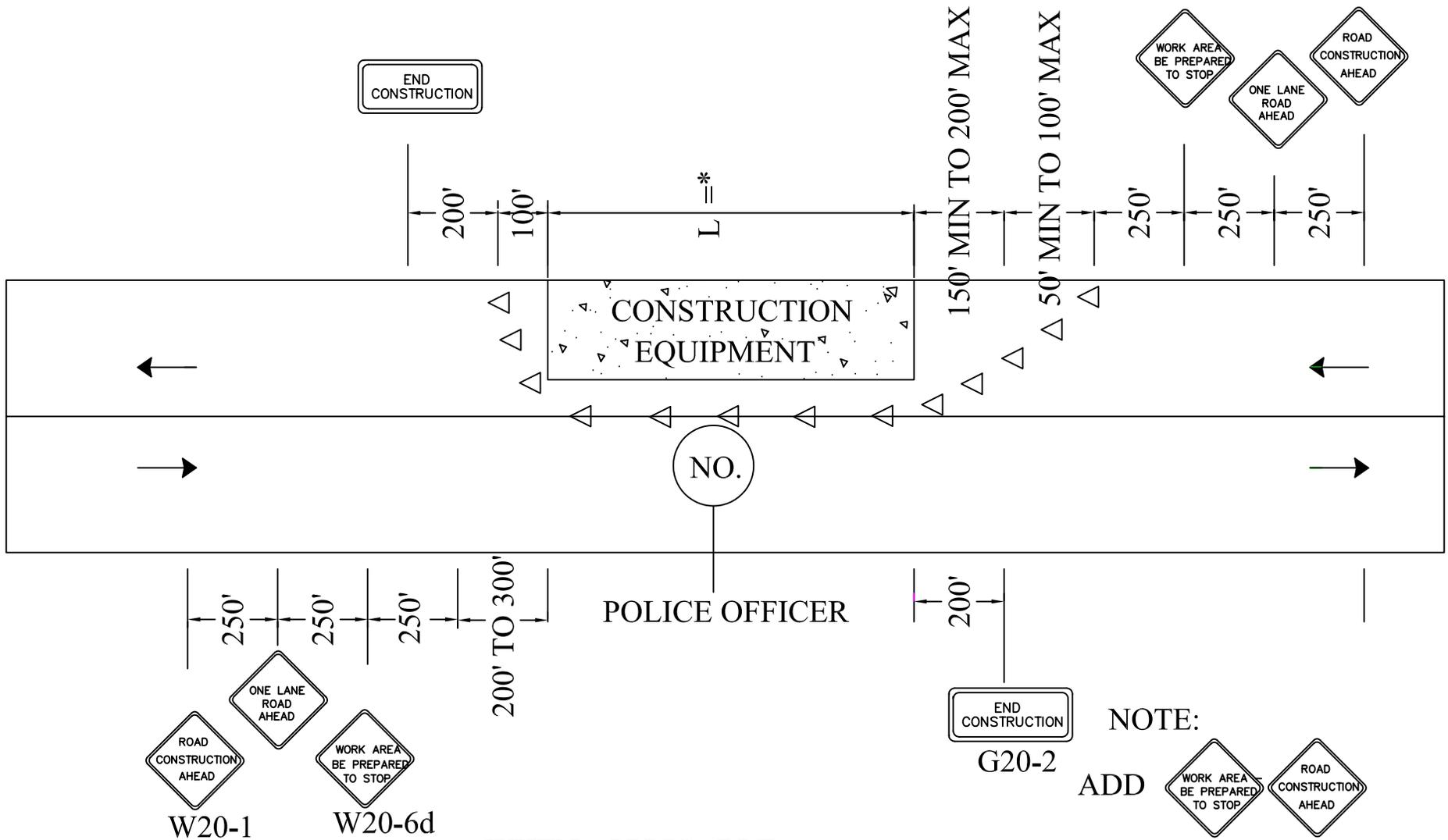
Adjust to grade w/brick - by others



Non-settling flanged foot on base - Opt.

ELEV. VIEW
(NTS)

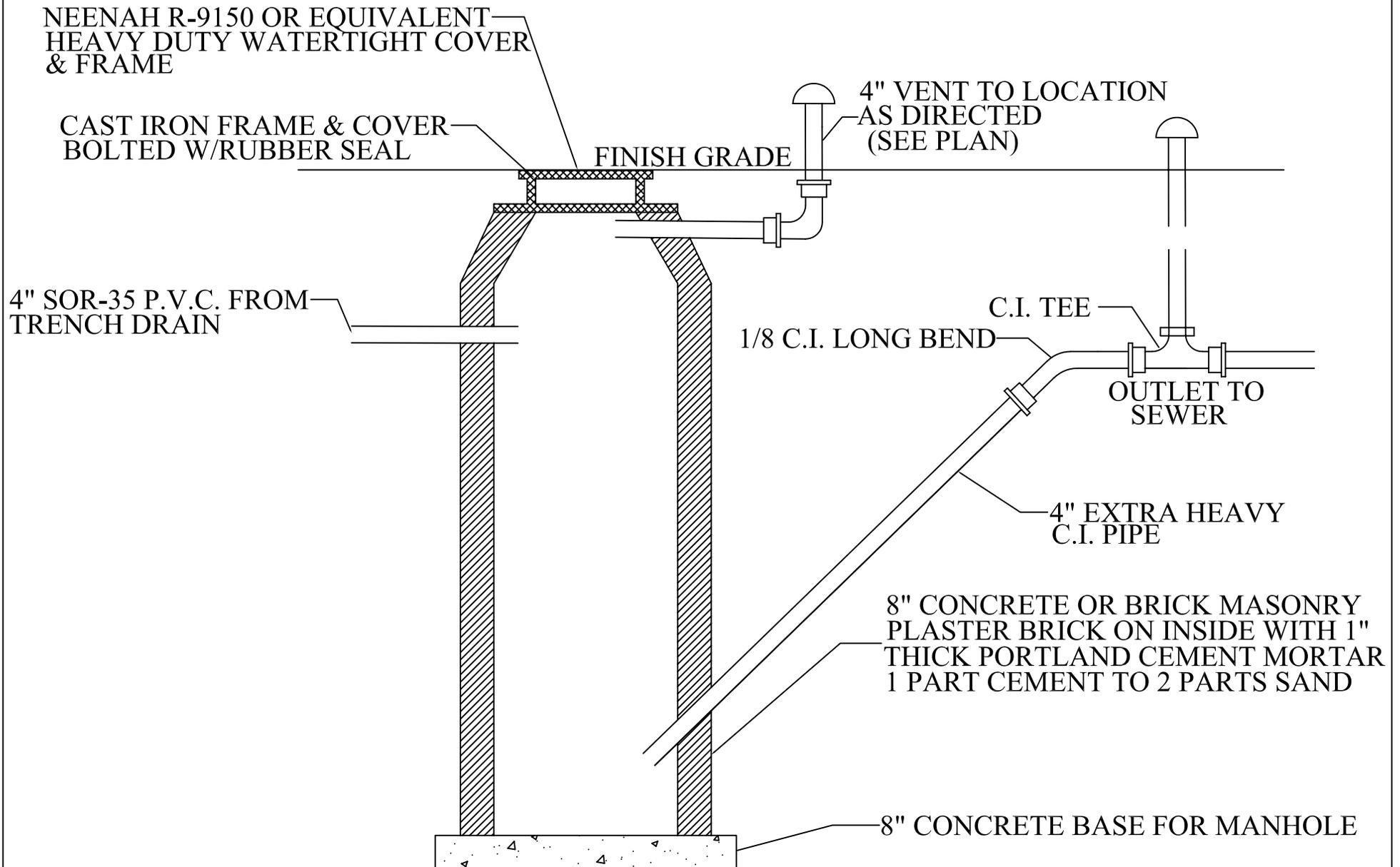
TWO LANE TWO-WAY TRAFFIC CONTROL



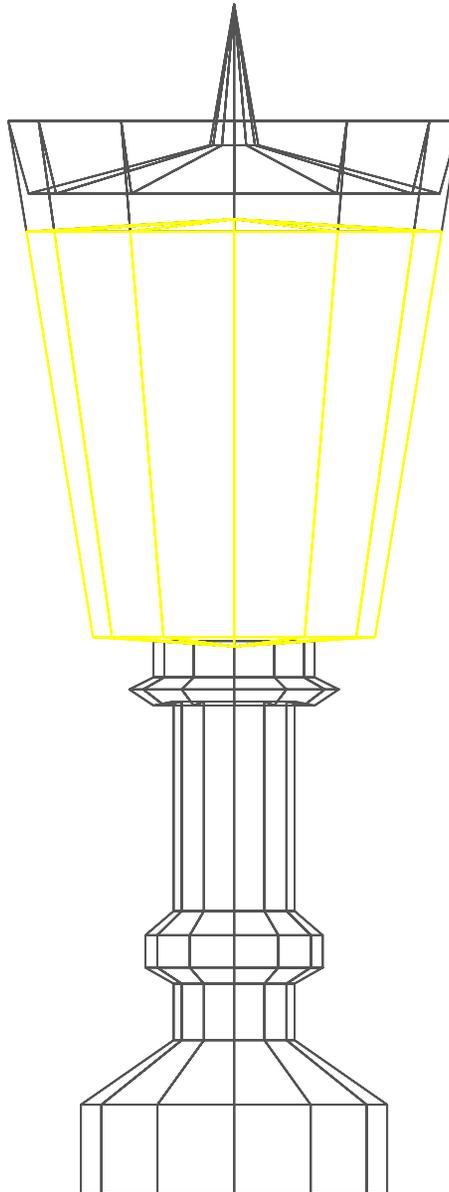
* - WHEN APPLICABLE
L=1/2 DAY'S LENGTH OF WORK

NOTE:
ADD TO ANY SIDE STREETS THAT ENTER UPON THE WORK AREA.

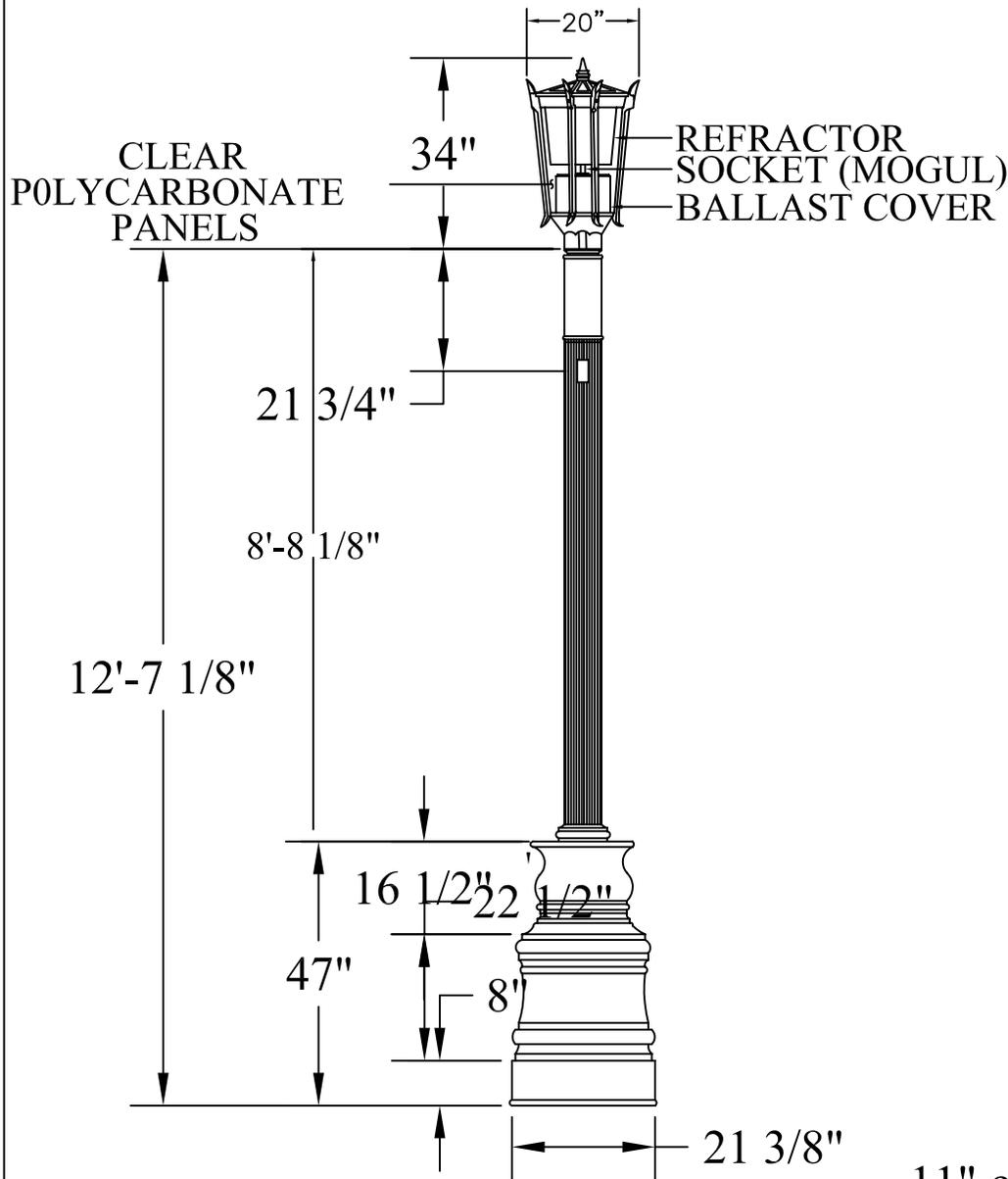
MDC GASOLINE TRAP MANHOLE



LIGHT POST STREETLIGHT HEAD



DECORATIVE LIGHTING IVY STYLE

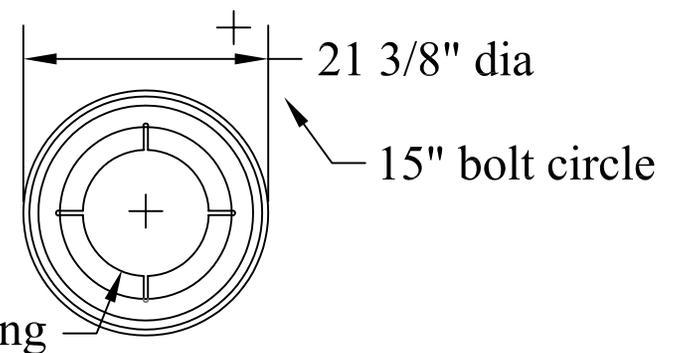


LUMINARE SPECIFICATIONS

STYLE: EDGEWATER REFRACTIVE PANELS-
7" FITTER
HEIGHT: 34"
WIDTH: 20" ACROSS POINT TO POINT
MATERIAL: CAST ALUMINUM
PANELS: CLEAR POLYCARBONATE
FINISH: BLACK
LAMPING: 70 WATT HIGH PRESSURE SODIUM
VOLTAGE: QUADRI- VOLTS BALLST WIRED
FOR 120 VOLTS- HPF
REFRACTOR: TYPE5/PRISMATIC ACRYLIC
HARDWARE: STAINLESS STEEL
WEIGHT: 50 POUNDS APPROX.

LAMP POST SPECIFICATIONS

STYLE: IVY
HEIGHT: 12'-7 1/8"
LT CENTER: 14'-0 1/8"
BASE: 21 3/8" DIAMETER
FINISH: PRIME PAINT BLACK



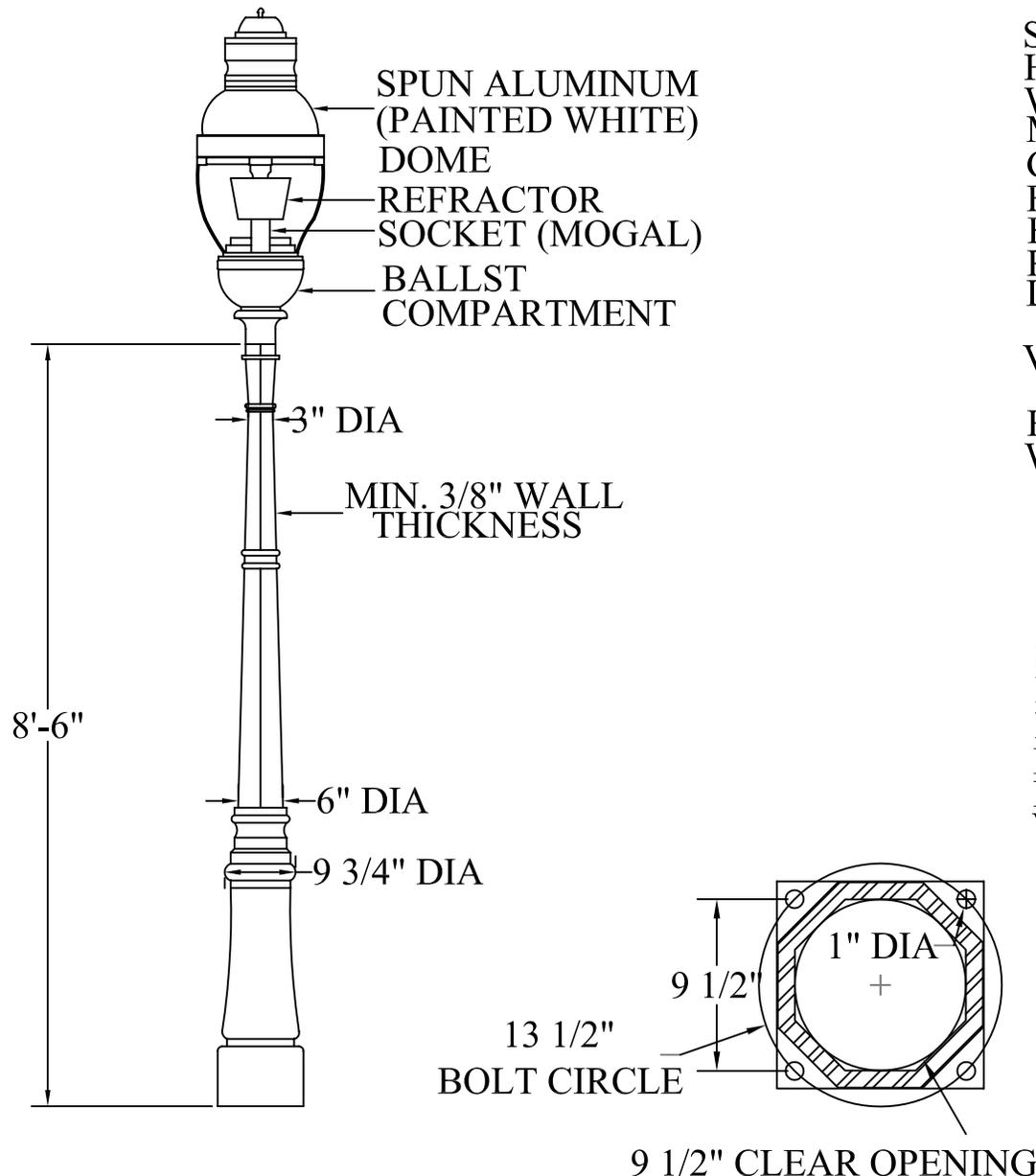
DECORATIVE LIGHTING BOROUGH STYLE

LUMINAIRE SPECIFICATIONS

STYLE: READING
HEIGHT: 43 7/8"
WIDTH: 17 1/8"
MATERIAL: CAST ALUMINUM
GLOBE: CLEAR POLYCARBONATE
FINISH: FINISH PAINT (BLACK)
BALLAST: INTEGRAL
REFRACTOR: PRISMATIC GLASS TYPE 5
LAMPING: 70 WATT HIGH PRESSURE SODIUM
VOLTAGE: QUADRA-VOLT BALLAST WIRED FOR 120 VOLTS
HARDWARE: STAINLESS STEEL
WEIGHT: 40 POUNDS

LAMP POST SPECIFICATIONS

STYLE: BOROUGH
HEIGHT: 8'-6"
LIGHT CENTER: 10'-0 3/4"
BASE: 11 1/2" SQUARE
FINISH: PRIME PAINT (BLACK)
WEIGHT 40 POUNDS

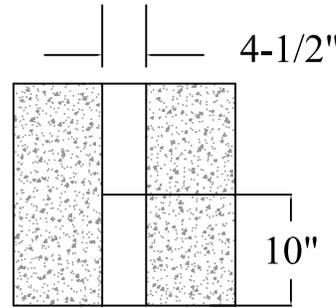


PRECAST LIGHT POLE FOUNDATION

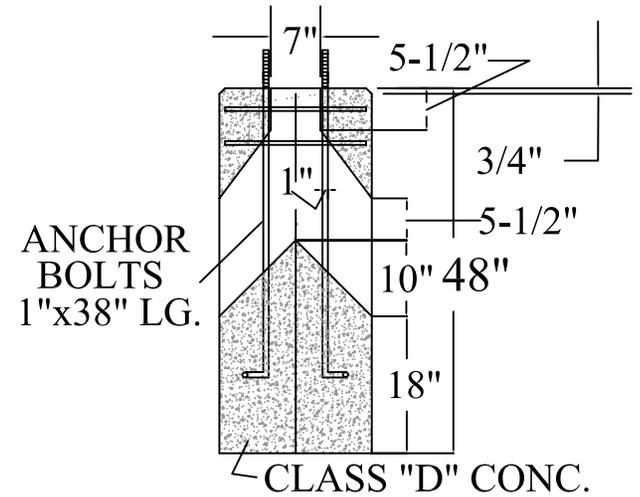
ANCHOR BOLTS TO BE SUPPLIED BY LIGHT POLE MANUFACTURER WITH NUTS & WASHERS
 FILL WITH NONSHRINKING GROUT

BRICK SIDEWALK
 1" MORTAR BED
 4" CONC. SLAB
 LEVELING NUTS
 POLE FOUNDATION

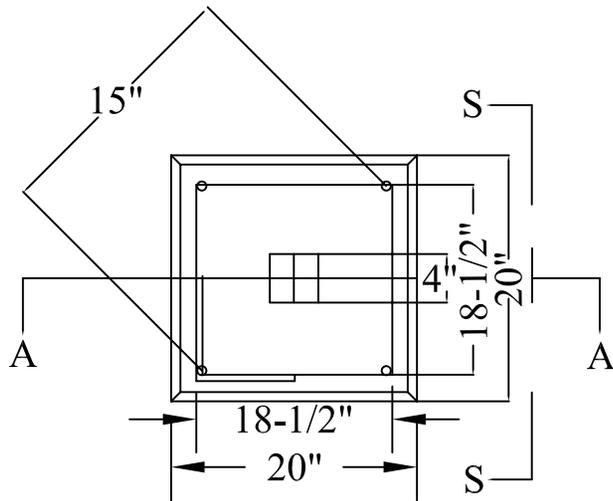
MOUNTING DETAIL



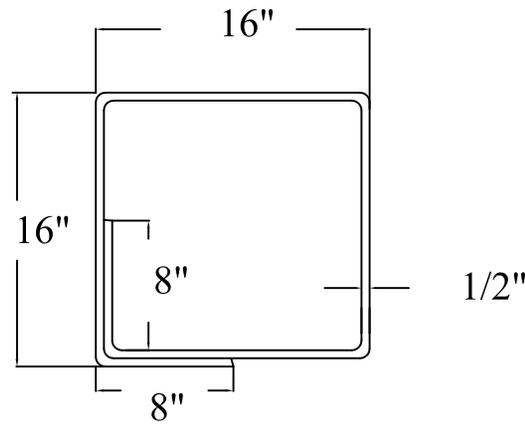
SECTION B-B



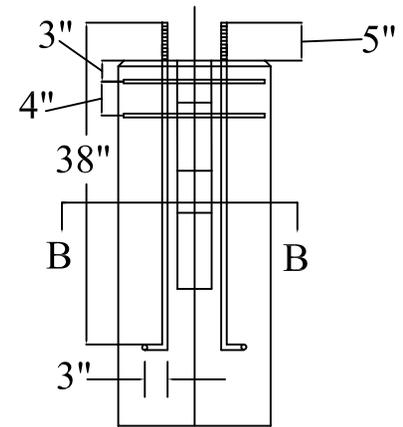
SECTION A-A



PLAN VIEW

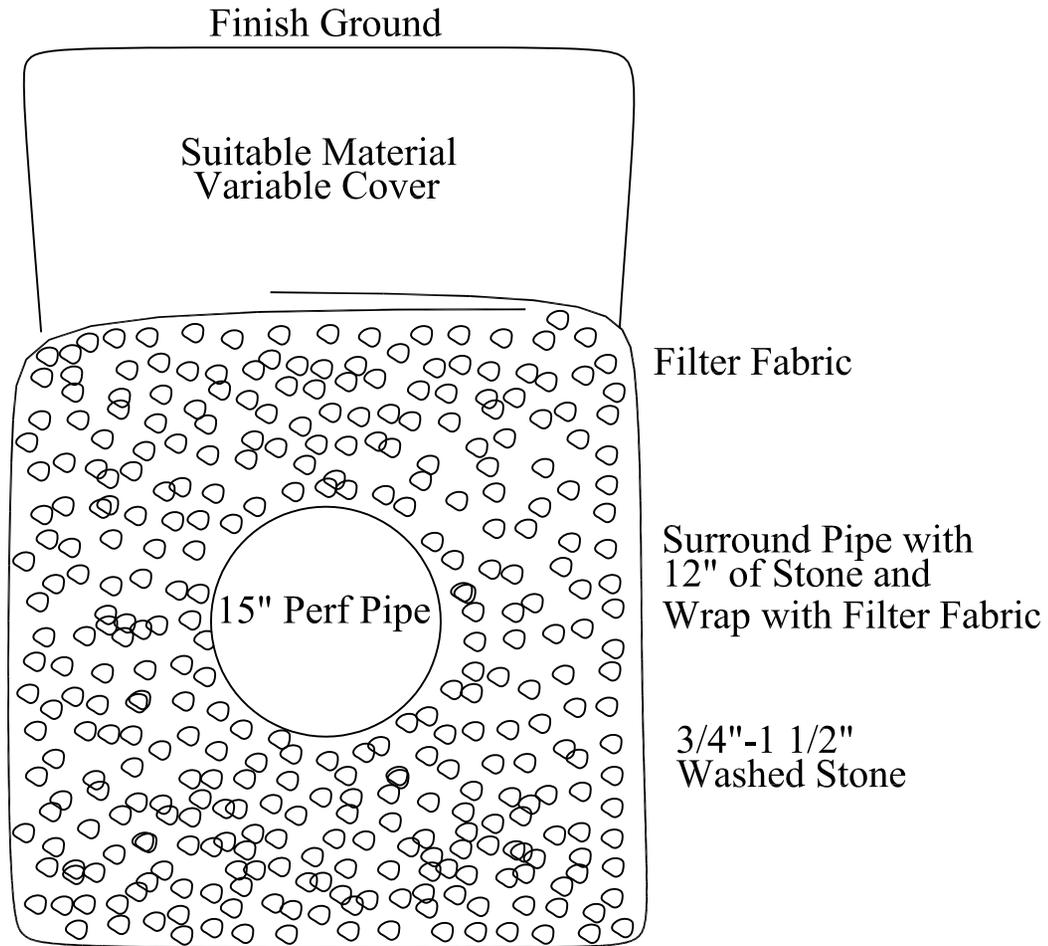


REINFORCING ROD
 1/2" DIA.x 6'-8" LONG
 BENT AS SHOWN

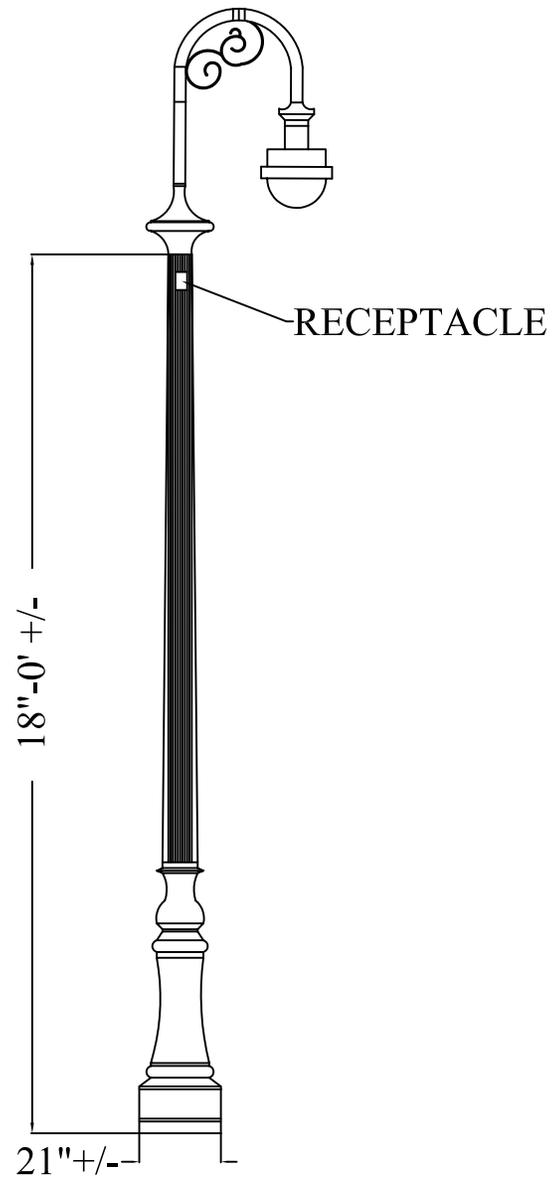


ELEVATION S-S

TYPICAL LEACHING TRENCH

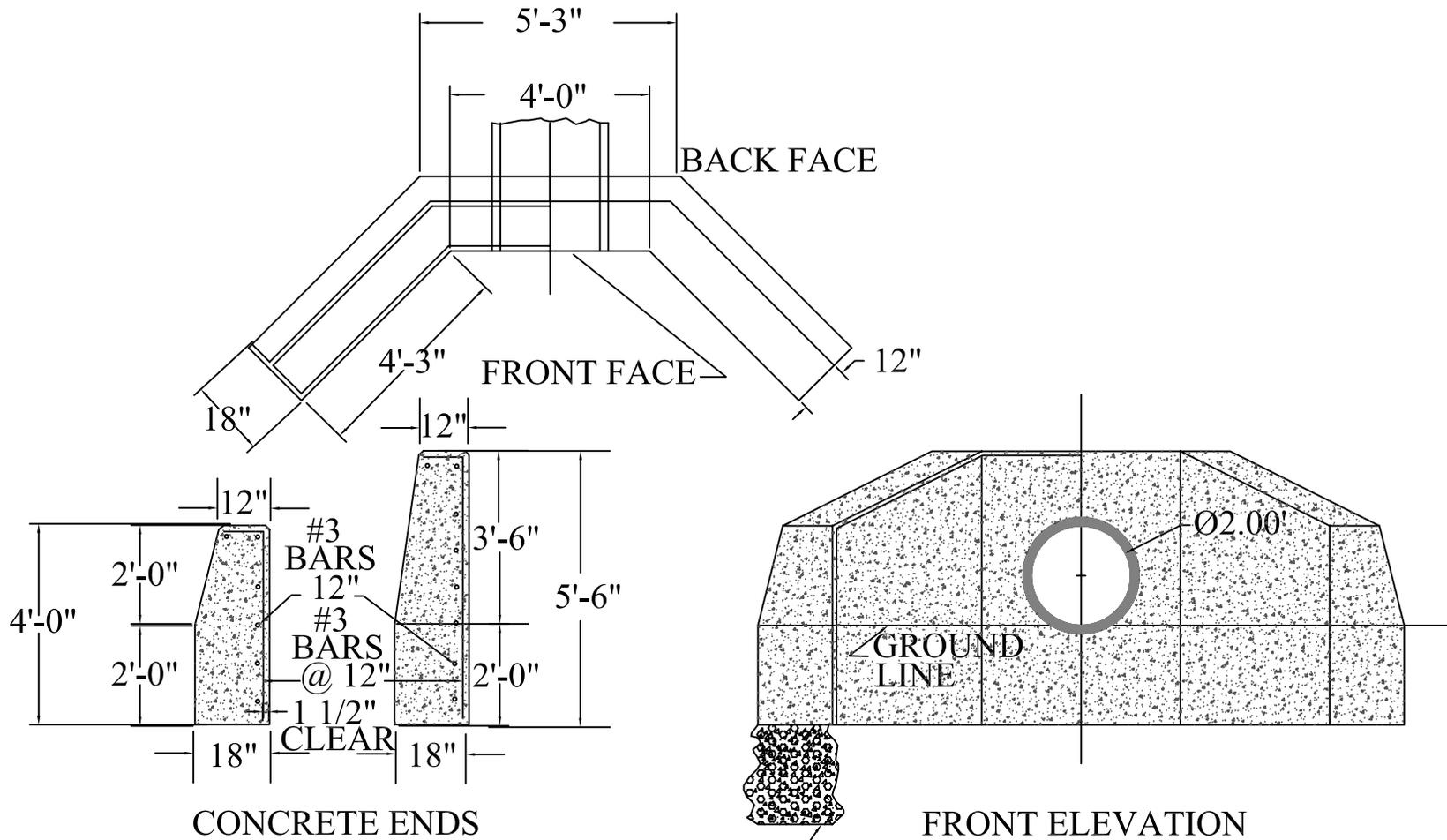


DECORATIVE LIGHTING BISHOP'S CROOK



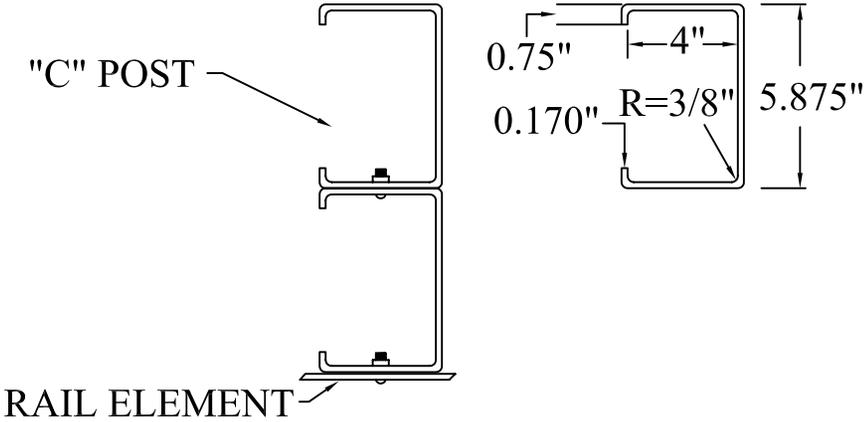
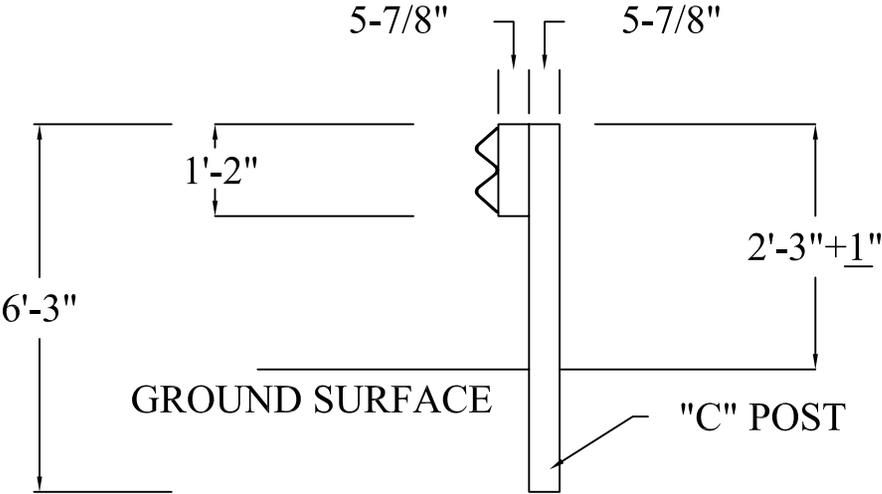
PROPOSED STREET LIGHTING
AS PER SPECIAL PROVISIONS

HEADWALL

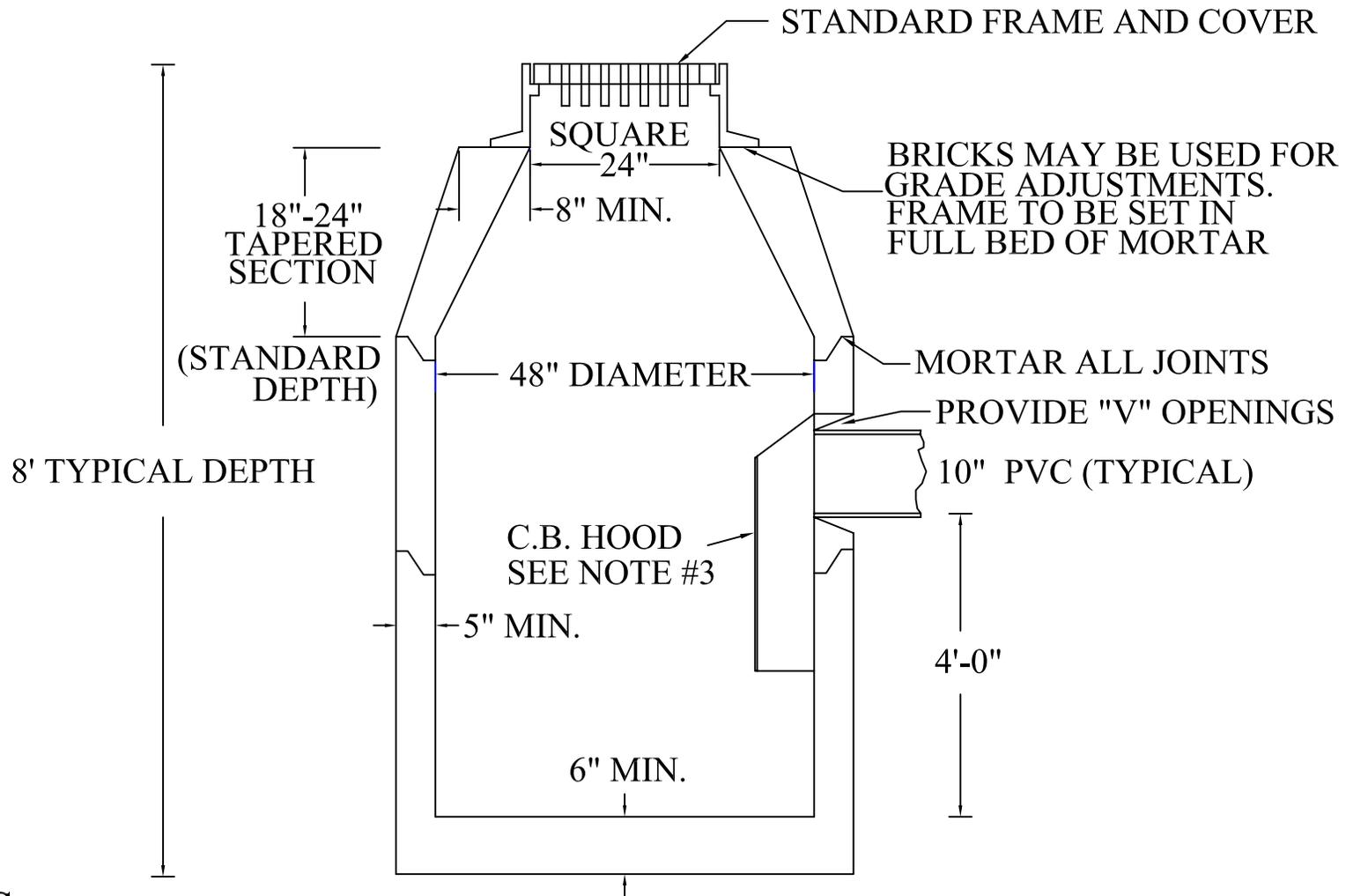


NOTE: 2' OF 3" STONE TO BE PLACED UNDER HEADWALL

STEEL BEAM GUARD RAIL



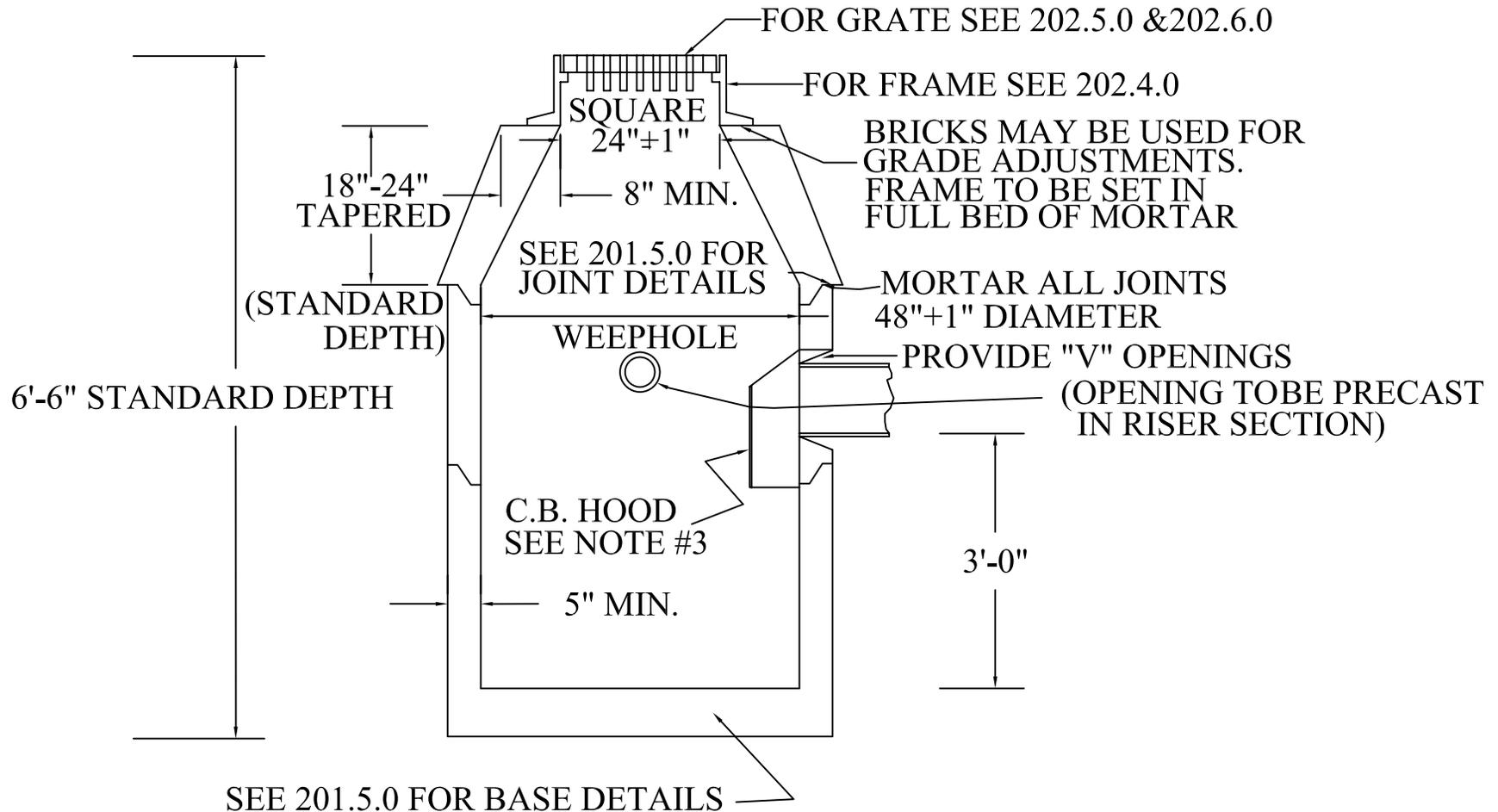
PRECAST CONCRETE CATCH BASIN



NOTES:

1. MINIMUM CONCRETE STRENGTH 4000# CLASS D.
2. STRUCTURE SUBJECT TO H 20 LOADING.
3. MASS. HIGHWAY STANDARD CATCH BASIN HOOD SHALL BE INSTALLED ON OUTLET PIPE.
4. STRUCURE TO COMPLY WITH ALL CITY OF SPRINGFIELD DPW STANDARDS.

PRECAST CONCRETE CATCH BASIN

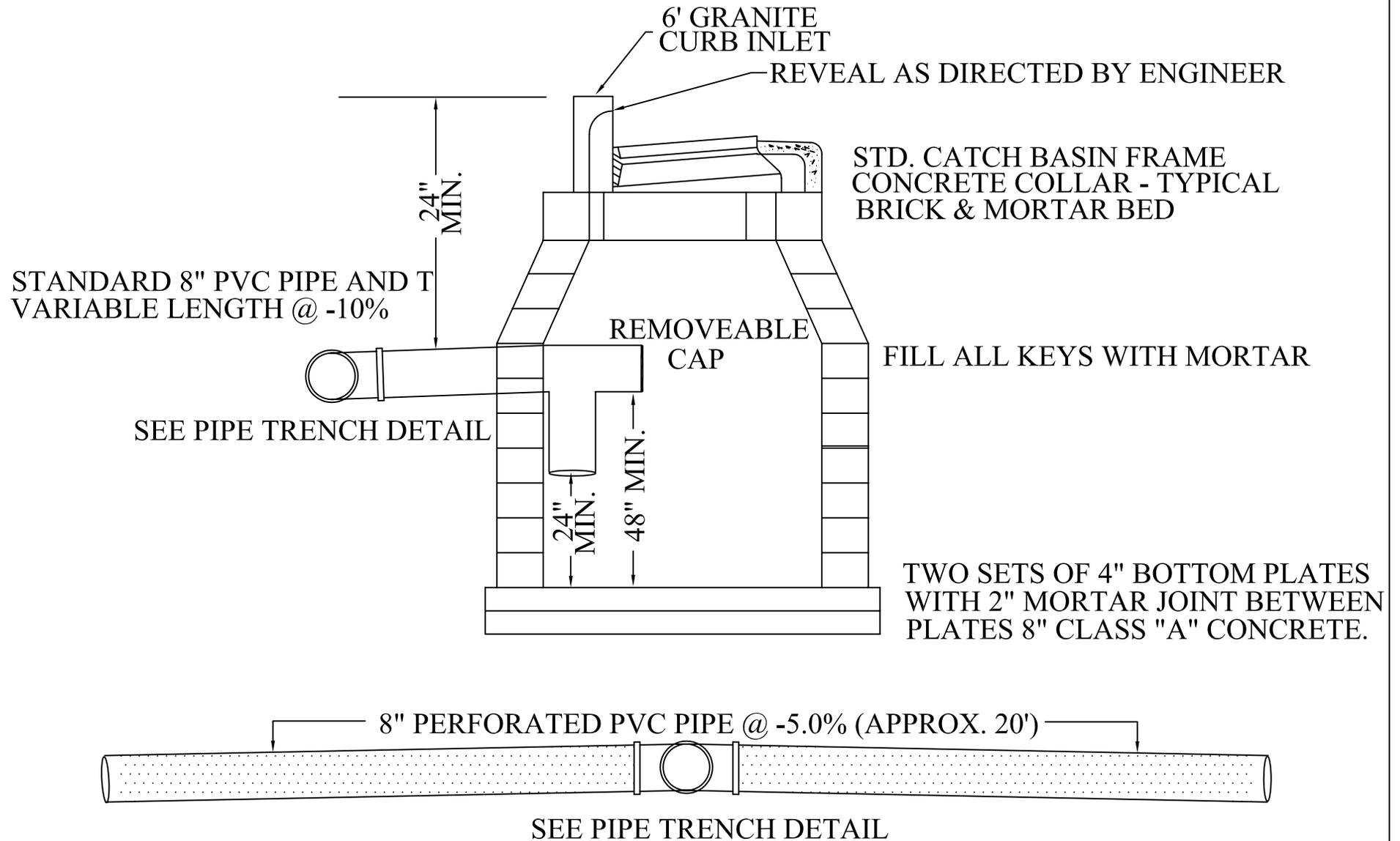


NOTES:

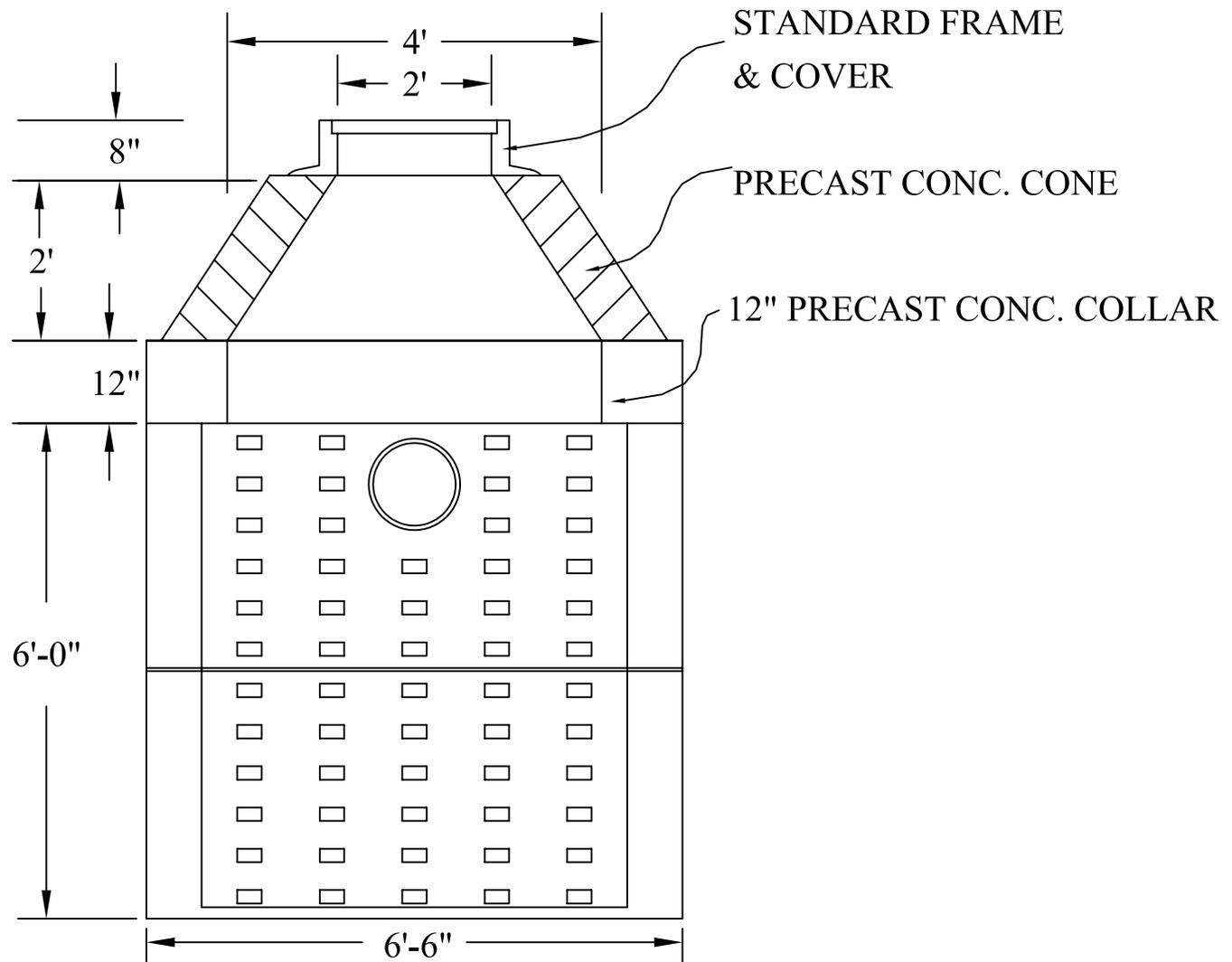
* WHEN A CURB IS INSTALLED, THE OPENING IS TO BE 24"±1"*27"±1"

1. DETAILS NOT INDICATED ABOVE ARE TO BE SIMILAR TO THOSE SHOWN ON 202.1.0
2. FOR DESCRIPTIONS, MATERIALS AND CONSTRUCTION METHOD, SEE SPECIFICATIONS
3. MASS. STANDARD CATCH BASIN HOOD SHALL BE INSTALLED ON OUTLET PIPE (SEE 202.7.0)

CATCH BASIN WITH PERFORATED PIPE OUTLET



TYPICAL LEACHING GALLEY

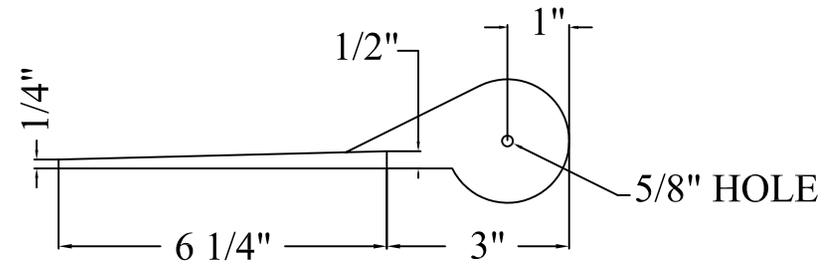
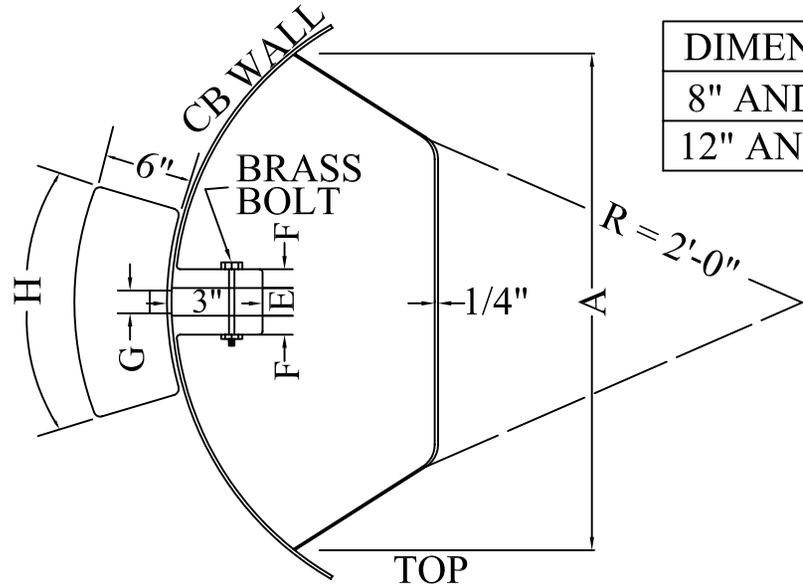


NOTES:

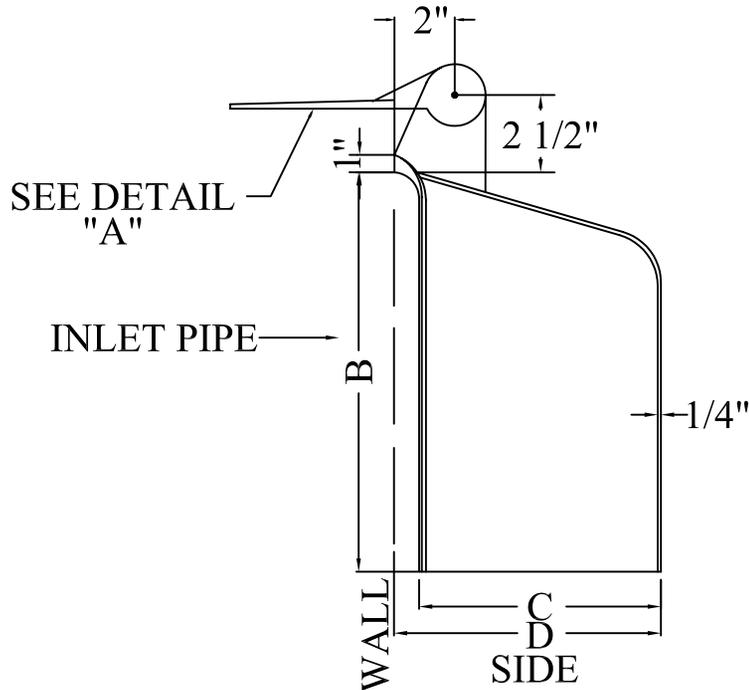
- USE 1.00' OF WASHED STONE SURROUNDING & UNDER ALL GALLEYS.
- USE FILTER FABRIC AROUND STONE.
- MIN. CONCRETE STRENGTH 4000# CLASS D ALL H-20 LOADING
- SOLID CONCRETE BOTTOM FOR CLEANING

CATCH BASIN HOOD

DIMENSIONS	A	B	C	D	E	F	G	H
8" AND 10" PIPE	15"	15"	8"	9"	2"	7/8"	1-7/8"	14"
12" AND 15" PIPE	18"	18"	10"	2"	1"	14"	1-7/8"	11-1/4"



DETAIL "A" HINGE

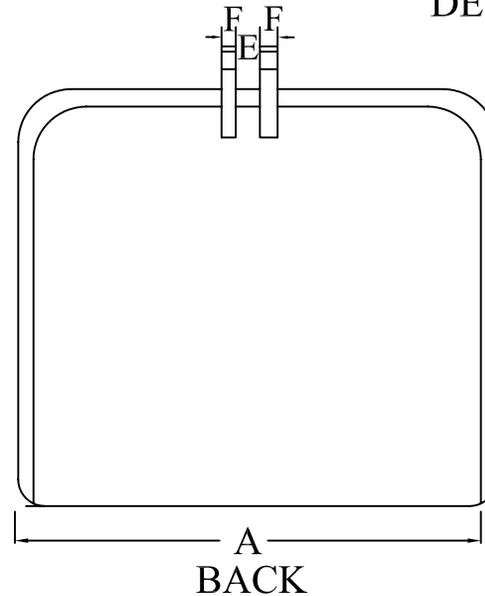


SEE DETAIL "A"

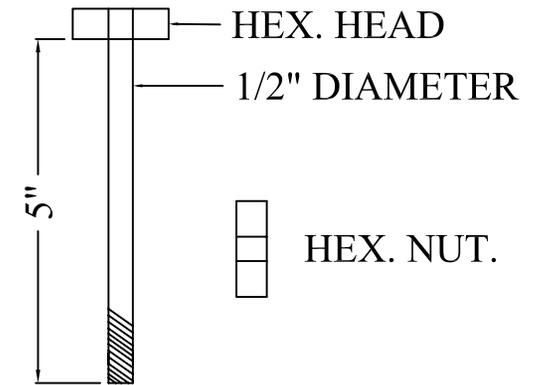
INLET PIPE

WALL

SIDE

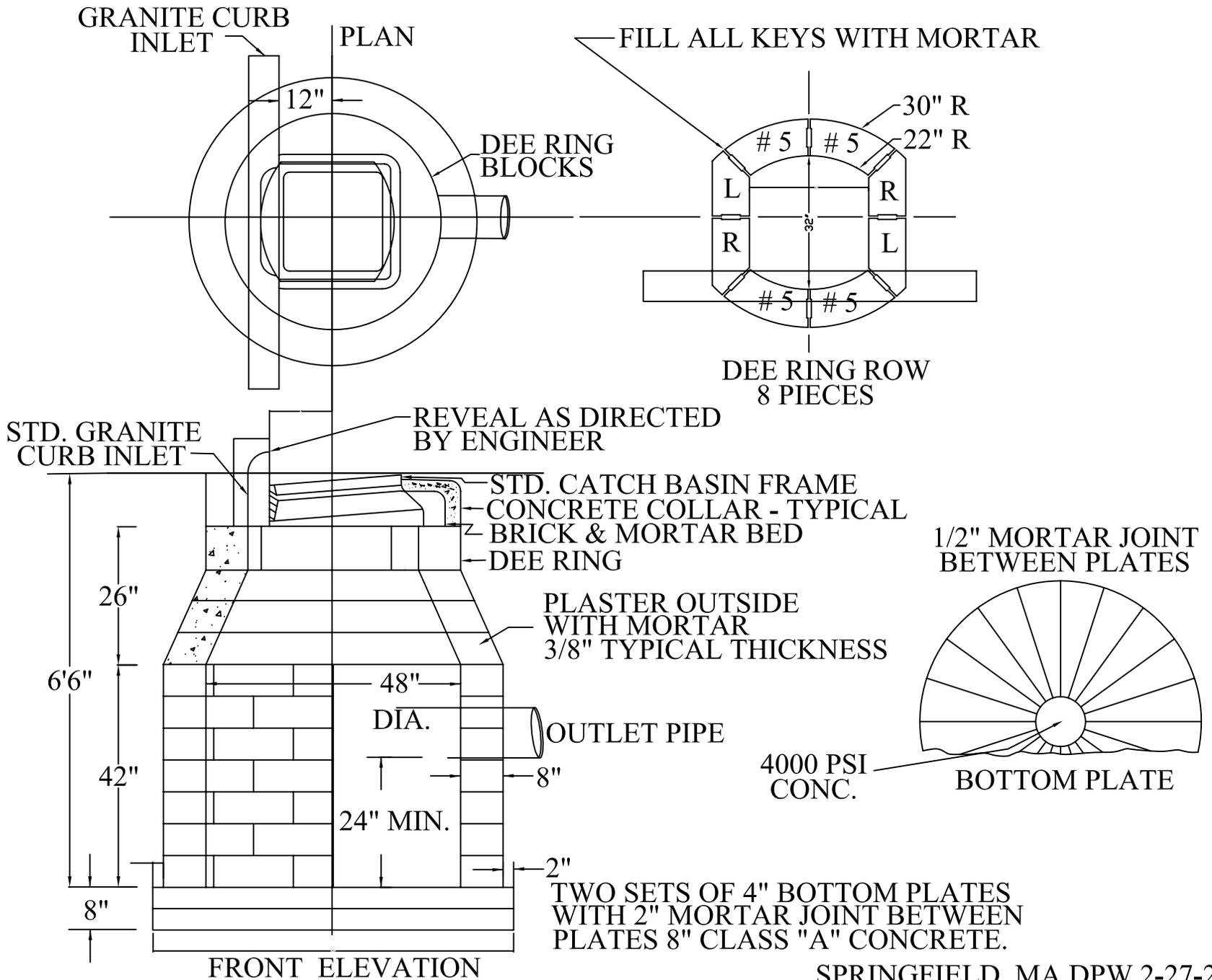


BACK

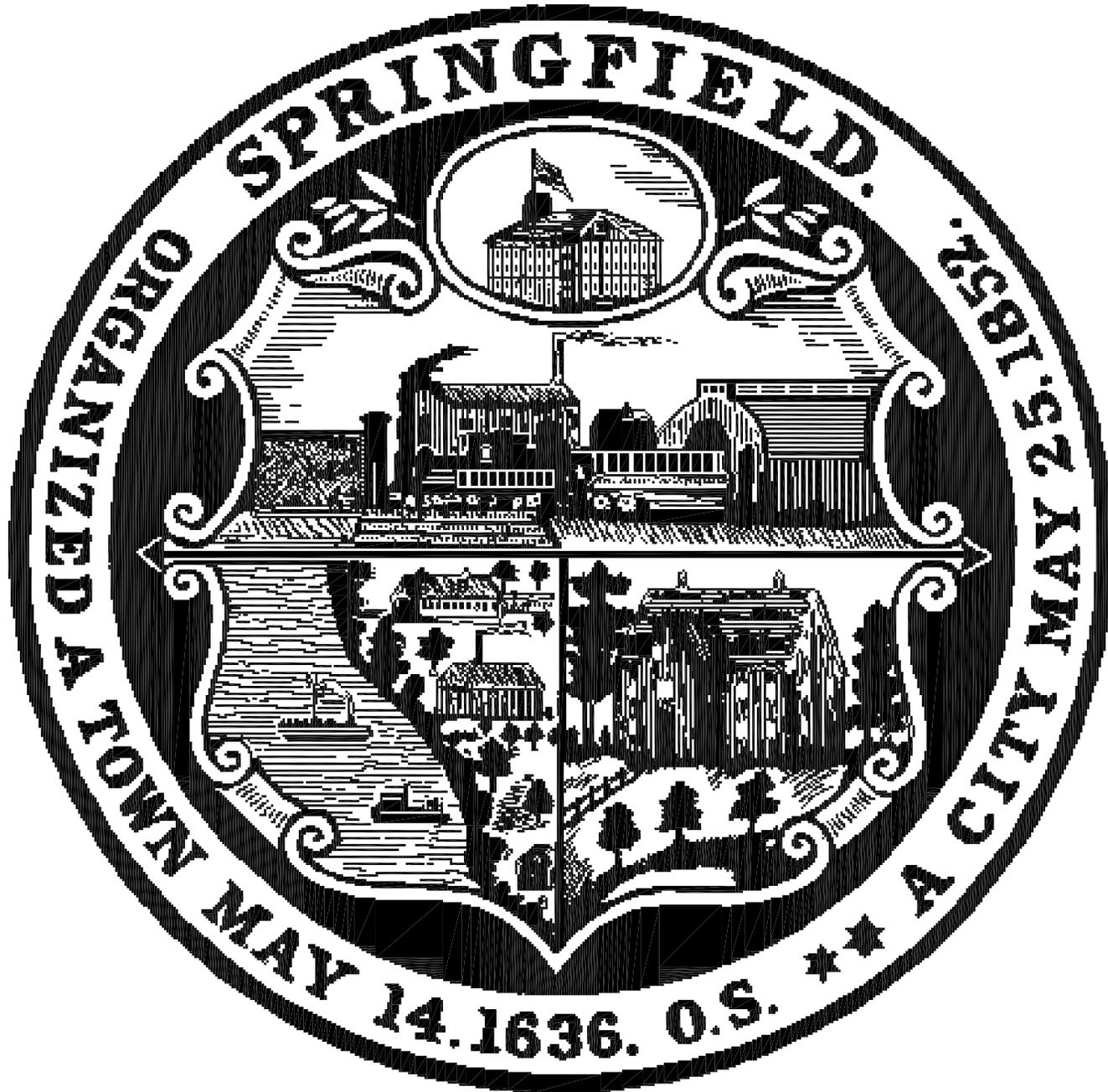


BRASS BOLT & NUT

CATCH BASIN WITH CASTING



SPRINGFIELD SEAL



ACCEPTANCE PLAN KEY

KEY

	FIRE HYDRANT		GUY POLE
	CATCH BASIN		UTILITY POLE
M _x	MAIL BOX		STUMP
	DRAINAGE MANHOLE		TREE
	SANITARY MANHOLE		IRON PIN
 SB	EXISTING SB		IRON BAR
	PROP. GSB		

ACCEPTANCE PLAN KEY 2

KEY

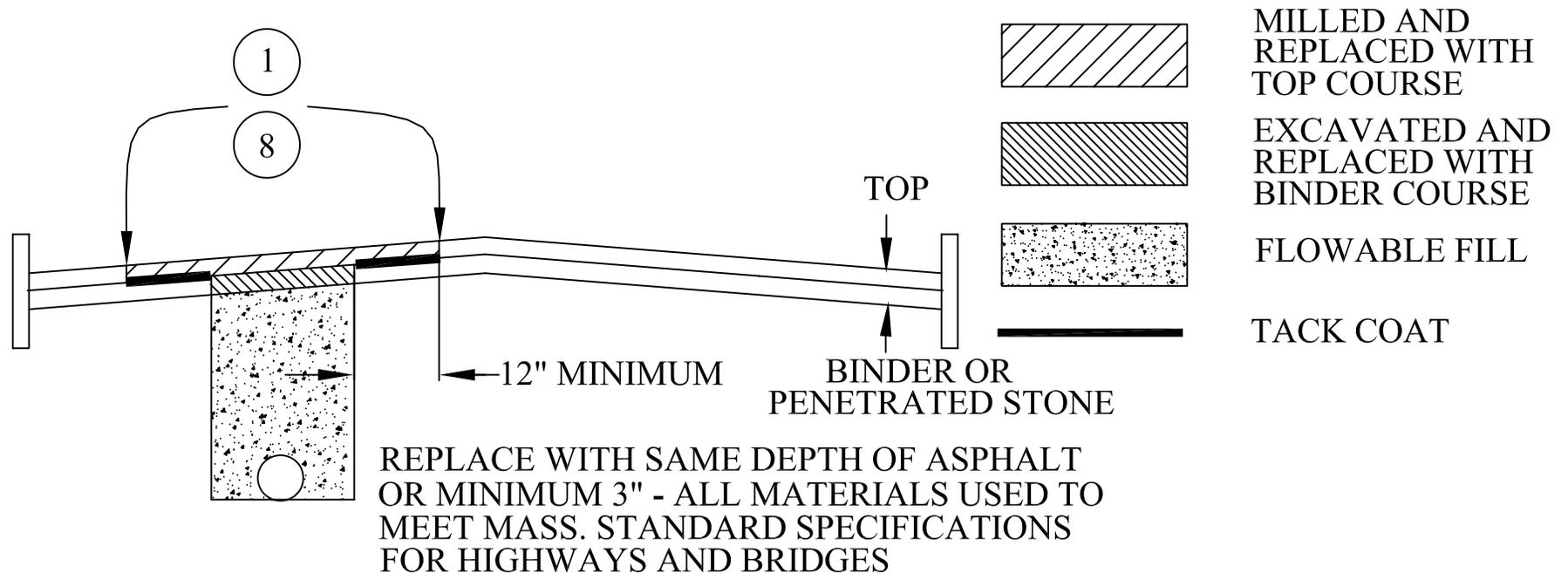
	FIRE HYDRANT		GUY POLE
	CATCH BASIN		UTILITY POLE
	MAIL BOX		TREE
	DRAINAGE MANHOLE		WATERGATE
	SANITARY MANHOLE		GASGATE
	EXISTING SB		PROP. GSB
	IRON PIN		

ACCEPTANCE PLAN KEY 3

KEY

	FIRE HYDRANT		GUY POLE
	CATCH BASIN		UTILITY POLE
	MAIL BOX		STUMP
	DRAINAGE MANHOLE		TREE
	SANITARY MANHOLE		WATERGATE
	EXISTING SB		GASGATE
	IRON PIN		IRON BAR
	WETLAND FLAGGING		PROP. GSB

TRENCH REPAIR SPECIFICATION RESIDENTIAL STREET

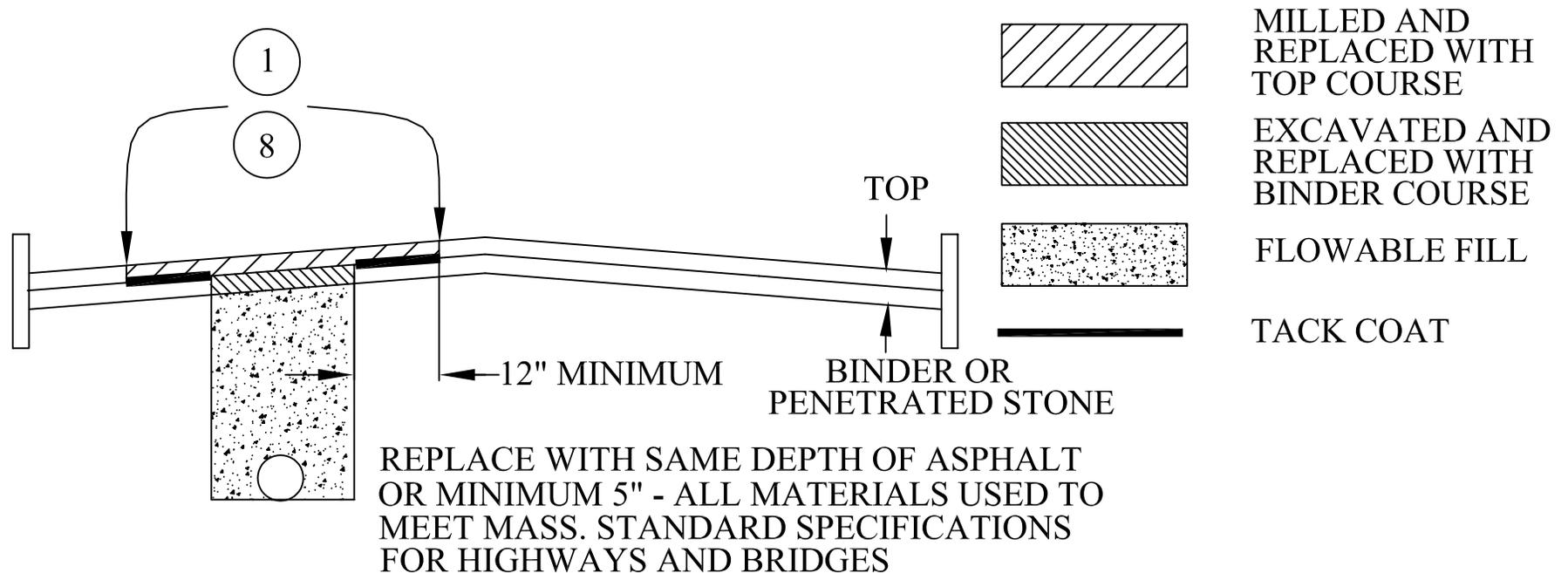


NOTES:

1. SAW CUT OUTER EDGE OF UTILITY PATCH
2. MILL TO REMOVE TOP COURSE
3. LEAVE 12" MIN. LIP BETWEEN EDGE OF TOP AND EDGE OF BINDER COURSE
4. AFTER TRENCH WORK COMPLETED, FILL AROUND PIPE TO BOTTOM
5. REPLACE ONE LAYER OF BINDER
6. TACK AREA OF MILLING
7. REPLACE TOP COURSE
8. SEAL EDGES OF UTILITY PATCH WITH HOT Poured RUBERIZED ASPHALT SEALANT

2-B SPECIFICATION FOR PATCHING BIT. CONC. ROADWAYS(CON'T.)

TRENCH REPAIR SPECIFICATION ARTERIAL STREET

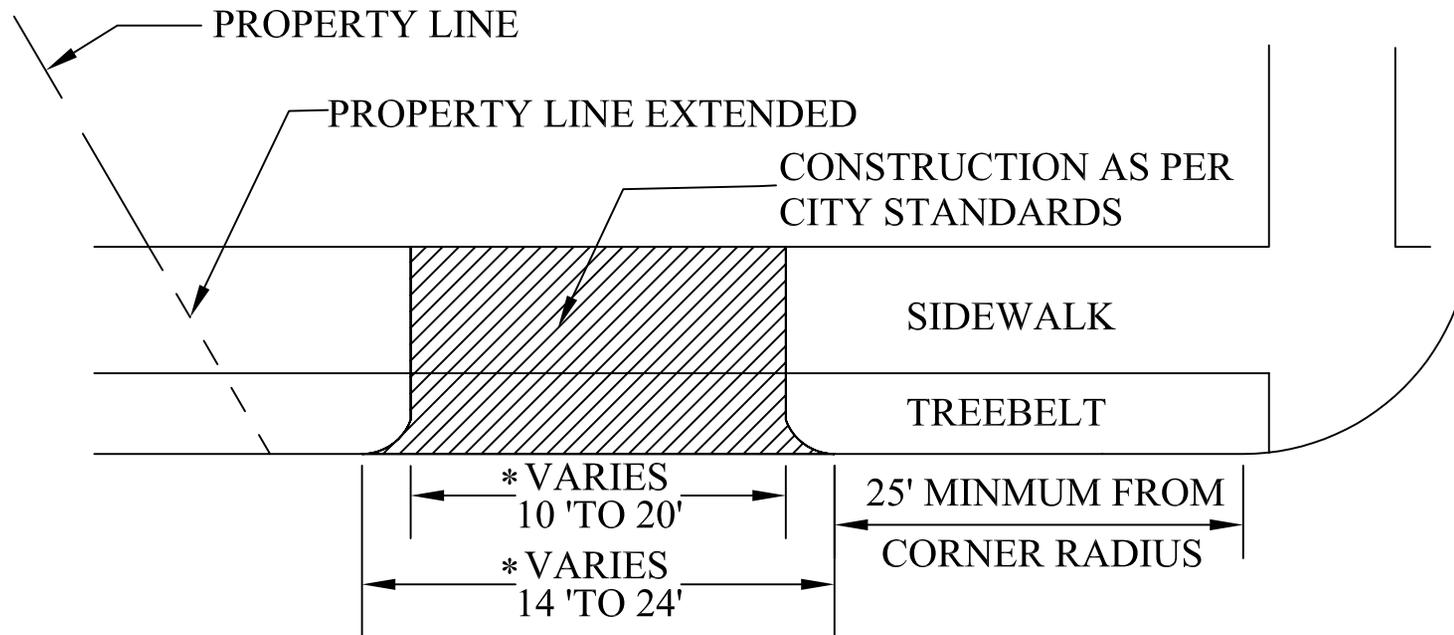


NOTES:

1. SAW CUT OUTER EDGE OF UTILITY PATCH
2. MILL TO REMOVE TOP COURSE
3. LEAVE 12" MIN. LIP BETWEEN EDGE OF TOP AND EDGE OF BINDER COURSE
4. AFTER TRENCH WORK COMPLETED, FILL AROUND PIPE TO BOTTOM WITH FLOWABLE FILL
5. REPLACE LAYERS OF BINDER AND DEEP BASE
6. TACK AREA OF MILLING
7. REPLACE TOP COURSE
8. SEAL EDGES OF UTILITY PATCH WITH HOT Poured RUBERIZED ASPHALT SEALANT

2-B SPECIFICATION FOR PATCHING BIT. CONC. ROADWAYS(CON'T.)

TYPICAL RESIDENTIAL DRIVEWAY

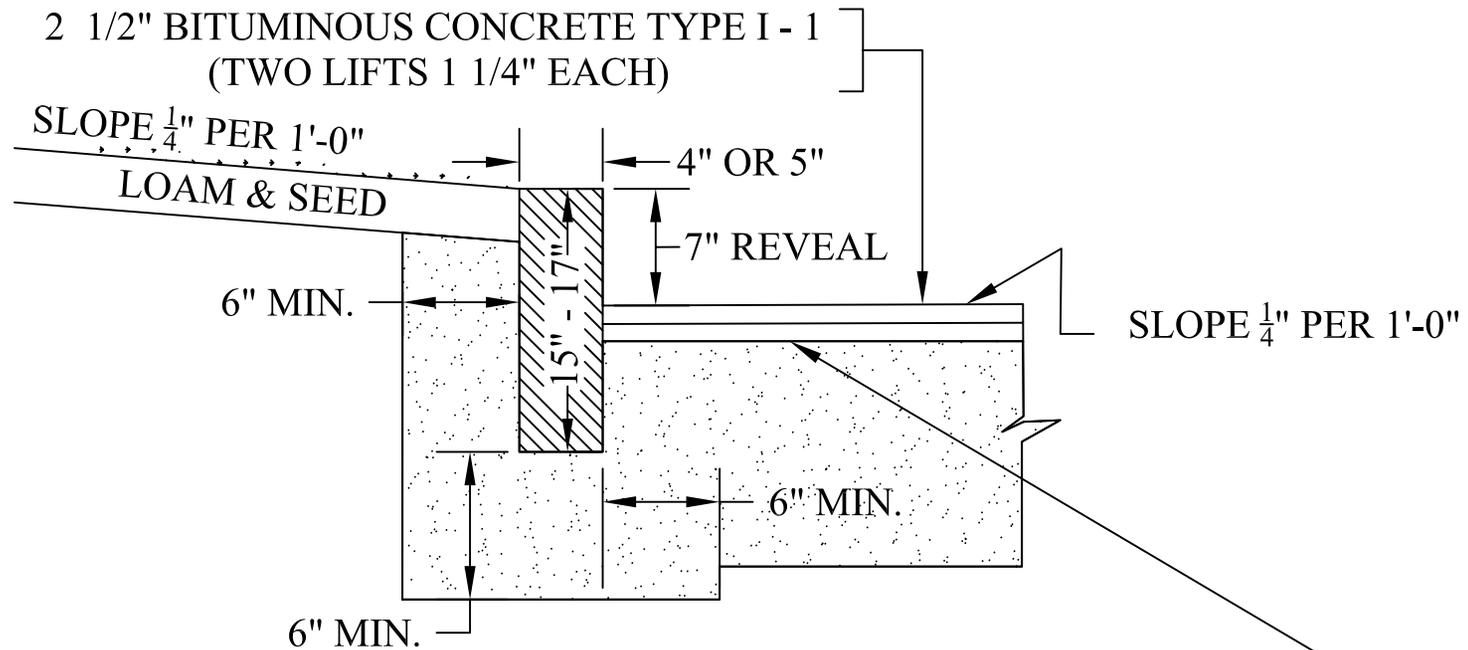


* WIDTH OF DRIVEWAY VARIES AS GEOMETRIC CONDITIONS ALLOW
DESIRABLE WIDTHS ARE 12' FOR A SINGLE AND 20' FOR DOUBLE DRIVEWAY

NOTES:

- STANDARD 2' CURB RETURNS SHALL BE UTILIZED
- ENTIRE DRIVEWAY INCLUDING 2' CURB RETURNS, MUST BE WITHIN THE PROP. LINES EXTENDED OF THE PROP. WHICH THE DRIVEWAY SERVES
- DRIVEWAY APRON MUST MEET SIDEWALK GRADE
- PORTION OF DRIVEWAY WITHIN THE PUBLIC WAY MUST BE CONSTRUCTED ACCORDING TO CITY SPECIFICATIONS
- IF ANY TREES, POLES, SIGNS OR UTILITIES ARE LOCATED WITHIN THE LIMITS OF THE PROPOSED DRIVEWAY, THE APPROPRIATE DEPARTMENT MUST BE NOTIFIED FOR REMOVAL OR RELOCATION OF SUCH
- CONDITIONS MAY TEND TO ALTER PROPOSED WIDTH AND LOCATION OF DRIVEWAY AND ANY VARIATIONS FROM THE STANDARDS SHOWN MUST BE APPROVED BY THE TRAFFIC ENGINEER

GRANITE CURBS

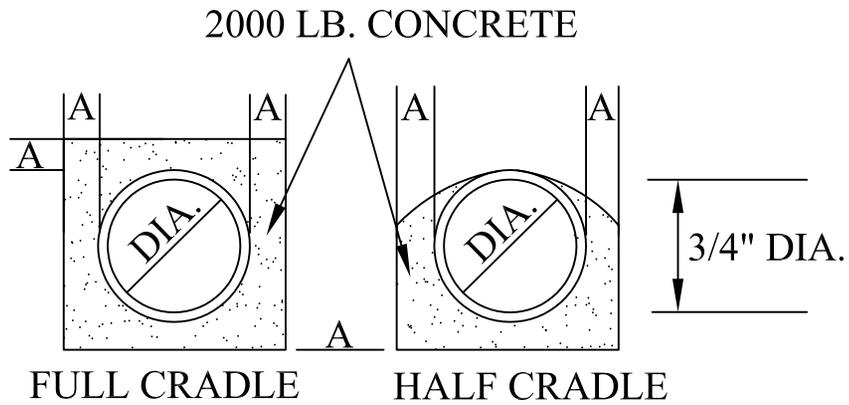


APPLICATION OF .30 TO .50 MC- 70 PER. SQ. YD. ON GRAVEL BASE OR AS DIRECTED

NOTES:

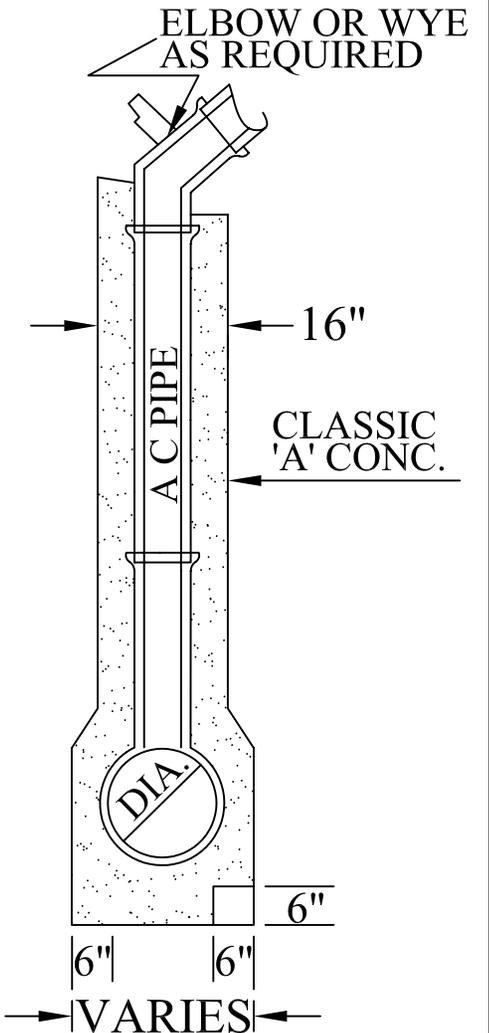
- TYPE VB, 4 " THICKNESS, MIN. OF 6' LENGTH GRANITE CURBING FOR RESIDENTIAL STREETS
- TYPE VB, 5 " THICKNESS, MIN. OF 6' LENGTH GRANITE CURBING FOR ALL OTHER TYPES OF STREETS
- TYPE "A" GRANITE CURB CORNERS FOR ALL TYPES OF SUBDIVISION EXCEPT " ROUNDED CORNER CURBING" MAY BE SUBSTITUTED AT DESCRESTION OF THE DIRECTOR OF THE DEPARTMENT OF PUBLIC WORKS

SEWER CONNECTION

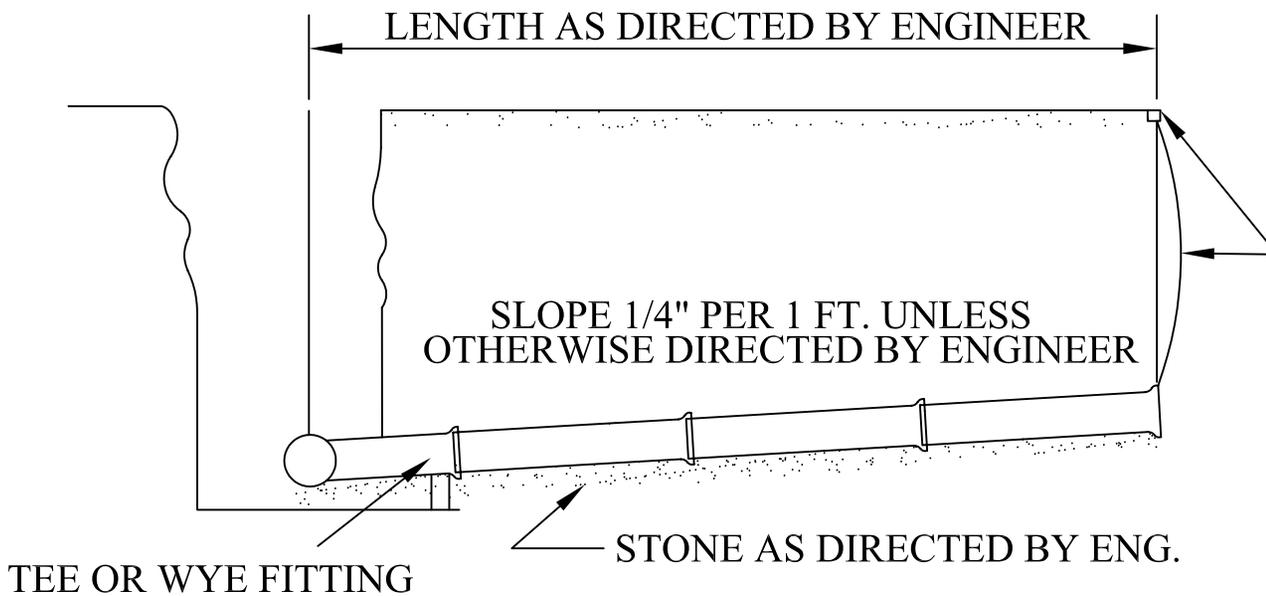


DIMENSIONS	
DIA.	A
6"	5"
8"	5 1/2"
10"	5 1/2"
12"	6"

CRADLE DETAILS



DEEP HOUSE CONNECTION

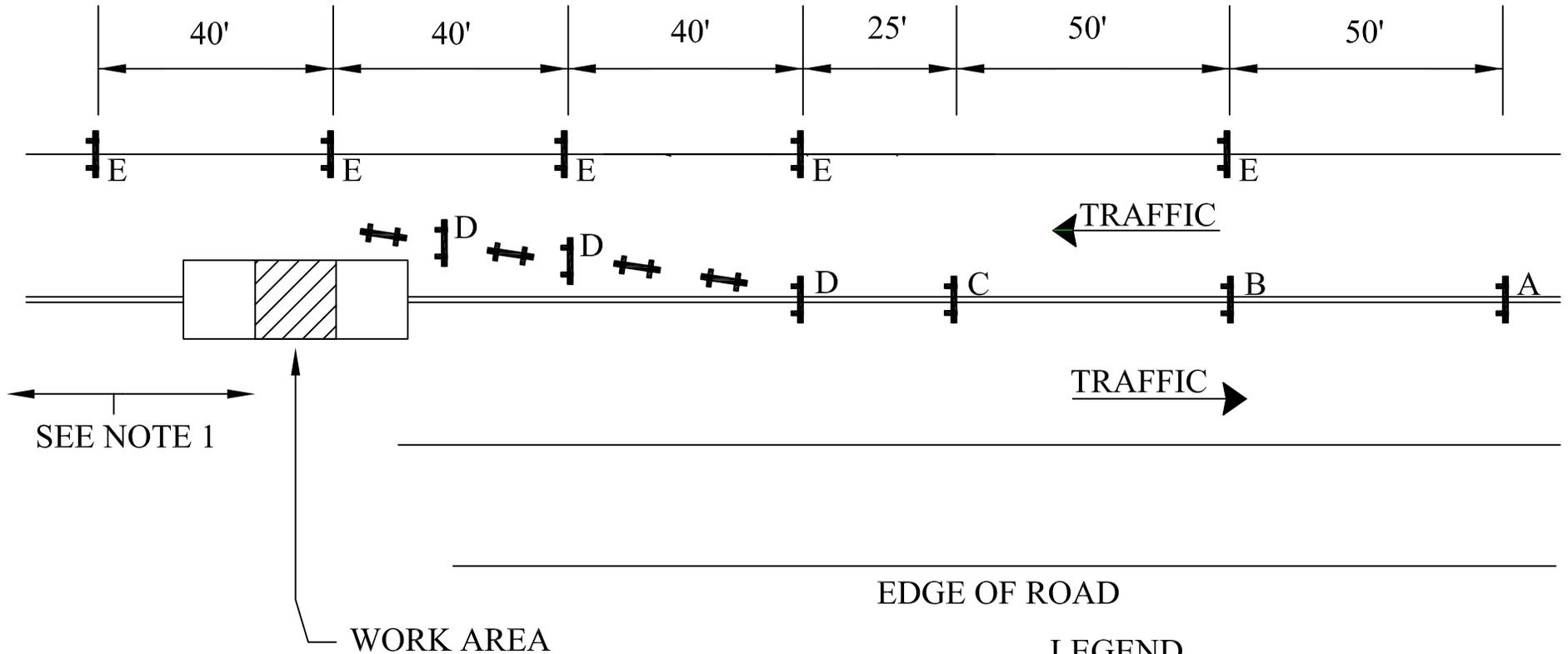


HOUSE LATERAL

MARK END OF LATERAL
WITH 3" DIA. X 4" LG.
BLOCK SET FLUSH WITH
GROUND AND CONNECT TO
LATERAL WITH WIRE

SIGNING & BARRICADE PLAN

TWO-WAY STREET CENTER OF ROAD WORK AREA



NOTES

* - 36" DIAMOND SHAPE, BLACK LEGEND ON CONSTRUCTION ORANGE

** - 30" DIAMOND SHAPE, BLACK LEGEND ON CONSTRUCTION ORANGE

*** - 6' LONG OR LONGER STRIPED ORANGE AND WHITE

(1) - SIGNING & BARRICADES SHOW FOR ONE DIRECTION OF TRAFFIC ONLY. IDENTICAL SET-UP TO BE USED FOR OPPOSITE DIRECTION

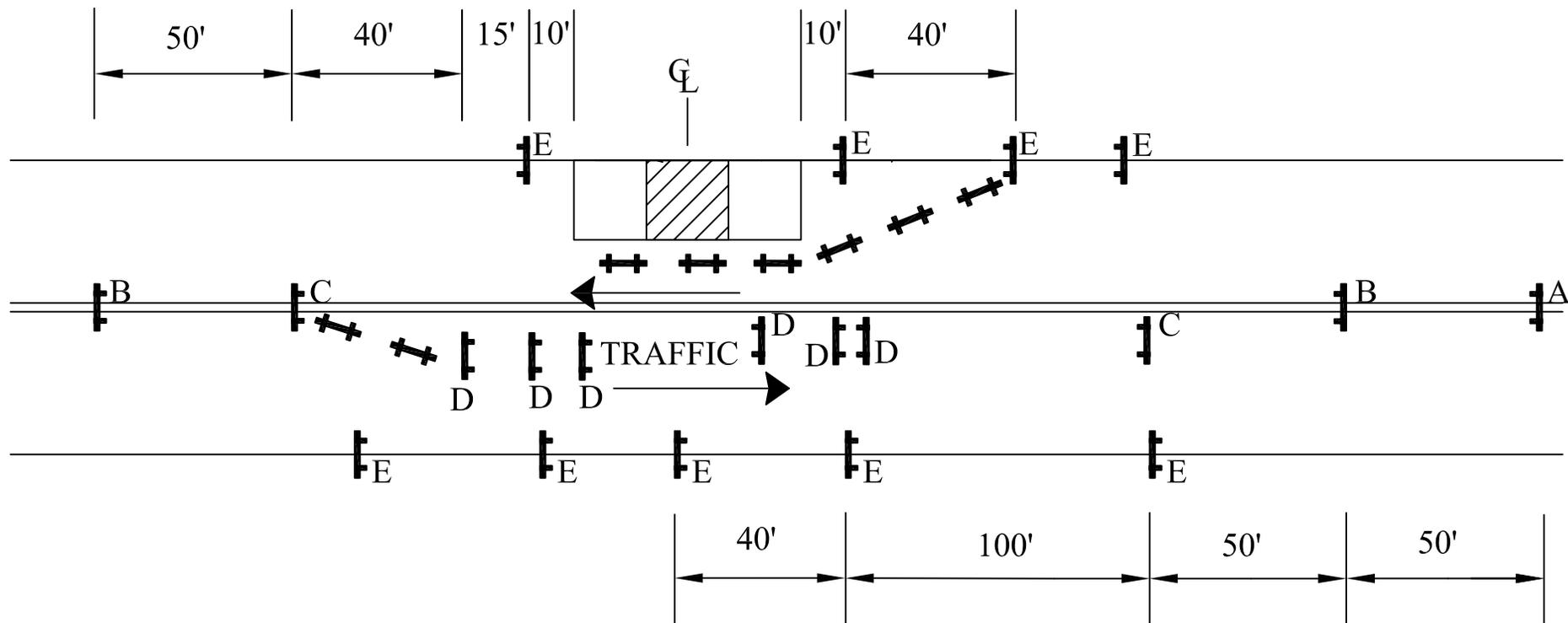
LEGEND

-  A - "CONSTRUCTION AHEAD" SIGN*
-  B - "20 MPH CONSTRUCTION ZONE" SIGN**
-  C - "SSLOW SINGLE LANE" SIGN**
-  D - "KEEP RIGHT" SIGN**
-  E - "NO PARKING" SIGN**
-  BARRICADE ***

TO BE USED AS A GUIDE ONLY

SIGNING & BARRICADE PLAN

TWO-WAY STREET SIDE OF ROAD WORK AREA



NOTES

- * - 36" DIAMOND SHAPE, BLACK LEGEND ON CONSTRUCTION ORANGE
- ** - 30" DIAMOND SHAPE, BLACK LEGEND ON CONSTRUCTION ORANGE
- *** - 6' LONG OR LONGER STRIPED ORANGE AND WHITE

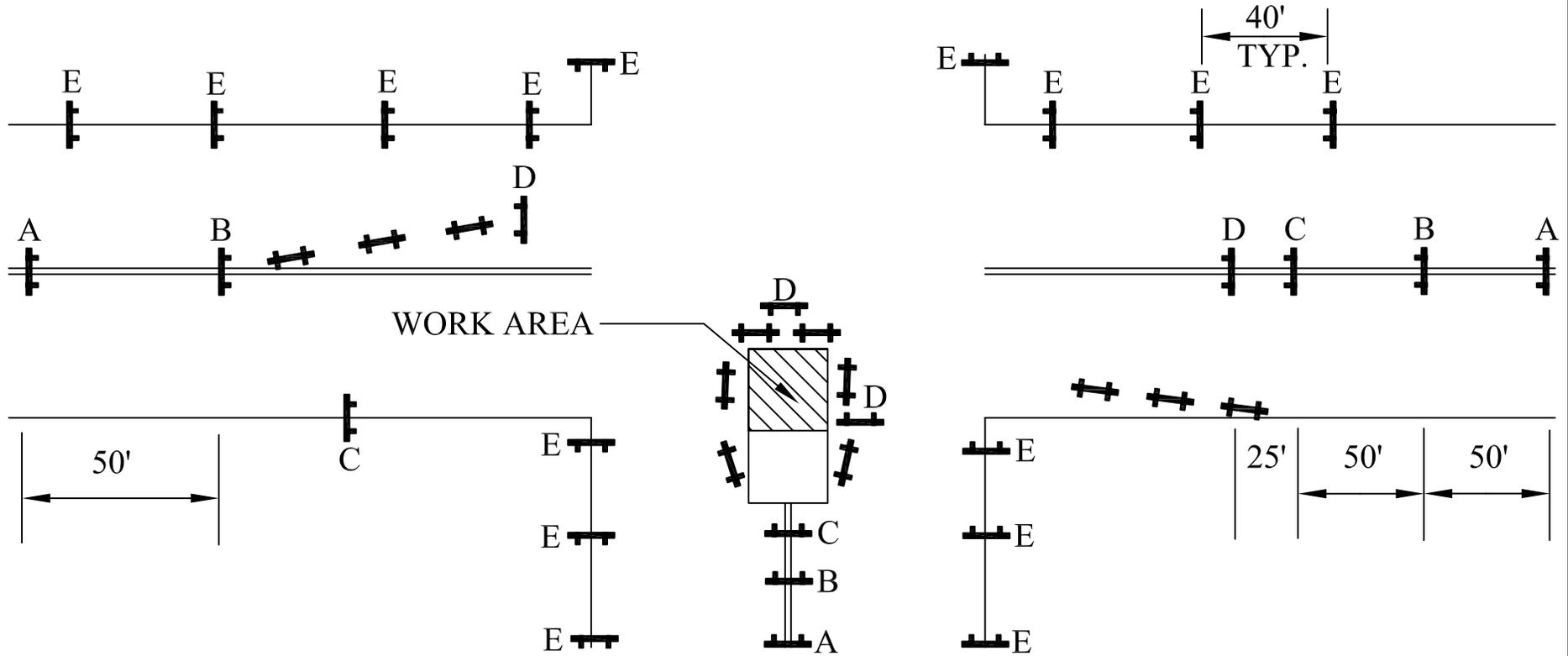
LEGEND

-  A - "CONSTRUCTION AHEAD" SIGN*
-  B - "20 MPH CONSTRUCTION ZONE" SIGN**
-  C - "SSLOW SINGLE LANE" SIGN**
-  D - "KEEP RIGHT" SIGN**
-  E - "NO PARKING" SIGN**
-  BARRICADE ***

TO BE USED AS A GUIDE ONLY

SIGNING & BARRICADE PLAN

ALL TWO-WAY STREETS AT INTERSECTION WORK AREA



NOTES

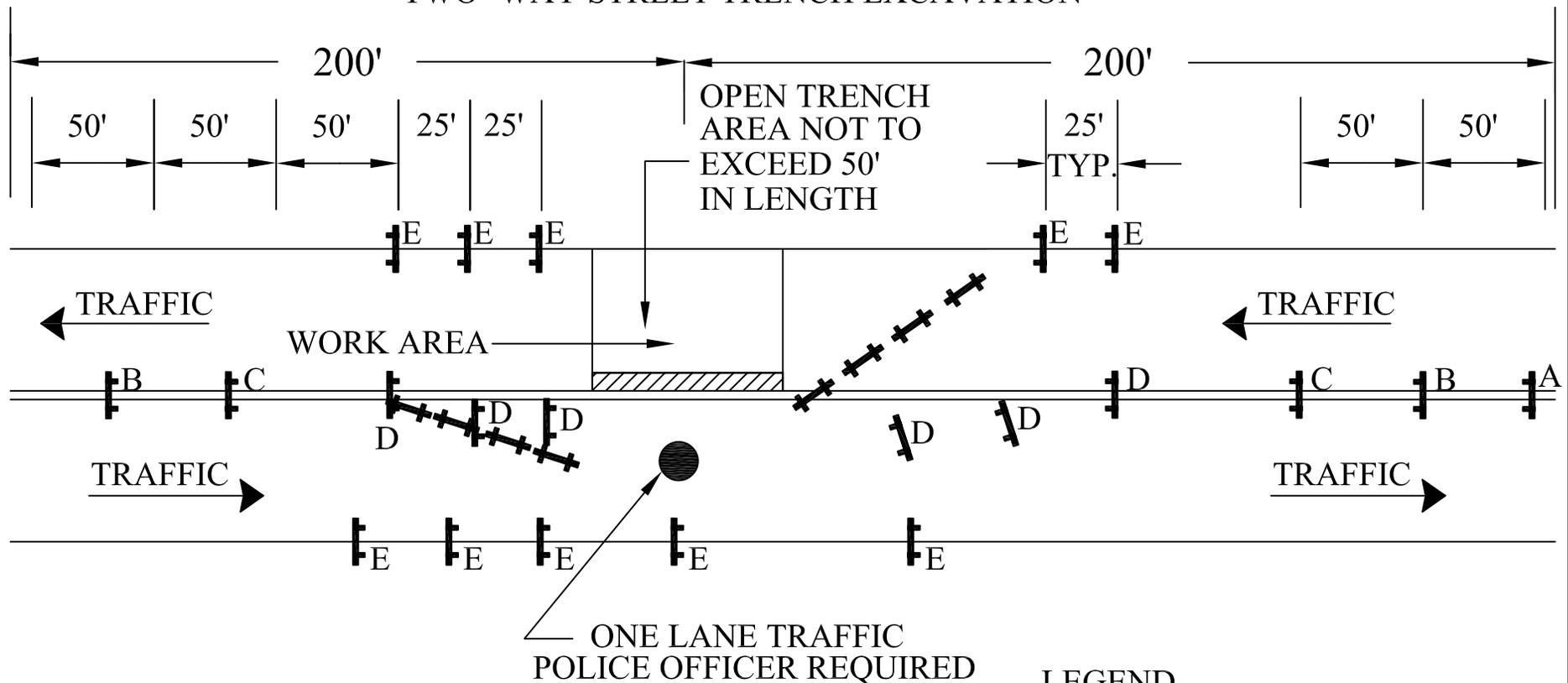
- * - 36" DIAMOND SHAPE, BLACK LEGEND ON CONSTRUCTION ORANGE
- ** - 30" DIAMOND SHAPE, BLACK LEGEND ON CONSTRUCTION ORANGE
- *** - 6' LONG OR LONGER STRIPED ORANGE AND WHITE

- LEGEND**
-  A - "CONSTRUCTION AHEAD" SIGN*
 -  B - "20 MPH CONSTRUCTION ZONE" SIGN**
 -  C - "SSLOW SINGLE LANE" SIGN**
 -  D - "KEEP RIGHT" SIGN**
 -  E - "NO PARKING" SIGN**
 -  BARRICADE ***

TO BE USED AS A GUIDE ONLY

SIGNING & BARRICADE PLAN

TWO-WAY STREET TRENCH EXCAVATION



NOTES

- * - 36" DIAMOND SHAPE, BLACK LEGEND ON CONSTRUCTION ORANGE
- ** - 30" DIAMOND SHAPE, BLACK LEGEND ON CONSTRUCTION ORANGE
- *** - 6' LONG OR LONGER STRIPED ORANGE AND WHITE

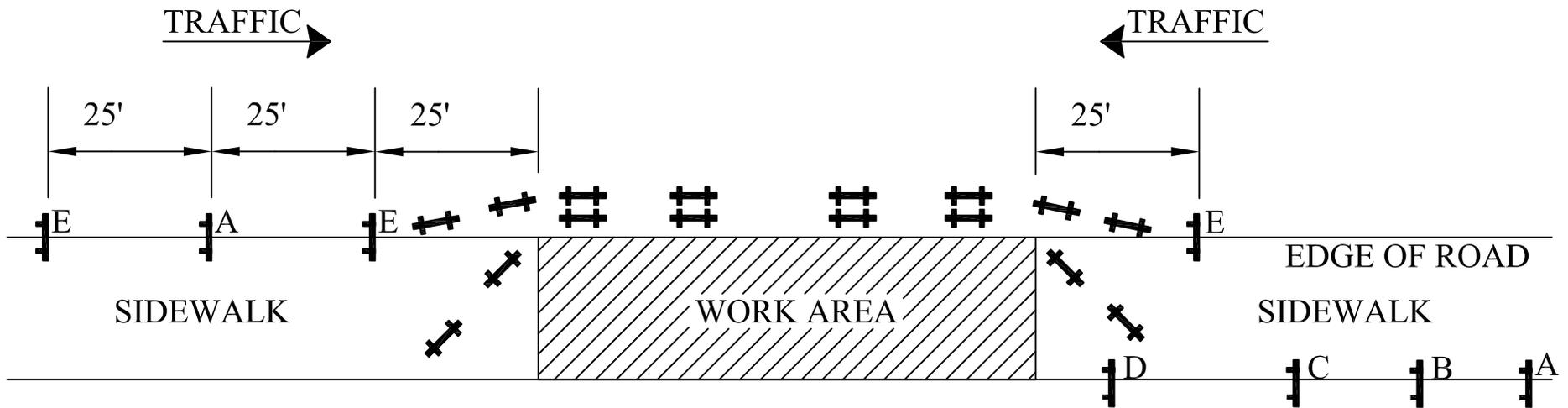
LEGEND

- ⌄ A - "CONSTRUCTION AHEAD" SIGN*
- ⌄ B - "20 MPH CONSTRUCTION ZONE" SIGN**
- ⌄ C - "SSLOW SINGLE LANE" SIGN**
- ⌄ D - "KEEP RIGHT" SIGN**
- ⌄ E - "NO PARKING" SIGN**
- ⌄+ BARRICADE ***

TO BE USED AS A GUIDE ONLY

SIGNING & BARRICADE PLAN

SIDEWALK & TREEBELT AREA



NOTES

- * - 36" DIAMOND SHAPE, BLACK LEGEND ON CONSTRUCTION ORANGE
- ** - 30" DIAMOND SHAPE, BLACK LEGEND ON CONSTRUCTION ORANGE
- *** - 6' LONG OR LONGER STRIPED ORANGE AND WHITE

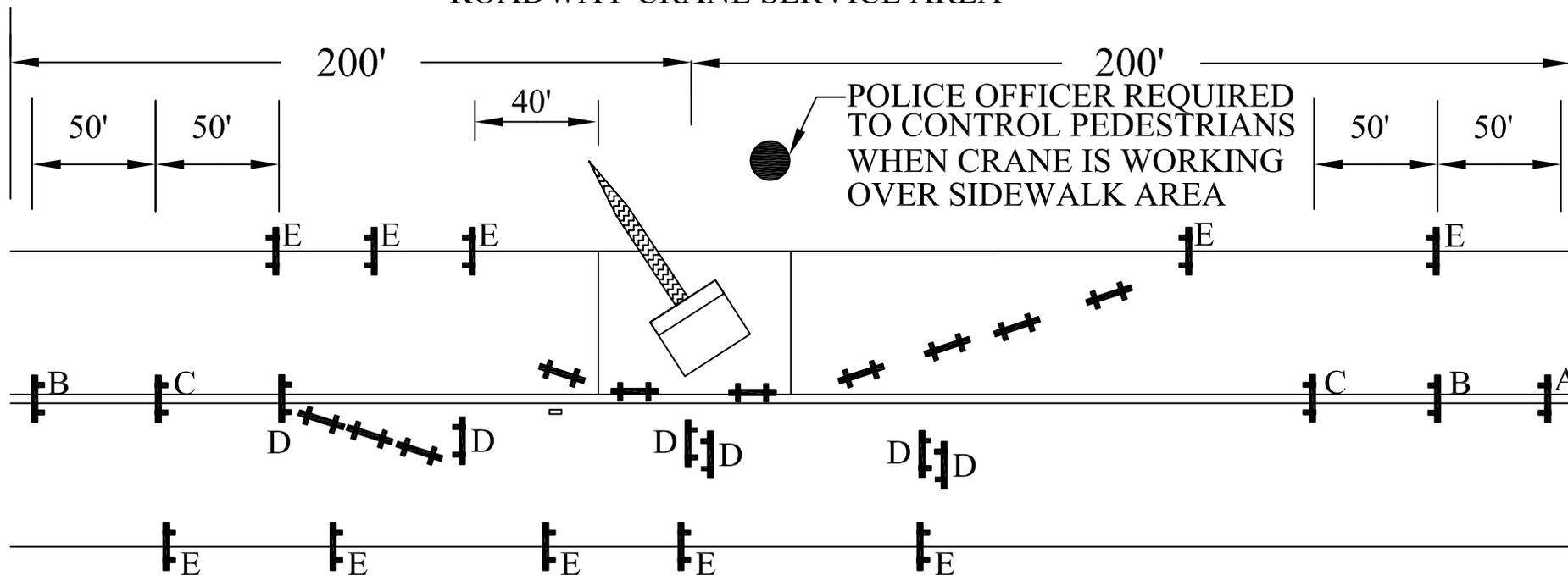
LEGEND

- A - "CONSTRUCTION AHEAD" SIGN*
- B - "20 MPH CONSTRUCTION ZONE" SIGN**
- C - "SSLOW SINGLE LANE" SIGN**
- D - "KEEP RIGHT" SIGN**
- E - "NO PARKING" SIGN**
- BARRICADE ***

TO BE USED AS A GUIDE ONLY

SIGNING & BARRICADE PLAN

ROADWAY CRANE SERVICE AREA



NOTES

- * - 36" DIAMOND SHAPE, BLACK LEGEND ON CONSTRUCTION ORANGE
- ** - 30" DIAMOND SHAPE, BLACK LEGEND ON CONSTRUCTION ORANGE
- *** - 6' LONG OR LONGER STRIPED ORANGE AND WHITE

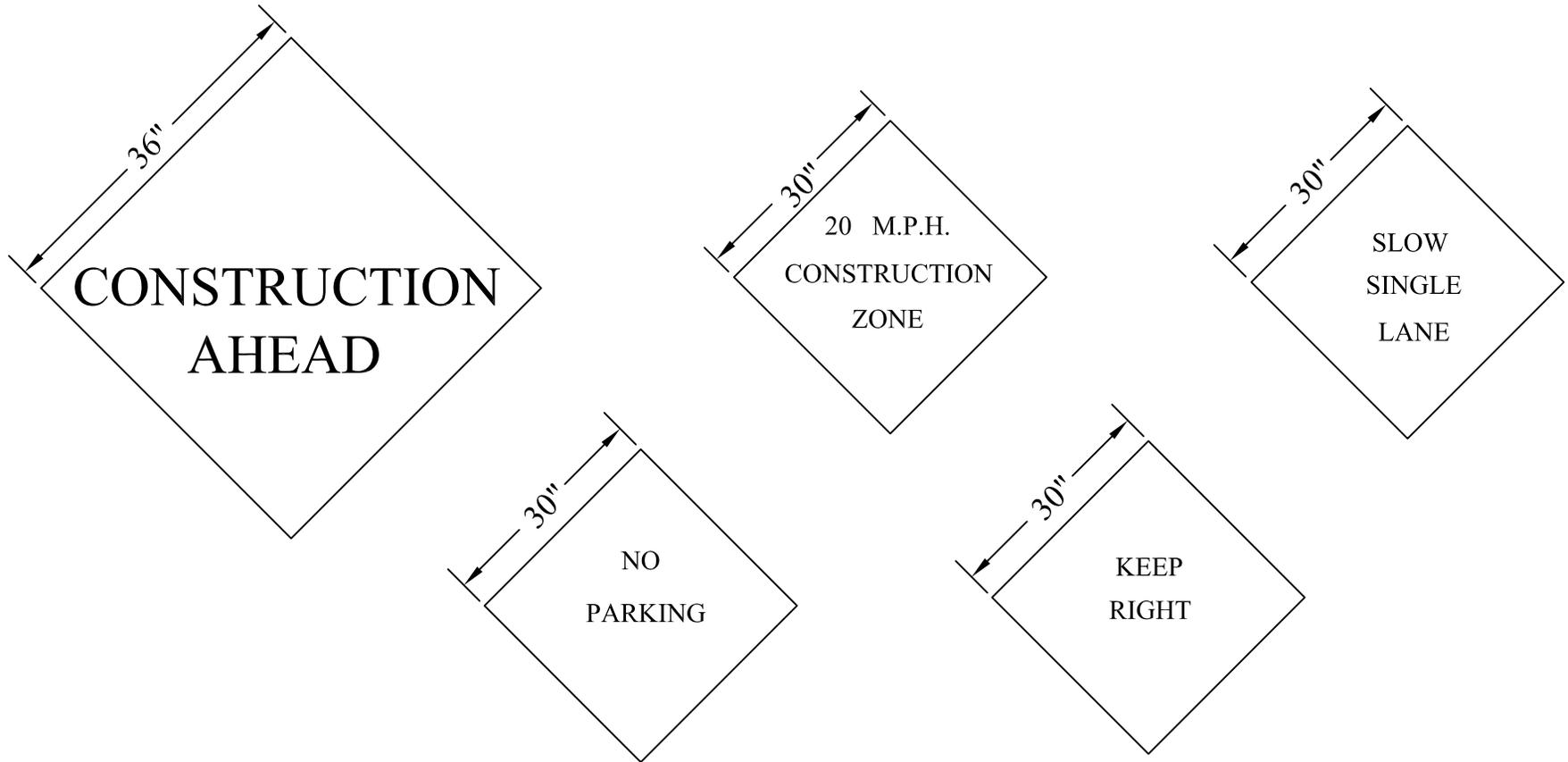
LEGEND

- A - "CONSTRUCTION AHEAD" SIGN*
- B - "20 MPH CONSTRUCTION ZONE" SIGN**
- C - "SSLOW SINGLE LANE" SIGN**
- D - "KEEP RIGHT" SIGN**
- E - "NO PARKING" SIGN**
- +++ BARRICADE ***

TO BE USED AS A GUIDE ONLY

SIGN FACE DETAILS

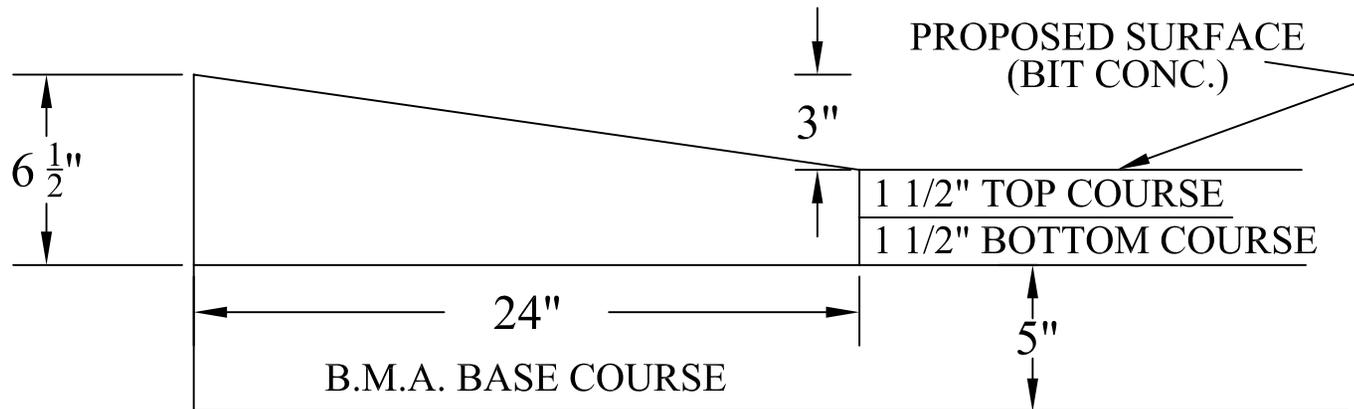
THE NOTED SIGNS ARE AS FOLLOWS:



NOTES:

- ALL SIGNS SHALL BE BLACK LEGEND ON REFLECTORIZED CONSTRUCTION ORANGE BACKGROUND
- ALL TRAFFIC AND / OR PEDESTRIAN DETOURS SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE APPROPRIATE PLAN AS CONTAINED IN THIS SECTION

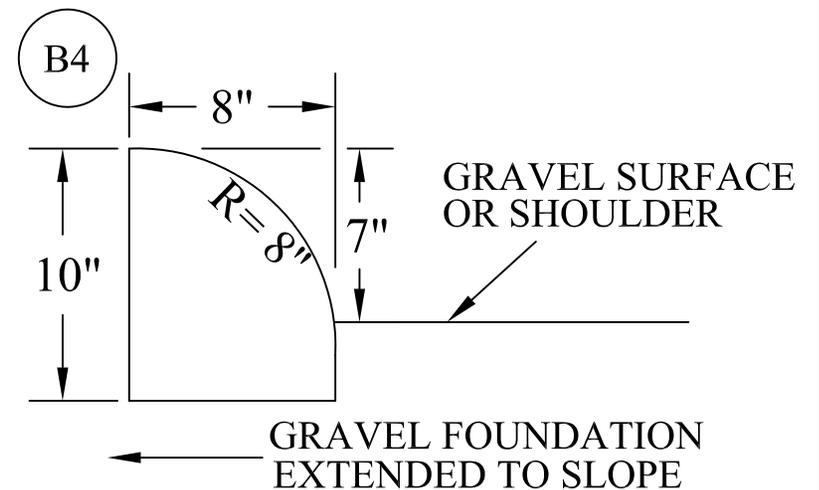
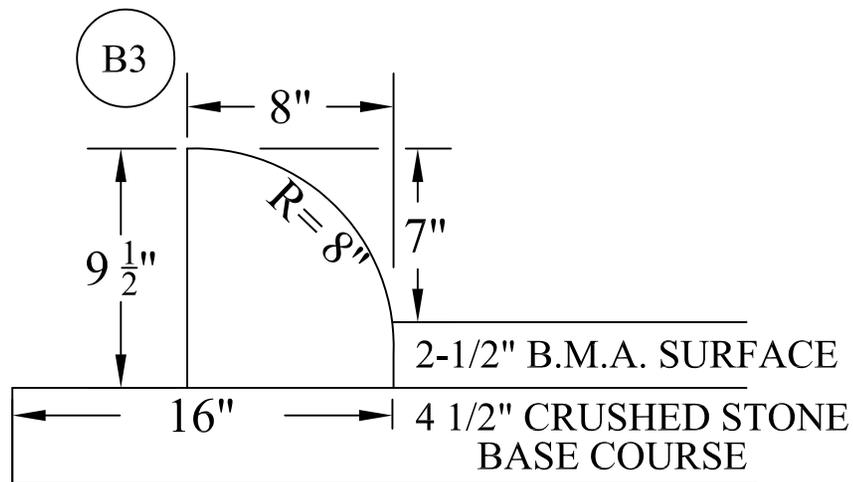
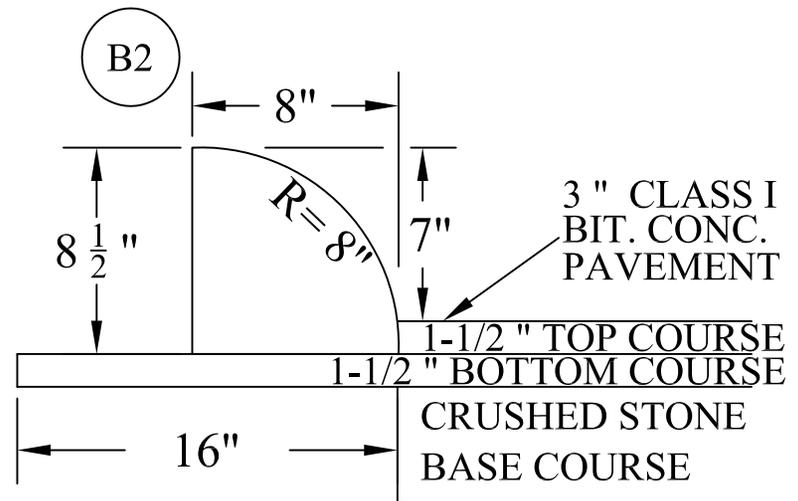
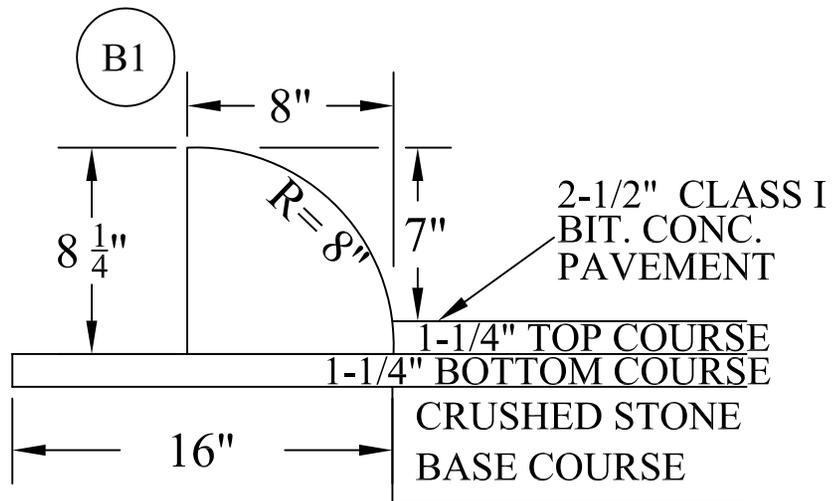
BERM TYPE A



NOTES:

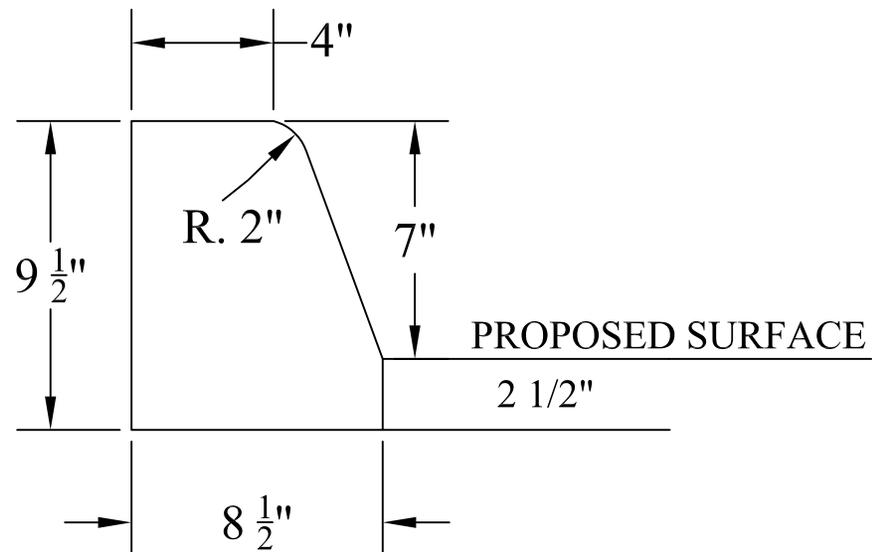
- USED PRIMARILY ON INTERSTATE PROJECTS

BERM TYPE B



BERM TYPE C

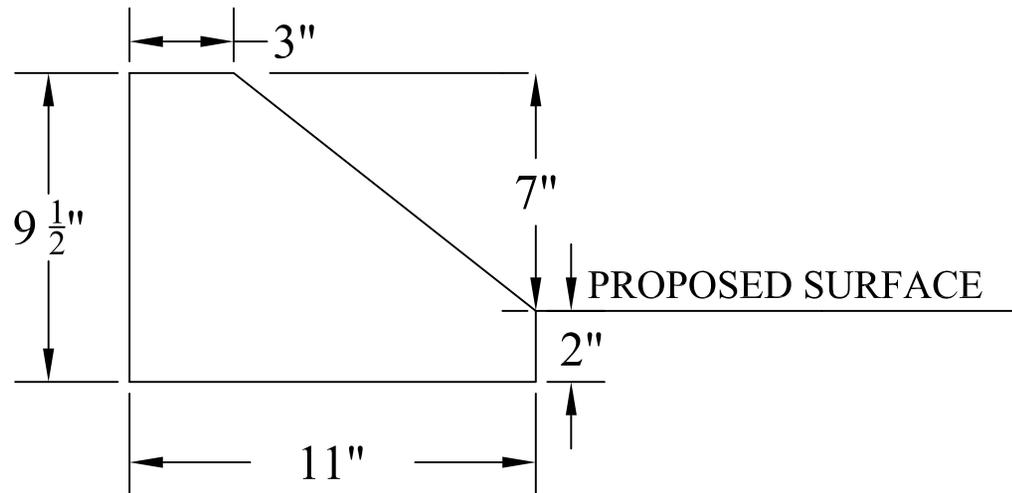
MOST COMMONLY USED



NOTES:

- METHOD OF CONSTRUCTION OF FOUNDATION FOR TYPES C AND D SAME AS FOR TYPE B DEPENDING ON KIND OF SURFACE

BERM TYPE D



NOTES:

- METHOD OF CONSTRUCTION OF FOUNDATION FOR TYPES C AND D SAME AS FOR TYPE B DEPENDING ON KIND OF SURFACE