

# ROADWAY DETAILS

## CROSS-SECTION PAVED ROAD WITH CURBS & SIDEWALKS

NTS

- NOTES:**
1. THE CONTRACTOR SHALL CLEAR, GRUB AND EXCAVATE FOR THE STREET AND UTILITIES IN ACCORDANCE WITH DIVISION 200 - EARTHWORK OF THE VT DEPT. OF TRANSPORTATION STANDARD SPECIFICATIONS.
  2. SOIL BORINGS AND TEST PITS MAY BE REQUIRED BY THE TOWN TO VERIFY DESIGN.
  3. USE THE SPECIAL SECTION ONLY WHEN THE SUBGRADE SOIL TO A DEPTH OF 4' BELOW THE PROPOSED F.G. IS AASHTO CLASSIFICATION A-1-a, A-1-b, A-3, A-2-4 OR A-2-5 AND THE SEASONAL HIGH WATER TABLE IS NO CLOSER THAN 4' TO THE PROPOSED F.G
  4. ROAD FINISH GRADE SHALL HAVE A MINIMUM SLOPE OF 0.5%.

FIGURE 1

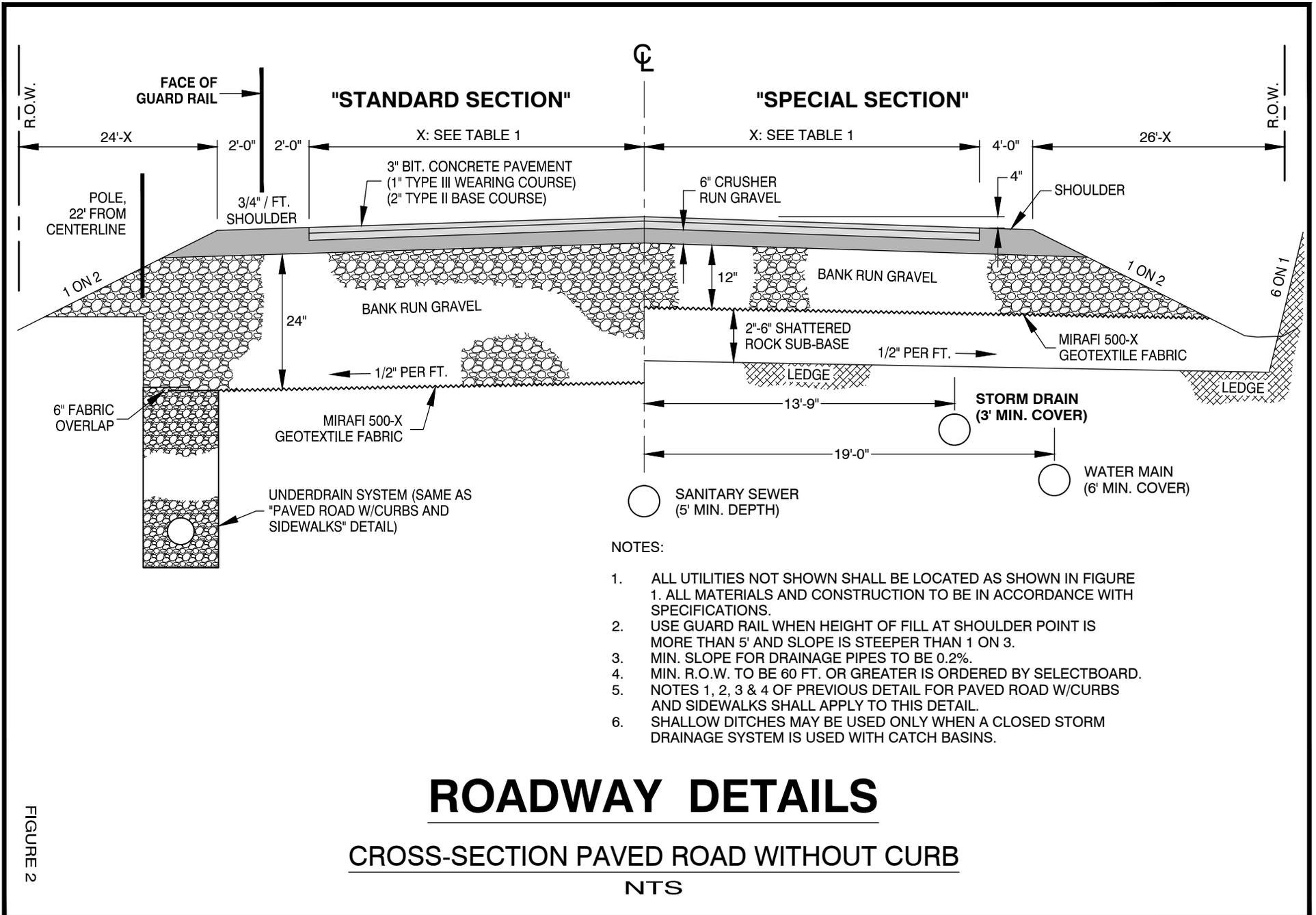
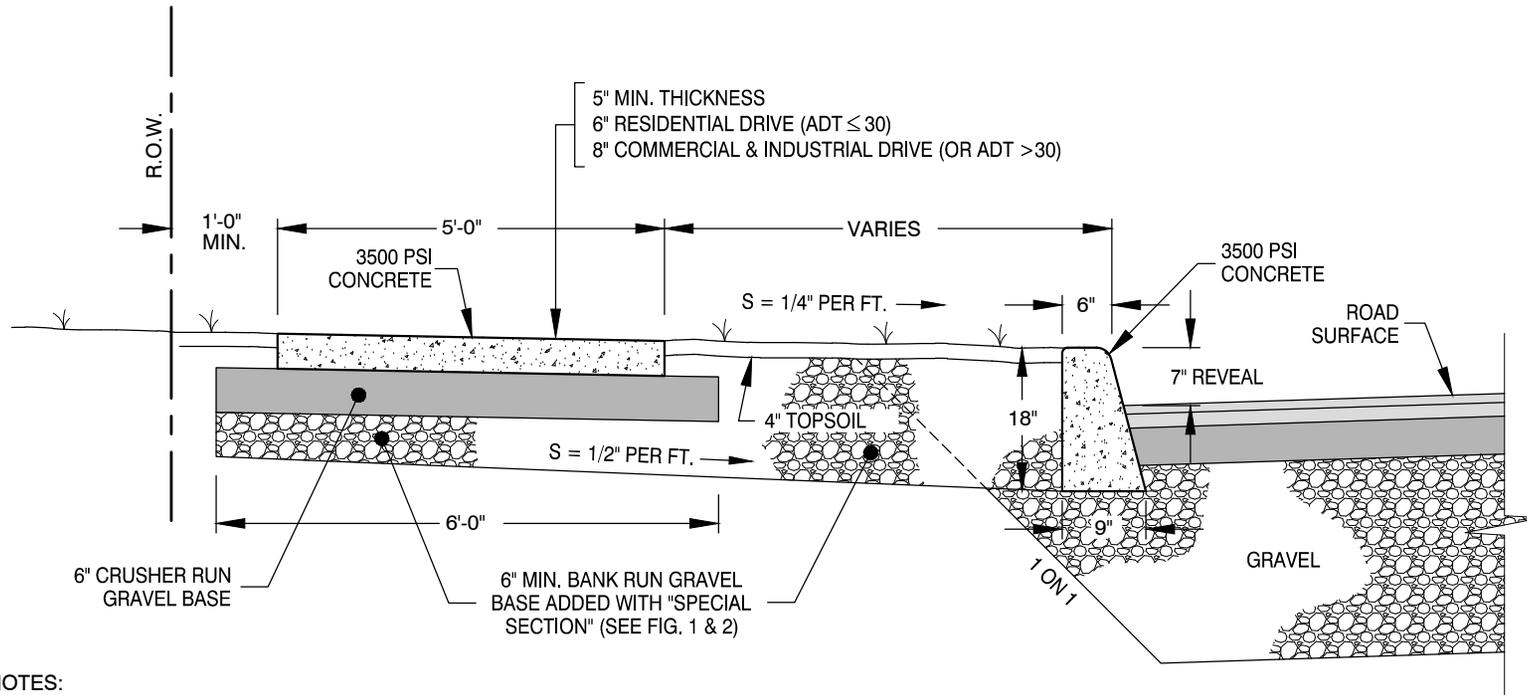


FIGURE 2

# ROADWAY DETAILS

## CROSS-SECTION PAVED ROAD WITHOUT CURB

NTS



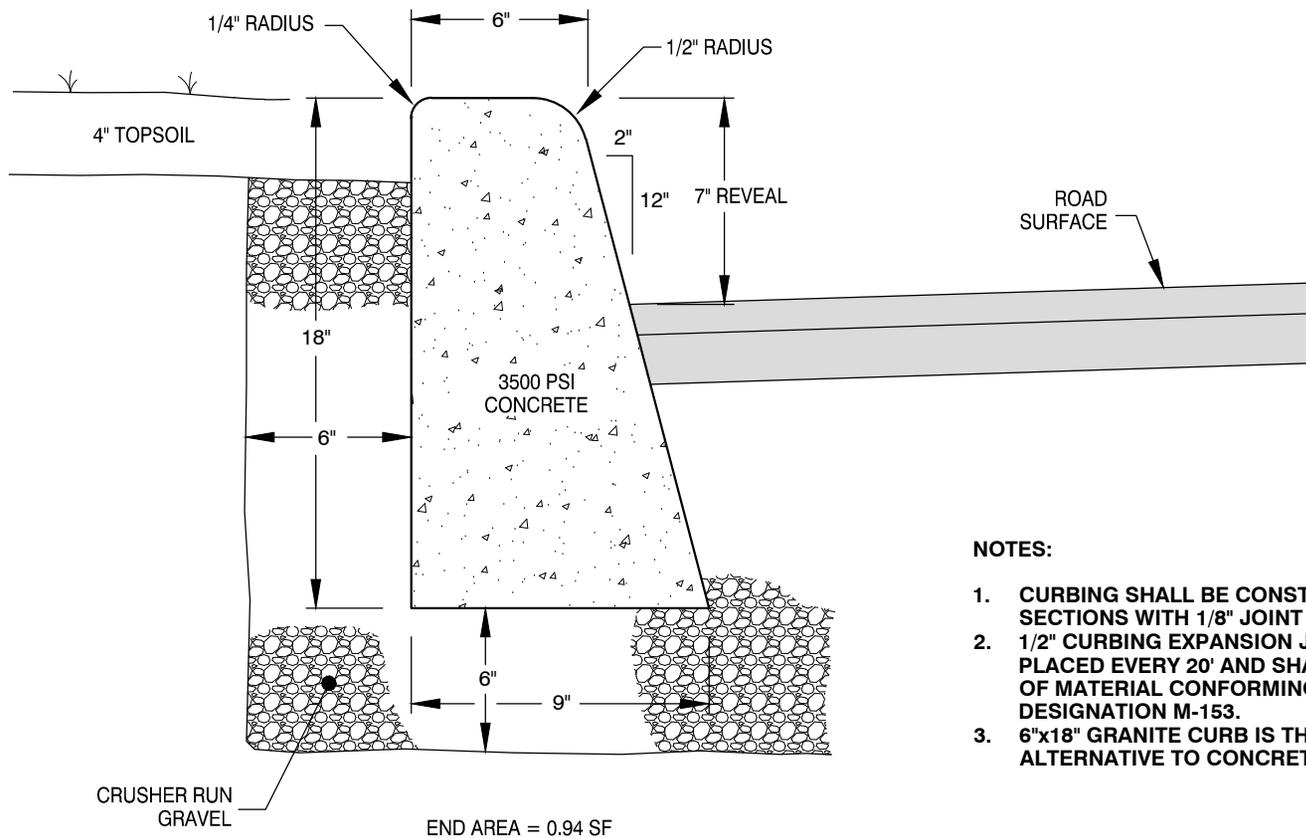
NOTES:

1. ALL MATERIAL AND CONSTRUCTION TO BE ACCORDING TO SPECIFICATIONS.
2. CURB AND SIDEWALK SECTIONS SHALL BE SEPARATED BY PREMOULDED EXPANSION JOINT FILLER.
3. GRANITE CURB IS ONLY ACCEPTABLE ALTERNATIVE TO THIS DETAIL.
4. EXPANSION JOINT EVERY 20', SCORE JOINT EVERY 5'.

# ROADWAY DETAILS

## CONCRETE SIDEWALK AND CURB

NTS



**NOTES:**

1. CURBING SHALL BE CONSTRUCTED IN 10' SECTIONS WITH 1/8" JOINT BETWEEN SECTIONS.
2. 1/2" CURBING EXPANSION JOINTS SHALL BE PLACED EVERY 20' AND SHALL BE CONSTRUCTED OF MATERIAL CONFORMING TO AASHTO DESIGNATION M-153.
3. 6"x18" GRANITE CURB IS THE ONLY ACCEPTABLE ALTERNATIVE TO CONCRETE.

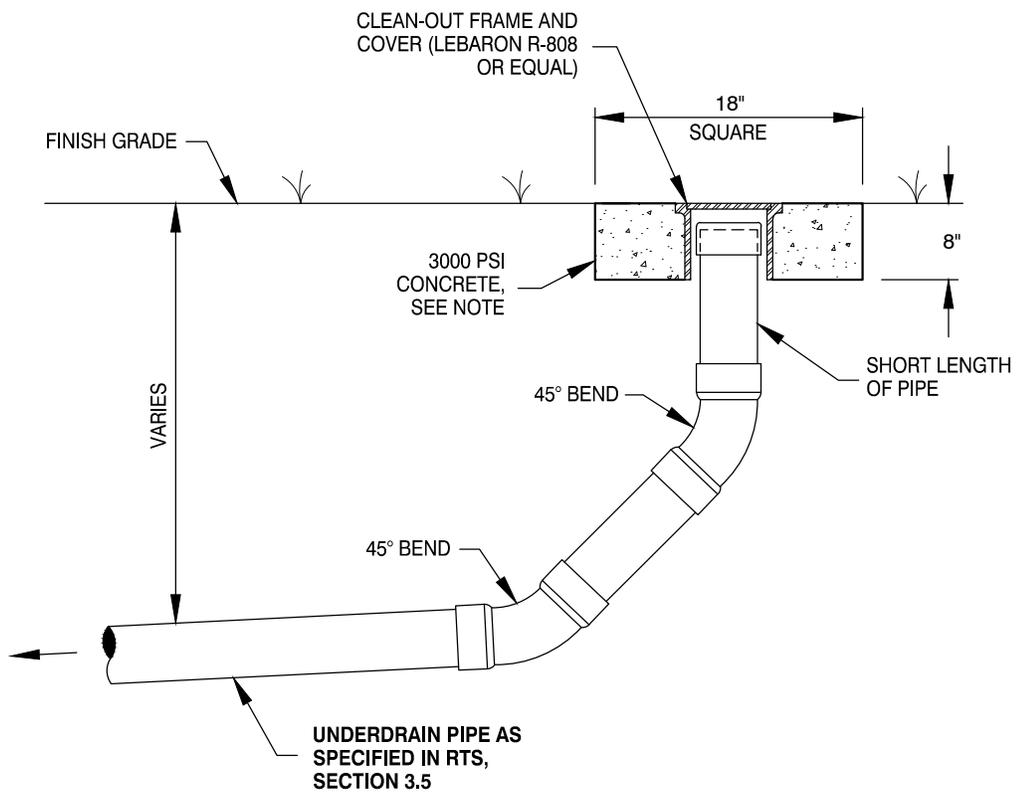
# ROADWAY DETAILS

## CONCRETE CURB

NTS

NOTE:

THIS FRAME AND COVER DETAIL APPLIES TO  
INSTALLATION IN GRASS. IN PAVEMENT, BIT.  
CONCRETE WILL SURROUND FRAME.

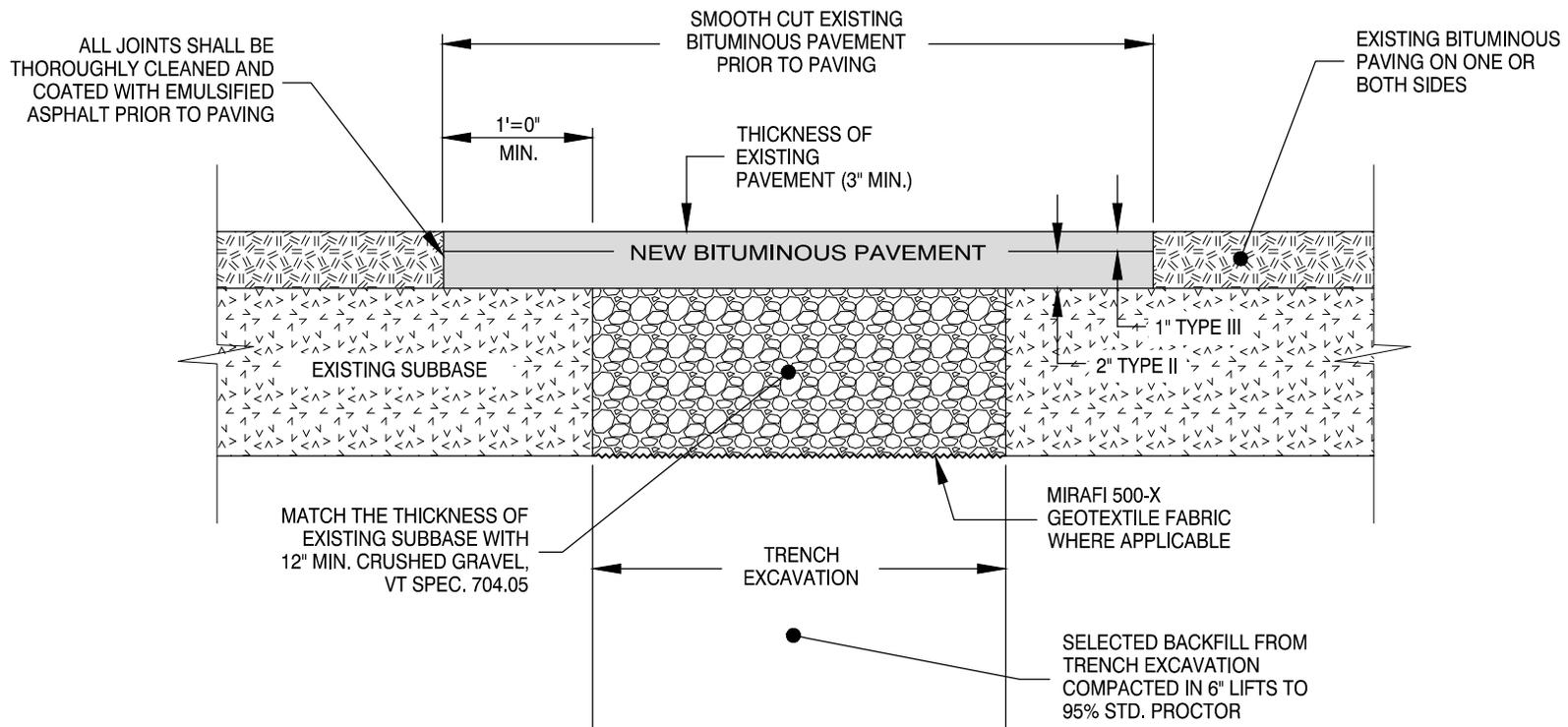


# ROADWAY DETAILS

## TYPICAL UNDERDRAIN CLEAN-OUT

NTS

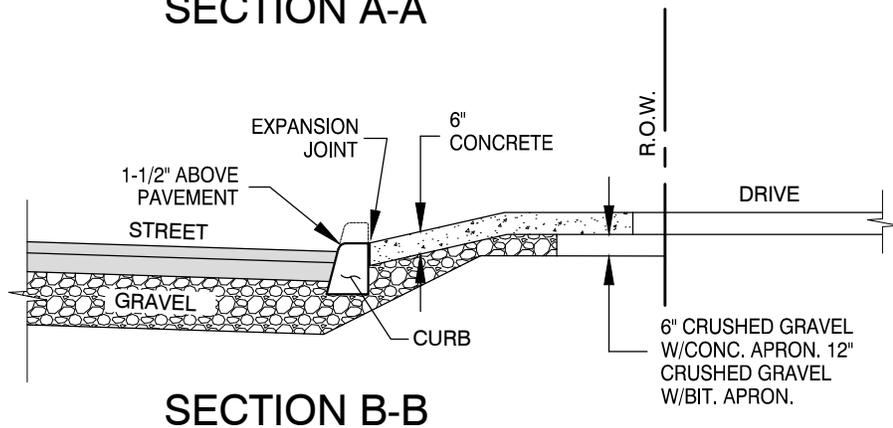
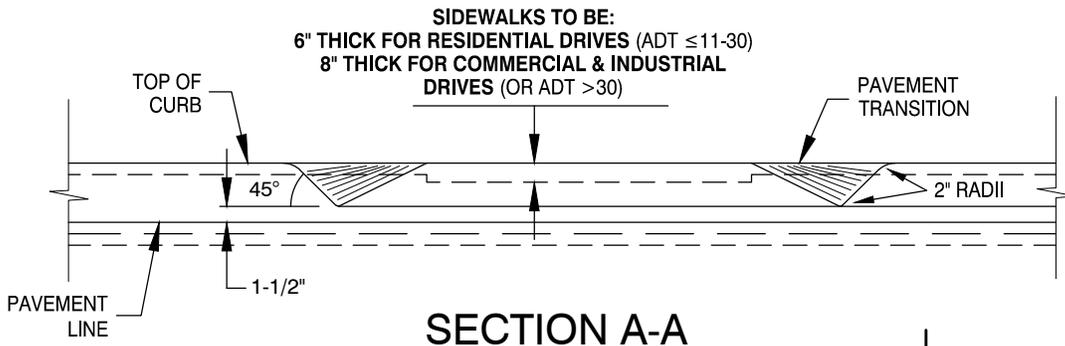
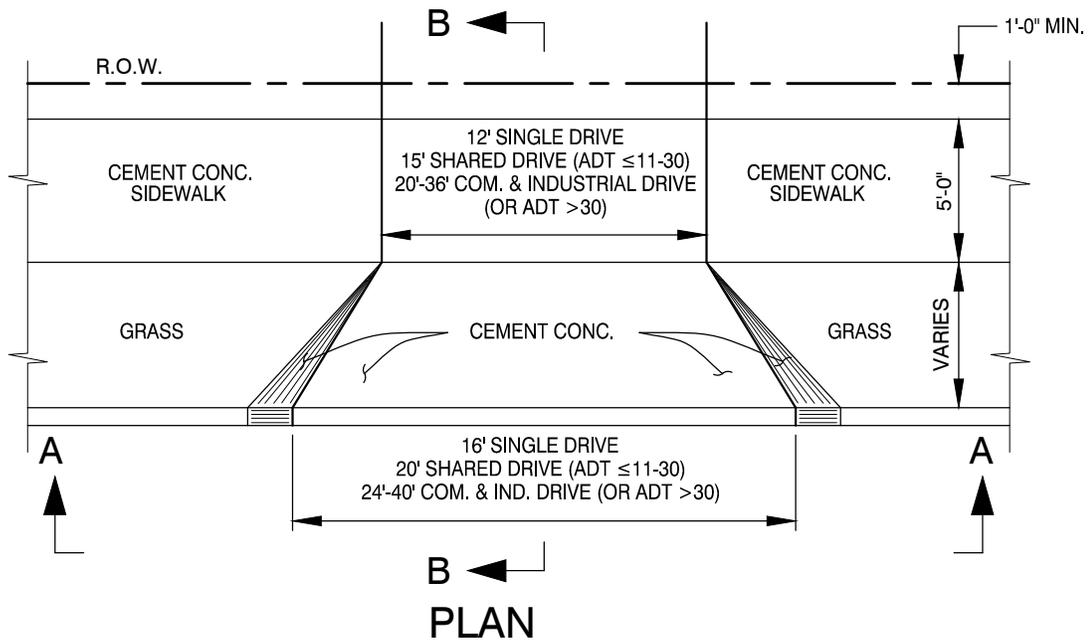
FIGURE 5



# ROADWAY DETAILS

## REPLACEMENT OF EXISTING BITUMINOUS PAVEMENT

NTS



**NOTES:**

ALL MATERIAL AND CONSTRUCTION TO BE ACCORDING TO SPECIFICATIONS.

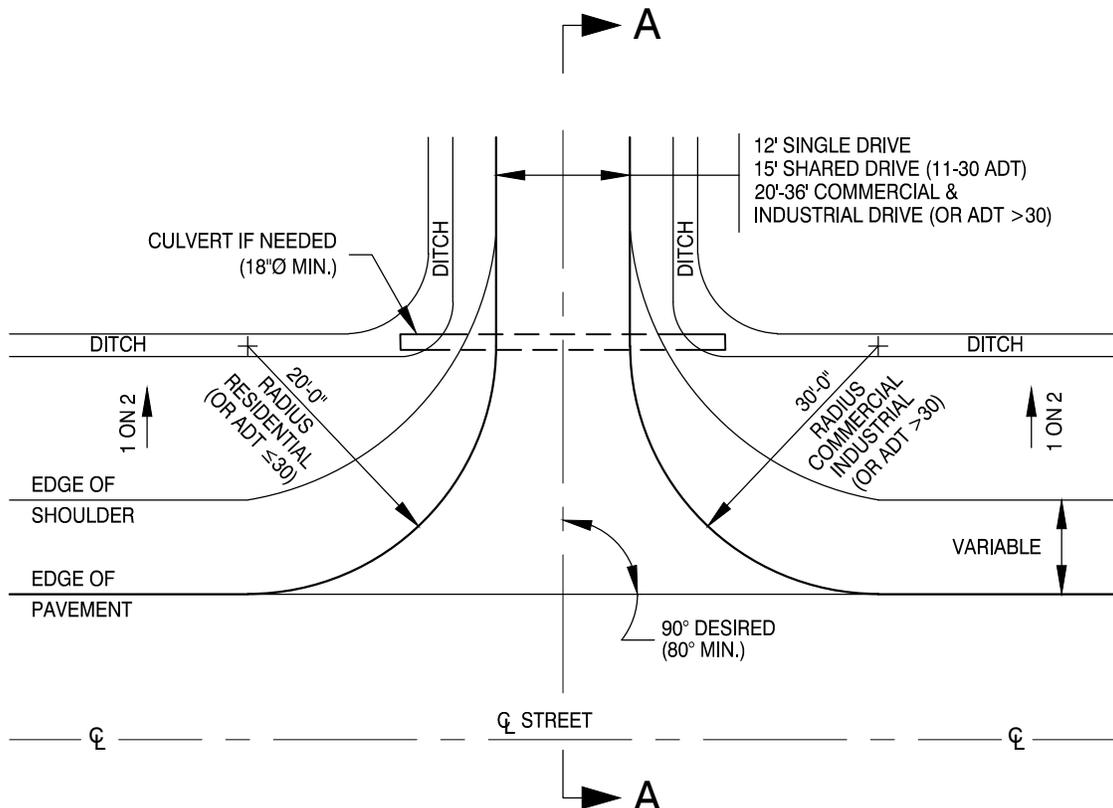
SEE VTRANS B-71 STANDARD FOR ADDITIONAL DETAIL.

# ROADWAY DETAILS

## URBAN DRIVEWAY APRONS

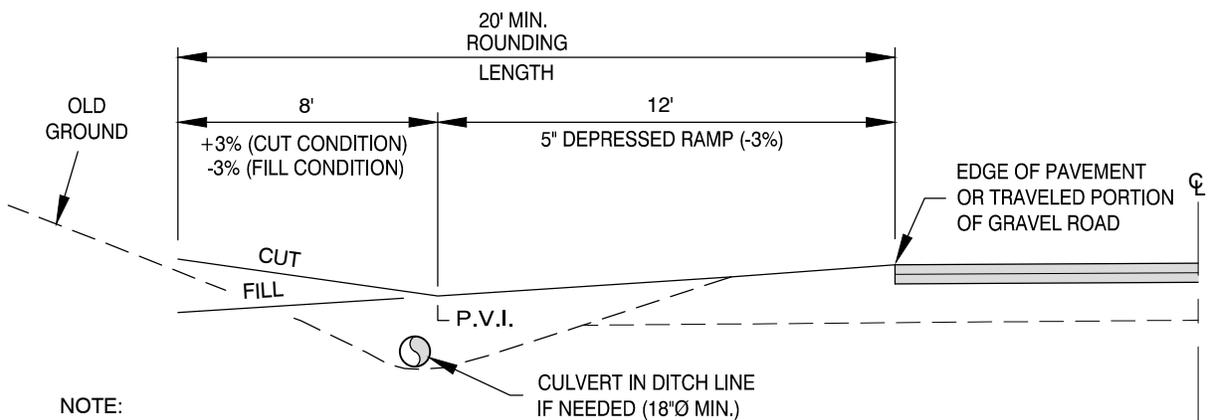
NTS

FIGURE 7



**PLAN**

REFER TO RICHMOND  
 ZONING REGULATIONS FOR  
 DRIVEWAY STANDARDS.



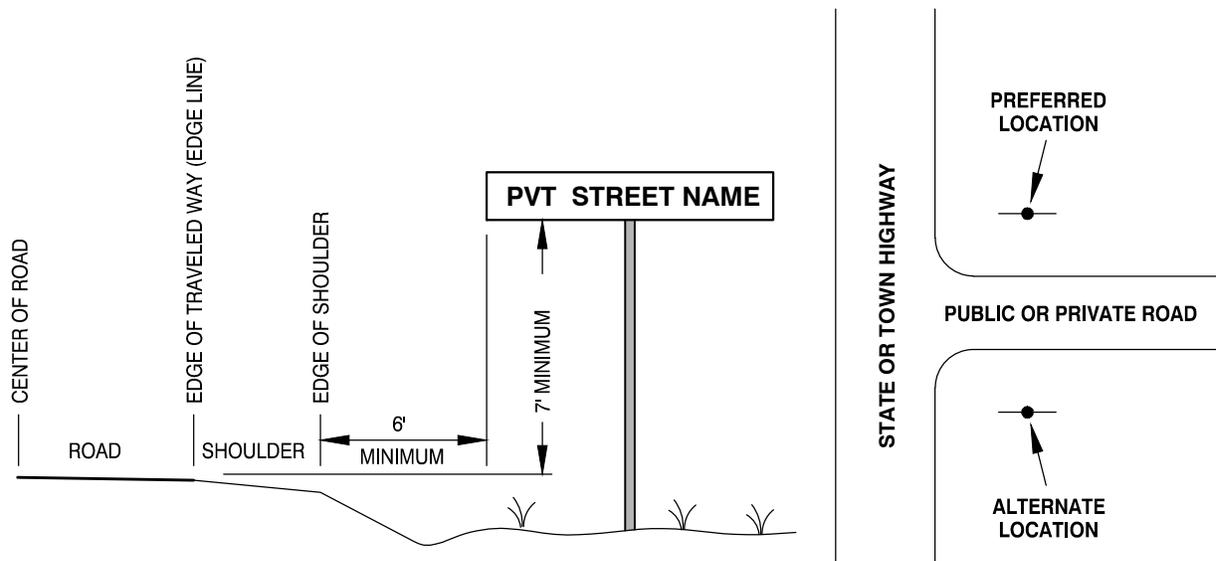
NOTE:  
 SEE VTRANS B-71  
 STANDARD FOR  
 ADDITIONAL DETAIL.

**SECTION A-A**

**ROADWAY DETAILS**

**RURAL DRIVEWAY**  
 NTS

FIGURE 8



### TYPICAL STREET NAME SIGN LOCATION NTS

PLACE THE SIGN A MINIMUM OF 6' FROM THE EDGE OF THE SHOULDER AND A MINIMUM OF 7' ABOVE THE ROAD SURFACE AT THE EDGE OF THE TRAVELED WAY. IF MOUNTED ON A POST WITH ANOTHER STREET OR ROAD NAME, THE PRIVATE STREET NAME SIGN SHOULD BE MOUNTED UNDER THE OTHER STREET NAME SIGN. DO NOT PLACE THE PRIVATE STREET NAME SIGN ON THE SAME POST WITH OTHER ROADWAY SIGNS. ALL SIGNS SHALL CONFORM WITH THE LATEST EDITION OF MUTCD.

### SIGNPOST SPECIFICATIONS

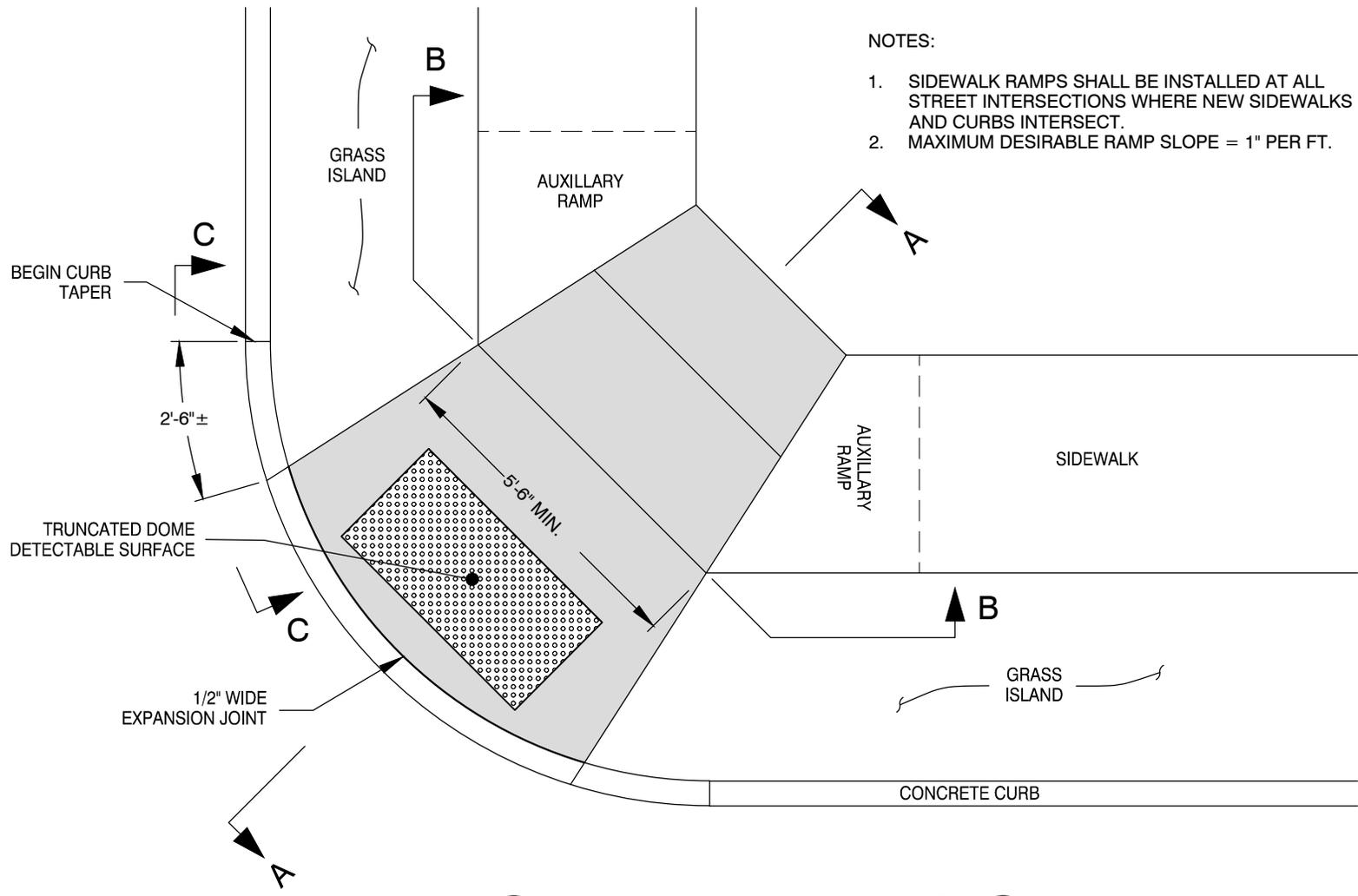
POSTS USED TO SUPPORT STREET NAME SIGNS, EITHER PUBLIC OR PRIVATE, MUST BE A TYPE WHICH DOES NOT CREATE A HAZARD TO A MOTORIST WHO COLLIDES WITH ONE.

THE VERMONT AGENCY OF TRANSPORTATION (VTRANS) HAS DESIGN STANDARDS WHICH IT USES IN THE DESIGN AND ERECTION OF SIGNS. TO MEET THESE STANDARDS, POSTS MUST BE CRASH-TESTED AND APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION (FHWA). FOR SIGNS OF THIS SIZE, VTRANS USES "FLANGED CHANNEL" GALVANIZED STEEL POSTS OR SQUARE STEEL POSTS (1-1/2" x 1-1/2" x 14 GAUGE, 1-3/4" x 1-3/4" x 14 GAUGE OR 2" x 2" x 14 GAUGE POSTS). WHICH ARE AVAILABLE FROM SEVERAL SUPPLIERS. ALL STEEL POSTS SHALL INCLUDE A BREAKAWAY ASSEMBLY. WOOD POSTS CAN ALSO BE USED IF THEY ARE SOFTWOOD AND 4" x 4" OR LESS, UNTREATED OR TREATED.

NOT ACCEPTABLE ARE CONCRETE, MORTARED STONE, STONE COLUMNS OR DECORATIVE ARCHWAYS AND THE LIKE AS THEY ARE ROADSIDE HAZARDS. ANY POST WHICH HAS NOT BEEN CRASH-TESTED AND APPROVED BY FHWA IS NOT ACCEPTABLE WITHIN THE STATE'S RIGHT OF WAY AND SHOULD NOT BE ACCEPTABLE WITHIN THE TOWN'S RIGHT OF WAY.

FOR INFORMATION ABOUT WHETHER A SPECIFIC POST OR DESIGN CONTEMPLATED FOR USE IS ACCEPTABLE, PLEASE CONTACT YOUR DISTRICT TRANSPORTATION ADMINISTRATOR FOR ADVICE.

## SIGNS & SIGNPOSTS

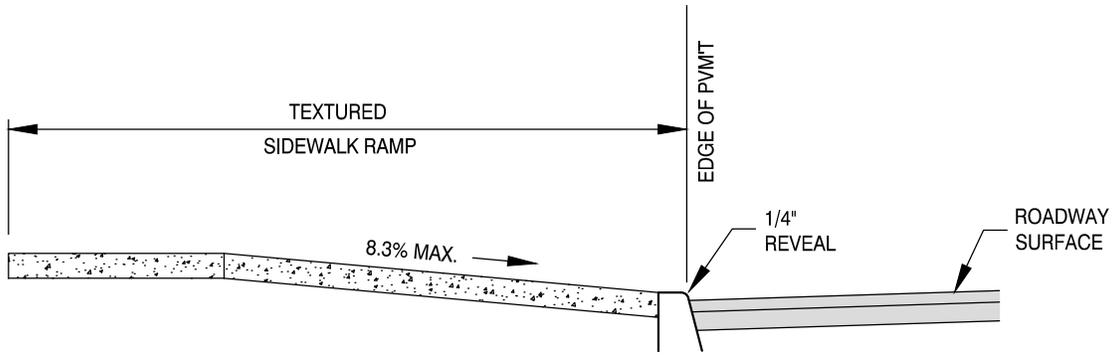


- NOTES:
1. SIDEWALK RAMPS SHALL BE INSTALLED AT ALL STREET INTERSECTIONS WHERE NEW SIDEWALKS AND CURBS INTERSECT.
  2. MAXIMUM DESIRABLE RAMP SLOPE = 1" PER FT.

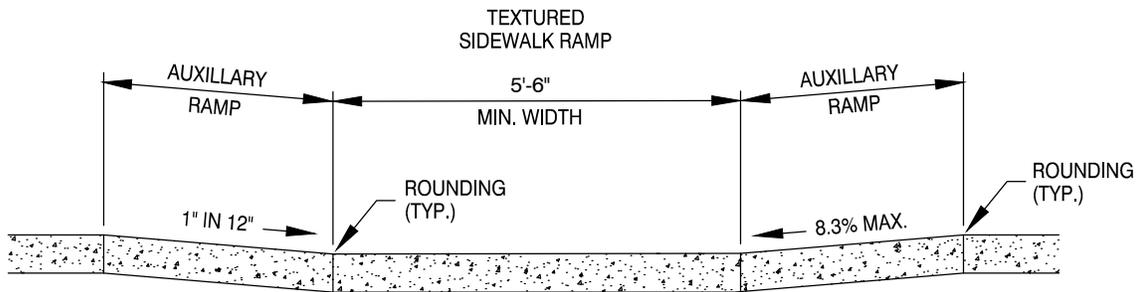
# ROADWAY DETAILS

## SIDEWALK RAMP NTS

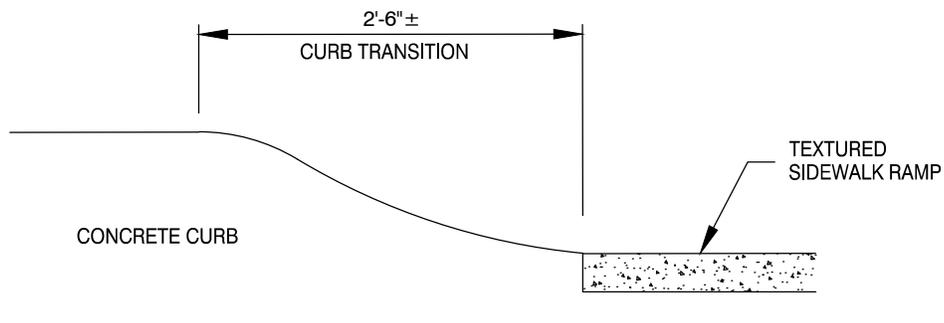
FIGURE 10



SECTION A-A



SECTION B-B



SECTION C-C

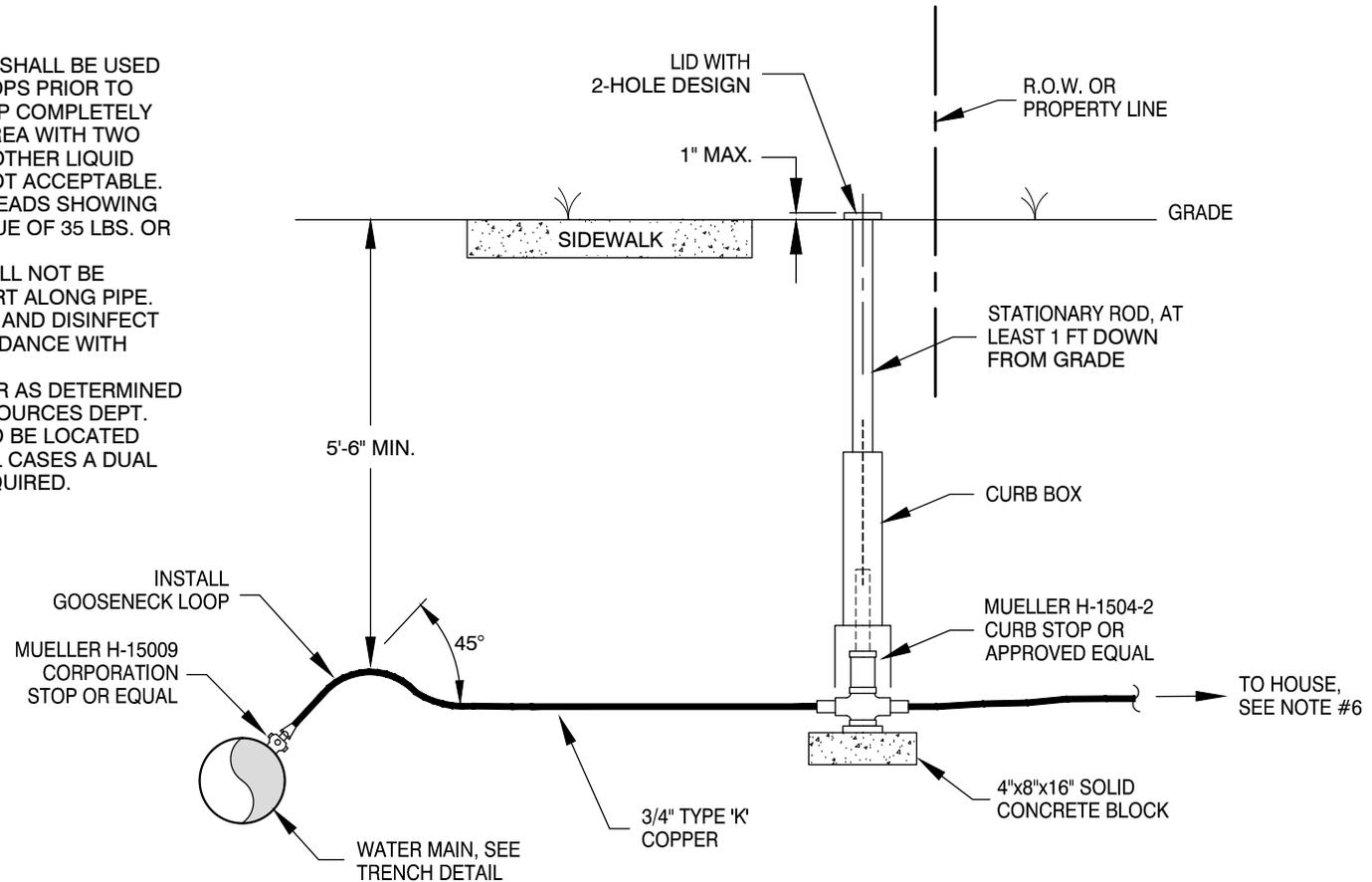
# ROADWAY DETAILS

## SIDEWALK RAMP SECTIONS

NTS

NOTES

1. TEFLON THREAD SEALANT SHALL BE USED ON ALL CORPORATION STOPS PRIOR TO INSERTION: A) SPIRAL WRAP COMPLETELY COVERING THE THREAD AREA WITH TWO WRAPS, B) PIPE DOPE OR OTHER LIQUID THREAD SEALANTS ARE NOT ACCEPTABLE.
2. LEAVE ONE TO THREE THREADS SHOWING OUTSIDE OF PIPE (A TORQUE OF 35 LBS. OR LESS IS RECOMMENDED).
3. CORPORATION STOPS SHALL NOT BE PLACED LESS THAN 1' APART ALONG PIPE.
4. CONTRACTOR SHALL TEST AND DISINFECT WATER SERVICE IN ACCORDANCE WITH AWWA C-601.
5. SERVICE SIZE TO BE 3/4" OR AS DETERMINED BY RICHMOND WATER RESOURCES DEPT.
6. METER AND BALL VALVE TO BE LOCATED WITHIN STRUCTURE. IN ALL CASES A DUAL CHECK VALVE WILL BE REQUIRED.



# WATER DISTRIBUTION DETAILS

## HOUSE SERVICES

NTS

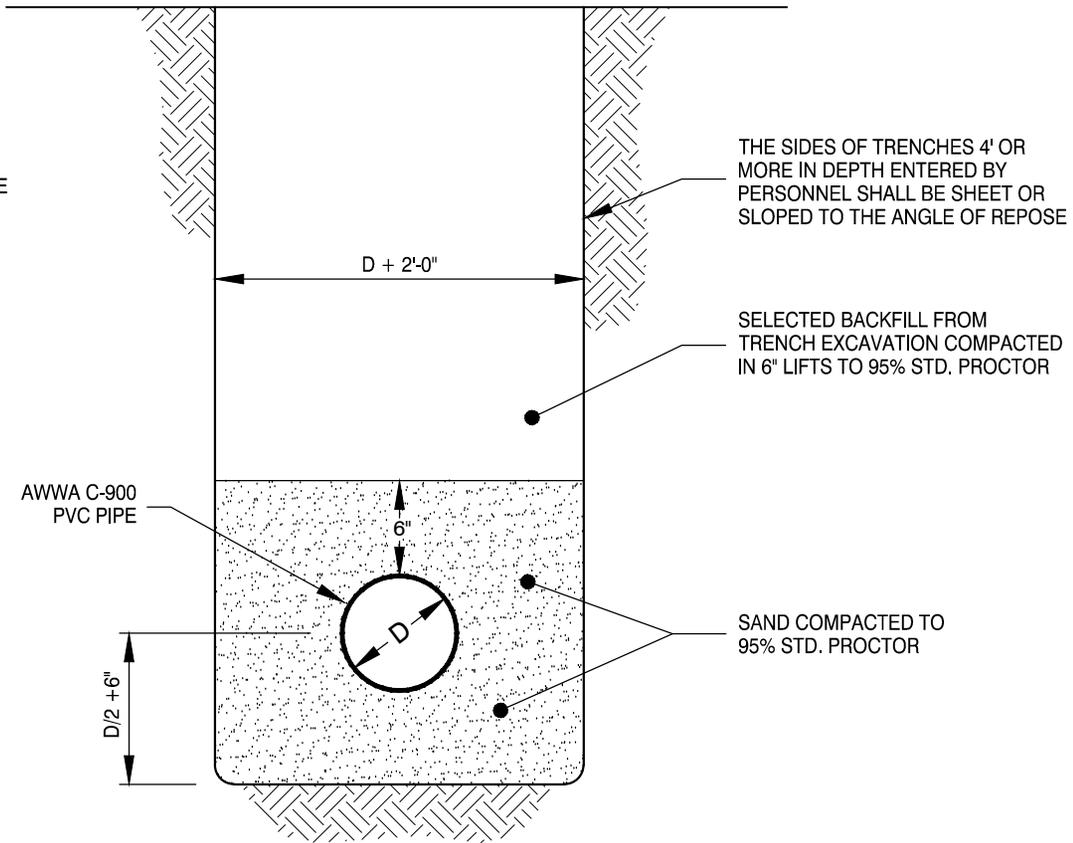


NOTES:

DEPTH OF WATER LINES SHALL BE 6'-0" MIN. TO TOP OF PIPE.

"D" IS INSIDE DIAMETER OF PIPE.

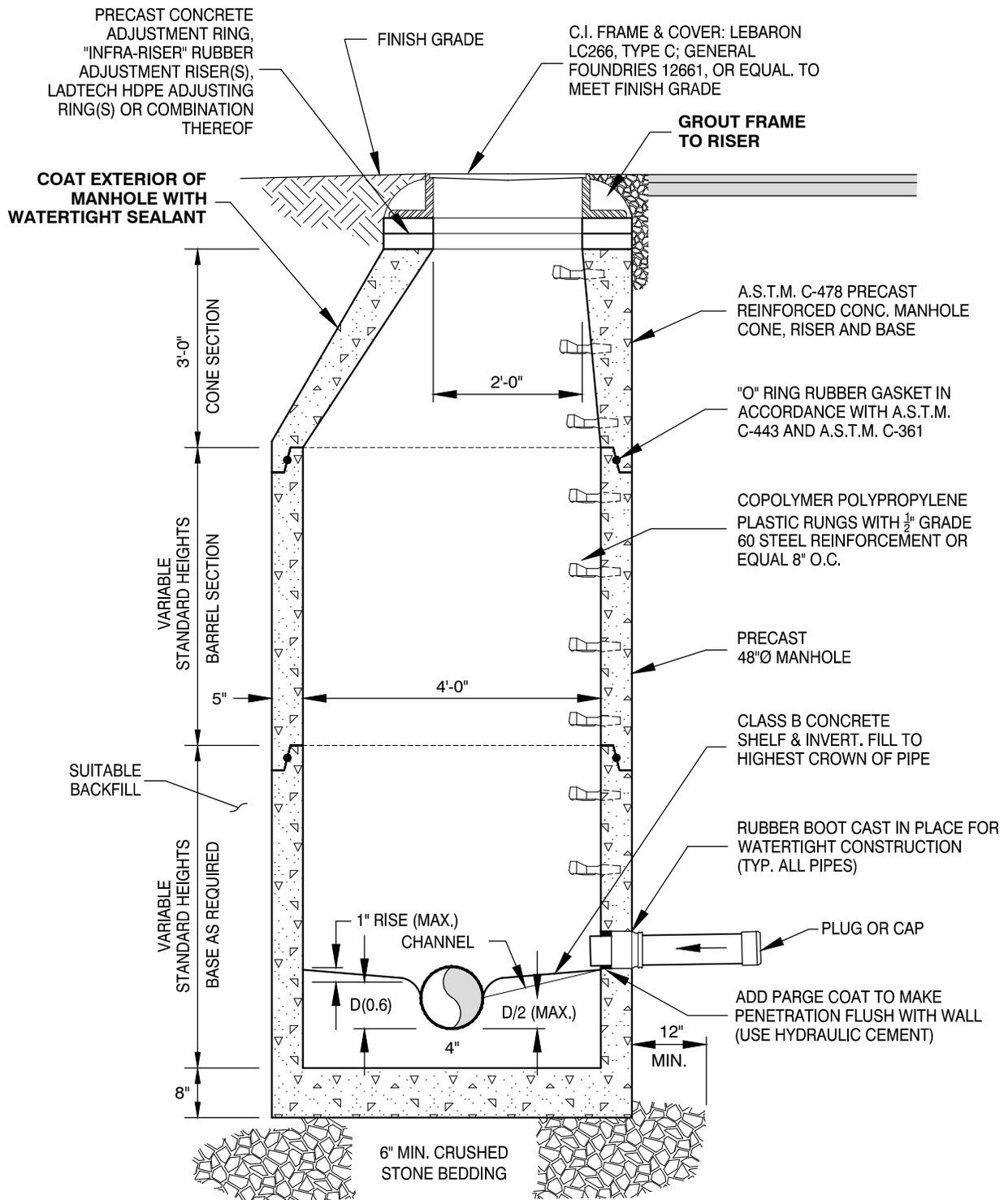
A WET TRENCH SHALL BE DEWATERED PRIOR TO PLACEMENT OF BEDDING.



# WATER DISTRIBUTION DETAILS

STANDARD TRENCH FOR WATER

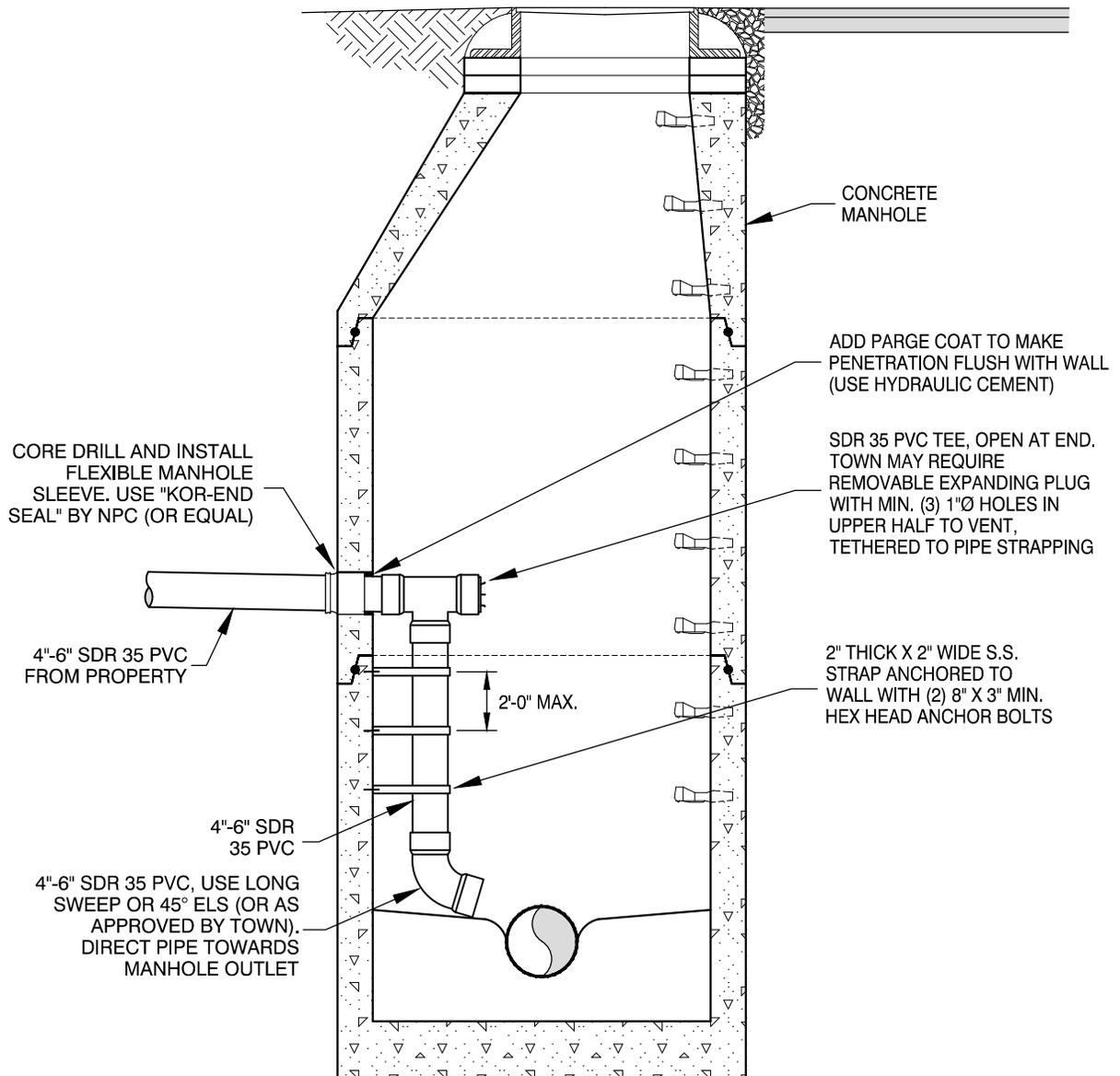
NTS



# SANITARY SEWER DETAILS

## PRECAST MANHOLES

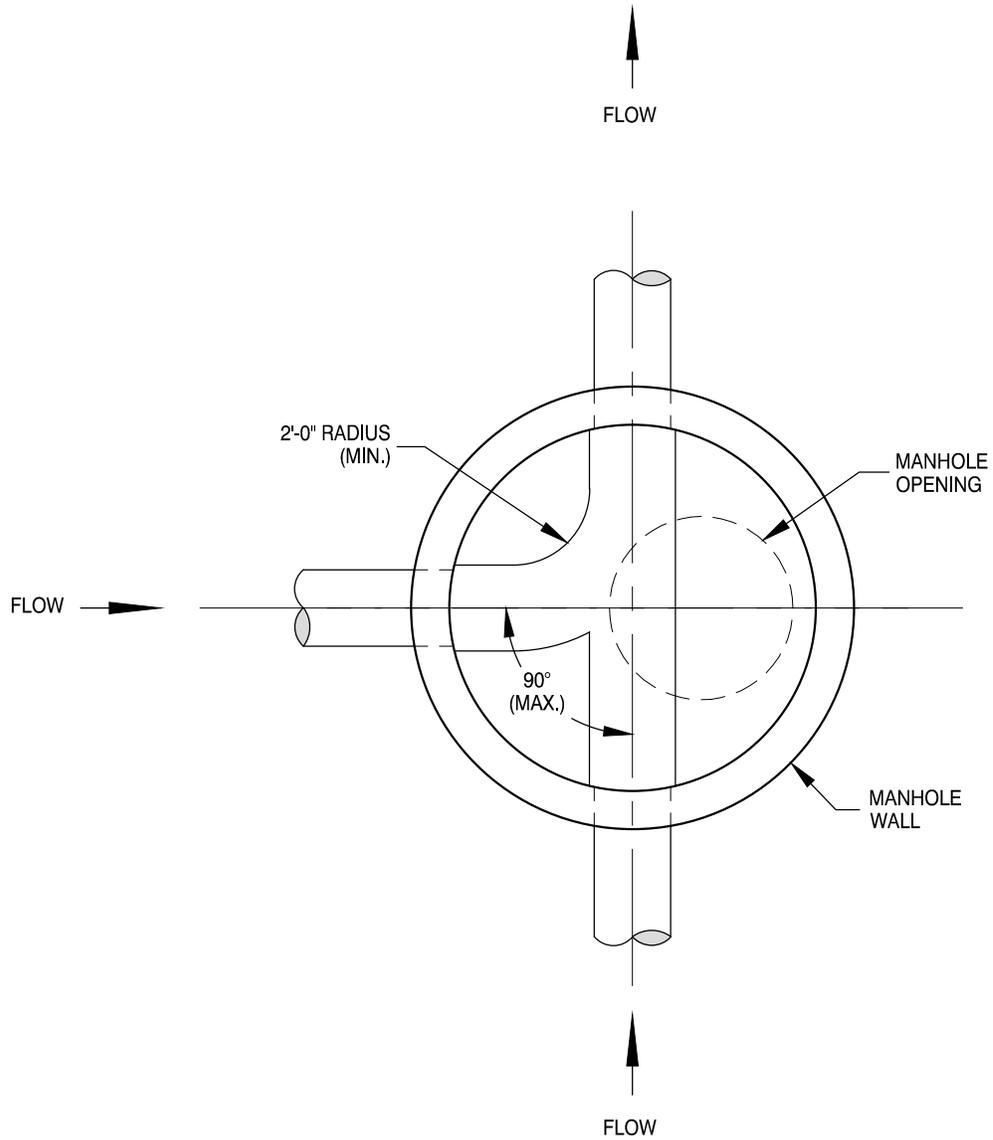
NTS



# SANITARY SEWER DETAILS

## DROP MANHOLE CONNECTION

NTS



PLAN

# SANITARY SEWER DETAILS

MANHOLE CHANNEL

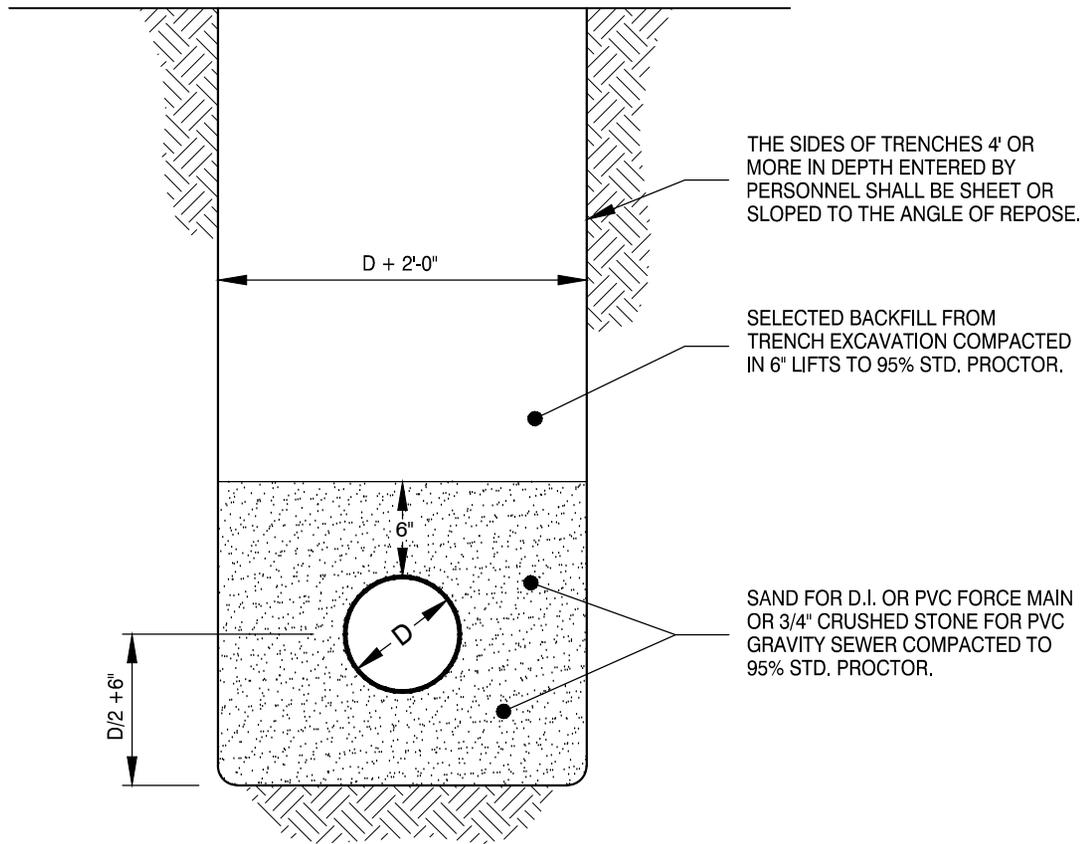
NTS

NOTES:

DEPTH OF SEWER LINES VARY AS SHOWN ON PLANS.

"D" IS INSIDE DIAMETER OF PIPE.

A WET TRENCH SHALL BE DEWATERED PRIOR TO PLACEMENT OF BEDDING.



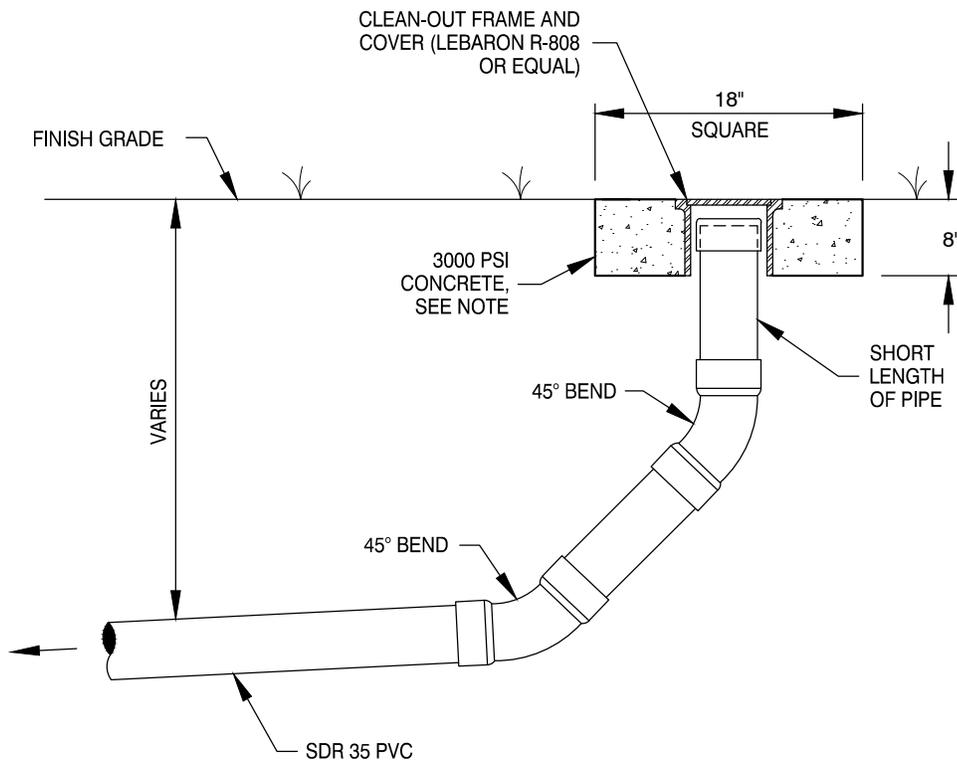
# SANITARY SEWER DETAILS

STANDARD TRENCH FOR SEWER

NTS

NOTE:

1. THIS FRAME AND COVER DETAIL APPLIES TO INSTALLATION IN GRASS. IN PAVEMENT, BIT. CONCRETE WILL SURROUND FRAME.

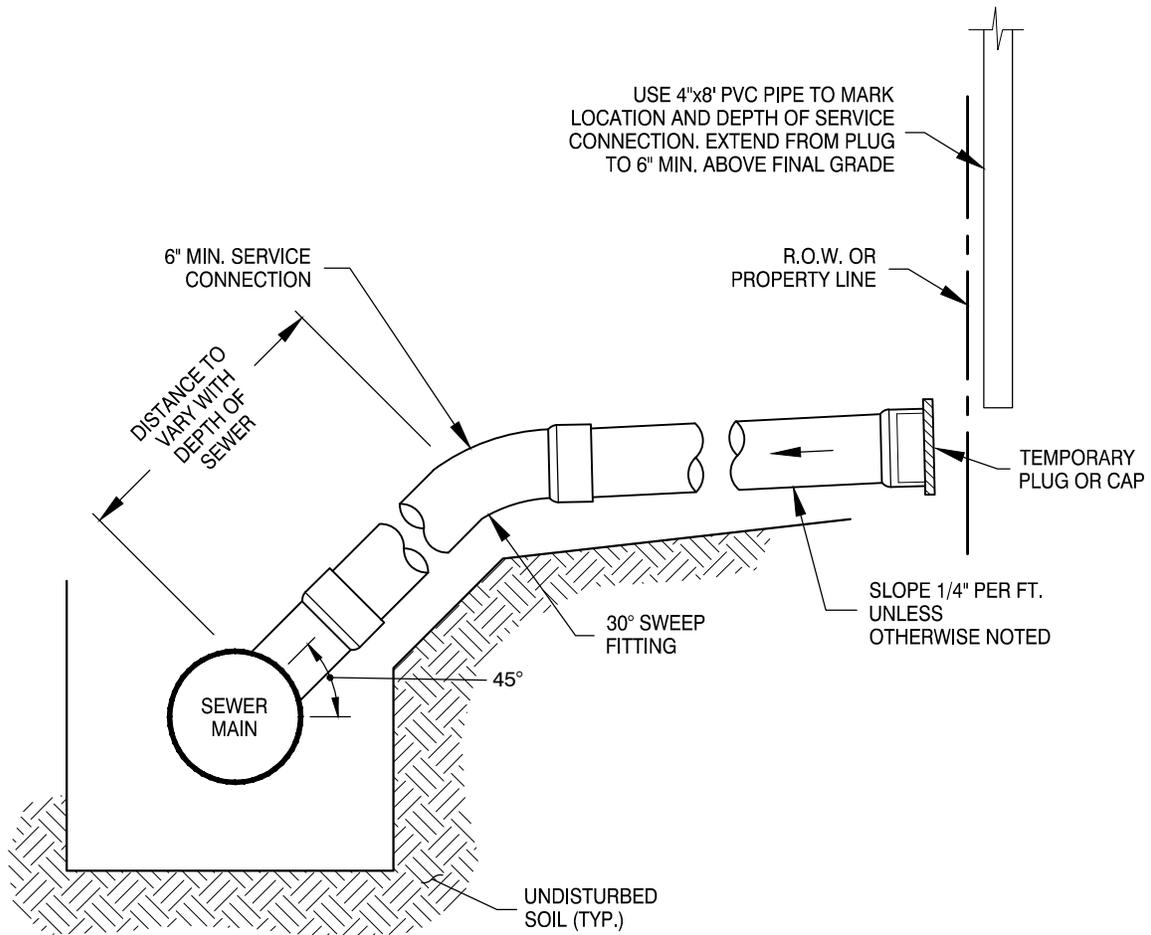


# SEWER DETAILS

## TYPICAL SEWER CLEAN-OUT

NTS

FIGURE 19



# SANITARY SEWER DETAILS

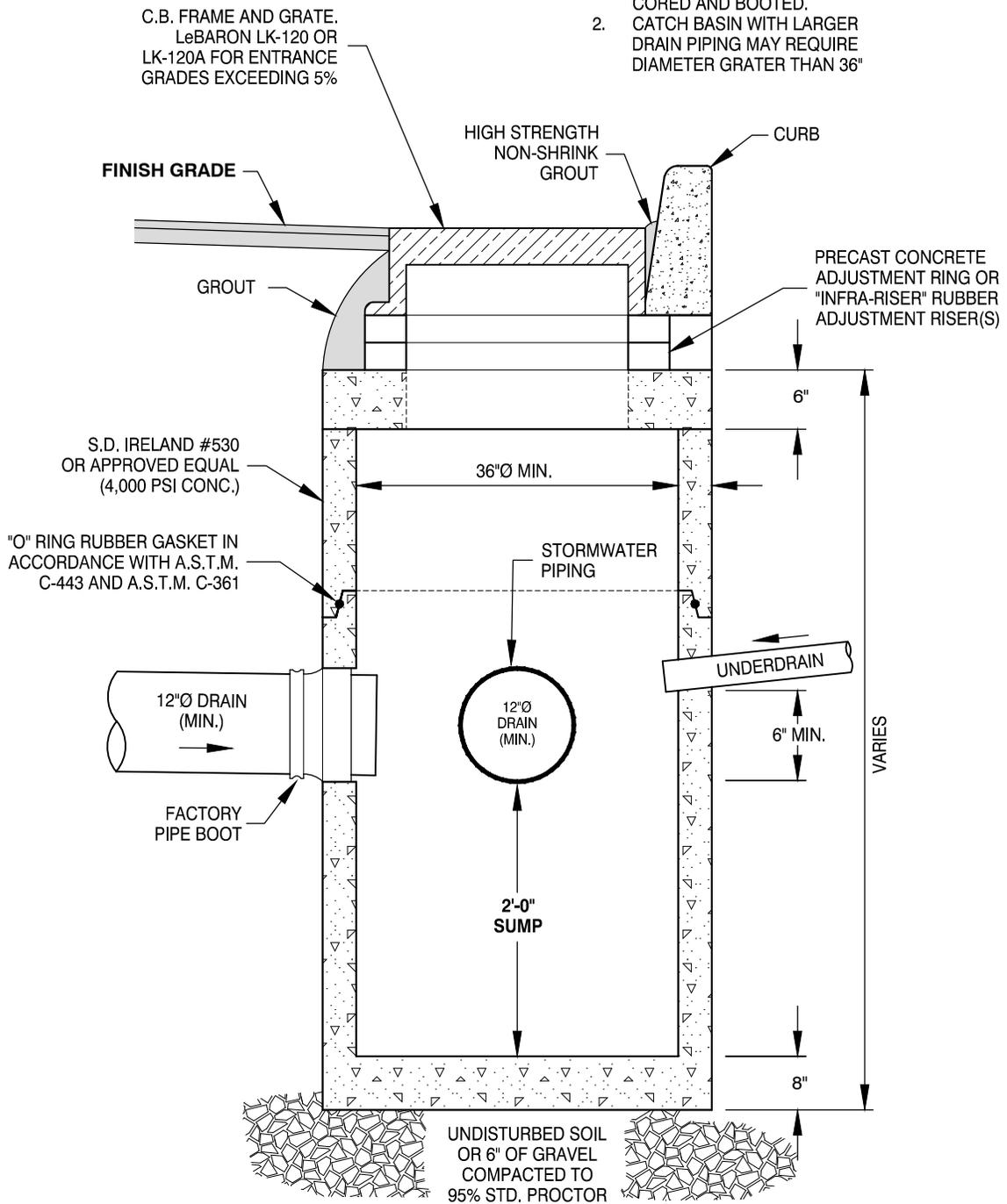
## SERVICE CONNECTION

NTS

FIGURE 20

NOTES:

1. ALL PENETRATIONS SHOULD BE CORED AND BOOTED.
2. CATCH BASIN WITH LARGER DRAIN PIPING MAY REQUIRE DIAMETER GREATER THAN 36"



# STORM DRAINAGE DETAILS

## PRECAST CATCH BASIN

NTS

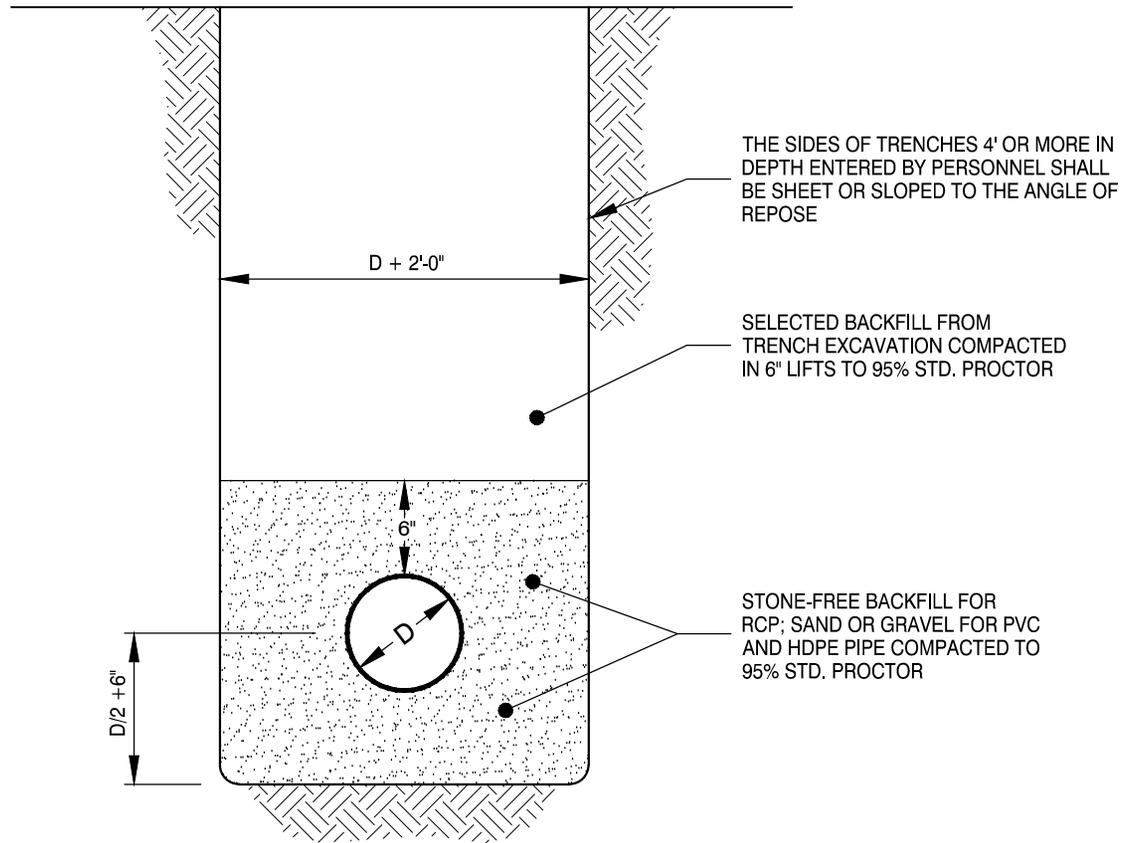
FIGURE 21

NOTES:

DEPTH OF STORM LINES VARY AS SHOWN ON PLANS.

"D" IS INSIDE DIAMETER OF PIPE.

A WET TRENCH SHALL BE DEWATERED PRIOR TO PLACEMENT OF BEDDING.



# STORM DRAINAGE DETAILS

## STANDARD TRENCH FOR STORM DRAINS

NTS