

# RIBBON CURB RESIDENTIAL DRIVE APPROACH GENERAL NOTES

## NOTES:

1. NUMBER AND SIZE OF REINFORCED CONCRETE PIPES CLASS III SHALL BE DESIGNED AND SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL\*. THE MINIMUM PIPE DIAMETER SHALL BE 18 IN. THE LONGITUDINAL SLOPE OF THE PIPE SHALL MATCH THE CHANNEL SLOPE WITH A MINIMUM SLOPE OF 0.5%.
  2. DRAINAGE PIPE SHALL BE PLACED IN THE DITCH AS FAR FROM THE OUTSIDE EDGE OF THE RIBBON CURB AS PRACTICAL AND THIS DIMENSION FROM OUTSIDE EDGE OF RIBBON CURB TO THE CENTER OF PIPE(S) SHOWN ON THE PLANS. FOR SINGLE PIPE INSTALLATION THE MINIMUM DISTANCE IS 11 FT.
  3. THE PIPE SHALL HAVE MINIMUM COVER OF 9 IN. MEASURED FROM BOTTOM OF CONCRETE DRIVE TO TOP OF PIPE.
  4. APPROPRIATE SAFETY END TREATMENTS OF 6:1 SLOPE ARE REQUIRED. PROVIDE PRECAST TYPE II SET'S PSET-SP OR PSET-RP, AND CAST-IN-PLACE CONCRETE RIPRAP APRONS PSET-RR. TOEWALL DEPTH OF 24 IN. IS REQUIRED UPSTREAM AND DOWNSTREAM. CAST-IN-PLACE TOEWALL WIDTH SHALL BE 9 INCHES. SYNTHETIC FIBERS MAY NOT BE USED IN LIEU OF STEEL REINFORCING IN RIPRAP CONCRETE.
  5. LENGTH OF PIPE SHALL BE DETERMINED THROUGH 6:1 SLOPE INTERCEPT PROJECTED FROM EDGE OF DRIVE APRON TO TOP OF PIPE AT SAFETY END TREATMENT ON UPSTREAM AND DOWNSTREAM SIDES WITH MINIMUM DIMENSION FROM EDGE OF DRIVE APRON TO INSIDE OF SET HEADWALL 10 FT. OR GREATER.
  6. DRIVE APPROACH TRANSVERSE SLOPE SHALL MATCH THE LONGITUDINAL SLOPE OF THE STREET AT THE OUTSIDE EDGE OF THE RIBBON CURB AND THEN TRANSITION TO 2% SLOPE IN THE DIRECTION OF DRAINAGE OF THE DITCH AT THE DRIVE APRON 4 FT. SECTION AND CONTINUE AT THIS CROSS SLOPE TO THE PROPERTY LINE.
  7. 4 IN. BASE MATERIAL MAY BE ONE OF THE FOLLOWING SELECTED FOR THE ENTIRE PROJECT AND COMPACTED IN ACCORDANCE WITH [G-1C](#):
    - A. TYPE "A" MATERIAL PER STANDARD SPECIFICATIONS FOR CONSTRUCTION SECTION 4.2 EXCAVATION AND BACKFILL PART 2: PRODUCT A. MATERIALS 3. TRENCH BACKFILL A. TYPE "A." MATERIAL
    - B. RECYCLED CRUSHED CONCRETE TxDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION ITEM 247 FLEXIBLE BASE TYPE D GRADE 1-2 EXCLUDING TYPE A MATERIAL, WITH MINIMUM P.I. OF FOUR
    - C. PORTLAND CEMENT TREATED BASE (AFTER COMPACTION) COVERED BY 10 MIL. POLYETHYLENE BOND BREAKER
  8. REQUIRED DRIVE APPROACH AND DRIVE APRON SLOPES SHALL BE ADHERED TO. ANY GRADING NECESSARY TO MATCH THE PROPOSED DRIVEWAY ELEVATION AT THE RIGHT-OF-WAY LINE SHALL BE DONE ON THE PRIVATE SIDE.
  9. EXPANSION JOINT WITH 3/4 IN. Ø X 24 IN. LONG SMOOTH DOWEL BARS WITH 3/4 IN. Ø PVC PIPE SLEEVE WITH CAPPED END AT 36 IN. OC. (REF [ST-9](#))
  10. 6 IN. REINFORCED CONCRETE WITH #4 BARS AT 18 IN. OCEW (CONCRETE CHAIRS REQUIRED). CONTINUOUS THROUGH DRIVE APPROACH AND DRIVE APRON.
  11. CONTRACTION JOINT MAY BE TOOLED. SEE [ST-9](#) FOR DETAILS.
  12. A LONGITUDINAL CONTRACTION JOINT SHALL BE PLACED AT CENTERLINE OF ALL DRIVEWAYS. FOR DRIVEWAYS WIDER THAN 20 FEET ADDITIONAL LONGITUDINAL CONTRACTION JOINTS SHALL BE PLACED, SPACED EQUALLY AT 10 FT. MAXIMUM SPACING.
  13. IF DISTANCE BETWEEN INITIALLY REQUIRED TRANSVERSE JOINTS EXCEEDS 10 FT. THEN ADDITIONAL CONTRACTION JOINT(S) SHALL BE PLACED TO ENSURE DISTANCE BETWEEN TRANSVERSE JOINTS DOES NOT EXCEED 10 FEET. THESE ADDITIONALLY REQUIRED CONTRACTION JOINTS SHALL BE PLACED TO PROVIDE EQUAL SPACING BETWEEN TRANSVERSE JOINTS TO THE EXTENT PRACTICAL.
  14. SLOPE FROM EDGE OF DRIVE APPROACH AND DRIVE APRON SHALL BE 6:1 TO THE BOTTOM OF THE CHANNEL OR ADJACENT GRADED TERRAIN. SLOPE FROM EDGE OF STREET OUTSIDE EDGE OF RIBBON CURB TO BOTTOM OF CHANNEL SHALL BE 5:1.
- \* IF THE DRIVEWAY IS LOCATED AT A CREST GRADE BREAK AS REVIEWED AND APPROVED BY THE CITY, THEN NO PIPE SHALL BE PLACED, AND THE DRIVE APRON AND DRIVE APPROACH SHALL BE CROWNED WITH TRANSVERSE SLOPE OF 2% TRANSITIONING BACK TO THE LONGITUDINAL SLOPE AT THE OUTSIDE EDGE OF THE RIBBON CURB. THE LONGITUDINAL SLOPE SHALL BE FROM 2% TO 4% SLOPING TOWARDS THE RIBBON CURB. DRAINAGE OF PRIVATE PROPERTY VIA THIS DRIVEWAY SHALL NOT BE PERMITTED.

RIBBON CURB RESIDENTIAL DRIVEWAY STANDARDS		
DRIVEWAY TYPE	"W" DRIVEWAY WIDTH	"F" BACK OF CURB FLARE
SINGLE	10 FT MIN ~ 12 FT MAX	10 FT MIN ~ 15 FT MAX
DOUBLE	20 FT MIN ~ 24 FT MAX	10 FT MIN ~ 15 FT MAX
SEE CITY OF WACO <a href="#">STREET DESIGN CRITERIA</a> FOR MORE DETAILS		

SEE [ST-39A](#) FOR  
ADDITIONAL DETAILS



## ENGINEERING DIVISION

**DISCLAIMER:** THE USE OF THIS STANDARD IS GOVERNED BY THE "TEXAS ENGINEERING PRACTICE ACT". NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF WACO FOR ANY PURPOSE WHATSOEVER. THE CITY OF WACO ASSUMES NO RESPONSIBILITY FOR THE CONVERSION OF THIS STANDARD TO OTHER FORMATS OR FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

REVISIONS			
NO.	COMMENTS	BY	DATE
1	MODIFY NOTES 7 & 14 & TABLE	MZ	04/28/2025
##	DESCRIPTION	FL	MM/DD/YYYY

DATE  
04/19/2024

**ST-39B**