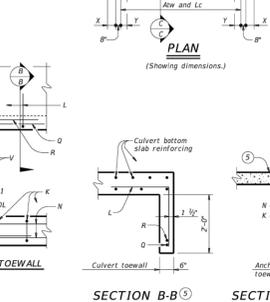
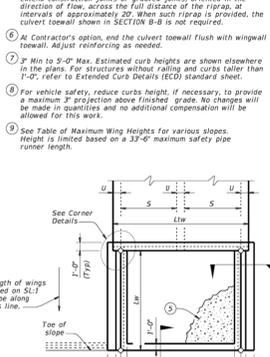
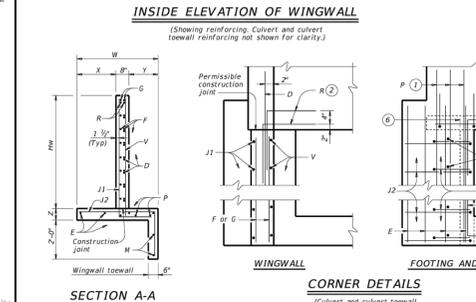
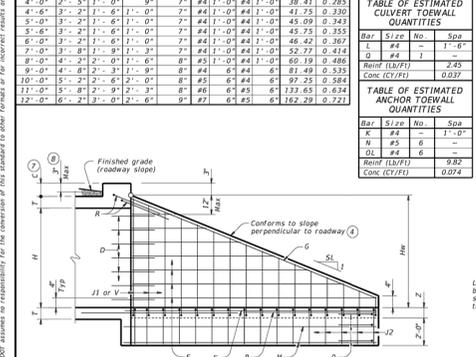


WASTEWATER MANHOLE LINE INTERSECTION	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 502.1
	DATE OCT. '04	STANDARD DRAWING NO. 5090

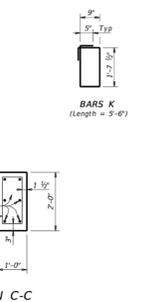
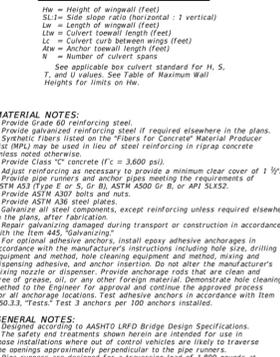
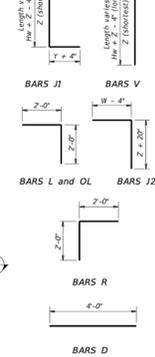
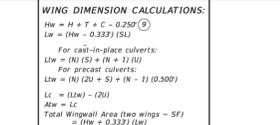
Dimensions	Variable	Estimated Quantities
Maximum Wingwall Height (Hw)	W, X, Y, Z	Reinforcing Bars J1, Bars J2, Bar Size, No., Spa

Bar Size	No.	Spa	Reinforcing Bars J1, Bars J2, Bar Size, No., Spa
#3	1	1	1

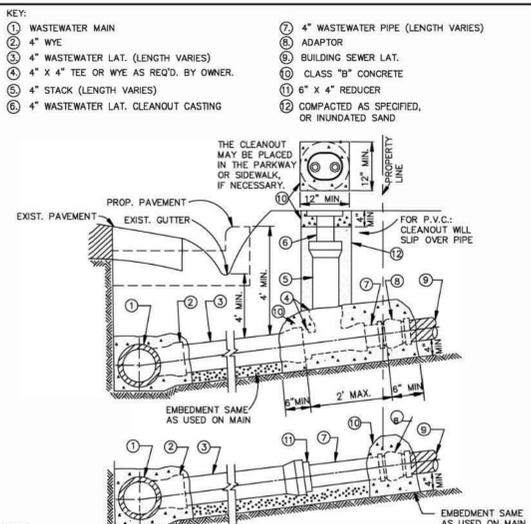
Bar Size	No.	Spa	Reinforcing Bars J1, Bars J2, Bar Size, No., Spa
#3	1	1	1



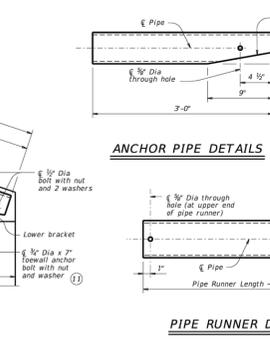
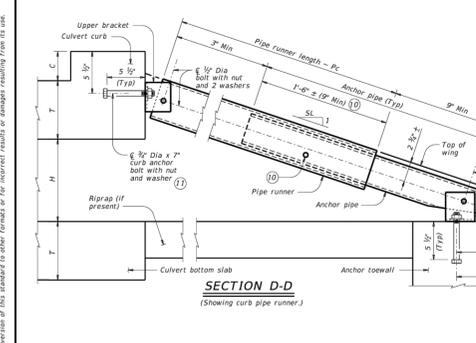
Side Slope	Hw Max
3:1	11'-0"
4:1	8'-10"
6:1	6'-0"



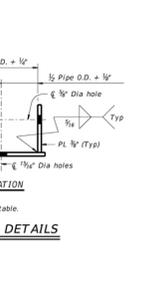
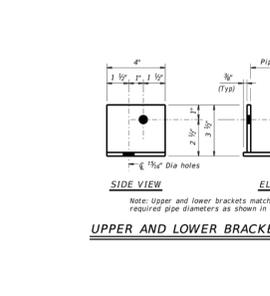
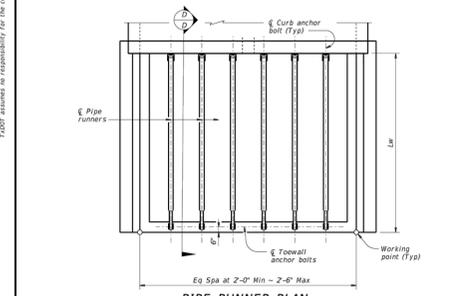
TEXAS DEPARTMENT OF TRANSPORTATION	BRIDGE DIVISION
CD-SETB-SW-0	SAFETY END TREATMENT WITH STRAIGHT WINGS FOR 0° SKEW BOX CULVERTS TYPE I - CROSS DRAINAGE
REVISED	REVISION
DATE	BY
DATE	BY
DATE	BY



WASTEWATER LATERALS WITH & WITHOUT CLEANOUT	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 502.10.4.2*
	DATE OCT. '04	STANDARD DRAWING NO. 5120



Maximum Pipe Length (PL)	Required Pipe Runner Size	Required Anchor Pipe Size
9'-4"	3" STD 3.500"	3" STD 3.068"
19'-0"	4" STD 4.500"	4" STD 3.500"
33'-6"	5" STD 5.563"	5" STD 4.500"



TEXAS DEPARTMENT OF TRANSPORTATION	BRIDGE DIVISION
CD-SETB-SW-0	SAFETY END TREATMENT WITH STRAIGHT WINGS FOR 0° SKEW BOX CULVERTS TYPE I - CROSS DRAINAGE
REVISED	REVISION
DATE	BY
DATE	BY
DATE	BY

#	REVISION	DATE

1.535 ACRES COMMERCIAL DEVELOPMENT OUT OF THE DAVIS ADDITION LOT 32R1, BLOCK 5 802 E. CRINER STREET CITY OF GRANDVIEW JOHNSON COUNTY, TEXAS

DEVELOPER/OWNER:
ROBERT TATE
2828 W. 7TH
STREET/SUITE 100
FORT WORTH, TX 76107

UTILITY DETAILS

HANNA SURVEYING & ENGINEERING LLC.
ENGINEERING FIRM NUMBER F-22119
SURVEYING FIRM NUMBER 10194633
SAM@HANNA-SE.COM

HANNA SURVEYING AND ENGINEERING, L.L.C.
11729 E. FM 917
ALVARADO, TX 76009
(862) 553-9474

REGISTERED PROFESSIONAL ENGINEER
109945
SAMUEL C. HANNA

AUGUST 14, 2024
ISSUE DATE:
JUNE 14, 2024
PROJECT NO.:
23-788
SHEET NUMBER
C-6.2
15 OF 21