

DRAINAGE STRUCTURE DESIGN RECORD																													
Structure Number	Design Year	CRL Station	Structure Size & Type	Drainage Area		Length of Drainage Area		SLOPE OF THE DRAINAGE AREA		(Tc) Time of Concentration	Anticipated Landuse	C) Runoff Coefficient Weighted	Intensity of Design Year Rainfall			Design Year Discharge			Flow Line Inlet	Flow Line Outlet	Structure Length	Structure Slope	Maximum Allowable Headwater	Flow Velocity	Controlling Headwater	Type of Hydraulic Control	Remarks		
				Overland	Channel	Overland	Channel	Overland	Channel				10	50	100	Q10	Q50	Q100										cfs	cfs
				Ac.	Ft.	Ft.	Ft/Ft	Ft/Ft	Min.				In/Hr	In/Hr	In/Hr	Elev.	Elev.	Elev.										Elev.	Elev.
1	50	560+00	CONST. 2-8'x4' RCB 115.2 L.F. W/ HEADWALLS	1412.13	295.63	10556.43	0.020	0.002	148.31	Pasture: Good Condition	0.18	1.08	1.42	1.59	274.13	652.75	842.07	2914.12	2913.28	115.20	0.0073	2921.10	10.20	2920.66	INLET				
2	50	585+00	CONST. 18" RCP 114.1 L.F. W/ 2-A4 CET	0.83	54.63	279.33	0.018	0.005	16.01	Residential 1/2 acre	0.35	4.69	6.14	6.87	1.34	2.30	2.78	2922.34	2920.81	114.10	0.0140	2925.21	5.37	2923.16	OUTLET				
3	50	593+28.59	CONST. 24" RCP 151.5 L.F. W/ 2-B4 CET	7.89	90.29	247.35	0.025	0.000	28.98	Residential 1/2 acre	0.55	3.45	4.51	5.05	14.85	21.58	24.95	2921.63	2920.77	151.50	0.0057	2925.67	7.74	2924.78	OUTLET				
4	50	605+00	CONST. 24" RCP 116.1 L.F. W/ 2-B4 CET	8.83	117.34	1087.86	0.011	0.004	32.81	Residential 1/2 acre	0.35	3.20	4.19	4.69	10.04	17.04	20.53	2917.65	2916.95	116.10	0.0062	2921.67	6.79	2920.14	OUTLET				
5	50	613+00	CONST. 30" RCP 114.8 L.F. W/ 2-C4 CET	11.59	49.34	1842.09	0.030	0.003	39.48	Residential 1/2 acre	0.60	2.85	3.74	4.18	19.78	27.97	32.06	2918.20	2917.50	114.80	0.0061	2922.26	7.41	2921.22	OUTLET				
6	50	630+67.50	CONST. 8'X3' RCB 108.5 L.F. W/HEADWALLS	118.27	114.08	4273.46	0.009	0.002	80.42	Residential 1/2 acre	0.26	1.74	2.28	2.55	54.41	105.35	130.82	2917.53	2916.99	108.50	0.0130	2924.30	8.57	2921.21	OUTLET				

SUMMARY OF DRAINAGE STRUCTURES																											
Str. No.	CRL STATION	Description	Design	Top of Cover/Grate Elev.	Flow Line Elevation	Excavation				Class AA Conc.	Reinf. Steel	REINFORCED CONCRETE PIPE (CIRCULAR) 613(A)					CET NON-GRATED 613(M)										
						Fill Height	Trench Excav. *	Struct. Excav. 501(A)	Uncl. Excav. 202(A)			18"	24"	30"	36"	48"	A4	B4	C4								
																				FT.	C.Y.	C.Y.	C.Y.	C.Y.	LBS	L.F.	L.F.
1	560+00	CONST. 2-8'x4' RCB 115.2 L.F. W/ HEADWALLS	RCB-C2-8(2-12) RCB-E2-H4-0-1, RCB-CW2-D4-0	2921.47	55.3' LT UP 2914.12 55.9' RT DN 2913.28			134	1143	238	36970																
2	585+00	CONST. 18" RCP 114.1 L.F. W/ 2-A4 CET	SPI-4, CET4S-3, SPB-1, FHTCP-3	2926.52	56.5' RT UP 2922.34 57.6' LT DN 2920.81		53					114.1													2		
3	593+28.59	CONST. 24" RCP 151.5 L.F. W/ 2-B4 CET	SPI-4, CET4S-3, SPB-1, FHTCP-3	2927.28	66.8' LT UP 2921.63 84.8' RT DN 2920.77		109																			2	
4	605+00	CONST. 24" RCP 116.1 L.F. W/ 2-B4 CET	SPI-4, CET4S-3, SPB-1, FHTCP-3	2922.67	54.2' LT UP 2917.65 61.9' RT DN 2916.95		75																			2	
5	613+00	CONST. 30" RCP 114.8 L.F. W/ 2-C4 CET	SPI-4, CET4S-3, SPB-1, FHTCP-3	2923.32	58.5' LT UP 2918.20 56.3' RT DN 2917.50		93																				2
6	630+67.50	CONST. 8'X3' RCB 108.5 L.F. W/ HEADWALLS	RCB-C1-8(2-14) RCB-E1-H3-0-1, RCB-CW1-D4-0	2924.58	54.3' LT UP 2917.53 54.2' RT DN 2916.99			73	432	138	19310																

\* FOR INFORMATION ONLY. COST INCLUDED IN PRICE BID FOR PIPE.

PRINT DATE: 8/7/2017 F:\Job\WKM2300 - EC1335 (TEXAS CO)\700CADD\702CIVIL\WKM2300 - SUMMARY DRAIN1.dwg

DESIGN	BB	DRM	<b>OKLAHOMA DEPARTMENT OF TRANSPORTATION DESIGN DIVISION</b>  <b>DRAINAGE STRUCTURE DESIGN RECORD AND SUMMARY OF DRAINAGE STRUCTURES</b>  JOB PIECE NO. 20839(08) SHEET NO. R001
DRAWN	JB	MKW	
CHECKED	BB		
APPROVED	GC		
SQUAD	JACOBS		