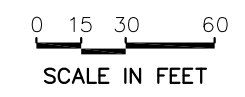
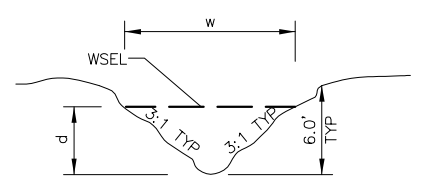


Inlet or Station	Pipe Invert Elevation	Length (ft)	Slope of Sewer (ft/ft)	Diam.	Capacity Full (cfs)	Velocity Full (fps)	QD (cfs)	Q/A Velocity (fps)	Hydraulic Gradient (ft/ft)	Kj	Transition Head	Downstrm Hydraulic Grade Elevation	Upstream Hydraulic Grade Elevation	Velocity Head (ft)	Total Energy Elevation (ft)	Top of Pipe Elevation	Pipe Surcharge
OUT	519.80	10	26.00%	2	115.34	36.7	17.2	10.0	1.93%	0.60		520.30	520.30	1.55	521.85	521.80	-1.50
CI-1	522.40	28	2.14%	2	33.11	10.5	15.9	10.3	2.09%	0.60	0.55	522.90	523.45	1.68	525.13	524.40	-0.95
CI-2	523.00									0.60		524.03				525.00	-0.97



— 443 — PROPOSED CONTOUR
 - - 443 - - EXISTING CONTOUR
 ← ... DRAINAGE DIRECTION



SECTION "A"
EXISTING DITCH N.T.S.

DITCH FLOW CAPACITIES

$p=6.77$
 $a=3.43$
 $r=0.51$
 $s=0.056$

$Q_d = 1.486 / .032(a)(r)(s)^{2/3}$
 $Q_d = 24.0$ cfs
 $V_d = 7.0$ fps
 $d = 1.07$ ft
 $w = 6.4$ ft

des=Proposed 100 YR PEAK FLOW

NOTE: THIS Q REPRESENTS THE INCREASE OF THE AFFECTED AREAS.

Proposed Drainage Area Calculations

Drainage Area	Area (Ac.)	Tc (Min.)	h_{100} (in/hr)	C	Q_{100} (cfs)
A	1.07	10	9.8	0.50	5.2
B	0.13	10	9.8	0.50	0.6
C	0.49	10	9.8	0.50	2.4
3	0.71	10	9.8	0.50	3.5
4	0.15	10	9.8	0.90	1.3
5	0.96	10	9.8	0.55	5.2
6	0.29	10	9.8	0.55	1.4
7	0.89	10	9.8	0.50	4.4
8	0.88	10	9.8	0.50	4.3

Sag Inlets Computation Data for Proposed Condition

Inlet ID	Inlet Type	Length (ft)	Grate Perim (ft)	Area (sf)	Total Q (cfs)	Inlet Capacity (cfs)	Total Head (ft)	Ponded Width Left (ft)	Ponded Width Right (ft)
CI-1	Curb-Sag	5.0	n/a	n/a	1.30	6.26	0.18	4.20	4.25
CI-2	Curb-Sag	10.0	n/a	n/a	9.30	10.33	0.46	8.80	8.90

PROPOSED CONDITION FOR CULVERT 1 - 100 YR DESIGN STORM FREQUENCY

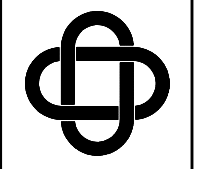
ID	SHAPE	MATERIAL	RISE	BARRELS	LENGTH	SLOPE	US FL	DS FL	HW ELEV	TW ELEV	VELOCITY	DISCHARGE
CULVERT 1	CIRC	CONCRETE	36"	1	100'	7.9%	503.0	495.1	505.4	496.1	18.6 fps	28.9cfs

NOTE: TO THE BEST OF OUR KNOWLEDGE ERIC L. DAVIS ENGINEERING, INC., HEREBY STATES THAT THIS PLAN IS AS-BUILT. THE INFORMATION PROVIDED IS BASED ON SURVEYING CONDUCTED AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

TBM:
TOP OF 10' CURB INLET ON INDEPENDENCE PLACE
ELEV=528.12



REVISION	DATE	BY	REV



ERIC L. DAVIS ENGINEERING, INC.
 425 Pinson Road Ste. G
 Forney, Texas 75126
 972/564-0592 Fax 972/564-6523
 ericadavis@eldengineering.com

PROPOSED DRAINAGE AREA MAP
 INDEPENDENCE PASS
 CITY OF ROCKWALL, ROCKWALL CO, TEXAS

DEVELOPER: HUDSON PROPERTIES, INC.
 PROJECT: PORTLAND DRIVE
 ROCKWALL, TX 75087
 (214) 477-3177

JOB NO.: 06401
 DRAWN BY: M. MITCHELL
 CHECKED BY: M. MITCHELL
 DATE: 04-08-07

AS-BUILT



SCALE: 1"=30'

SHEET 1 OF 1
 SHEET 7