

## PROPOSED CONDITIONS

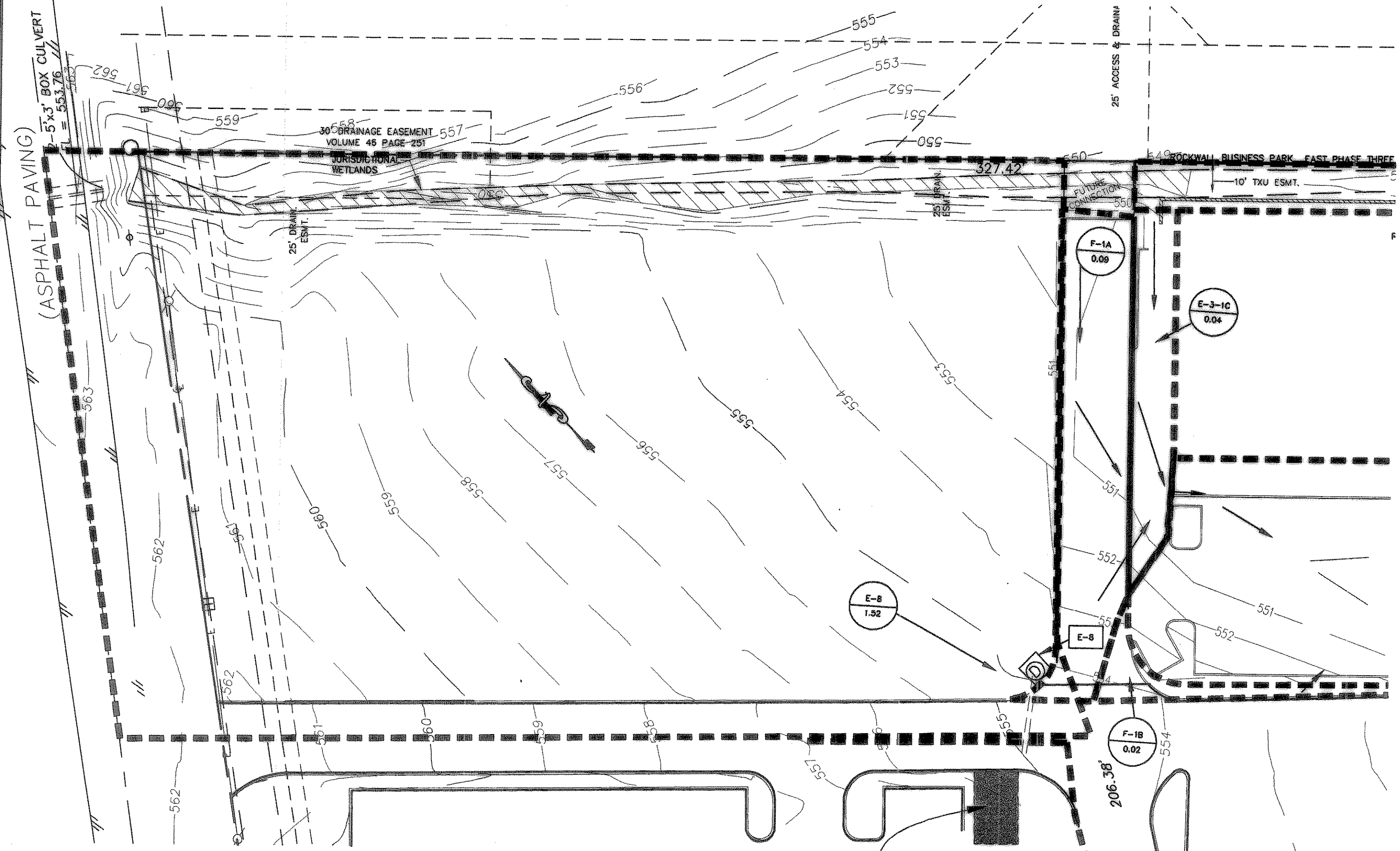
### DRAINAGE AREA SUMMARY

Drainage Area	100-Year Peak Flow (cfs)	Downstream Inlet	i (iph)	C	A(ac)
E-8-1A	4.59	E-8-1A	9.80	0.90	0.52
E-8-1B	5.91	E-8-1B	9.80	0.90	0.67
E-8-1C	0.53	E-8-1C	9.80	0.90	0.04
E-8-1D	0.18	E-8	9.80	0.90	0.02
E-8-1E	1.23	Offsite/E-8	9.80	0.90	0.14
E-8-1F	0.44	E-3-1B	9.80	0.90	0.05
E-3-1B	3.09	E-3-1B	9.80	0.90	0.35
E-3-1C	0.35	E-3-1B	9.80	0.90	0.04
E-8B	0.53	E-3-1B	9.80	0.90	0.06
F-1A	0.79	E-3-1B	9.80	0.90	0.09
F-1B	0.18	E-3-1B	9.80	0.90	0.02

### INLET CAPACITY CALCULATIONS

Inlet	Area (ac)	Tc (min)	i (iph)	C	Q=CiA (cfs)	Carryover (cfs)	Capture (cfs)	Type	Allowable Depth (in)	Inlet Length (ft)	Capacity (cfs)
E-8-1A	0.52	10	9.80	0.90	4.59		4.59	Curb	4.8	5	8.5
E-8-1B	0.67	10	9.80	0.90	5.91		5.91	Curb	6	5	10.5
E-8-1C	0.04	10	9.80	0.90	0.53		0.53	Slot Drain	3	28	30
E-8-1D	0.02	10	9.80	0.90	0.18		0.18	Ex. Grate	3	2X2	2.4
E-8B	0.06	10	9.80	0.90	0.53						
E-8-1F	0.05	10	9.80	0.90	0.44						
F-1A	0.09	10	9.80	0.90	0.79						
F-1B	0.02	10	9.80	0.90	0.18						
E-3-1B	0.35	10	9.80	0.90	3.09						
E-3-1C	0.04	10	9.80	0.90	0.35						
<b>Total</b>	<b>0.61</b>				<b>5.38</b>		<b>5.38</b>	<b>Curb</b>	<b>3</b>	<b>10</b>	<b>12</b>

Note: Capacity of grate inlets assume 50% open area of the grate and 50% clogging factor.



## EXISTING CONDITIONS

### CHANGE IN DOWNSTREAM HYDRAULIC GRADE LINE ELEVATIONS

Line	Change in Area (ac)	Line Tc (min)	i (iph)	C	Change in Q=CiA (cfs)	Approved in-Line Q (cfs)	Revised in-Line Q (cfs)	Approved Up HGL (ft)	Revised Up HGL (ft)	Up Ground Elevation (ft)
E (above E-3-1B)	(0.22)	17.4	8.70	0.9	(1.7)	62.9	61.2	545.92	546.13	548.00
E (between E-3-1A and E-3-1B)	0.42	17.4	8.70	0.9	3.3	62.8	66.1	545.45	545.41	547.30
E (below E-3-1A)	(0.11)	17.4	8.70	0.9	(0.9)	69.6	68.7	544.64	544.50	547.30
F	(0.06)	10	9.80	0.9	(0.5)	18.6	18.1			
Off-site (E-3-1E & E-8-1E)	0.22	10	9.80	0.9	1.9	46.42	44.52	40.52		

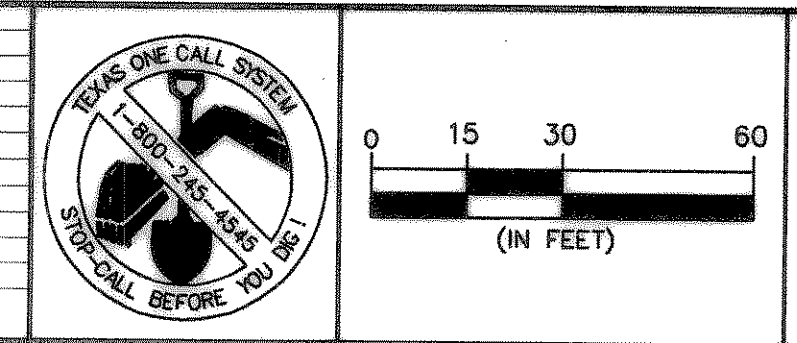
### HYDRAULIC GRADE LINE CALCULATIONS FOR PROPOSED SYSTEM

Node	Area (ac)	Inlet C	Inlet CA(ac)	System CA (ac)	Tc (min)	Vel. (fps)	System Tc (min)	System Intensity(iph)	System Q100 (cfs)	Fin. Grade Elev (ft)	HGL In (ft)	HGL Out (ft)	Description
E-8				1.14		8.47	10.71	9.69	11.16	554.50	550.79	550.88	EXISTING 24" LINE "E" STA. 10+61.47
E-8-1A	0.67	0.9	0.60	0.60	10.00	2.62	10.00	9.80	4.62	553.75	551.89	551.87	5' CURB INLET ON 18" RCP
E-8-1B	0.52	0.9	0.47	0.47	10.00	3.37	10.00	9.80	5.96	553.75	552.88	551.35	5' CURB INLET ON 18" RCP
E-8-1C	0.06	0.9	0.05	0.05	10.00	0.68	10.00	9.80	0.53	553.75	552.15	552.87	12" SLOT DRAIN 29' LONG
E-8 Inlet	0.02	0.9	0.02	0.02									2'X2' GRATE ON EXISTING 24" RCP
E-3				0.68		3.79	10.08	9.79	6.69	548.50	546.57	545.98	EXISTING 42" LINE "E" STA. 3+59.61
E-3-1B	0.61	0.9	0.55	0.55	10.00	3.07	10.00	9.80	5.42	548.75	546.92	546.87	10' CURB INLET ON 18" RCP
E-8B													
F-1A													
F-1B													
E-3-1C													

- NOTES:  
 1. MANNING'S COEFFICIENT "N" = 0.013 FOR ALL PIPES.  
 2. HEAD LOSS COEFFICIENT "K" = 1.25 FOR UPSTREAM INLETS, 0.80 FOR 90° BENDS, AND 0.50 FOR 45° BENDS, IN-LINE INLETS & WYES.

**RECORD DRAWING**  
 THESE PLANS HAVE BEEN REVISED TO REFLECT FIELD CHANGES AS INDICATED BY CONSTRUCTION RECORDS.  
 DATE 11-16-06

REV	DATE	BY	DESCRIPTION



DESIGNED: \_\_\_\_\_  
 DRAWN: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_

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ROBERT D. CALDERON  
 LICENSED PROFESSIONAL ENGINEER  
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 11-16-06

ENGINEERS ARCHITECTS  
 WALLACE SURVEYORS GROUP INC.  
 PLANNERS

LA MADELEINE RESTAURANT  
 ROCKWALL CROSSING  
**DRAINAGE AREA MAP & CALCULATIONS**

SHEET C-5.4  
 OF 15 SHEETS