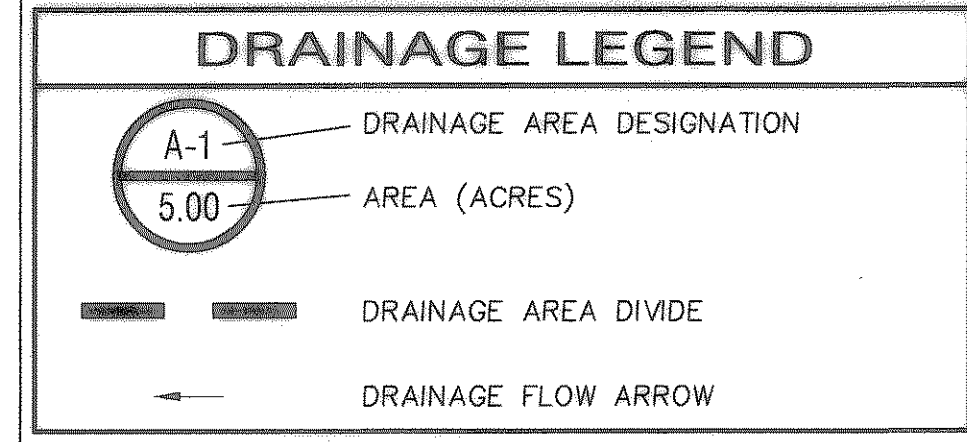


LEGEND

- ⊕ FIRE HYDRANT
- ⊙ WATER METER
- MANHOLE
- ⊙ TREE
- ⊙ LIGHT POLE
- + TP600.0 EX. TOP OF PVMT.
- + TC600.0 EX. TOP OF CONC.
- + TG600.0 EX. TOP OF GRND.
- + ETC600.0 EX. TOP OF CURB
- + 600.0 FIN. FLR. SPOT ELEV.
- TP600.0 TOP OF PAVEMENT
- TC600.0 TOP OF CONCRETE
- TG600.0 TOP OF GROUND
- 600.0 TOP OF CURB
- 650 — PROP. GRADE LINE
- 650 - EX. GRADE LINE
- FF FINISHED FLOOR
- ↑ GUY WIRE ANCHOR
- POWER POLE
- ⊥ STREET/CABLE SIGN
- ⊙ WATER VALVE
- UTILITY BOX
- ⊙ WOOD BOLLARD
- ⊙ GAS METER
- ⊙ CURB INLET
- ⊙ GRATE INLET
- ⊙ UTILITY MANHOLE
- ⊙ STORM MANHOLE
- ⊙ SWB MANHOLE
- ⊙ MAIL BOX



DRAINAGE SUMMARY TABLE: (DEVELOPED)

DRAINAGE AREA NO.	AREA (Acres)	t_t (Time Con.)	C*K Design	I_1 (in./hr.)	I_2 (in./hr.)	I_{10} (in./hr.)	Q_1 (cfs)	Q_{10} (cfs)	Q_{100} (cfs)	REMARKS
A-1	0.88	10	0.90	N/A	N/A	9.80	N/A	N/A	7.76	SURFACE TO DRIVE
A-2	0.18	10	0.90	N/A	N/A	9.80	N/A	N/A	1.59	WALMART DETENTION
A-3	0.02	10	0.90	N/A	N/A	9.80	N/A	N/A	0.17	TACO BUENO
A-4	0.06	10	0.90	N/A	N/A	9.80	N/A	N/A	0.53	OUT DRIVE

DRAINAGE SUMMARY TABLE: (UN DEVELOPED)

DRAINAGE AREA NO.	AREA (Acres)	t_t (Time Con.)	C*K Design	I_1 (in./hr.)	I_2 (in./hr.)	I_{10} (in./hr.)	Q_1 (cfs)	Q_{10} (cfs)	Q_{100} (cfs)	REMARKS
A-1	0.88	20	0.35	N/A	N/A	8.30	N/A	N/A	2.55	OVER LAND FLOW
A-2	0.18	20	0.35	N/A	N/A	8.30	N/A	N/A	0.52	OVER LAND FLOW
A-3	0.02	10	0.35	N/A	N/A	8.30	N/A	N/A	0.06	OVERLAND FLOW
A-4	0.06	10	0.35	N/A	N/A	8.30	N/A	N/A	0.18	OVERLAND FLOW

STORAGE REQUIREMENTS: (AREA A-1)
 7.76 cfs (DEVELOPED) - 2.55 cfs (UNDEVELOPED) = 5.21 cfs
 REQUIRED DETENTION: 5.21 cfs FOR 10 MINUTES
 5.21 cfs x 60 SECONDS/MINUTES x 10 MINUTES = 3,126 CUBIC FEET
 MAXIMUM REQUIRED STORAGE = 7,890 CUBIC FEET (SEE TABLE 1)

STORAGE PROVIDED: 7900 CUBIC FEET
 ALLOWABLE DISCHARGE: 2.55 cfs
 STORAGE AREA: 11,838 SF @ AVERAGE DEPTH OF 0.60'

**TABLE 1
MODIFIED RATIONAL METHOD DETENTION DESIGN**

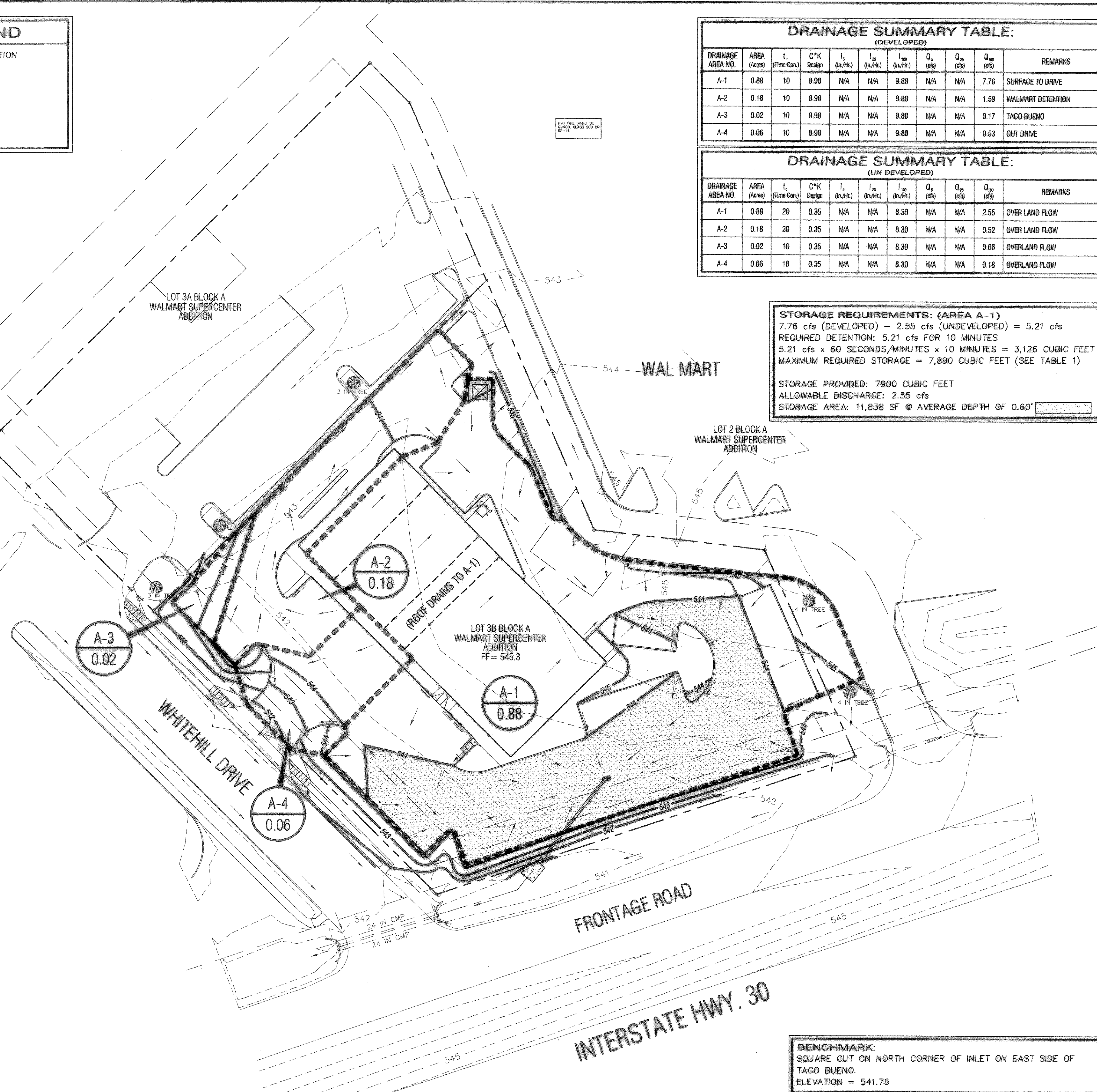
Project Description: WALMART ADDITION ROCKWALL, TEXAS
 Date: 01/20/2001
 Checked By: JMC

STEP	K	C	I (in/hr)	A (acres)	Q PEAK (cfs)
1	1.0	0.50	9.8	0.88	2.36
2	1.0	0.50	9.8	0.88	2.36

TIME STEP	K	C	I (in/hr)	A (acres)	Q PEAK (cfs)	INFLOW 1/4" Q 60	OUTFLOW 5" (1+10) 0" 60	REQ. STORAGE Inflow-outflow Col. 43,550	PREVIOUS VOLUME (acre-ft)
10	1.0	0.50	9.8	0.88	2.36	0.00	0.00	0.00	0.00
20	1.0	0.50	9.8	0.88	2.36	0.00	0.00	0.00	0.00
30	1.0	0.50	9.8	0.88	2.36	0.00	0.00	0.00	0.00
40	1.0	0.50	9.8	0.88	2.36	0.00	0.00	0.00	0.00
50	1.0	0.50	9.8	0.88	2.36	0.00	0.00	0.00	0.00
60	1.0	0.50	9.8	0.88	2.36	0.00	0.00	0.00	0.00

NOTE: 1. The use of the Modified Rational method for detention design, is limited to drainage basins with less than 200 acres.
 2. The detention pond shall be designed using the 100-year storm peak flow.

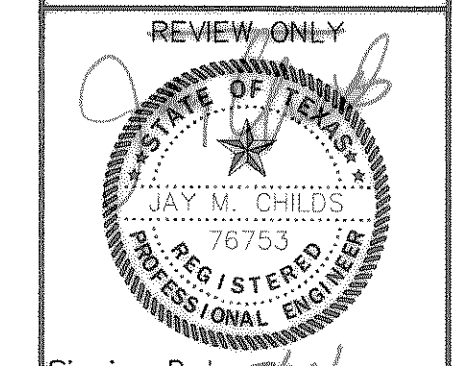
STEP 4. MAX REQUIRED STORAGE (acre-ft) 0.181



BENCHMARK:
 SQUARE CUT ON NORTH CORNER OF INLET ON EAST SIDE OF TACO BUENO.
 ELEVATION = 541.75

AS-BUILT

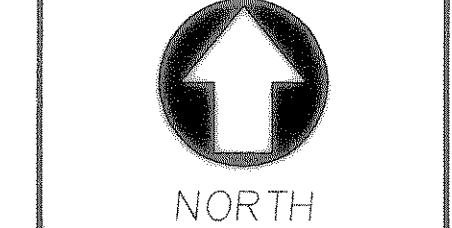
dietz engineering



Signing Date: 5/24/01
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 suite 109
 plano, texas 75074
 voice: 972 633-8867
 fax: 972 633-1327

Drawn By: LL
 Checked By: JMC
 Revisions:

**SITE RETAIL
DRAINAGE AREA PLAN
PLAN VIEW**
 for the
 City of Rockwall, Texas



24"x36" Scale: 1" = 30'
 11"x17" Scale: 1" = 60'
 Vertical Scale: NA

Project Number: E-SPC-001
 Issue Date: 24 MAY 2001
 Sheet Title:
**DRAINAGE AREA MAP
CALCULATIONS**

Sheet No.:
C1.03