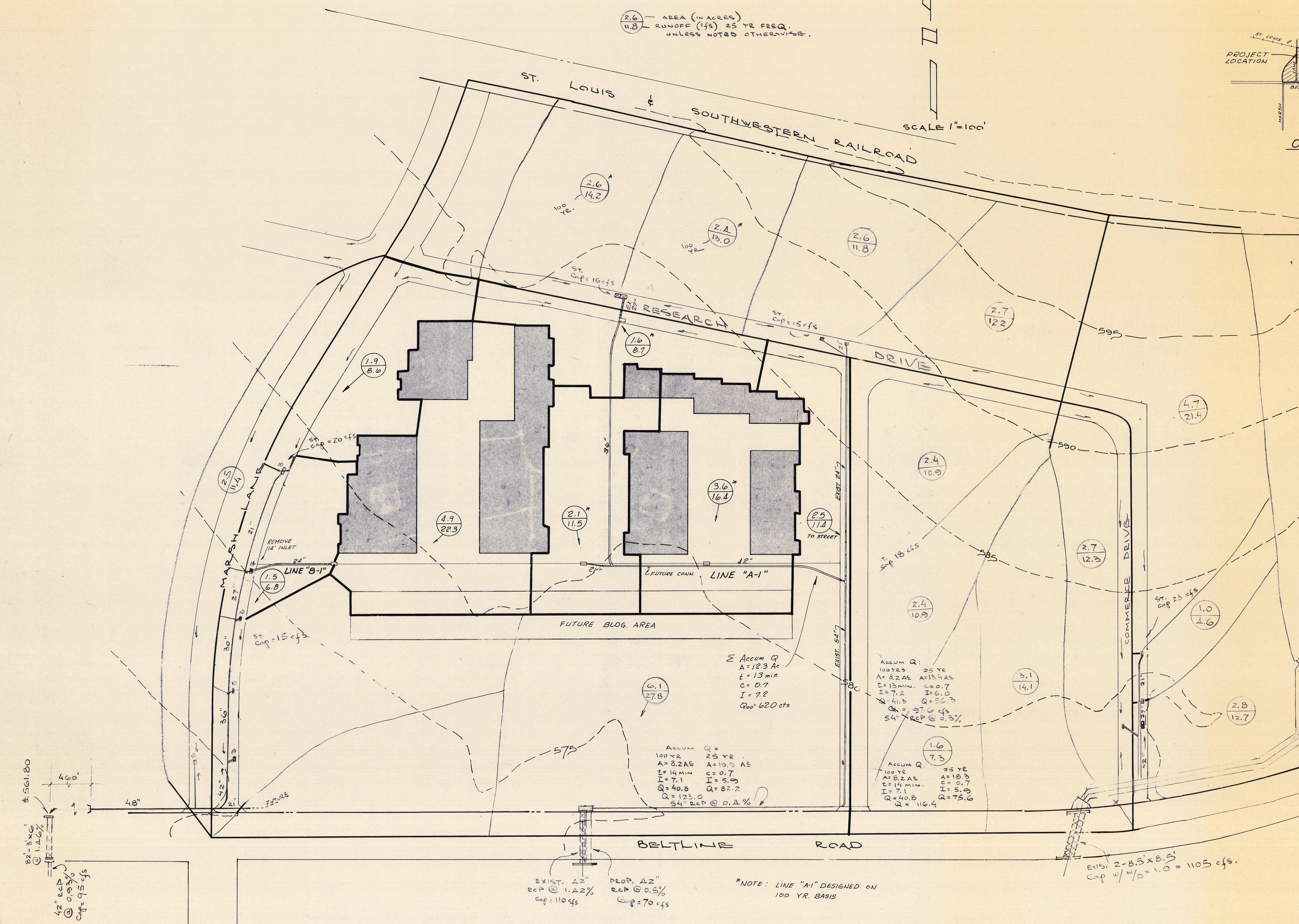
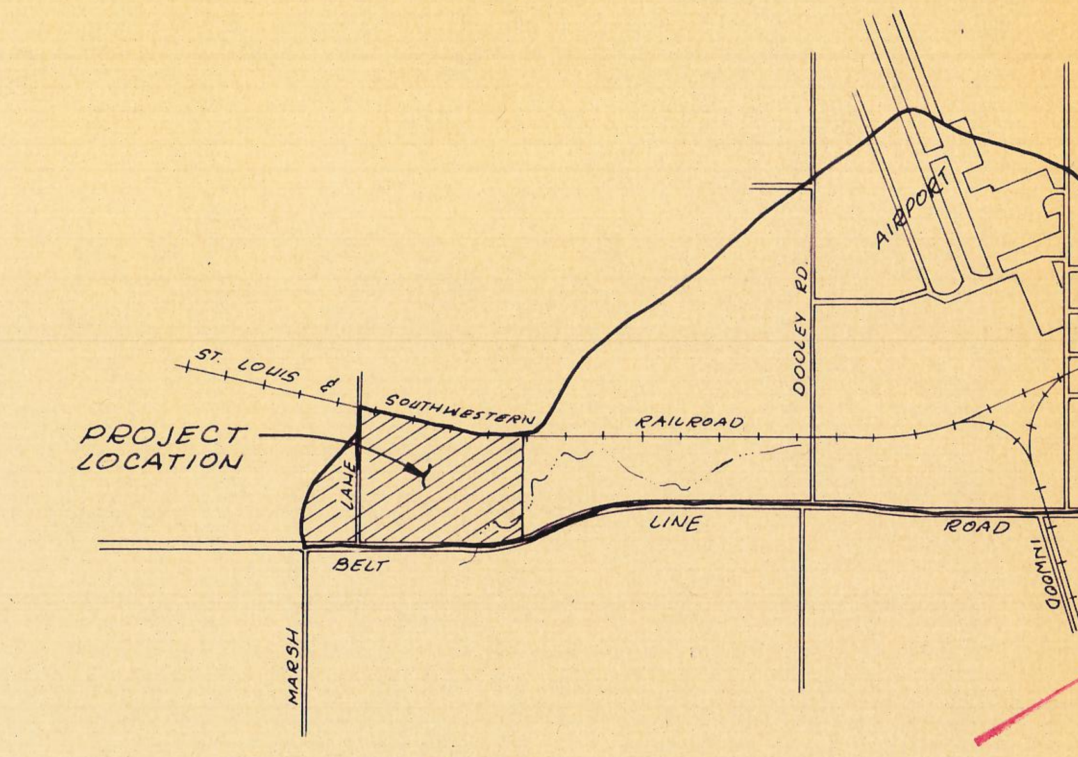
25 YR:
c = 0.7 t = 10 min. I = 6.5
Q = 4.55 cfs/AC

100 YR:
c = 0.7 t = 10 min. I = 7.8
Q = 5.46 cfs/AC

(2.6 / 11.8) — AREA (IN ACRES)
RUNOFF (cfs) 25 YR FREQ.
UNLESS NOTED OTHERWISE.





OFFSITE DRAINAGE
1"=2000'

CHANNEL
A = 382 AC $C_{avg} = 0.7$
T.O.C.
2700' GUTTER FLOW @ 1.0% = 18 MIN.
1000' OVERLAND FLOW @ 0.8% = 35 MIN.
3500' IMPROV. CHANNEL @ 0.8% = 30 MIN.
TOTAL 83 MIN. SAY 1 HR 20 MIN.
$I_{25} = 2.8$ $I_{100} = 3.5$
$Q_{25} = 382(.7)2.8 = 750$ cfs
$Q_{100} = 936$ cfs

CULVERT:
$Q_{100} = 936 + 52_{\text{ONSITE}} = 988$ cfs.

LINE CHANNEL w/CONC. FOR 25 YRS:
Q = (84.91) 75.625 (1.692) 0.0707 = 770 cfs

USE 2-10'x4.5 BOX CULVERTS.
Q = (99.07) 45 (1.7768) 0.0707 = 560 cfs
V = 988/90 = 11.0 FPS.

DRAINAGE AREA

BELT LINE – MARSH OFFICE PARK

ADDISON, TEXAS

BROCKETTE / DAVIS / DRAKE, INC.
CONSULTING ENGINEERS
CIVIL STRUCTURAL SURVEYING
2902 CARLISLE STREET DALLAS, TEXAS 75204

STATE OF TEXAS — JACK R. DAVIS — 24312 — REGISTERED PROFESSIONAL ENGINEER

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
J.R.D.	C.J.Z.	9/7/79	1"=100'			C7