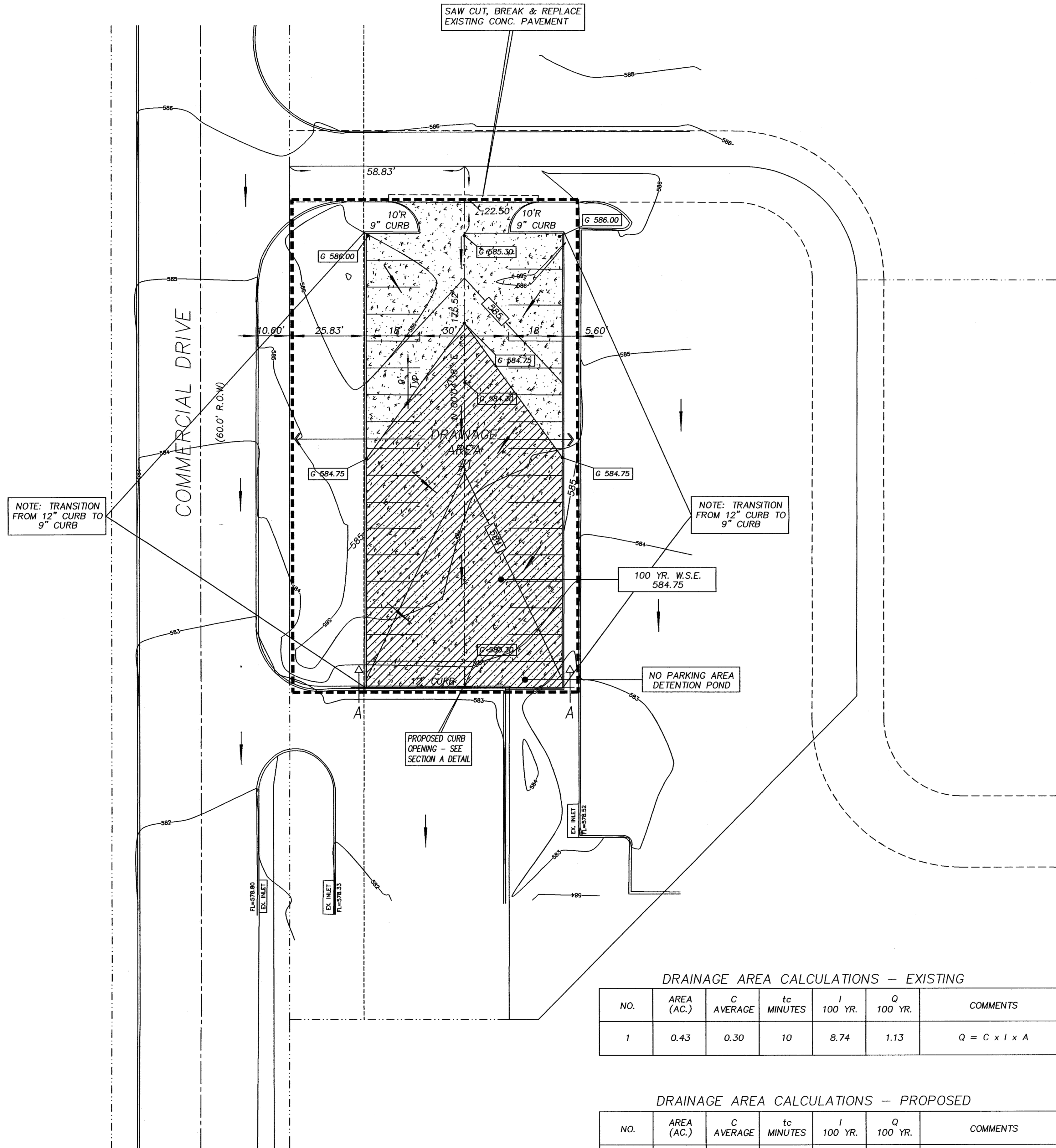
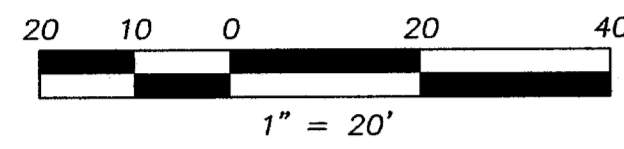
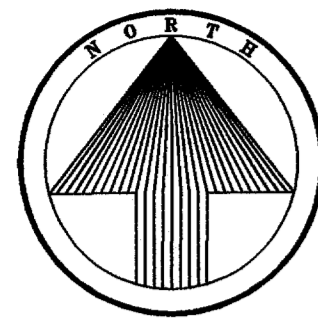


\$ DATES \$

\$ FILE \$



DRAINAGE AREA CALCULATIONS - EXISTING

NO.	AREA (AC.)	C AVERAGE	t _c MINUTES	I 100 YR.	Q 100 YR.	COMMENTS
1	0.43	0.30	10	8.74	1.13	Q = C x I x A

DRAINAGE AREA CALCULATIONS - PROPOSED

NO.	AREA (AC.)	C AVERAGE	t _c MINUTES	I 100 YR.	Q 100 YR.	COMMENTS
1	0.43	0.90	10	8.74	3.38	Q = C x I x A

TO BE DETAINED - 3.38 - 1.13 = 2.25 c.f.s.

- GENERAL NOTES:**
PAVING, GRADING AND DRAINAGE
- ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE TOWN OF ADDISON AND NCTCOG STANDARDS AND SPECIFICATIONS.
 - ALL PAVEMENT RADII SHALL BE 10 FOOT UNLESS OTHERWISE NOTED ON THE PLANS.
 - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL PUBLIC UTILITIES DURING THE CONSTRUCTION OF THIS PROJECT. NOTIFY CITY AND FRANCHISE UTILITIES MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION.
 - ALL FILL SHALL BE COMPACTED TO 95% PROCTOR DENSITY IN A MAXIMUM OF SIX INCH LIFTS.
 - MINIMUM CONCRETE STRENGTH ALLOWED IS 3500 P.S.I.

- LEGEND**
- 550 EX. CONTOUR LINE
 - G 538.7 GUTTER ELEVATION
 - DIRECTIONAL FLOW ARROW
 - 584 PROPOSED CONTOUR
 - DRAINAGE AREA
 - LIMITS 100 YR WSE

DETENTION DISCHARGE CALCULATIONS
 $Q_{100}(EXISTING) = C \times I \times A$
 $Q_{100} = 0.30 \times 8.74 \times 0.43$
 $Q_{100} = 1.13 \text{ cfs}$

DETENTION DISCHARGE DESIGN
 $Q = 3.33 \times L \times H^{2/3}$
 $L = 1.13 / 3.33 \times 1^{2/3} = 0.34' \times 12" = 4.08"$
 $Q_{100} = 1.49 / 0.035 \times 0.395 \times 0.11 \times 0.33$
 $Q_{100} = 0.57 \text{ cfs}$
DESIGN 2 - 6" X 9" CURB OPENINGS
 $2 \times 0.57 \text{ cfs} = 1.14 \text{ cfs}$

DETENTION LIMITS CALCULATIONS
 $75' \times 66' \times 0.75 = 3712.5$
 $\frac{66' \times 40' \times .75}{2} = 990$
 4702.25 c f

REQUIRED - 3799 c f
PROVIDED - 4702.25 c f

ELEV.	AREA (SF)	VOLUME (CF)	WSE 100
584.75	6270	4702	584.75

$Q_{in} = 0.30 \times 0.43 \times 8.74 = 1.13 \text{ cfs} - \text{MAX. OUTFLOW}$
 $Q_{DEV} = 0.90 \times 0.43 \times 8.74 = 3.38 \text{ cfs}$

t _c min.	I 100	CA	Q100
10	8.74	0.387	3.38
20	6.2	0.387	2.40
30	5.2	0.387	2.01
40	4.7	0.387	1.81
50	4.2	0.387	1.62
60	3.8	0.387	1.47

STORAGE 10 = IN 20 X 3.38 X 60 = 4056 c f
OUT = 0.50 X 20 X 1.13 X 60 = 678
= 3378 c f

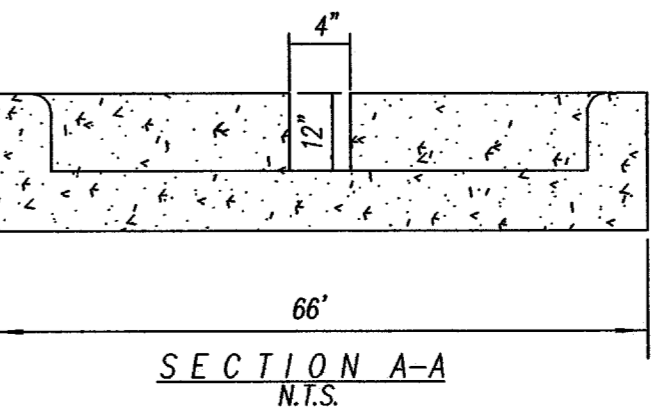
STORAGE 20 = 20 X 2.40 X 60 = 4320 c f
OUT = 0.50 X 30 X 1.13 X 60 = 1017 c f
= 3303 c f

STORAGE 30 = 40 X 2.01 X 60 = 4824 c f
OUT = 0.50 X 40 X 1.13 X 60 = 1350 c f
= 3468 c f

STORAGE 40 = 50 X 1.81 X 60 = 5430 c f
OUT = 0.50 X 50 X 1.13 X 60 = 1695 c f
= 3735 c f

STORAGE 50 = 60 X 1.62 X 60 = 5832 c f
OUT = 0.50 X 60 X 1.13 X 60 = 2034 c f
= 3790 c f

STORAGE 60 = 70 X 1.47 X 60 = 6172 c f
OUT 0.50 X 70 X 1.13 X 60 = 2373 c f
= 3799 c f



NO.	DATE	COMMENTS

201 JOHNSTON ST. SUITE 303
ALEXANDRIA, LOUISIANA 71301
PHONE NO. 866-635-7395

9401 LBJ FRWY., SUITE 300
DALLAS, TEXAS 75243
PHONE NO. 214-343-1210
FAX NO. 214-343-3885



DIVERSE ENGINEERING CONCEPTS, INC.
3401 CHANNING LANE
BEDFORD, TEXAS 76021
SEPEHR PARNIAN, P.E.
214-727-5261

DRAINAGE PLAN

PILLAR COMMERCIAL
7920 BELTLINE ROAD - SUITE 130
DALLAS, TEXAS 75254
972-386-0614

WELLS FARGO TOWER PARKING IMPROVEMENTS

EJES PROJ. NO.:	
DESIGNED BY:	
CHECK BY:	
DRAWN BY:	
DATE:	
SCALE:	