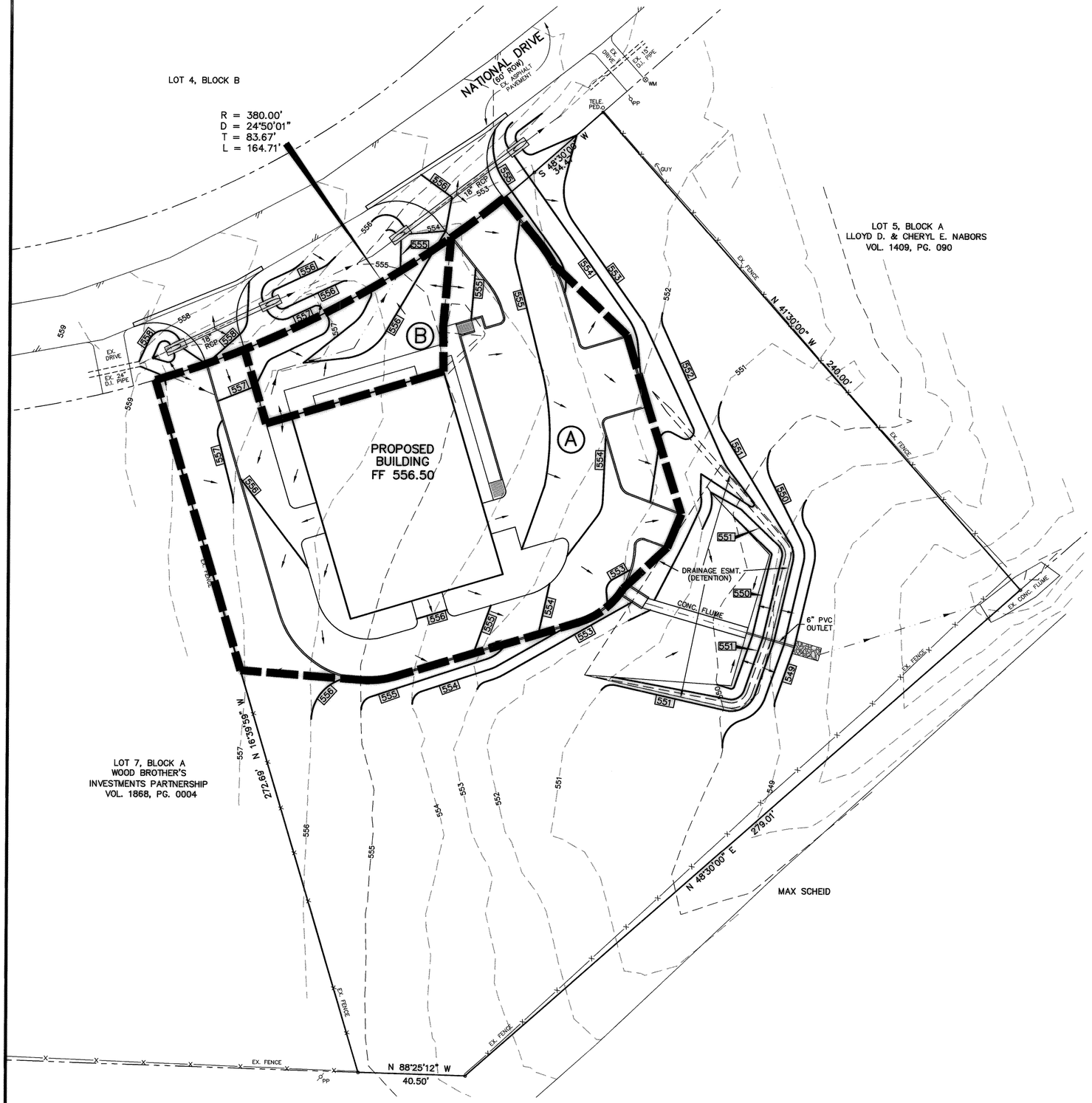

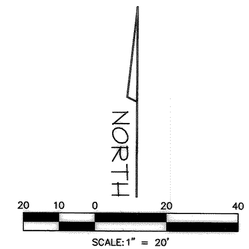

RATING TABLE

HEADWATER ELEVATION (ft)	DISCHARGE (cfs)	VELOCITY (ft/s)
0.0	N/A	N/A
0.5	0.61	3.2
1.0	1.06	5.5
1.5	1.36	7.1
1.9	1.50	8.2
2.0	1.61	8.4

Allowable Discharge
Area = 0.52 Acres
Cres = 0.35
I100 = 8.3
TC = 20 min

Q(allowable) = 1.51 cfs use 1.5 cfs

Storm Duration calculations CA = (0.9)(0.52) = 0.47
10min = 9.8 Q = 4.6
20min = 8.3 Q = 3.9
30min = 6.9 Q = 3.2
40min = 5.8 Q = 2.7
50min = 5.0 Q = 2.4
60min = 4.5 Q = 2.1
70min = 4.2 Q = 2.0
80min = 3.9 Q = 1.8
90min = 3.5 Q = 1.6

Volume Determination

10min 10 x 4.6 x 60 = 2,760
0.5 x 20 x 1.5 x 60 = 900
1,860 c.f.

20min 20 x 3.9 x 60 = 4,680
0.5 x 30 x 1.5 x 60 = 1,350
3,330 c.f.

30min 30 x 3.2 x 60 = 5,760
0.5 x 40 x 1.5 x 60 = 1,800
3,960 c.f.

40min 40 x 2.7 x 60 = 6,480
0.5 x 50 x 1.5 x 60 = 2,250
4,230 c.f.

50min 50 x 2.4 x 60 = 7,200
0.5 x 60 x 1.5 x 60 = 2,700
4,500 c.f.

60min 60 x 2.1 x 60 = 7,560
0.5 x 70 x 1.5 x 60 = 3,150
4,410 c.f.

70min 70 x 2.0 x 60 = 8,400
0.5 x 80 x 1.5 x 60 = 3,600
4,800 c.f.*

80min 80 x 1.8 x 60 = 8,640
0.5 x 90 x 1.5 x 60 = 4,050
4,590 c.f.

90min 90 x 1.6 x 60 = 8,640
0.5 x 100 x 1.5 x 60 = 4,500
4,140 c.f.

*Maximum Volume Required = 4,800 c.f.

NOTE: Detention Calculations based on improved area only.

STORM WATER RUNOFF CALCULATIONS

AREA NO.	ACRES	TC (min)	"C"	"I_{100}" (IN./HR.)	"Q_{100}" (cfs)	DISCHARGE TO
A	0.52	10	0.9	9.8	4.6	DET. POND
B	0.06	10	0.9	9.8	0.5	BAR DITCH

RECORD DRAWING

IMPROVEMENTS INDICATED ON THIS PLAN WHERE MADE IN ACCORDANCE WITH THE PROJECT PLANS & SPECIFICATIONS. THE DESIGN ENGINEER IS NOT AWARE OF ANY CHANGES TO THESE PLANS OTHER THAN THOSE SHOWN.

DATE: MAY 11, 2004

Bentley ENGINEERING, INC.
412 E BROADWAY BLVD.
SUITE A230
GARLAND, TEXAS 75043
PHONE 972.240.0900
FAX 972.240.0922

RECORD DRAWING

No.	Date	Revision	By

DRAINAGE AREA MAP

LEMMOND OFFICE / WAREHOUSE
CITY OF ROCKWALL, TEXAS

MARC O. BENTLEY
64980
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MARC O. BENTLEY, P.E. NO. 64980 ON 8/30/02

Scale:	1"=20'
File Name:	OWSITE
Date:	AUG. 2002
Project No.:	22147
Designed:	B.E.I.
Drawn:	B.E.I.
Checked:	M.O.B.

C3