

PICKETT RAY & SILVER

333 Mid Rivers Mall Dr.
St. Peters, MO 63376

Civil Engineers
Planners
Land Surveyors

441-1211
278-1211

PROJECT NAME GLENHARZ
PROJECT #/JOB ORDER # 95059
DATE 8-11-95
DESIGNER KID
PAGE 1

Rev. 9.2.95 *TJ*

BASIN "C" - EAST BASIN

EXISTING CONDITIONS	
ONSITE	10.59 AC
15YR @ 1.87	= 19.80 CFS
25YR 2.31	= 24.96 CFS
100YR 2.95	= 31.24 CFS
PROPOSED CONDITIONS	
ONSITE	11.02 AC
15YR @ 2.64	= 30.68 CFS
25YR 3.26	= 37.88 CFS
100YR 4.17	= 48.46 CFS
T _{Q15}	30.68 - 19.80 = 10.88 CFS
T _{Q25}	37.88 - 24.96 = 13.42 CFS
T _{Q100}	48.46 - 31.24 = 17.22 CFS
30.68	x 60 = 1840.8 CFM
37.88	x 60 = 2272.8 CFM
48.46	x 60 = 2907.6 CFM

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PROJECT NAME GLENMARD - EAST BASIN

PROJECT #/JOB ORDER # _____

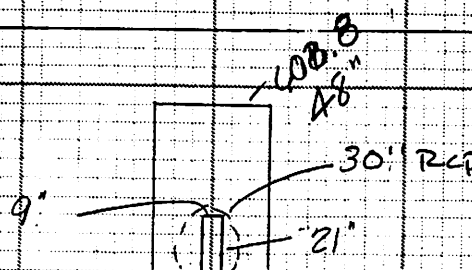
DATE _____

DESIGNER _____

PAGE 2

Rev. 9-2-95 *[Signature]*

ELEV	AREA	STORAGE	ACCUM. STOR.
604	7,069	0	0
606	6,665	10,734	10,734
608	8,873	15,556	26,272
610	12,397	21,270	47,542



100.8
48"

30" RCP

21"

Q

$$Q = C A \sqrt{2gR} \quad R = \frac{D}{4} \quad (EXIST)$$

$$= 0.4 (1.31) \sqrt{64.43475}$$

$$= 12.5 \text{ cfs}$$

HW 608.8

$$T_c = \frac{L}{3600(V)}$$

$$= \frac{600}{3600(1.45)} = .11494$$

$$.11494 \times 60 = 6.89 = 7 \text{ min/HR}$$

600 = FLOW LENGTH

$25.3/600 = .04217$ Slope

$V = 1.45$ FROM NOMINOGRAPH

PICKETT RAY & SILVER

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PROJECT NAME GLENMARO
PROJECT #/JOB ORDER # 95059
DATE 8-16-95
DESIGNER KJD
PAGE 1

GLENMARO DETENTION SUMMARY SHEET

Rev'd 9.2.95

TOTAL ACRES OF GLENMARO				
57.38				
- UNDEVELOPED AREAS 2.31 P.I. FACTOR (25 yr.)				
- DEVELOPED AREAS 3.26 P.I. FACTOR (25 yr.)				
57.38 ACRES (3.26 DEV - 2.31 UNDEV) = 54.51				
2 1/2 yr STORM	DETENTION REQUIRED BY MEXICO ROAD (cfs)			
	Existing = 44.26	Proposed = 64.34	Difference = 20.08 cfs	
	DETENTION REQUIRED ON EAST SIDE OF PROPERTY (cfs)			
	Existing = 24.46 cfs	Proposed = 37.88 cfs	Difference = 13.42 cfs	
	DETENTION REQUIRED BY BRYAN ROAD			
	Existing = 23.63 cfs	Proposed = 25.56 cfs	Difference = 1.93 cfs	
Actual Detention Provided =				
		Mexico = 46.75 cfs		
		East = 25.28		
		Bryan = 14.90		
		<u>86.93</u>	vs. 54.51 cfs (Required)	

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PROJECT NAME GLENMARD
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DATE 8-12-95
DESIGNER KJD
PAGE 1

Rev 9.2.95 *TF*

Basin "A" - MEXICO ROAD

EXISTING CONDITIONS	
ONSITE	10.42 AC
	15YR @ 1.67 = 19.44 CFS
	25YR 2.31 = 24.07 CFS
	100YR 2.95 = 30.74 CFS
OFFSITE	8.74 AC
	15YR @ 1.87 = 16.34 CFS
	25YR 2.31 = 20.19 CFS
	100YR 2.95 = 25.78 CFS
PROPOSED CONDITIONS	
ONSITE	14.12 AC
	15YR @ 2.67 = 37.28 CFS
	25YR 3.24 = 46.03 CFS
	100YR 4.17 = 58.88 CFS
OFFSITE	7.92 AC
	15YR @ 1.87 = 14.81 CFS
	25YR 2.31 = 18.30 CFS
	100YR 2.95 = 23.30 CFS
Tq 15	52.09 - 35.83 = 16.26 CFS
Tq 25	64.33 - 44.26 = 20.07 CFS
Tq 100	82.24 - 56.52 = 25.72
	52.09 x 60 = 3125.4 cfm
	64.33 x 60 = 3860.4 "
	82.24 x 60 = 4934.4 "

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PROJECT NAME GLENMARD MEXICO DETENTION
PROJECT #/JOB ORDER # _____
DATE _____
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Rev 9-2-95 *td*

ELEV.	AREA (FT ²)	STORAGE (FT ²)	ACUM. STORAGE (FT ²)
595	4,648	0	0
596	7,244	5,946	5,946
597	9,279	17,123	23,069
600	12,358	22,237	45,306
602	16,505	28,863	74,169

36" EXIT PIPE
CIRCUMFERENCE OF OUTFALL
 $L = (C = 2\pi R)$
 $L = 15.71$
 $H =$
 $C = 3.0$ (CONSTANT)

ORIFICE

$$Q = C_d A \sqrt{2gh}$$

$$(0.6)(1.67) \sqrt{64.4(4.7)}$$

$$= 17.4 \text{ CFS}$$

WEIR

25 YR = 30 CFS

CHKD 600.7

$$T_c = \frac{L}{3600(V)} = \frac{1400}{3600(1.20)}$$

$$= 0.32407$$

$L = 1400$

SLOPE = $40.8/1400 = 0.029$

$V = 1.20$ FROM NOMOGRAPH

$0.32407 \times 60 = 19.44 \text{ MIN/HR}$

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PROJECT NAME Glenmaro

PROJECT #/JOB ORDER # 95-059

DATE _____

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BASIN "B" BRYAN ROAD

EXISTING CONDITIONS

10.23 AC.	15YR. @ 1.87	= 19.13 cfs
	25YR. @ 2.31	= 23.63 cfs
	100YR. @ 2.95	= 30.18 cfs

PROPOSED CONDITIONS

7.84 AC.	15YR. @ 2.64	= 20.70 cfs
	25YR. @ 3.26	= 25.56 cfs
	100YR. @ 4.17	= 32.69 cfs

RUNOFF TO BASIN

6.24 AC.	15YR. @ 2.64	= 16.48 cfs
	25YR. @ 3.26	= 20.34 cfs
	100YR. @ 4.17	= 26.02 cfs

BYPASS BASIN

1.60 AC.	15YR. @ 2.64	= 4.22 cfs
	25YR. @ 3.26	= 5.22 cfs
	100YR. @ 4.17	= 6.67 cfs

16.48 x 60 =	988.80 cfm
20.34 x 60 =	1,220.40 cfm
26.02 x 60 =	1,561.20 cfm

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PROJECT NAME Glennaro

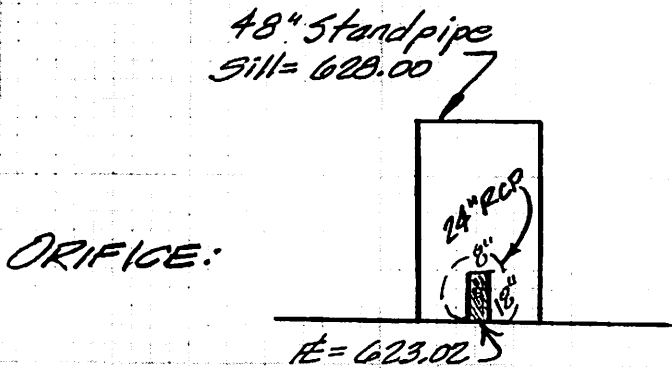
PROJECT #/JOB ORDER # 95-059

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ELEVATION	AREA	VOLUME	CUM. VOLUME
623.02	0		
623.20	890	80	80
624.00	1435	929	1010
626.00	3180	4615	5625
628.00	5695	8875	14500
630.00	7790	13485	27985



$$Q = C_a \sqrt{2gh}$$

$$= (0.6)(1.0) \sqrt{64.4(4.25)}$$

$$= 9.93 \text{ cfs}$$

$$T_c = \frac{L}{3600(V)} = \frac{500}{3600(1.2)} = .11574 \text{ hr.}$$

$$.11574(60) = 6.9 \text{ min/hr.} = 7$$

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PROJECT NAME Glenmaro

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WEIR: 48" ϕ standpipe

$$Q = C \times L \times H^{3/2}$$

where:

$$C = 3.0$$

$$L = 12.57 \text{ ft}$$

$$Q_{100} = 26.02 \text{ cfs}$$

$$26.02 = (3.0)(12.57)(H^{3/2})$$

$$\left(\frac{26.02}{(3.0)(12.57)} \right)^{2/3} = H$$

$$\underline{\underline{0.78 \text{ ft} = H}}$$

$$\text{Sill Elev.} = 628.00 \text{ (48" } \phi \text{ standpipe)}$$

$$\text{H.W.}_{100} = 628.00 + 0.78 = \underline{\underline{628.78}}$$

GLENMARD 25YR MEXICO		9-95	SUBMITTAL DATE:	
ELEVATION	AREA	VOLUME	CUM. VOLUME	
595.00	4641			
596.00	7244	5946		5946
598.00	9879	17123		23069
600.00	12358	22237		45306
602.00	16505	28863		74169

 *
 * RECTANGULAR ORIFICE *
 * 10 in W X 24 in H ELEV= 595 *
 * ^{39%} *
 * Outlet Pipe - 39.5 ft - 36 in pipe *
 * UFL= 594 LFL= 593.5 n= 0.013 *
 * *
 * Overflow Structure - Standpipe *
 * DIAM= 48 in STANDPIPE ELEV= 600.7 *
 * *

GLENMARD 25YR MEXICO		9-95	SUBMITTAL DATE:		
MIN	INFLOW	STORAGE	OUTFLOW	NET DET.	ELEV.
1	203.18	203.18	0.00	203.18	595.03
2	406.36	609.54	0.82	608.72	595.10
3	609.54	1218.97	4.26	1214.00	595.20
4	812.72	2026.70	11.99	2014.72	595.34
5	1015.89	3030.00	25.64	3004.97	595.51
6	1219.07	4224.00	46.70	4177.34	595.70
7	1422.25	5599.59	76.56	5523.04	595.93
8	1625.43	7148.40	116.38	7032.09	596.13
9	1828.61	8860.70	155.50	8705.20	596.32
10	2031.79	10736.99	197.66	10539.33	596.54
11	2234.97	12774.30	247.59	12526.70	596.77
12	2438.15	14964.00	305.77	14659.08	597.02
13	2641.33	17300.40	493.84	16806.57	597.27
14	2844.51	19651.00	551.35	19099.73	597.54
15	3047.68	22147.40	606.77	21540.65	597.82
16	3250.86	24791.00	660.67	24130.85	598.10
17	3454.04	27584.00	708.63	26876.26	598.34
18	3657.22	30533.40	749.21	29784.27	598.60
19	3860.40	33644.60	789.93	32854.74	598.88
20	3860.40	36715.00	830.77	35884.37	599.15
21	3657.22	39541.40	869.17	38672.42	599.40
22	3454.04	42126.40	903.08	41223.38	599.63
23	3250.86	44474.00	933.03	43541.22	599.84
24	3047.68	46588.00	959.42	45629.48	600.02
25	2844.51	48473.00	981.78	47492.21	600.15
26	2641.33	50133.00	997.41	49136.13	600.27
27	2438.15	51574.00	1011.00	50563.28	600.36
28	2234.97	52798.00	1022.66	51775.59	600.45
29	2031.79	53807.00	1032.45	52774.93	600.52
30	1828.61	54603.00	1040.45	53563.09	600.57
31	1625.43	55188.00	1046.73	54141.80	600.61
32	1422.25	55564.00	1051.31	54512.75	600.64
33	1219.07	55731.00	1054.23	54677.60	600.65
34	1015.89	55693.00	1055.53	54637.96	600.65
35	812.72	55450.00	1055.22	54395.46	600.63
36	609.54	55005.00	1053.31	53951.69	600.60
37	406.36	54358.00	1049.80	53308.25	600.55
38	203.18	53511.00	1044.70	52466.73	600.50
39	0.00	52466.00	1038.00	51428.74	600.42

PEAK OUTFLOW= 17.59 CFS AT 30 MINUTES

Inflow = 64.34 cfs

outflow = 17.59

46.75 cfs - Stored.

95059-2

GLENMARD 100YR MEXICO 9-2-95 SUBMITTAL DATE:

ELEVATION	AREA	VOLUME	CUM. VOLUME
595.00	4648		
		5946	5946
596.00	7244		
		17127	23069
598.00	9879		
		22237	45306
600.00	12358		
		28863	74169
602.00	16505		

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*****
#
# RECTANGULAR ORIFICE #
# 10 in W X 24 in H ELEV= 595 #
# #
# Outlet Pipe - 39.5 ft - 36 in pipe #
# UFL= 594 LFL= 593.5 n= .013 #
# #
# Overflow Structure - Standpipe #
# DIAM= 48 in STANDPIPE ELEV= 600.7 #
# #
*****

```

GLENMARD 100YR MEXICO 9-2-95 SUBMITTAL DATE:

MIN	INFLOW	STORAGE	OUTFLOW	NET DET.	ELEV.
1	259.71	259.71	0.00	259.71	595.04
2	519.41	779.12	1.19	777.93	595.13
3	779.12	1557.05	6.15	1550.89	595.26
4	1038.82	2589.71	17.71	2572.00	595.43
5	1298.53	3870.93	36.99	3833.94	595.64
6	1558.23	5392.17	67.71	5324.47	595.90
7	1817.94	7142.81	110.17	7032.64	596.13
8	2077.64	9110.28	155.51	8954.77	596.35
9	2337.35	11292.12	204.29	11087.88	596.60
10	2597.05	13684.93	263.19	13421.69	596.87
11	2856.76	16278.45	333.26	15945.17	597.17
12	3116.46	19061.63	429.93	18532.61	597.47
13	3376.17	21908.78	593.05	21315.23	597.80
14	3635.87	24951.10	855.08	24295.22	598.11
15	3895.58	28190.80	1111.12	27479.68	598.40
16	4155.28	31634.97	1477.84	30877.13	598.70
17	4414.99	35292.12	1947.71	34487.42	599.03
18	4674.69	39162.12	2518.66	38310.43	599.37
19	4934.40	43244.83	3188.75	42346.08	599.73
20	4934.40	47280.48	3959.99	46334.58	600.07
21	4674.69	51009.28	4837.72	50021.54	600.33
22	4414.99	54436.53	5819.29	53418.28	600.56
23	4155.28	57573.57	6903.99	56527.99	600.78
24	3895.58	60423.57	8089.99	59309.60	600.97
25	3635.87	62945.48	9377.29	61557.19	601.13
26	3376.17	64933.36	10765.99	63229.90	601.24
27	3116.46	66346.36	12247.71	64354.62	601.32
28	2856.76	67211.38	13815.99	64996.24	601.36
29	2597.05	67593.29	15465.99	65219.51	601.38
30	2337.35	67556.86	17193.71	65137.78	601.37
31	2077.64	67215.43	19000.99	64812.99	601.35
32	1817.94	66630.93	20887.71	64293.85	601.32
33	1558.23	65852.10	22845.99	63648.45	601.27
34	1298.53	64946.98	24867.71	62863.11	601.22
35	1038.82	63901.93	26945.99	61973.53	601.15
36	779.12	62752.65	29077.71	60971.38	601.09
37	519.41	61490.79	31261.99	59874.70	601.01
38	259.71	60134.41	33497.71	58674.98	600.93
39	0.00	58674.98	35785.99	57363.83	600.84

PEAK OUTFLOW= 40.32 CFS AT 30 MINUTES

 *
 * RECTANGULAR ORIFICE *
 * 8 in W X 18 in H ELEV= 623.02 *
 * *
 * Outlet Pipe - 53.24 ft - 24 in pipe *
 * UFL= 623.02 LFL= 622.49 n= .013 *
 * *
 * Overflow Structure - Standpipe *
 * DIAM= 48 in STANDPIPE ELEV= 628 *
 * *

Bryan Rd
25 yr.

GLENMARO 9-22-95 SUBMITTAL DATE: REV. 9-22-95

MIN	INFLOW	STORAGE	OUTFLOW	NET DET.	ELEV.
1	61.02	61.02	0.00	61.02	623.16
2	122.04	183.06	5.28	177.78	623.28
3	183.06	360.84	14.11	346.73	623.43
4	244.08	590.81	27.24	563.57	623.62
5	305.10	868.67	47.84	820.83	623.84
6	366.12	1186.95	76.83	1110.12	624.04
7	427.14	1537.26	107.66	1429.60	624.18
8	488.16	1917.76	130.24	1787.52	624.34
9	549.18	2336.70	157.17	2179.53	624.51
10	610.20	2789.73	188.54	2601.19	624.69
11	671.22	3272.41	281.64	2990.77	624.86
12	732.24	3723.01	306.42	3416.59	625.04
13	793.26	4209.85	331.37	3878.48	625.24
14	854.28	4732.76	356.48	4376.28	625.46
15	915.30	5291.58	381.69	4909.89	625.69
16	976.32	5886.21	406.99	5479.22	625.94
17	1037.34	6516.56	432.34	6084.22	626.10
18	1098.36	7182.58	448.66	6733.92	626.25
19	1159.38	7893.30	462.53	7430.77	626.41
20	1220.40	8651.17	476.95	8174.22	626.57
21	1159.38	9333.60	491.87	8841.73	626.72
22	1098.36	9940.09	504.88	9435.21	626.86
23	1037.34	10472.55	516.19	9956.36	626.98
24	976.32	10932.68	525.91	10406.77	627.08
25	915.30	11322.07	534.17	10787.90	627.16
26	854.28	11642.18	541.06	11101.12	627.23
27	793.26	11894.38	546.65	11347.73	627.29
28	732.24	12079.97	551.02	11528.95	627.33
29	671.22	12200.17	554.21	11645.96	627.36
30	610.20	12256.16	556.26	11699.90	627.37
31	549.18	12249.08	557.20	11691.88	627.37
32	488.16	12180.04	557.06	11622.98	627.35
33	427.14	12050.12	555.86	11494.26	627.32
34	366.12	11860.38	553.60	11306.78	627.28
35	305.10	11611.88	550.30	11061.58	627.23
36	244.08	11305.66	545.95	10759.71	627.16
37	183.06	10942.77	540.55	10402.22	627.08
38	122.04	10524.26	534.08	9990.18	626.98
39	61.02	10051.20	526.53	9524.67	626.88
40	0.00	9524.67	517.87	9006.80	626.76

PEAK OUTFLOW= 9.29 CFS AT 31 MINUTES

 *
 * RECTANGULAR ORIFICE *
 * 8 in W X 18 in H ELEV= 623.02 *
 * *
 * Outlet Pipe - 53.24 ft - 24 in pipe *
 * UFL= 623.02 LFL= 622.49 n= .013 *
 * *
 * Overflow Structure - Standpipe *
 * DIAM= 48 in STANDPIPE ELEV= 628 *
 * *

*Brynn Rd
 100 yr*

GLENMARD 9-22-95 SUBMITTAL DATE: REV. 9-22-95

MIN	INFLOW	STORAGE	OUTFLOW	NET DET.	ELEV.
1	78.06	78.06	0.00	78.06	623.20
2	156.12	234.18	7.64	226.54	623.33
3	234.18	460.72	17.60	443.12	623.51
4	312.24	755.36	35.92	719.44	623.75
5	390.30	1109.74	64.86	1044.88	624.02
6	468.36	1513.24	103.23	1410.01	624.17
7	546.42	1956.43	128.81	1827.62	624.35
8	624.48	2452.10	160.29	2291.81	624.56
9	702.54	2994.35	260.31	2734.04	624.75
10	780.60	3514.64	290.33	3224.31	624.96
11	858.66	4082.97	320.35	3762.62	625.19
12	936.72	4699.34	350.35	4348.99	625.45
13	1014.78	5363.77	380.35	4983.42	625.72
14	1092.84	6076.26	410.35	5665.91	626.01
15	1170.90	6836.81	439.51	6397.30	626.17
16	1248.96	7646.26	455.40	7190.86	626.35
17	1327.02	8517.88	472.03	8045.85	626.55
18	1405.08	9450.93	489.32	8961.61	626.75
19	1483.14	10444.75	507.19	9937.56	626.97
20	1561.20	11498.76	525.56	10973.20	627.21
21	1483.14	12456.34	544.38	11911.96	627.42
22	1405.08	13317.04	560.89	12756.15	627.61
23	1327.02	14083.17	575.33	13507.84	627.78
24	1248.96	14756.80	587.89	14168.91	627.93
25	1170.90	15339.81	598.72	14741.09	628.04
26	1092.84	15833.93	620.40	15213.53	628.11
27	1014.78	16228.31	682.20	15546.11	628.16
28	936.72	16482.83	742.51	15740.32	628.18
29	858.66	16598.98	781.62	15817.36	628.20
30	780.60	16597.96	797.97	15799.99	628.19
31	702.54	16502.53	794.26	15708.27	628.18
32	624.48	16332.75	774.95	15557.81	628.16
33	546.42	16104.23	744.74	15359.49	628.13
34	468.36	15827.85	706.41	15121.44	628.09
35	390.30	15511.74	667.58	14844.16	628.05
36	312.24	15156.40	631.18	14525.23	628.00
37	234.18	14759.41	604.81	14154.60	627.92
38	156.12	14310.72	598.49	13712.23	627.82
39	78.06	13790.29	591.26	13199.03	627.71
40	0.00	13199.03	582.77	12616.27	627.58

PEAK OUTFLOW= 13.3 CFS AT 30 MINUTES

GLENMARD 25YR EAST 9-2-95 SUBMITTAL DATE:

ELEVATION	AREA	VOLUME	CUM. VOLUME
604.00	4069		
606.00	6665	10734	10734
608.00	8873	15538	26272
610.00	12397	21270	47542

 *
 * RECTANGULAR DRIFICE *
 * 9 in W X 21 in H ELEV= 604 *
 * *
 * Outlet Pipe - 42.41 ft - 30 in pipe *
 * UFL= 604.02 LFL= 603.6 SLOPE= .013 *
 * *
 * Overflow Structure - Standpipe *
 * DIAM= 48 in STANDPIPE ELEV= 608.8 *
 * *

GLENMARD 25YR EAST 9-2-95 SUBMITTAL DATE:

MIN	INFLOW	STORAGE	OUTFLOW	NET DET.	ELEV.
1	324.69	324.69	0.00	324.69	604.06
2	649.37	974.06	1.74	972.32	604.18
3	974.06	1946.30	9.02	1937.36	604.36
4	1298.74	3236.10	25.37	3210.73	604.60
5	1623.43	4834.16	54.13	4780.03	604.89
6	1948.11	6728.11	98.34	6629.81	605.24
7	2272.80	8902.61	160.63	8741.98	605.63
8	2272.80	11014.78	243.22	10771.56	606.00
9	2272.80	13044.36	409.76	12634.60	606.24
10	2272.80	14907.40	451.15	14456.25	606.48
11	2272.80	16729.05	488.25	16240.80	606.71
12	2272.80	18513.60	522.03	17991.57	606.93
13	2272.80	20264.30	553.18	19711.19	607.16
14	2272.80	21983.99	582.16	21401.83	607.37
15	2272.80	23674.60	609.30	23065.34	607.59
16	2272.80	25338.14	634.87	24703.27	607.80
17	2272.80	26976.07	659.09	26316.98	608.00
18	2272.80	28589.79	681.93	27907.85	608.15
19	2272.80	30180.69	698.04	29482.61	608.30
20	2272.80	31755.41	713.63	31041.78	608.45
21	1948.11	32989.90	728.73	32261.16	608.56
22	1623.43	33884.59	740.34	33144.26	608.65
23	1298.74	34443.01	748.62	33694.38	608.70
24	974.06	34668.49	753.74	33914.70	608.72
25	649.37	34564.07	755.78	33808.29	608.71
26	324.69	34132.90	754.79	33378.18	608.67
27	0.00	33378.18	750.80	32627.38	608.60

PEAK OUTFLOW= 12.6 CFS AT 25 MINUTES

Inflow = 37.88
 outflow = 12.60

 25.28 (stored)

ELEVATION	AREA	VOLUME	CUM. VOLUME
604.00	4069		
		10734	10734
606.00	6665		
		15538	26272
608.00	8873		
		21270	47542
610.00	12397		

```

*****
#
# RECTANGULAR ORIFICE #
# 9 in W X 21 in H ELEV= 604 #
# #
# Outlet Pipe - 42.41 ft - 30 in pipe #
# UFL= 604.02 LFL= 603.6 n= .013 #
# #
# Overflow Structure - Standpipe #
# DIAM= 48 in STANDPIPE ELEV= 608.0 #
# #
*****

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GLENMARD 100YR EAST 9-2-95 SUBMITTAL DATE:

MIN	INFLOW	STORAGE	OUTFLOW	NET DET.	ELEV.
1	415.37	415.37	0.00	415.37	604.08
2	830.74	1246.11	2.52	1243.59	604.23
3	1246.11	2489.70	13.05	2476.66	604.46
4	1661.49	4138.15	36.68	4101.47	604.76
5	2076.86	6178.33	78.17	6100.16	605.14
6	2492.23	8592.39	141.77	8450.62	605.57
7	2907.60	11358.22	231.16	11127.06	606.05
8	2907.60	14034.66	417.98	13616.68	606.37
9	2907.60	16524.28	471.51	16052.77	606.68
10	2907.60	18960.37	518.58	18441.79	606.99
11	2907.60	21349.39	560.91	20788.47	607.29
12	2907.60	23696.07	599.60	23096.48	607.59
13	2907.60	26004.08	635.34	25368.74	607.88
14	2907.60	28276.34	668.67	27607.67	608.13
15	2907.60	30515.27	695.03	29820.24	608.33
16	2907.60	32727.84	716.93	32010.92	608.54
17	2907.60	34918.52	737.97	34180.55	608.74
18	2907.60	37088.15	758.27	36329.92	608.95
19	2907.60	39237.52	891.90	38345.62	609.14
20	2907.60	41253.22	1205.81	40047.42	609.30
21	2492.23	42539.65	1571.37	40968.29	609.38
22	2076.86	43045.15	1806.07	41239.08	609.41
23	1661.49	42900.56	1873.88	41026.68	609.39
24	1246.11	42272.79	1820.59	40452.21	609.33
25	830.74	41282.95	1664.28	39618.68	609.26
26	415.37	40034.05	1476.75	38557.30	609.16
27	0.00	38557.30	1250.46	37306.85	609.04

PEAK OUTFLOW= 31.23 CFS AT 23 MINUTES