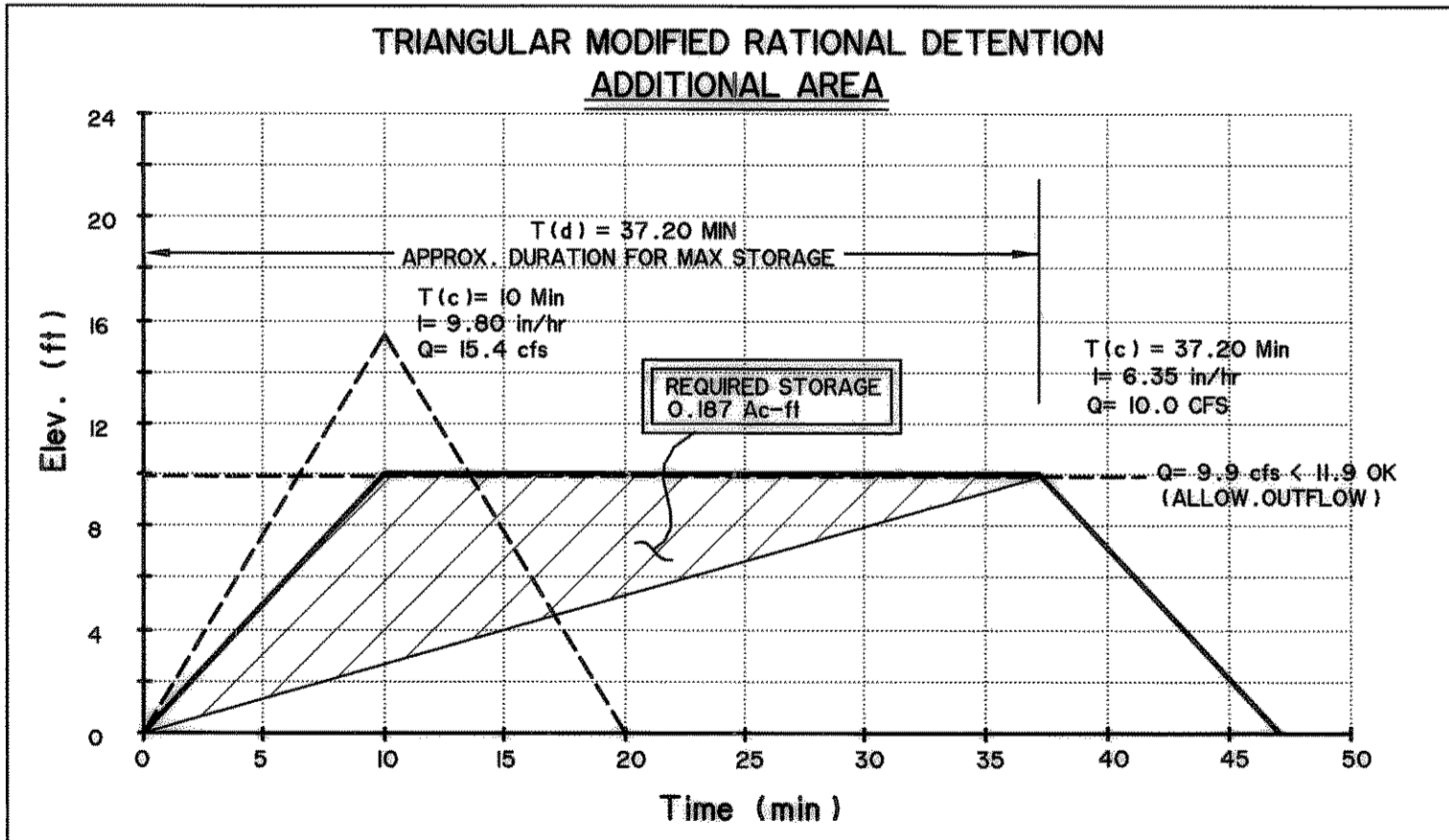


EXCESS CAPACITY COMPUTATIONS

Excess Pond Volume Capacity = 0.197 Ac-ft
 Allowable Increase in Pond Discharge due to excess capacity = 11.9 cfs



COMPOSITE 'C' EXISTING Additional Area (Per Revised Drainage Area map dated 15 Feb 2005)

| DA Name | C (exist) | Area (Acres) |
|---------|-----------|--------------|
| D-7a | 0.50 | 1.43 |
| D-4a | 0.50 | 0.94 |
| | 0.50 | 2.37 Ac |

Additional Pond Volume Capacity = 0.197 Ac-ft
 Allowable Increase Pond Discharge = 11.9 cfs

| Storm | Existing Conditions | | | | Fully Developed Conditions | | | |
|--------|---------------------|----------|-----------|------------------|----------------------------|----------|-----------|----------------|
| | Area (Ac) | Tc (Min) | I (in/hr) | Q (allow) (cfs)* | Area (Ac) | Tc (Min) | I (in/hr) | Q (dev) (cfs)* |
| 100 yr | 2.37 | 20.0 | 8.32 | 9.9 | 2.37 | 10.0 | 9.80 | 15.4 |

* INCLUDES 1.00833 UNIT CONVERSION FACTOR

COMPOSITE 'C' EXISTING (Per Drainage Area map dated 19 Apr 1999)

| DA Name | C (exist) | Area (Acres) |
|---------|-----------|--------------|
| B-1-20 | 0.50 | 34.10 |
| B-3a | 0.50 | 2.29 |
| B-13a | 0.50 | 0.33 |
| D-7 | 0.50 | 5.22 |
| | 0.50 | 41.94 Ac |

Refer to Sheet #17 of the Rockwall Technology Park plans prepared by Wier & Associates, Inc. for Drainage Area names and delineations.

| Storm | Existing Conditions | | | | Fully Developed Conditions | | | |
|--------|---------------------|----------|-----------|------------------|----------------------------|----------|-----------|----------------|
| | Area (Ac) | Tc (Min) | I (in/hr) | Q (allow)* (cfs) | Area (Ac) | Tc (Min) | I (in/hr) | Q (dev)* (cfs) |
| 100 yr | 41.94 | 12.7 | 9.32 | 197.1 | 41.94 | 12.7 | 9.32 | 275.9 |

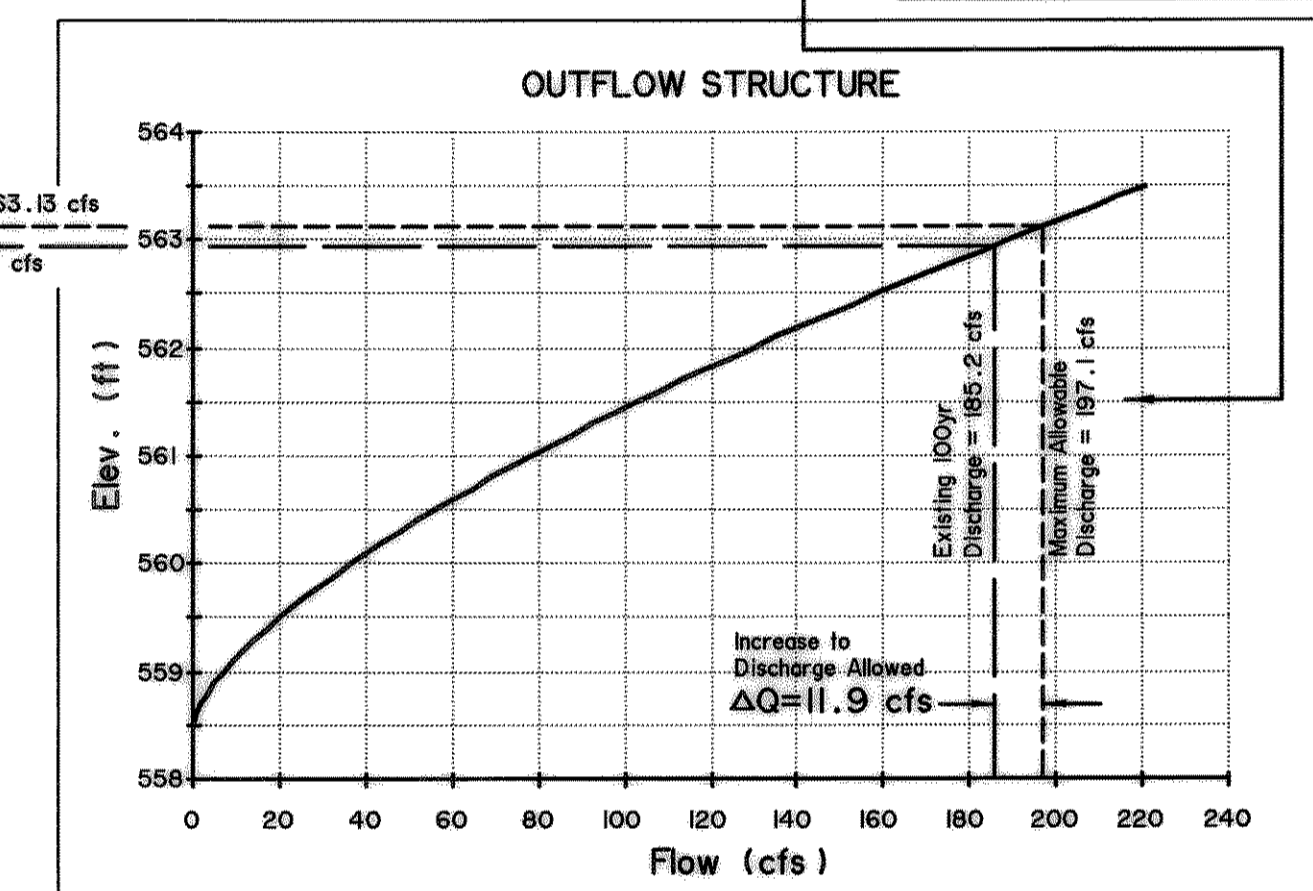
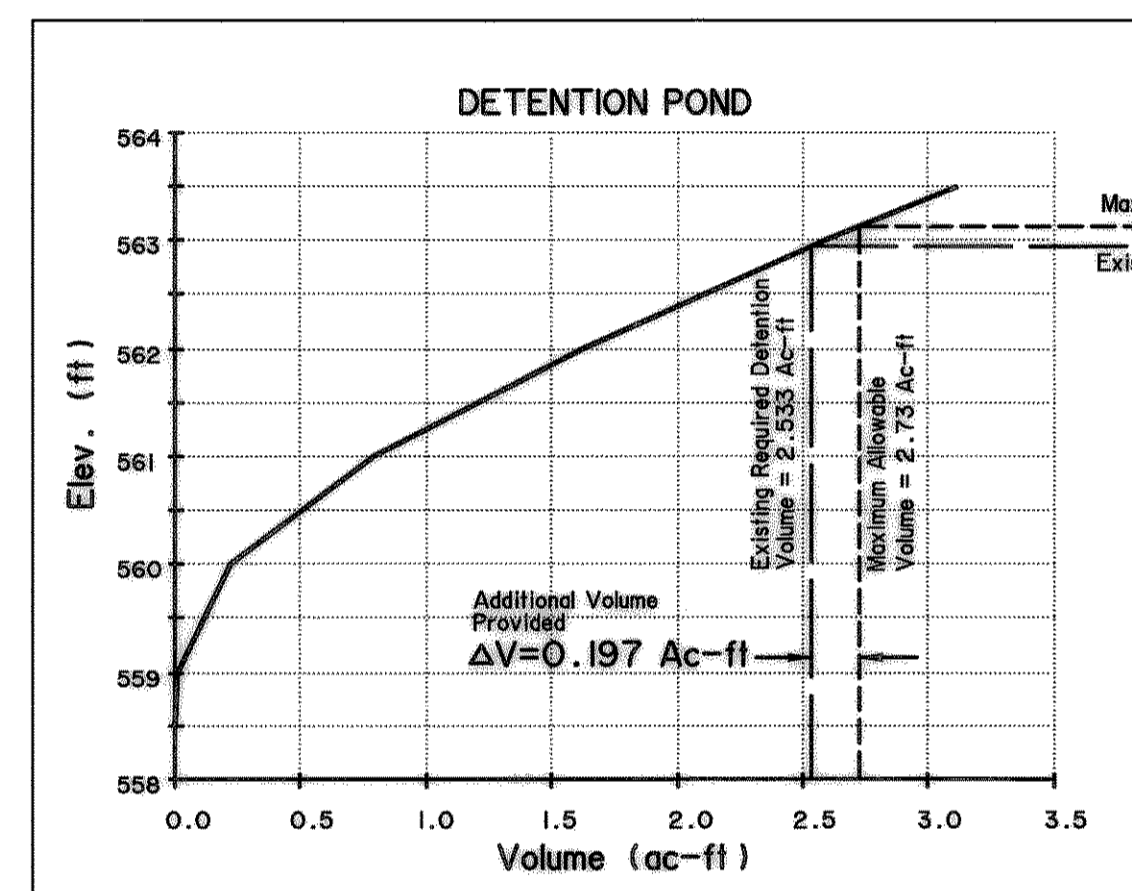
* INCLUDES 1.00833 UNIT CONVERSION FACTOR

EXISTING REQUIRED DETENTION VOLUME PER MODIFIED RATIONAL ROUTING METHOD, SHEET 24, ROCKWALL TECHNOLOGY PARK CONSTRUCTION PLANS PREPARED BY WIER & ASSOCIATES, INC. APR 1999.

2.533 Ac-FT

CAPACITY = CWH²
 C = 3.30
 W = WEIR WIDTH
 H = WEIR HEIGHT

| NUMBER OF WEIR NOTCHES | EACH WIDTH WEIR | WEIR NOTCH FLOWLINE |
|------------------------|-----------------|---------------------|
| 3 | 2'-0" | 558.50 |

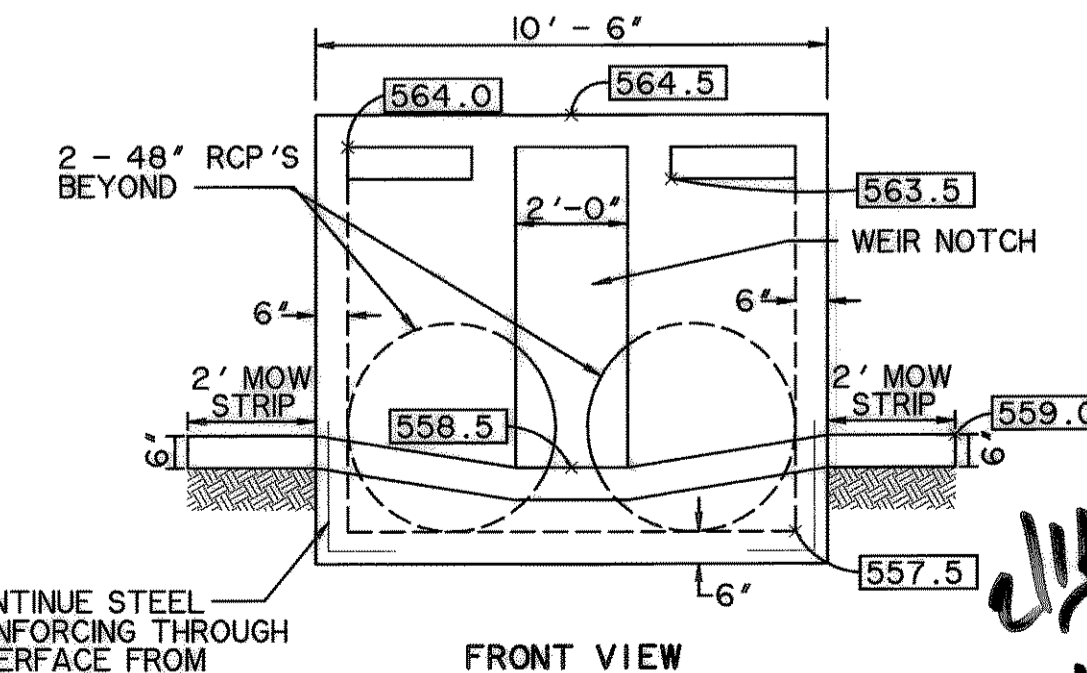
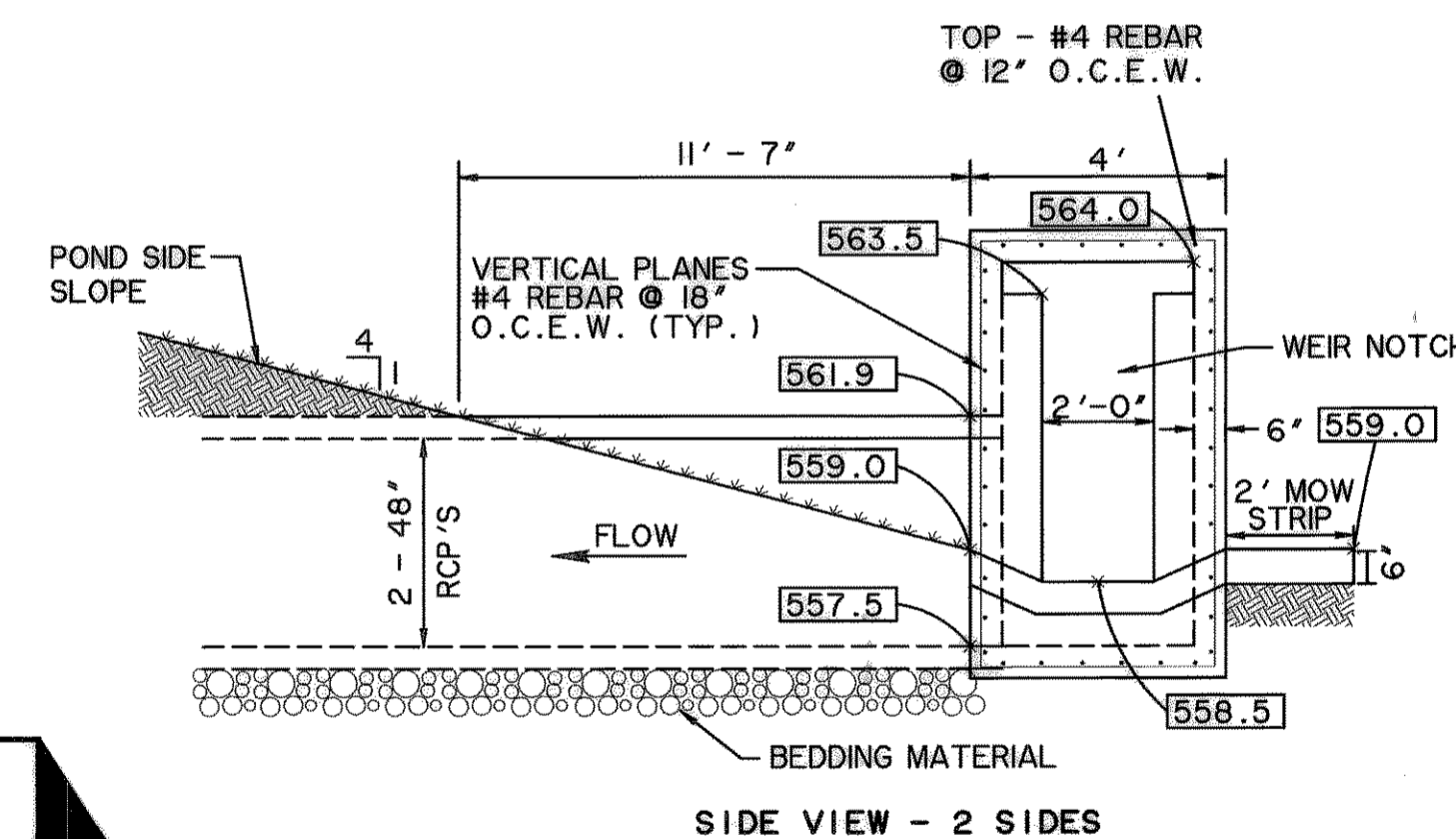


DETENTION POND VOLUME CALCULATIONS

| Elevation (ft) | Area (Ac) | A+A ₂ +√(A ₁ A ₂) (Ac) | Volume (ac-ft) | Volume Sum (ac-ft) |
|----------------|-----------|--|----------------|--------------------|
| 558.5 | 0.0000 | 0.0000 | 0.000 | 0.000 |
| 559.0 | 0.0739 | 0.0739 | 0.012 | 0.012 |
| 560.0 | 0.3940 | 0.6385 | 0.213 | 0.225 |
| 561.0 | 0.7504 | 1.6881 | 0.563 | 0.788 |
| 562.0 | 0.9245 | 2.5078 | 0.836 | 1.624 |
| 563.0 | 1.0182 | 2.9129 | 0.971 | 2.595 |
| 563.5 | 1.0715 | 3.1342 | 0.522 | 3.117 |

$$\text{Volume} = \frac{A+A_2 + \sqrt{A_1A_2}}{3} (\Delta \text{Elevation})$$

SHEET ADDED AS AMENDMENT TO ROCKWALL TECHNOLOGY PARK 15 FEB 2005



CONTINUE STEEL REINFORCING THROUGH INTERFACE FROM TOP OF BOX TO BOTTOM (ALL REINFORCING NOT SHOWN FOR CLARITY)

DETENTION POND CONTROL STRUCTURE DETAIL

N.T.S.

