2005

ENGINEERING

PLANNING

SURVEYING

Diehr Road Tract
Clearing Plan
Interim Sediment Basin Storage Calculations

Prepared For:
First Land Company of St. Charles County
P.O. Box 176
St. Peters, MO 63376

Prepared By:
Bax Engineering, Co.
1052 South Cloverleaf Drive
St. Peters, MO 63376
(636) 928-552
March 28, 2005
Bax Project No.: 04-12901

BAX ENGINEERING ▶

[Engineer's seal: STATE OF MISSOURI, REGISTERED PROFESSIONAL ENGINEER, RICHARD L. FRANCIS, NUMBER E-25651, signed 3-28-05]

Sediment Storage Calculations
Prepared By: Bax Engineering Company, Inc.
Diehr Road Tract – O'Fallon, MO
Bax Project No.: 04-12901
March 28, 2005

Temporary Sediment Basin A:

Basin Inflow Data

Basin design to accommodate the 25 year, 20 minute design storm and allowing for 1 foot minimum of freeboard above 25 year high-water elevation.

Disturbed area to the basin = 1.41 Acres

25-Year, 20 minute P.I. – 2.50; Discharge Q = 1.41 * 2.50 = 3.52 cfs

      Total drainage area to basin   1.41 Acres

      Total discharge to basin   3.52 cfs

Annual sediment storage volume required per City of O'Fallon requirements is 125 ft^3 of sediment storage/Acre of disturbed area to sediment basin

A.   **Sediment storage volume required**

    2 years of sediment storage = 1.41 Acres (125 ft^3/Acre/year)(2 years)

    2 years of sediment storage = **353 ft^3**

Basin Volume:

Elev.	Area (ft^2)	Incr. Vol. (ft^3)	Total Vol. (ft^3)
Btm. Of Basin 619	706	0	0
620	967	833 ·	833
622	1,569	2,512	3,345
624	2,274	3,821	7,166

    Sediment storage volume achieved at elevation : **619.42**

B.   **"Wet" storage volume required**

    Note: "Wet" storage volume to be provided above sediment storage volume elevation

    67 yd^3/Ac x 27 ft^3/ yd^3 x 1.41 Ac = **2,551 ft^3**

    "Wet" storage volume achieved at elevation: **621.65**

C.   **"Dry" storage volume required**

    Note: "Dry" storage volume to be provided above "wet" storage volume elevation

    67 yd^3/Ac x 27 ft^3/ yd^3 x 1.41 Ac = **2,551 ft^3**

    "Dry" storage volume achieved at elevation: **623.10**

Diehr Road Tract   *March 28, 2005*
Sediment Storage Calculations   ***JD***
Bax Project No.: 04-12901

E.   **Temporary Basin A outfall structure**
      Structure to consist of a temporary 24" C.M.P. riser section connected to a temporary 18" C.M.P. with a dewatering device composed of 8" perforated polyethylene drainage tubing connected to the C.M.P. riser at the "wet" storage volume elevation. Top of riser is set at a 623.10 elevation. See Figure 1 for details.

F.   **25-Year routing results**
      See attached calculations for details. Calculations ran assuming a starting water surface elevation at the "dry" sediment storage volume: 623.10 and a time of concentration duration of 5 minutes.
      25-Year H.W. – 623.43
      Top of Berm – 624.50
      Freeboard – 1.07'

Temporary Sediment Basin B:

Basin Inflow Data

Basin design to accommodate the 25 year, 20 minute design storm and allowing for 1 foot minimum of freeboard above 25 year high-water elevation.

Disturbed area to the basin = 1.30 Acres

25-Year, 20 minute P.I. – 2.50; Discharge Q = 1.30 * 2.50 = 3.25 cfs

    Total drainage area to basin   1.30 Acres
    Total discharge to basin   3.25 cfs

Annual sediment storage volume required per City of O'Fallon requirements is 125 ft^3 of sediment storage/Acre of disturbed area to sediment basin

A.   **Sediment storage volume required**
      2 years of sediment storage = 1.30 Acres (125 ft^3/Acre/year)(2 years)
      2 years of sediment storage = **325 ft^3**

Basin Volume:

Elev.	Area (ft^2)	Incr. Vol. (ft^3)	Total Vol. (ft^3)
Btm. Of Basin 621	631	0	0
622	975	797	797
624	1,514	2,469	3,266
626	2,169	3,663	6,930

Sediment storage volume achieved at elevation : **621.41**

B.   **"Wet" storage volume required**
      Note: "Wet" storage volume to be provided above sediment storage volume elevation
      67 yd^3/Ac x 27 ft^3/ yd^3 x 1.30 Ac = **2,352 ft^3**

      "Wet" storage volume achieved at elevation: **623.52**

C. **"Dry" storage volume required**
   Note: "Dry" storage volume to be provided above "wet" storage volume elevation
   67 yd^3/Ac x 27 ft^3/ yd^3 x 1.30 Ac = **2,352 ft^3**

   "Dry" storage volume achieved at elevation: **624.96**

E. **Temporary Basin A outfall structure**
   Structure to consist of a temporary 24" C.M.P. riser section connected to a temporary
   18" C.M.P. with a dewatering device composed of 8" perforated polyethylene drainage
   tubing connected to the C.M.P. riser at the "wet" storage volume elevation. Top of riser
   is set at a 624.96 elevation. See Figure 1 for details.

F. **25-Year routing results**
   See attached calculations for details. Calculations ran assuming a starting water surface
   elevation at the "dry" sediment storage volume: 624.96 and a time of concentration
   duration of 5 minutes.
   25-Year H.W. – 625.27
   Top of Berm – 626.30
   Freeboard – 1.03'

Temporary Sediment Basin C:

Basin Inflow Data

Basin design to accommodate the 25 year, 20 minute design storm and allowing for 1 foot minimum of
freeboard above 25 year high-water elevation.
Disturbed area to the basin = 3.05 Acres
25-Year, 20 minute P.I. – 2.50; Discharge Q = 3.05 * 2.50 = 7.63 cfs
   Total drainage area to basin   3.05 Acres
   Total discharge to basin   7.63 cfs
Annual sediment storage volume required per City of O'Fallon requirements is
125 ft^3 of sediment storage/Acre of disturbed area to sediment basin

A. **Sediment storage volume required**
   2 years of sediment storage = 3.05 Acres (125 ft^3/Acre/year)(2 years)
   2 years of sediment storage = **763 ft^3**

Basin Volume:

Elev.	Area (ft^2)	Incr. Vol. (ft^3)	Total Vol. (ft^3)
Btm. Of Basin 600	2,340	0	0
602	3,195	5,513	5,513
604	4,153	7,327	12,840
606	5,438	9,562	22,402

Sediment storage volume achieved at elevation : **600.28**

B. **"Wet" storage volume required**
    Note: "Wet" storage volume to be provided above sediment storage volume elevation
    67 yd^3/Ac x 27 ft^3/ yd^3 x 3.05 Ac = **5,517 ft^3**

    "Wet" storage volume achieved at elevation: **602.21**

C. **"Dry" storage volume required**
    Note: "Dry" storage volume to be provided above "wet" storage volume elevation
    67 yd^3/Ac x 27 ft^3/ yd^3 x 3.05 Ac = **5,517 ft^3**

    "Dry" storage volume achieved at elevation: **603.71**

E. **Temporary Basin A outfall structure**
    Structure to consist of a temporary 24" C.M.P. riser section connected to a temporary
    18" C.M.P. with a dewatering device composed of 8" perforated polyethylene drainage
    tubing connected to the C.M.P. riser at the "wet" storage volume elevation. Top of riser
    is set at a 604.00 elevation. See Figure 1 for details.

F. **25-Year routing results**
    See attached calculations for details. Calculations ran assuming a starting water surface
    elevation at the "dry" sediment storage volume: 603.71 and a time of concentration
    duration of 5 minutes.
    25-Year H.W. – 604.54
    Top of Berm – 606.00
    Freeboard – 1.46'

Temporary Sediment Basin D:
Basin Inflow Data
Basin design to accommodate the 25 year, 20 minute design storm and allowing for 1 foot minimum of
freeboard above 25 year high-water elevation.
Disturbed area to the basin = 2.27 Acres
25-Year, 20 minute P.I. – 2.50; Discharge Q = 2.27 * 2.50 = 5.68 cfs
      Total drainage area to basin   2.27 Acres
      Total discharge to basin   5.68 cfs
Annual sediment storage volume required per City of O'Fallon requirements is
125 ft^3 of sediment storage/Acre of disturbed area to sediment basin.

Diehr Road Tract   *March 28, 2005*
Sediment Storage Calculations   *JD*
Bax Project No.: 04-12901

A. **Sediment storage volume required**
2 years of sediment storage = 2.27 Acres (125 ft³/Acre/year)(2 years)
2 years of sediment storage = **568 ft³**

Basin Volume:

Elev.	Area (ft²)	Incr. Vol. (ft³)	Total Vol. (ft³)
Btm. Of Basin 612	1,961	0	0
614	2,845	4,779	4,779
616	3,851	6,671	11,449
618	4,975	8,802	20,251
620	6,203	11,155	31,407

Sediment storage volume achieved at elevation : **612.24**

B. **"Wet" storage volume required**
Note: "Wet" storage volume to be provided above sediment storage volume elevation
67 yd³/Ac x 27 ft³/ yd³ x 2.27 Ac = **4,107 ft³**

"Wet" storage volume achieved at elevation: **613.96**

C. **"Dry" storage volume required**
Note: "Dry" storage volume to be provided above "wet" storage volume elevation
67 yd³/Ac x 27 ft³/ yd³ x 2.27 Ac = **4,107 ft³**

"Dry" storage volume achieved at elevation: **615.20**

E. **Temporary Basin A outfall structure**
Structure to consist of a temporary 24" C.M.P. riser section connected to a temporary 18" C.M.P. with a dewatering device composed of 8" perforated polyethylene drainage tubing connected to the C.M.P. riser at the "wet" storage volume elevation. Top of riser is set at a 617.00 elevation. See Figure 1 for details.

F. **25-Year routing results**
See attached calculations for details. Calculations ran assuming a starting water surface elevation at the "dry" sediment storage volume: 615.20 and a time of concentration duration of 5 minutes.
25-Year H.W. – 616.95
Top of Berm – 620.00
Freeboard – 3.05'

Diehr Road Tract
Sediment Storage Calculations
Bax Project No.: 04-12901

March 28, 2005
JD
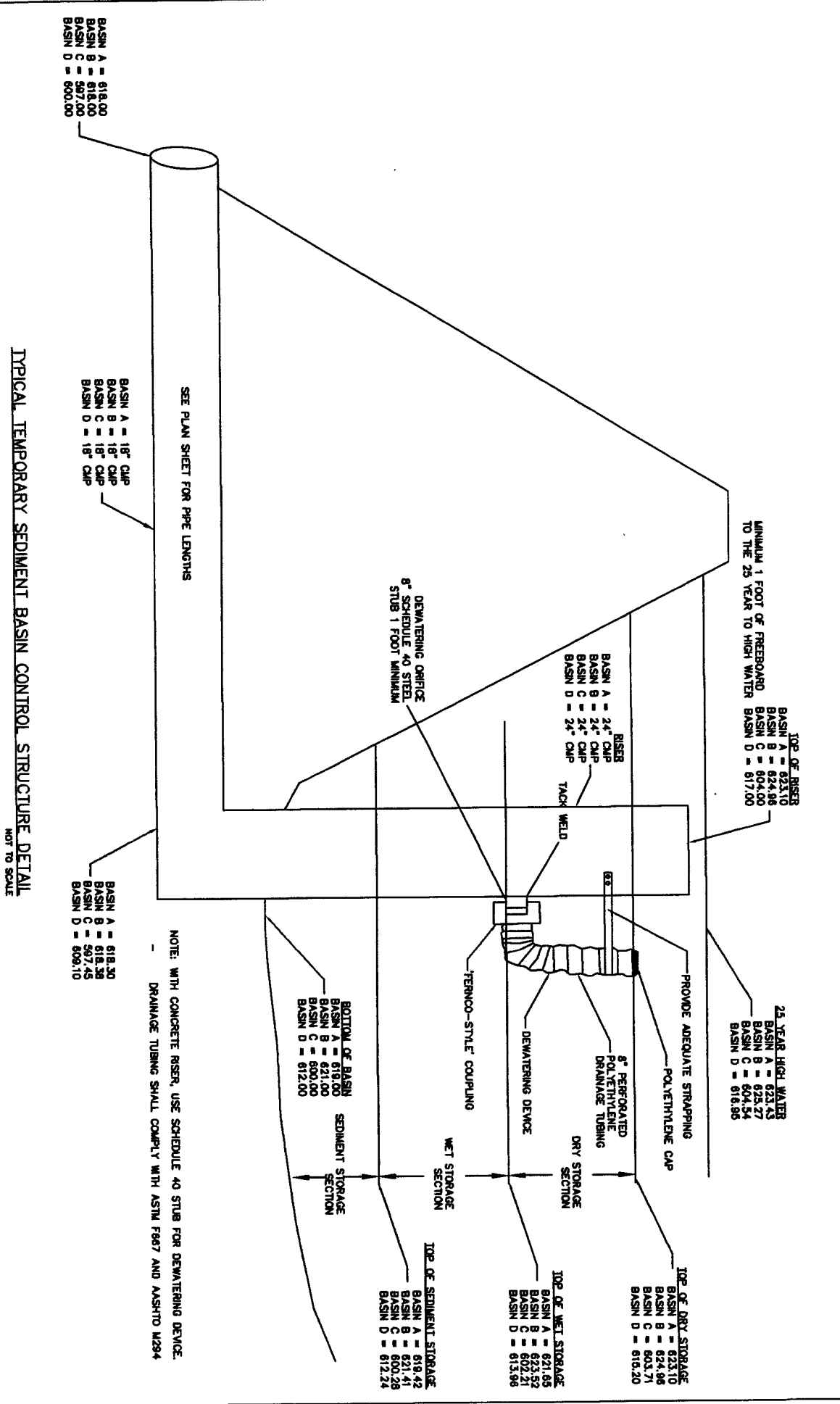
TYPICAL TEMPORARY SEDIMENT BASIN CONTROL STRUCTURE DETAIL

NOT TO SCALE

FIGURE 1

TOP OF RISER
BASIN A = 623.10
BASIN B = 624.98
BASIN C = 604.00
BASIN D = 617.00

MINIMUM 1 FOOT OF FREEBOARD
TO THE 25 YEAR TO HIGH WATER

RISER
BASIN A = 24" CMP
BASIN B = 24" CMP
BASIN C = 24" CMP
BASIN D = 24" CMP

TACK WELD

BASIN A = 18" CMP
BASIN B = 18" CMP
BASIN C = 18" CMP
BASIN D = 18" CMP

SEE PLAN SHEET FOR PIPE LENGTHS

BASIN A = 618.00
BASIN B = 618.00
BASIN C = 597.00
BASIN D = 600.00

DEWATERING ORIFICE
8" SCHEDULE 40 STEEL
STUB 1 FOOT MINIMUM

8Ø

25 YEAR HIGH WATER
BASIN A = 623.43
BASIN B = 625.27
BASIN C = 604.54
BASIN D = 616.95

PROVIDE ADEQUATE STRAPPING

POLYETHYLENE CAP

8" PERFORATED
POLYETHYLENE
DRAINAGE TUBING

DEWATERING DEVICE

'FERNCO-STYLE' COUPLING

DRY STORAGE
SECTION

WET STORAGE
SECTION

SEDIMENT STORAGE
SECTION

TOP OF DRY STORAGE
BASIN A = 623.10
BASIN B = 624.98
BASIN C = 603.71
BASIN D = 615.20

TOP OF WET STORAGE
BASIN A = 621.65
BASIN B = 623.52
BASIN C = 602.21
BASIN D = 613.96

TOP OF SEDIMENT STORAGE
BASIN A = 619.42
BASIN B = 621.41
BASIN C = 600.28
BASIN D = 612.24

BOTTOM OF BASIN
BASIN A = 618.00
BASIN B = 621.00
BASIN C = 600.00
BASIN D = 612.00

BASIN A = 618.30
BASIN B = 618.38
BASIN C = 618.49
BASIN D = 609.10

NOTE: WITH CONCRETE RISER, USE SCHEDULE 40 STUB FOR DEWATERING DEVICE.

- DRAINAGE TUBING SHALL COMPLY WITH ASTM F667 AND AASHTO M294

25 YEAR, 20 MINUTE
POND 9
Sediment Storage
Routing Calculations
For Temporary Sediment Basin A

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```
Type.... Read HYG                                          Page 1.01
Name.... BASIN A LABEL       Tag: 25                       Event: 25 yr
File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW
Storm... Tag: 25
```

```
                      HYG file =
                      HYG ID   = Basin A 25 in
                      HYG Tag  = 25 Yr
                      -----------------------------------
                      Peak Discharge =        3.52 cfs
                      Time to Peak   =        5.00 min
                      HYG Volume     =        4219 cu.ft
                      -----------------------------------

                              HYDROGRAPH ORDINATES (cfs)
          Time |             Output Time increment = 1.00 min
          min  |   Time on left represents time for first value in each row.
       ---------|----------------------------------------------------------------
            .00 |      .00         .70        1.40        2.10        2.80
           5.00 |     3.52        3.52        3.52        3.52        3.52
          10.00 |     3.52        3.52        3.52        3.52        3.52
          15.00 |     3.52        3.52        3.52        3.52        3.52
          20.00 |     3.52        2.80        2.10        1.40         .70
          25.00 |      .00         .00         .00         .00         .00
          30.00 |      .00         .00         .00         .00         .00
          35.00 |      .00         .00         .00         .00         .00
          40.00 |      .00         .00         .00         .00         .00
          45.00 |      .00         .00         .00         .00         .00
          50.00 |      .00         .00         .00         .00         .00
          55.00 |      .00         .00         .00         .00         .00
          60.00 |      .00         .00         .00         .00         .00
          65.00 |      .00         .00         .00         .00         .00
          70.00 |      .00         .00         .00         .00         .00
          75.00 |      .00         .00         .00         .00         .00
          80.00 |      .00         .00         .00         .00         .00
          85.00 |      .00         .00         .00         .00         .00
          90.00 |      .00         .00         .00         .00         .00
          95.00 |      .00         .00         .00         .00         .00
         100.00 |      .00         .00         .00         .00         .00
         105.00 |      .00         .00         .00         .00         .00
         110.00 |      .00         .00         .00         .00         .00
         115.00 |      .00         .00         .00         .00         .00
         120.00 |      .00         .00         .00         .00         .00
         125.00 |      .00         .00         .00         .00         .00
         130.00 |      .00         .00         .00         .00         .00
         135.00 |      .00         .00         .00         .00         .00
         140.00 |      .00         .00         .00         .00         .00
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         150.00 |      .00         .00         .00         .00         .00
```

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            min   |  Time on left represents time for first value in each row.
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            165.00 |       .00        .00        .00        .00        .00
            170.00 |       .00        .00        .00        .00        .00
            175.00 |       .00        .00        .00        .00        .00
            180.00 |       .00        .00        .00        .00        .00
            185.00 |       .00        .00        .00        .00        .00
            190.00 |       .00        .00        .00        .00        .00
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            225.00 |       .00        .00        .00        .00        .00
            230.00 |       .00        .00        .00        .00        .00
            235.00 |       .00        .00        .00        .00        .00
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            245.00 |       .00        .00        .00        .00        .00
            250.00 |       .00
```

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

POND VOLUME CALCULATIONS

Planimeter scale: 1.00 ft/in

Elevation (ft)	Planimeter (sq.in)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	Volume (cu.ft)	Volume Sum (cu.ft)
619.00	706.000	.0162	.0000	0	0
620.00	967.000	.0222	.0574	833	833
622.00	1569.000	.0360	.0865	2512	3345
624.00	2274.000	.0522	.1316	3821	7166

POND VOLUME EQUATIONS

* Incremental volume computed by the Conic Method for Reservoir Volumes.

   Volume = (1/3) * (EL2-EL1) * (Area1 + Area2 + sq.rt.(Area1*Area2))

   where: EL1, EL2   = Lower and upper elevations of the increment
          Area1,Area2   = Areas computed for EL1, EL2, respectively
          Volume   = Incremental volume between EL1 and EL2

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

REQUESTED POND WS ELEVATIONS:

Min. Elev.=   619.00 ft
Increment =   .10 ft
Max. Elev.=   624.00 ft

****
                OUTLET CONNECTIVITY
****

---> Forward Flow Only (UpStream to DnStream)
<--- Reverse Flow Only (DnStream to UpStream)
<---> Forward and Reverse Both Allowed

Structure	No.		Outfall	E1, ft	E2, ft
Stand Pipe	SP	--->	CV	623.100	624.000
Culvert-Circular	CV	--->	TW	618.300	624.000
TW SETUP, DS Channel					

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

OUTLET STRUCTURE INPUT DATA


```
Structure ID       = SP
Structure Type     = Stand Pipe
----------------------------------------
# of Openings      =           1
Invert Elev.       =      623.10 ft
Diameter           =      2.0000 ft
Orifice Area       =      3.1416 sq.ft
Orifice Coeff.     =        .600
Weir Length        =        6.28 ft
Weir Coeff.        =       3.000
K, Submerged       =        .000
K, Reverse         =       1.000
Kb,Barrel          =     .000000  (per ft of full flow)
Barrel Length      =         .00 ft
Mannings n         =       .0000
```

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

OUTLET STRUCTURE INPUT DATA

.

```
                Structure ID      = CV
                Structure Type    = Culvert-Circular
                -----------------------------------
                No. Barrels       =          1
                Barrel Diameter   =     1.5000 ft
                Upstream Invert   '=     618.30 ft
                Dnstream Invert   =     618.00 ft
                Horiz. Length     =      30.00 ft
                Barrel Length     =      30.00 ft
                Barrel Slope      =     .01000 ft/ft


                OUTLET CONTROL DATA...
                Mannings n        =      .0130
                Ke                =      .5000   (forward entrance loss)
                Kb                =    .018213   (per ft of full flow)
                Kr                =      .5000   (reverse entrance loss)
                HW Convergence    =       .001  +/- ft


                INLET CONTROL DATA...
                Equation form     =          1
                Inlet Control K   =      .0078
                Inlet Control M   =     2.0000
                Inlet Control c   =     .03790
                Inlet Control Y   =      .6900
                T1 ratio (HW/D)   =      1.131
                T2 ratio (HW/D)   =      1.291
                Slope Factor      =      -.500
```

Use unsubmerged inlet control Form 1 equ. below T1 elev.
Use   submerged inlet control Form 1 equ. above T2 elev.

In transition zone between unsubmerged and submerged inlet control,
interpolate between flows at T1 & T2...
At T1 Elev =   620.00 ft   ---> Flow =   7.58 cfs
At T2 Elev =   620.24 ft   ---> Flow =   8.66 cfs

```
                .
                Structure ID      = TW
                Structure Type    = TW SETUP, DS Channel
                -----------------------------------
                FREE OUTFALL CONDITIONS SPECIFIED

                CONVERGENCE TOLERANCES...
                Maximum Iterations=     30
                Min. TW tolerance =     .01 ft
                Max. TW tolerance =     .01 ft
                Min. HW tolerance =     .01 ft
                Max. HW tolerance =     .01 ft
                Min. Q tolerance =     .10 cfs
                Max. Q tolerance =     .10 cfs
```

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

***** COMPOSITE OUTFLOW SUMMARY ****

WS Elev,	Total Q			Notes
			Converge	
Elev.	Q	TW Elev	Error	
ft	cfs	ft	+/-ft	Contributing Structures
619.00	.00	Free Outfall		(no Q: SP,CV)
619.10	.00	Free Outfall		(no Q: SP,CV)
619.20	.00	Free Outfall		(no Q: SP,CV)
619.30	.00	Free Outfall		(no Q: SP,CV)
619.40	.00	Free Outfall		(no Q: SP,CV)
619.50	.00	Free Outfall		(no Q: SP,CV)
619.60	.00	Free Outfall		(no Q: SP,CV)
619.70	.00	Free Outfall		(no Q: SP,CV)
619.80	.00	Free Outfall		(no Q: SP,CV)
619.90	.00	Free Outfall		(no Q: SP,CV)
620.00	.00	Free Outfall		(no Q: SP,CV)
620.10	.00	Free Outfall		(no Q: SP,CV)
620.20	.00	Free Outfall		(no Q: SP,CV)
620.30	.00	Free Outfall		(no Q: SP,CV)
620.40	.00	Free Outfall		(no Q: SP,CV)
620.50	.00	Free Outfall		(no Q: SP,CV)
620.60	.00	Free Outfall		(no Q: SP,CV)
620.70	.00	Free Outfall		(no Q: SP,CV)
620.80	.00	Free Outfall		(no Q: SP,CV)
620.90	.00	Free Outfall		(no Q: SP,CV)
621.00	.00	Free Outfall		(no Q: SP,CV)
621.10	.00	Free Outfall		(no Q: SP,CV)
621.20	.00	Free Outfall		(no Q: SP,CV)
621.30	.00	Free Outfall		(no Q: SP,CV)
621.40	.00	Free Outfall		(no Q: SP,CV)
621.50	.00	Free Outfall		(no Q: SP,CV)
621.60	.00	Free Outfall		(no Q: SP,CV)
621.70	.00	Free Outfall		(no Q: SP,CV)
621.80	.00	Free Outfall		(no Q: SP,CV)
621.90	.00	Free Outfall		(no Q: SP,CV)
622.00	.00	Free Outfall		(no Q: SP,CV)
622.10	.00	Free Outfall		(no Q: SP,CV)
622.20	.00	Free Outfall		(no Q: SP,CV)
622.30	.00	Free Outfall		(no Q: SP,CV)
622.40	.00	Free Outfall		(no Q: SP,CV)
622.50	.00	Free Outfall		(no Q: SP,CV)
622.60	.00	Free Outfall		(no Q: SP,CV)
622.70	.00	Free Outfall		(no Q: SP,CV)

Type.... Composite Rating Curve
Name.... Basin A outflow

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

***** COMPOSITE OUTFLOW SUMMARY ****

WS Elev, Total Q		Converge		Notes
Elev. ft	Q cfs	TW Elev ft	Error +/-ft	Contributing Structures
622.80	.00	Free Outfall		(no Q: SP,CV)
622.90	.00	Free Outfall		(no Q: SP,CV)
623.00	.00	Free Outfall		(no Q: SP,CV)
623.10	.00	Free Outfall		(no Q: SP,CV)
623.20	.60	Free Outfall		SP,CV
623.30	1.69	Free Outfall		SP,CV
623.40	3.10	Free Outfall		SP,CV
623.50	4.77	Free Outfall		SP,CV
623.60	6.66	Free Outfall		SP,CV
623.70	8.76	Free Outfall		SP,CV
623.80	11.04	Free Outfall		SP,CV
623.90	13.49	Free Outfall		SP,CV
624.00	14.34	Free Outfall		SP,CV

SUMMARY FOR HYDROGRAPH ADDITION
at Node: SED BASIN A IN

HYG Directory: H:\PONDPACK\A12500PLUS\12901\

```
====================================================================
Upstream Link ID  Upstream Node ID   HYG file     HYG ID          HYG tag
--------------------------------------------------------------------
BASIN A INFLOW    BASIN A LABEL                   Basin A 25 in   25 Yr
====================================================================
```

```
INFLOWS TO:  SED BASIN A  IN
-------------------------------------------- Volume    Peak Time   Peak Flow
HYG file    HYG ID           HYG tag     cu.ft       min         cfs
----------------------------------------------------------------------
            Basin A 25 in    25 Yr       4219        5.00        3.52
```

```
TOTAL FLOW INTO:  SED BASIN A  IN
-------------------------------------------- Volume    Peak Time   Peak Flow
HYG file    HYG ID           HYG tag     cu.ft       min         cfs
----------------------------------------------------------------------
            SED BASIN A  IN  25          4219        5.00        3.52
```

```
                   TOTAL NODE INFLOW...
                   HYG file =
                   HYG ID   = SED BASIN A  IN
                   HYG Tag  = 25
                   ------------------------------------
                   Peak Discharge =        3.52 cfs
                   Time to Peak   =        5.00 min
                   HYG Volume     =        4219 cu.ft
                   ------------------------------------

                            HYDROGRAPH ORDINATES (cfs)
       Time  |           Output Time increment = 1.00 min
       min   |    Time on left represents time for first value in each row.
     ---------|----------------------------------------------------------------
         .00 |       .00        .70       1.40       2.10       2.80
        5.00 |      3.52       3.52       3.52       3.52       3.52
       10.00 |      3.52       3.52       3.52       3.52       3.52
       15.00 |      3.52       3.52       3.52       3.52       3.52
       20.00 |      3.52       2.80       2.10       1.40        .70
       25.00 |       .00
```

LEVEL POOL ROUTING SUMMARY

```
HYG Dir            = H:\PONDPACK\A12500PLUS\12901\
Inflow  HYG file = NONE STORED - SED BASIN A  IN  25
Outflow HYG file = NONE STORED - SED BASIN A  OUT 25


Pond Node    Data = SED BASIN A
Pond Volume Data = SED BASIN A
Pond Outlet Data = Basin A outflow


No Infiltration
```

INITIAL CONDITIONS

```
Starting WS Elev   =    623.10 ft
Starting Volume    =      5272 cu.ft
Starting Outflow   =       .00 cfs
Starting Infiltr.  =       .00 cfs
Starting Total Qout=       .00 cfs
Time Increment     =      1.00 min
```


INFLOW/OUTFLOW HYDROGRAPH SUMMARY
==
```
Peak Inflow     =      3.52 cfs    at     5.00 min
Peak Outflow    =      3.52 cfs    at    19.00 min
```

```
Peak Elevation   =    623.43 ft
Peak Storage =          5922 cu.ft
```
==

MASS BALANCE (cu.ft)

```
+ Initial Vol  =        5272
+ HYG Vol IN   =        4219
- Infiltration =           0
- HYG Vol OUT  =        4219
- Retained Vol =        5272
                  ----------
  Unrouted Vol =           0 cu.ft   (.000% of Inflow Volume)
```

Index of Starting Page Numbers for ID Names

25 YEAR, 20 MINUTE
POND 9
Sediment Storage
Routing Calculations
For Temporary Sediment Basin B

Table of Contents

```
Type.... Read HYG                                          Page 1.01
Name.... BASIN B INFLOW                                   Event: 25 yr
File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW
Storm... Tag: 25
```

```
           HYG file  =
           HYG ID    = Basin B 25 in
           HYG Tag   = 25 Yr
           -----------------------------------
           Peak Discharge =        3.25 cfs
           Time to Peak   =        5.00 min
           HYG Volume     =        3900 cu.ft
           -----------------------------------
```

	HYDROGRAPH ORDINATES (cfs)				
Time	Output Time increment = 1.00 min				
min	Time on left represents time for first value in each row.				
.00	.00	.65	1.30	1.95	2.60
5.00	3.25	3.25	3.25	3.25	3.25
10.00	3.25	3.25	3.25	3.25	3.25
15.00	3.25	3.25	3.25	3.25	3.25
20.00	3.25	2.60	1.95	1.30	.65
25.00	.00	.00	.00	.00	.00
30.00	.00	.00	.00	.00	.00
35.00	.00	.00	.00	.00	.00
40.00	.00	.00	.00	.00	.00
45.00	.00	.00	.00	.00	.00
50.00	.00	.00	.00	.00	.00
55.00	.00	.00	.00	.00	.00
60.00	.00	.00	.00	.00	.00
65.00	.00	.00	.00	.00	.00
70.00	.00	.00	.00	.00	.00
75.00	.00	.00	.00	.00	.00
80.00	.00	.00	.00	.00	.00
85.00	.00	.00	.00	.00	.00
90.00	.00	.00	.00	.00	.00
95.00	.00	.00	.00	.00	.00
100.00	.00	.00	.00	.00	.00
105.00	.00	.00	.00	.00	.00
110.00	.00	.00	.00	.00	.00
115.00	.00	.00	.00	.00	.00
120.00	.00	.00	.00	.00	.00
125.00	.00	.00	.00	.00	.00
130.00	.00	.00	.00	.00	.00
135.00	.00	.00	.00	.00	.00
140.00	.00	.00	.00	.00	.00
145.00	.00	.00	.00	.00	.00
150.00	.00	.00	.00	.00	.00

Type.... Read HYG
Name.... BASIN B INFLOW
File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW
Storm... Tag: 25
Page 1.02
Event: 25 yr

HYDROGRAPH ORDINATES (cfs)
Output Time increment = 1.00 min
Time on left represents time for first value in each row.

Time min					
155.00	.00	.00	.00	.00	.00
160.00	.00	.00	.00	.00	.00
165.00	.00	.00	.00	.00	.00
170.00	.00	.00	.00	.00	.00
175.00	.00	.00	.00	.00	.00
180.00	.00	.00	.00	.00	.00
185.00	.00	.00	.00	.00	.00
190.00	.00	.00	.00	.00	.00
195.00	.00	.00	.00	.00	.00
200.00	.00	.00	.00	.00	.00
205.00	.00	.00	.00	.00	.00
210.00	.00	.00	.00	.00	.00
215.00	.00	.00	.00	.00	.00
220.00	.00	.00	.00	.00	.00
225.00	.00	.00	.00	.00	.00
230.00	.00	.00	.00	.00	.00
235.00	.00	.00	.00	.00	.00
240.00	.00	.00	.00	.00	.00
245.00	.00	.00	.00	.00	.00
250.00	.00				

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

POND VOLUME CALCULATIONS

Planimeter scale: 1.00 ft/in

Elevation (ft)	Planimeter (sq.in)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	Volume (cu.ft)	Volume Sum (cu.ft)
621.00	631.000	.0145	.0000	0	0
622.00	975.000	.0224	.0549	797	797
624.00	1514.000	.0348	.0850	2469	3266
626.00	2169.000	.0498	.1262	3663	6930

POND VOLUME EQUATIONS

* Incremental volume computed by the Conic Method for Reservoir Volumes.

  Volume = (1/3) * (EL2-EL1) * (Area1 + Area2 + sq.rt.(Area1*Area2))

  where: EL1, EL2   = Lower and upper elevations of the increment
         Area1,Area2 = Areas computed for EL1, EL2, respectively
         Volume   = Incremental volume between EL1 and EL2

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

REQUESTED POND WS ELEVATIONS:

        Min. Elev.=   621.00 ft
        Increment =   .10 ft
        Max. Elev.=   626.00 ft

        ****
                        OUTLET CONNECTIVITY
        ****

        ---> Forward Flow Only (UpStream to DnStream)
        <--- Reverse Flow Only (DnStream to UpStream)
        <---> Forward and Reverse Both Allowed

Structure	No.		Outfall	E1, ft	E2, ft
Stand Pipe	SP	--->	CV	624.960	626.000
Culvert-Circular	CV	--->	TW	618.380	626.000
TW SETUP, DS Channel					

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

                OUTLET STRUCTURE INPUT DATA

          Structure ID   = SP
          Structure Type   = Stand Pipe

          # of Openings   =   1
          Invert Elev.   =   624.96 ft
          Diameter   =   2.0000 ft
          Orifice Area   =   3.1416 sq.ft
          Orifice Coeff.   =   .600
          Weir Length   =   6.28 ft
          Weir Coeff.   =   3.000
          K, Submerged   =   .000
          K, Reverse   =   1.000
          Kb,Barrel   =   .000000 (per ft of full flow)
          Barrel Length   =   .00 ft
          Mannings n   =   .0000

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

                    OUTLET STRUCTURE INPUT DATA

                Structure ID   = CV
                Structure Type   = Culvert-Circular

                No. Barrels   =   1
                Barrel Diameter   =   1.5000 ft
                Upstream Invert   =   618.38 ft
                Dnstream Invert   =   618.00 ft
                Horiz. Length   =   38.00 ft
                Barrel Length   =   38.00 ft
                Barrel Slope   =   .01000 ft/ft

                OUTLET CONTROL DATA...
                Mannings n   =   .0130
                Ke   =   .5000 (forward entrance loss)
                Kb   =   .018213 (per ft of full flow)
                Kr   =   .5000 (reverse entrance loss)
                HW Convergence   =   .001 +/- ft

                INLET CONTROL DATA...
                Equation form   =   1
                Inlet Control K   =   .0078
                Inlet Control M   =   2.0000
                Inlet Control c   =   .03790
                Inlet Control Y   =   .6900
                T1 ratio (HW/D)   =   1.131
                T2 ratio (HW/D)   =   1.291
                Slope Factor   =   -.500

Use unsubmerged inlet control Form 1 equ. below T1 elev.
Use   submerged inlet control Form 1 equ. above T2 elev.

In transition zone between unsubmerged and submerged inlet control,
interpolate between flows at T1 & T2...
At T1 Elev =   620.08 ft   ---> Flow =   7.58 cfs
At T2 Elev =   620.32 ft   ---> Flow =   8.66 cfs

                Structure ID   = TW
                Structure Type   = TW SETUP, DS Channel

                FREE OUTFALL CONDITIONS SPECIFIED

                CONVERGENCE TOLERANCES...
                Maximum Iterations=   30
                Min. TW tolerance =   .01 ft
                Max. TW tolerance =   .01 ft
                Min. HW tolerance =   .01 ft
                Max. HW tolerance =   .01 ft
                Min. Q tolerance =   .10 cfs
                Max. Q tolerance =   .10 cfs

File.... H:\PONDPACK\Al2500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

***** COMPOSITE OUTFLOW SUMMARY ****

WS Elev, Total Q				Notes
		-------- Converge -------------------------		
Elev.	Q	TW Elev	Error	
ft	cfs	ft	+/-ft	Contributing Structures
621.00	.00	Free Outfall		(no Q: SP,CV)
621.10	.00	Free Outfall		(no Q: SP,CV)
621.20	.00	Free Outfall		(no Q: SP,CV)
621.30	.00	Free Outfall		(no Q: SP,CV)
621.40	.00	Free Outfall		(no Q: SP,CV)
621.50	.00	Free Outfall		(no Q: SP,CV)
621.60	.00	Free Outfall		(no Q: SP,CV)
621.70	.00	Free Outfall		(no Q: SP,CV)
621.80	.00	Free Outfall		(no Q: SP,CV)
621.90	.00	Free Outfall		(no Q: SP,CV)
622.00	.00	Free Outfall		(no Q: SP,CV)
622.10	.00	Free Outfall		(no Q: SP,CV)
622.20	.00	Free Outfall		(no Q: SP,CV)
622.30	.00	Free Outfall		(no Q: SP,CV)
622.40	.00	Free Outfall		(no Q: SP,CV)
622.50	.00	Free Outfall		(no Q: SP,CV)
622.60	.00	Free Outfall		(no Q: SP,CV)
622.70	.00	Free Outfall		(no Q: SP,CV)
622.80	.00	Free Outfall		(no Q: SP,CV)
622.90	.00	Free Outfall		(no Q: SP,CV)
623.00	.00	Free Outfall		(no Q: SP,CV)
623.10	.00	Free Outfall		(no Q: SP,CV)
623.20	.00	Free Outfall		(no Q: SP,CV)
623.30	.00	Free Outfall		(no Q: SP,CV)
623.40	.00	Free Outfall		(no Q: SP,CV)
623.50	.00	Free Outfall		(no Q: SP,CV)
623.60	.00	Free Outfall		(no Q: SP,CV)
623.70	.00	Free Outfall		(no Q: SP,CV)
623.80	.00	Free Outfall		(no Q: SP,CV)
623.90	.00	Free Outfall		(no Q: SP,CV)
624.00	.00	Free Outfall		(no Q: SP,CV)
624.10	.00	Free Outfall		(no Q: SP,CV)
624.20	.00	Free Outfall		(no Q: SP,CV)
624.30	.00	Free Outfall		(no Q: SP,CV)
624.40	.00	Free Outfall		(no Q: SP,CV)
624.50	.00	Free Outfall		(no Q: SP,CV)
624.60	.00	Free Outfall		(no Q: SP,CV)
624.70	.00	Free Outfall		(no Q: SP,CV)

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

***** COMPOSITE OUTFLOW SUMMARY ****

WS Elev,	Total Q			Notes
			Converge	
Elev.	Q	TW Elev	Error	
ft	cfs	ft	+/-ft	Contributing Structures
624.80	.00	Free Outfall		(no Q: SP,CV)
624.90	.00	Free Outfall		(no Q: SP,CV)
624.96	.00	Free Outfall		(no Q: SP,CV)
625.00	.15	Free Outfall		SP,CV
625.10	.99	Free Outfall		SP,CV
625.20	2.22	Free Outfall		SP,CV
625.30	3.74	Free Outfall		SP,CV
625.40	5.50	Free Outfall		SP,CV
625.50	7.48	Free Outfall		SP,CV
625.60	9.65	Free Outfall		SP,CV
625.70	12.00	Free Outfall		SP,CV
625.80	13.86	Free Outfall		SP,CV
625.90	14.66	Free Outfall		SP,CV
626.00	15.42	Free Outfall		SP,CV

                         SUMMARY FOR HYDROGRAPH ADDITION
                         at Node: SED BASIN B   IN

  HYG Directory: H:\PONDPACK\A12500PLUS\12901\

  ==
  Upstream Link ID Upstream Node ID   HYG file   HYG ID   HYG tag
  ----
  BASIN B INFLOW   BASIN B INFLOW   Basin B 25 in   25 Yr
  ==

  INFLOWS TO: SED BASIN B   IN
  -- Volume   Peak Time   Peak Flow
  HYG file   HYG ID   HYG tag   cu.ft   min   cfs

               Basin B 25 in   25 Yr   3900   5.00   3.25

  TOTAL FLOW INTO: SED BASIN B   IN
  -- Volume   Peak Time   Peak Flow
  HYG file   HYG ID   HYG tag   cu.ft   min   cfs

               SED BASIN B   IN   25   3900   5.00   3.25

```
                    TOTAL NODE INFLOW...
                    HYG file =
                    HYG ID   = SED BASIN B   IN
                    HYG Tag  = 25
                    -----------------------------------
                    Peak Discharge =        3.25 cfs
                    Time to Peak   =        5.00 min
                    HYG Volume     =        3900 cu.ft
                    -----------------------------------
```

```
                       HYDROGRAPH ORDINATES (cfs)
      Time  |           Output Time increment = 1.00 min
      min   |    Time on left represents time for first value in each row.
    --------|------------------------------------------------------------
        .00 |        .00        .65       1.30       1.95       2.60
       5.00 |       3.25       3.25       3.25       3.25       3.25
      10.00 |       3.25       3.25       3.25       3.25       3.25
      15.00 |       3.25       3.25       3.25       3.25       3.25
      20.00 |       3.25       2.60       1.95       1.30        .65
      25.00 |        .00
```

Type.... Pond Routing Summary   Page 4.03
Name.... SED BASIN B OUT   Tag: 25   Event: 25 yr
File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW
Storm... 25   Tag: 25

                    LEVEL POOL ROUTING SUMMARY

HYG Dir   = H:\PONDPACK\A12500PLUS\12901\
Inflow HYG file = NONE STORED - SED BASIN B IN 25
Outflow HYG file = NONE STORED - SED BASIN B OUT 25

Pond Node   Data = SED BASIN B
Pond Volume Data = SED BASIN B
Pond Outlet Data = Basin B outflow

No Infiltration

INITIAL CONDITIONS

Starting WS Elev   =   624.96 ft
Starting Volume   =   4861 cu.ft
Starting Outflow   =   .00 cfs
Starting Infiltr. =   .00 cfs
Starting Total Qout=   .00 cfs
Time Increment   =   1.00 min

INFLOW/OUTFLOW HYDROGRAPH SUMMARY
==
Peak Inflow   =   3.25 cfs   at   5.00 min
Peak Outflow   =   3.25 cfs   at   19.00 min

Peak Elevation =   625.27 ft
Peak Storage =   5435 cu.ft
==

MASS BALANCE (cu.ft)

+ Initial Vol =   4861
+ HYG Vol IN   =   3900
- Infiltration =   0
- HYG Vol OUT =   3899
- Retained Vol =   4863

Unrouted Vol =   0 cu.ft (.001% of Inflow Volume)

Index of Starting Page Numbers for ID Names

25 YEAR, 20 MINUTE
POND 9
Sediment Storage
Routing Calculations
For Temporary Sediment Basin C

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.

.

```
Type.... Read HYG                                        Page 1.01
Name.... BASIN C INFLOW                                  Event: 25 yr
File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW
Storm... Tag: 25
```

```
                    HYG file =
                    HYG ID   = Basin C 25 in
                    HYG Tag  = 25 Yr
                    -----------------------------------
                    Peak Discharge =          7.63 cfs
                    Time to Peak   =          5.00 min
                    HYG Volume     =          9156 cu.ft
                    -----------------------------------
```

```
                          HYDROGRAPH ORDINATES (cfs)
       Time  |               Output Time increment = 1.00 min
        min  |    Time on left represents time for first value in each row.
     --------|----------------------------------------------------------------
        .00  |      .00        1.53       3.05       4.58       6.10
       5.00  |     7.63        7.63       7.63       7.63       7.63
      10.00  |     7.63        7.63       7.63       7.63       7.63
      15.00  |     7.63        7.63       7.63       7.63       7.63
      20.00  |     7.63        6.10       4.58       3.05       1.53
      25.00  |      .00         .00        .00        .00        .00
      30.00  |      .00         .00        .00        .00        .00
      35.00  |      .00         .00        .00        .00        .00
      40.00  |      .00         .00        .00        .00        .00
      45.00  |      .00         .00        .00        .00        .00
      50.00  |      .00         .00        .00        .00        .00
      55.00  |      .00         .00        .00        .00        .00
      60.00  |      .00         .00        .00        .00        .00
      65.00  |      .00         .00        .00        .00        .00
      70.00  |      .00         .00        .00        .00        .00
      75.00  |      .00         .00        .00        .00        .00
      80.00  |      .00         .00        .00        .00        .00
      85.00  |      .00         .00        .00        .00        .00
      90.00  |      .00         .00        .00        .00        .00
      95.00  |      .00         .00        .00        .00        .00
     100.00  |      .00         .00        .00        .00        .00
     105.00  |      .00         .00        .00        .00        .00
     110.00  |      .00         .00        .00        .00        .00
     115.00  |      .00         .00        .00        .00        .00
     120.00  |      .00         .00        .00        .00        .00
     125.00  |      .00         .00        .00        .00        .00
     130.00  |      .00         .00        .00        .00        .00
     135.00  |      .00         .00        .00        .00        .00
     140.00  |      .00         .00.       .00        .00        .00
     145.00  |      .00         .00        .00        .00        .00
     150.00  |      .00         .00        .00        .00        .00
```

```
Type.... Read HYG                                        Page 1.02
Name.... BASIN C INFLOW                                  Event: 25 yr
File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW
Storm... Tag: 25
```

```
                               HYDROGRAPH ORDINATES (cfs)
         Time  |              Output Time increment = 1.00 min
         min   |    Time on left represents time for first value in each row.
       --------|-------------------------------------------------------------
         155.00 |        .00          .00          .00          .00          .00
         160.00 |        .00          .00          .00          .00          .00
         165.00 |        .00          .00          .00          .00          .00
         170.00 |        .00          .00          .00          .00          .00
         175.00 |        .00          .00          .00          .00          .00
         180.00 |        .00          .00          .00          .00          .00
         185.00 |        .00          .00          .00          .00          .00
         190.00 |        .00          .00          .00          .00          .00
         195.00 |        .00          .00          .00          .00          .00
         200.00 |        .00          .00          .00          .00          .00
         205.00 |        .00          .00          .00          .00          .00
         210.00 |        .00          .00          .00          .00          .00
         215.00 |        .00          .00          .00          .00          .00
         220.00 |        .00          .00          .00          .00          .00
         225.00 |        .00          .00          .00          .00          .00
         230.00 |        .00          .00          .00          .00          .00
         235.00 |        .00          .00          .00          .00          .00
         240.00 |        .00          .00          .00          .00          .00
         245.00 |        .00          .00          .00          .00          .00
         250.00 |        .00
```

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

POND VOLUME CALCULATIONS

Planimeter scale: 1.00 ft/in

Elevation (ft)	Planimeter (sq.in)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	Volume (cu.ft)	Volume Sum (cu.ft)
600.00	2340.000	.0537	.0000	0	0
602.00	3195.000	.0733	.1898	5513	5513
604.00	4153.000	.0953	.2523	7327	12840
606.00	5438.000	.1248	.3293	9562	22402

POND VOLUME EQUATIONS

* Incremental volume computed by the Conic Method for Reservoir Volumes.

Volume = (1/3) * (EL2-EL1) * (Area1 + Area2 + sq.rt.(Area1*Area2))

where: EL1, EL2   = Lower and upper elevations of the increment
       Area1,Area2 = Areas computed for EL1, EL2, respectively
       Volume   = Incremental volume between EL1 and EL2

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

                    REQUESTED POND WS ELEVATIONS:

                    Min. Elev.=   600.00 ft
                    Increment =   .10 ft
                    Max. Elev.=   606.00 ft

            ****
                          OUTLET CONNECTIVITY
            ****

            ---> Forward Flow Only (UpStream to DnStream)
            <--- Reverse Flow Only (DnStream to UpStream)
            <---> Forward and Reverse Both Allowed

        Structure   No.   Outfall   E1, ft   E2, ft
    ------------------   ----   -------   ---------   ---------
    Stand Pipe   SP   --->   CV   604.000   606.000
    Culvert-Circular   CV   --->   TW   597.450   606.000
    TW SETUP, DS Channel

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

OUTLET STRUCTURE INPUT DATA

```
Structure ID      = SP
Structure Type    = Stand Pipe
------------------------------------
# of Openings     =         1
Invert Elev.      =    604.00 ft
Diameter          =    2.0000 ft
Orifice Area      =    3.1416 sq.ft
Orifice Coeff.    =      .600
Weir Length       =      6.28 ft
Weir Coeff.       =     3.000
K, Submerged      =      .000
K, Reverse        =     1.000
Kb,Barrel         =   .000000  (per ft of full flow)
Barrel Length     =       .00 ft
Mannings n        =     .0000
```

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

OUTLET STRUCTURE INPUT DATA

Structure ID   = CV
Structure Type   = Culvert-Circular

No. Barrels   =   1
Barrel Diameter   =   1.5000 ft
Upstream Invert   =   597.45 ft
Dnstream Invert   =   597.00 ft
Horiz. Length   =   45.00 ft
Barrel Length   =   45.00 ft
Barrel Slope   =   .01000 ft/ft

OUTLET CONTROL DATA...
Mannings n   =   .0130
Ke   =   .5000 (forward entrance loss)
Kb   =   .018213 (per ft of full flow)
Kr   =   .5000 (reverse entrance loss)
HW Convergence   =   .001 +/- ft

INLET CONTROL DATA...
Equation form   =   1
Inlet Control K   =   .0078
Inlet Control M   =   2.0000
Inlet Control c   =   .03790
Inlet Control Y   =   .6900
T1 ratio (HW/D)   =   1.131
T2 ratio (HW/D)   =   1.291
Slope Factor   =   -.500

Use unsubmerged inlet control Form 1 equ. below T1 elev.
Use   submerged inlet control Form 1 equ. above T2 elev.

In transition zone between unsubmerged and submerged inlet control,
interpolate between flows at T1 & T2...
At T1 Elev =   599.15 ft ---> Flow =   7.58 cfs
At T2 Elev =   599.39 ft ---> Flow =   8.66 cfs

Structure ID   = TW
Structure Type   = TW SETUP, DS Channel

FREE OUTFALL CONDITIONS SPECIFIED

CONVERGENCE TOLERANCES...
Maximum Iterations=   30
Min. TW tolerance =   .01 ft
Max. TW tolerance =   .01 ft
Min. HW tolerance =   .01 ft
Max. HW tolerance =   .01 ft
Min. Q tolerance =   .10 cfs
Max. Q tolerance =   .10 cfs

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

***** COMPOSITE OUTFLOW SUMMARY ****

WS Elev,	Total Q			Notes
		--------- Converge		--------------------------
Elev.	Q	TW Elev	Error	
ft	cfs	ft	+/-ft	Contributing Structures
600.00	.00	Free Outfall		(no Q: SP,CV)
600.10	.00	Free Outfall		(no Q: SP,CV)
600.20	.00	Free Outfall		(no Q: SP,CV)
600.30	.00	Free Outfall		(no Q: SP,CV)
600.40	.00	Free Outfall		(no Q: SP,CV)
600.50	.00	Free Outfall		(no Q: SP,CV)
600.60	.00	Free Outfall		(no Q: SP,CV)
600.70	.00	Free Outfall		(no Q: SP,CV)
600.80	.00	Free Outfall		(no Q: SP,CV)
600.90	.00	Free Outfall		(no Q: SP,CV)
601.00	.00	Free Outfall		(no Q: SP,CV)
601.10	.00	Free Outfall		(no Q: SP,CV)
601.20	.00	Free Outfall		(no Q: SP,CV)
601.30	.00	Free Outfall		(no Q: SP,CV)
601.40	.00	Free Outfall		(no Q: SP,CV)
601.50	.00	Free Outfall		(no Q: SP,CV)
601.60	.00	Free Outfall		(no Q: SP,CV)
601.70	.00	Free Outfall		(no Q: SP,CV)
601.80	.00	Free Outfall		(no Q: SP,CV)
601.90	.00	Free Outfall		(no Q: SP,CV)
602.00	.00	Free Outfall		(no Q: SP,CV)
602.10	.00	Free Outfall		(no Q: SP,CV)
602.20	.00	Free Outfall		(no Q: SP,CV)
602.30	.00	Free Outfall		(no Q: SP,CV)
602.40	.00	Free Outfall		(no Q: SP,CV)
602.50	.00	Free Outfall		(no Q: SP,CV)
602.60	.00	Free Outfall		(no Q: SP,CV)
602.70	.00	Free Outfall		(no Q: SP,CV)
602.80	.00	Free Outfall		(no Q: SP,CV)
602.90	.00	Free Outfall		(no Q: SP,CV)
603.00	.00	Free Outfall		(no Q: SP,CV)
603.10	.00	Free Outfall		(no Q: SP,CV)
603.20	.00	Free Outfall		(no Q: SP,CV)
603.30	.00	Free Outfall		(no Q: SP,CV)
603.40	.00	Free Outfall		(no Q: SP,CV)
603.50	.00	Free Outfall		(no Q: SP,CV)
603.60	.00	Free Outfall		(no Q: SP,CV)
603.70	.00	Free Outfall		(no Q: SP,CV)

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

***** COMPOSITE OUTFLOW SUMMARY ****

WS Elev,	Total Q			Notes
			Converge	
Elev.	Q	TW Elev	Error	
ft	cfs	ft	+/-ft	Contributing Structures
603.80	.00	Free Outfall		(no Q: SP,CV)
603.90	.00	Free Outfall		(no Q: SP,CV)
604.00	.00	Free Outfall		(no Q: SP,CV)
604.10	.60	Free Outfall		SP,CV
604.20	1.69	Free Outfall		SP,CV
604.30	3.10	Free Outfall		SP,CV
604.40	4.77	Free Outfall		SP,CV
604.50	6.66	Free Outfall		SP,CV
604.60	8.76	Free Outfall		SP,CV
604.70	11.04	Free Outfall		SP,CV
604.80	13.49	Free Outfall		SP,CV
604.90	14.34	Free Outfall		SP,CV
605.00	15.12	Free Outfall		SP,CV
605.10	15.86	Free Outfall		SP,CV
605.20	16.56	Free Outfall		SP,CV
605.30	17.24	Free Outfall		SP,CV
605.40	17.89	Free Outfall		SP,CV
605.50	18.52	Free Outfall		SP,CV
605.60	19.13	Free Outfall		SP,CV
605.70	19.71	Free Outfall		SP,CV
605.80	20.29	Free Outfall		SP,CV
605.90	20.84	Free Outfall		SP,CV
606.00	24.90	Free Outfall		SP,CV

```
Type.... Node: Pond Inflow Summary                      Page 4.01
Name.... SED BASIN C  IN                                Event: 25 yr
File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW
Storm... 25    Tag: 25
```

```
                    SUMMARY FOR HYDROGRAPH ADDITION
                    at Node: SED BASIN C  IN

HYG Directory: H:\PONDPACK\A12500PLUS\12901\


================================================================================
Upstream Link ID  Upstream Node ID   HYG file      HYG ID          HYG tag
--------------------------------------------------------------------------------
BASIN C INFLOW     BASIN C INFLOW                  Basin C 25 in   25 Yr
================================================================================


INFLOWS TO:  SED BASIN C  IN
------------------------------------------ Volume    Peak Time   Peak Flow
HYG file     HYG ID           HYG tag      cu.ft       min         cfs
--------------------------------------------------------------------------------
             Basin C 25 in     25 Yr       9156        5.00        7.63


TOTAL FLOW INTO:  SED BASIN C  IN
------------------------------------------ Volume    Peak Time   Peak Flow
HYG file     HYG ID           HYG tag      cu.ft       min         cfs
--------------------------------------------------------------------------------
             SED BASIN C  IN   25          9156        5.00        7.63
```

```
Type.... Node: Pond Inflow Summary                        Page 4.02
Name.... SED BASIN C  IN                                  Event: 25 yr
File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW
Storm... 25   Tag: 25
```

```
              TOTAL NODE INFLOW...
              HYG file =
              HYG ID   = SED BASIN C  IN
              HYG Tag  = 25
              ------------------------------------
              Peak Discharge =        7.63 cfs
              Time to Peak   =        5.00 min
              HYG Volume     =        9156 cu.ft
              ------------------------------------

                        HYDROGRAPH ORDINATES (cfs)
     Time  |        Output Time increment = 1.00 min
     min   |   Time on left represents time for first value in each row.
  ---------|-------------------------------------------------------------
      .00  |     .00      1.53      3.05      4.58      6.10
     5.00  |    7.63      7.63      7.63      7.63      7.63
    10.00  |    7.63      7.63      7.63      7.63      7.63
    15.00  |    7.63      7.63      7.63      7.63      7.63
    20.00  |    7.63      6.10      4.58      3.05      1.53
    25.00  |     .00
```

                          LEVEL POOL ROUTING SUMMARY

   HYG Dir   = H:\PONDPACK\A12500PLUS\12901\
   Inflow HYG file = NONE STORED - SED BASIN C   IN   25
   Outflow HYG file = NONE STORED - SED BASIN C   OUT 25

   Pond Node   Data = SED BASIN C
   Pond Volume Data = SED BASIN C
   Pond Outlet Data = Basin C outflow

   No Infiltration

   INITIAL CONDITIONS

   Starting WS Elev   =   603.71 ft
   Starting Volume   =   11657 cu.ft
   Starting Outflow   =   .00 cfs
   Starting Infiltr. =   .00 cfs
   Starting Total Qout=   .00 cfs
   Time Increment   =   1.00 min

   INFLOW/OUTFLOW HYDROGRAPH SUMMARY
   ==
   Peak Inflow   =   7.63 cfs   at   5.00 min
   Peak Outflow   =   7.41 cfs   at   20.00 min

   Peak Elevation =   604.54 ft
   Peak Storage =   15152 cu.ft
   ==

   MASS BALANCE (cu.ft)

 + Initial Vol =   11657
 + HYG Vol IN   =   9156
 - Infiltration =   0
 - HYG Vol OUT =   7971
 - Retained Vol =   12842

   Unrouted Vol =   0 cu.ft   (.001% of Inflow Volume)

Index of Starting Page Numbers for ID Names

.

25 YEAR, 20 MINUTE
POND 9
Sediment Storage
Routing Calculations
For Temporary Sediment Basin D

Table of Contents

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```
                 HYG file  =
                 HYG ID    = Basin D 25 in
                 HYG Tag   = 25 Yr
                 -----------------------------------
                 Peak Discharge =        5.68 cfs
                 Time to Peak   =        5.00 min
                 HYG Volume     =        6816 cu.ft
                 -----------------------------------
```

```
                          HYDROGRAPH ORDINATES (cfs)
        Time  |           Output Time increment = 1.00 min
        min   |    Time on left represents time for first value in each row.
     ---------|-------------------------------------------------------------
          .00 |        .00        1.14       2.27       3.41       4.54
         5.00 |       5.68        5.68       5.68       5.68       5.68
        10.00 |       5.68        5.68       5.68       5.68       5.68
        15.00 |       5.68        5.68       5.68       5.68       5.68
        20.00 |       5.68        4.54       3.41       2.27       1.14
        25.00 |        .00         .00        .00        .00        .00
        30.00 |        .00         .00        .00        .00        .00
        35.00 |        .00         .00        .00        .00        .00
        40.00 |        .00         .00        .00        .00        .00
        45.00 |        .00         .00        .00        .00        .00
        50.00 |        .00         .00        .00        .00        .00
        55.00 |        .00         .00        .00        .00        .00
        60.00 |        .00         .00        .00        .00        .00
        65.00 |        .00         .00        .00        .00        .00
        70.00 |        .00         .00        .00        .00        .00
        75.00 |        .00         .00        .00        .00        .00
        80.00 |        .00         .00        .00        .00        .00
        85.00 |        .00         .00        .00        .00        .00
        90.00 |        .00         .00        .00        .00        .00
        95.00 |        .00         .00        .00        .00        .00
       100.00 |        .00         .00        .00        .00        .00
       105.00 |        .00         .00        .00        .00        .00
       110.00 |        .00         .00        .00        .00        .00
       115.00 |        .00         .00        .00        .00        .00
       120.00 |        .00         .00        .00        .00        .00
       125.00 |        .00         .00        .00         .00        .00
       130.00 |        .00         .00        .00        .00        .00
       135.00 |        .00         .00        .00        .00        .00
       140.00 |        .00         .00        .00        .00        .00
       145.00 |        .00         .00        .00        .00        .00
       150.00 |        .00         .00        .00        .00        .00
```

```
Type.... Read HYG                                    Page 1.02
Name.... BASIN D INFLOW                              Event: 25 yr
File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW
Storm... Tag: 25
```

```
                         HYDROGRAPH ORDINATES (cfs)
        Time  |          Output Time increment = 1.00 min
        min   |   Time on left represents time for first value in each row.
     ---------|----------------------------------------------------------------
       155.00 |        .00         .00         .00         .00         .00
       160.00 |        .00         .00         .00         .00         .00
       165.00 |        .00         .00         .00         .00         .00
       170.00 |        .00         .00         .00         .00         .00
       175.00 |        .00         .00         .00         .00         .00
       180.00 |        .00         .00         .00         .00         .00
       185.00 |        .00         .00         .00         .00         .00
       190.00 |        .00         .00         .00         .00         .00
       195.00 |        .00         .00         .00         .00         .00
       200.00 |        .00         .00         .00         .00         .00
       205.00 |        .00         .00         .00         .00         .00
       210.00 |        .00         .00         .00         .00         .00
       215.00 |        .00         .00         .00         .00         .00
       220.00 |        .00         .00         .00         .00         .00
       225.00 |        .00         .00         .00         .00         .00
       230.00 |        .00         .00         .00         .00         .00
       235.00 |        .00         .00         .00         .00         .00
       240.00 |        .00         .00         .00         .00         .00
       245.00 |        .00         .00         .00         .00         .00
       250.00 |        .00
```

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

POND VOLUME CALCULATIONS

Planimeter scale: 1.00 ft/in

Elevation (ft)	Planimeter (sq.in)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	Volume (cu.ft)	Volume Sum (cu.ft)
612.00	1961.000	.0450	.0000	0	0
614.00	2845.000	.0653	.1646	4779	4779
616.00	3851.000	.0884	.2297	6671	11449
618.00	4975.000	.1142	.3031	8802	20251
620.00	6203.000	.1424	.3841	11155	31407

POND VOLUME EQUATIONS

* Incremental volume computed by the Conic Method for Reservoir Volumes.

Volume = (1/3) * (EL2-EL1) * (Area1 + Area2 + sq.rt.(Area1*Area2))

where: EL1, EL2   = Lower and upper elevations of the increment
       Area1,Area2 = Areas computed for EL1, EL2, respectively
       Volume   = Incremental volume between EL1 and EL2

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

                    REQUESTED POND WS ELEVATIONS:

                       Min. Elev.=   612.00 ft
                       Increment =   .10 ft
                       Max. Elev.=   620.00 ft

              ****
                          OUTLET CONNECTIVITY
              ****

                 ---> Forward Flow Only (UpStream to DnStream)
                 <--- Reverse Flow Only (DnStream to UpStream)
                 <---> Forward and Reverse Both Allowed

Structure	No.		Outfall	E1, ft	E2, ft
Stand Pipe	SP	--->	CV	617.000	620.000
Culvert-Circular	CV	--->	TW	609.100	620.000
TW SETUP, DS Channel					

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

OUTLET STRUCTURE INPUT DATA

            Structure ID   = SP
            Structure Type   = Stand Pipe

            # of Openings   =   1
            Invert Elev.   =   617.00 ft
            Diameter   =   2.0000 ft
            Orifice Area   =   3.1416 sq.ft
            Orifice Coeff.   =   .600
            Weir Length   =   6.28 ft
            Weir Coeff.   =   3.000
            K, Submerged   =   .000
            K, Reverse   =   1.000
            Kb,Barrel   =   .000000 (per ft of full flow)
            Barrel Length   =   .00 ft
            Mannings n   =   .0000

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

OUTLET STRUCTURE INPUT DATA

Structure ID   = CV
Structure Type   = Culvert-Circular

No. Barrels   =   1
Barrel Diameter   =   1.5000 ft
Upstream Invert   =   609.10 ft
Dnstream Invert   =   600.00 ft
Horiz. Length   =   65.00 ft
Barrel Length   =   65.63 ft
Barrel Slope   =   .14000 ft/ft

OUTLET CONTROL DATA...
Mannings n   =   .0130
Ke   =   .5000   (forward entrance loss)
Kb   =   .018213   (per ft of full flow)
Kr   =   .5000   (reverse entrance loss)
HW Convergence   =   .001 +/- ft

INLET CONTROL DATA...
Equation form   =   1
Inlet Control K   =   .0078
Inlet Control M   =   2.0000
Inlet Control c   =   .03790
Inlet Control Y   =   .6900
T1 ratio (HW/D)   =   1.066
T2 ratio (HW/D)   =   1.226
Slope Factor   =   -.500

Use unsubmerged inlet control Form 1 equ. below T1 elev.
Use   submerged inlet control Form 1 equ. above T2 elev.

In transition zone between unsubmerged and submerged inlet control,
interpolate between flows at T1 & T2...
At T1 Elev =   610.70 ft ---> Flow =   7.58 cfs
At T2 Elev =   610.94 ft ---> Flow =   8.66 cfs

Structure ID   = TW
Structure Type   = TW SETUP, DS Channel

FREE OUTFALL CONDITIONS SPECIFIED

CONVERGENCE TOLERANCES...
Maximum Iterations=   30
Min. TW tolerance =   .01 ft
Max. TW tolerance =   .01 ft
Min. HW tolerance =   .01 ft
Max. HW tolerance =   .01 ft
Min. Q tolerance =   .10 cfs
Max. Q tolerance =   .10 cfs

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

***** COMPOSITE OUTFLOW SUMMARY ****

WS Elev, Total Q		Converge		Notes
Elev. ft	Q cfs	TW Elev ft	Error +/-ft	Contributing Structures
612.00	.00	Free Outfall		(no Q: SP,CV)
612.10	.00	Free Outfall		(no Q: SP,CV)
612.20	.00	Free Outfall		(no Q: SP,CV)
612.30	.00	Free Outfall		(no Q: SP,CV)
612.40	.00	Free Outfall		(no Q: SP,CV)
612.50	.00	Free Outfall		(no Q: SP,CV)
612.60	.00	Free Outfall		(no Q: SP,CV)
612.70	.00	Free Outfall		(no Q: SP,CV)
612.80	.00	Free Outfall		(no Q: SP,CV)
612.90	.00	Free Outfall		(no Q: SP,CV)
613.00	.00	Free Outfall		(no Q: SP,CV)
613.10	.00	Free Outfall		(no Q: SP,CV)
613.20	.00	Free Outfall		(no Q: SP,CV)
613.30	.00	Free Outfall		(no Q: SP,CV)
613.40	.00	Free Outfall		(no Q: SP,CV)
613.50	.00	Free Outfall		(no Q: SP,CV)
613.60	.00	Free Outfall		(no Q: SP,CV)
613.70	.00	Free Outfall		(no Q: SP,CV)
613.80	.00	Free Outfall		(no Q: SP,CV)
613.90	.00	Free Outfall		(no Q: SP,CV)
614.00	.00	Free Outfall		(no Q: SP,CV)
614.10	.00	Free Outfall		(no Q: SP,CV)
614.20	.00	Free Outfall		(no Q: SP,CV)
614.30	.00	Free Outfall		(no Q: SP,CV)
614.40	.00	Free Outfall		(no Q: SP,CV)
614.50	.00	Free Outfall		(no Q: SP,CV)
614.60	.00	Free Outfall		(no Q: SP,CV)
614.70	.00	Free Outfall		(no Q: SP,CV)
614.80	.00	Free Outfall		(no Q: SP,CV)
614.90	.00	Free Outfall		(no Q: SP,CV)
615.00	.00	Free Outfall		(no Q: SP,CV)
615.10	.00	Free Outfall		(no Q: SP,CV)
615.20	.00	Free Outfall		(no Q: SP,CV)
615.30	.00	Free Outfall		(no Q: SP,CV)
615.40	.00	Free Outfall		(no Q: SP,CV)
615.50	.00	Free Outfall		(no Q: SP,CV)
615.60	.00	Free Outfall		(no Q: SP,CV)
615.70	.00	Free Outfall		(no Q: SP,CV)

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

```
                    ***** COMPOSITE OUTFLOW SUMMARY ****

     WS Elev, Total Q                              Notes
     ----------------     -------- Converge -------------------------
       Elev.      Q     TW Elev  Error
        ft       cfs       ft    +/-ft    Contributing Structures
      --------  -------  --------  -----   --------------------------
      615.80      .00   Free Outfall       (no Q: SP,CV)
      615.90      .00   Free Outfall       (no Q: SP,CV)
      616.00      .00   Free Outfall       (no Q: SP,CV)
      616.10      .00   Free Outfall       (no Q: SP,CV)
      616.20      .00   Free Outfall       (no Q: SP,CV)
      616.30      .00   Free Outfall       (no Q: SP,CV)
      616.40      .00   Free Outfall       (no Q: SP,CV)
      616.50      .00   Free Outfall       (no Q: SP,CV)
      616.60      .00   Free Outfall       (no Q: SP,CV)
      616.70      .00   Free Outfall       (no Q: SP,CV)
      616.80      .00   Free Outfall       (no Q: SP,CV)
      616.90      .00   Free Outfall       (no Q: SP,CV)
      617.00      .00   Free Outfall       (no Q: SP,CV)
      617.10      .60   Free Outfall       SP,CV
      617.20     1.69   Free Outfall       SP,CV
      617.30     3.10   Free Outfall       SP,CV
      617.40     4.77   Free Outfall       SP,CV
      617.50     6.66   Free Outfall       SP,CV
      617.60     8.76   Free Outfall       SP,CV
      617.70    11.04   Free Outfall       SP,CV
      617.80    13.49   Free Outfall       SP,CV
      617.90    14.34   Free Outfall       SP,CV
      618.00    15.12   Free Outfall       SP,CV
      618.10    15.86   Free Outfall       SP,CV
      618.20    16.56   Free Outfall       SP,CV
      618.30    17.24   Free Outfall       SP,CV
      618.40    17.89   Free Outfall       SP,CV
      618.50    18.52   Free Outfall       SP,CV
      618.60    19.13   Free Outfall       SP,CV
      618.70    19.71   Free Outfall       SP,CV
      618.80    20.29   Free Outfall       SP,CV
      618.90    20.84   Free Outfall       SP,CV
      619.00    21.38   Free Outfall       SP,CV
      619.10    21.91   Free Outfall       SP,CV
      619.20    22.43   Free Outfall       SP,CV
      619.30    22.93   Free Outfall       SP,CV
      619.40    23.42   Free Outfall       SP,CV
      619.50    23.91   Free Outfall       SP,CV
```

File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW

***** COMPOSITE OUTFLOW SUMMARY ****

WS Elev, Total Q		Converge		Notes
Elev. ft	Q cfs	TW Elev ft	Error +/-ft	Contributing Structures
619.60	28.08	Free Outfall		SP,CV
619.70	28.23	Free Outfall		SP,CV
619.80	28.37	Free Outfall		SP,CV
619.90	28.52	Free Outfall		SP,CV
620.00	28.66	Free Outfall		SP,CV

```
Type.... Node: Pond Inflow Summary                         Page 4.01
Name.... SED BASIN D  IN                                 Event: 25 yr
File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW
Storm... 25    Tag: 25
```

```
                    SUMMARY FOR HYDROGRAPH ADDITION
                    at Node: SED BASIN D   IN

HYG Directory: H:\PONDPACK\A12500PLUS\12901\
```

```
==========================================================================
Upstream Link ID  Upstream Node ID   HYG file      HYG ID           HYG tag
--------------------------------------------------------------------------
BASIN D INFLOW     BASIN D INFLOW                   Basin D 25 in   25 Yr
==========================================================================
```

```
INFLOWS TO:  SED BASIN D   IN
----------------------------------------- Volume     Peak Time   Peak Flow
HYG file     HYG ID           HYG tag     cu.ft        min         cfs
--------------------------------------------------------------------------
             Basin D 25 in    25 Yr        6816        5.00        5.68
```

```
TOTAL FLOW INTO:  SED BASIN D   IN
----------------------------------------- Volume     Peak Time   Peak Flow
HYG file     HYG ID           HYG tag     cu.ft        min         cfs
--------------------------------------------------------------------------
             SED BASIN D  IN   25          6816        5.00        5.68
```

```
Type.... Node: Pond Inflow Summary                        Page 4.02
Name.... SED BASIN D  IN                                  Event: 25 yr
File.... H:\PONDPACK\A12500PLUS\12901\SEDIMENT CALCS 12901 3-25-05 JD.PPW
Storm... 25   Tag: 25
```

```
                TOTAL NODE INFLOW...
                HYG file =
                HYG ID   = SED BASIN D  IN
                HYG Tag  = 25
                ------------------------------------
                Peak Discharge =         5.68 cfs
                Time to Peak   =         5.00 min
                HYG Volume     =         6816 cu.ft
                ------------------------------------

                        HYDROGRAPH ORDINATES (cfs)
      Time  |             Output Time increment = 1.00 min
      min   |     Time on left represents time for first value in each row.
   ---------|-------------------------------------------------------------
       .00  |         .00       1.14       2.27       3.41       4.54
      5.00  |        5.68       5.68       5.68       5.68       5.68
     10.00  |        5.68       5.68       5.68       5.68       5.68
     15.00  |        5.68       5.68       5.68       5.68       5.68
     20.00  |        5.68       4.54       3.41       2.27       1.14
     25.00  |         .00
```

.

                        LEVEL POOL ROUTING SUMMARY

     HYG Dir   = H:\PONDPACK\A12500PLUS\12901\
     Inflow HYG file = NONE STORED - SED BASIN D IN 25
     Outflow HYG file = NONE STORED - SED BASIN D OUT 25

     Pond Node   Data = SED BASIN D
     Pond Volume Data = SED BASIN D
     Pond Outlet Data = Basin D outflow

     No Infiltration

     INITIAL CONDITIONS

     Starting WS Elev   =   615.20 ft
     Starting Volume   =   8538 cu.ft
     Starting Outflow   =   .00 cfs
     Starting Infiltr. =   .00 cfs
     Starting Total Qout=   .00 cfs
     Time Increment   =   1.00 min

     INFLOW/OUTFLOW HYDROGRAPH SUMMARY
     ===
     Peak Inflow   =   5.68 cfs   at   5.00 min
     Peak Outflow   =   .00 cfs   at   1.00 min

     Peak Elevation =   616.95 ft
     Peak Storage =   15354 cu.ft
     ===

     MASS BALANCE (cu.ft)

   + Initial Vol =   8538
   + HYG Vol IN   =   6816
   - Infiltration =   0
   - HYG Vol OUT =   0
   - Retained Vol =   15354

     Unrouted Vol =   -1 cu.ft (.009% of Inflow Volume)

Index of Starting Page Numbers for ID Names