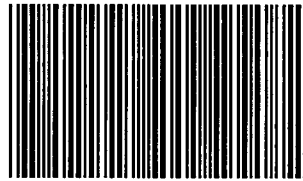


ERP PERMITS

ERP Types

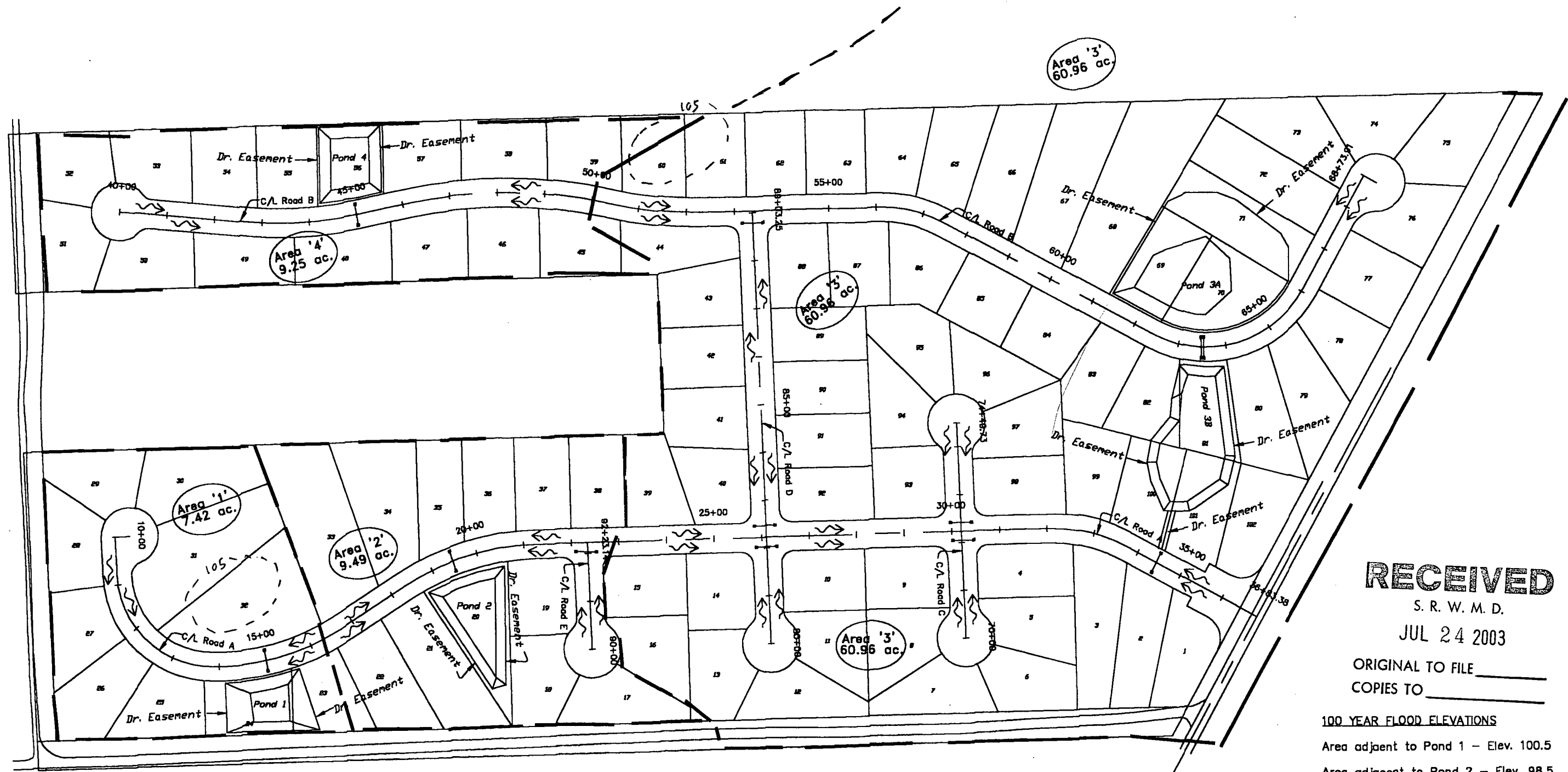
Separator Sheet



3



Maps & Drawings



Area '3'
60.96 ac.

Area '4'
9.25 ac.

Area '3'
60.96 ac.

Area '1'
7.42 ac.

Area '2'
9.49 ac.

Area '3'
60.96 ac.

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JUL 24 2003

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100 YEAR FLOOD ELEVATIONS

- Area adjacent to Pond 1 - Elev. 100.5
- Area adjacent to Pond 2 - Elev. 98.5
- Area adjacent to Pond 3A & 3B - Elev. 88.5
- Area adjacent to Pond 4 - Elev. 97.5

ERP03-0016

Legend

- 146- Exist. Quad Contours
- ~> Flow of Water

Arthur N. Bedenbaugh

NOTES:

THE HYDRAULIC DATA IS SHOWN TO INDICATE WATER ELEVATIONS WHICH MAY BE ANTICIPATED IN ANY GIVEN YEAR. THIS DATA WAS GENERATED USING HIGHLY VARIABLE FACTORS DETERMINED BY A STUDY OF THE WATERSHED. MANY JUDGEMENTS AND ASSUMPTIONS ARE REQUIRED TO ESTABLISH THESE FACTORS. THE RESULTANT DATA IS SENSITIVE TO CHANGES, PARTICULARLY OF ANTECEDENT CONDITIONS, URBANIZATION, CHANNELIZATION, AND LAND USE. USERS OF THIS DATA ARE CAUTIONED AGAINST THE ASSUMPTION OF PRECISION WHICH CANNOT BE ATTAINED. DISCHARGES ARE IN CUBIC FEET PER SECOND AND STAGES ARE IN REFERENCE TO NGVD.

THE 100 YEAR FLOOD IS THE FLOOD HAVING A 1% CHANCE OF BEING EXCEEDED IN ANY YEAR.

DATA USED IS FROM USGS QUAD MAPS, SURVEYS BY BRITT SURVEYING, AND FLOOD INSURANCE RATE MAPS.

(DRAINAGE DETAILS AND NOTES
ON SHEETS 4, 5, & 6)

Revisions					
Date	By	Description	Date	By	Description

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ROUTE 6 BOX 507 LAKE CITY, FLORIDA 32025
TELEPHONE: (386) 752-5846

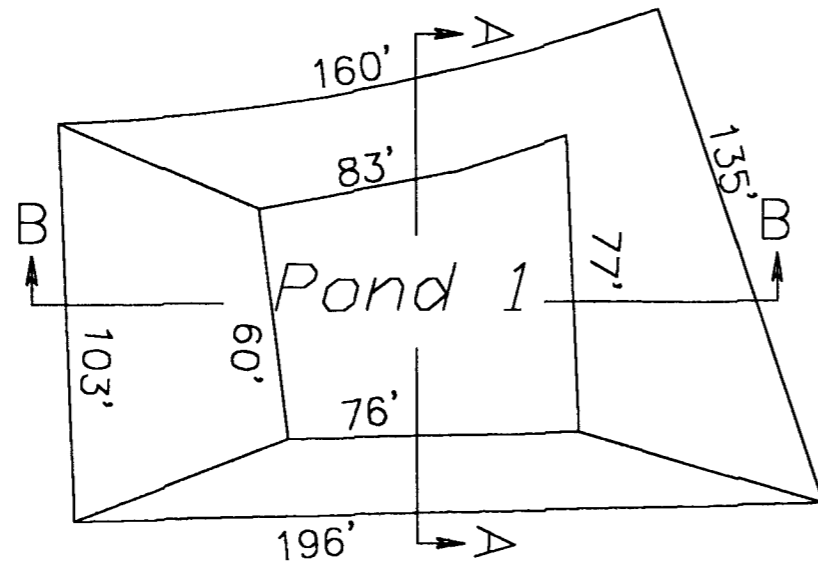
DONALD E. WILLIAMS
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Columbia County
JOB NUMBER: 02-2003

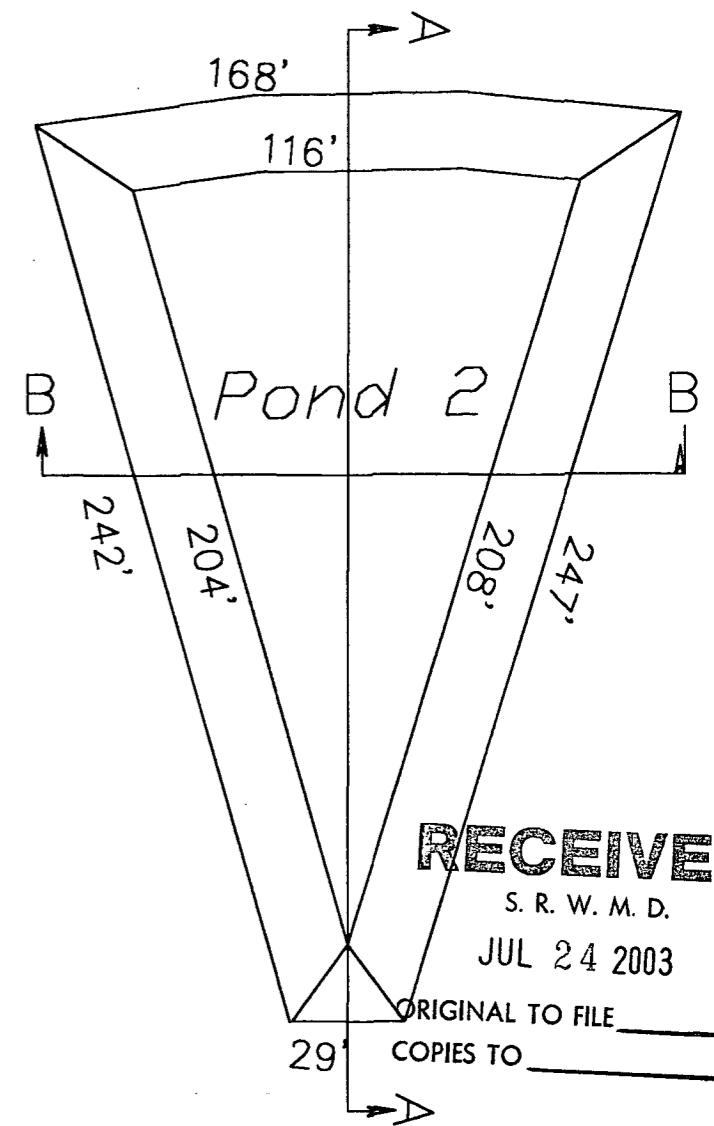
DRAINAGE PLAN 7-23-03

SHEET
3

Pond 1 Data
 Top Elev. 100.0
 Bottom Elev. 95.0
 Slopes 6:1



Pond 2 Data
 Top Elev. 98.0
 Bottom Elev. 93.0
 Slopes 4:1



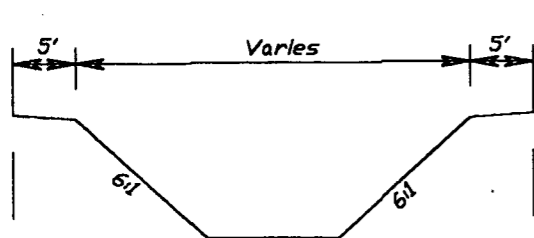
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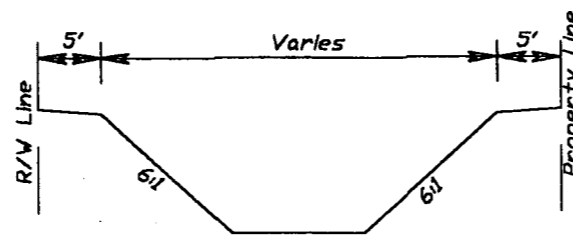
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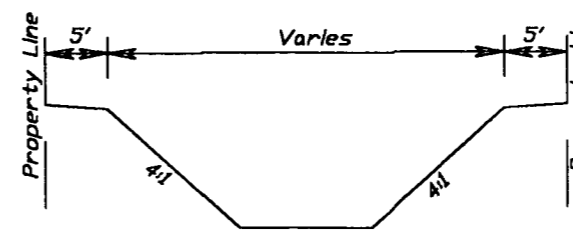


B-B

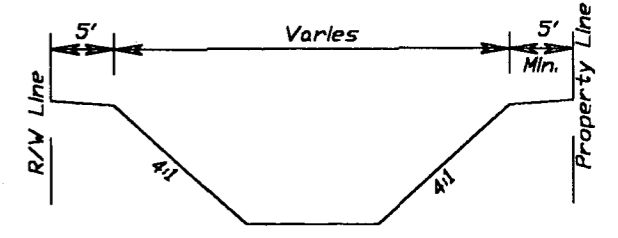


A-A

POND 1 DETAILS



B-B



A-A

POND 2 DETAILS

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7-23-03

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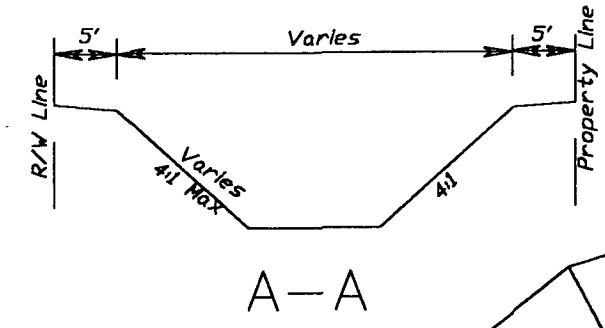
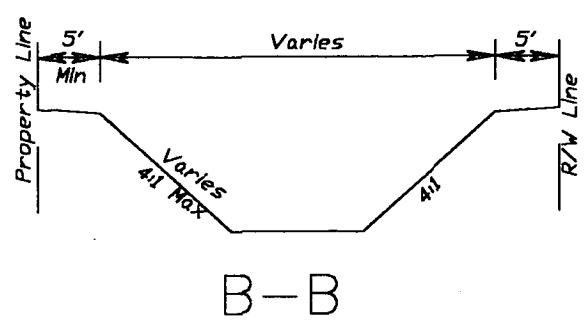
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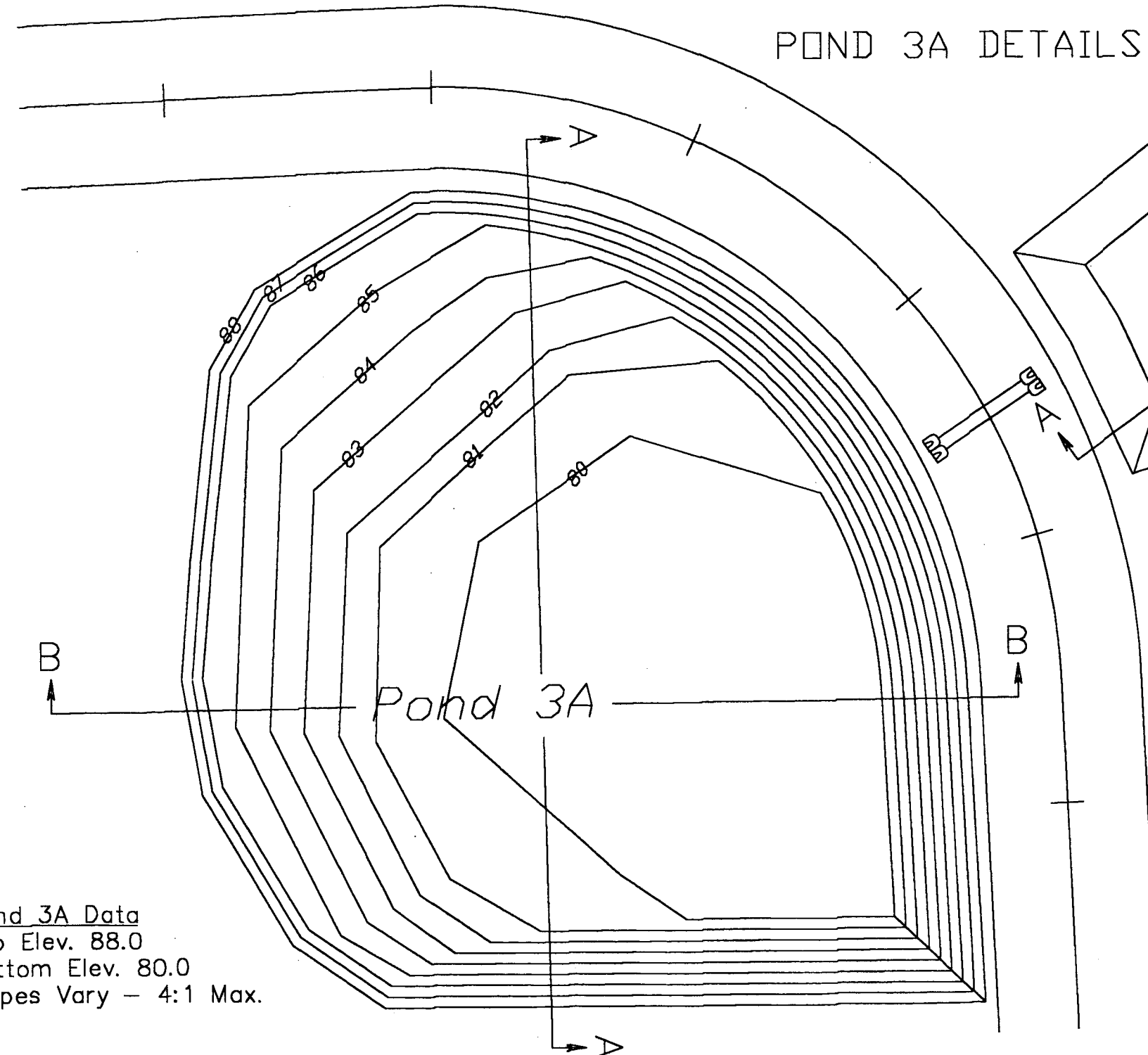
Columbia County
 JOB NUMBER: 02-2003

POND 1 & POND 2
 DETAILS

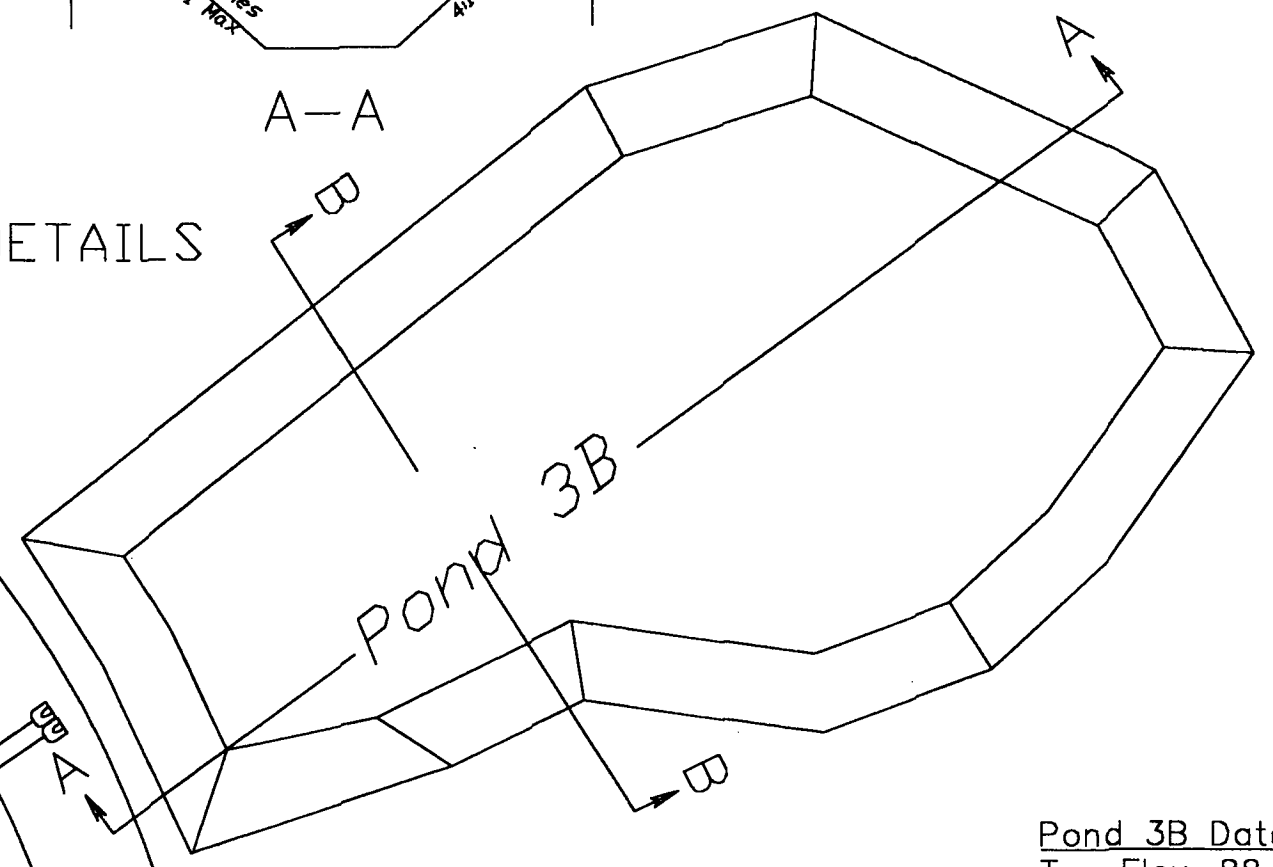
SHEET
 4



POND 3A DETAILS



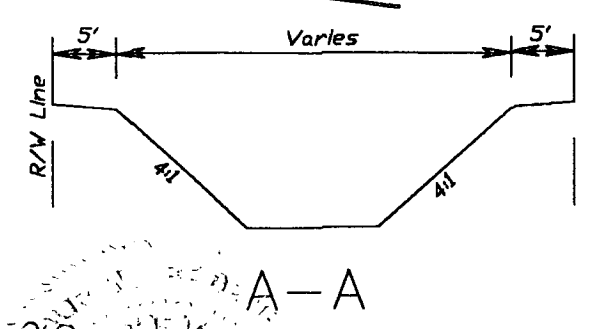
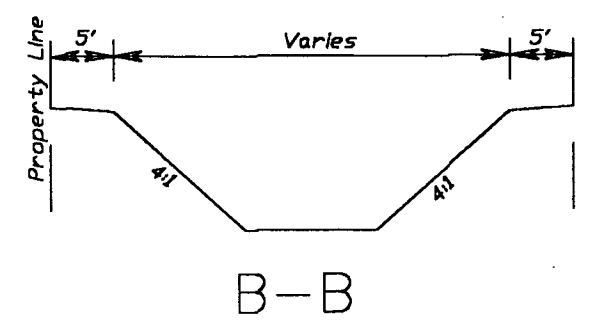
Pond 3A Data
 Top Elev. 88.0
 Bottom Elev. 80.0
 Slopes Vary - 4:1 Max.



Pond 3B Data
 Top Elev. 88.0
 Bottom Elev. 84.0
 Slopes 4:1

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POND 3B DETAILS

CRP03-0016
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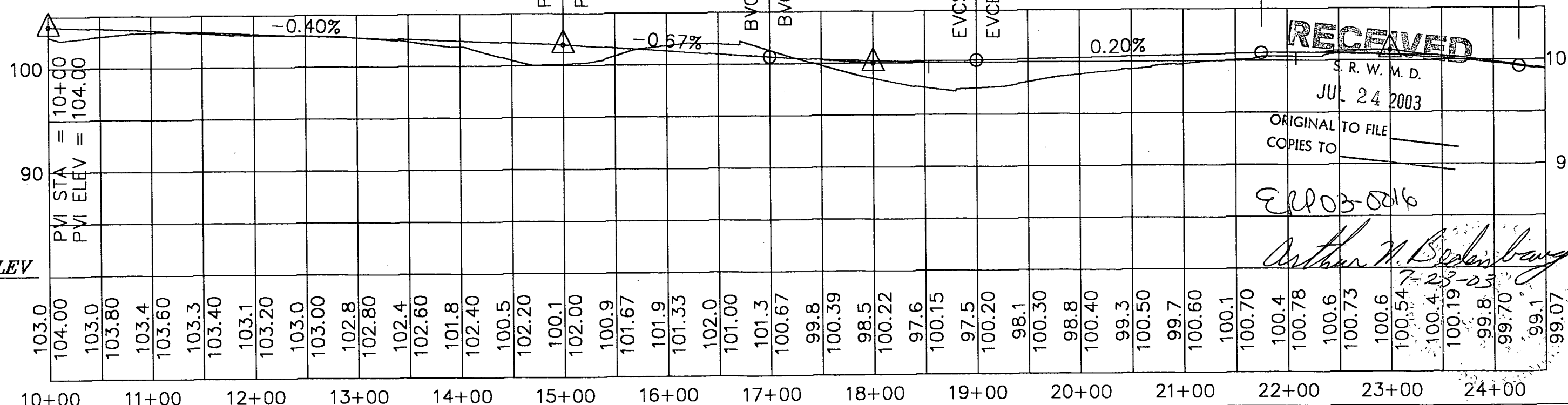
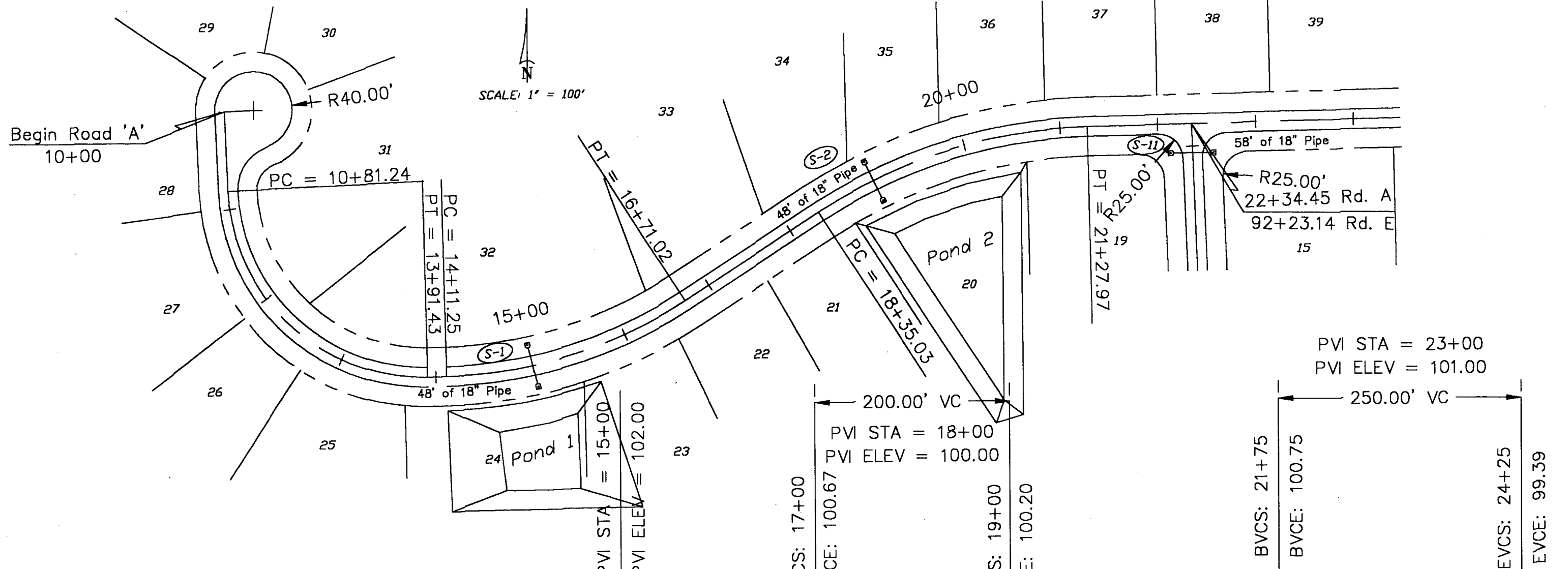
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Columbia County
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POND 3A & POND 3B
 DETAILS 7-23-03

SHEET
 5



DATUM ELEV
80.00

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PLAN & PROFILE
ROAD 'A'

SHEET
7

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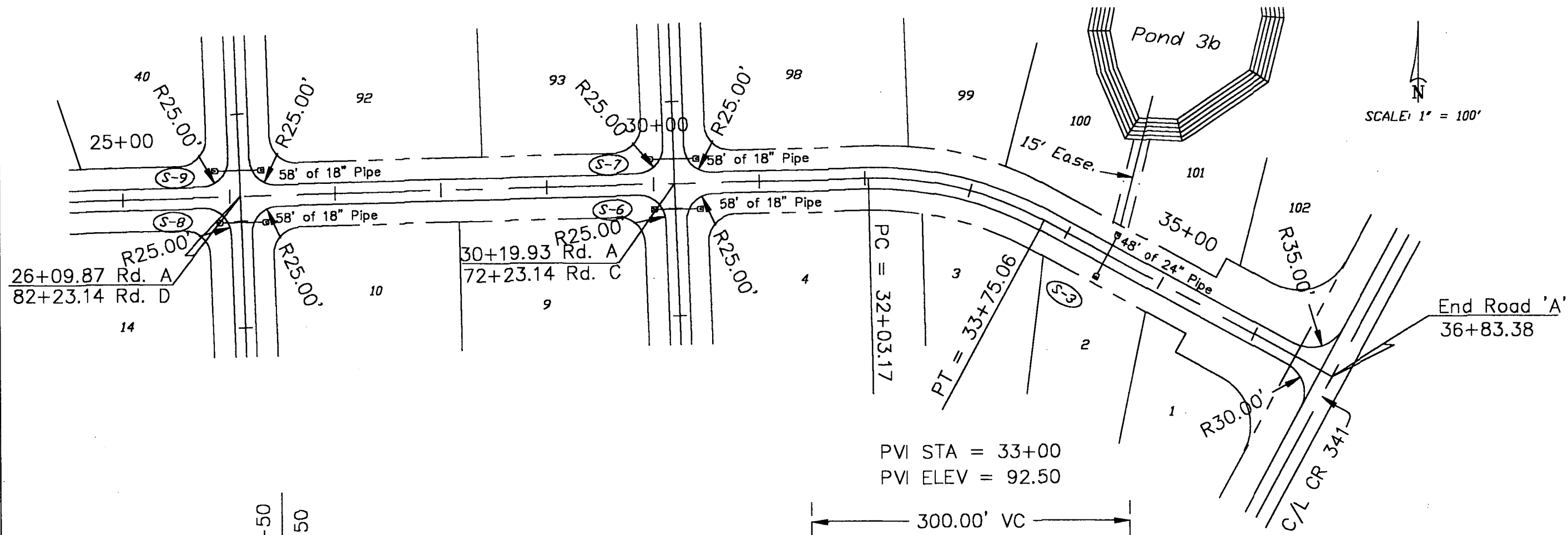
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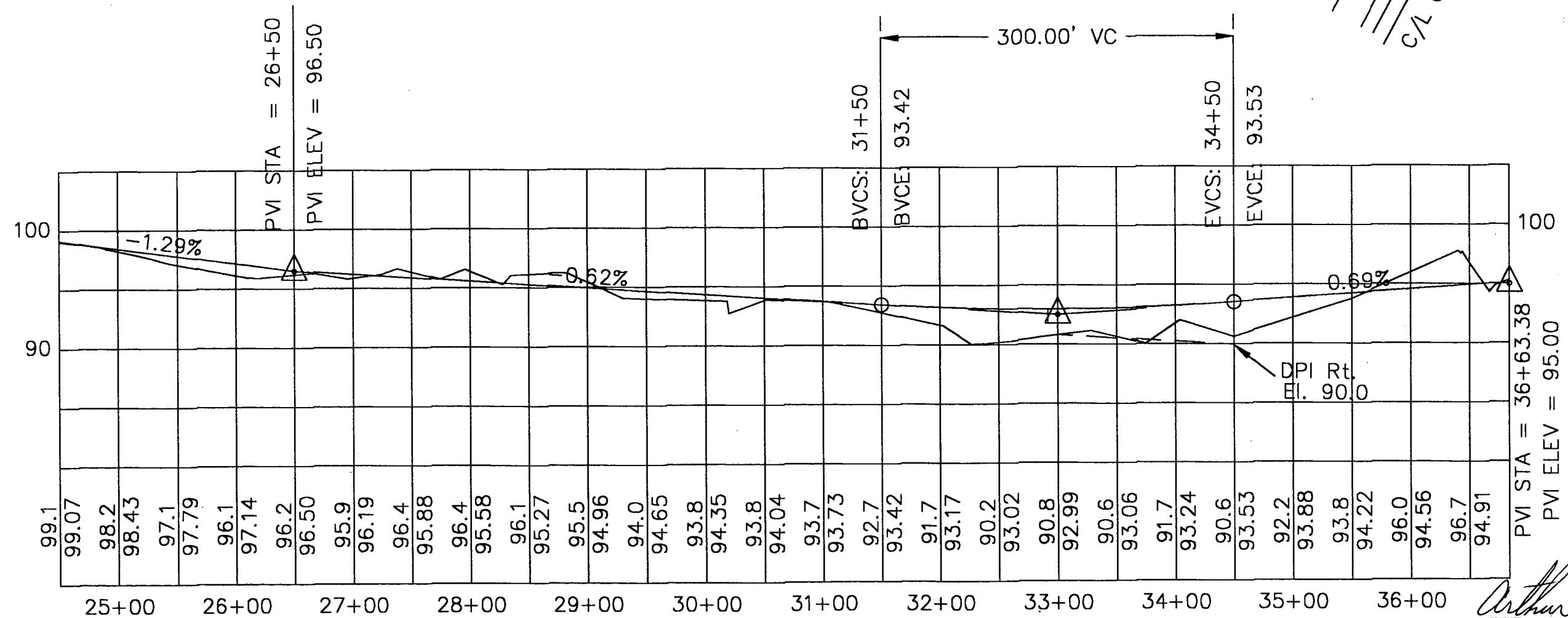
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7-23-03



SCALE: 1" = 100'

PVI STA = 33+00
PVI ELEV = 92.50



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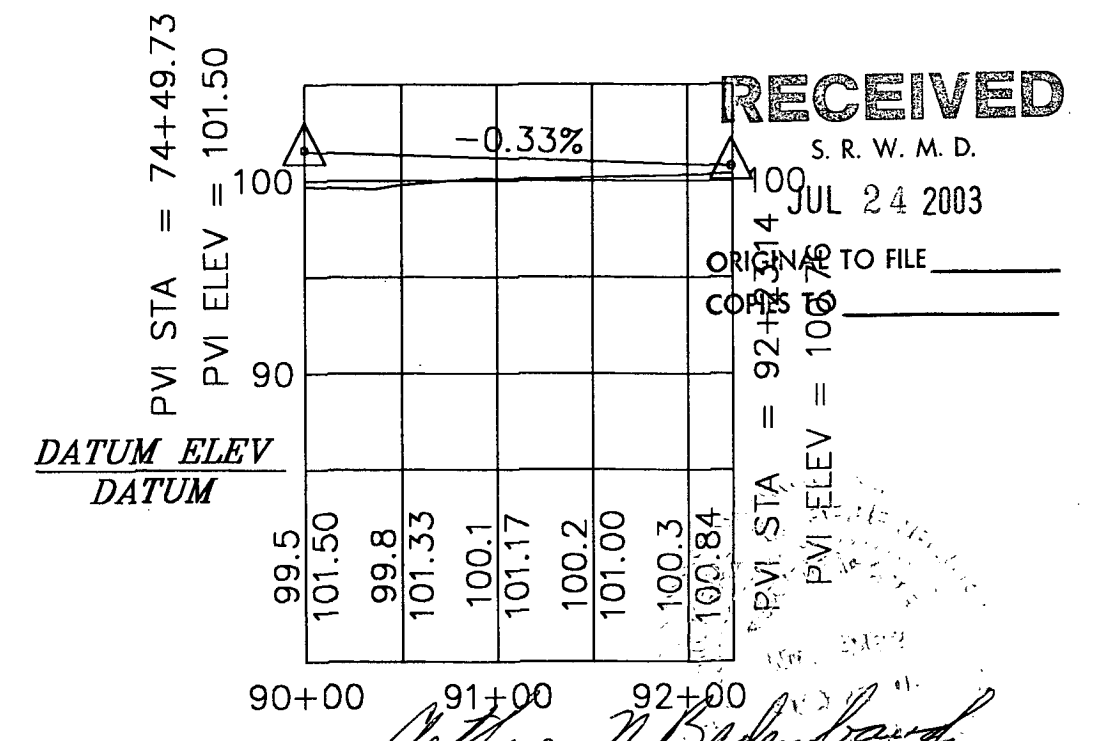
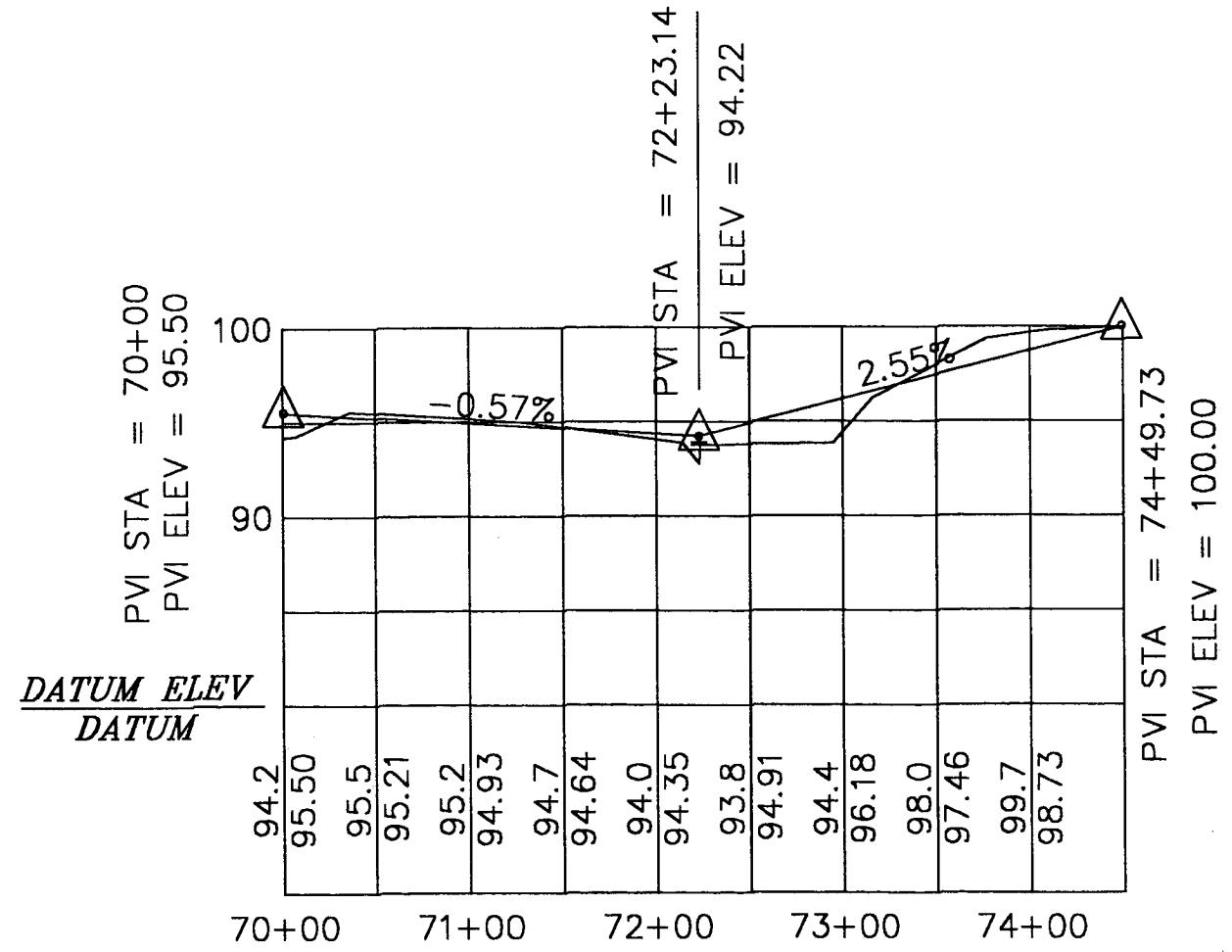
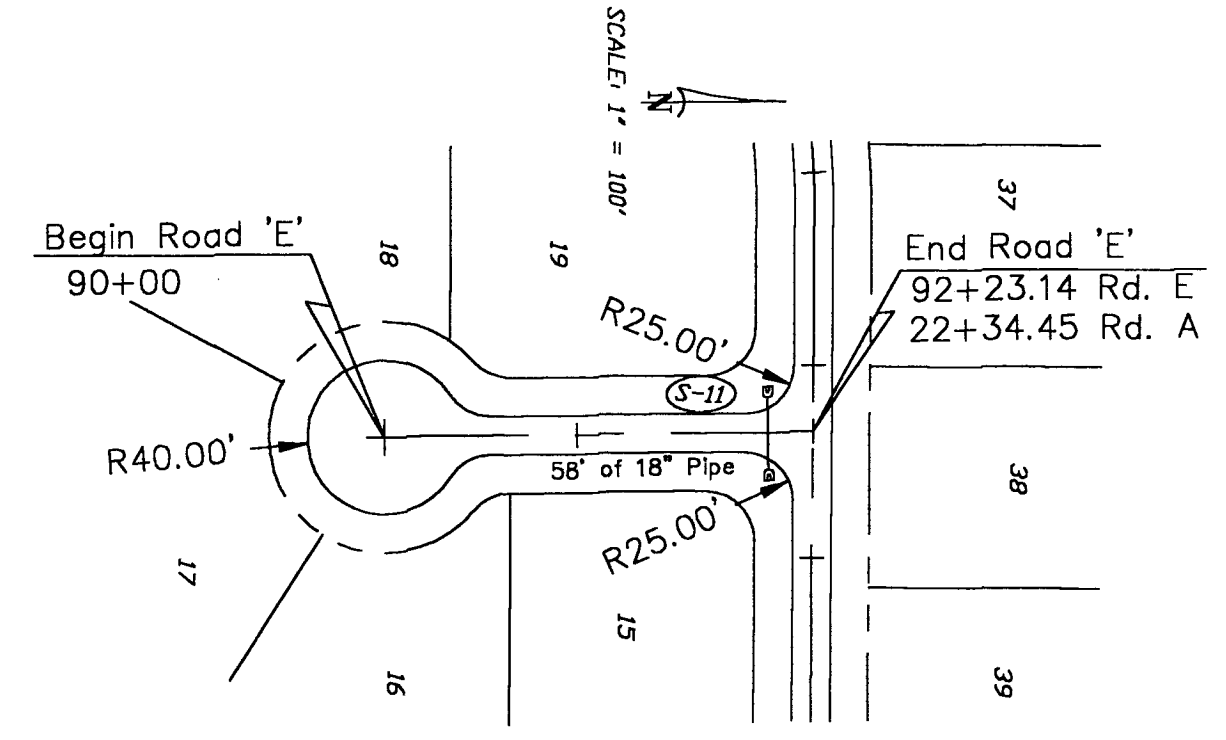
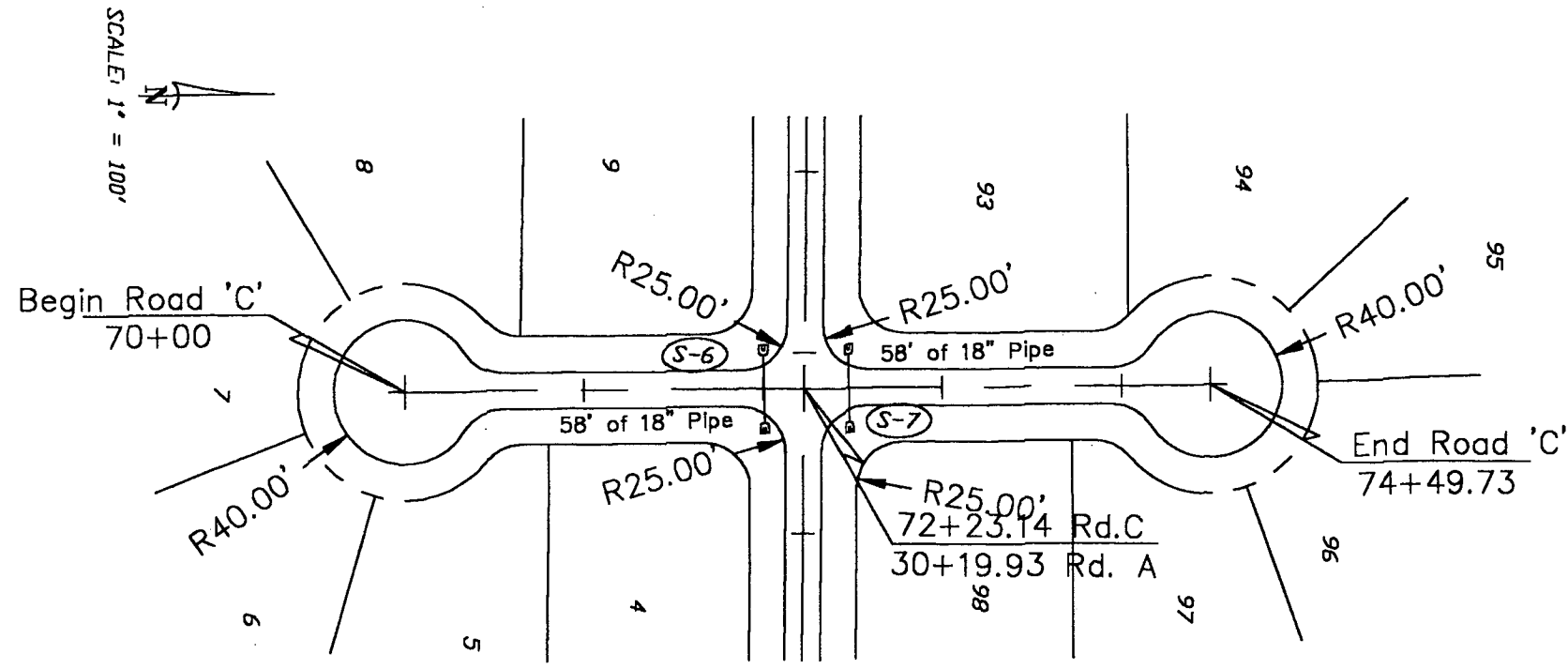
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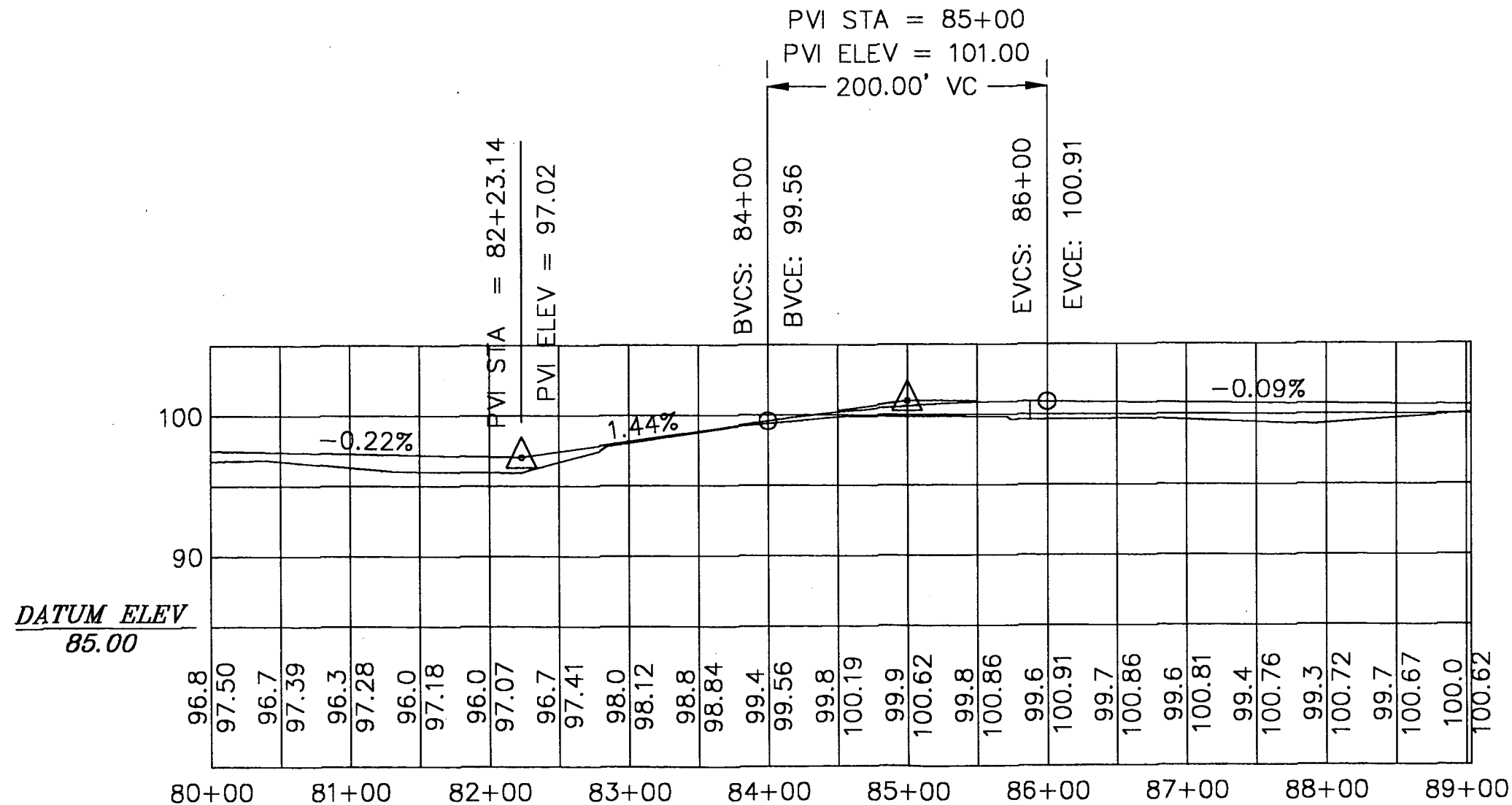
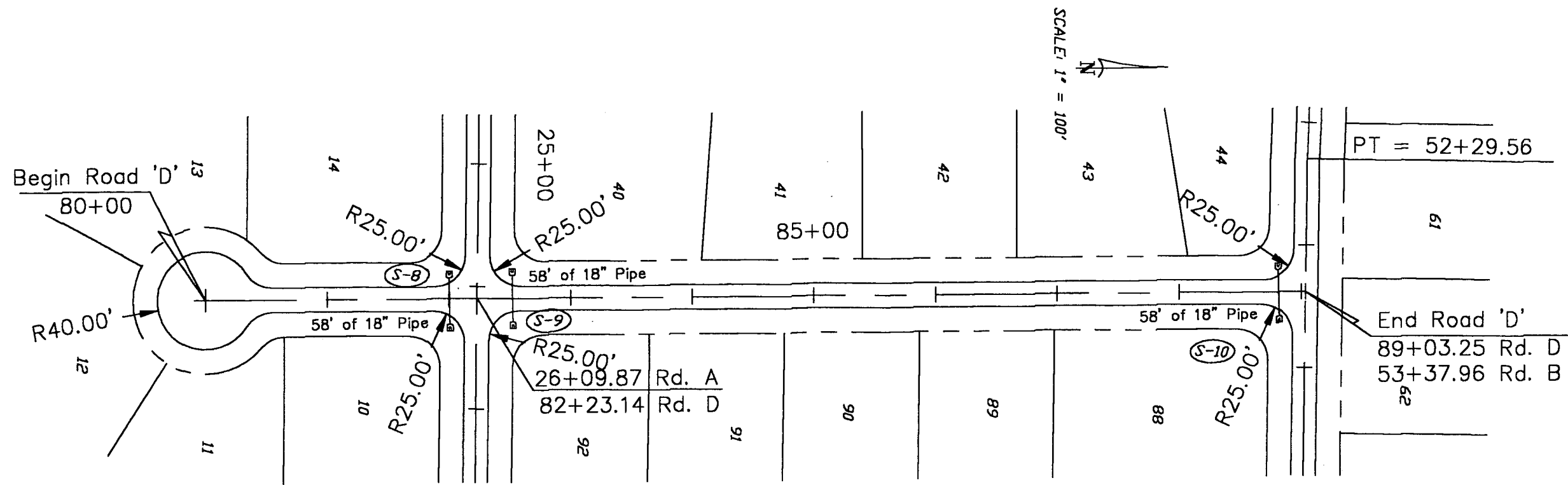
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ROUTE 6 BOX 507 • LAKE CITY, FLORIDA 32025
TELEPHONE: (386) 752-5846

DONALD E. WILLIAMS
STONEHENGE SUBDIVISION

Columbia County
JOB NUMBER: 02-2003

PLAN & PROFILE
ROAD 'C' & 'E' 7-23-03

SHEET 11



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DONALD E. WILLIAMS
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Columbia County
 JOB NUMBER: 02-2003

PLAN & PROFILE
 ROAD 'D' 7-23-03

SHEET
 12

SITE DESCRIPTION:

CONSTRUCTION ACTIVITY: Roadway and Retention Pond Construction

PROJECT LIMITS: Stonehenge Subdivision

PROJECT DESCRIPTION: New paved road construction, drainage structures, and retention ponds.

MAJOR SOIL DISTURBING ACTIVITIES: The major soil disturbing activities include clearing & grubbing, new roadway construction, and excavation for retention ponds.

TOTAL PROJECT AREA: 69.86 ac.

TOTAL AREA TO BE DISTURBED: 14.99 ac.

RUNOFF COEFFICIENTS:

Pre-Construction = .15

Post-Construction = .37

ESTIMATES OF SIZE OF DRAINAGE AREA FOR EACH OUTFALL:

See Drainage Plan Sheet 3

LOCATIONS OF DRAINAGE AREAS AND OUTFALLS:

See Drainage Plan Sheet 3

NAME OF RECEIVING WATER(S):

None.

WETLAND AREA:

Total Permanent Impacts: 0

Total Temporary Impacts: 0

CONTROLS:

NARRATIVE – SEQUENCE OF SOIL DISTURBING ACTIVITIES AND IMPLEMENTATION OF CONTROLS: Primary activities that will disturb soil are clearing & grubbing, excavation, and fill. Contractor shall be responsible for minimizing disturbance in each active work area complying with FDOT Index 102.

EROSION AND SEDIMENT CONTROLS:

STABILIZATION PRACTICES:

Permanent sodding, seeding or seed & mulch.

STRUCTURAL PRACTICES:

Silt Fences

Hay Bales

DESCRIPTION OF STORM WATER MANAGEMENT: The storm water management consists of four retention ponds and treatment in roadside ditches. Runoff is conveyed to ponds via roadside ditches, culverts, and drainage ditches.

WASTE DISPOSAL: To be provided by the Contractor

SANITARY WASTE: To be provided by the Contractor

FERTILIZERS AND PESTICIDES:

Fertilizer: 400 lb/ac at 1 application (Per FDOT Standards)

NON-STORM WATER DISCHARGE: No non-storm water discharge is anticipated.

APPROVED STATE, LOCAL PLANS, OR STORM WATER PERMIT:

SRWMD EPR PERMIT – Pending

MAINTENANCE: All the controls shall be maintained at all times during construction.

INSPECTION: All controls shall be inspected daily and after the end of each rainfall of 0.5 inches or greater.

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7-23-03
EROSION CONTROL PLAN

SHEET
13

NOTES:

IF THE PROPOSED EROSION AND SEDIMENT CONTROL PLAN DOES NOT WORK OR IS NOT EFFECTIVE, THE CONTRACTOR SHALL USE THE BEST MANAGEMENT PRACTICES IN THE FLORIDA EROSION AND SEDIMENT CONTROL INSPECTOR MANUAL TO IMPLEMENT A PLAN THAT WILL WORK.

NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATER BODY OR STORMWATER COLLECTION FACILITY.

CROSS DRAINS SHALL BE PROTECTED FROM SEDIMENT LADEN STORMWATER RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS.

RETENTION BASINS SHOULD BE VISUALLY MONITORED FOLLOWING SIGNIFICANT STORM EVENTS FOR SINK HOLE ACTIVITY. WHERE SHALLOW DEPRESSIONS ARE NOTED, THESE MAY BE FILLED TO PRE-EXISTING GRADE WITH CLAYEY SAND MATERIAL, GRADED, AND VEGETATED. OTHER SINK HOLE ACTIVITY SHOULD EMPLOY METHODOLOGIES ACCEPTABLE TO THE APPLICABLE REGULATORY AGENCY.

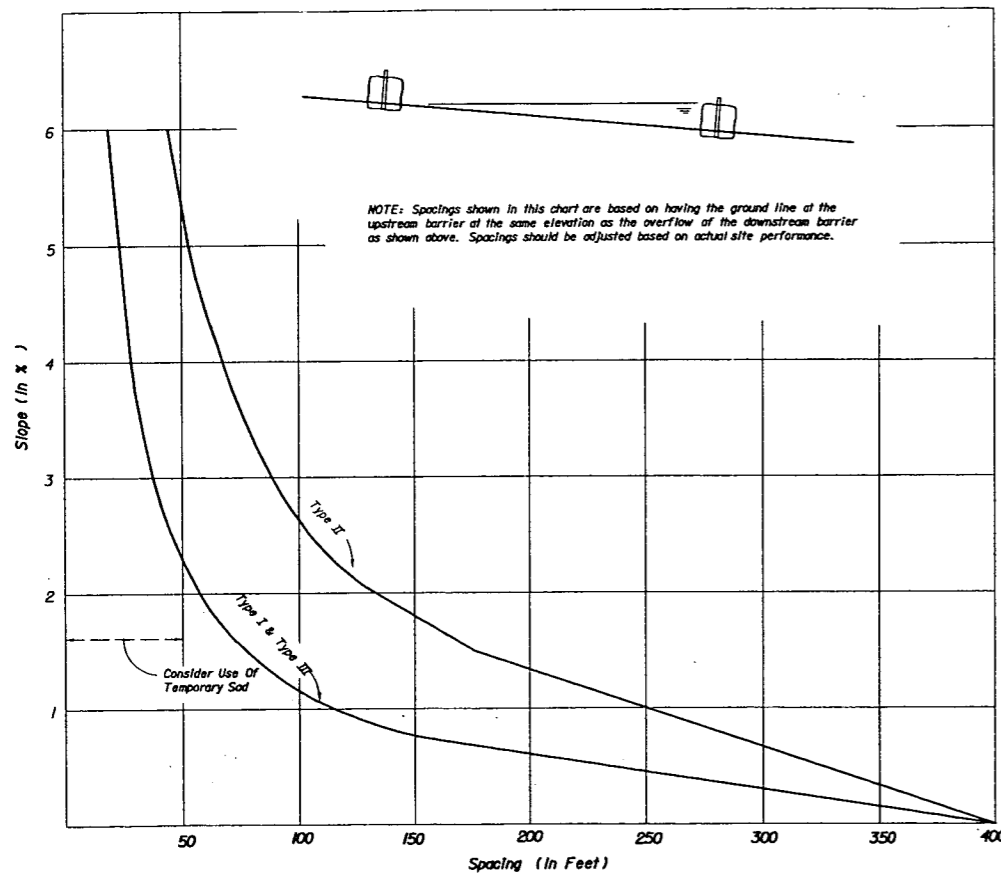
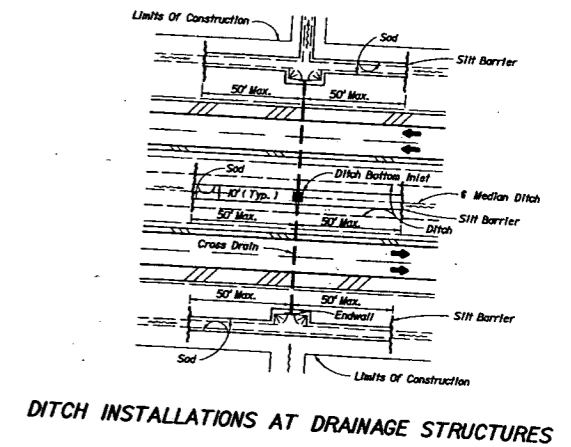
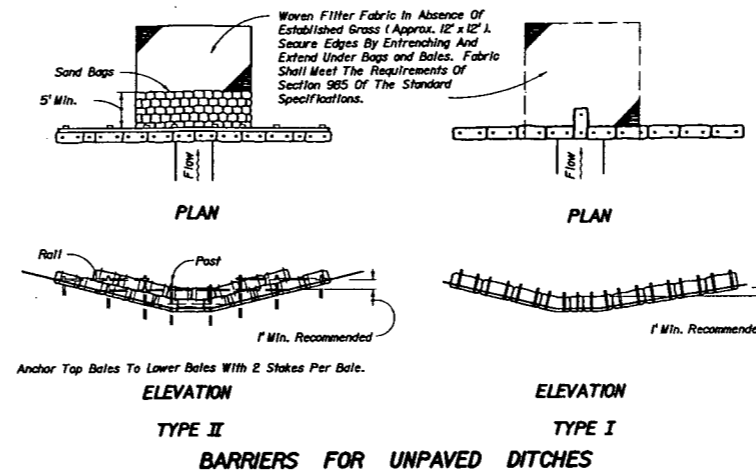
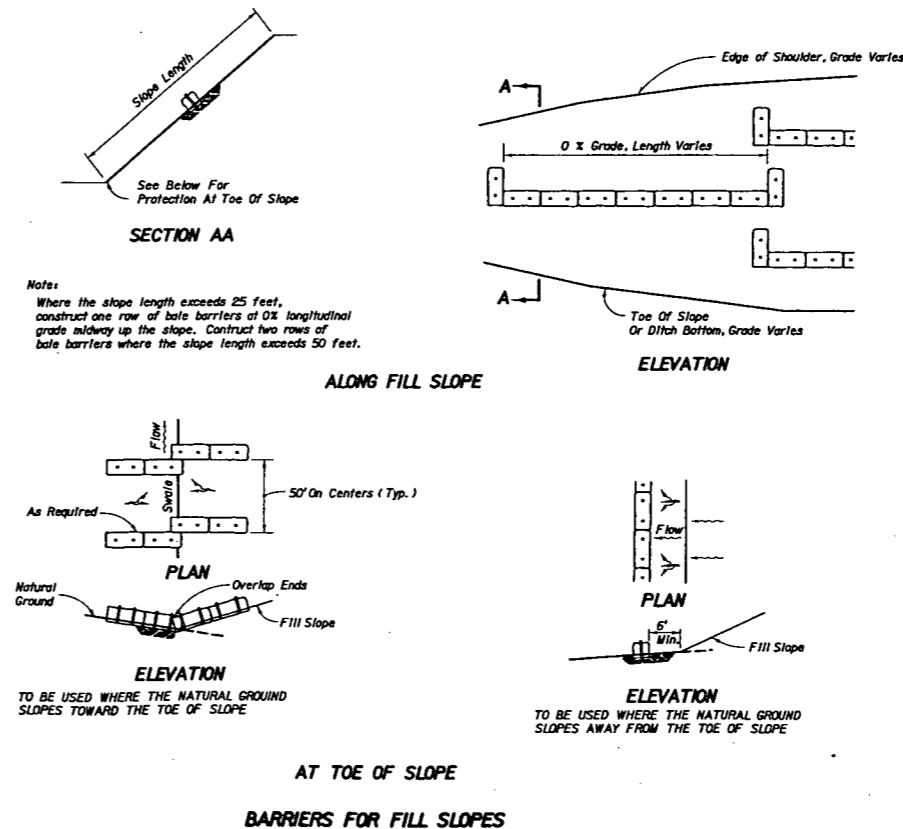


CHART I
RECOMMENDED SPACING FOR BALED HAY BARRIERS AND TYPE III SILT FENCE



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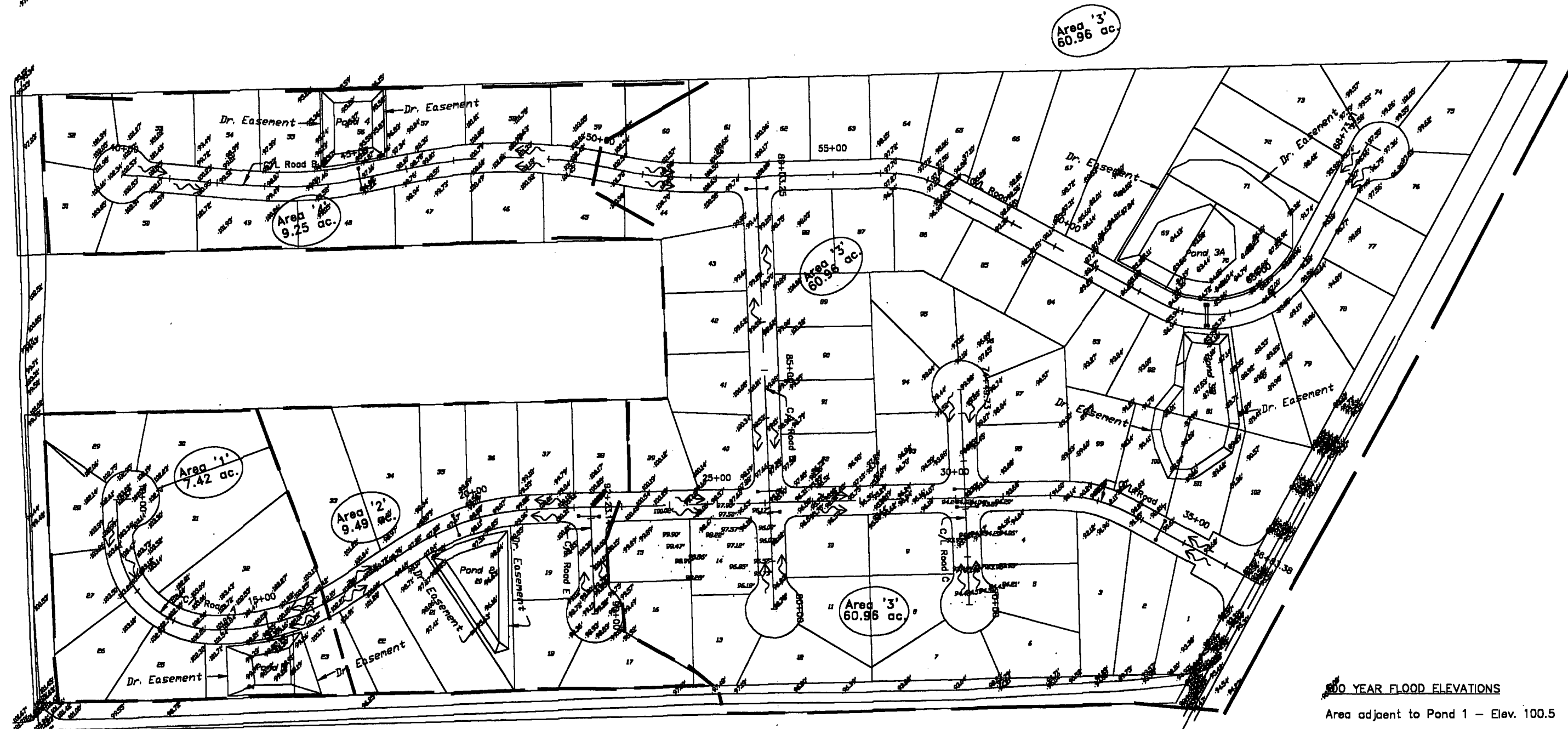
ARTHUR N. BEDENBAUGH, P.E.
ROUTE 6 BOX 507 LAKE CITY, FLORIDA 32025
TELEPHONE: (386) 752-5846

DONALD E. WILLIAMS
STONEHENGE SUBDIVISION

Columbia County
JOB NUMBER: 02-2003

7-23-03
EROSION CONTROL PLAN

SHEET
14



Area '3'
60.96 ac.

Area '1'
9.25 ac.

Area '3'
60.96 ac.

Area '1'
7.42 ac.

Area '2'
9.49 ac.

Area '3'
60.96 ac.

NOTES:

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100 YEAR FLOOD ELEVATIONS

- Area adjacent to Pond 1 - Elev. 100.5
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- Area adjacent to Pond 3A & 3B - Elev. 88.5
- Area adjacent to Pond 4 - Elev. 97.5

Legend

- 146- Exist. Quad Contours
- ~ Flow of Water

Revisions					
Date	By	Description	Date	By	Description

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STONEHENGE SUBDIVISION

Columbia County
JOB NUMBER: 02-2003

DRAINAGE PLAN

SHEET
3

Construction Plan Stonehenge Subdivision Sec. 23 - T4S - R16E Columbia County, Florida

Index of Plans

Sheet No.	Sheet Description
1	Key Sheet
2	Typical Sections
3	Drainage Plan
4-6	Drainage Details
7-12	Plan & Profile

The Contractor shall verify all existing conditions and dimensions at the job site to ensure that all work will fit in the manner intended on the plans. Should any conditions exist that are contrary to those shown on the plans, the Contractor shall notify the Engineer of such differences immediately and prior to proceeding with the work.

All disturbed areas shall be seeded with a mixture of long-term vegetation and short-term vegetation. The long term vegetation shall be applied at a minimum rate of 70 pounds per acre. The short-term vegetation shall be applied at a minimum rate of 20 pounds per acre and shall consist of winter rye from September through March and millet from April through August.

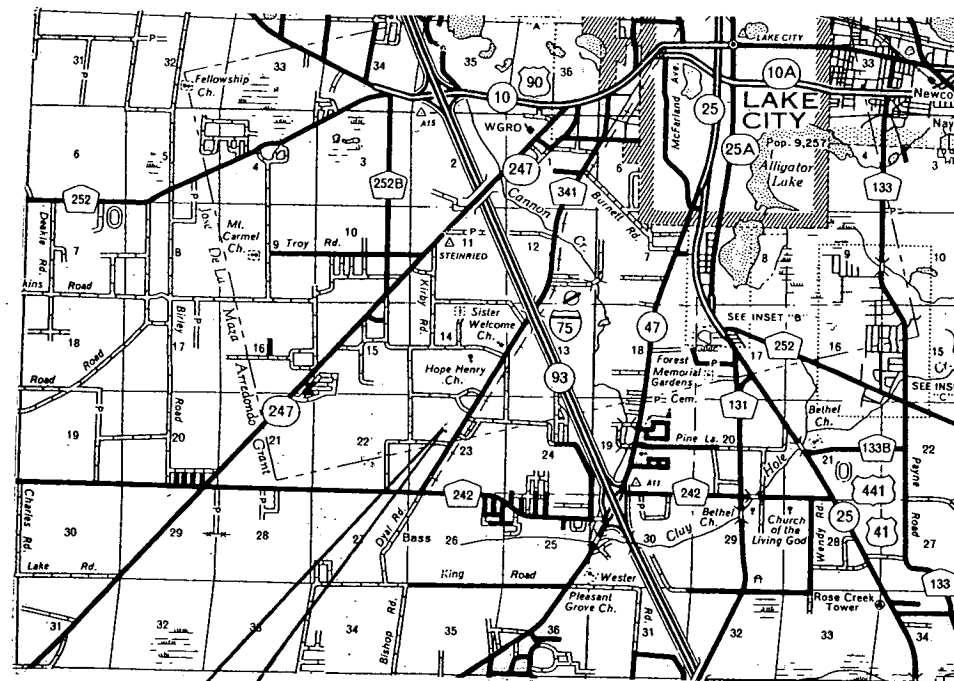
The permittee shall institute necessary measures during construction to minimize erosion, turbidity, nutrient loading, and sedimentation to adjacent lands and in the receiving waters.

All grades may be adjusted in the field six inches as long as the stopping sight distance and the flow of water are not changed.

Existing topographical information and elevations provided by surveyor.

Where ditch has to be deeper than normal to accommodate a pipe the transition from normal ditch grade to pipe flow line shall be a minimum length of one hundred feet.

The Contractor shall adhere to the Erosion and Sedimentation Control Plan from before earthwork begins until as-builts are completed.



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DONALD E. WILLIAMS
ROUTE 18 BOX 576
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386-755-0764

ENGINEER
ARTHUR N. BEDENBAUGH
ROUTE 6 BOX 507
LAKE CITY, FL 32025
386-752-5846

BRETT SURVEYING
LAND SURVEYORS AND MAPPERS
1426 WEST DUVAL STREET
LAKE CITY, FL 32055
386-752-7163

GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION,
ROADWAY AND TRAFFIC DESIGN STANDARDS DATED
JANUARY 2000, AND STANDARD SPECIFICATIONS
FOR ROAD AND BRIDGE CONSTRUCTION DATED
2000, AS AMENDED BY CONTRACT DOCUMENTS.

REVISIONS

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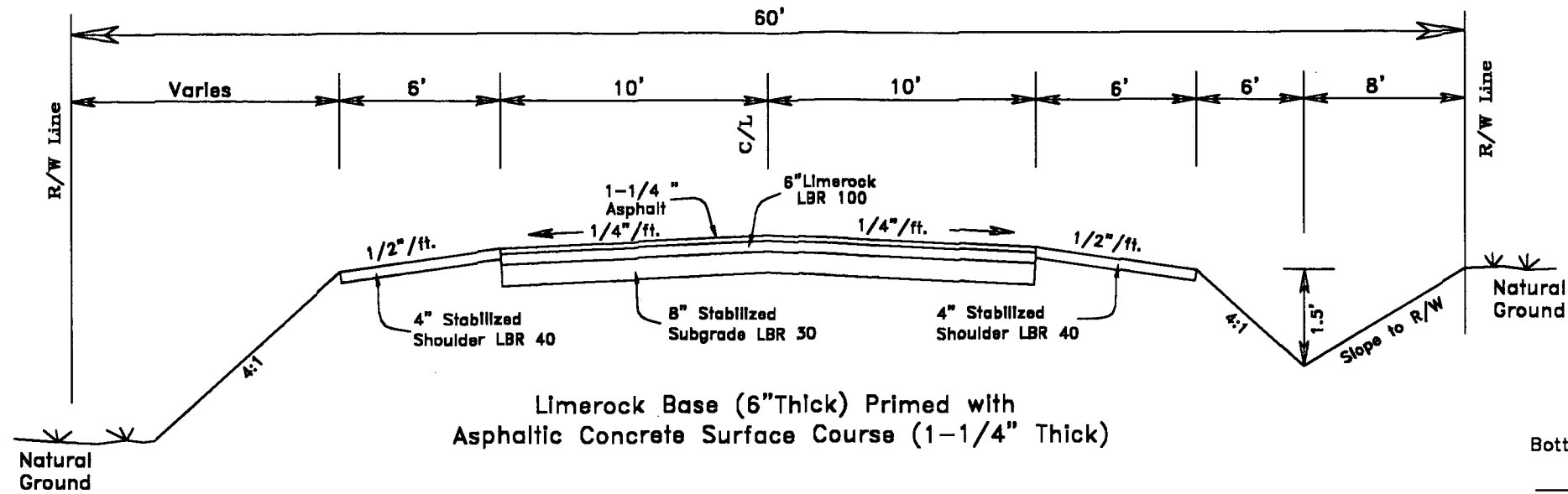
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NOTE: THE SCALE OF THESE PLANS MAY
HAVE CHANGED BY REPRODUCTION

Engineer of Record: Arthur N. Bedenbaugh 6-18-03

P.E. No.: 9162

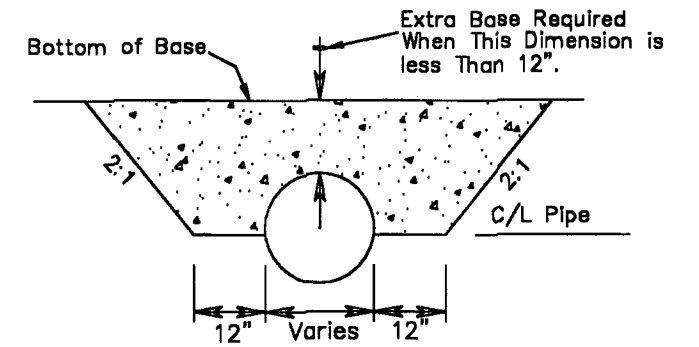
SHEET
1



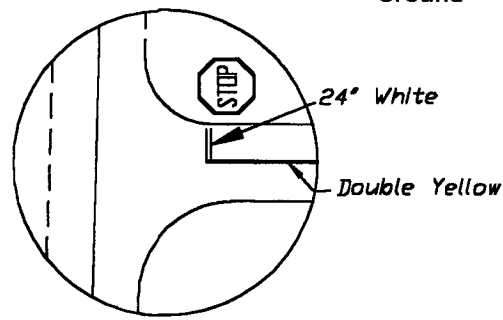
Limerock Base (6" Thick) Primed with Asphaltic Concrete Surface Course (1-1/4" Thick)

TYPICAL SECTION

Design Speed 25 M.P.H.



Pipe Detail less than 12" Cover



Intersection Signing & Marking Detail

COLUMBIA COUNTY ROADWAY CONSTRUCTION REQUIREMENTS

General Requirements

The roadway construction plans must be reviewed and approved prior to commencing construction.

All materials and construction shall conform to the requirements of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

The materials and construction shall be certified by a testing laboratory retained by the developer or contractor. Copies of all test results shall be provided prior to acceptance.

All traffic control and safety items (striping, stop bars, regulatory signs, etc.) shall be in place.

The temporary grass shall be sufficient to control erosion.

Final inspection for acceptance to be performed by County Engineer, Public Works Director, and County Commissioner (should he desire to attend).

Inspections by County Representatives

Completion of clearing and grubbing. Visual only - no test requirements.

Rough graded and drainage structures in place. Test results - LBR - Pipe backfill density.

Subgrade complete. Test results - Density.

Limerock placed and finished. Test results - Thickness, Cross Section and Density.

Asphaltic Concrete in place. Test results - Thickness and density.

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Final Inspection.
JUN 20 2003

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6-18-03

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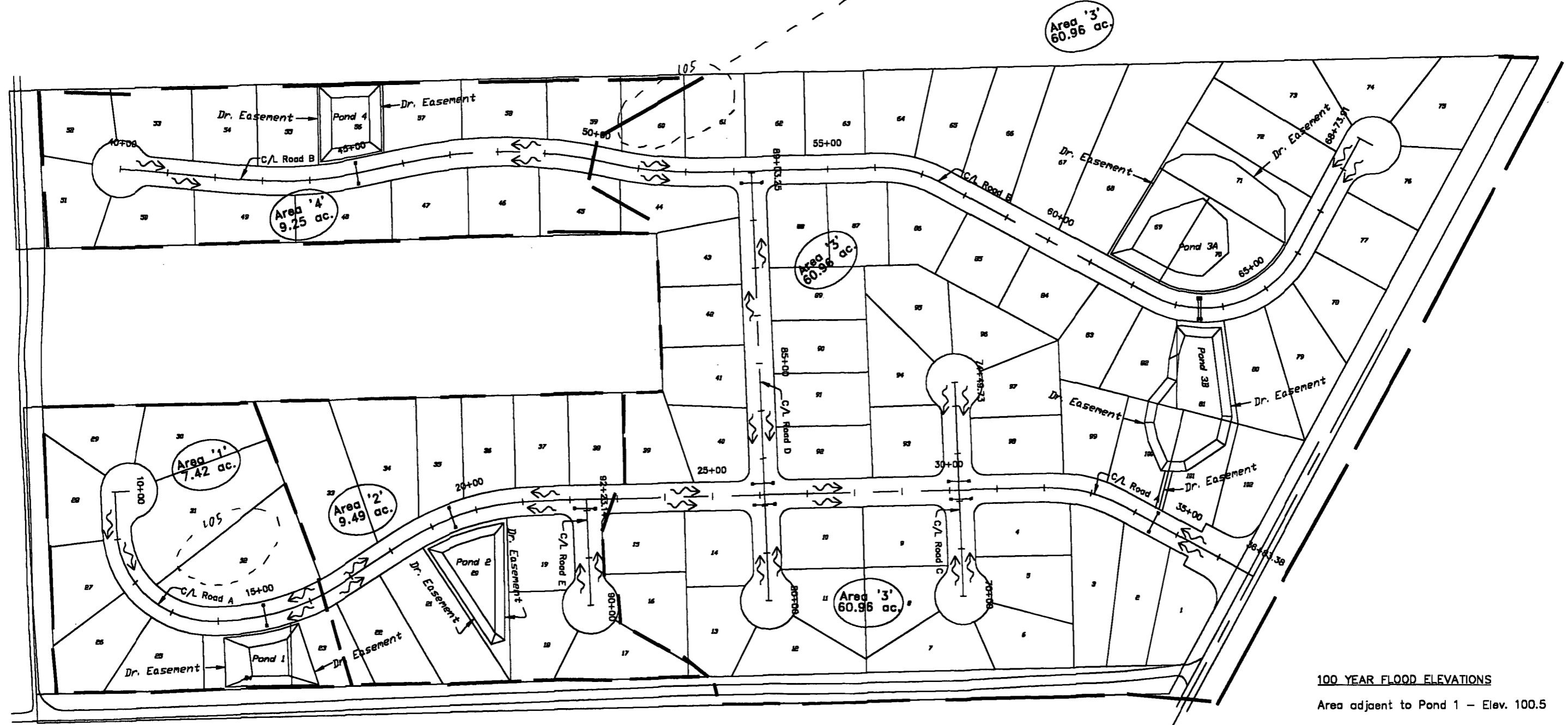
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ROUTE 6 BOX 507 ■ LAKE CITY, FLORIDA 32025
TELEPHONE: (386) 752-5846

DONALD E. WILLIAMS
STONEHENGE SUBDIVISION

Columbia County
JOB NUMBER: 02-2003

TYPICAL SECTIONS

SHEET
2



Area '3'
60.96 ac.

Area '4'
9.25 ac.

Area '3'
60.96 ac.

Area '1'
7.42 ac.

Area '2'
9.49 ac.

Area '3'
60.96 ac.

- 100 YEAR FLOOD ELEVATIONS**
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 - Area adjacent to Pond 4 - Elev. 97.5

NOTES:

THE HYDRAULIC DATA IS SHOWN TO INDICATE WATER ELEVATIONS WHICH MAY BE ANTICIPATED IN ANY GIVEN YEAR. THIS DATA WAS GENERATED USING HIGHLY VARIABLE FACTORS DETERMINED BY A STUDY OF THE WATERSHED. MANY JUDGEMENTS AND ASSUMPTIONS ARE REQUIRED TO ESTABLISH THESE FACTORS. THE RESULTANT DATA IS SENSITIVE TO CHANGES, PARTICULARLY OF ANTECEDENT CONDITIONS, URBANIZATION, CHANNELIZATION, AND LAND USE. USERS OF THIS DATA ARE CAUTIONED AGAINST THE ASSUMPTION OF PRECISION WHICH CANNOT BE ATTAINED. DISCHARGES ARE IN CUBIC FEET PER SECOND AND STAGES ARE IN REFERENCE TO NGVD.

THE 100 YEAR FLOOD IS THE FLOOD HAVING A 1% CHANCE OF BEING EXCEEDED IN ANY YEAR.

DATA USED IS FROM USGS QUAD MAPS, SURVEYS BY BRITT SURVEYING, AND FLOOD INSURANCE RATE MAPS.

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(DRAINAGE DETAILS AND NOTES
ON SHEETS 4, 5, & 6)
JUN 20 2003

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PRELIMINARY

- Legend**
- 146- Exist. Quad Contours
 - ~> Flow of Water

Arthur N. Bedenbaugh

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Date	By	Description	Date	By	Description

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ROUTE 6 BOX 507 • LAKE CITY, FLORIDA 32025
TELEPHONE: (386) 752-5846

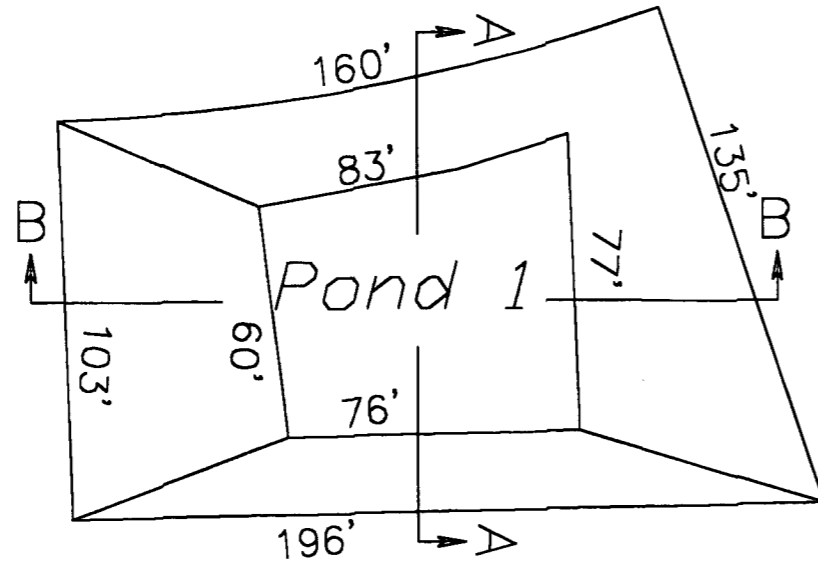
DONALD E. WILLIAMS
STONEHENGE SUBDIVISION

Columbia County
JOB NUMBER: 02-2003

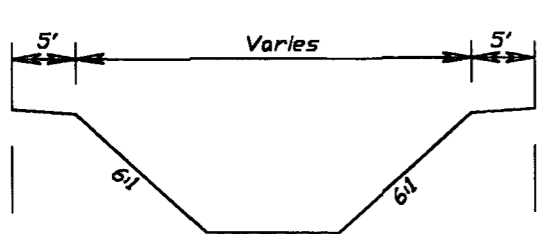
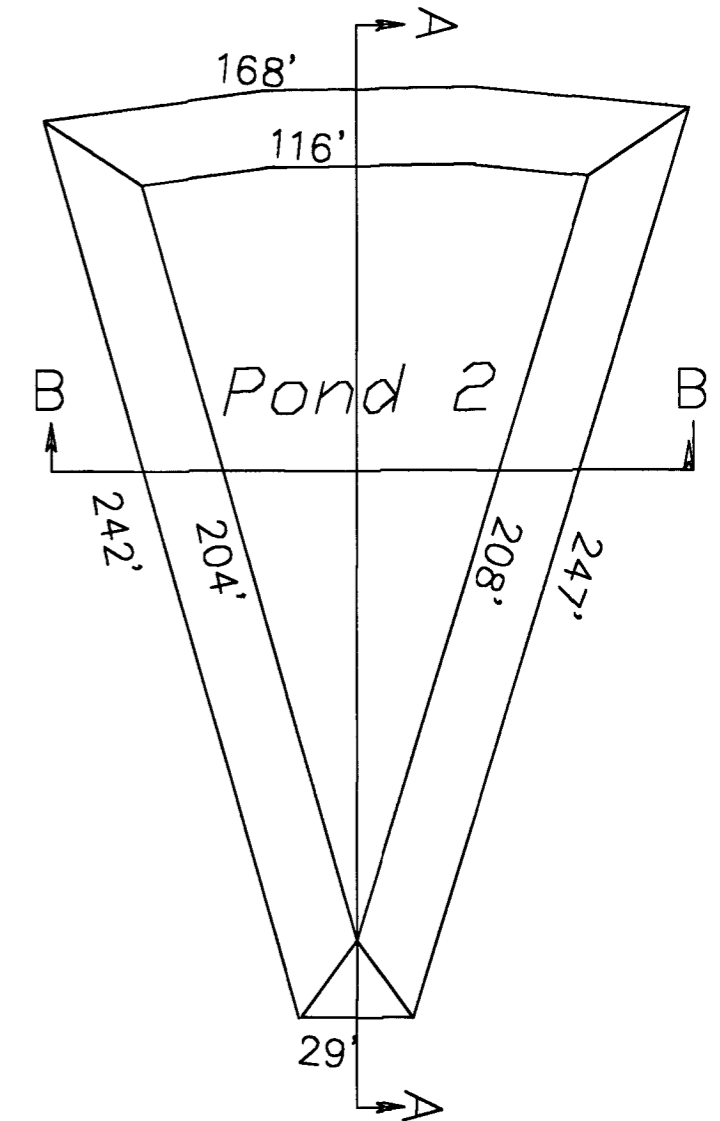
DRAINAGE PLAN 6-18-03

SHEET
3

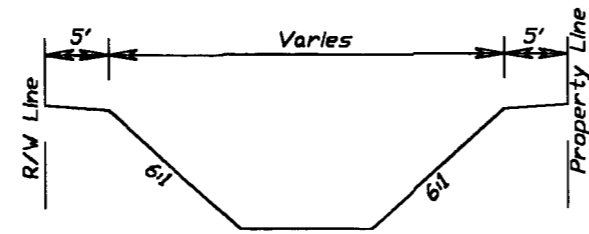
Pond 1 Data
 Top Elev. 100.0
 Bottom Elev. 95.0
 Slopes 6:1



Pond 2 Data
 Top Elev. 98.0
 Bottom Elev. 93.0
 Slopes 4:1

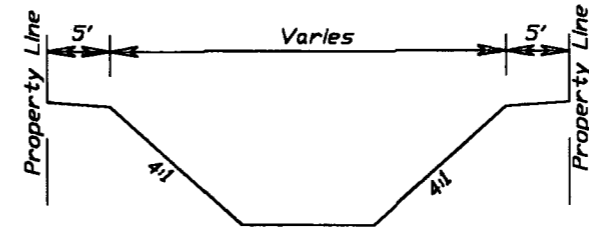


B-B

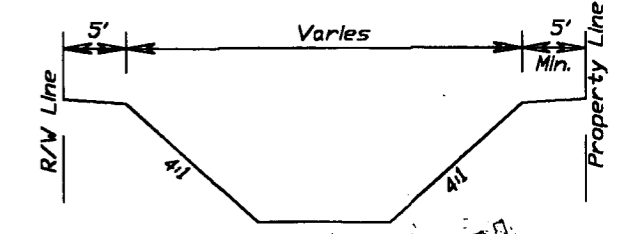


A-A

POND 1 DETAILS



B-B



A-A

POND 2 DETAILS

Arthur N. Bedenbaugh
 P.E.
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF FLORIDA
 No. 12345

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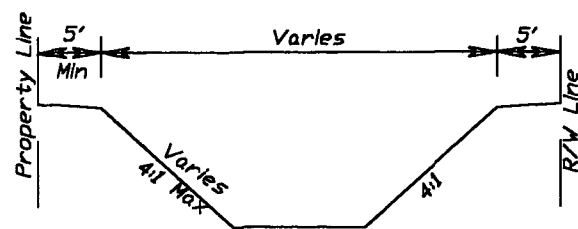
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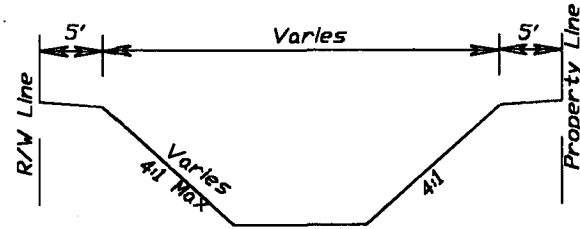
Columbia County
 JOB NUMBER: 02-2003

POND 1 & POND 2
 DETAILS 6-18-03

SHEET
 4

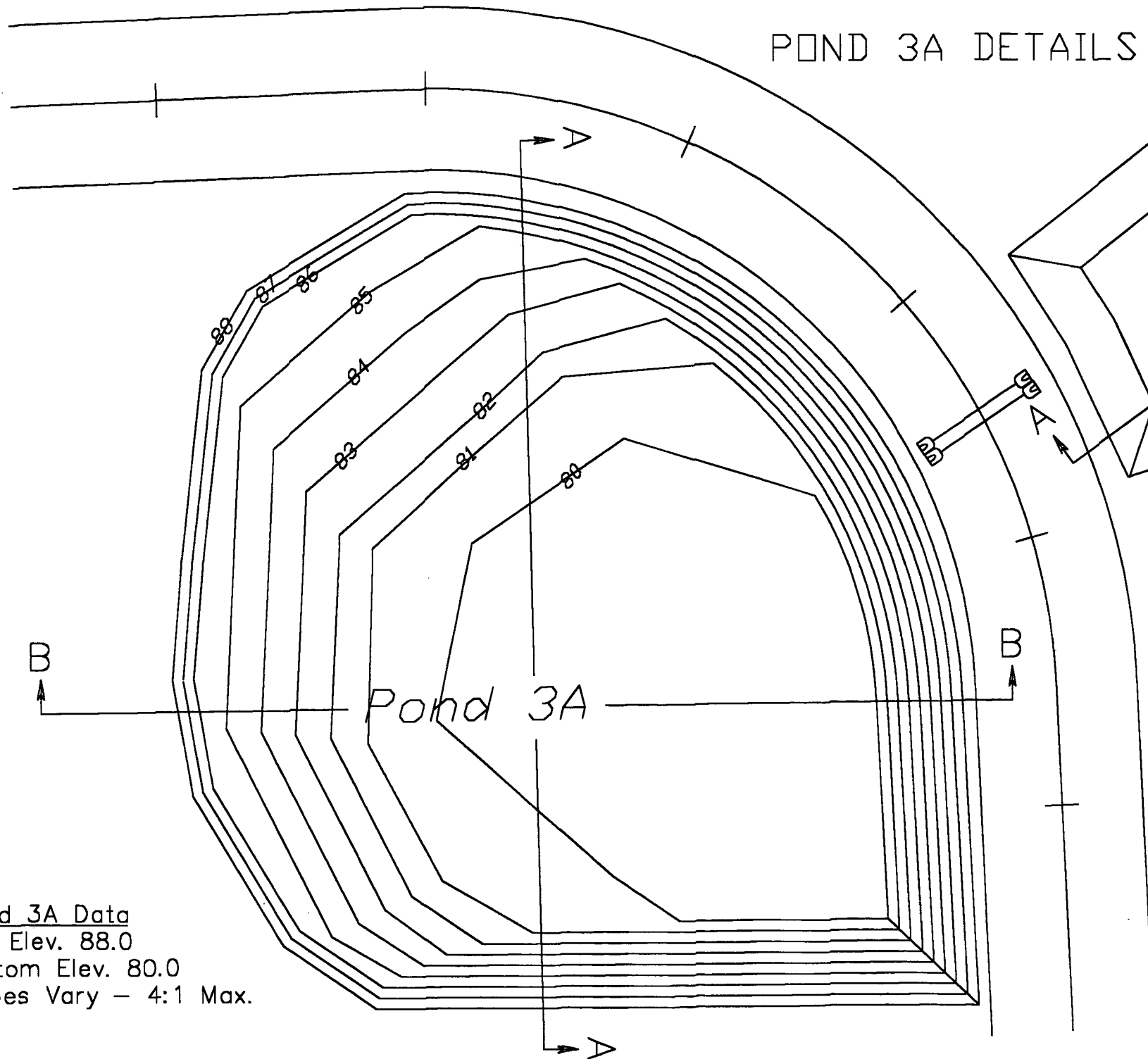


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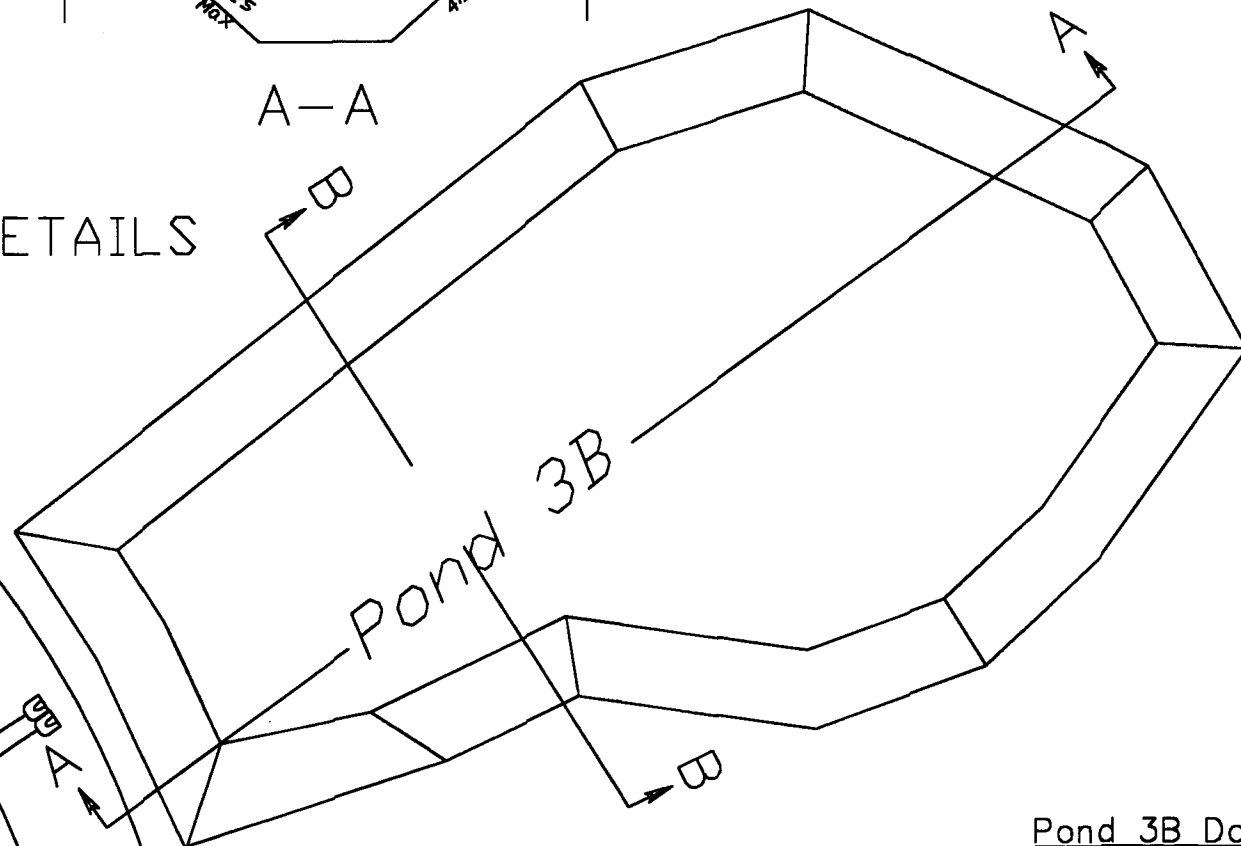


A-A

POND 3A DETAILS

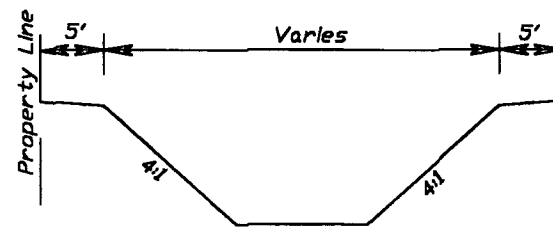


Pond 3A Data
 Top Elev. 88.0
 Bottom Elev. 80.0
 Slopes Vary - 4:1 Max.

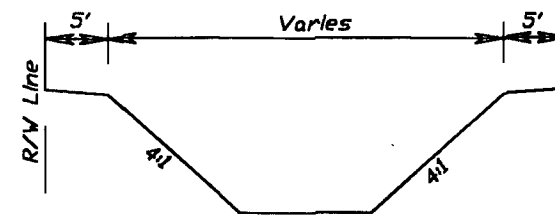


Pond 3B Data
 Top Elev. 88.0
 Bottom Elev. 84.0
 Slopes 4:1

PRELIMINARY



B-B



A-A

POND 3B DETAILS

Arthur N. Bedenbaugh

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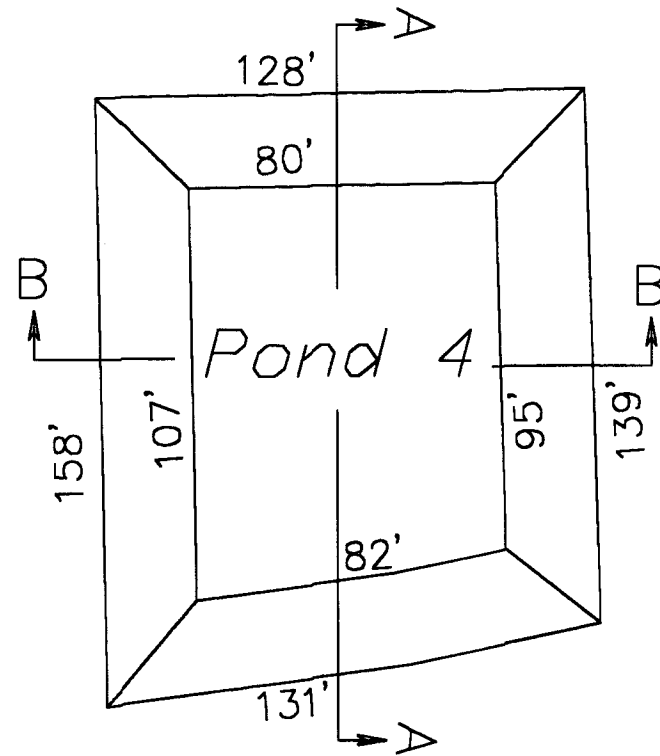
DONALD E. WILLIAMS
 STONEHENGE SUBDIVISION

Columbia County
 JOB NUMBER: 02-2003

POND 3A & POND 3B
 DETAILS 6-18-03

SHEET
 5

Pond 4 Data
 Top Elev. 97.0
 Bottom Elev. 91.0
 Slopes 4:1



Drainage Notes

Erosion control devices will be used during construction.

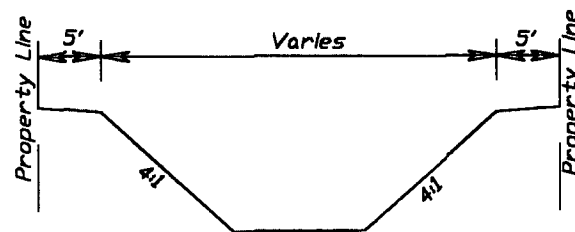
There shall be no construction within the 100-year flood zone without meeting all local, state, and federal requirements including permits when required.

There is to be no fill placed below the 100-year flood elevation.

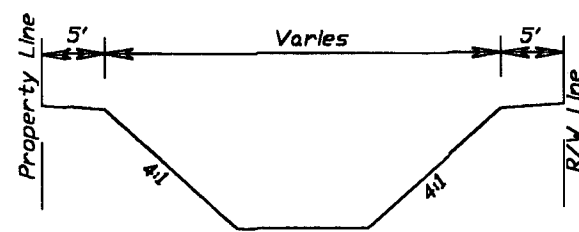
All habitable structures must be built at least 1 foot above the 100-year flood elevation.

There may be depressional areas on the property not shown that may hold water during hard rains and should not be used for building sites.

Drainage Easements exist along all retention areas and ditches to retention areas.



B-B



A-A

POND 4 DETAILS

PRELIMINARY

Arthur N. Bedenbaugh

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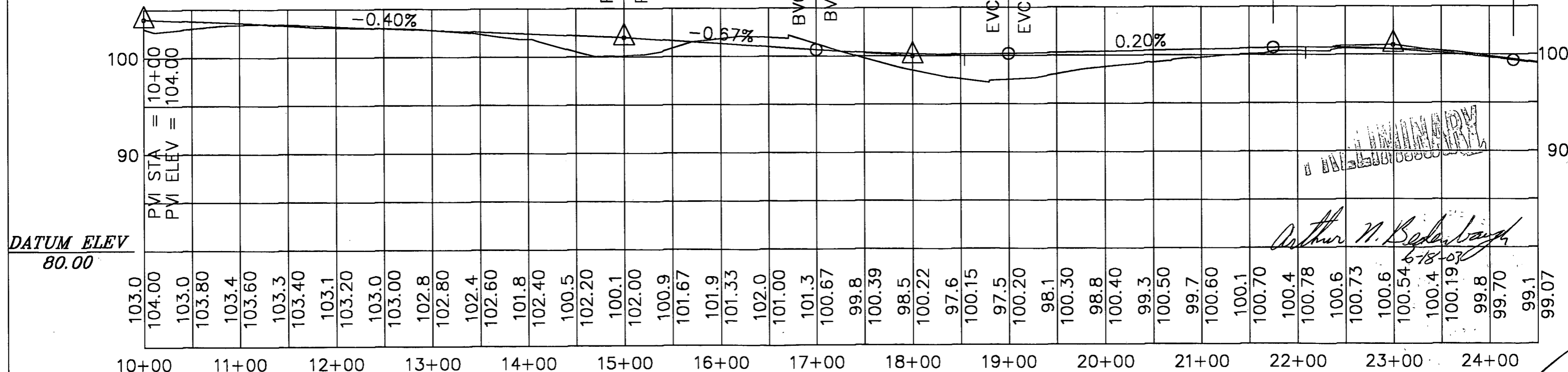
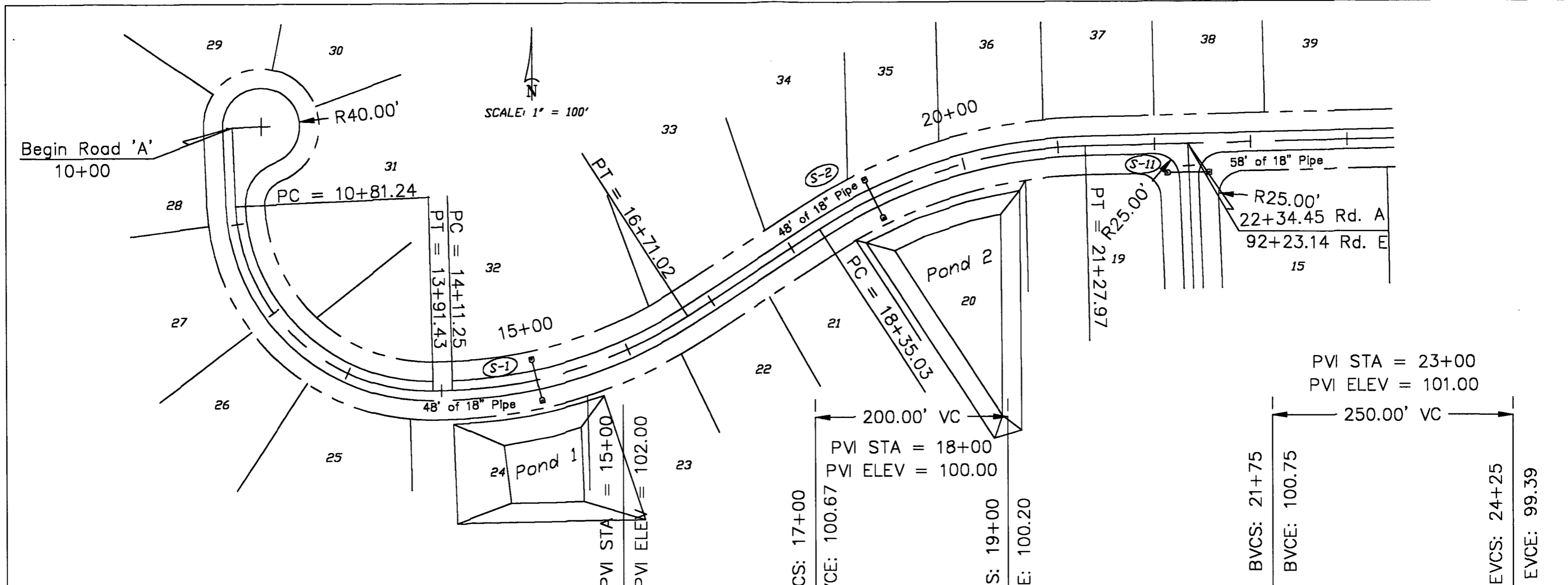
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 LAKE CITY, FLORIDA 32025
 TELEPHONE: (386) 752-5846

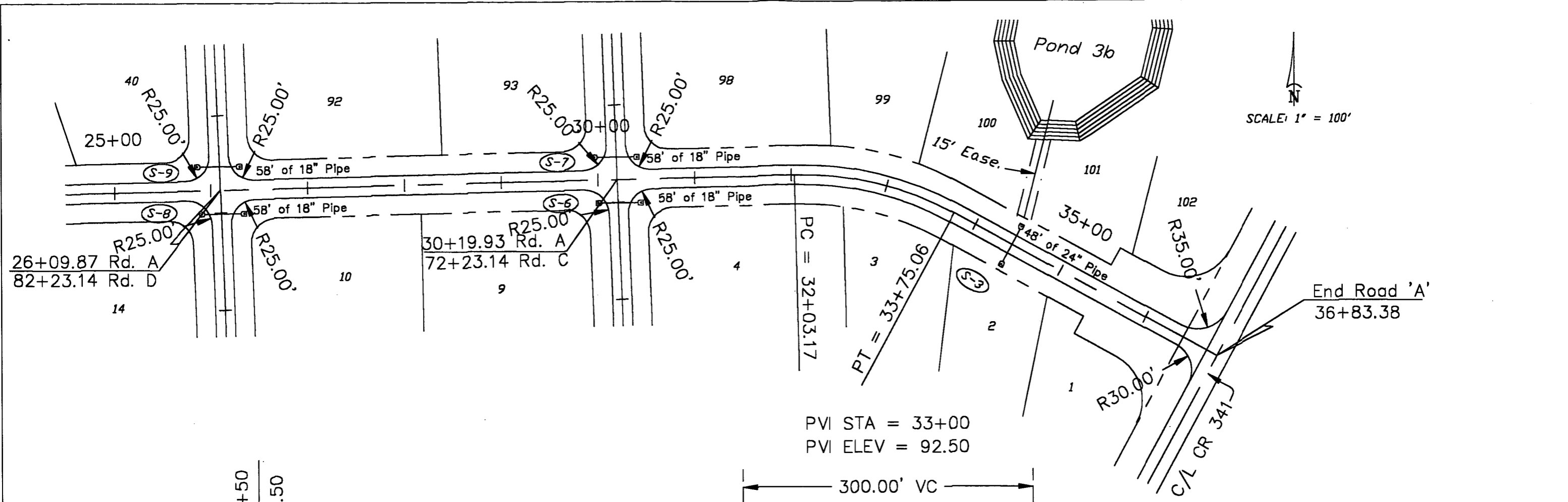
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Columbia County
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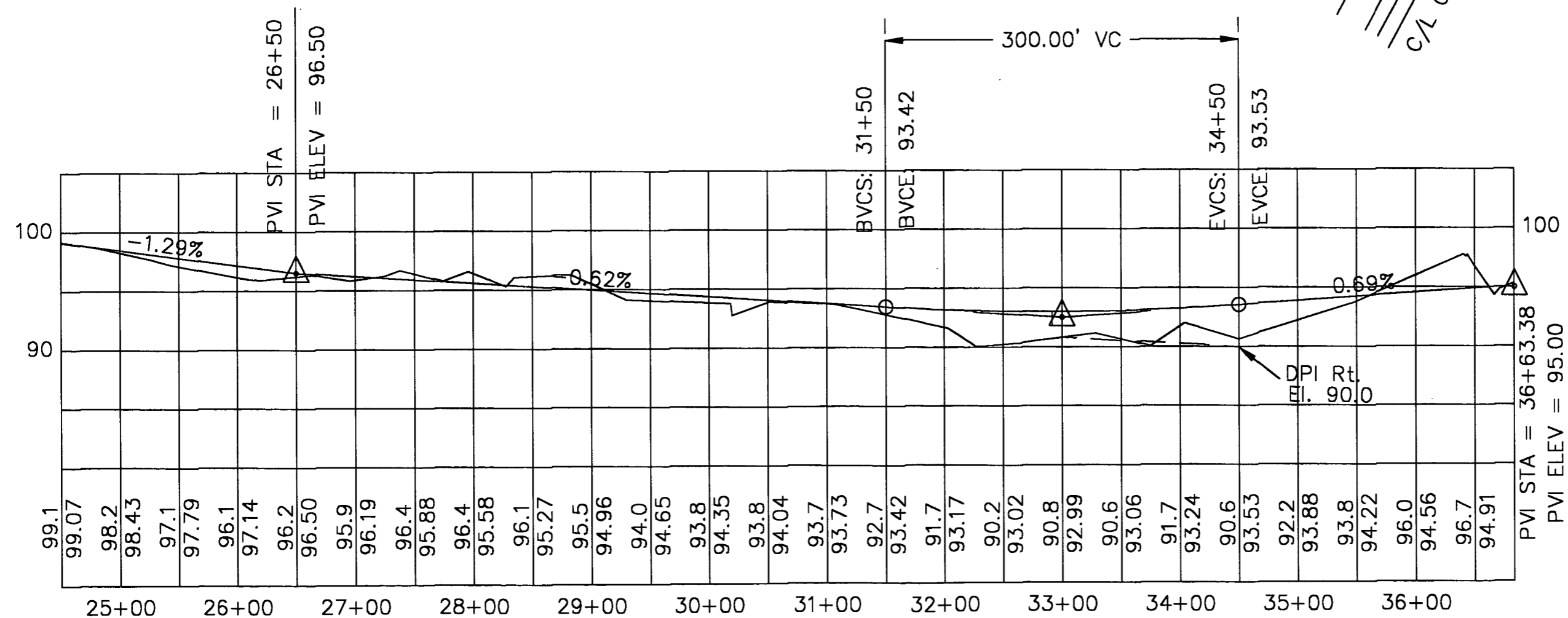
POND 4 & MISC.
 DETAILS 6-18-03

SHEET
 6





SCALE: 1" = 100'



PRELIMINARY

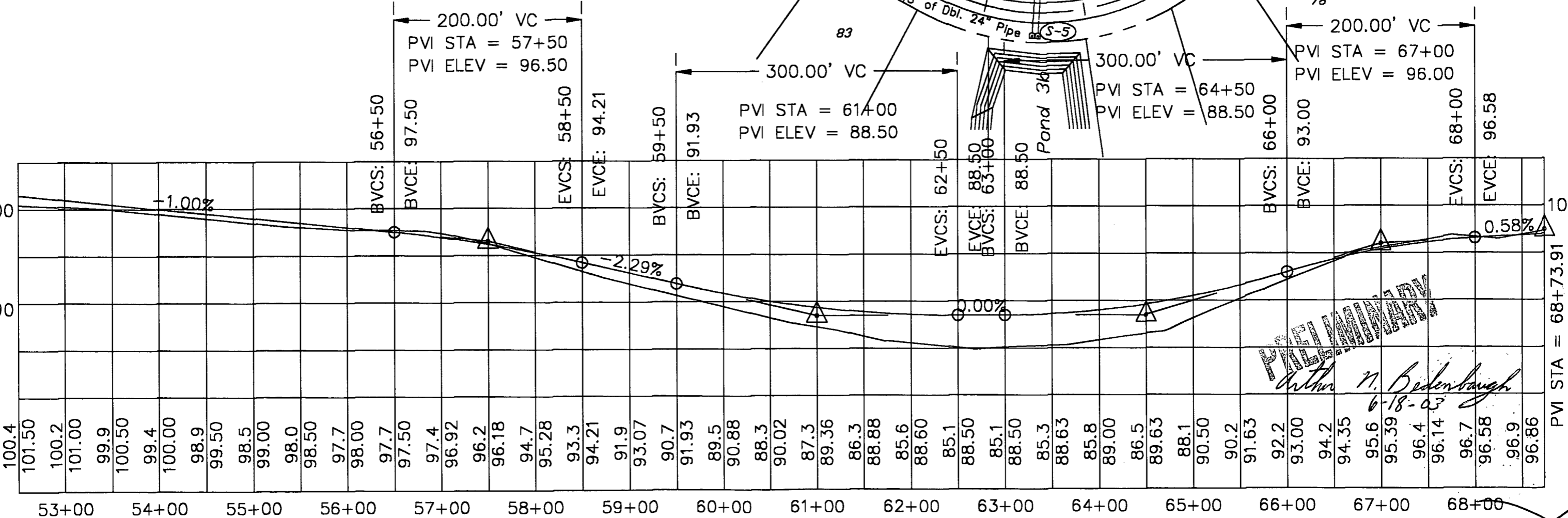
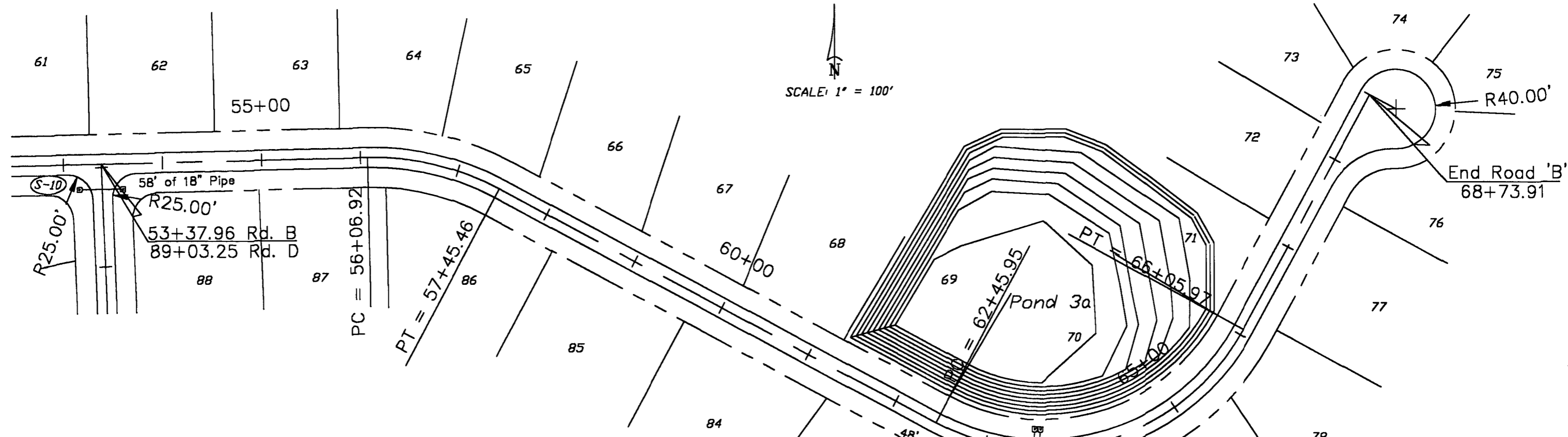
Arthur N. Bedenbaugh
 PLAN & PROFILE ROAD 'A' 6-18-03 SHEET 8

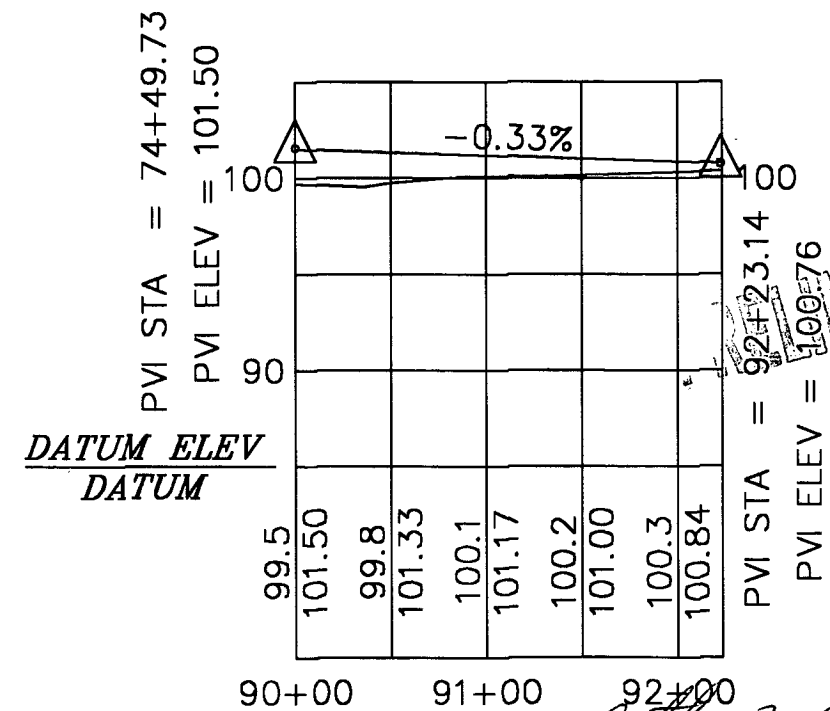
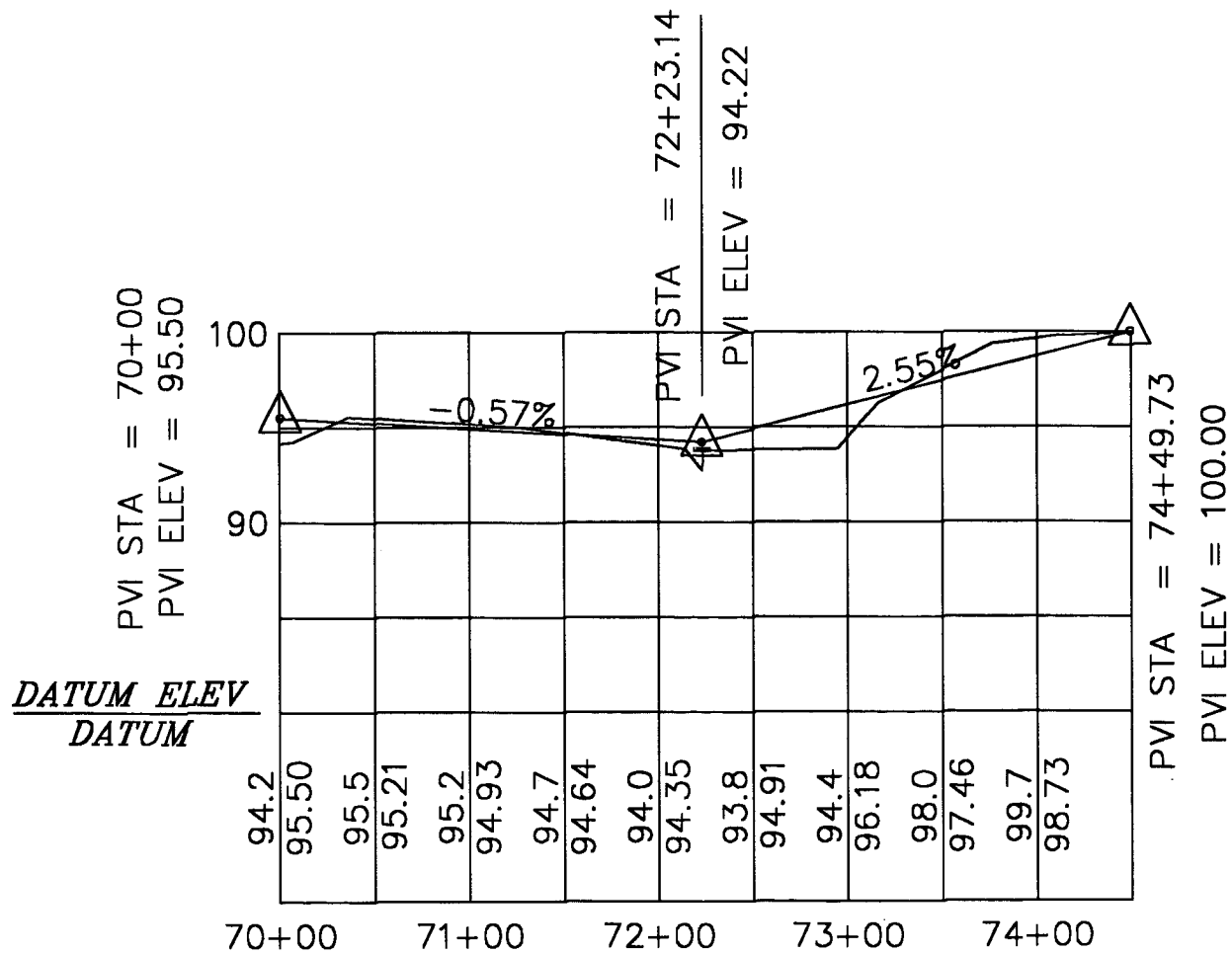
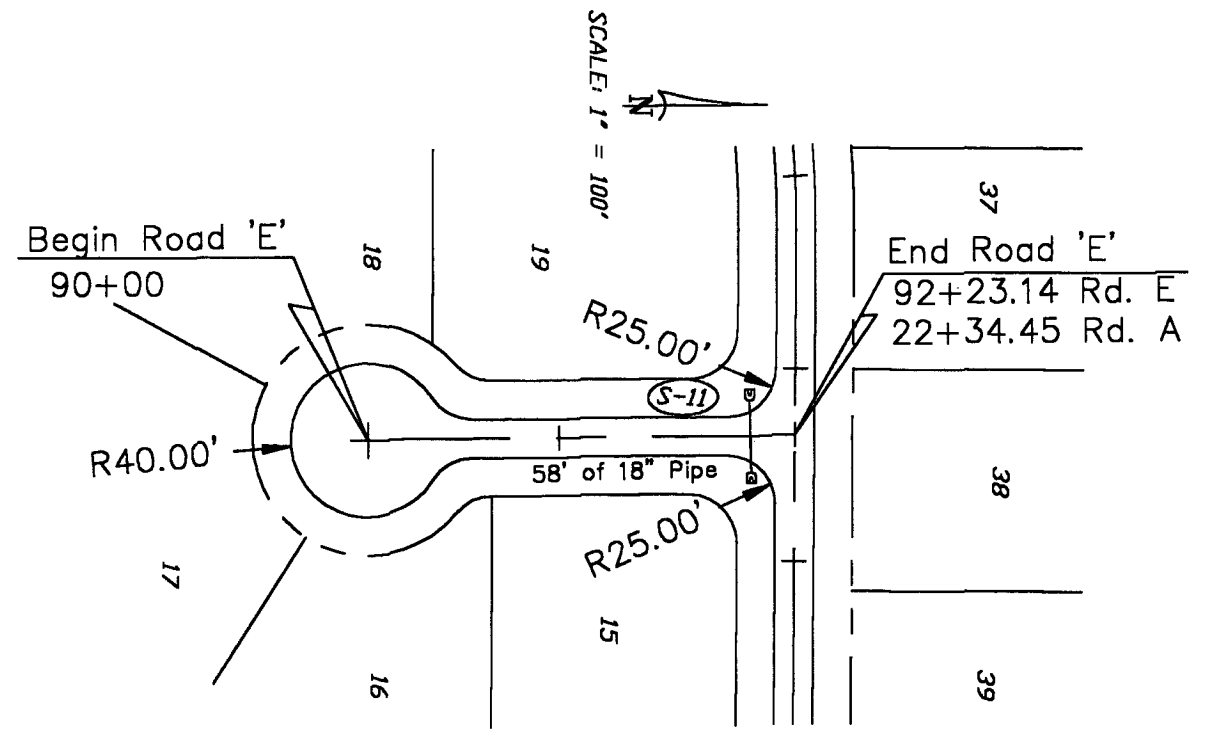
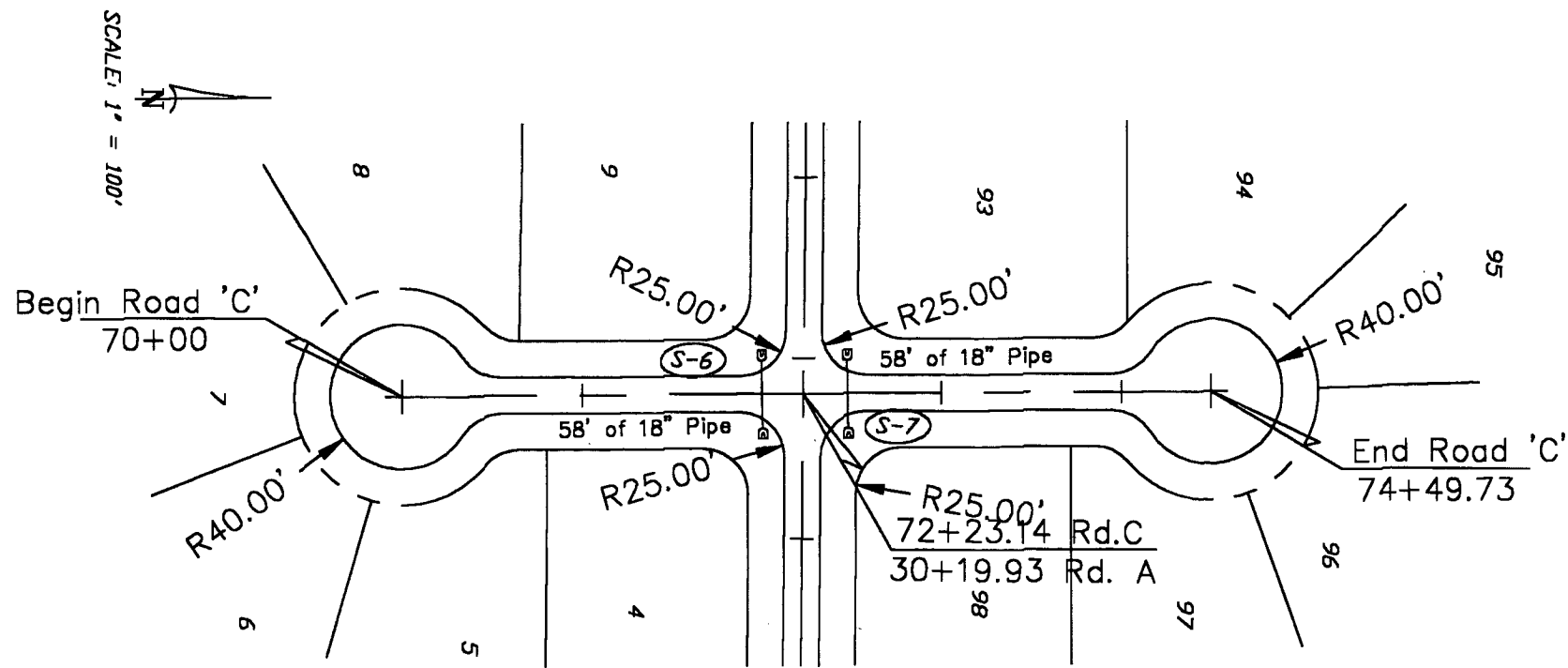
Revisions					
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 STONEHENGE SUBDIVISION

Columbia County
 JOB NUMBER: 02-2003





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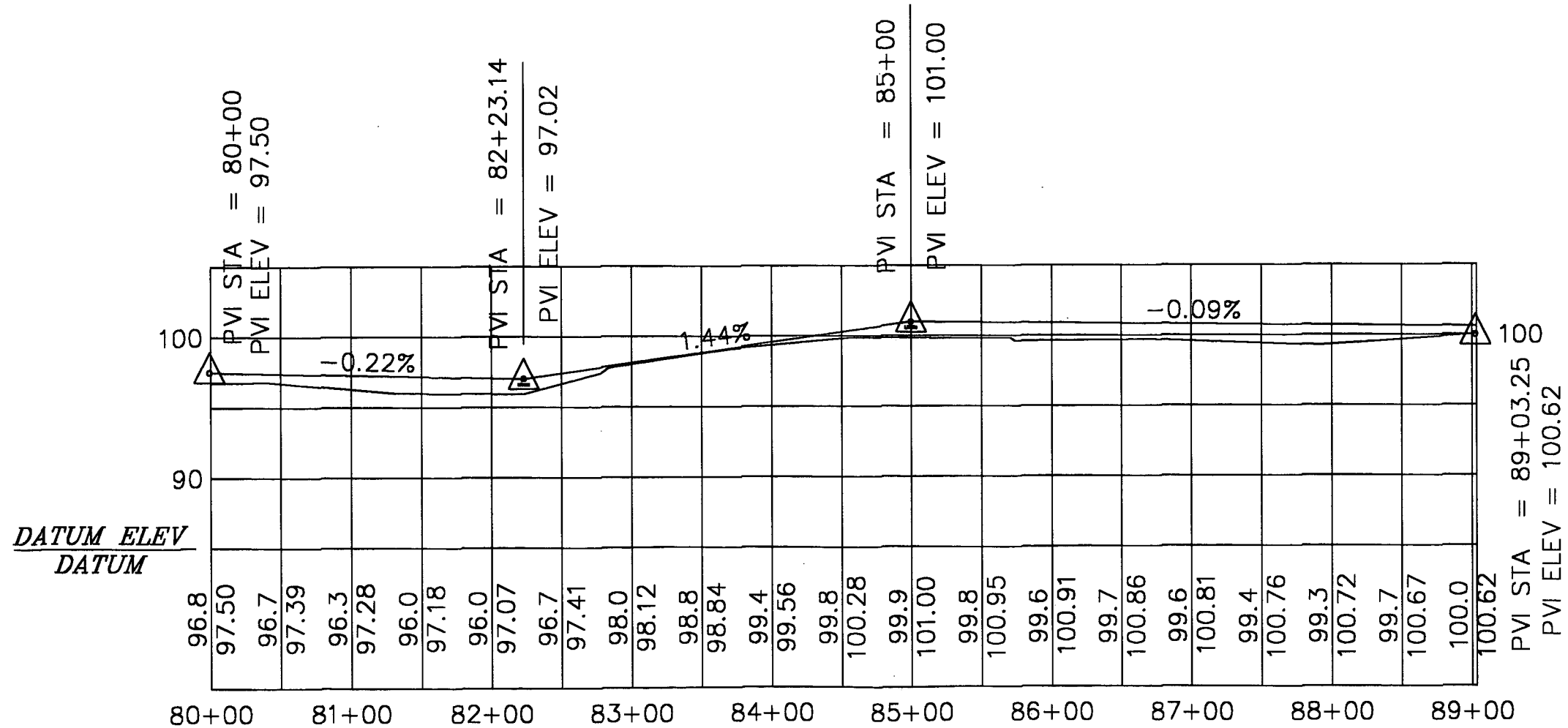
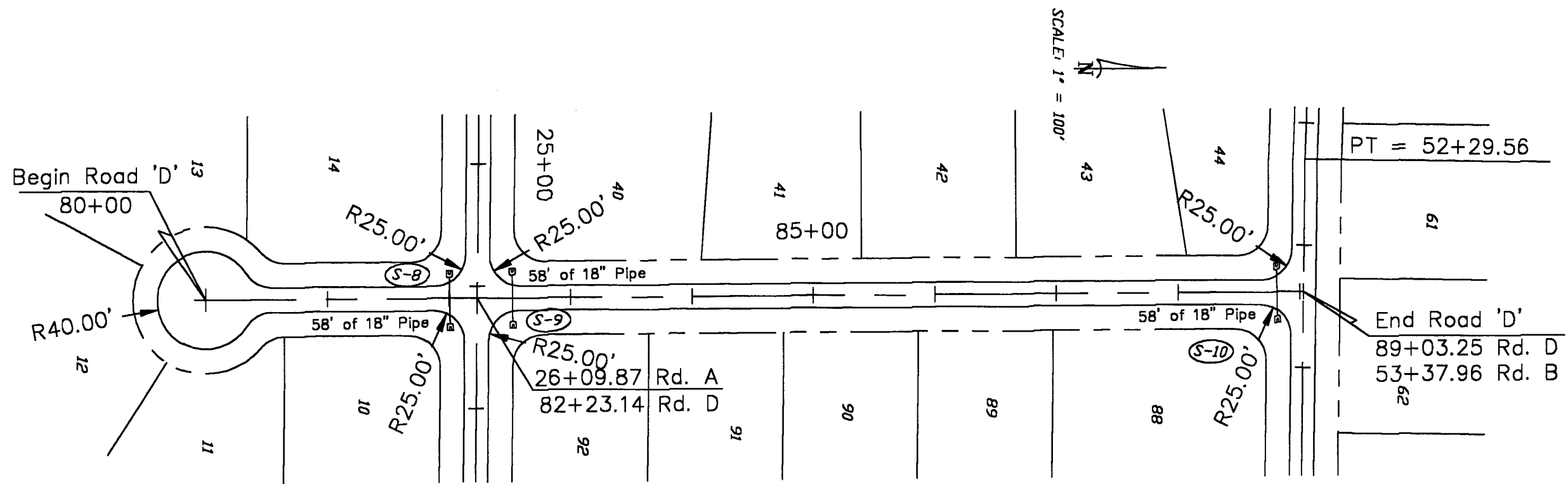
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DONALD E. WILLIAMS
STONEHENGE SUBDIVISION

Columbia County
JOB NUMBER: 02-2003

PLAN & PROFILE
ROAD 'C' & 'E' 6-18-03

SHEET
11



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Columbia County
 JOB NUMBER: 02-2003

PLAN & PROFILE 6-18-03
 ROAD 'D'

SHEET
 12

SITE DESCRIPTION

CONSTRUCTION ACTIVITY: Roadway and Retention Pond Construction

PROJECT LIMITS: Stonehenge Subdivision

PROJECT DESCRIPTION: New paved road construction, drainage structures, and retention ponds.

MAJOR SOIL DISTURBING ACTIVITIES: The major soil disturbing activities include clearing and grubbing, new roadway construction, and excavation for retention ponds.

TOTAL PROJECT AREA: 69.86 ac.

TOTAL AREA TO BE DISTURBED: 14.99 ac.

RUNOFF COEFICIENTS:
 Pre-Construction = .15
 Post-Construction = .37

DESCRIPTION OF SOIL: Soils within the project area are generally within the following soil groups.
 Blanton Fine Sand
 Bonneau-Blanton Complex

ESTIMATES OF SIZE OF DRAINAGE AREA FOR EACH OUTFALL:
 See Drainage Plan Sheet 3

LOCATIONS OF DRAINAGE AREAS AND OUTFALLS:
 See Drainage Plan Sheet 3

NAME OF RECEIVING WATER(S):
 All water retained on project site.

WETLAND AREA:
 Total Permanent Impacts: 0
 Total Temporary Impacts: 0

CONTROLS

NARRATIVE – SEQUENCE OF SOIL DISTURBING ACTIVITIES AND IMPLEMENTATION OF CONTROLS: Primary activities that will disturb soil are clearing and grubbing, excavation, and fill. Contractor shall be responsible for minimizing disturbance in each active work area complying with FDOT Index 102. Sediment controls include silt fences and hay bales which are to remain in place until temporary or permanent seeding or sodding has taken hold.

EROSION AND SEDIMENT CONTROLS:

STABILIZATION PRACTICES:
 Permanent sodding, seeding or seed & mulch.

STRUCTURAL PRACTICES:
 Silt Fences
 Hay Bales

DESCRIPTION OF STORM WATER MANAGEMENT: The storm water management consists of four retention ponds and swale treatment in roadside ditches. Runoff is conveyed to ponds via roadside ditches, culverts, and drainage ditches. All runoff is retained on project site.

WASTE DISPOSAL: To be provided by the Contractor

SANITARY WASTE: To be provided by the Contractor

FERTILIZERS AND PESTICIDES:
 Fertilizer: 400 lb/ac at 1 application (Per FDOT Standards)

NON-STORM WATER DISCHARGE: No non-storm water discharge is anticipated.

APPROVED STATE, LOCAL PLANS, OR STORM WATER PERMIT:
 SRWMD EPR PERMIT – Pending

MAINTENANCE: All the controls shall be maintained at all times during construction.

INSPECTION: All controls shall be inspected daily and after the end of each rainfall of 0.5 inches or greater.

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 STONEHENGE SUBDIVISION

Columbia County
 JOB NUMBER: 02-2003

EROSION CONTROL PLAN

SHEET
 13

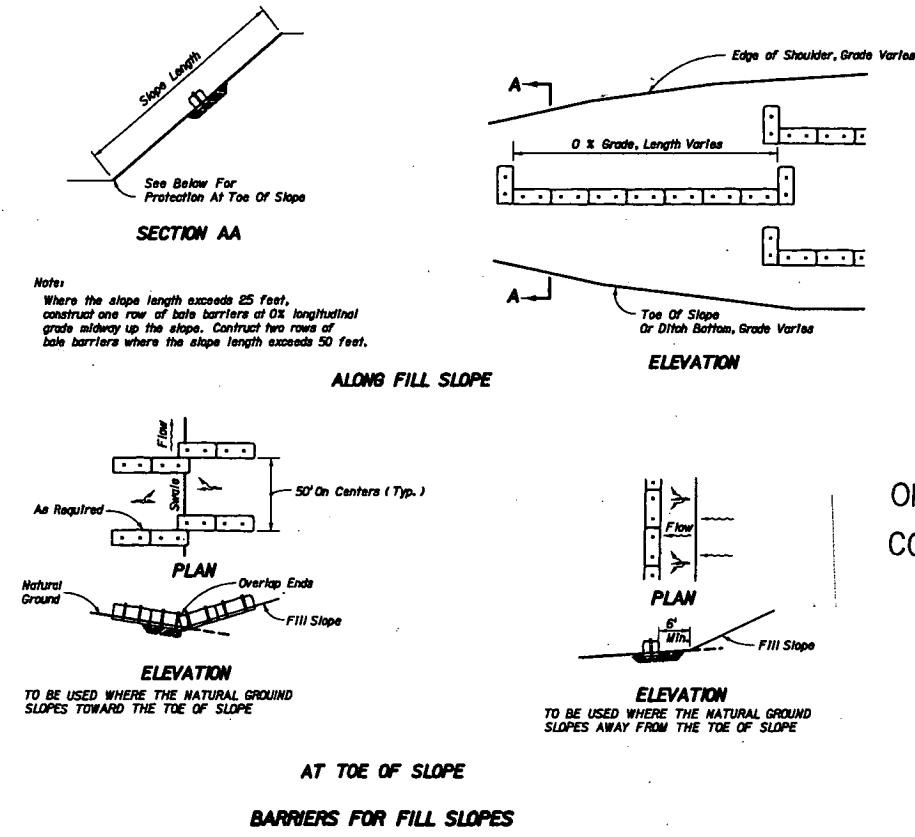
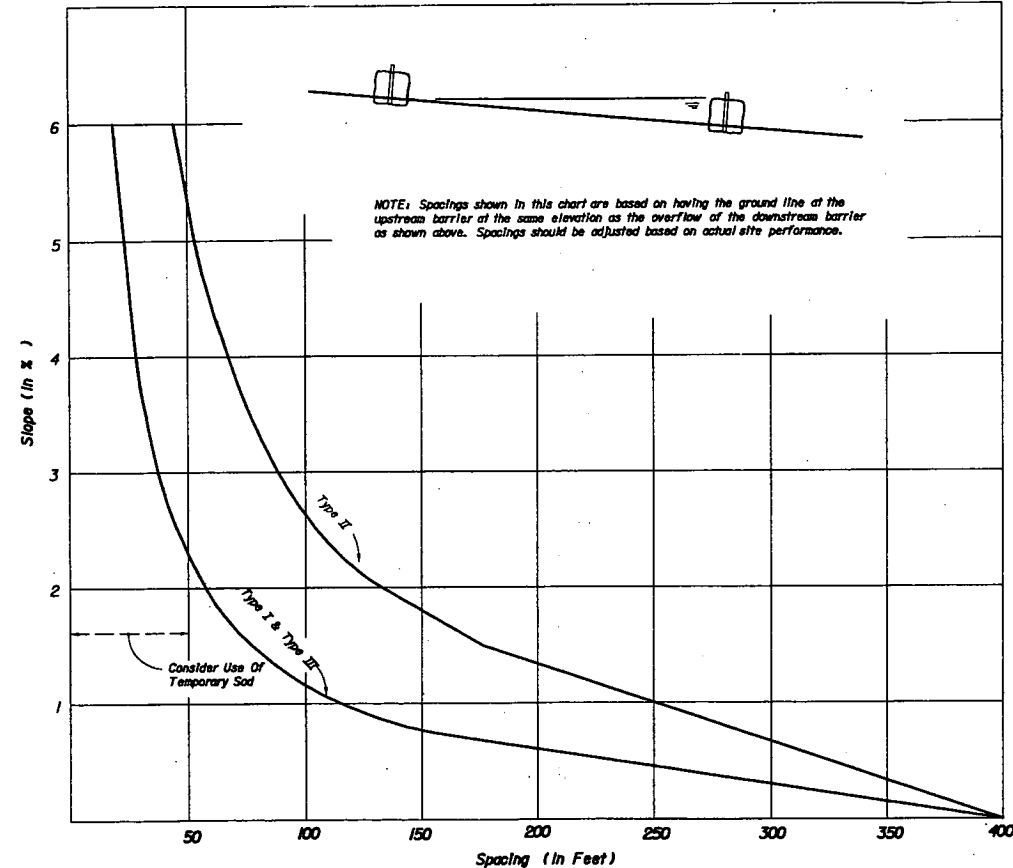
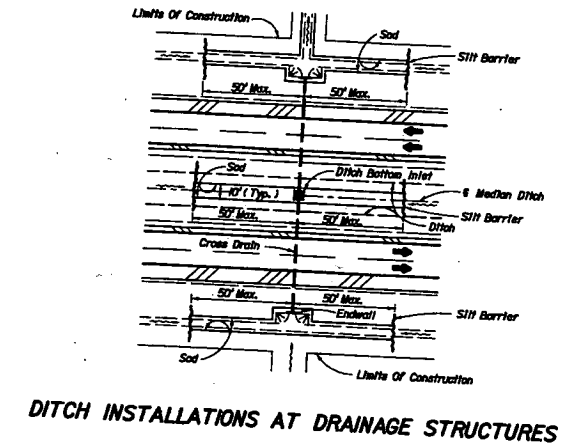
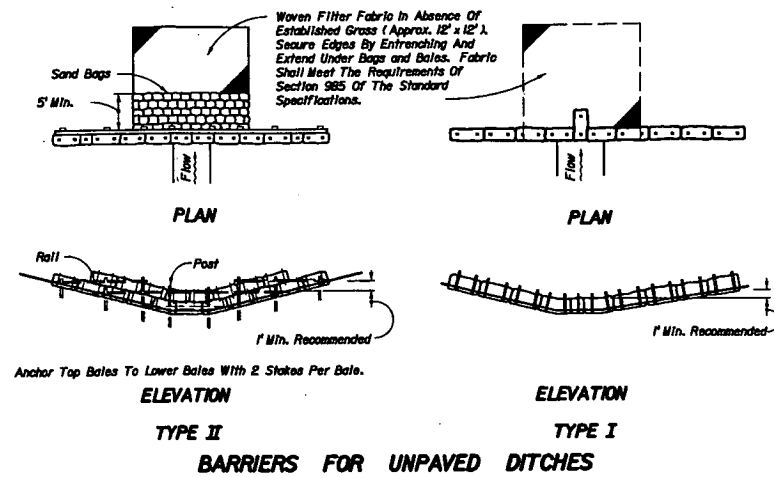
NOTES:

IF THE PROPOSED EROSION AND SEDIMENT CONTROL PLAN DOES NOT WORK OR IS NOT EFFECTIVE, THE CONTRACTOR SHALL USE THE BEST MANAGEMENT PRACTICES IN THE FLORIDA EROSION AND SEDIMENT CONTROL INSPECTOR MANUAL TO IMPLEMENT A PLAN THAT WILL WORK.

NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATER BODY OR STORMWATER COLLECTION FACILITY.

CROSS DRAINS SHALL BE PROTECTED FROM SEDIMENT LADEN STORMWATER RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS.

RETENTION BASINS SHOULD BE VISUALLY MONITORED FOLLOWING SIGNIFICANT STORM EVENTS FOR SINK HOLE ACTIVITY. WHERE SHALLOW DEPRESSIONS ARE NOTED, THESE MAY BE FILLED TO PRE-EXISTING GRADE WITH CLAYEY SAND MATERIAL, GRADED, AND VEGETATED. OTHER SINK HOLE ACTIVITY SHOULD EMPLOY METHODOLOGIES ACCEPTABLE TO THE APPLICABLE REGULATORY AGENCY.



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STONEHENGE SUBDIVISION

Columbia County
JOB NUMBER: 02-2003

EROSION CONTROL PLAN

SHEET
14

STONEHENGE										
MINIMUM FINISHED FLOOR ELEVATIONS										
1	94.90		27	104.60		53	104.00		79	92.70
2	94.30		28	105.00		54	102.50		80	91.50
3	94.00		29	105.00		55	102.50		81	89.00
4	96.00		30	105.00		56	100.20		82	89.50
5	96.50		31	105.00		57	100.20		83	90.40
6	96.50		32	104.20		58	101.30		84	93.00
7	96.50		33	102.40		59	102.70		85	96.30
8	96.50		34	101.70		60	103.60		86	99.00
9	96.60		35	101.20		61	103.00		87	100.00
10	98.40		36	101.30		62	102.00		88	101.80
11	98.00		37	101.60		63	100.50		89	102.00
12	98.00		38	101.80		64	99.50		90	101.30
13	98.00		39	101.60		65	98.50		91	99.90
14	100.10		40	100.60		66	97.20		92	98.50
15	102.50		41	102.00		67	94.10		93	96.90
16	102.50		42	102.00		68	91.90		94	101.00
17	102.50		43	101.90		69	89.00		95	101.00
18	102.50		44	103.60		70	89.00		96	101.00
19	102.40		45	102.30		71	89.00		97	101.00
20	101.20		46	101.30		72	97.90		98	99.80
21	101.40		47	99.50		73	98.00		99	94.00
22	102.00		48	100.50		74	98.00		100	94.00
23	102.80		49	102.50		75	98.00		101	94.60
24	103.60		50	103.50		76	98.00		102	95.30
25	104.60		51	104.00		77	97.90			
26	104.20		52	104.00		78	95.40			

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Date	By	Description	Date	By					

Construction Plan Stonehenge Subdivision Sec. 23 - T4S - R16E Columbia County, Florida

Index of Plans

Sheet No.	Sheet Description
1	Key Sheet
2	Typical Sections
3	Drainage Plan
4-9	Plan & Profile

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The Contractor shall verify all existing conditions and dimensions at the job site to ensure that all work will fit in the manner intended on the plans. Should any conditions exist that are contrary to those shown on the plans, the Contractor shall notify the Engineer of such differences immediately and prior to proceeding with the work.

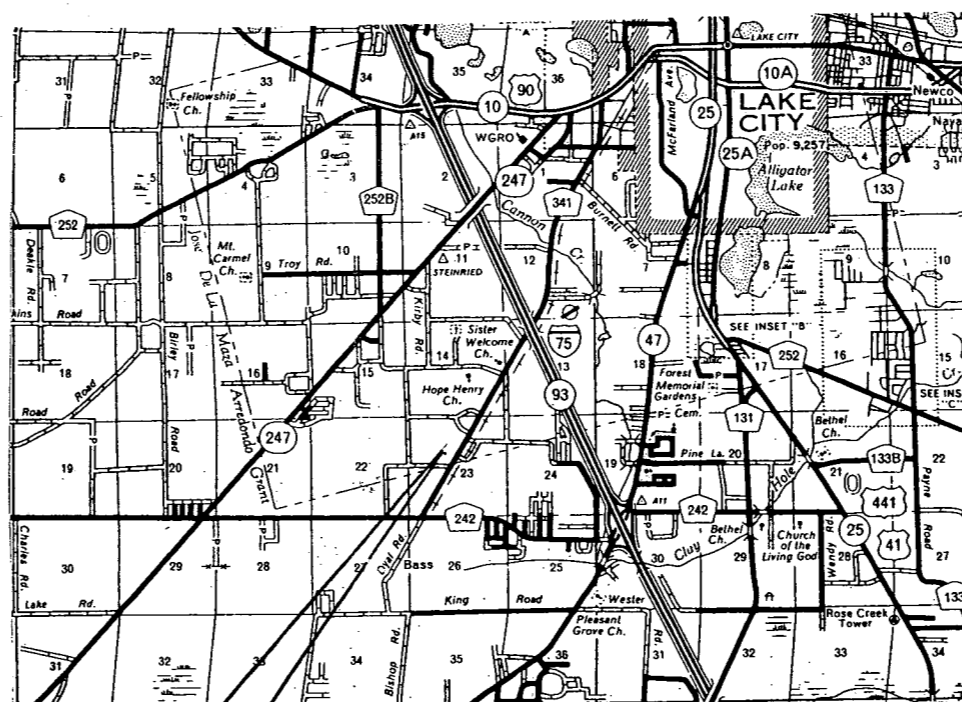
All disturbed areas shall be seeded with a mixture of long-term vegetation and short-term vegetation. The long term vegetation shall be applied at a minimum rate of 70 pounds per acre. The short-term vegetation shall be applied at a minimum rate of 20 pounds per acre and shall consist of winter rye from September through March and millet from April through August.

The permittee shall institute necessary measures during construction to minimize erosion, turbidity, nutrient loading, and sedimentation to adjacent lands and in the receiving waters.

All grades may be adjusted in the field six inches as long as the stopping sight distance and the flow of water are not changed.

Existing topographical information and elevations provided by surveyor.

Where ditch has to be deeper than normal to accommodate a pipe the transition from normal ditch grade to pipe flow line shall be a minimum length of one hundred feet.



Location of Project

GOVERNING STANDARDS AND SPECIFICATIONS:
 FLORIDA DEPARTMENT OF TRANSPORTATION,
 ROADWAY AND TRAFFIC DESIGN STANDARDS DATED
 JANUARY 2000, AND STANDARD SPECIFICATIONS
 FOR ROAD AND BRIDGE CONSTRUCTION DATED
 2000, AS AMENDED BY CONTRACT DOCUMENTS.

REVISIONS

ENGINEER
 ARTHUR N. BEDENBAUGH
 ROUTE 6 BOX 507
 LAKE CITY, FL 32025
 386-752-5846

BRITT SURVEYING
 LAND SURVEYORS AND MAPPERS
 1426 WEST DUVAL STREET
 LAKE CITY, FL 32055
 386-752-7163

ERPOB-0016

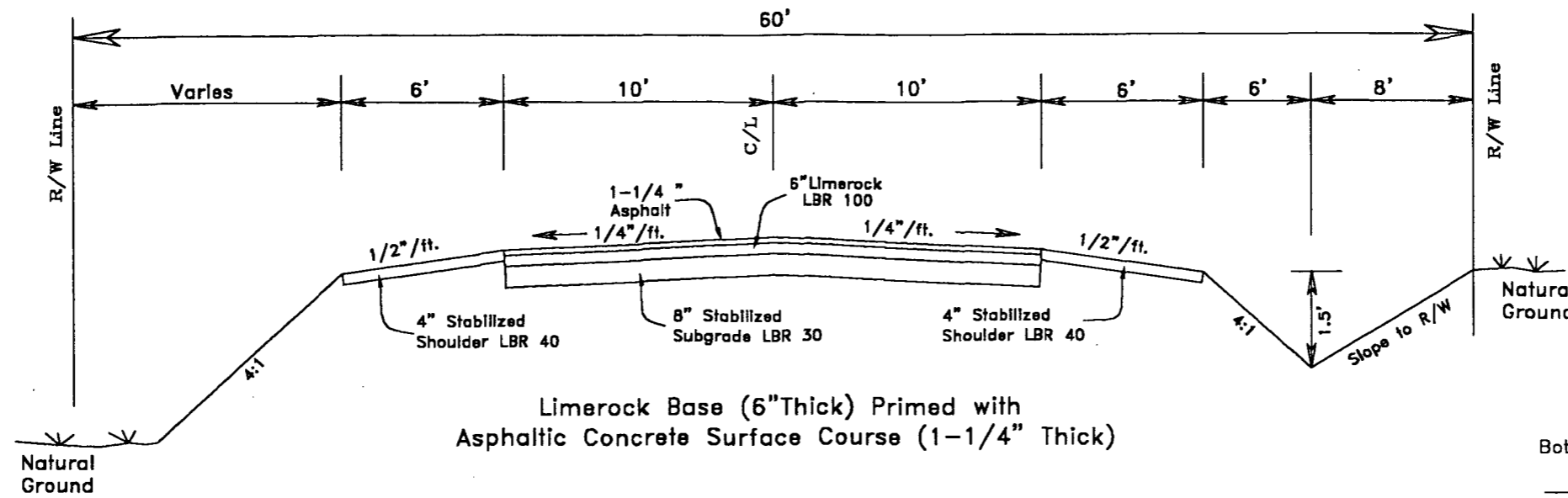
NOTE: THE SCALE OF THESE PLANS MAY
 HAVE CHANGED BY REPRODUCTION

Engineer of Record: Arthur N. Bedenbaugh 5-16-03

P.E. No.: 9162

DONALD WILLIAMS PROJECT
 ERPO3-0016

SHEET
 1

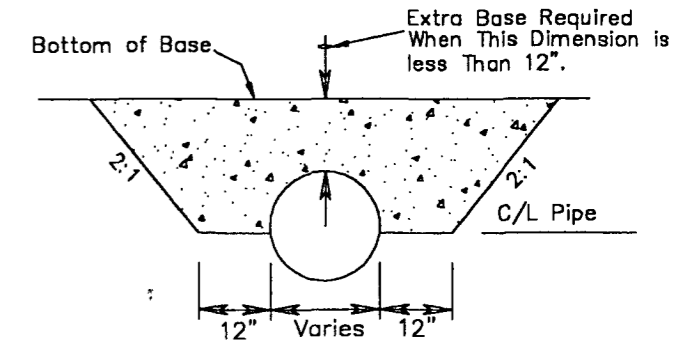


Limerock Base (6" Thick) Primed with Asphaltic Concrete Surface Course (1-1/4" Thick)

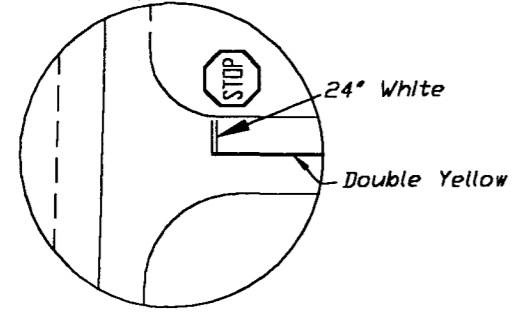
TYPICAL SECTION

Design Speed 25 M.P.H.

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Pipe Detail less than 12" Cover



Intersection Signing & Marking Detail

COLUMBIA COUNTY ROADWAY CONSTRUCTION REQUIREMENTS

General Requirements

The roadway construction plans must be reviewed and approved prior to commencing construction.

All materials and construction shall conform to the requirements of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

The materials and construction shall be certified by a testing laboratory retained by the developer or contractor. Copies of all test results shall be provided prior to acceptance.

All traffic control and safety items (striping, stop bars, regulatory signs, etc.) shall be in place.

The temporary grass shall be sufficient to control erosion.

Final inspection for acceptance to be performed by County Engineer, Public Works Director, and County Commissioner (should he desire to attend).

Inspections by County Representatives

Completion of clearing and grubbing. Visual only - no test requirements.

Rough graded and drainage structures in place. Test results - LBR - Pipe backfill density.

Subgrade complete. Test results - Density.

Limerock placed and finished. Test results - Thickness, Cross Section and Density.

Asphaltic Concrete in place. Test results - Thickness and density.

Final Inspection.

PRELIMINARY
CRP03-0016

Arthur N. Bedenbaugh
5-16-03

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Date	By	Description	Date	By	Description

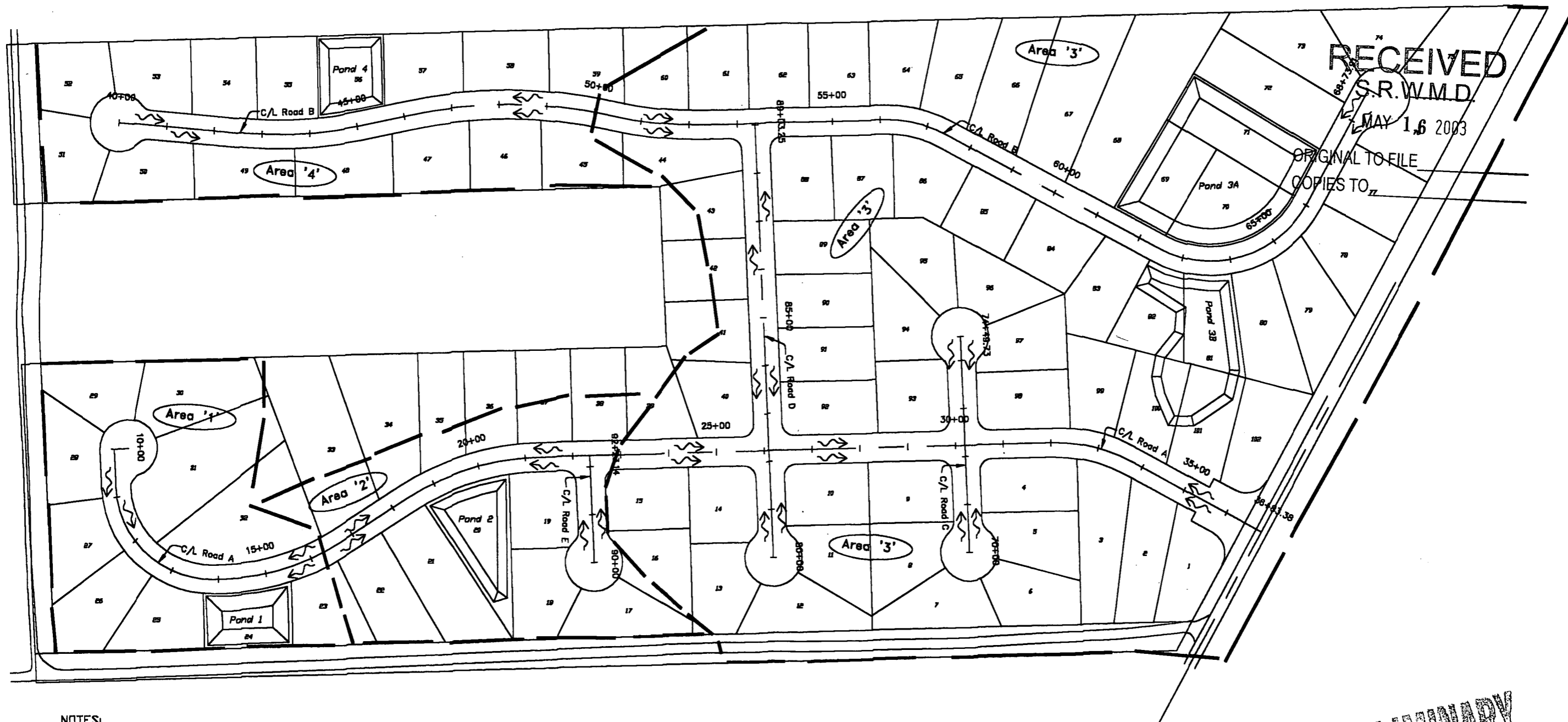
ARTHUR N. BEDENBAUGH, P.E.
ROUTE 6 BOX 507 ■ LAKE CITY, FLORIDA 32025
TELEPHONE: (386) 752-5846

DONALD E. WILLIAMS
STONEHENGE SUBDIVISION

Columbia County
JOB NUMBER: 02-2003

TYPICAL SECTIONS

SHEET
2



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NOTES:

THE HYDRAULIC DATA IS SHOWN FOR INFORMATIONAL PURPOSES TO INDICATE WATER ELEVATIONS WHICH MAY BE ANTICIPATED IN ANY GIVEN YEAR. THIS DATA WAS GENERATED USING HIGHLY VARIABLE FACTORS DETERMINED BY A STUDY OF THE WATERSHED. MANY JUDGEMENTS AND ASSUMPTIONS ARE REQUIRED TO ESTABLISH THESE FACTORS. THE RESULTANT DATA IS SENSITIVE TO CHANGES, PARTICULARLY OF ANTECEDENT CONDITIONS, URBANIZATION, CHANNELIZATION, AND LAND USE. USERS OF THIS DATA ARE CAUTIONED AGAINST THE ASSUMPTION OF PRECISION WHICH CANNOT BE ATTAINED. DISCHARGES ARE IN CUBIC FEET PER SECOND AND STAGES ARE IN REFERENCE TO NGVD.

THE 100 YEAR FLOOD IS THE FLOOD HAVING A 1% CHANCE OF BEING EXCEEDED IN ANY YEAR.

DATA USED IS FROM USGS QUAD MAPS, SURVEYS BY BRITT SURVEYING, AND FLOOD INSURANCE RATE MAPS.

PRELIMINARY

Arthur N. Bedenbaugh
5-16-03

Revisions					
Date	By	Description	Date	By	Description

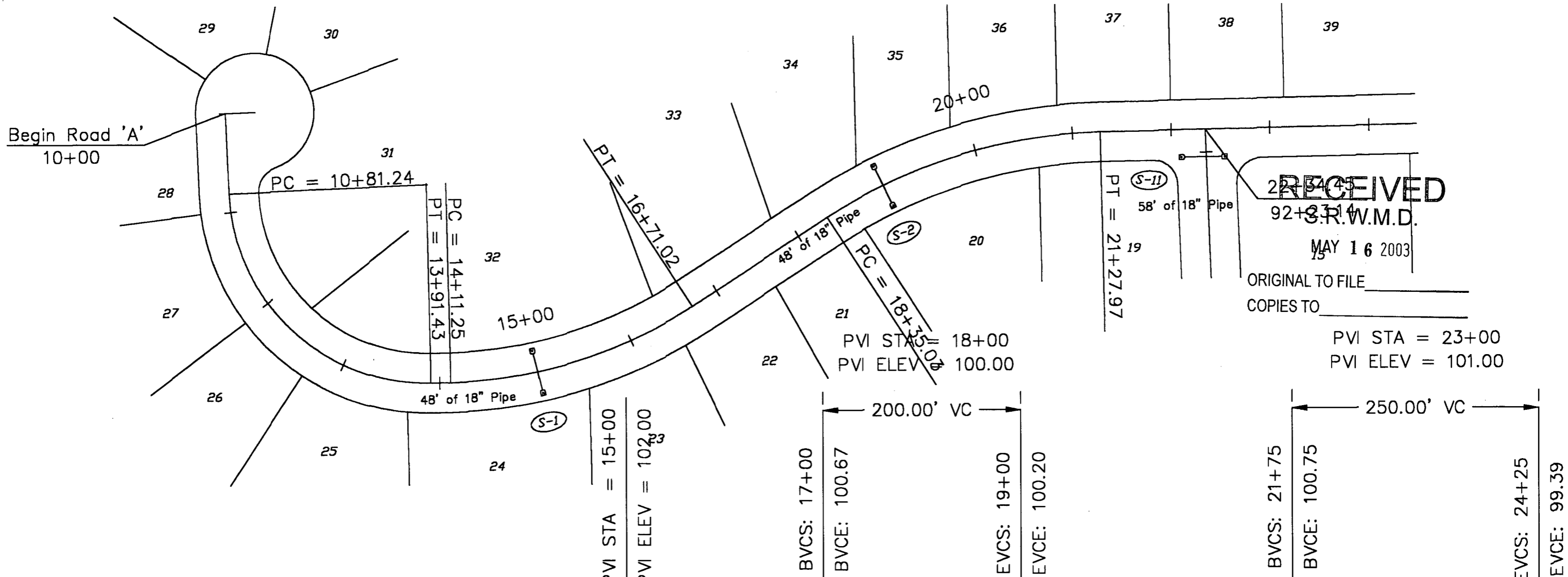
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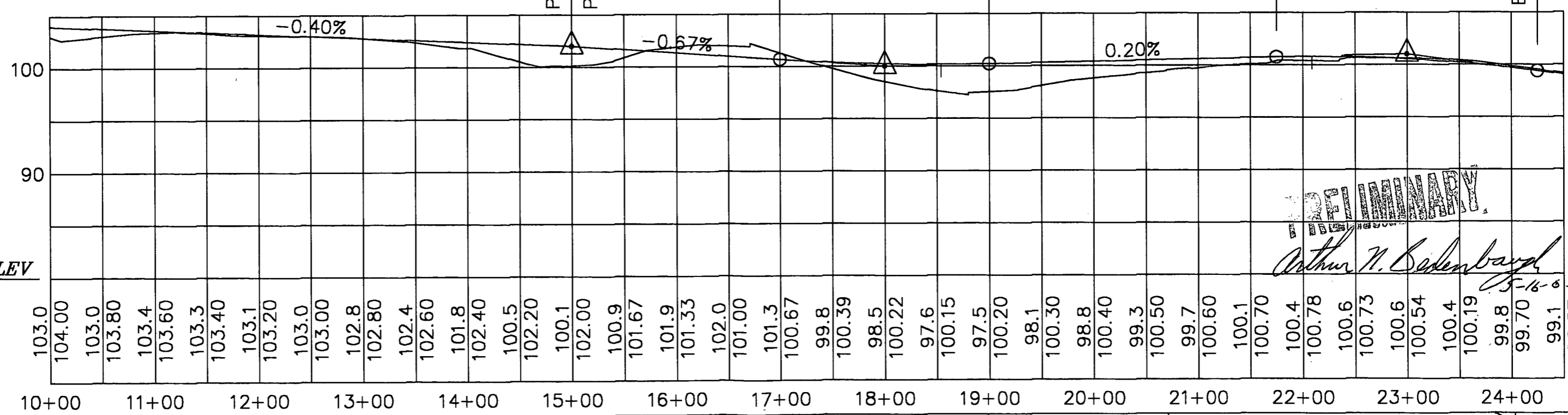
Columbia County
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DRAINAGE PLAN

SHEET
3

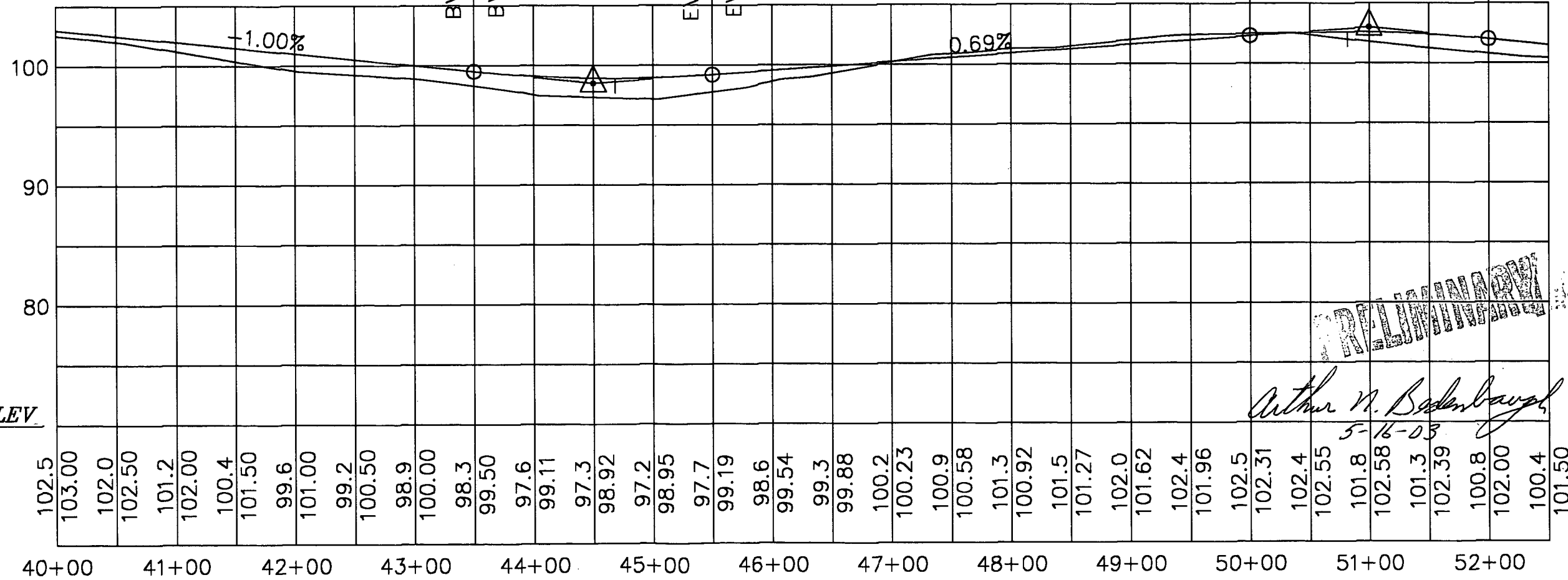
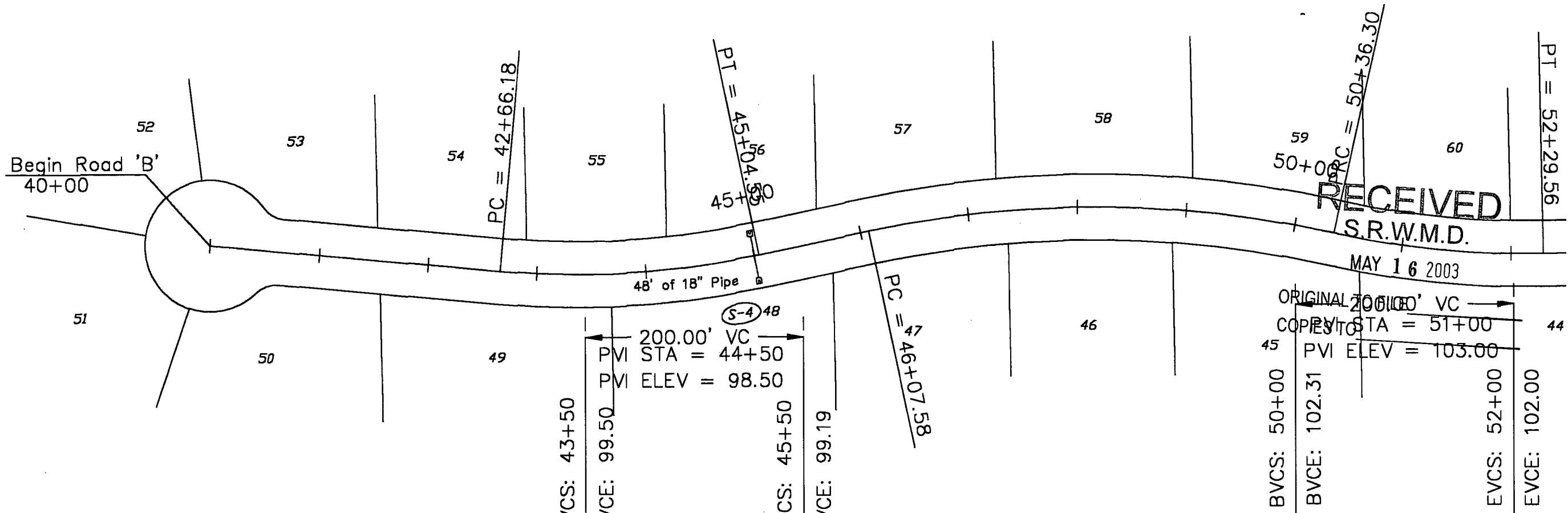


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DATUM ELEV
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DATUM ELEV.
70.00

PRELIMINARY

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5-16-03

Revisions					
Date	By	Description	Date	By	Description

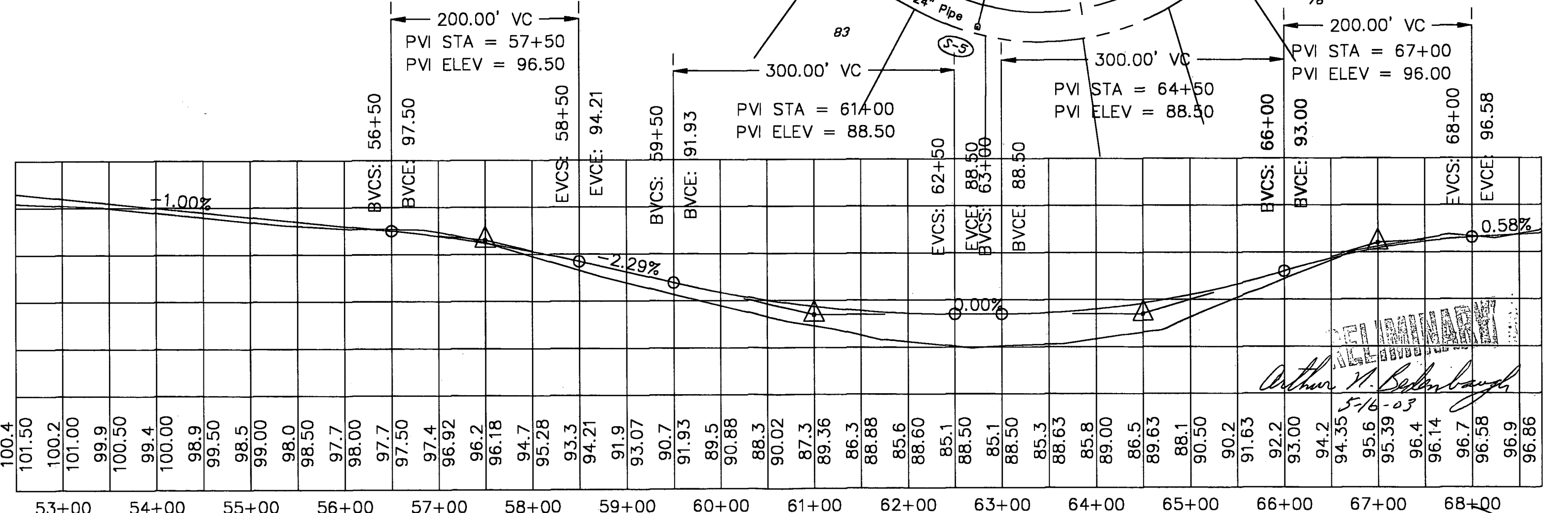
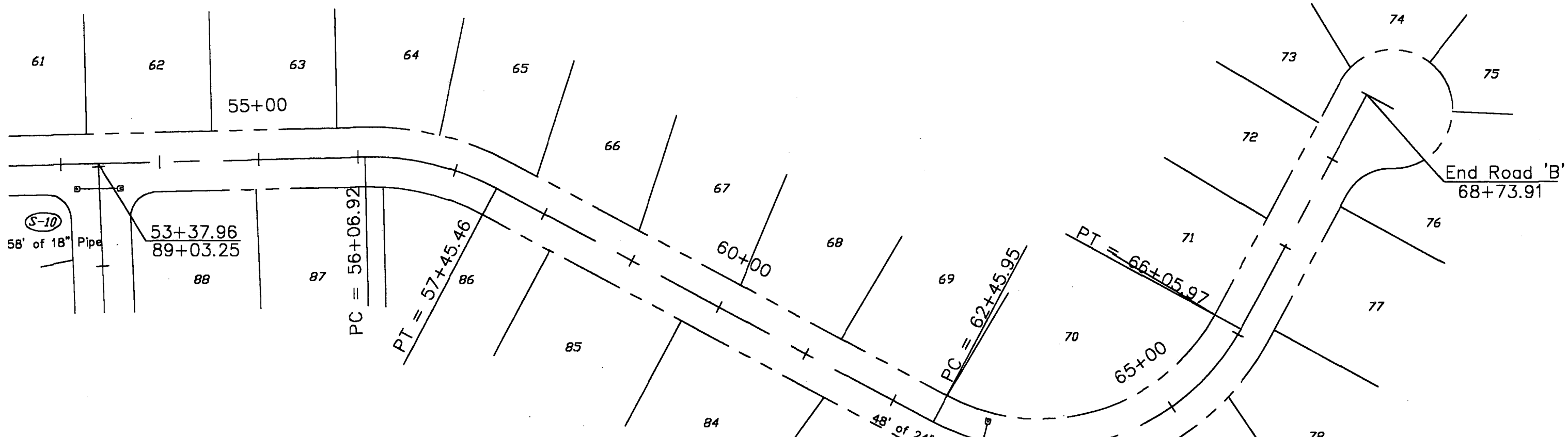
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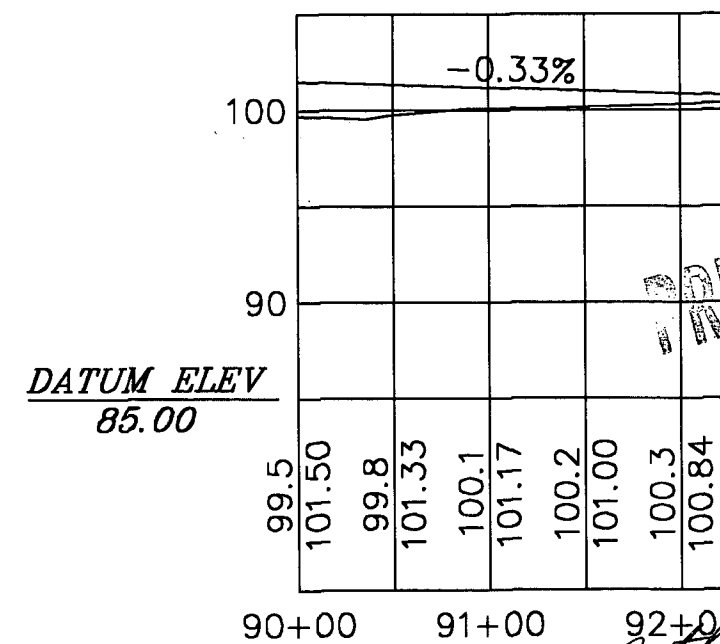
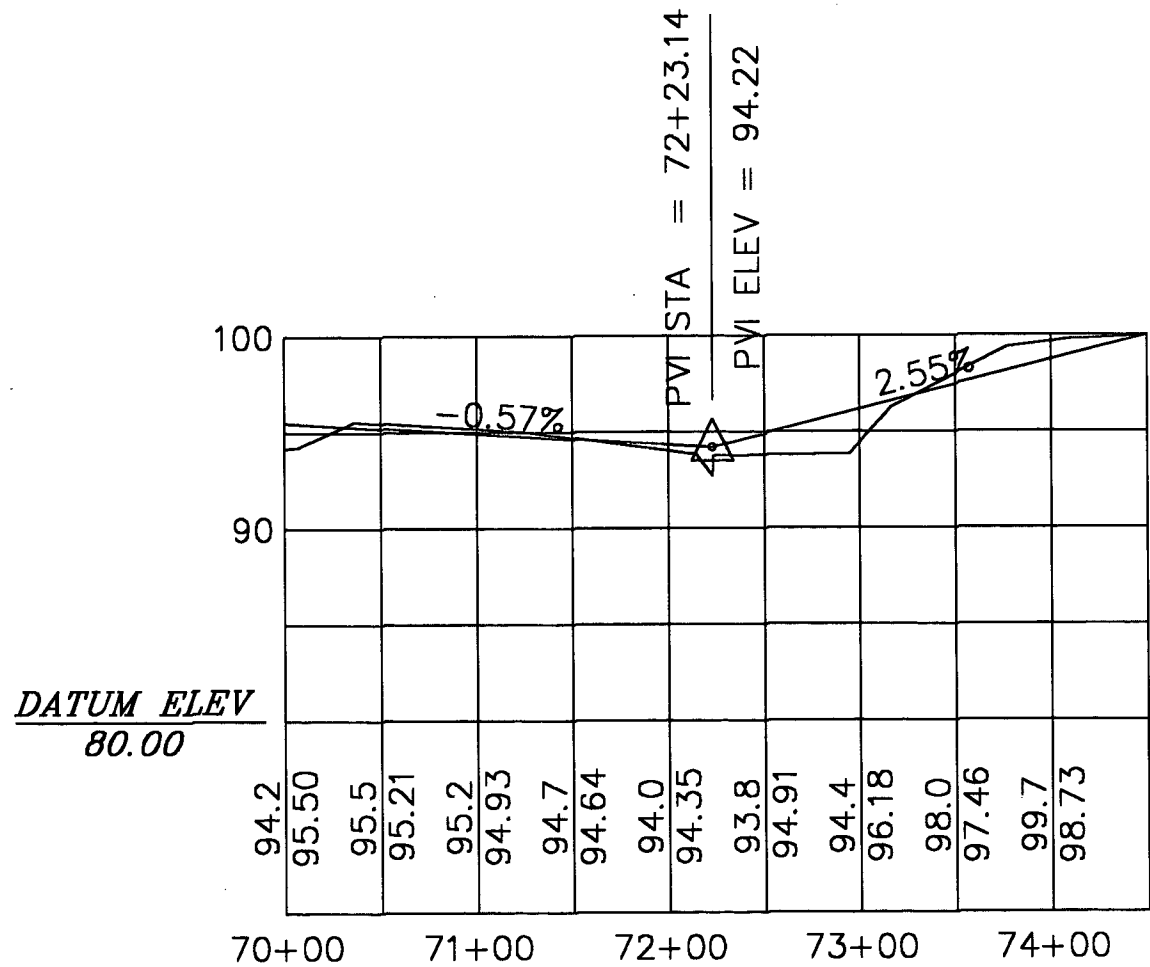
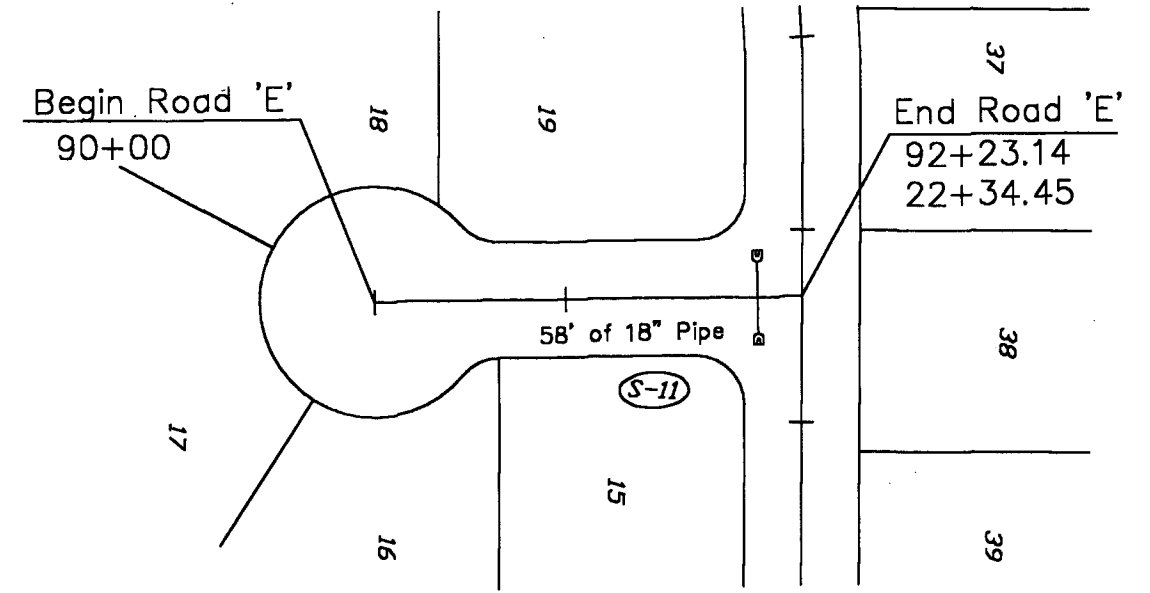
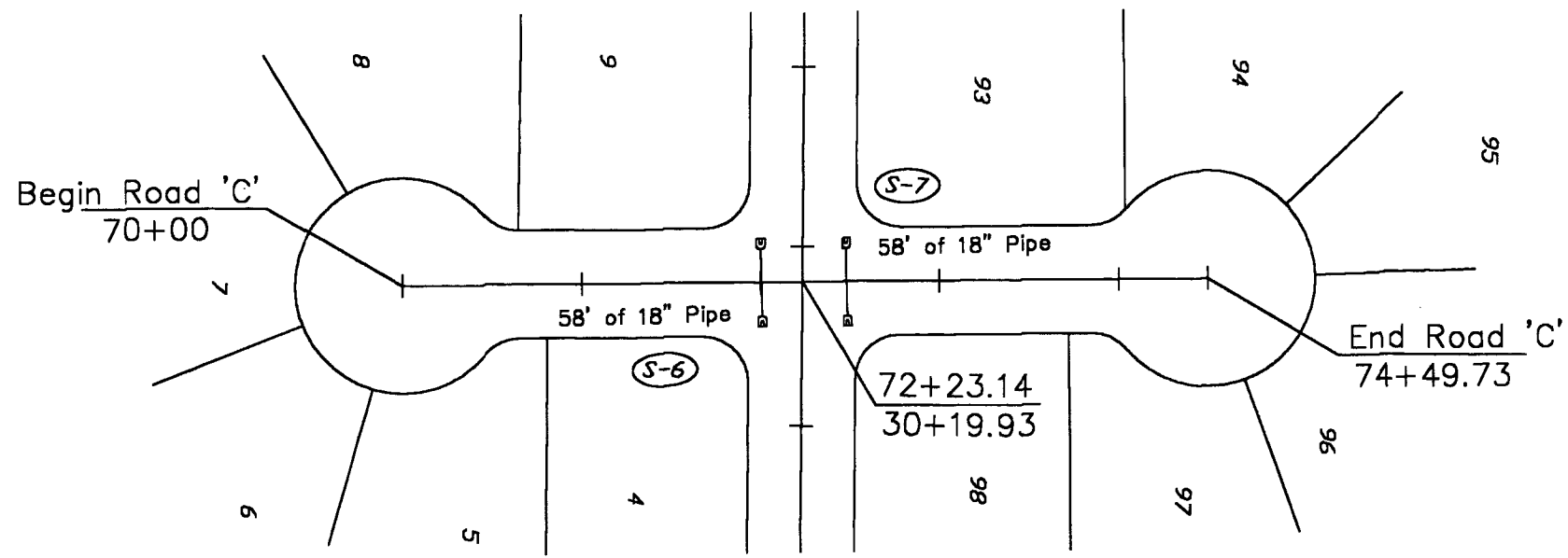
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Columbia County
JOB NUMBER: 02-2003

PLAN & PROFILE
ROAD 'B'

SHEET
6





PRELIMINARY

Arthur N. Bedenbaugh

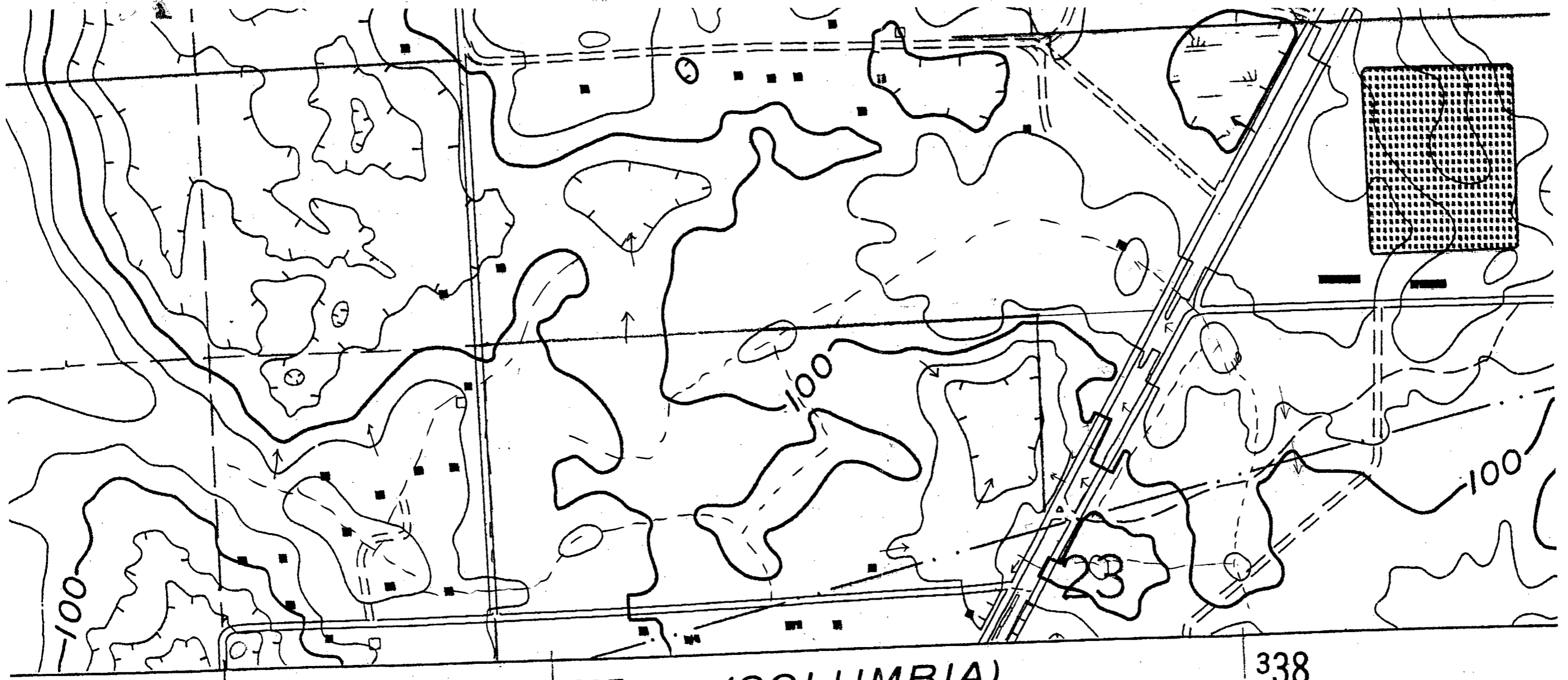
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DONALD E. WILLIAMS
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Columbia County
JOB NUMBER: 02-2003

PLAN & PROFILE 5-16-03
ROAD 'C' & 'E' SHEET 8

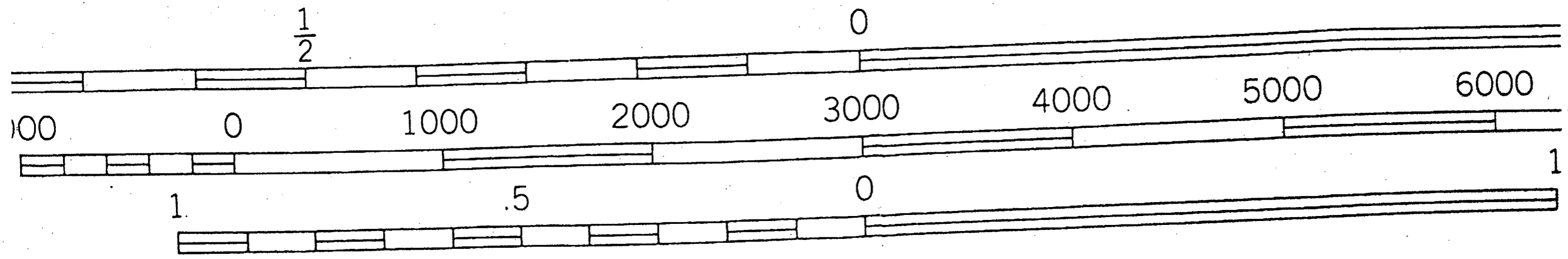


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CONTOUR INTERVAL 5 FEET

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