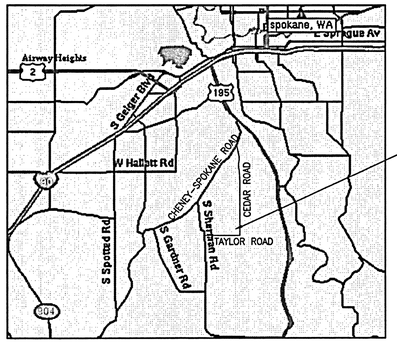
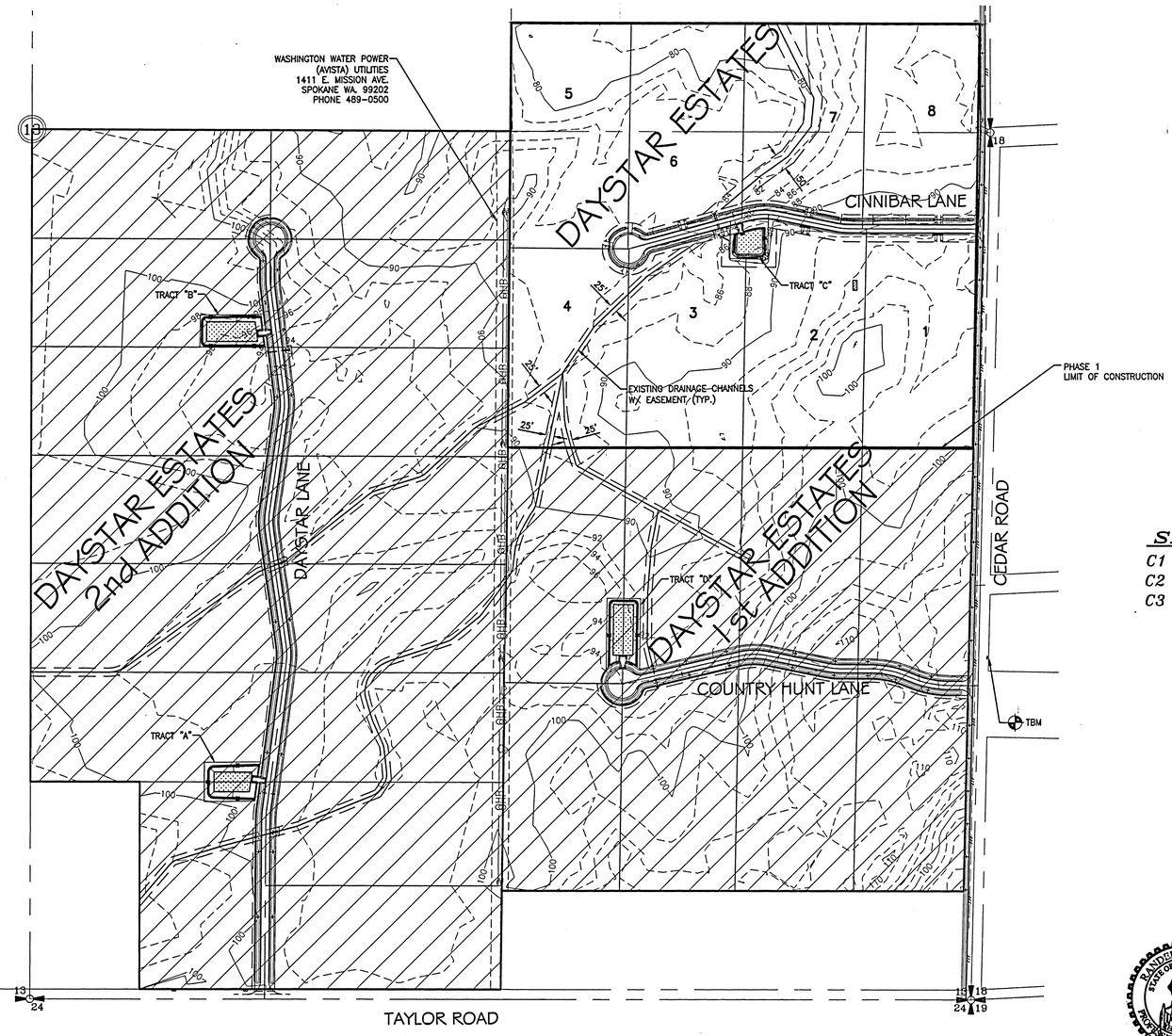
DAYSTAR ESTATES
AS-BUILT ROAD/DRAINAGE



VICINITY MAP



SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P1873
DATE ACCEPTED: 10/7/04

SHEET INDEX

C1 COVER SHEET
C2 CINNIBAR LANE
C3 EVAPORATION PONDS & DETAILS

GENERAL NOTES:

(1) All work and materials shall be in conformance with the "SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION" 1999, and as amended.

(2) Locations of existing utilities shown in the plans are approximate. The Contractor shall be responsible for locating all underground utilities. Any conflicting utilities shall be relocated prior to construction of road and drainage facilities.

(3) The Contractor is required to have a complete set of the approved road and drainage plans on the job site whenever construction is in progress.

(4) If the Contractor discovers any discrepancies between the plans and existing conditions encountered, the Contractor shall immediately notify the Design Engineer's and the Spokane County Engineer's Office.

(5) Prior to site construction, the Contractor is responsible for locating underground utilities. Call the underground utility location service at 456-8000 before you dig.

"The design improvements shown in this set of plans and calculations conform to the applicable editions of Spokane County standards for road and sewer construction and the Spokane County guidelines for Storm Water management. The Spokane County Engineer has approved all design deviations. I approve these plans for construction."

RANDELL G. HAHN
STATE OF WASHINGTON
26247
REGISTERED PROFESSIONAL ENGINEER
EXPIRES 12-15-04
9/17/04

GRAPHIC SCALE
0 100 200 400
(IN FEET)
1 inch = 200 ft.

PROJECT TBM:
SET 60D NAIL IN FIRST POWER POLE NORTH OF PROPOSED INTERSECTION OF COUNTRY HUNT LANE & CEDAR ROAD.
EL = 108.16

CERTIFICATION:
I HAVE REVIEWED THE CONSTRUCTION AND TO MY KNOWLEDGE FIND IT TO BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CERTIFIED PLANS AND STANDARD SPECIFICATIONS EXCEPT AS NOTED.

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
456 • 8000
CALL TWO BUSINESS DAYS BEFORE YOU DIG

NO.	DATE	BY	APP.	REVISION

NOTE:
THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE TRACTOR SHALL DETERMINE THE EXACT LOCATIONS OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES THAT MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

RANDELL G. HAHN
STATE OF WASHINGTON
26247
REGISTERED PROFESSIONAL ENGINEER
EXPIRES 12-15-02

HAHN ENGINEERING, INC.
605 E. HOLLAND AVE., SUITE 112
SPOKANE, WA. 99218
(509) 467-1550 FAX (509) 467-8189
www.hahnengr.com

SCALE		DRAWN: SWF	DATE 10/17/02
HORIZ.	1" = 200'	DESIGNED: RGH	10/17/02
VERT.	N/A	APPROVED: RGH	

DAYSTAR ESTATES
RECORD DRAWING

OVERALL COVER SHEET

AS-BUILT
SHEET NO.
AB / 1

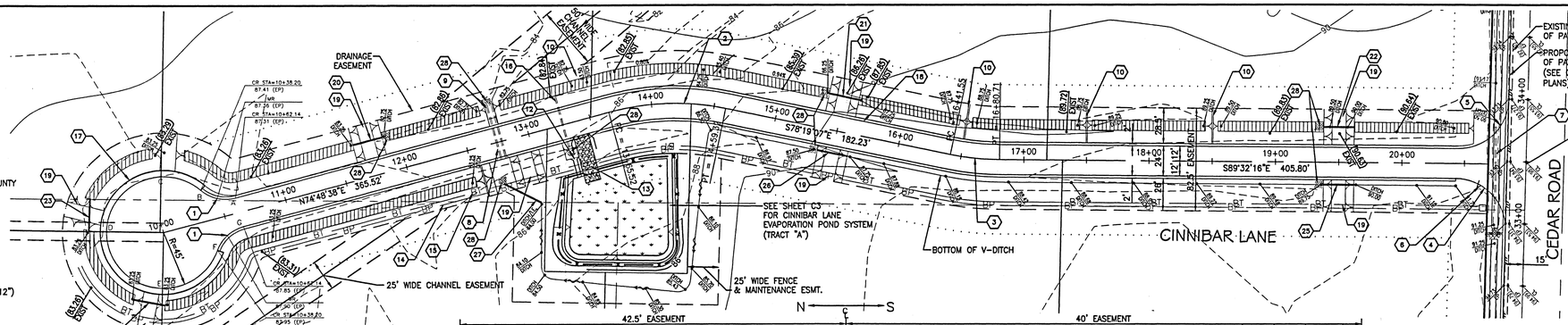
CAD FILE: 00-137/PHASE1asbuilt2.DWG

P-1873 Eng As-Builts

\\Bigdog\LandProjects\00-137\dwg\PHASE1asbuilt2.dwg, 10/17/2002 06:15:53 PM, Scott Frenger

CONSTRUCTION NOTES:

1. SEE CURVE TABLE ON THIS SHEET FOR EDGE OF PAVEMENT CURVE INFORMATION.
2. SEE CURVE TABLE ON THIS SHEET FOR CENTERLINE CURVE INFORMATION.
3. SEE CURVE TABLE ON THIS SHEET FOR CENTERLINE CURVE INFORMATION.
4. SEE CURVE TABLE ON THIS SHEET FOR EDGE OF PAVEMENT CURVE INFORMATION.
5. SEE CURVE TABLE ON THIS SHEET FOR CENTERLINE CURVE INFORMATION.
6. INSTALL STOP AND STREET SIGNS PER SPOKANE COUNTY STANDARDS.
7. 60'± OF 15"ø CMP CULVERT, STA. 20+74.72 I.E.(S)= ~~91.36~~ (91.87), I.E.(N)= ~~90.76~~ (91.22) S = (0.010).
8. INSTALL (2) 50' LONG, 12"ø CMP CULVERTS UNDER ROADWAY, STA 12+74 & 12+78, I.E.(S)= ~~83.50~~ (83.57), I.E.(N)= ~~83.00~~ (83.04), S= ~~0.010~~ (0.009). INSTALL ROCK RIP-RAP (6" TO 12") AT ENTRANCE AND EXIT OF CULVERTS.
9. 5' WIDE BERM, ELEV.= 84.75.
10. 1' WIDE BERM, ELEVATION SHALL BE 2.4' ABOVE HIGHEST ADJACENT DITCH ELEVATION. (SEE DETAIL SHT. C3)
12. 2' WIDE BERM/SPILLWAY, ELEV.= 84.65.
13. 12' WIDE MAINTENANCE ACCESS ROAD TO POND.
14. PROPOSED UNDERGROUND POWER LINE.
15. PROPOSED UNDERGROUND PHONE LINE.
16. 40'± OF 12"ø CMP CULVERT, STA. 13+28 I.E.(N)= ~~83.25~~ (82.97), I.E.(S)= ~~83.25~~ (83.10), ~~S=0.000~~ (-.003).
17. 5' GRAVEL SHOULDER AROUND CUL-DE-SAC.
19. LOCATION OF DRIVEWAY APPROACH.
20. 20'± OF 8"ø HDPE CULVERT STA 11+65 TO STA 11+85 I.E.(W)=85.25, I.E.(E)=84.75, S=0.025
21. 20'± OF 8"ø HDPE CULVERT STA 15+40 TO STA 15+60 I.E.(E)=89.25, I.E.(W)=88.25, S=0.050
22. 20'± OF 8"ø HDPE CULVERT STA 19+40 TO STA 19+60 I.E.(E)=92.00, I.E.(W)=91.50, S=0.025
23. ~~25'±~~ (20') OF 8"ø HDPE CULVERT, I.E.(N)=~~83.25~~ (84.93), I.E.(S)=~~83.25~~ (84.88), S=~~0.000~~ (0.0025)
24. 25'± OF 8"ø HDPE CULVERT, I.E.(W)=83.25, I.E.(E)=83.25, S=0.000
25. 20'± OF 8"ø HDPE CULVERT STA 19+40 TO 19+60 I.E.(E)=90.00, I.E.(W)=89.75, S=0.013
26. 20'± OF 8"ø HDPE CULVERT STA 15+40 TO STA 15+60 I.E.(E)=87.75, I.E.(W)=87.50, S=0.013
27. 35'± OF 8"ø HDPE CULVERT, I.E.(E)=84.00, I.E.(W)=83.50, S=0.014
28. 12" D50 ROCK RIP RAP (24" THICK).



LEGEND

- LINED EVAPORATION DITCH (30 MIL LINER)

CURVE INFORMATION				
	RADIUS	TANGENT	LENGTH	DELTA
1	30' EP	15.93	29.29	55°56'23"
2	200' CL	47.78	93.80	26°52'18"
3	200' CL	19.64	39.16	11°13'06"
4	40' EP	40.63	63.46	90°53'59"
5	40' EP	39.37	62.20	89°05'41"

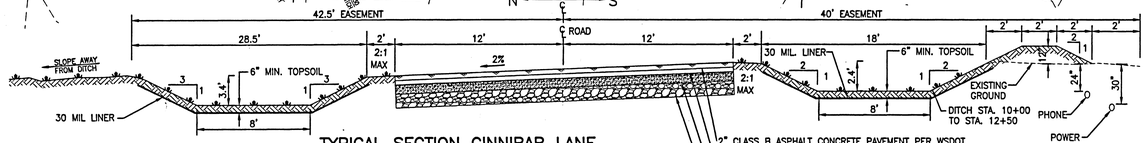
ENGINEER'S NOTES:

1. ALL SIGNS MUST BE LOCATED AS SPECIFIED IN THE M.U.T.C.D. AND SHALL BE INSTALLED PER SPOKANE COUNTY STANDARDS. ALL STOP SIGNS SHALL BE M.U.T.C.D. NO. R1-1 30" x 30". ALL STREET NAME SIGNS SHALL BE SPOKANE COUNTY STANDARD PLAN NO. A-16.

AS-BUILT SWALE/POND TABLE

ITEM	DESIGN AREA	AS-BUILT AREA
POND	5,000 S.F.	5,005 S.F.
SWALES	10,897 S.F.	11,543 S.F.*

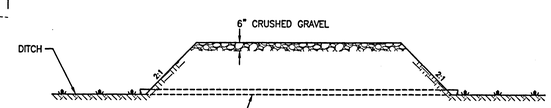
* - LESS BERMS AND DRIVEWAYS



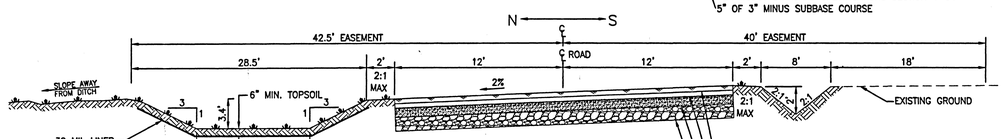
TYPICAL SECTION CINNIBAR LANE
(STA: 10+00 TO 14+25) (NTS)

NOTE:
REMOVE TOPSOIL FROM ROADWAY. COMPACT SUBGRADE PER WSDOT STANDARD SPECIFICATION SECTION 2-06.

2" CLASS B ASPHALT CONCRETE PAVEMENT PER WSDOT STANDARD SPECIFICATIONS SECTION 5-05
2" OF 5/8" MINUS CRUSHED SURFACING TOP COURSE PER WSDOT STANDARD SPECIFICATIONS SECTION 4-04
3" OF 1-1/4" MINUS CRUSHED SURFACING BASE COURSE PER WSDOT STANDARD SPECIFICATIONS SECTION 4-04
5" OF 3" MINUS SUBBASE COURSE



TYPICAL DRIVEWAY DETAIL
FOR SOUTH SIDE OF ROAD STA. 14+25 TO END OF ROAD (NTS)



TYPICAL SECTION CINNIBAR LANE
(STA: 14+25 TO END OF ROAD) (NTS)

NOTE:
REMOVE TOPSOIL FROM ROADWAY. COMPACT SUBGRADE PER WSDOT STANDARD SPECIFICATION SECTION 2-06.

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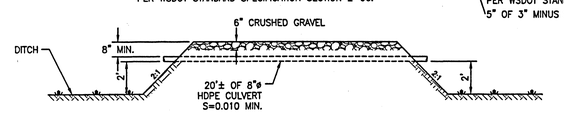
5" OF 3" MINUS SUBBASE COURSE



TYPICAL DRIVEWAY DETAIL
FOR EVAPORATION DITCHES (NTS)

RANDELL G. HAHN, STATE OF WASHINGTON, REGISTERED PROFESSIONAL ENGINEER
EXPIRES 12-15-02
8/14/04

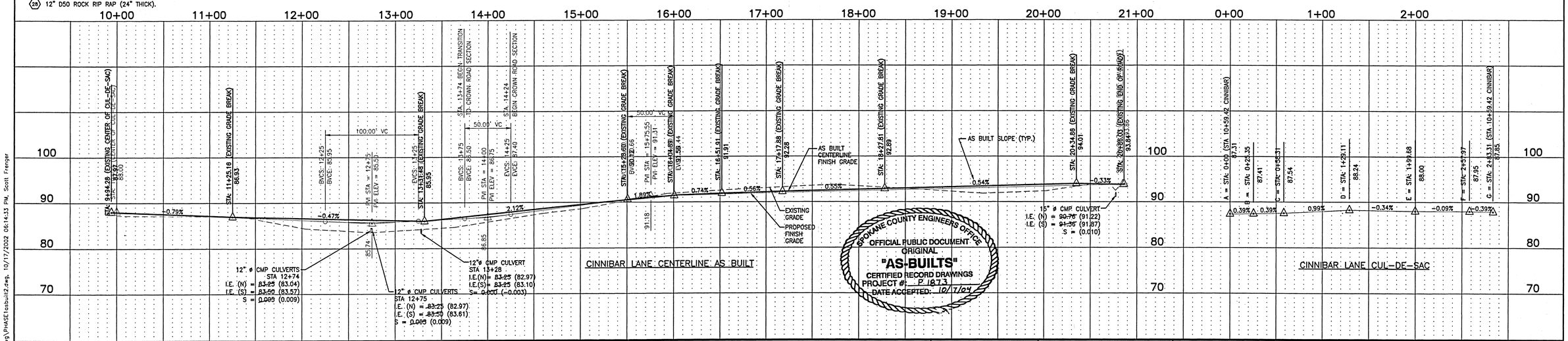
GRAPHIC SCALE
0 25 50 100
(IN FEET)
1 inch = 50 ft.

PROJECT TBM:
SET 60D NAIL IN FIRST POWER POLE NORTH OF PROPOSED INTERSECTION OD COUNTRY HUNT LANE AND CEDAR ROAD
EL = 108.16

NOTE:
I HAVE REVIEWED THE CONSTRUCTION AND TO MY KNOWLEDGE FIND IT TO BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CERTIFIED PLANS AND STANDARD SPECIFICATIONS EXCEPT AS NOTED.

8/14/04

UNDERGROUND SERVICE ALERT ONE-CALL NUMBER 456-8000 CALL TWO BUSINESS DAYS BEFORE YOU DIG



SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P 1873
DATE ACCEPTED: 10/7/04

NO.	DATE	BY	APP.	REVISION

NOTE:
THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE TRACTOR SHALL DETERMINE THE EXACT LOCATIONS OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES THAT MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

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SCALE
HORIZ. 1" = 50'
VERT. 1" = 10'

		DATE
DRAWN:	SWF	10/17/02
DESIGNED:	RGH	10/17/02
APPROVED:	RGH	

CINNABAR LANE
RECORD DRAWING

DAYSTAR ESTATES

AS-BUILT
SHEET NO. AB / 2

P-1873 Emp AS-Built

CAD FILE: 00-137/PHASE1asbuilt2.DWG

\\Bigdog\LongProjects\00-137\dwg\PHASE1asbuilt2.dwg, 10/17/2002 06:14:33 PM, Scott Frenger

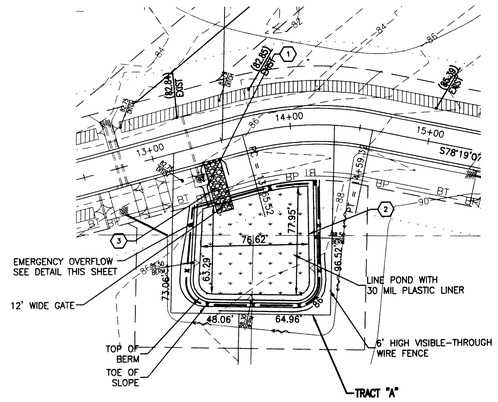
GRAPHIC SCALE

0 25 50 100

(IN FEET)
1 inch = 50 ft.

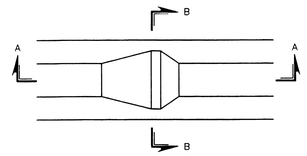
CONSTRUCTION NOTES:

1. 2' WIDE BERM/SPILLWAY, ELEV. = 83.25
2. EVAPORATION POND
   BOTTOM AREA = 5,353 S.F.
   BOTT. ELEV. = 82.15
   TOTAL DEPTH = 3.4 FT.
3. 12' WIDE MAINTENANCE ACCESS ROAD

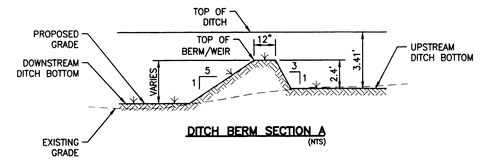


CINNIBAR POND DETAIL
(1" = 50')

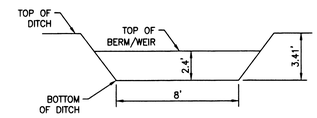
NOTE: POND SHALL BE LINED WITH 30 MIL PLASTIC LINER (SEE DETAIL THIS SHEET).



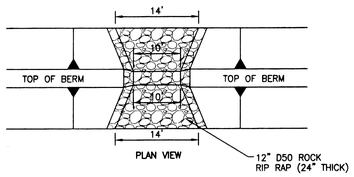
DITCH BERM PLAN VIEW
(NTS)

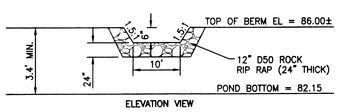


DITCH BERM SECTION A
(NTS)



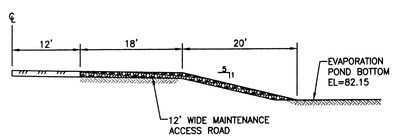
DITCH BERM SECTION B
(NTS)



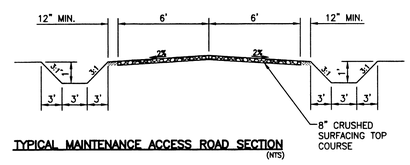


EMERGENCY OVERFLOW DETAIL
(NTS)

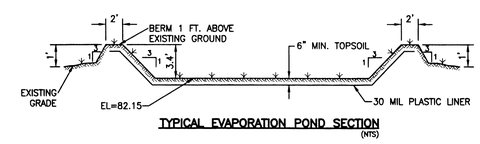
Q=CLH$^{3/2}$ C=3.6
Q=(3.6)(10)(.5)$^{3/2}$ =12.73 CFS



TYPICAL MAINTENANCE ACCESS ROAD CROSS SECTION
(NTS)



TYPICAL MAINTENANCE ACCESS ROAD SECTION
(NTS)



TYPICAL EVAPORATION POND SECTION
(NTS)

SPOKANE COUNTY ENGINEERS OFFICE
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CERTIFIED RECORD DRAWINGS
PROJECT #: P1873
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DRYLAND GRASS SEED SPECIFICATIONS

PROVIDE SEED MIXTURE COMPOSED OF GRASS SPECIES AND PERCENTAGES AS FOLLOWS:

1) ELKA PERRENIAL RYE	20%
2) DURAR HARD FESCUE	20%
3) COVAR SHEEP/FESCUE	45%
4) REUBENS CANADIAN BLUEGRASS	15%

PROVIDE MIXTURE COMPOSED OF GRASS SEED & FERTILIZER IN PERCENTAGE AS FOLLOWS:

GRASS SEED: 90 LBS./ACRE
FERTILIZER: 16-16-16 TIMED RELEASE COMPOSITION, 300 LBS./ACRE

AS-BUILT SWALE/POND TABLE

ITEM	DESIGN AREA	AS-BUILT AREA
POND	5,000 S.F.	5,005 S.F.
SWALES	10,897 S.F.	11,543 S.F.*

* - LESS BERMS AND DRIVEWAYS

RANDELL HAHN STATE OF WASHINGTON 22447 REGISTERED PROFESSIONAL ENGINEER
EXPIRES 12-15-02

NOTE:
I HAVE REVIEWED THE CONSTRUCTION AND TO MY KNOWLEDGE FIND IT TO BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CERTIFIED PLANS AND STANDARD SPECIFICATIONS EXCEPT AS NOTED.

5/14/04

PROJECT TBM:
SET 60D NAIL IN FIRST POWER POLE NORTH OF PROPOSED INTERSECTION OF COUNTRY HUNT LANE AND CEDAR ROAD.
EL = 108.16

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
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NO.	DATE	BY	APP.	REVISION

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SCALE
HORIZ. 1" = 50'
VERT. N/A

DRAWN: SWF DATE 10/17/02
DESIGNED: RGH 10/17/02
APPROVED: RGH

DAYSTAR ESTATES
RECORD DRAWINGS

EVAPORATION PONDS & DETAILS

AS-BUILT
SHEET NO. AB 3

CAD FILE: 00-137/PHASE 1asbuilt2.DWG

P1873 Eng As Builts

\\3gbog\LandProjects\00-137\dwg\PHASE1asBuilt2.dwg, 12/11/2002 06:15:15 PM, Scott Frenger