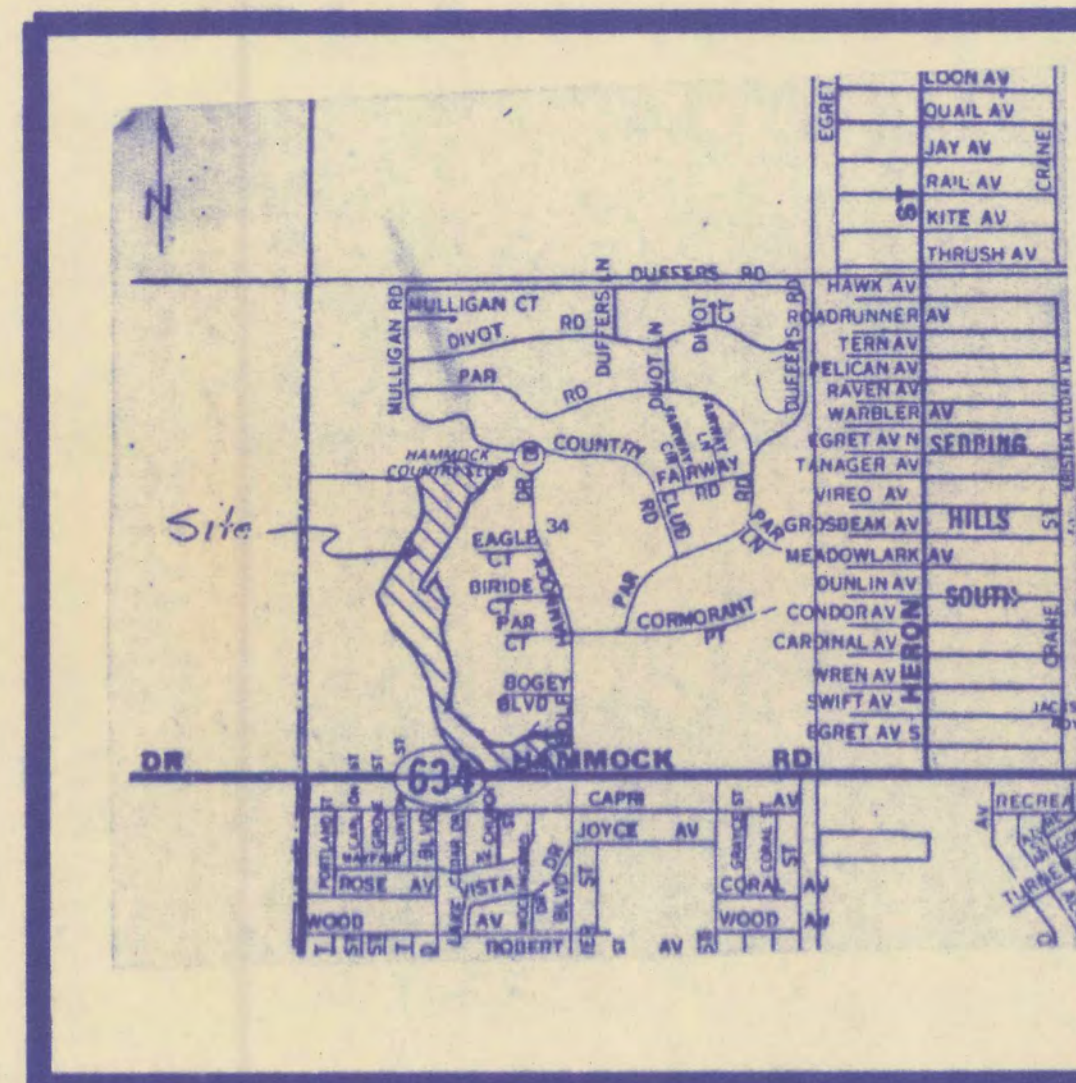


GOLF HAMMOCK UNIT 5

SECTION 34, TOWNSHIP 34 SOUTH, RANGE 28 EAST
HIGHLANDS COUNTY, FLORIDA

GOLF Hammock Unit 5



LOCATION MAP
SCALE 1" = 2000'

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- SHEET 3A PAVEMENT AND DRAINAGE PLAN
- SHEET 4 ROAD PROFILES
- SHEET 4A ROAD PROFILES
- SHEET 5 ENTRANCE DETAILS

SURVEYOR
 N. DALE THOMAS LAND SURVEYING, INC.
 3803 KENILWORTH BLVD.
 SEBRING, FLORIDA 33870
 (813) 385-6668

ENGINEER
 TED G. KAIPAINEN
 1310 SHAMROCK DRIVE
 SEBRING, FLORIDA 33870
 (813)385-2758

Approved
2/10/87
Carl Coel
By *(FIELD)*

RECEIVED
 FEB 9 1987
 BOARD OF COUNTY COMMISSIONERS
 COUNTY ENGINEER
 HIGHLANDS COUNTY, FLORIDA

REVISED 2/9/87 ENTRANCE
 Revised 1/26/87

GENERAL INFORMATION

DEVELOPMENT NAME: GOLF HAMMOCK UNIT 5
HAMMOCK ROAD
SEBRING, FL 33870

DEVELOPMENT OWNER: THOMAS WOHL
4002 PAR ROAD
SEBRING, FL 33870
813-382-3739

ENGINEER: TED G. KAIPAINEN
1310 SHAMROCK DRIVE
SEBRING, FLORIDA 33870
(813)385-2758

TESTING LAB: ARDAMAN AND ASSOC.
1987 S. HOLLAND PARKWAY
BARTOW, FLORIDA 33830
(813)533-3893

TOTAL ACREAGE: 41.32 AC.

MINIMUM LOT AREA: 10,000 s.f.

NUMBER OF LOTS: 72

ZONING TYPE: R-2

WATER SYSTEM: WELLS ON EACH LOT

SANITARY SYSTEM: SEPTIC TANKS

LENGTH OF STREETS: 4806 L.F.

GENERAL SPECIFICATION

CLEARING AND GRUBBING

SELECTED CLEARING AND GRUBBING AS NECESSARY TO INSTALL IMPROVEMENTS.

BACKFILLING

EXCAVATION AND DEPRESSIONS MUST BE PROPERLY BACKFILLED AND COMPACTED IN ACCORDANCE WITH GOOD ENGINEERING PRACTICE.

DISPOSAL OF WASTE MATERIAL

- GUMBO AND OTHER PLASTIC CLAYS SHALL BE REMOVED WITHIN THE AREA ONE FOOT BELOW THE SUBGRADE AND EXTENDING HORIZONTALLY TO THE DITCH SLOPE, AND DISPOSED OF BY THE DEVELOPER.
- MUCK AND PEAT SHALL BE COMPLETELY REMOVED WITHIN THE AREA BETWEEN POINTS FIVE (5) FEET OUTSIDE THE EDGES OF PAVEMENT AND SPREAD UNIFORMLY TWO (2) INCHES LOOSE, ON SHOULDER AND FRONT SLOPES, OR DISPOSED OF BY THE DEVELOPER.
- TRASH, BRUSH, TREES, ETC. MAY BE BURNED WITHIN THE RIGHT-OF-WAY LIMITS PROVIDED NO LOCAL COUNTY, STATE OR FEDERAL LAW IS VIOLATED.

GRADING

THE FILL SECTIONS SHALL BE CONSTRUCTED IN TWELVE (12") INCH MAXIMUM LIFTS TO PROVIDE 90% DENSITY (AASHTO T-160)

SUBBASE

WIDTH: THE SUBBASE SHALL BE FOUR (4') FEET WIDER THAN THE BASE COURSE (2' FEET EACH SIDE) AND IN CASE OF CURB AND GUTTER SHALL EXTEND TO THE BACK SIDE OF THE CURB.

STABILIZED SUBBASE

THE SUBBASE SHALL HAVE A BEARING VALUE OF SIXTY (60) P.S.I. 95% DENSITY (FLORIDA BEARING VALUE METHOD AND AASHTO T-160). SUBBASE THICKNESS SHALL BE AS FOLLOWS:

- PARKING LOTS AND PRIVATE ROADS - NONE REQUIRED
- LOCAL ROADS - 8" COMPACTED SUBBASE
- COLLECTOR ROADS - 10" COMPACTED SUBBASE
- ARTERIAL ROADS - 12" COMPACTED SUBBASE

CARE OF SUBBASE

TRUCKS WILL BE ALLOWED ON FINISHED SUBBASE TO DUMP BASE COURSE MATERIAL, BUT THE DEVELOPER WILL BE REQUIRED TO LEVEL OUT ANY RUTS. IN THE EVENT THAT THE TRUCKS CAUSE EXCESSIVE DAMAGE TO THE SUBBASE, THE COUNTY ENGINEER MAY REQUIRE DUMPING, SPREADING AND HAULING ON TOP OF THE BASE COURSE.

BASE

ALL BASE MATERIAL SHALL BE D.O.T. APPROVED SHELL ROCK OR EQUIVALENT, SUITABLE TO THE COUNTY ENGINEER, AND WILL BE COMPACTED ON A STABILIZED SUBBASE OF 60 P.S.I.(F.V.), 95% DENSITY, AND THE THICKNESS SPECIFIED BELOW:

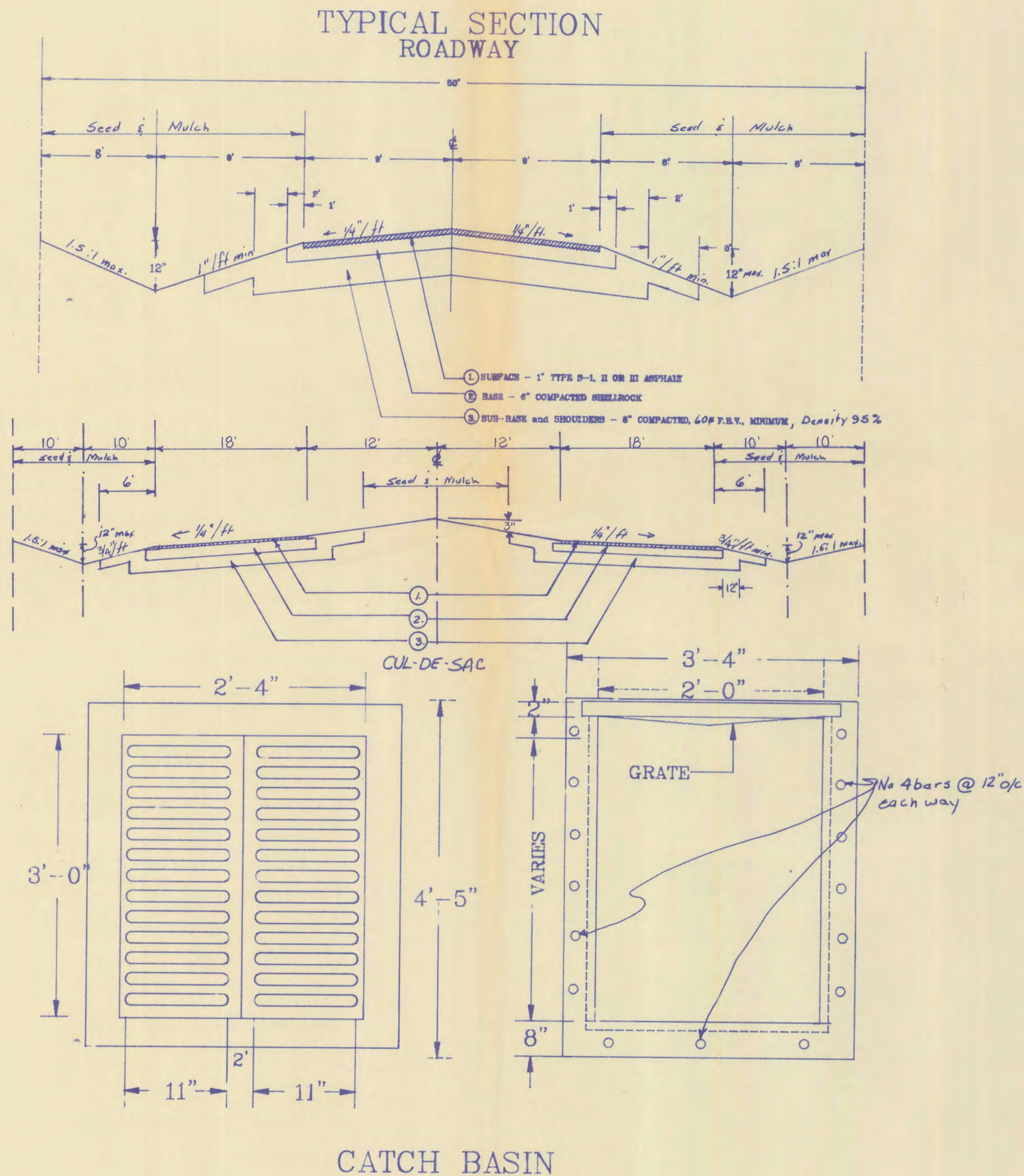
- PARKING LOTS, CAMPGROUNDS, RV PARKS, P.U.D.'S, AND MOBILE HOME PARK ROADS - 4"
- LOCAL ROADS - 6"
- COLLECTOR ROADS - 8"
- ARTERIAL ROADS - 10"

THE WIDTH SHALL BE TWO (2') FEET WIDER (1' ON EACH SIDE) THAN THE FINISHED SURFACE, OR TO THE BACK OF THE CURB.

A PRIME COAT SHALL BE APPLIED TO THE TOP OF THE BASE COURSE AT A RATE OF 0.15 GALLONS PER SQUARE YARD COVERED WITH CLEAN SAND AT A RATE OF 0.15 CUBIC FEET PER SQUARE YARD AND THAN TRAFFIC ROLLED.

SURFACE

THE SURFACE COURSE SHALL BE ONE (1") TYPE S-1, TYPE II OR TYPE III ASPHALTIC CONCRETE EIGHTEEN (18") WIDE WITH MINIMUM TURNING RADIUS OF 36'.



GENERAL NOTES

- THE ENTIRE SITE IS ABOVE THE 100 YEAR FLOOD PLANE AND IS THEREFORE NOT IN A FLOOD HAZARD AREA.
- ALL LOTS ARE BUILDABLE AREA.
- THERE ARE NO EXISTING BUILDINGS, CULVERTS, EASEMENTS, BOUNDARIES OF INCORPORATED AREAS, LAKES, STREETS, WATER COURSES OR WATER MAINS EXCEPT AS SHOWN OR NOTED.
- ALL LOTS MEET THE MINIMUM SQUARE FOOTAGE AND ROAD FRONTAGE ALLOWED BY CURRENT ZONING CLASSIFICATION.
- ALL AREAS DISTURBED BY THIS CONSTRUCTION WILL BE SEEDED AND MULCHED OR SODDED.
- THE SEEDING FORMULA WILL BE AS FOLLOWS:
30# OF TEMPORARY SEED
100# OF PERMANENT SEED
400# OF 8-8-8 FERTILIZER PER ACRE
- ALL ELEVATION REFER TO MEAN SEA LEVEL.
- ANY UNDERGROUND UTILITIES SHALL BE INSTALLED PRIOR TO PLACEMENT OF BASE MATERIAL.
- REAR LOT LINE RETENTION AS WELL AS RETENTION PONDS WILL BE PROVIDED BY THIS PLAN.
- ALL SWALES AND DITCHES COMPLETE WITH EROSION CONTROLS, ARE TO BE CONSTRUCTED AS PART OF THIS PLAN.
- ALL TEST RESULTS FROM THE TESTING LAB SHALL BE SENT DIRECTLY THE OFFICE OF THE COUNTY ENGINEER, 4344 GEORGE BLVD., SEBRING, FLORIDA 33870.
- 100% RETENTION ON SITE.
- SEASONAL HIGH WATER TABLE - 137.00
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT ALL SURFACE WATER IS CONTROLLED DURING CONSTRUCTION SO THAT THERE IS NO ADVERSE RUN-OFF ONTO ADJACENT PROPERTIES.
- THE OWNER WILL PERIODICALLY INSPECT, MOW AND CLEAN THE DETENTION AREA.

ADDITIONAL NOTES:

- All concrete to be 3000 P.S.I. or better.
- All cross drain culverts shall meet current D.O.T. specifications for reinforced concrete pipe.
- All swales are to be 12" minimum depth, below edge of pavement.
- All ditches have a maximum side slope of 1 1/2' horizontal to 1' vertical.

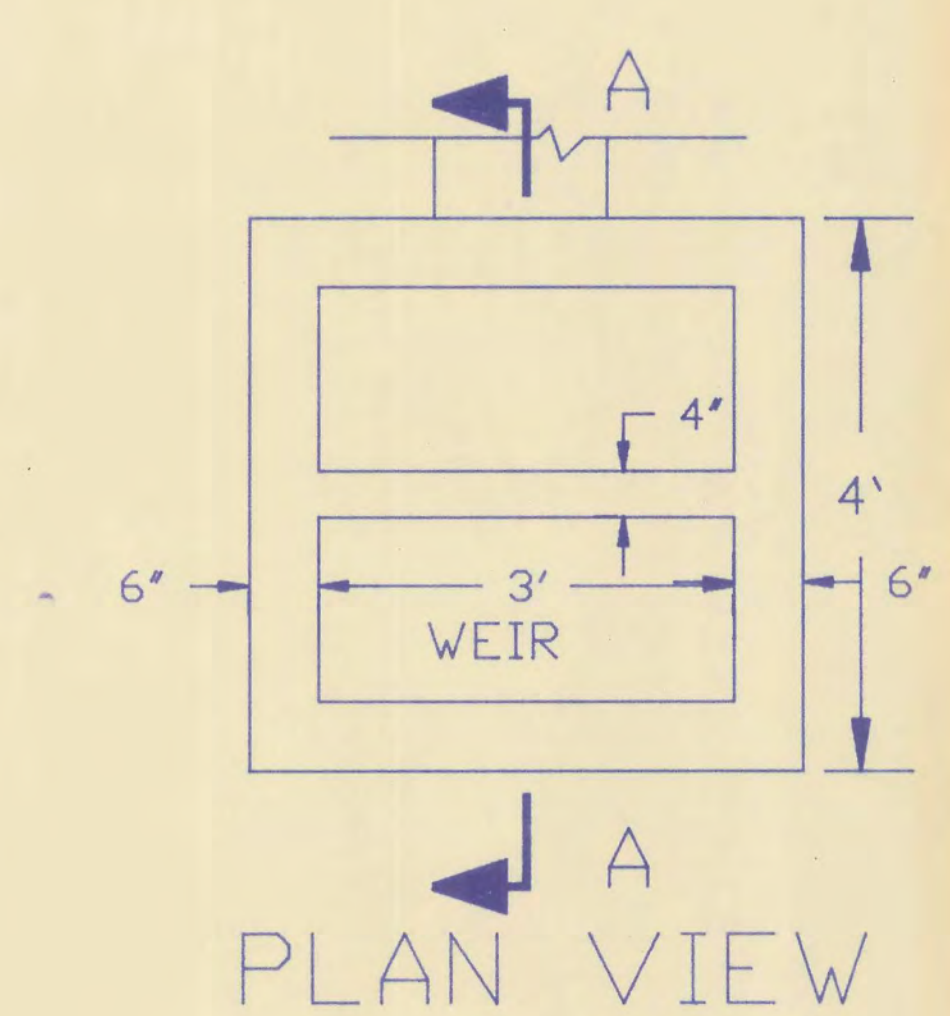
"I hereby certify that the design for this project is in substantial conformance with the standards established by the 1986 edition of the Manual of Uniform Standards for Design, Construction and Maintenance of Streets and Highways."

TED G. KAIPAINEN ENGINEERING
1310 SHAMROCK DRIVE
SEBRING, FLORIDA 33870
(813)385-2758

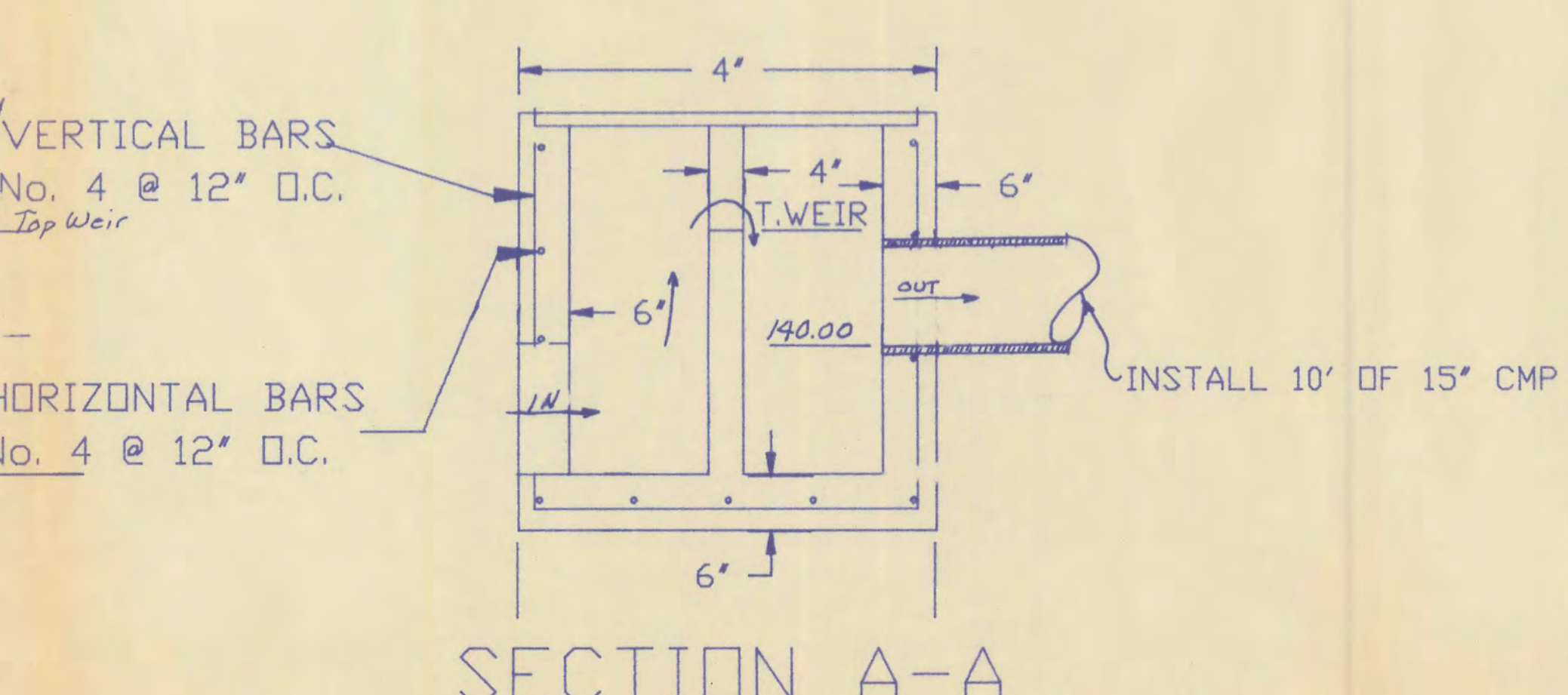
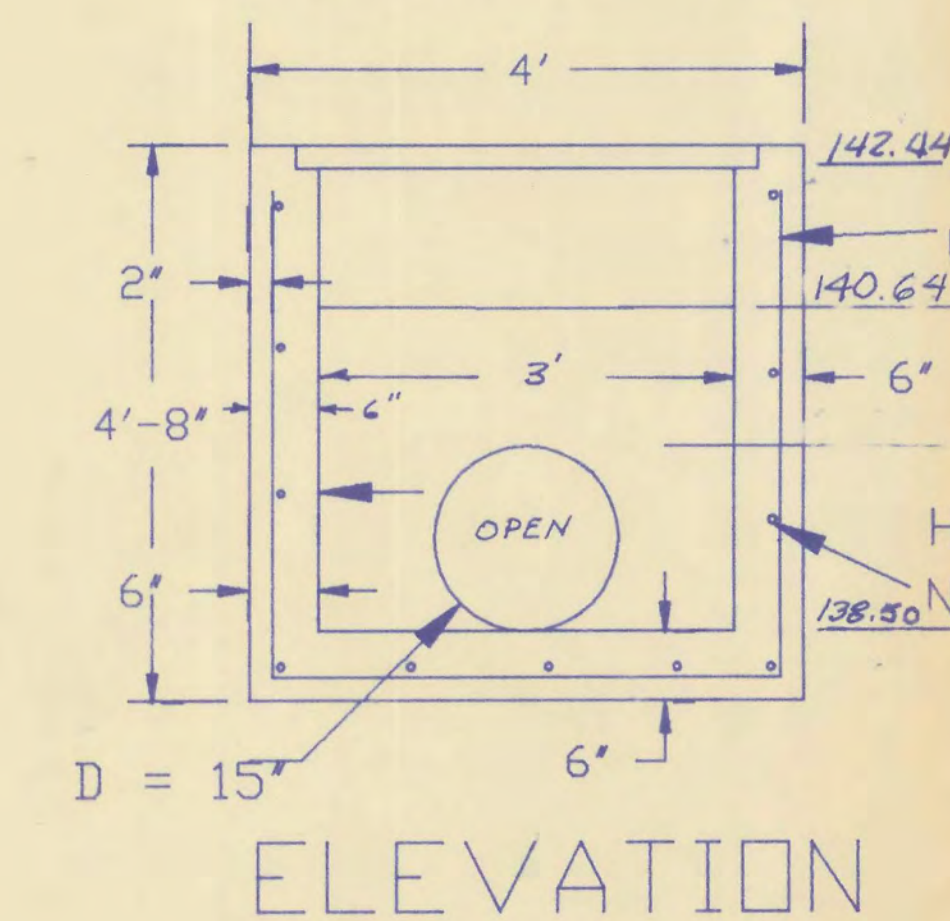
GOLF HAMMOCK UNIT 5

Signature: *Ted Kaipainen* Date: 1/26/87

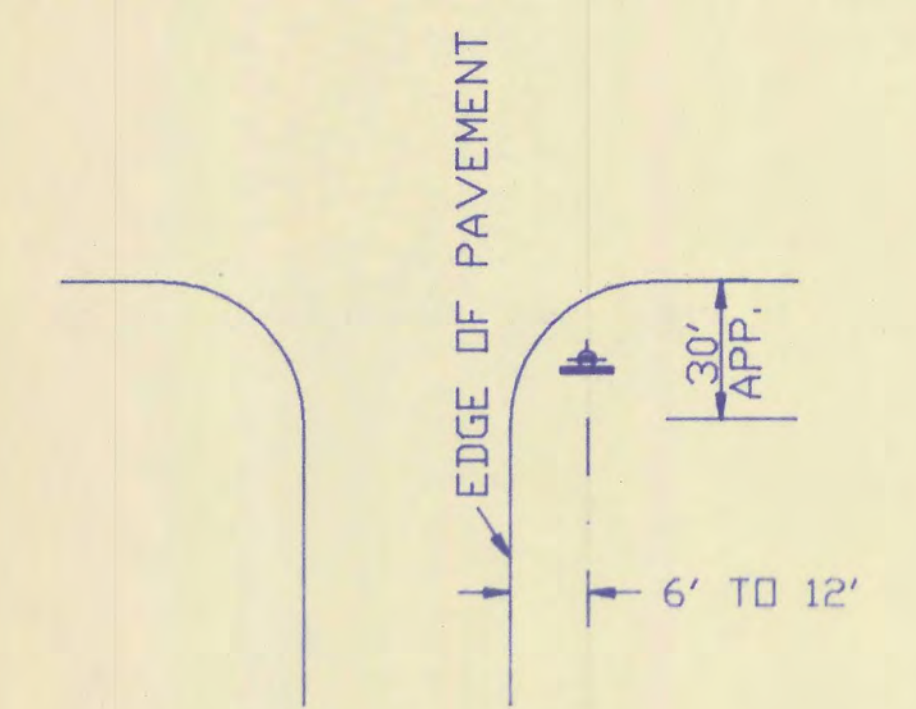
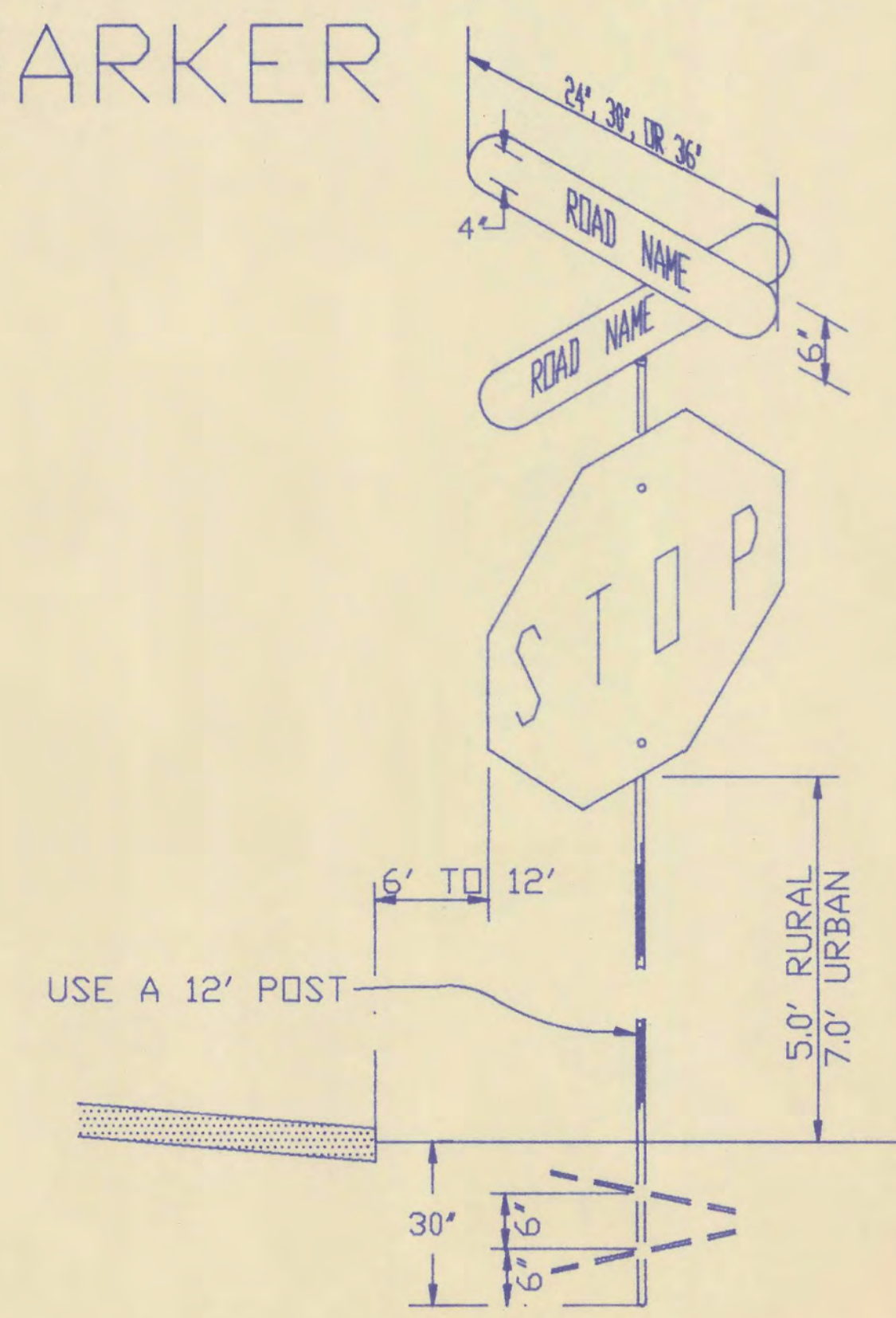
1/4



WEIR DETAILS



SIGN AND ROAD MARKER



ROAD SIGNS

ALUMINUM PLATES - MINIMUM THICKNESS .080 INCHES, DIE CUT ALCOA ALLOY 6061-T6 OR EQUAL. WHITE LETTERS WITH GREEN REFLECTORIZED BACKGROUND.

STOP SIGN

ALUMINUM PLATES - MINIMUM THICKNESS .080 INCHES, DIE CUT ALCOA ALLOY 6061-T6 OR EQUAL. WHITE LETTERS WITH RED REFLECTORIZED BACKGROUND. STANDARD SIZE: 30"

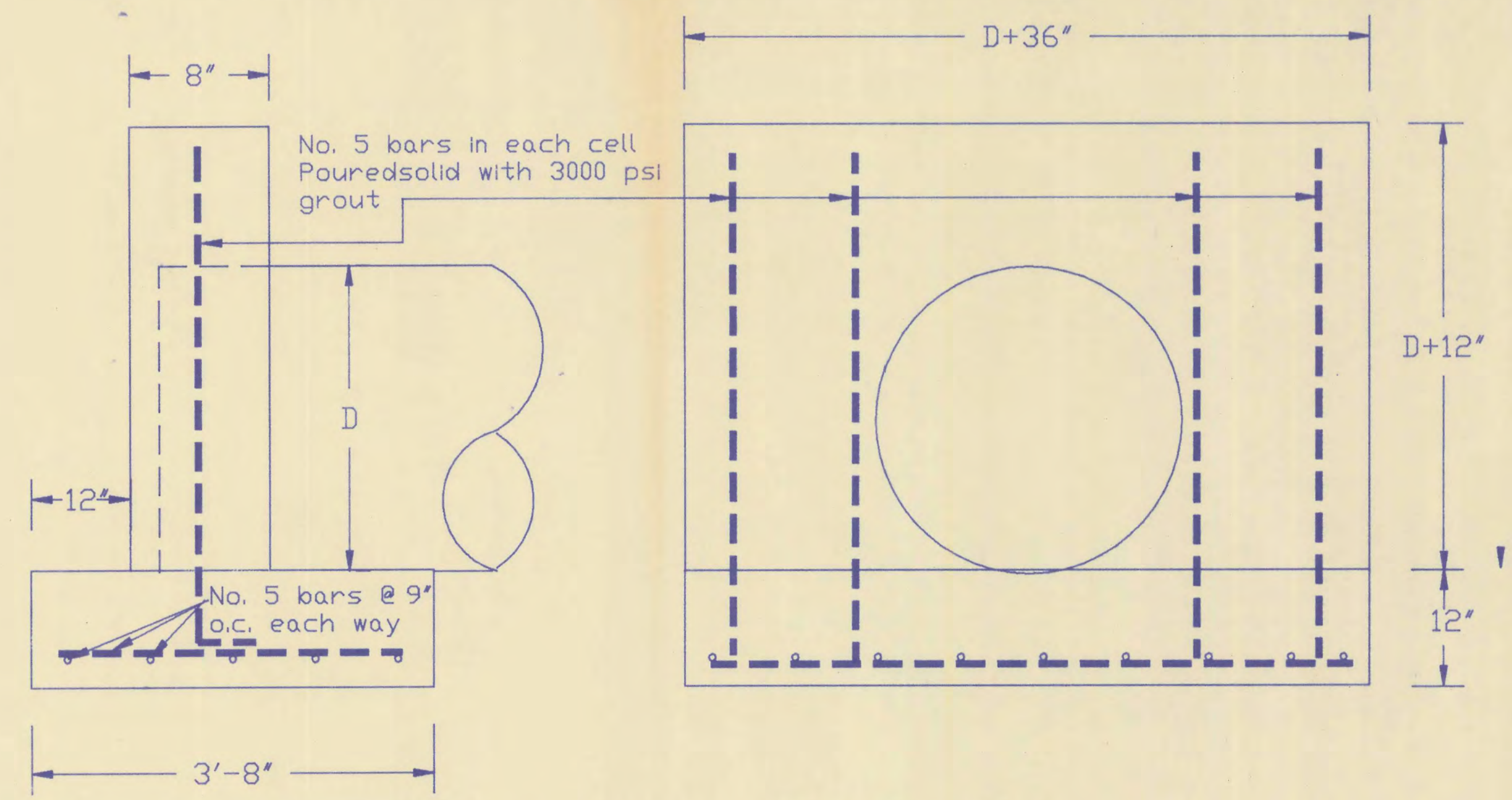
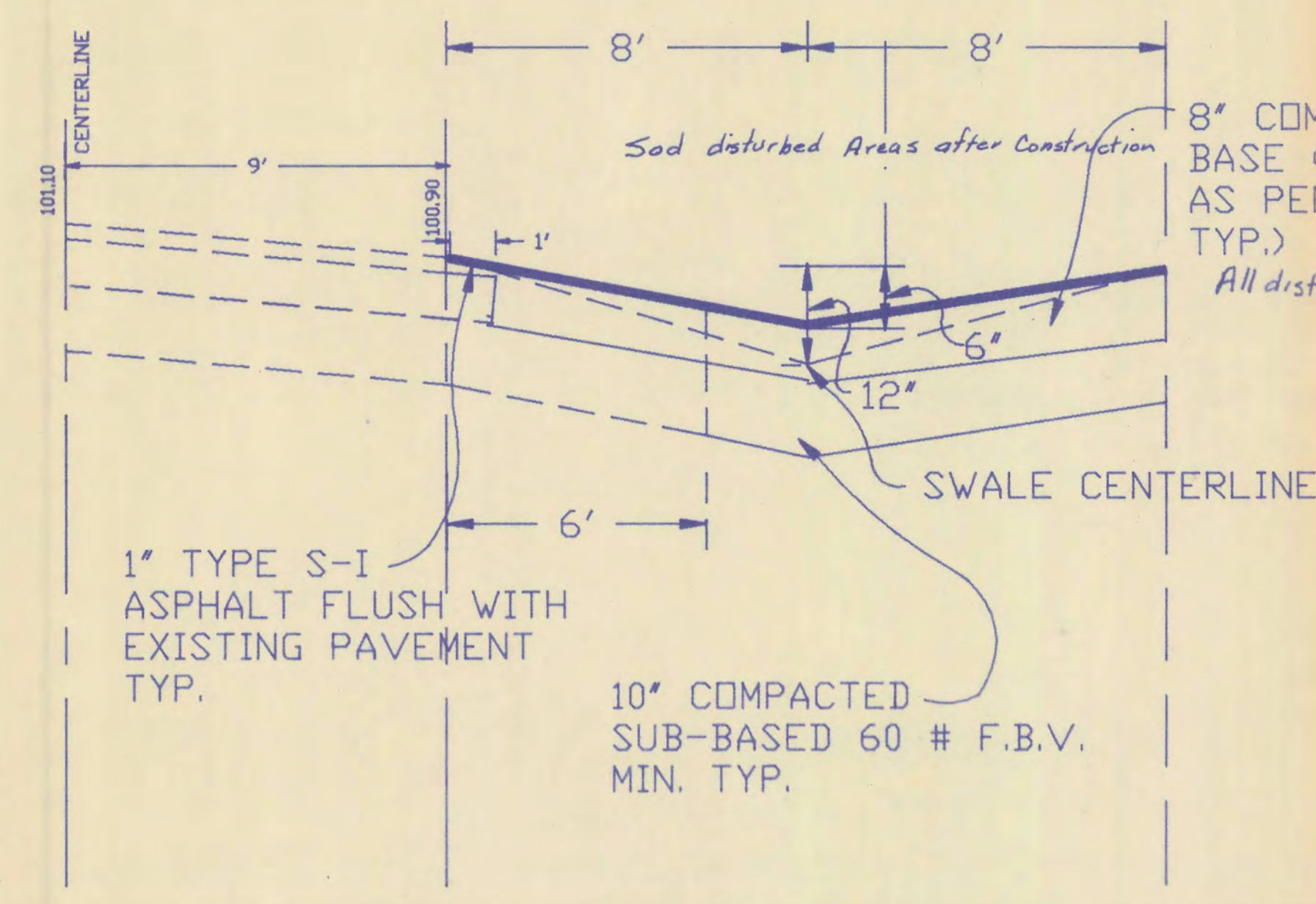
BASE DETAIL

CROSSPIN - (2) 3/8" X 12" THROUGH PIPE PERPENDICULAR TO EACH OTHER, REQUIRED.

NOTES:

1. PAVEMENT MARKINGS AS PER CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
2. ALL CONSTRUCTION TO CONFORM WITH THE REQUIREMENTS OF CURRENT HIGHLANDS COUNTY LAND DEVELOPMENT REGULATIONS.
3. ALL DISTURBED AREA IS TO BE SODDED A DISTANCE OF FIVE (5) FEET OUT FROM THE EDGE OF PAVEMENT AND THE BALANCE OF THE DISTURBED AREA IS TO BE SEEDED AND MULCHED AS PER CURRENT HIGHLANDS COUNTY REGULATIONS.
4. A 12" SHELLROCK BASE MAY BE SUBSTITUTED IN LIEU OF THE 8" BASE AND 10" STABILIZED SUB-BASE. THIS 12" SHELLROCK BASE MUST BE PLACED AND COMPACTED IN TWO LAYERS.

DRIVEWAY PROFILE



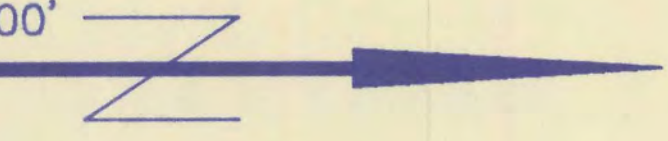
HEADWALL DETAIL

TED G. KAIPAINEN ENGINEERING
 1310 SHAMROCK DRIVE SEBRING, FLORIDA 33870
 (813)385-2758

SIGNATURE *Ted G. Kaipainen*
 DATE *7/27/07*

1A/4

SCALE: 1"=100'



MATCH LINE SHEET 2A



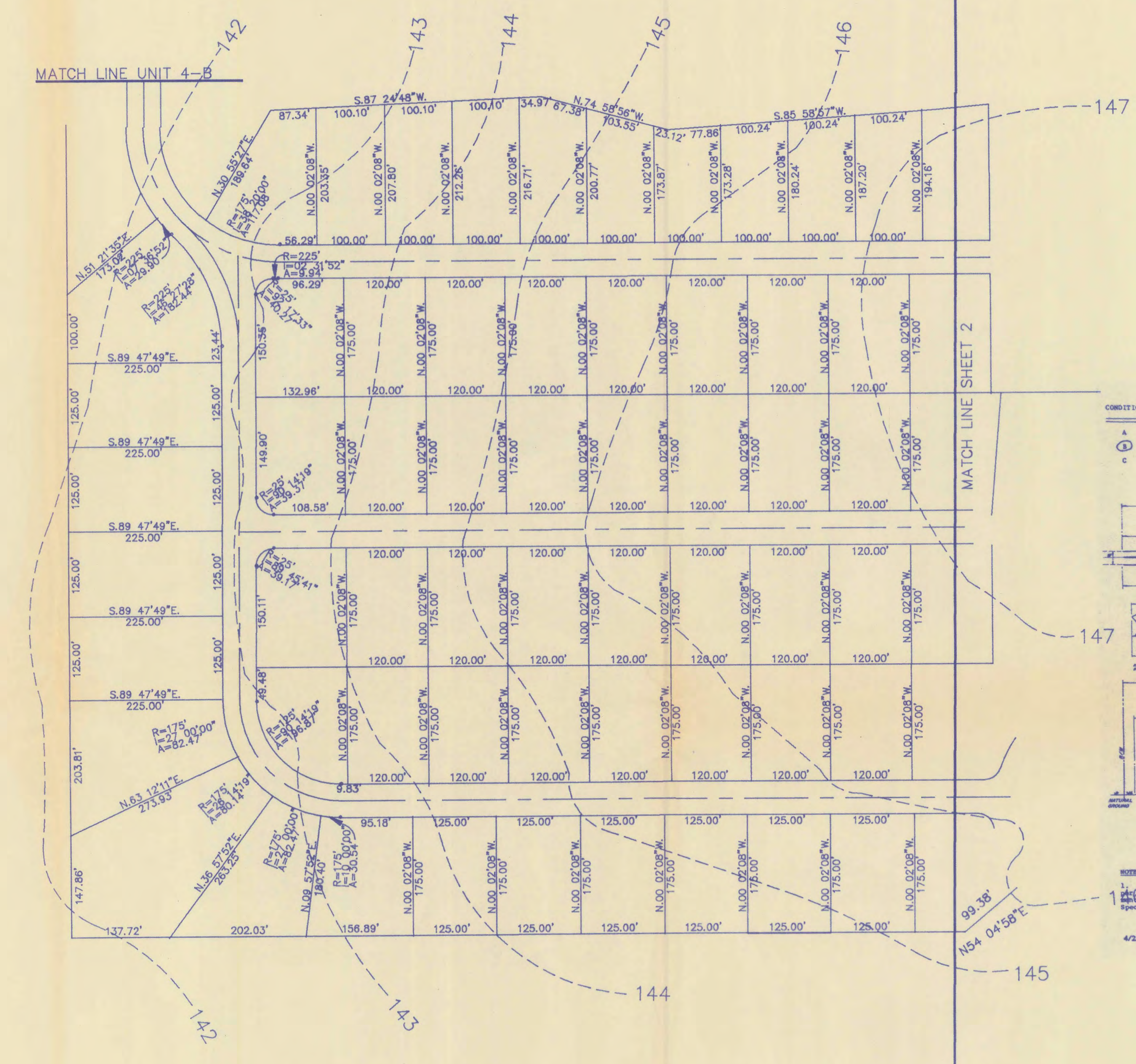
GOLF HAMMOCK UNIT 5 SITE PLAN

CURVE DATA
R = 150'
A = 90 12'10"
A = 236.15'

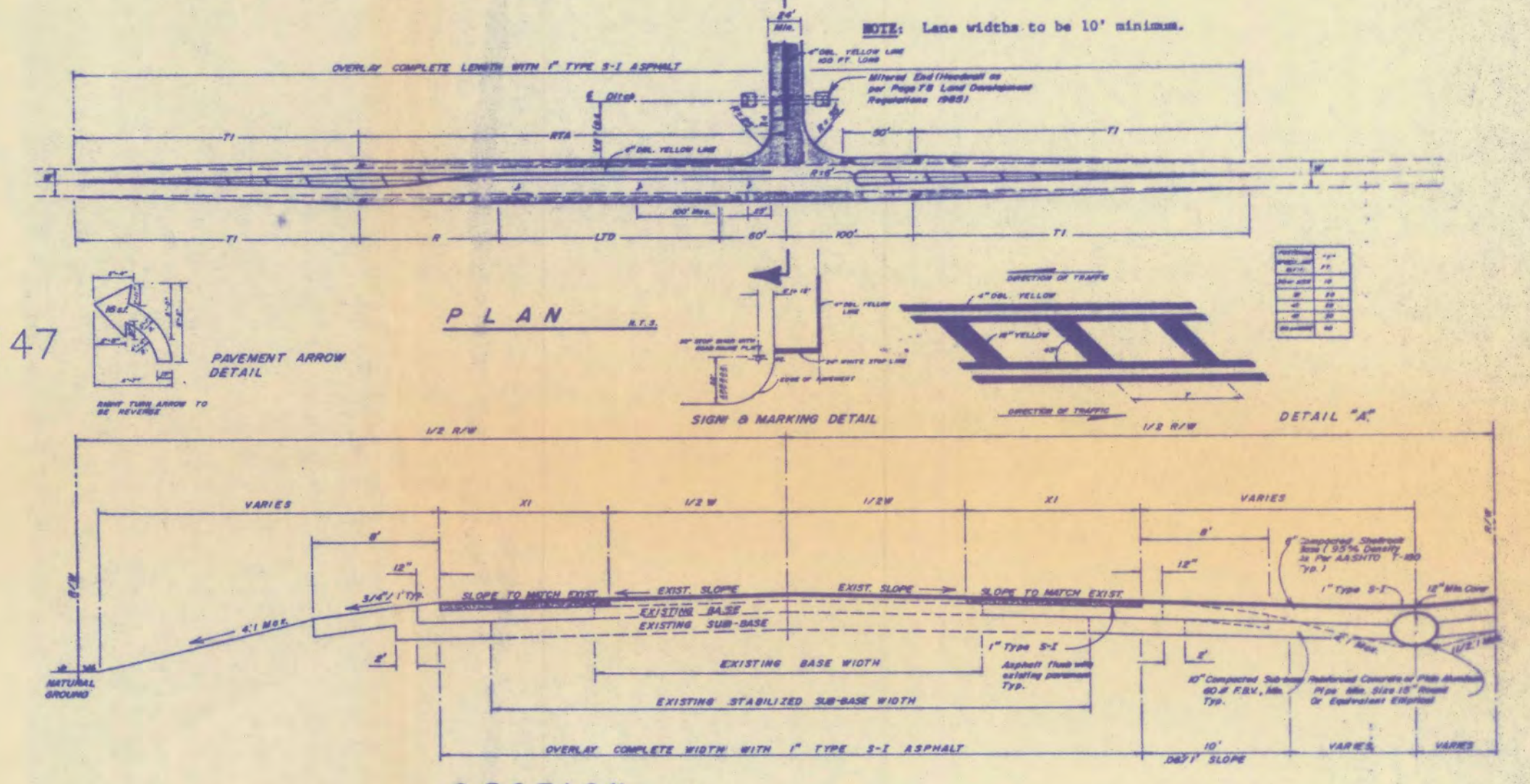
R = 150.00'
A = 60 00' 00"
A = 157.08'

R = 150.00'
A = 60 00' 00"
A = 157.08'

TED G. KAIPAINEN ENGINEERING	
1310 SHAMROCK DRIVE SEBRING, FLORIDA 33870	
(813)385-2758	
SIGNATURE <i>Ted G. Kaipainen</i>	2/4
DATE 1/27/87	



CONDITION	NUMBER OF PARKING SPACES	NUMBER OF RESIDENTIAL UNITS	POSTED SPEED ALONG COUNTY ROAD	LEFT TURN DECELERATION LTD	RIGHT TURN ACCELERATION RTA	REVERSE	ROADWAY TAPER	ROADWAY WIDTH
A	101 - 400	221 - 880	35 OR LESS	225	430	125	190	20 5.0
B	101 - 400	221 - 880	40 - 50	375	585	150	230	22 5.5
C	101 - 400	221 - 880	55 AND ABOVE	640	650	150	300	24 6.0



NOTES:
 1. Pavement markings as per current Florida Department of Transportation Specifications.
 2. All construction to conform with the requirements of the current Highlands County Land Development Regulations.
 3. All disturbed area is to be seeded a distance of five (5) feet out from the edge of the pavement and the balance of the disturbed area is to be seeded and mulched as per current Highlands County Regulations.
 4. A 12" shellrock base may be substituted in lieu of the 8" base and 15" shoulders. This 12" shellrock base must be placed and compacted in two layers.
 4/25/86

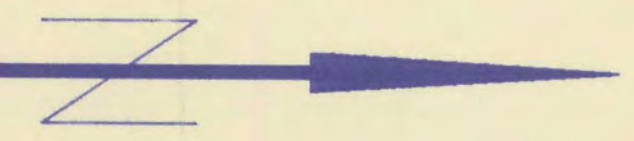
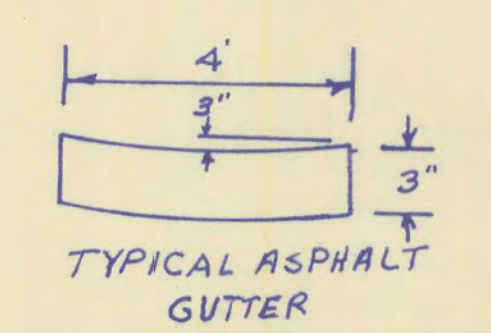
GOLF HAMMOCK UNIT 5 SITE PLAN

TED G. KAIPIAINEN ENGINEERING
 1310 SHAMROCK DRIVE SEBRING, FLORIDA 33870
 (813)385-2758

SIGNATURE *Ted G. Kaipainen*
 DATE 1/26/87

2A
4

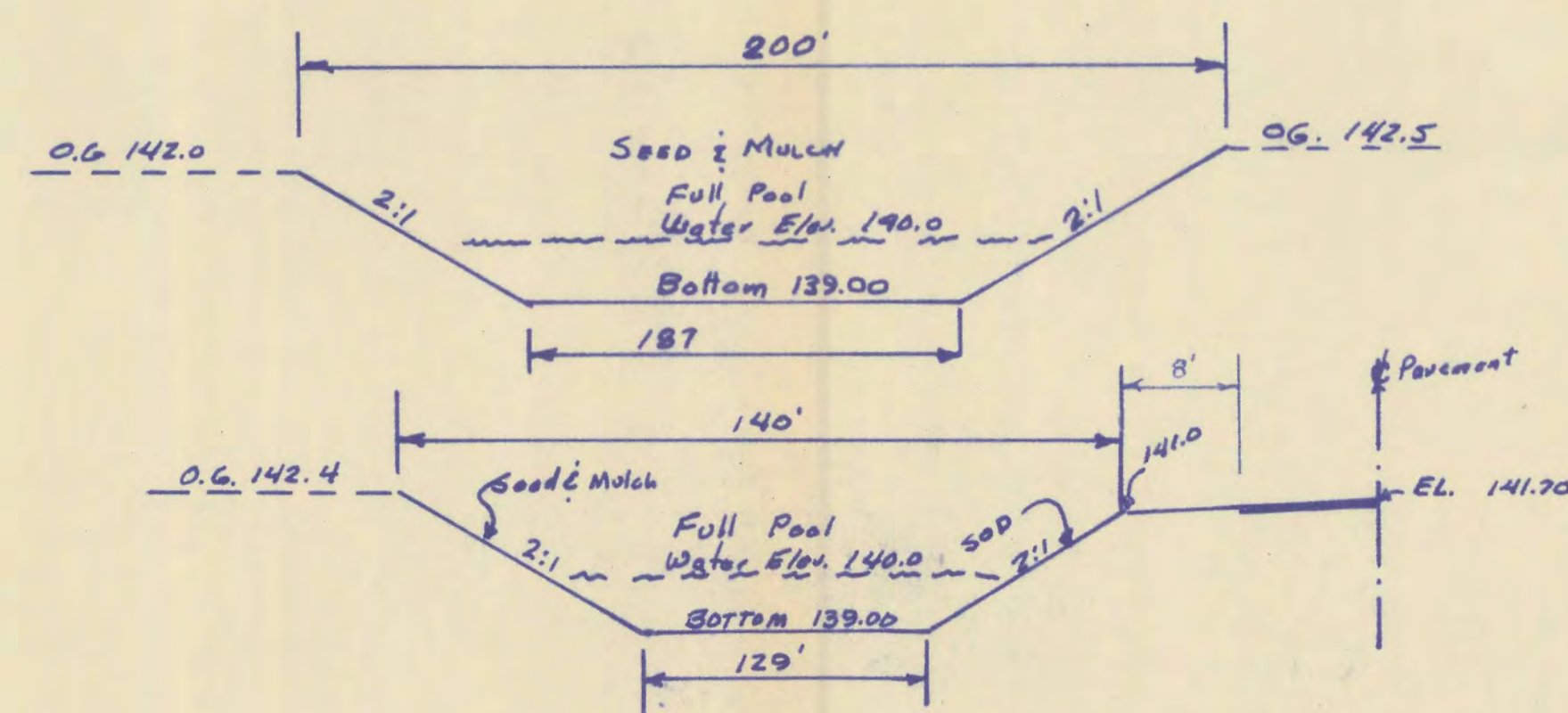
SCALE: 1" = 100'

GOLF HAMMOCK UNIT 5

PAVING and DRAINAGE PLAN

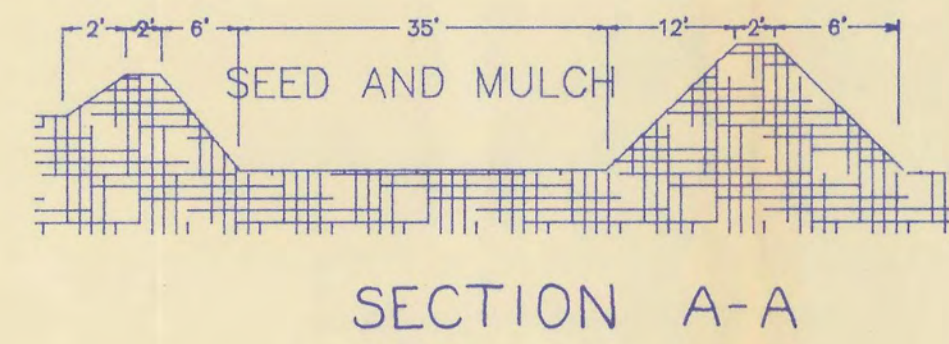
Bench Mark:
Nail in the centerline of
existing pavement sta.
2+50.21 P.C. of Curve
Elev. 148.00



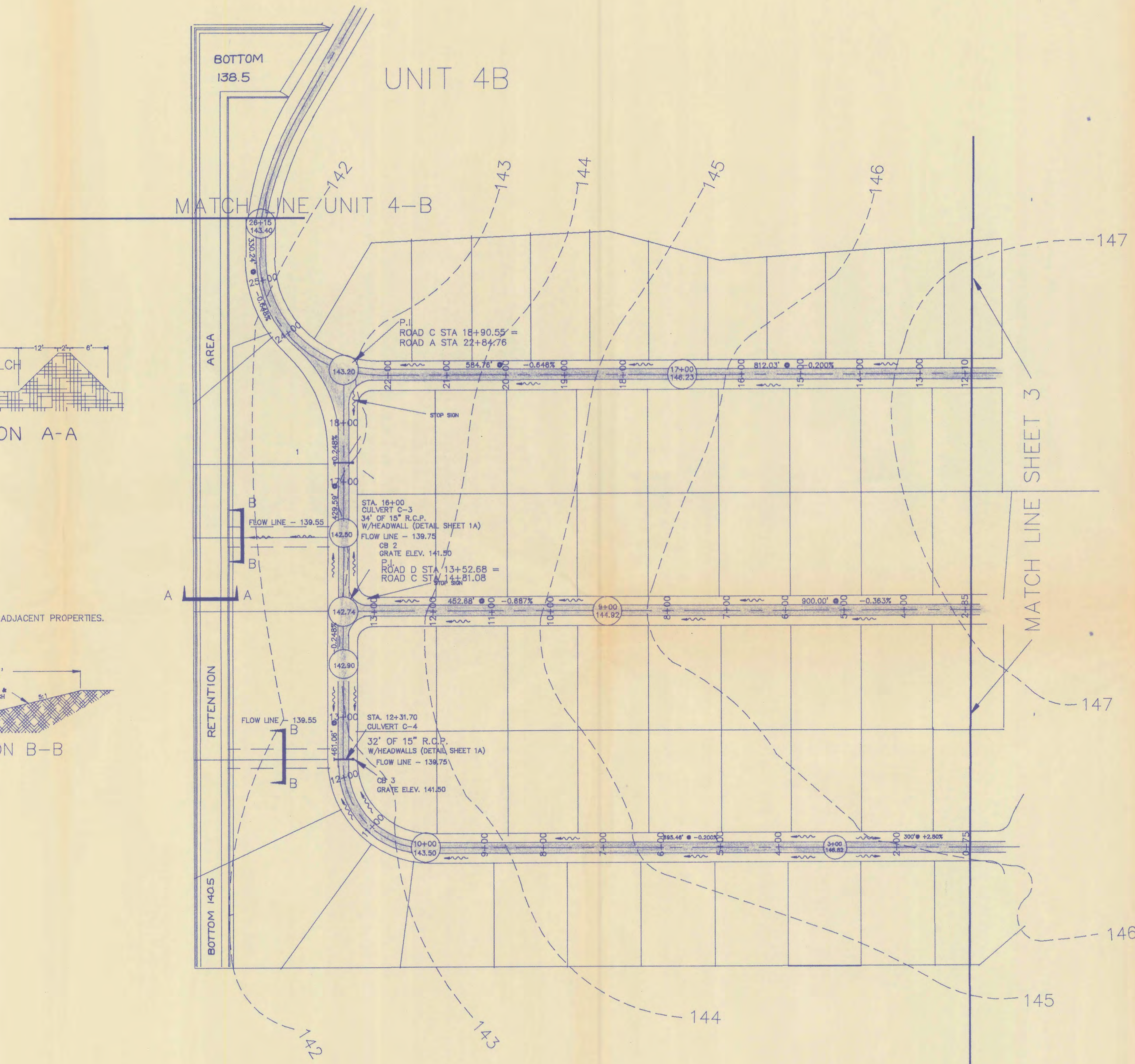
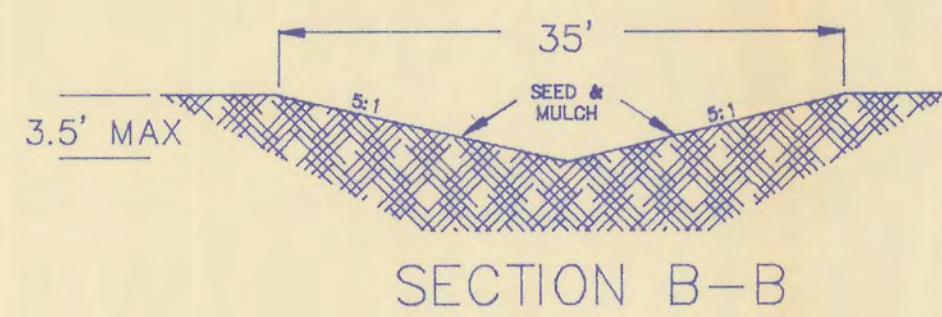
TED G. KAIPAINEN ENGINEERING
1310 SHAMROCK DRIVE SEBRING, FLORIDA 33870
(813)385-2758

SIGNATURE: *Ted G. Kaipainen*
DATE: 1/26/87

3/4



NOTE: THERE IS NO RUN-OFF FROM ADJACENT PROPERTIES.

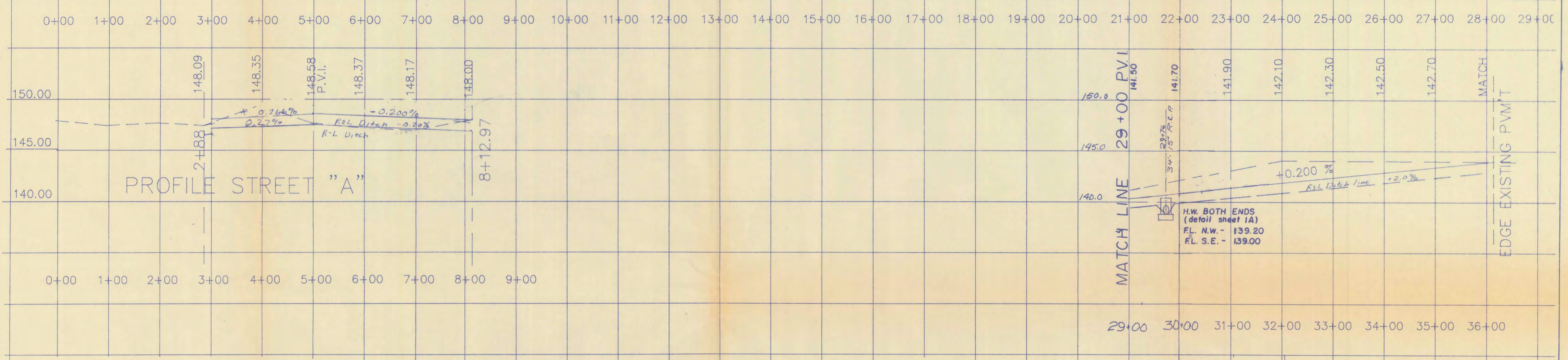
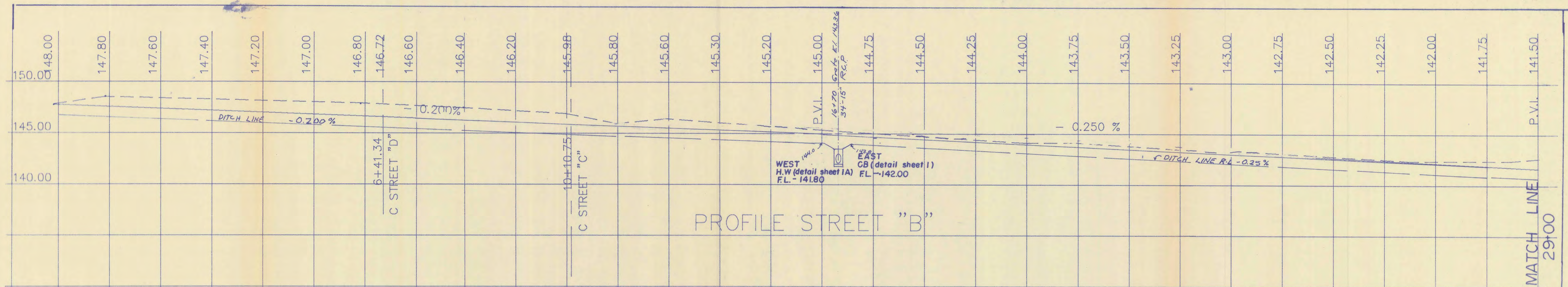


GOLF HAMMOCK UNIT 5 DRAINAGE AND PAVEMENT PLAN

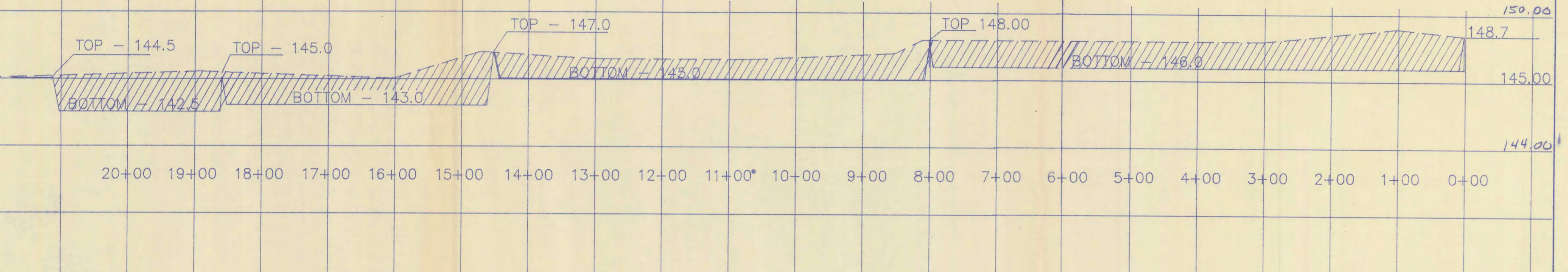
TED G. KAIPAINEN ENGINEERING
1310 SHAMROCK DRIVE SEBRING, FLORIDA 33870
(813)385-2758

SIGNATURE *Ted G. Kaipainen*
DATE 1/26/07

3A



PROFILE OF REAR LOT LINE RETENTION AREA



DRAINAGE CALCULATIONS

Total Area - 18.4 Acres = 801,504 s.f.

D.E.R. Treatment = 801,504 x 0.04 = 32060 x (S.F.) 2 = 64,120 c.f.

Q(1 hr.) = 0.28 x 3.8 x 18.4 = 19.57 cfs x 3600 = V = 70,452 c.f.

Q(2 hr.) = 0.28 x 2.4 x 18.4 = 12.36 cfs x 7200 = V = 88,992 c.f.

Q(3 hr.) = 0.28 x 1.7 x 18.4 = 8.75 cfs x 10800 = V = 94,500 c.f.

Percolation area = (2050 x 10) + 22675 = 43,175 s.f.

Percolation rate = 15"/12 x 43,175 = 53,969 c.f./hr.

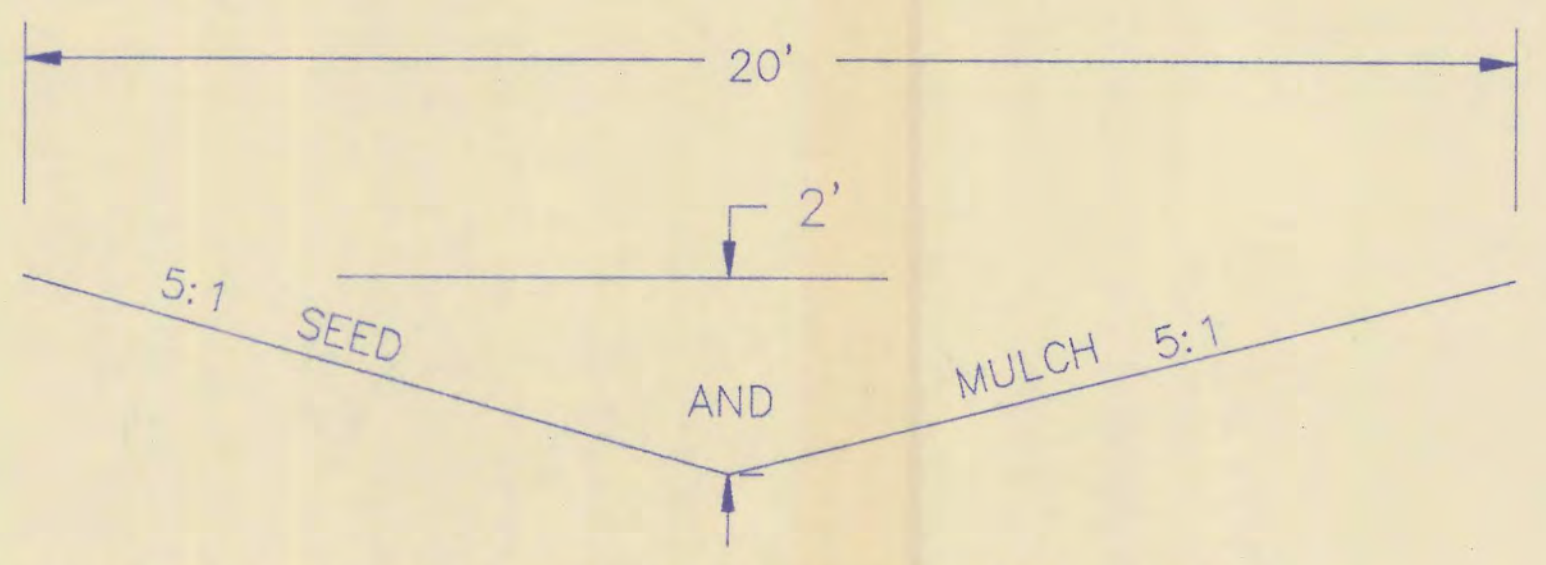
Retention area required = 70,452 - 53,969 = 16,483 c.f.

This Plan provides for 63,675 c.f.

D.E.R. bleed down time = 64,120 / 53,969 = 1 hr. 12 min.

The percolation rate of 15"/hr. is the maximum allowed by the County without testing. The soil conservation maps for this area show very light very fine sand with a perc rate in excess of 50 in./hr.

The site is confined to itself with no additional run off from surrounding areas



TYPICAL SECTION OF RETENTION AREA

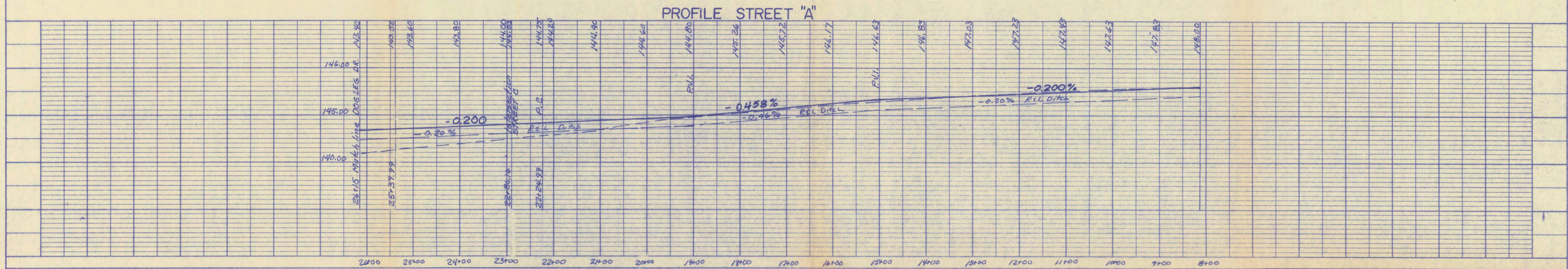
VOLUME = 20 X 2050 = 41000 C.F. = 0.94 AC.FT.

KAIPIAINEN ENGINEERING

Signature: *[Handwritten Signature]*

Date: 11/26/87

4/4



DRAINAGE CALCULATIONS

PREDEVELOPMENT RUN-OFF = .15 X 56.95 X 32.46 C.F.S.

POND	(STAGE VS. VOLUME)
138.50	0
139.50	30348
140.50	87868
141.50	169990

RUN-OFF

Q(10 min)	= 0.28 X 8.4 X (15.63 + 41.32)	= 133.95 X 600	= 80370
Q(20 min)	= 0.28 X 6.6 X (15.63 X 41.32)	= 105.24 X 1200	= 126288
Q(30 min)	= 0.28 X 5.6 X (15.63 X 41.32)	= 89.30 X 1800	= 160740
Q(40 min)	= 0.28 X 5.0 X (15.63 X 41.32)	= 79.73 X 2400	= 191352
Q(50 min)	= 0.28 X 4.3 X (15.63 X 41.32)	= 68.57 X 3000	= 205710
Q(60 min)	= 0.28 X 3.8 X (15.63 X 41.32)	= 60.59 X 3600	= 218124
Q(120min)	= 0.28 X 2.3 X (15.63 X 41.32)	= 36.68 X 7200	= 264092

RETENTION REQUIRED (OUT - WEIR - 24.39 C.F.S.)

TIME	VOLUME IN.	PERC. OUT	WEIR OUT	VOLUME RET.
10	80370	1485	0	78885
20	126228	2970	4284	118974
30	160740	4455	14580	141705
40	191352	5940	58536	127056
50	205710	7425	73170	125115
60	218124	8910	87804	121410
120	264092	17820	175608	70664

NOTE: Retention Area is designed to handle run-off from Unit 4B & 5.

15.63 Acres - Unit 4B
41.32 Acres - Unit 5
56.95 Acres Total

D.E.R. Treatment - 56.95 X .04 X 43560 = 99230 C.F.
Based on D.E.R. Treatment WEIR ELEV. will be 140.64
Percolation Rate in this area will be 3" per hour.

AREA OF PERCOLATION: 35,638 SF

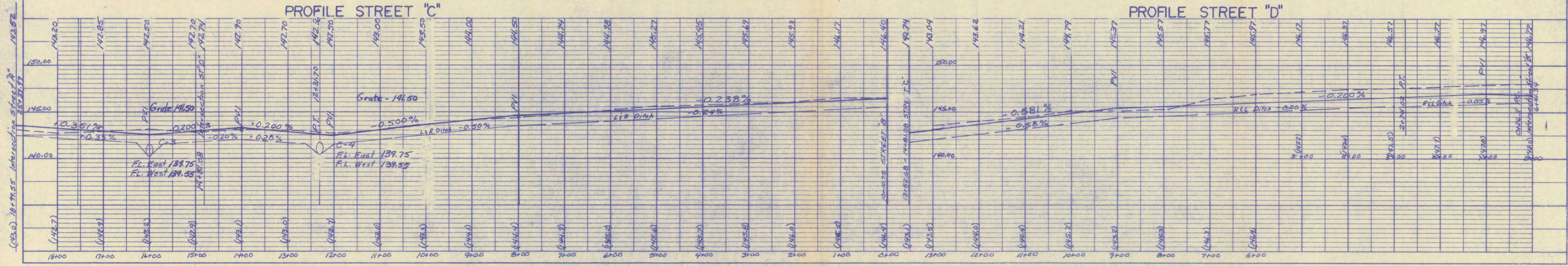
PERC. RATE: 35638 X 3"/12 = 8909.50 CF/hr. = 148.5 C.F.M.

Draw down time 2 X 99230/148.5 = /336 min. = 22 hrs. 16 min.

(813) 385-2788 **TED G. KAIPAINEN**
PROFESSIONAL ENGINEER
1310 SHAMROCK DRIVE, SEBRING, FLORIDA, 33870

REVISIONS: TITLE: **GOLF HAMMOCK UNIT 5**
Profiles

OWNER: *Ted Kaipainen* DRAWN BY: *Ted Kaipainen* PAGE: 4A OF 4
DATE: 1/26/87



143.52 Intersection Street 'A' & 'C'

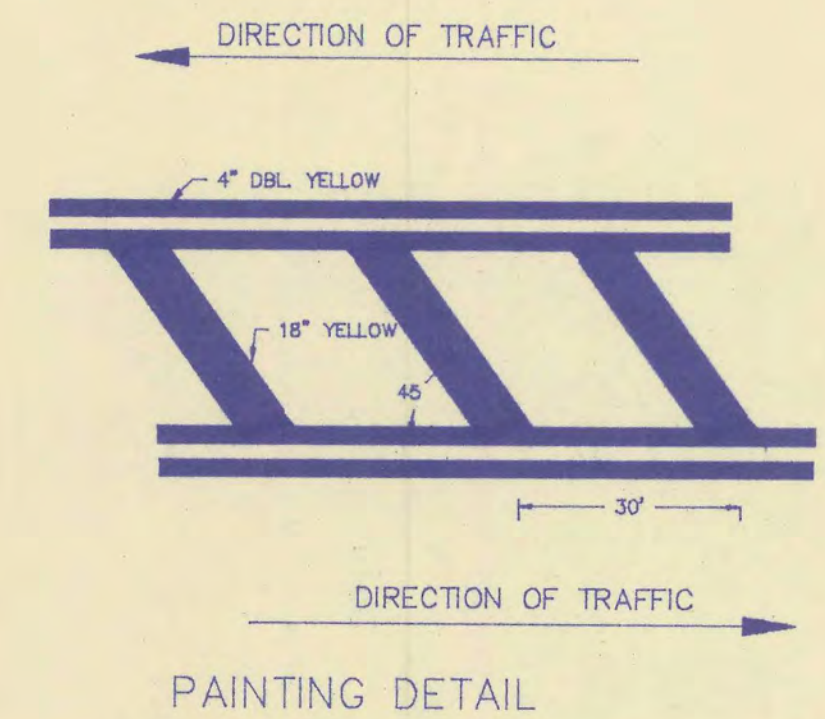
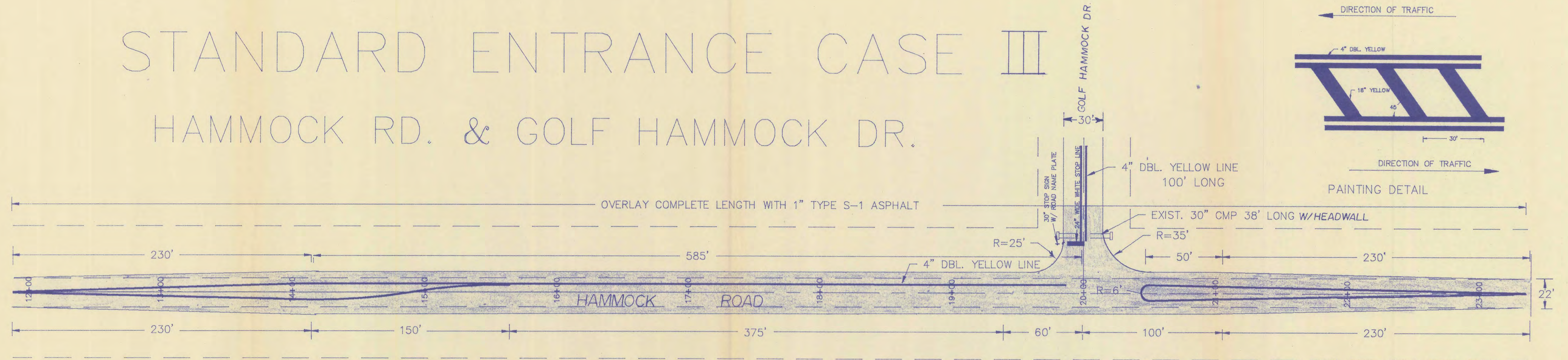
DATE: 1-26-87
DRAWN BY: T.K.
CHECKED BY: T.K.
SCALE: AS SHOWN
PROJECT: GOLF HAMMOCK UNIT 5
SHEET: 4A OF 4

NO. 101 OR 101A CHECKED
BY: P.F. MOORE
DATE: 1/26/87
SCALE: AS SHOWN
PROJECT: GOLF HAMMOCK UNIT 5
SHEET: 4A OF 4

NO. 101 OR 101A CHECKED
BY: P.F. MOORE
DATE: 1/26/87
SCALE: AS SHOWN
PROJECT: GOLF HAMMOCK UNIT 5
SHEET: 4A OF 4

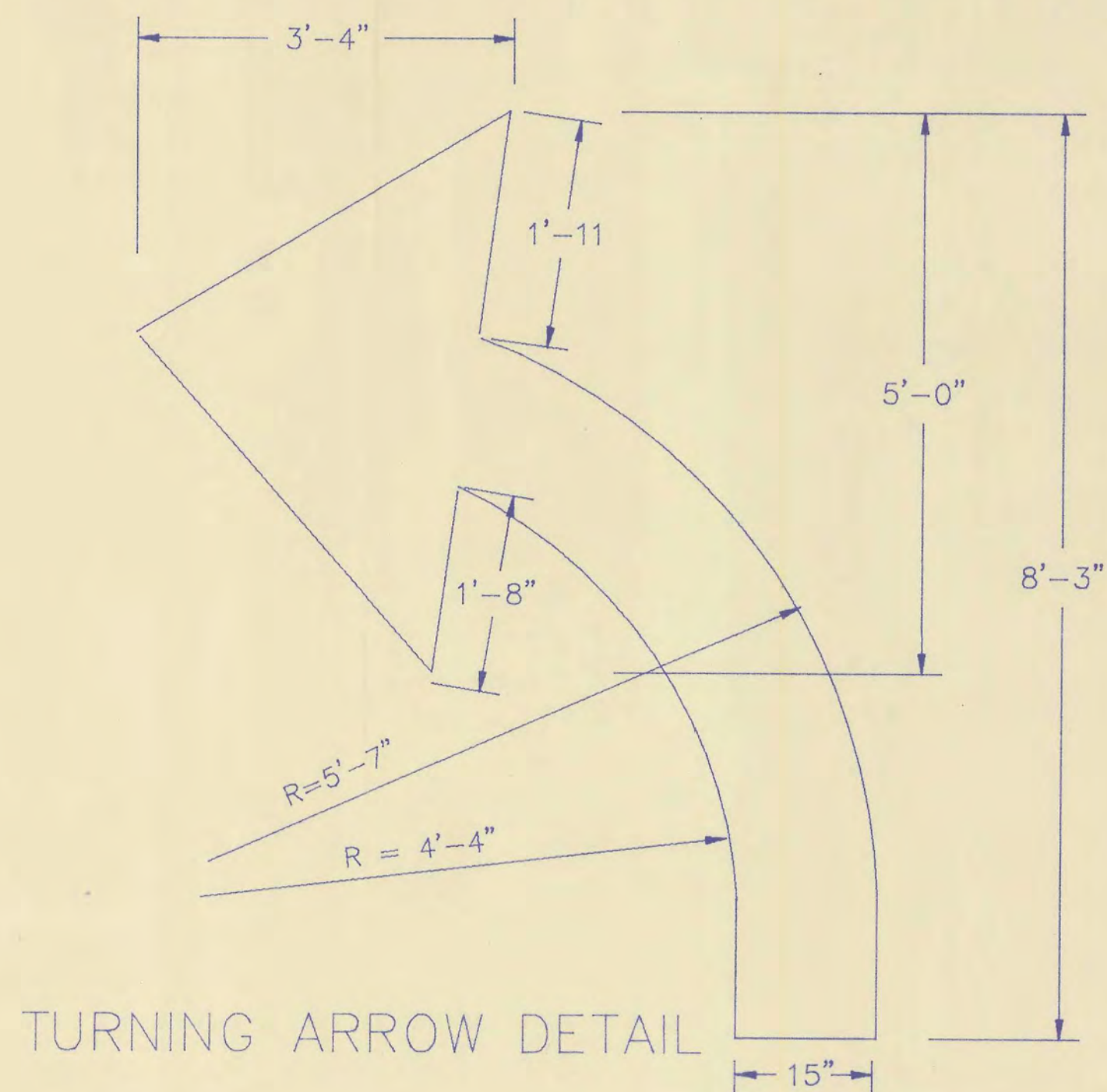
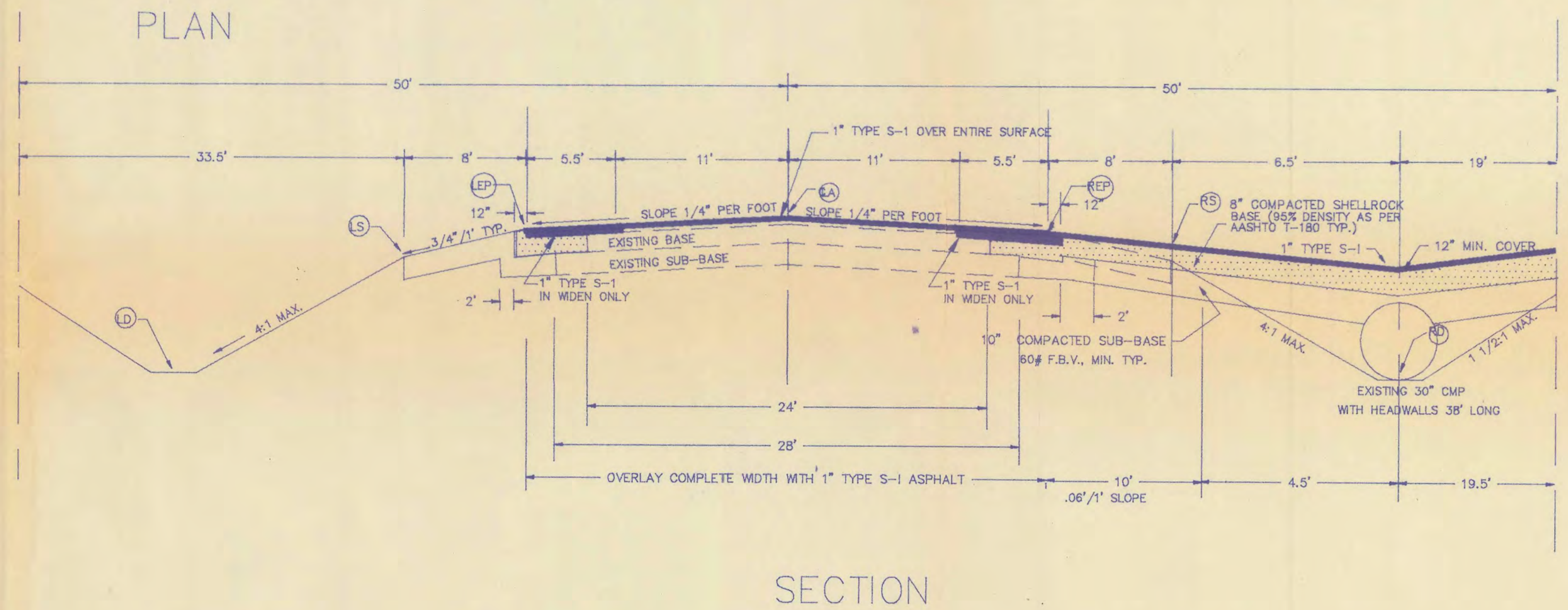
STANDARD ENTRANCE CASE III

HAMMOCK RD. & GOLF HAMMOCK DR.



NOTES

1. PAVEMENT MARKINGS AS PER CURRENT FLORIDA DEPT. OF TRANSPORTATION SPECIFICATIONS.
2. ALL CONSTRUCTION TO CONFORM WITH THE REQUIREMENTS OF THE CURRENT HIGHLANDS COUNTY LAND DEVELOPMENT REGULATIONS.
3. ALL DISTURBED AREA IS TO BE SODDED A DISTANCE OF FIVE (5) FEET OUT FROM THE EDGE OF THE PAVEMENT AND THE BALANCE OF THE DISTURBED AREA IS TO BE SEEDD AND MULCHD AS PER CURRENT HIGHLANDS COUNTY REGULATIONS.
4. A 12" SHELLROCK BASE MAY BE SUBSTITUTED IN LIEU OF THE 8" BASE AND 10" STABILIZED SUB-BASE. THIS 12" SHELLROCK BASE MUST BE PLACED AND COMPACTED IN TWO LAYERS.



ELEVATION SCHEDULE

	LD	LS	LEP	Q	QA	REP	RS	RD
24+00	133.50	137.22	137.72	137.98	138.06	137.72	137.22	132.41
23+00	133.00	136.99	138.49	137.85	138.83	138.49	136.99	132.80
22+00	133.50	136.96	137.46	137.72	137.80	137.46	136.96	133.50
21+00	133.80	137.06	137.56	137.92	137.90	137.56	137.06	133.80
20+00	134.00	137.34	137.84	138.10	138.18	137.84	137.34	133.90
19+00	134.30	137.36	137.86	138.12	138.20	137.86	137.36	134.00
18+00	134.51	137.48	137.98	138.24	138.32	137.98	137.48	134.10
17+00	134.60	137.49	137.99	138.25	138.33	137.99	137.49	134.20
16+00	134.80	137.50	138.00	138.26	138.34	138.00	137.50	134.30
15+00	135.10	137.47	137.97	138.23	138.31	137.97	137.47	134.40
14+00	135.30	137.43	137.93	138.19	138.27	137.93	137.43	134.50
13+00	134.90	137.35	137.85	138.11	138.19	137.85	137.35	134.60
12+00	134.50	137.28	137.78	138.03	138.12	137.78	137.28	134.70

LD=LEFT DITCH
 LS=LEFT SHOULDER
 LEP=LEFT EDGE OF PAVEMENT
 Q=CENTERLINE
 QA=CENTERLINE ADJUSTED
 REP=RIGHT EDGE OF PAVEMENT
 RS=RIGHT SHOULDER
 RD=RIGHT DITCH

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HAMMOCK RD. & GOLF HAMMOCK DR.

Signature: *[Signature]*
 Date: 2/19/87

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