



Technical Staff Report 1729

Technical Staff Report
Chapter 40C-42, F.A.C. General Permit Application

Date Received: 3/4/99

21st Day: 4/20/99

28th Day: 4/27/99

Project Name: North Hancock Road (Phase 1A)

Application Number: 42-069-1391ANG-ERP

Project Area: 5.90 (acres)

Receiving Water Body: Existing lake north of SR 50

Class: III

O&M Documents Submitted to General Counsel N/A

Correct Fee Submitted Yes

Wetland Resource Management Permit Needed No

General Permit Category: (Check only one)

- 40C-42.024(2)(a) Connection into a prior approved system
 40C-42.024(2)(b) Retention Underdrain, Exfiltration, Wet Detention, Swales, or Dry Detention
 40C-42.024(2)(c) Governmental Modification
 40C-42.024(2)(d) Paving of Public Dirt Roads

Type of Development: (Check all applicable)

- Residential
 Single (1)
 Multifamily(2)
 Recreational(3)
 Commercial(4)
 Industrial(5)
 Agricultural(6)
 Institutional(7)
 Roadway(8)
 Other(9)

Type of Treatment: (Check all applicable)

- Retention(1)
 Dry Detention w/Underdrain (2)
 Exfiltration Trench (5)
 Wet Detention (6)
 Swales (7)
 Swales w/ditch blocks (8)
 Pervious Concrete(9)
 Wetlands(10)
 Alternative(11)
 Other(12); BMP's
 Dry Detention(13)

Type of System: (Check only one)

- New Stormwater System(1)
 New Discharge Point(2)
 New Regional System(3)
 Modification to Existing System(4) Related permit Numbers: None

Comments:

November 9, 1995 Special Conditions: 10, 13, 28

Number of Other Conditions 2 (list below)

1. Prior to commencement of construction, the permittee must submit a copy of the FDOT Drainage Connection Permit.
2. Prior to beginning construction in any future phases, the permittee must obtain the appropriate modification to this permit.

Authorizing Statement: A (type of system) with stormwater treatment by (type(s) of treatment proposed) to serve (Project Name), a (Project Area) acre project to be constructed as per plans received by the District on 3/4/99.

This project as proposed in submitted plans, is consistent with the rules and regulations as set forth in Chapter 40C-42, F.A.C. implemented April 11, 1994.

Reviewer: Ruth E. Grady Date: 4/7/99

Supervising Professional Engineer: Joan B. Budzynski Date: April 11, 1999

Forms to be included with permit

Completion Forms:

- EN-44 (Non-registered)
- EN-45 (Registered Professional)

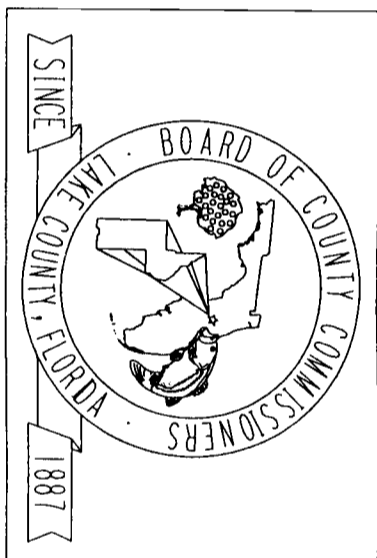
Inspection Forms:

- EN-47 (Non-reg.)
- EN-46 (Reg. Prof.)
- EN-33 (Karst)

- EN-31 (Littoral Zone)
- Other:

LAKE COUNTY PUBLIC WORKS DEPARTMENT

ENGINEERING DIVISION



PROPOSED PLANS FOR

NORTH HANCOCK ROAD

(PHASE IA)

LAKE COUNTY

R - 26 E

981
FINAL SUBMITTAL
FEBRUARY 1999

- COUNTY COMMISSIONERS**
- DISTRICT 1 - RHONDA H. GERBER
 - DISTRICT 2 - ROBERT A. POOL
 - DISTRICT 3 - G. RICHARD SWARTZ, JR.
 - DISTRICT 4 - CATHERINE C. HANSON, VICE CHAIRMAN
 - DISTRICT 5 - WELTON G. CADWELL, CHAIRMAN
- COUNTY MANAGER - SUE B. WHITTLE**
- PUBLIC WORKS DIRECTOR - JIM STYVENDER, JR., P.E., P.L.S.**
- DIRECTOR OF ENGINEERING - FREDERICK J. SCHNEIDER, P.E.**

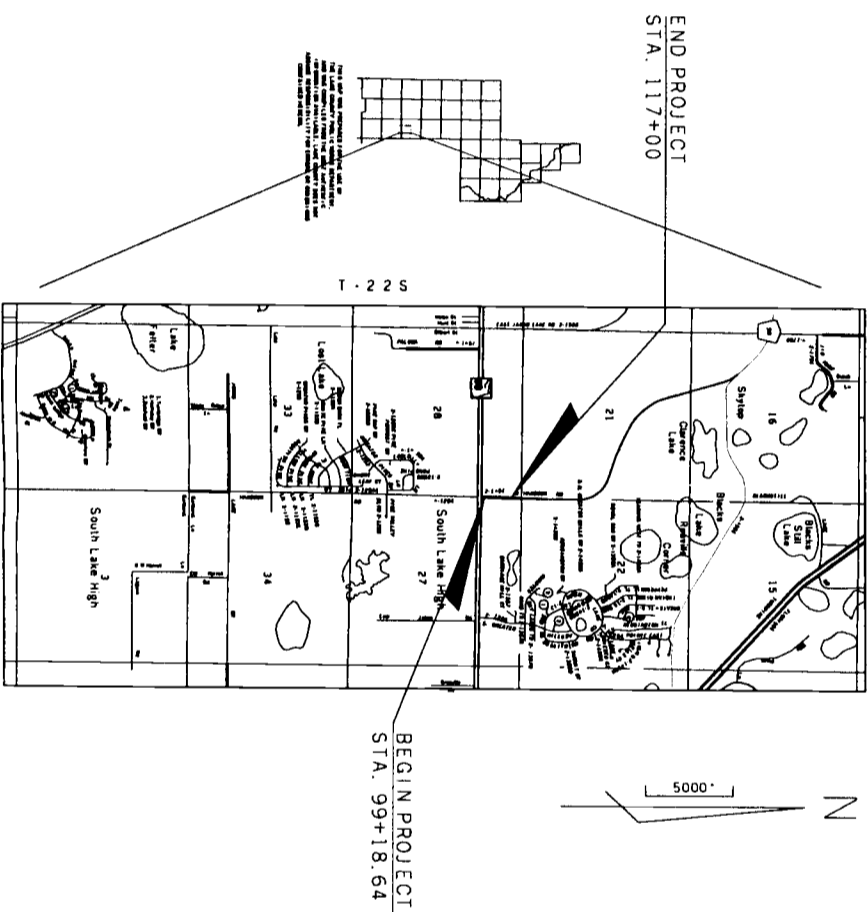
INDEX OF ROADWAY PLANS

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2	AERIAL
3	TYPICAL SECTIONS
4	GENERAL NOTES
5-8	ROADWAY PLAN / PROFILE SHEETS
9	INTERSECTION DETAIL SHEET
10	POND DETAIL SHEET
11-24	ROADWAY CROSS SECTIONS
25-26	SIGNING AND MARKING PLAN SHEETS
27	SIGNALIZATION PLAN SHEET

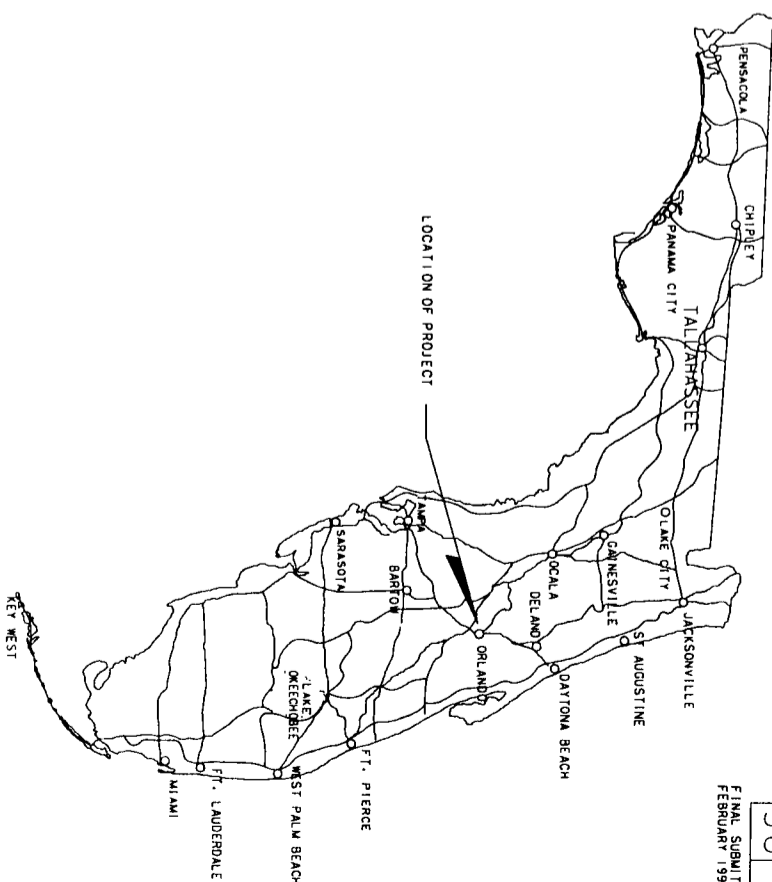
GOVERNING SPECIFICATIONS: STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS, DATED 1991, SUPPLEMENTS AND SPECIAL PROVISIONS HERE TO, IF NOTED IN THE CONTRACT SPECIFICATIONS FOR THIS PROJECT.

THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND ARE GOVERNED BY THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION, ROADWAY AND TRAFFIC DESIGN STANDARDS (BOOKLET DATED JANUARY, 1994).

REVISIONS	
DATE	DESCRIPTION



LENGTH OF PROJECT		
LINEAR FEET	MILES	
GROSS LENGTH OF PROJECT	1781.36	0.34



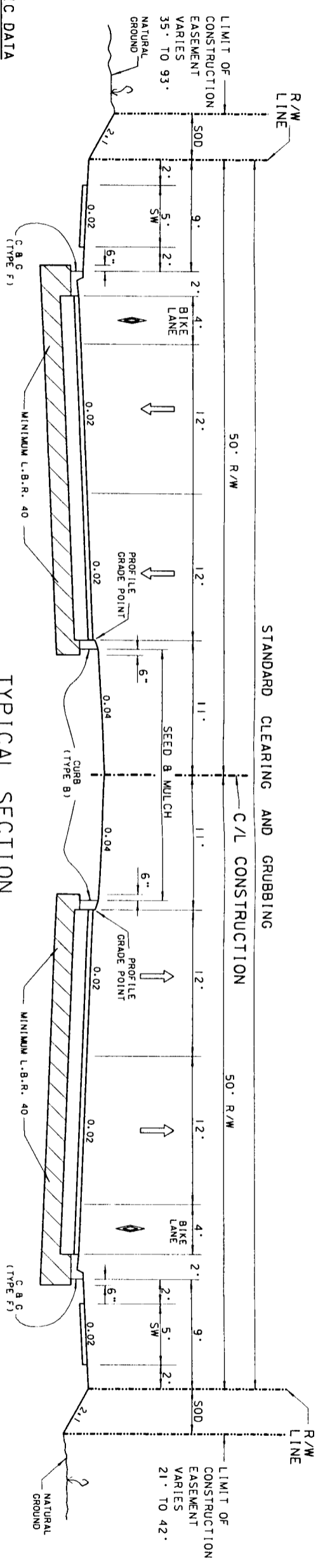
PREPARED FOR:
LAKE COUNTY PUBLIC WORKS DEPT.
123 N. SINGLAIR AVE.
TAVARES, FLORIDA 32778
(352) 343-9655

PLANS PREPARED BY: 42-069-1391 ANG-ELP

VHB
Vanasse Hangen Brustlin, Inc.
Transportation, Land Development,
Environmental Services
135 W. Central Blvd., Suite 1150
Orlando, FL 32801 (407) 839-4006
WWW.VHB.COM

ENGINEER OF RECORD: DWYHE JANSONE, P.E.
APPROVED BY: *[Signature]*
DATE: 2/19/99
P.E. NO.: 38920

(50126-1)



STA 100+50.64 TO STA 117+00.00

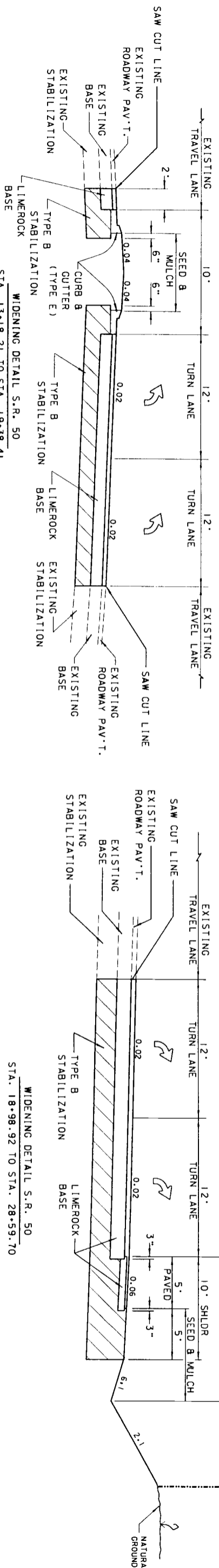
TRAFFIC DATA

EST. 1999 A.D.T. • 6,800 Vpd
 EST. 2009 A.D.T. • 20,000 Vpd
 EST. 2019 A.D.T. • 20,400 Vpd
 EST. 2019 D.H.V. • 1,830 Vpd
 K•9% D•65% 24-HR. T•5%

DESIGN SPEED • 45 MPH

TYPICAL SECTION

NEW CONSTRUCTION
 TYPE B STABILIZATION (12")
 LIMEROCK BASE (LBR 100) (6")
 TYPE S STRUCTURAL COURSE (2")
 FRICTION COURSE FC-3 (1")

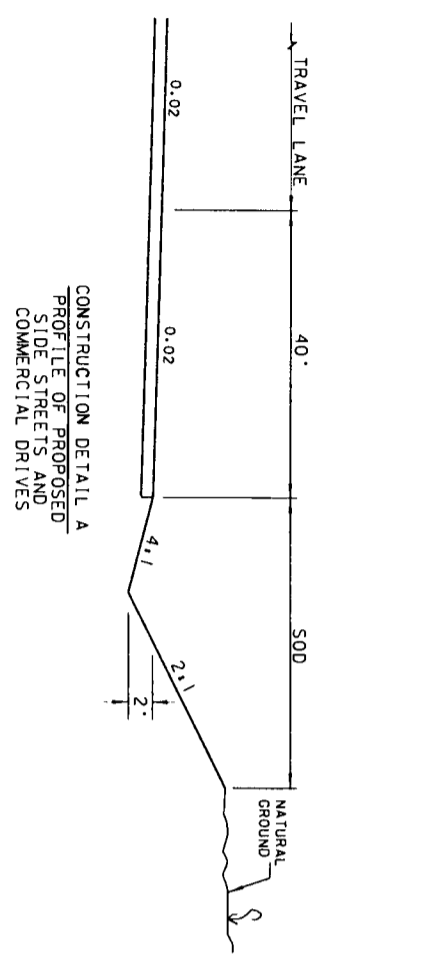


WIDENING DETAIL S.R. 50
 STA. 18+98.92 TO STA. 28+59.70

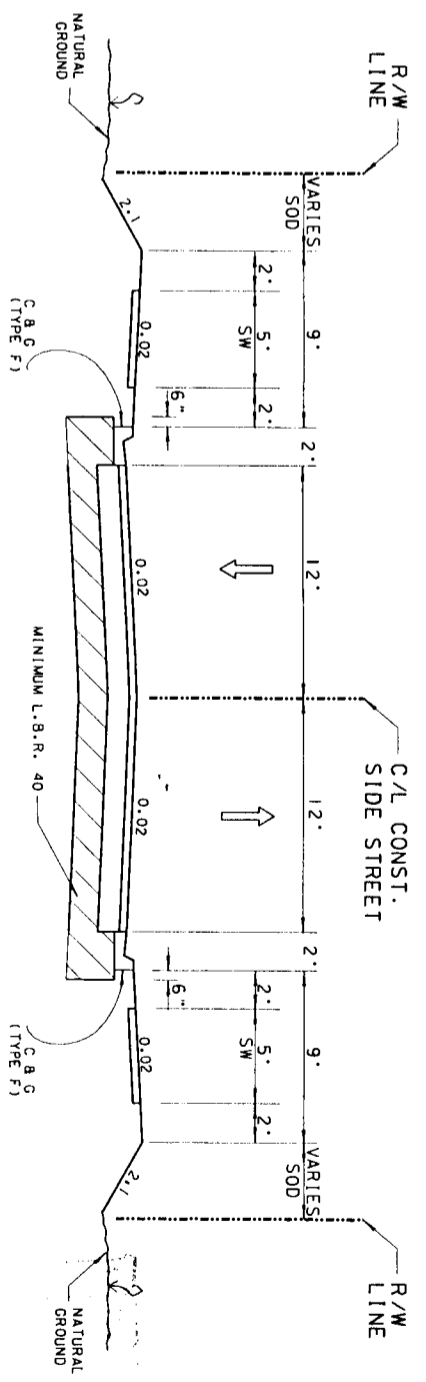
NOTE: PAVEMENT SECTION WITHIN D.O.T. R/W
 12" STABILIZED SUBBASE, COMPACTED TO 98% DENSITY
 10" LIMEROCK COMPACTED TO 98% DENSITY
 3.5" OF S-1 ASPHALT PLACED IN TWO LIFTS
 1" OF F.C. 3.

PAVEMENT SECTION WITHIN D.O.T. R/W
 12" STABILIZED SUBBASE, COMPACTED TO 98% DENSITY
 10" LIMEROCK COMPACTED TO 98% DENSITY
 3.5" OF S-1 ASPHALT PLACED IN TWO LIFTS
 1" OF F.C. 3.

SHOULDER PAVEMENT WITHIN D.O.T. R/W
 12" STABILIZED SUBBASE, COMPACTED TO 98% DENSITY
 4" LIMEROCK COMPACTED TO 98% DENSITY
 1" OF S-1 ASPHALT PLACED IN TWO LIFTS
 1" OF F.C. 3.



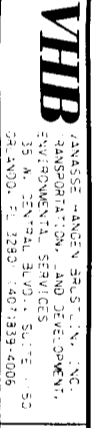
CONSTRUCTION DETAIL A
 PROFILE OF PROPOSED
 SIDE STREETS AND
 COMMERCIAL DRIVES



CONSTRUCTION DETAIL B
 TYPICAL SECTION OF
 PROPOSED SIDE STREETS
 AND COMMERCIAL DRIVES

48-066-139/ADG-02P

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

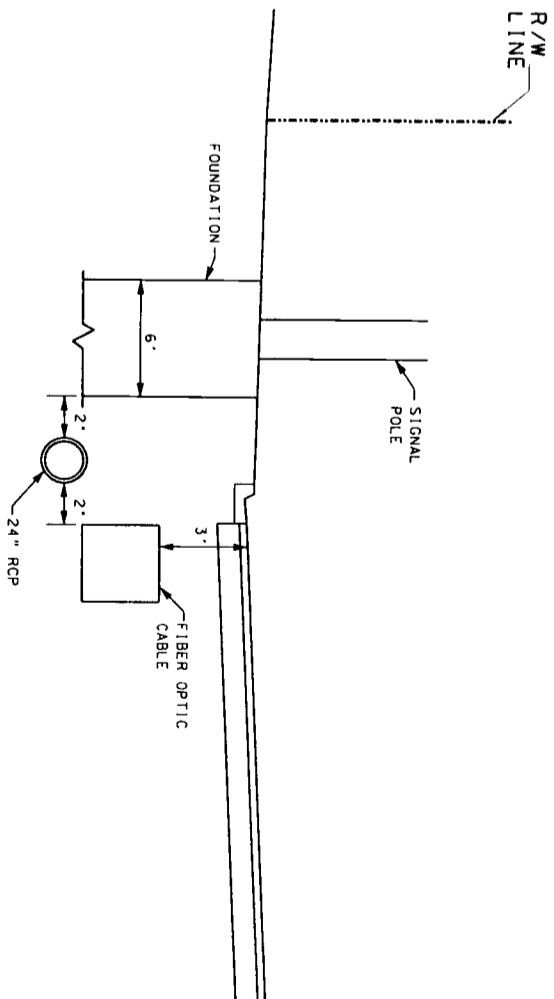


LAKE COUNTY PUBLIC WORKS
 ENGINEERING DIVISION
 125 N. SINCLAIR AVE.
 TAVARES, FLORIDA 32778

TYPICAL SECTION
 N. HANCOCK ROAD

GENERAL NOTES

- 1) STRIPING:
 - A) ALL STRIPING TO BE LEAD FREE THERMOPLASTIC.
 - B) STRIPING TO CONFORM TO M.U.T.C.D., LATEST EDITION.
 - C) ALL CENTERLINE STRIPING SHALL HAVE REFLECTIVE RAISED PAVEMENT MARKINGS (RPM'S) UNLESS OTHERWISE NOTED.
- 2) EROSION AND SEDIMENT CONTROL:
 - A) THE CONTRACTOR MUST INSTALL AND MAINTAIN GRASS, SEED AND MULCH, OR SOD ON EXPOSED SLOPES WITHIN 48 HOURS OF COMPLETED FINAL GRADES, AND AT ANY OTHER TIME AS NECESSARY TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES TO ANY DOWNSTREAM BODY, WETLAND OR OFFSITE PROPERTY. SODDING ON SLOPES 3:1 AND STEEPER SHALL BE STAKED.
 - B) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROJECT COMPLYING WITH APPLICABLE STATE WATER QUALITY STANDARDS DURING CONSTRUCTION AS SPECIFIED IN THE PERMITS. ALL WATER AND WIND EROSION SHALL BE MINIMIZED AS DEFINED IN THE SPECIFICATIONS AND PERMITS. THE SPECIFICATIONS PROVIDE ONLY A MINIMUM REQUIREMENT FOR EROSION AND SEDIMENTATION CONTROL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IMPLEMENT CONTROL MEASURES NOT SHOWN IN THE SPECIFICATIONS.
 - C) THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT PRIOR TO BEGINNING CONSTRUCTION.
 - D) THE CONTRACTOR SHALL ALSO OPERATE AND MAINTAIN EROSION AND SEDIMENT CONTROL DEVICES AND STRUCTURES IN ACCORDANCE WITH THE REGULATIONS SET FORTH IN NPDES. EROSION AND SEDIMENT CONTROL DEVICES, SUCH AS BALED HAY, STRAW BARRIERS, AND SILT FENCES, MUST BE MAINTAINED AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND DISTURBED SOIL AREAS ARE STABILIZED. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR REMOVING THE EROSION CONTROL DEVICES. AT NO TIME SHALL THERE BE ANY OFFSITE DISCHARGE THAT VIOLATES THE WATER QUALITY STANDARDS IN CHAPTERS 62-302 AND 62-4, FLORIDA ADMINISTRATIVE CODE.
 - E) THE CONTRACTOR SHALL SEED AND MULCH ALL AREAS DISTURBED BY CONSTRUCTION UNLESS SODDING, OR OTHER MORE READILY EFFECTIVE STABILIZING PRACTICES ARE SPECIFIED ON THE PLANS.
- 3) UTILITIES:
 - A) UTILITIES WILL BE PROVIDED AS FOLLOWS:
 1. ELECTRIC WILL BE PROVIDED BY: FLORIDA POWER CORPORATION
3250 BONNETT CREEK ROAD
LAKE BUENA VISTA, FLORIDA 32830
(407) 938-6658
 2. TELEPHONE WILL BE PROVIDED BY: SPRINT
425 NORTH THIRD STREET
LEESBURG, FLORIDA 34748
(352) 329-1754
 3. WATER WILL BE PROVIDED BY: CITY OF CLERMONT
1 WESTGATE PLZ
CLERMONT, FLORIDA 34711
(352) 394-4081
 - B) THE LOCATION OF THE UTILITIES SHOWN IN THE PLANS ARE APPROXIMATELY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION DURING CONSTRUCTION.
 - C) THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE UTILITY COMPANIES PRIOR TO CONSTRUCTION.
 - D) UTILITIES ARE TO BE ADJUSTED BY OTHERS AS DIRECTED BY LAKE COUNTY.
 - E) EXISTING STREETS AND DRIVES SHALL BE MAINTAINED TO LOCAL TRAFFIC AND PROPERTY OWNERS. COST OF DRIVEWAY MAINTENANCE SHALL BE INCLUDED IN THE CONTRACTOR'S BID PRICE FOR TRAFFIC CONTROL.
 - F) CURB CUT RAMPS ARE AS PER F.D.O.T. INDEX NO. 304.
- 6) TRAFFIC CONTROL:
 - A) THE CONTRACTOR SHALL CONFORM TO THE M.U.T.C.D. FOR STREETS AND HIGHWAYS, PART IV, LATEST EDITION, AND F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX NOS. 600-660 AS APPLICABLE.
 - B) THE CONTRACTOR SHALL SUBMIT DETAILED TRAFFIC CONTROL PLANS FOR REVIEW AND APPROVAL BY LAKE COUNTY. COST OF THIS WORK SHALL BE INCLUDED IN THE CONTRACTOR'S BID PRICE FOR TRAFFIC CONTROL.
 - C) ALL EXISTING DRAINAGE STRUCTURES AND PIPES ARE TO REMAIN UNLESS OTHERWISE NOTED.
 - D) THE CROSS SLOPE OF THE GUTTER ALONG THE NORTH CURB LINE OF THE LAKE-SUMNER COMMUNITY COLLEGE DRIVEWAY ENTRANCE SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT.



CONSTRUCTION DETAIL C

48-069-1391A-D-G-GRP

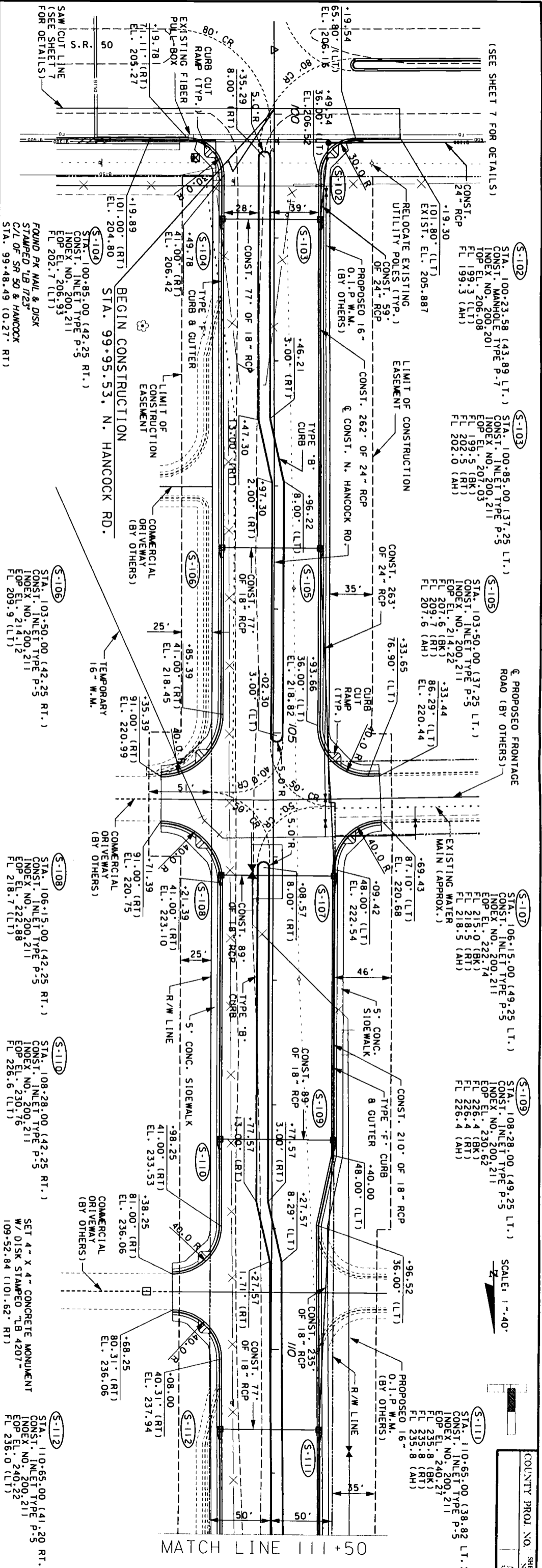
*****SYTIME*****
*****LKN/SP/CLIF/ICATION*****

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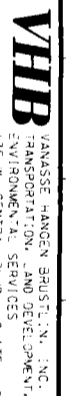
VHB
VANASSE HANGEN BRUSTLIN INC.
TRANSPORTATION AND INFRASTRUCTURE
ENGINEERING AND CONSULTANTS
35 W. 25th St., Suite 50
Orlando, FL 32801 (407) 433-4006

LAKE COUNTY PUBLIC WORKS
ENGINEERING DIVISION
181 N. SINGLAR AVE
TAVARES, FLORIDA 32781

GENERAL NOTES
N. HANCOCK ROAD



STATION	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY
190	206.55	1/01	1/01	222.32	1/03	1/03	223.08	1/04	1/04	224.47	1/05	1/05
200	207.00			223.14			214.72			226.03		
210	207.00			223.14			214.72			226.03		
220	207.00			223.14			214.72			226.03		
230	207.00			223.14			214.72			226.03		
240	207.00			223.14			214.72			226.03		
250	207.00			223.14			214.72			226.03		
260	207.00			223.14			214.72			226.03		
270	207.00			223.14			214.72			226.03		

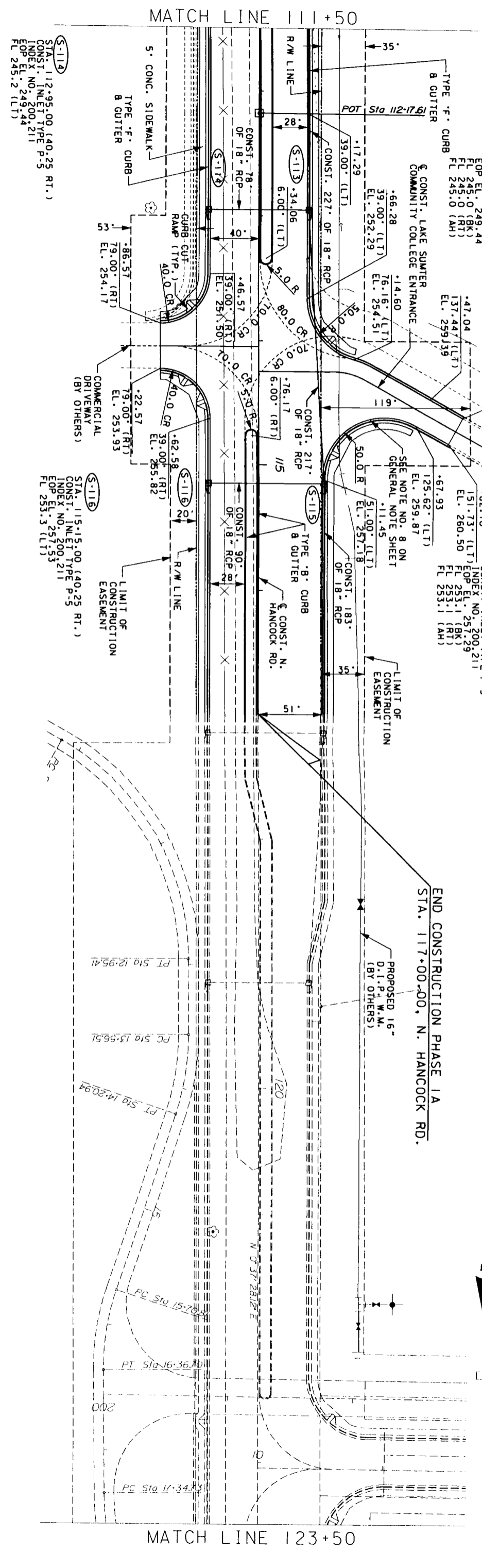


VANASSE HANGEN BRUSTLIN & ASSOCIATES, INC.
TRANSPORTATION, ENVIRONMENTAL, AND DEVELOPMENT SERVICES
135 W. CENTRAL AVENUE, SUITE 500
ORLANDO, FL 32801 (407) 839-4006

LAKE COUNTY PUBLIC WORKS
ENGINEERING DIVISION
185 N. SINCLAIR AVE.
TAYLORS, FLORIDA 32789

PLAN / PROFILE
N. HANCOCK ROAD
STA 99+95.53 TO STA 111+50

48-069-1391A (2) of 211



DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	
220		112	257.50	112	258.88	113	261.10	113	261.72	114	261.56	114	261.95	115	261.65
230		115	252.00	115	252.00	116	254.14	116	255.94	117	257.9	117	259.15	118	260.55
240		118	252.00	118	252.00	119	254.14	119	255.94	120	257.9	120	259.15	121	260.55
250		121	252.00	121	252.00	122	254.14	122	255.94	123	257.9	123	259.15	124	260.55
260		124	252.00	124	252.00	125	254.14	125	255.94	126	257.9	126	259.15	127	260.55
270		127	252.00	127	252.00	128	254.14	128	255.94	129	257.9	129	259.15	130	260.55
280		130	252.00	130	252.00	131	254.14	131	255.94	132	257.9	132	259.15	133	260.55
290		133	252.00	133	252.00	134	254.14	134	255.94	135	257.9	135	259.15	136	260.55

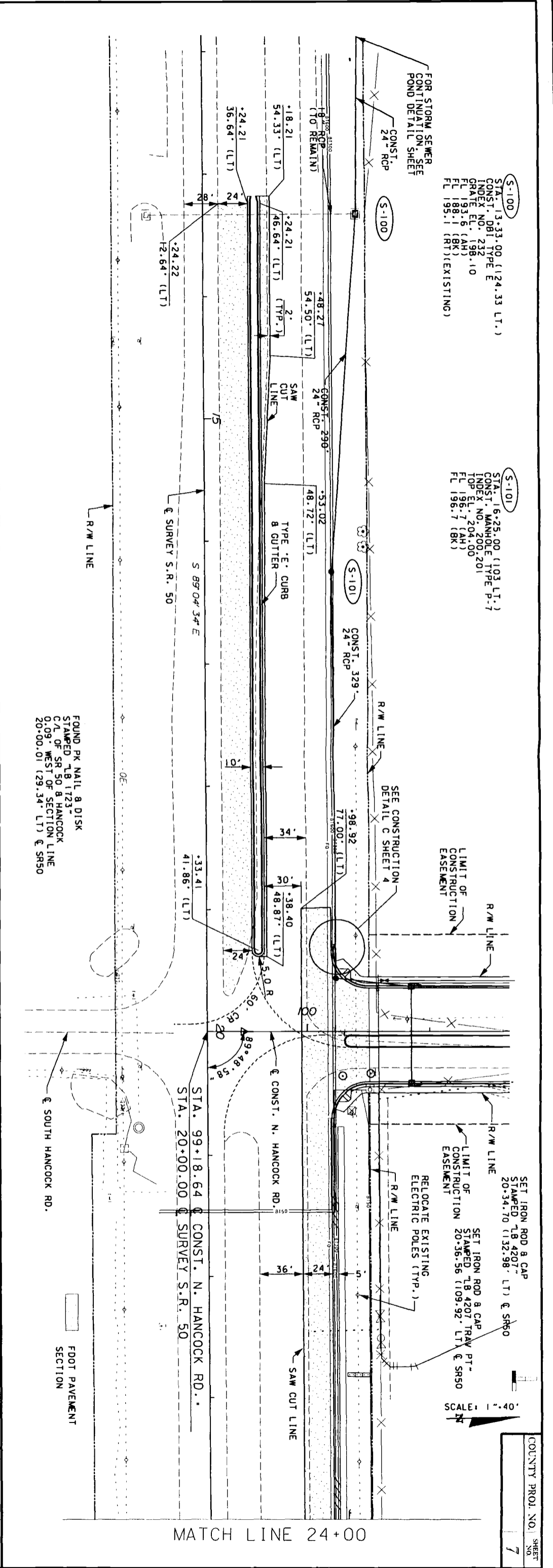
VHB VANASSE HANGEN BRUSTLIN & COMPANY, INC.
 ENVIRONMENTAL, ENGINEERING, AND CONSTRUCTION SERVICES
 35 W. CENTRAL AVENUE, SUITE 500
 ORLANDO, FL 32801 (407) 333-4006

LAKE COUNTY PUBLIC WORKS
 ENGINEERING DIVISION
 105 N. SUNGLAR AVE.
 TAVARES, FLORIDA 32784

PLAN / PROFILE
 N. HANCOCK ROAD
 STA 111+50 TO STA 117+00

48-069-1391A10-81P

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION																																																																					
169		202.27	13		202.82	13		203.58	14		204.89	14		205.07	15		205.92	15		206.45	16		207.11	16		207.60	17		207.92	17		208.03	18		208.11	18		208.03	19		207.98	19		207.57	20		207.27	20		206.58	21		205.76	21		204.81	22		203.85	22		202.76	23		201.72	23		200.50	24		199.37	24		180			180			170			170			160			160



(S-100)
 STA. 13+33.00 (124.33 LT.)
 CONST. DBI TYPE E
 INDEX NO. 232
 GRADE EL. 199.10
 FL 193.6 (AH)
 FL 188.1 (BK)
 FL 195.1 (RT)(EXISTING)

(S-101)
 STA. 16+25.00 (103 LT.)
 CONST. MANHOLE TYPE P-7
 INDEX NO. 200.201
 TOP EL. 204.00
 FL 196.7 (AH)
 FL 196.7 (BK)

FOUND PK NAIL & DISK
 STAMPED T8 1723
 C/A OF SR 50 & HANCOCK
 C/O OF WEST OF SECTION LINE
 20+00.01 (29.34 LT) & SR50

SET IRON ROD & CAP
 STAMPED T8 4207' (132.98' LT) & SR50
 SET IRON ROD & CAP
 STAMPED T8 4207 TRAV PT-
 20+36.56 (109.92' LT) & SR50

SCALE: 1" = 40'
 NORTH

COUNTY PROJ. NO. 7
 SHEET NO. 7

MATCH LINE 24+00

VHB
 VANASSE HANGEN BRUSTLIN & ASSOCIATES, INC.
 ENVIRONMENTAL, PLANNING AND DEVELOPMENT,
 135 W. CENTRAL BLVD., SUITE 1150
 ORLANDO, FL 32801 (407) 593-8086

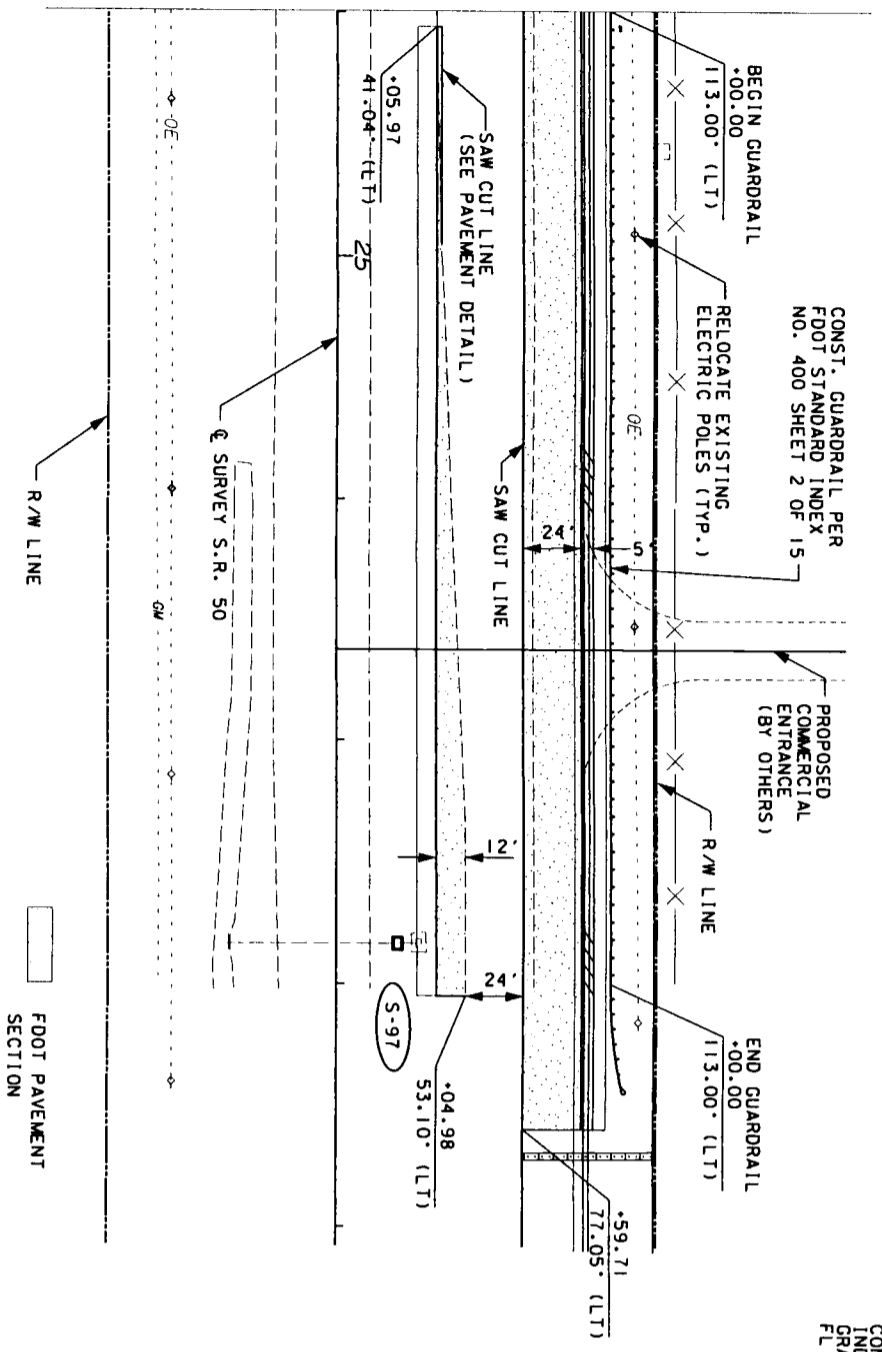
LAKE COUNTY PUBLIC WORKS
 ENGINEERING DIVISION
 101 N. SINGLAR AVE.
 TAVARES, FLORIDA 32781

PLAN / PROFILE
 STATE ROAD 50
 STA 12+00 TO STA 24+00

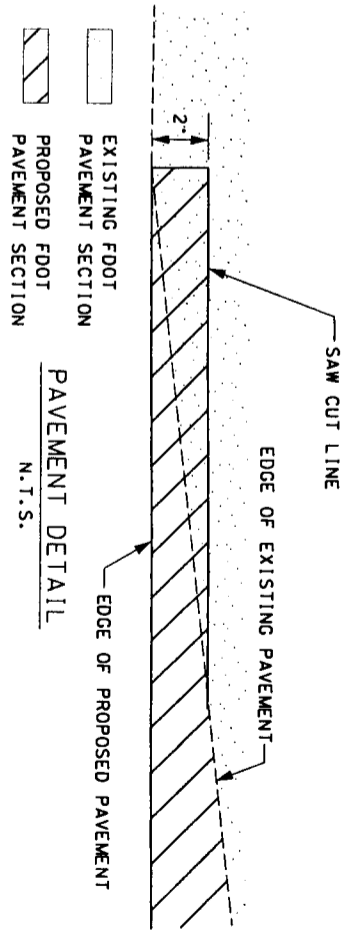
42-069-1851/1200-812
 DATE: 11/11/09
 DRAWN BY: [Signature]

SCALE: 1" = 40' H.
 1" = 110' V.

MATCH LINE 24+00



S-97
 STA. 27+83.49 (25.11 LT.)
 CONST. DBI TYPE E
 INDEX NO. 232
 GRATE EL. 186.50
 FL 183.4 (RT)(EXISTING)



SCALE: 1"=40'
 N

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
24			25			27			28		
160			170			180			190		
200			210			220			230		

EXISTING GROUND LINE
 S.R. 50

SCALE: 1"=40' H.
 1"=10' V.

PLAN / PROFILE
 STATE ROAD 50
 STA 24+00 TO STA 29+08

42-069-1391A006-B1P
 MAI
 ON
 SJR

VHB
 HANSEN BRUSTLIN, INC.
 TRANSPORTATION AND DEVELOPMENT,
 ENVIRONMENTAL SERVICES, SUITE 1150
 35 W. CENTRAL BLVD.
 ORLANDO, FL 32801-4006
 (407) 939-4006

LAKE COUNTY PUBLIC WORKS
 ENGINEERING DIVISION
 103 N. SINGLAR AVE.
 TAYLORS FLORIDA 3278

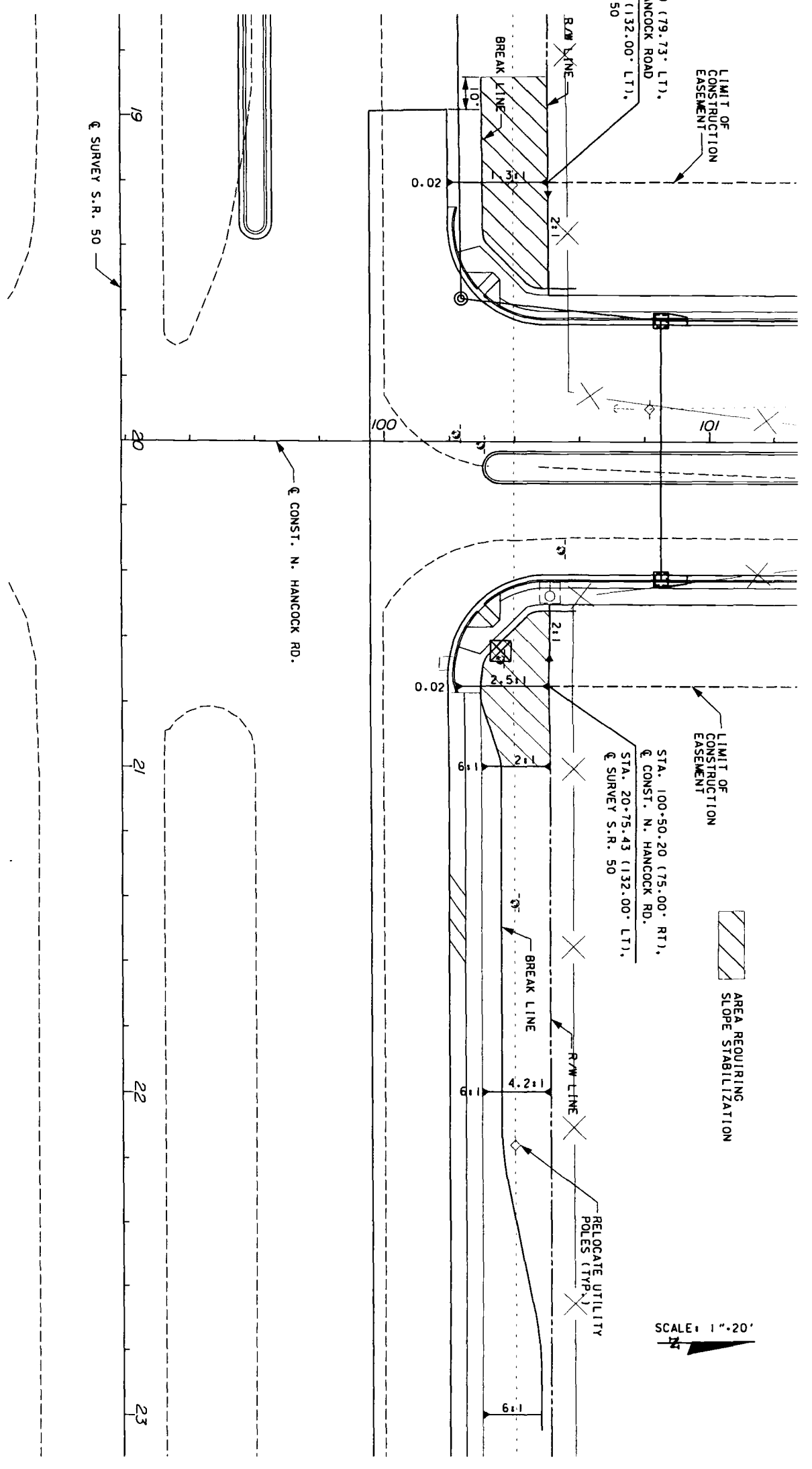
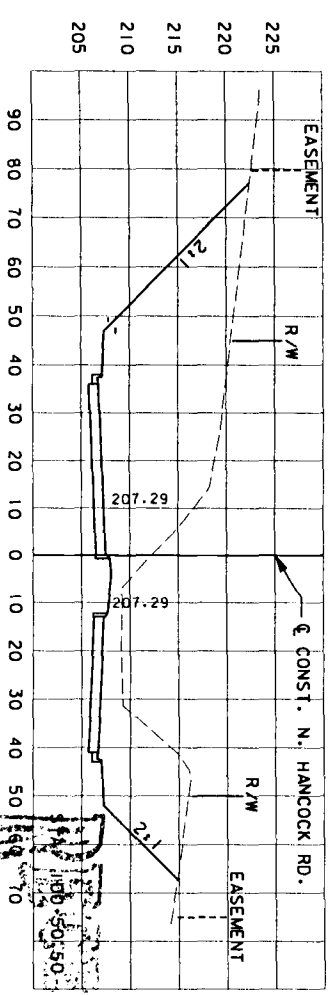
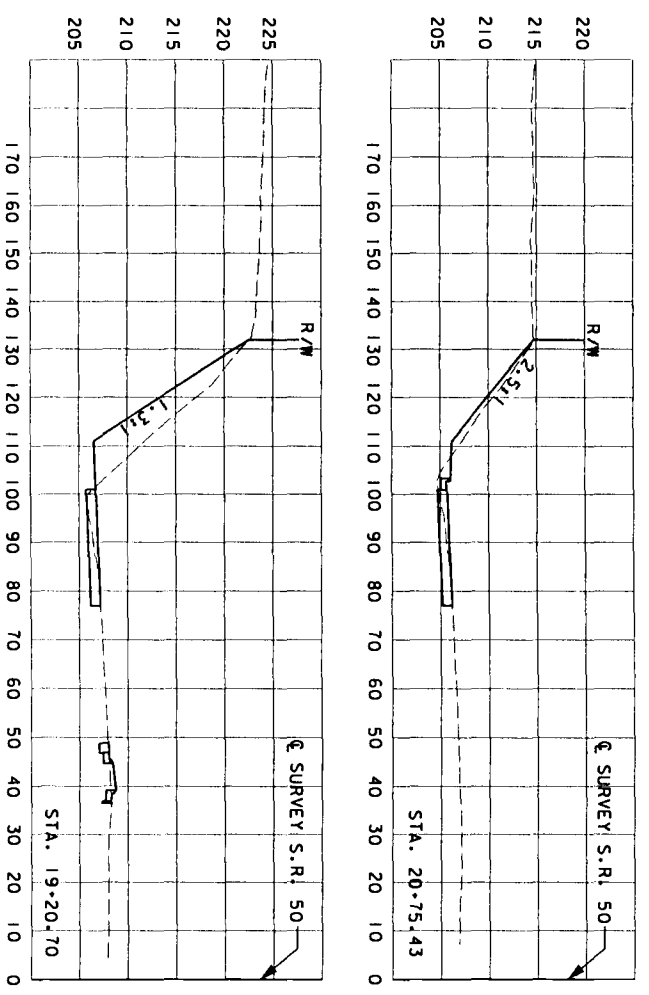
*****SYTIME*****
 *****DONSPECIFICATIONS*****

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

VHB
 VANASSE HANGEN BRUSTLIN, INC.
 TRANSPORTATION AND DEVELOPMENT
 ENVIRONMENTAL SERVICES SUITE 1150
 25 N. GENEVA BLVD., SUITE 1150
 ORLANDO, FL 32801 (407) 253-4656

LAKE COUNTY PUBLIC WORKS
 ENGINEERING DIVISION
 101 N. SINGLAR AVE.
 TAVARES, FLORIDA 32781

INTERSECTION DETAIL SHEET
 N. HANCOCK RD. & S.R. 50



MAR 01 2009
 42-069-1351A08-212
 ORLANDO
 SURVING

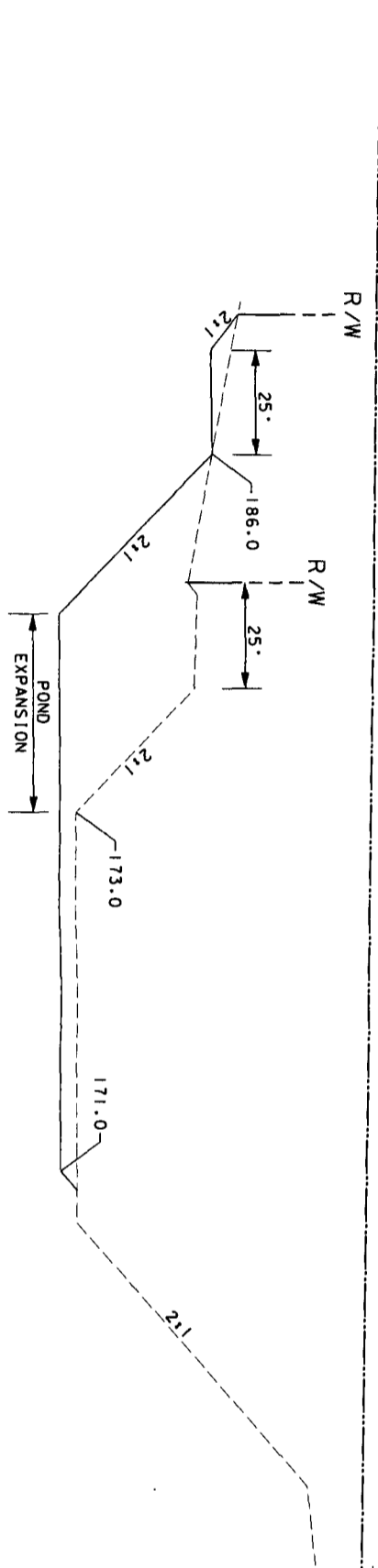
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

VHB
 VANASSE HANGEN BRUSTEIN, INC.
 3500 W. CENTRAL AVENUE, SUITE 150
 ORLANDO, FL 32807 (407) 329-4206

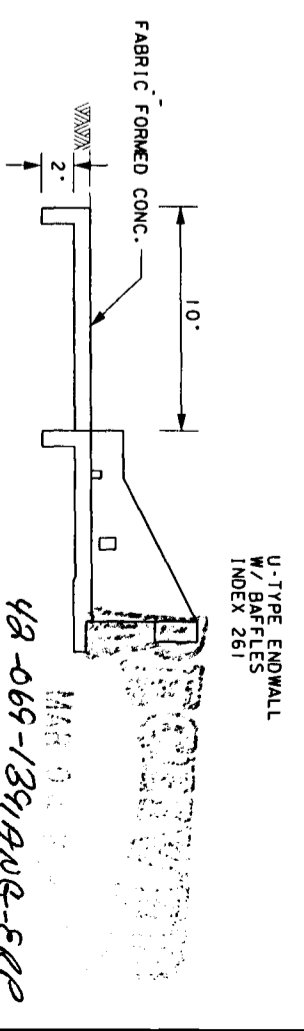
LAKE COUNTY PUBLIC WORKS
 ENGINEERING DIVISION
 111 N. SINGLAR AVE.
 TAYLORSVILLE, FLORIDA 32779

POND A
 DETAIL

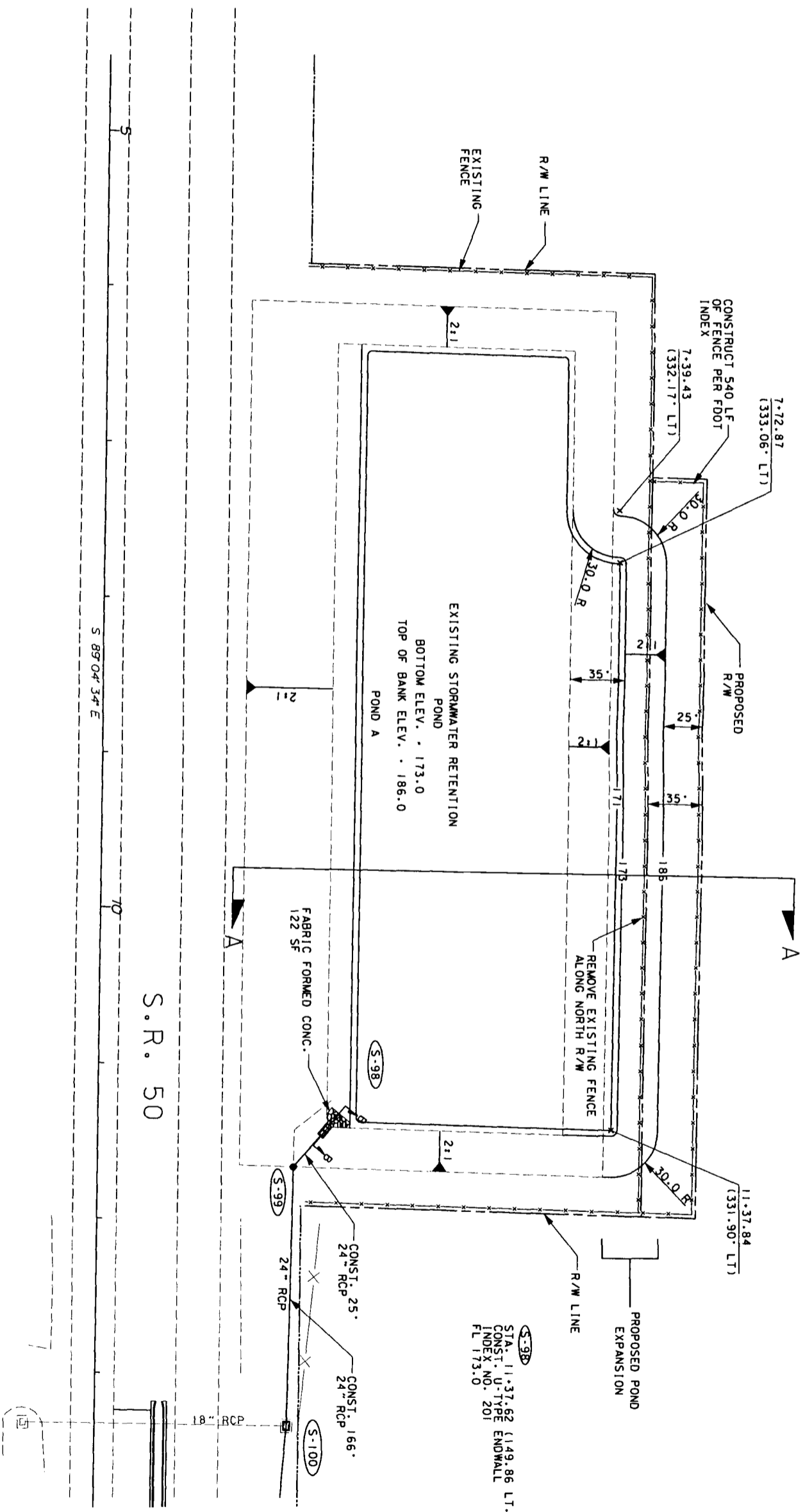
SECTION A - A
 NTS



SECTION B - B
 NTS



MAR 01 2010
 42-069-1391A10G-ERP
 S.M. SMITH

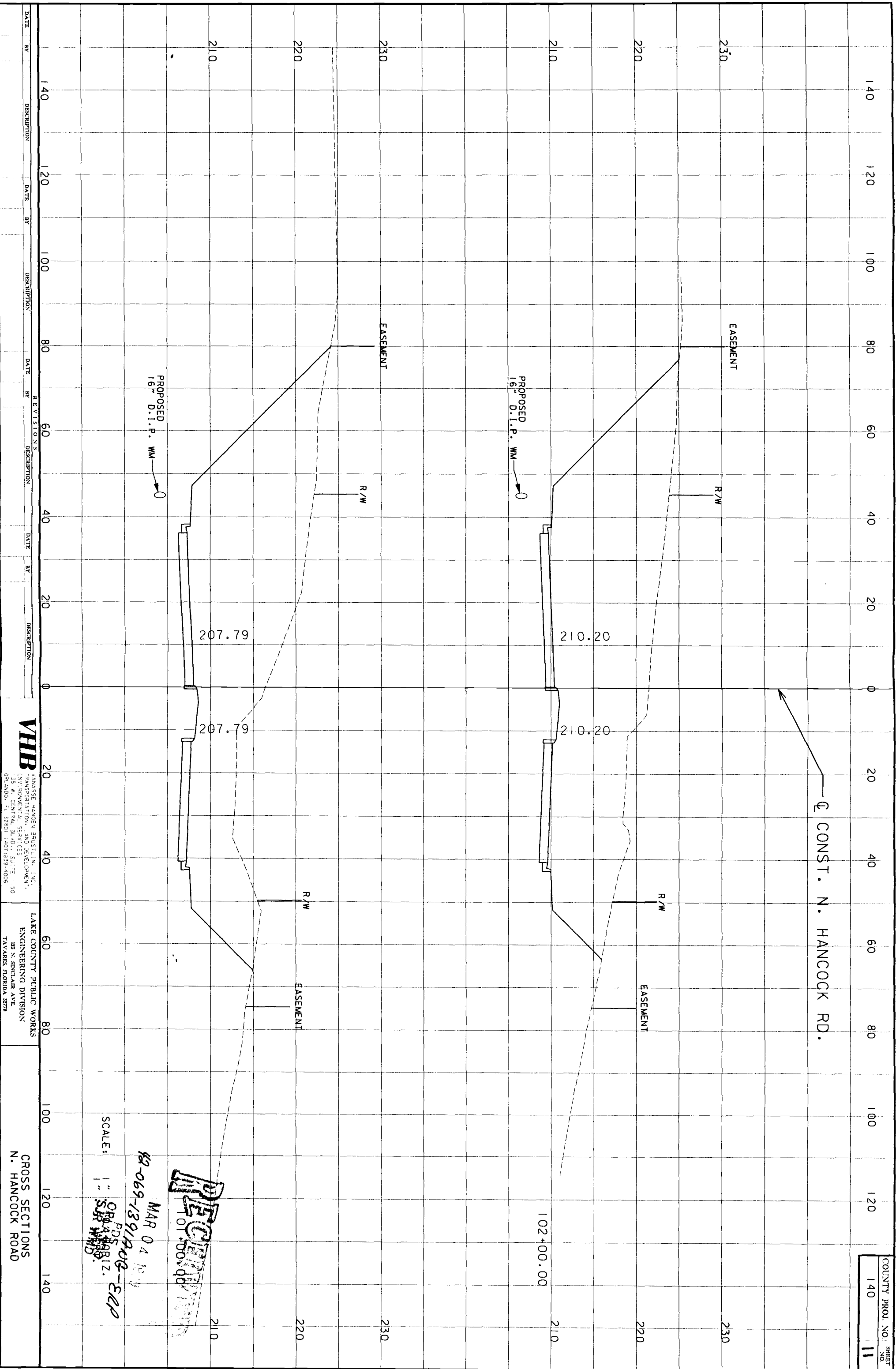


S-98
 STA: 11+37.62 (149.86 LT.)
 CONST. U-TYPE ENDWALL
 INDEX NO. 201
 TOP EL. 186.00
 FL 173.0

S-99
 STA: 11+64.61 (127 LT.)
 CONST. MANHOLE TYPE P-7
 INDEX NO. 201
 TOP EL. 186.00
 FL 173.5 (LT)
 FL 183.0 (RT)

SCALE: 1"=40'

*****SYTIME*****
 *****UGNSPECIFICATIONS*****



COUNTY PROJ. NO. 140
 SHEET NO. 11

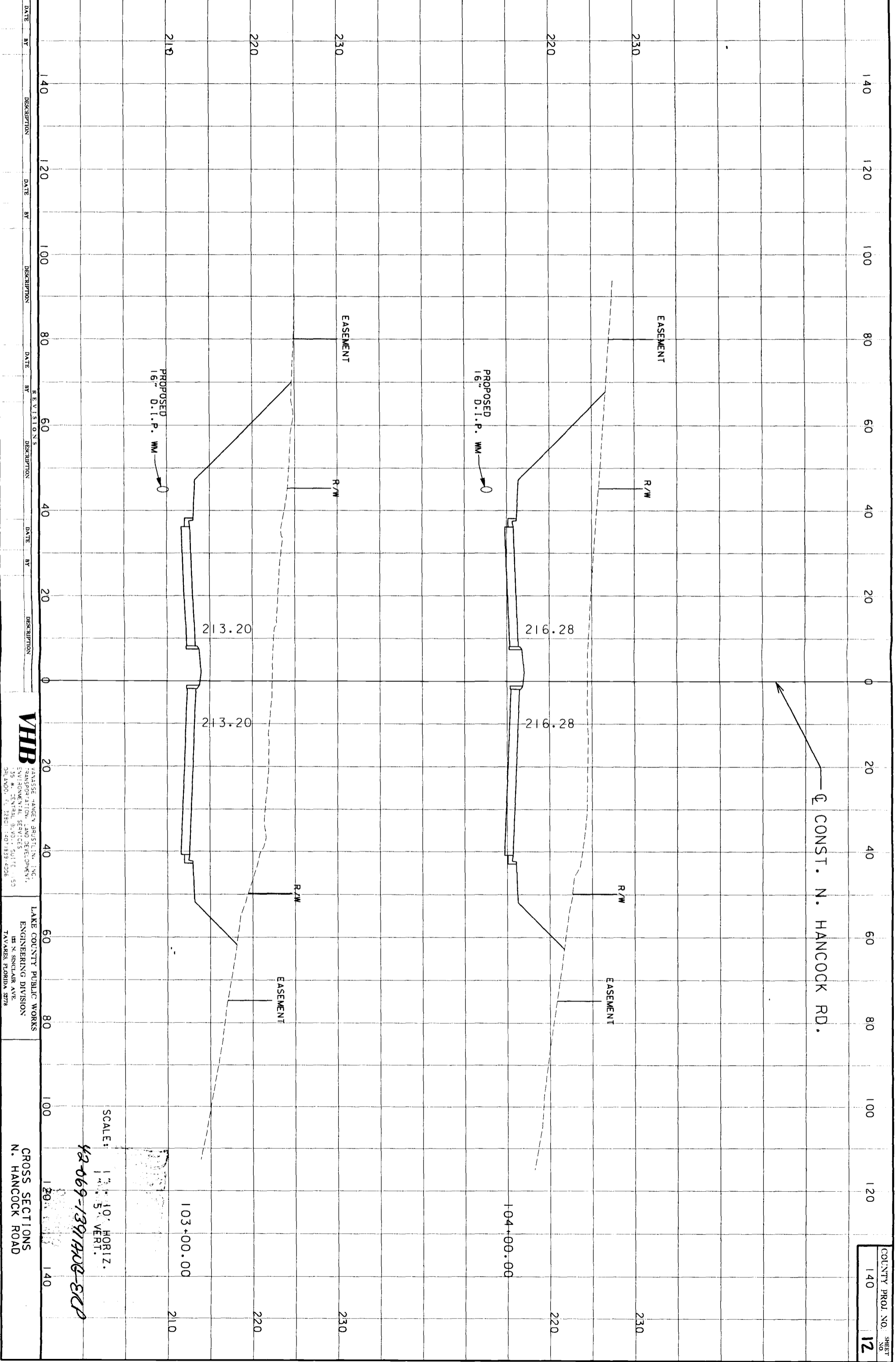
VHB
 VANASSE HANGEN BRUSTLIN, INC.
 TRANSPORTATION AND DEVELOPMENT
 574 BOWEN BL. SEVINGERS SUITE 1150
 ORLANDO, FL 32801 (407) 939-4006

LAKE COUNTY PUBLIC WORKS
 ENGINEERING DIVISION
 301 N. SINGLAR AVE.
 TAVANES, FLORIDA 32781

CROSS SECTIONS
 N. HANCOCK ROAD

SCALE: 1" = 50'-0"
 PDS FOR A. BOBIZ. - EAP
 MAR 04 10 11
 #2-069-1391206-3220
 RECEIVED
 101 100 100 100

*****SYTIME*****
 *****DESIGN SPECIFICATION*****



DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

VHB
 VANASSE HANGEN BRUSTLIN, INC.
 200 W. KENNEDY BLVD., SUITE 1150
 MIAMI, FLORIDA 33136
 TEL: 305-571-1200 FAX: 305-571-1339

LAKE COUNTY PUBLIC WORKS
 ENGINEERING DIVISION
 DR. N. SINGLAR, AVE.
 TAVARES, FLORIDA 32778

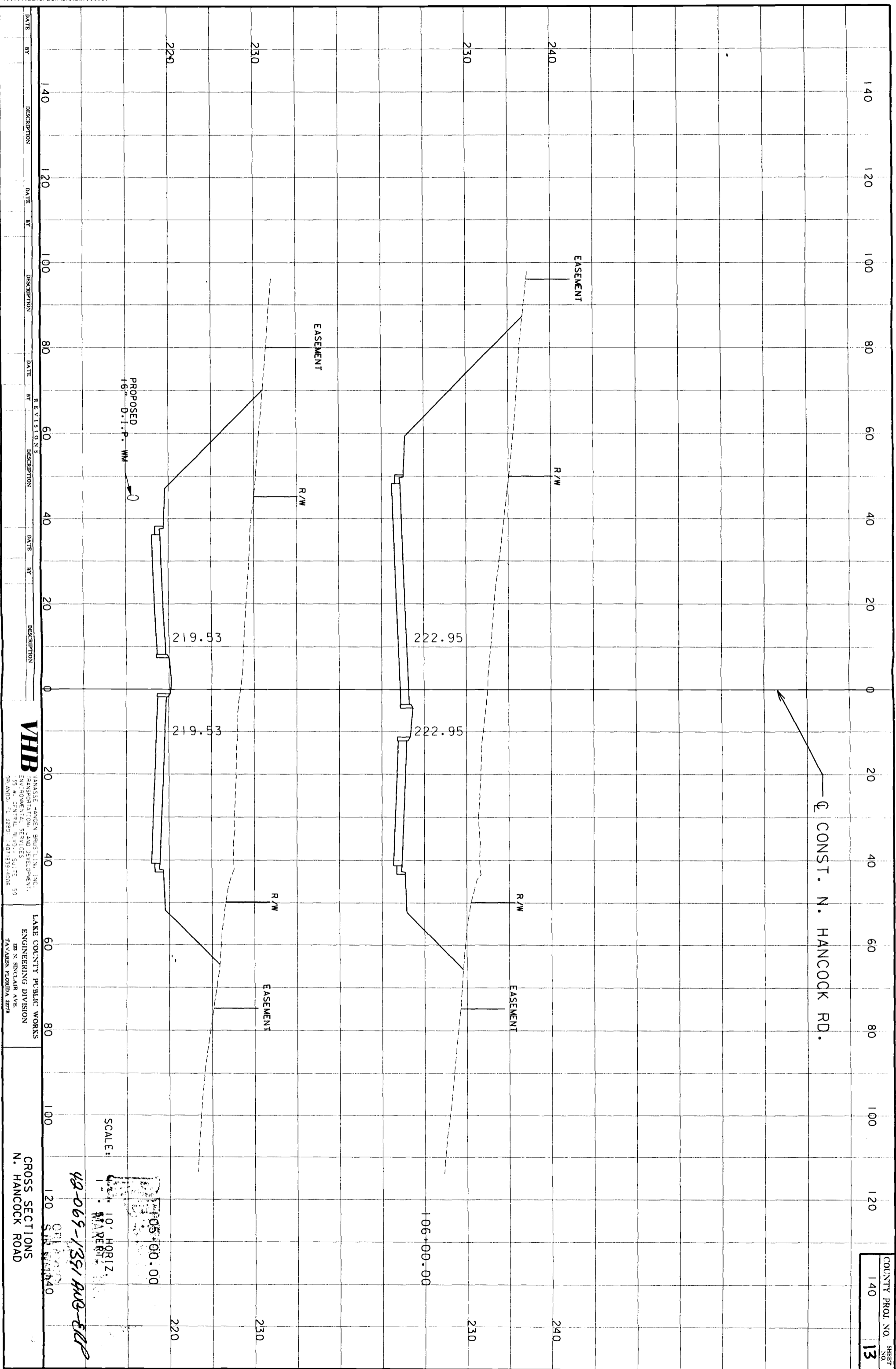
CROSS SECTIONS
 N. HANCOCK ROAD

SCALE: 1" = 10' HORIZ.
 1" = 5' VERT.

42-069-1391A00-SCP

COUNTY PROJ. NO. 140
 SHEET NO. 12

*****SYTIME*****
*****SIGNSPECIFICATION*****



DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

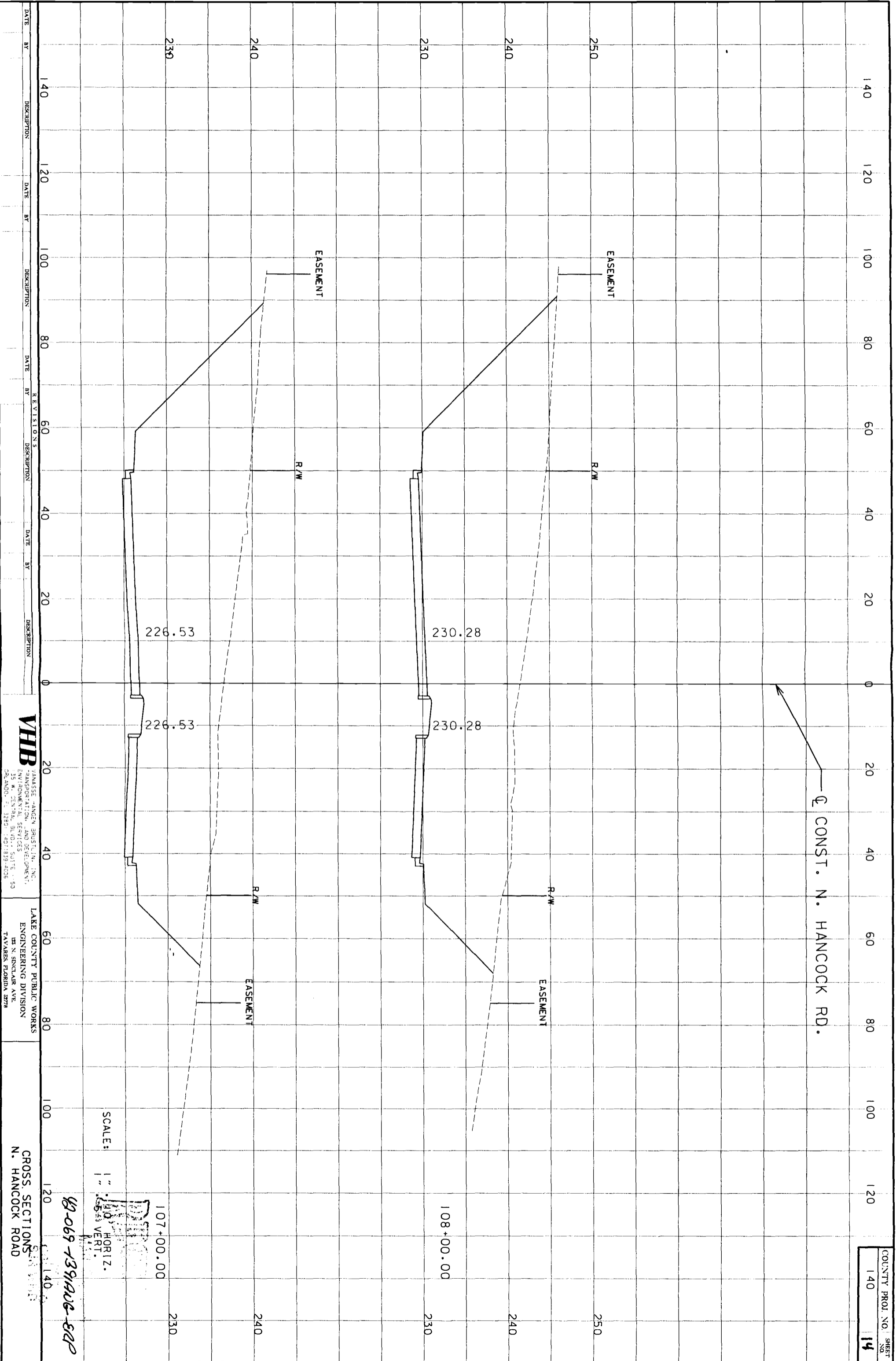
VHB
VANASSE HANGEN BRUSTLIN, INC.
TRANSPORTATION AND DEVELOPMENT
ENVIRONMENTAL SERVICES
35 W. CENTRAL BLVD., SUITE 50
PALM BEACH, FL 33408 (407) 339-4008

LAKE COUNTY PUBLIC WORKS
ENGINEERING DIVISION
125 N. SINGLECLAIR AVE.
TAVARES, FLORIDA 32780

CROSS SECTIONS
N. HANCOCK ROAD

SCALE:
1" = 10' HORIZ.
1" = 5' VERT.

42-069-1391 AUG-2008



DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

VHB
 VANASSE HANGEN BRUSTLIN, INC.
 TRANSPORTATION AND DEVELOPMENT
 351 W. MONTELEONE, SUITE 1150
 HOUSTON, TEXAS 77019-4096

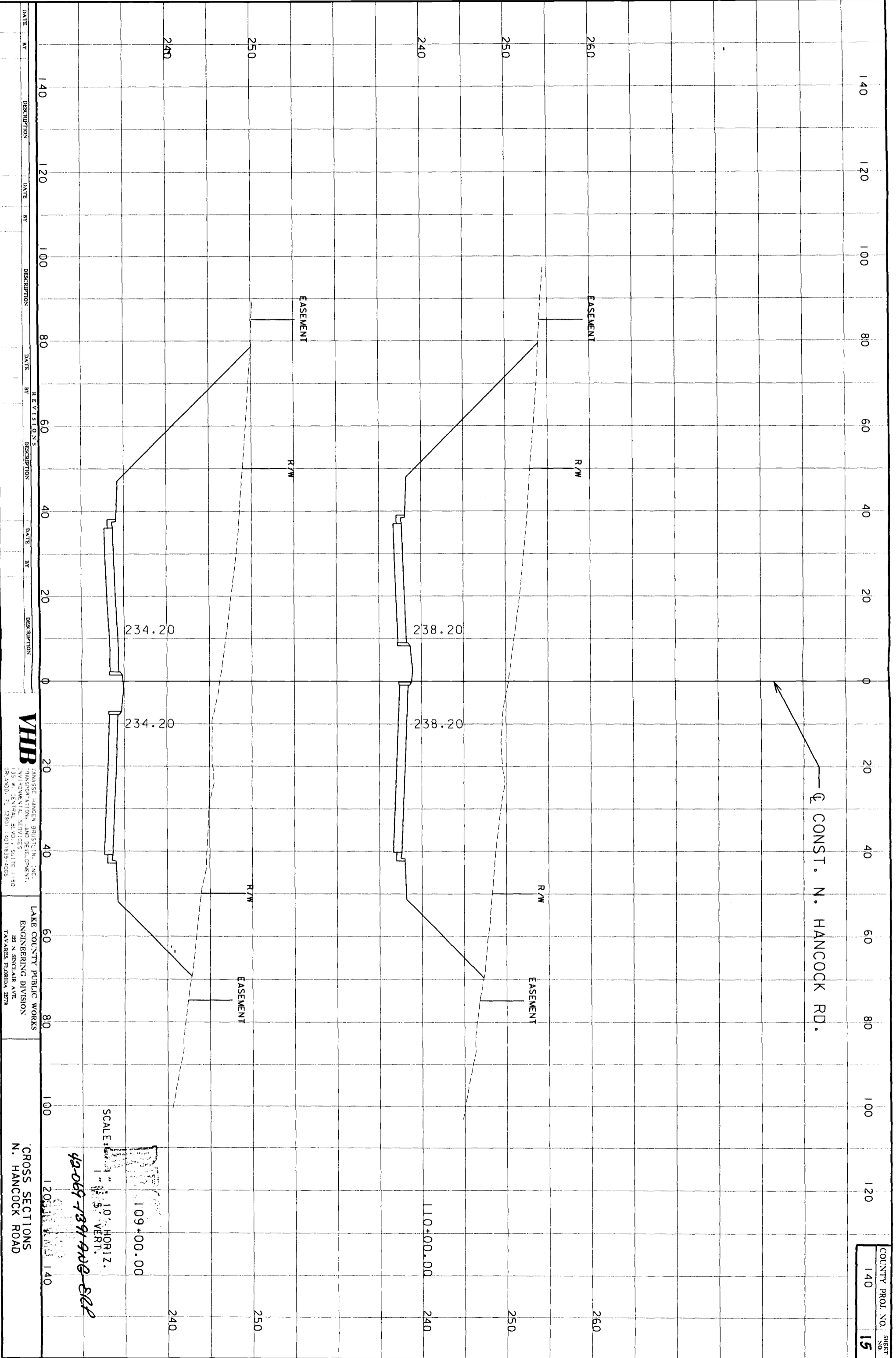
LAKE COUNTY PUBLIC WORKS
 ENGINEERING DIVISION
 101 N. SINGLAR AVE.
 TAVARES, FLORIDA 32781

CROSS SECTIONS
 N. HANCOCK ROAD

SCALE: 1" = 40' HORIZ.
 1" = 5' VERT.

DTP

107+00.00
 108+00.00



DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

VHB
 VANASSE HANGEN BRUSTLIN, INC.
 135 W. CENTRAL AVENUE
 ORLANDO, FL 32801-4907 (407) 813-4005

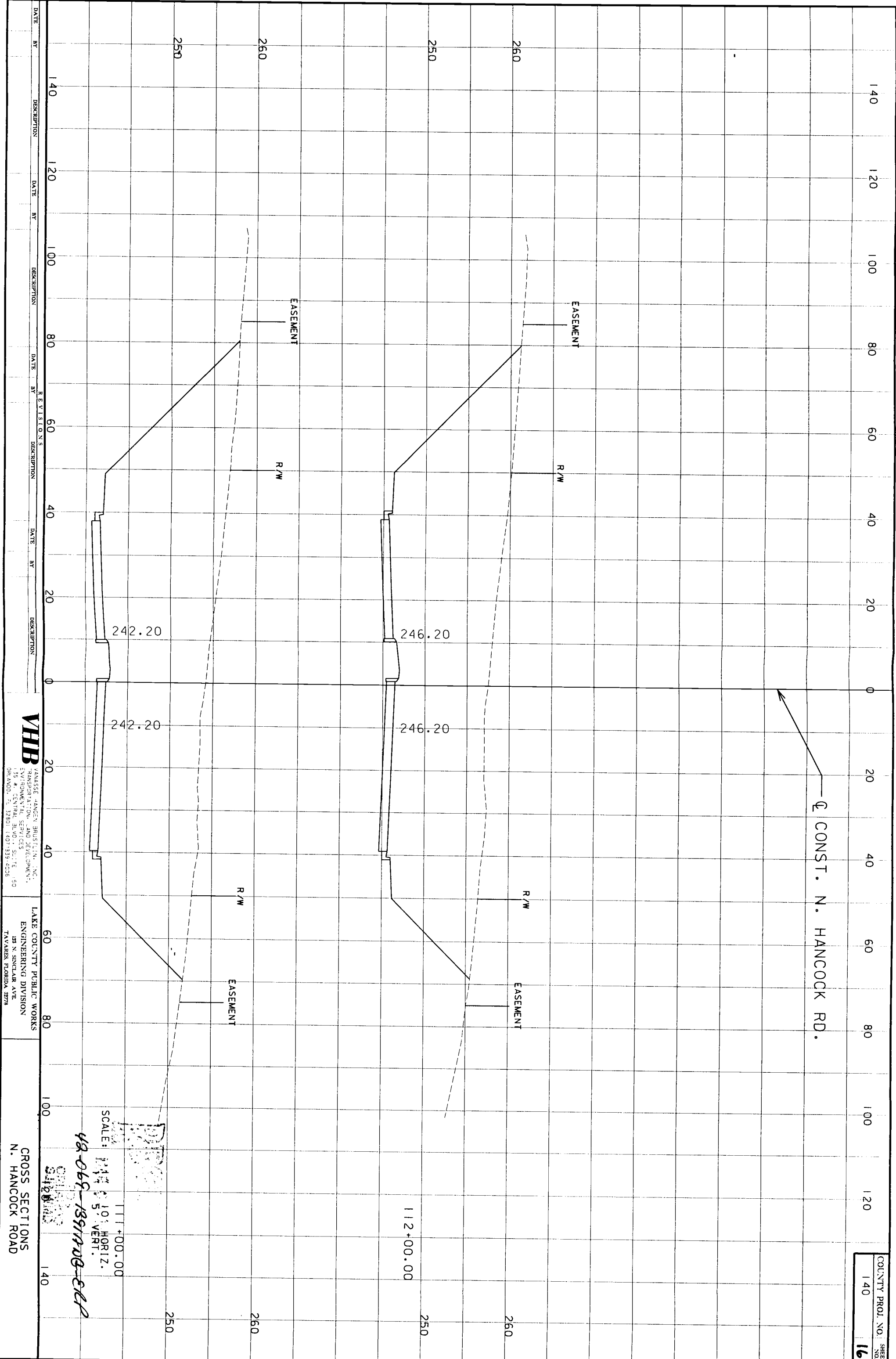
LAKE COUNTY PUBLIC WORKS
 ENGINEERING DIVISION
 148 N. SINGLARD AVE.
 TAVARES, FLORIDA 32781

CROSS SECTIONS
 N. HANCOCK ROAD

SCALE: 1" = 10' HORIZ.
 1" = 5' VERT.

109+00.00

49-069-7391-ADD-222



DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

VHB
 VANASSE HANGEN BRUSTLIN, INC.
 ENGINEERING AND DEVELOPMENT
 115 W. CENTRAL BLVD. SUITE 150
 ORLANDO, FL 32801 (407) 339-4036

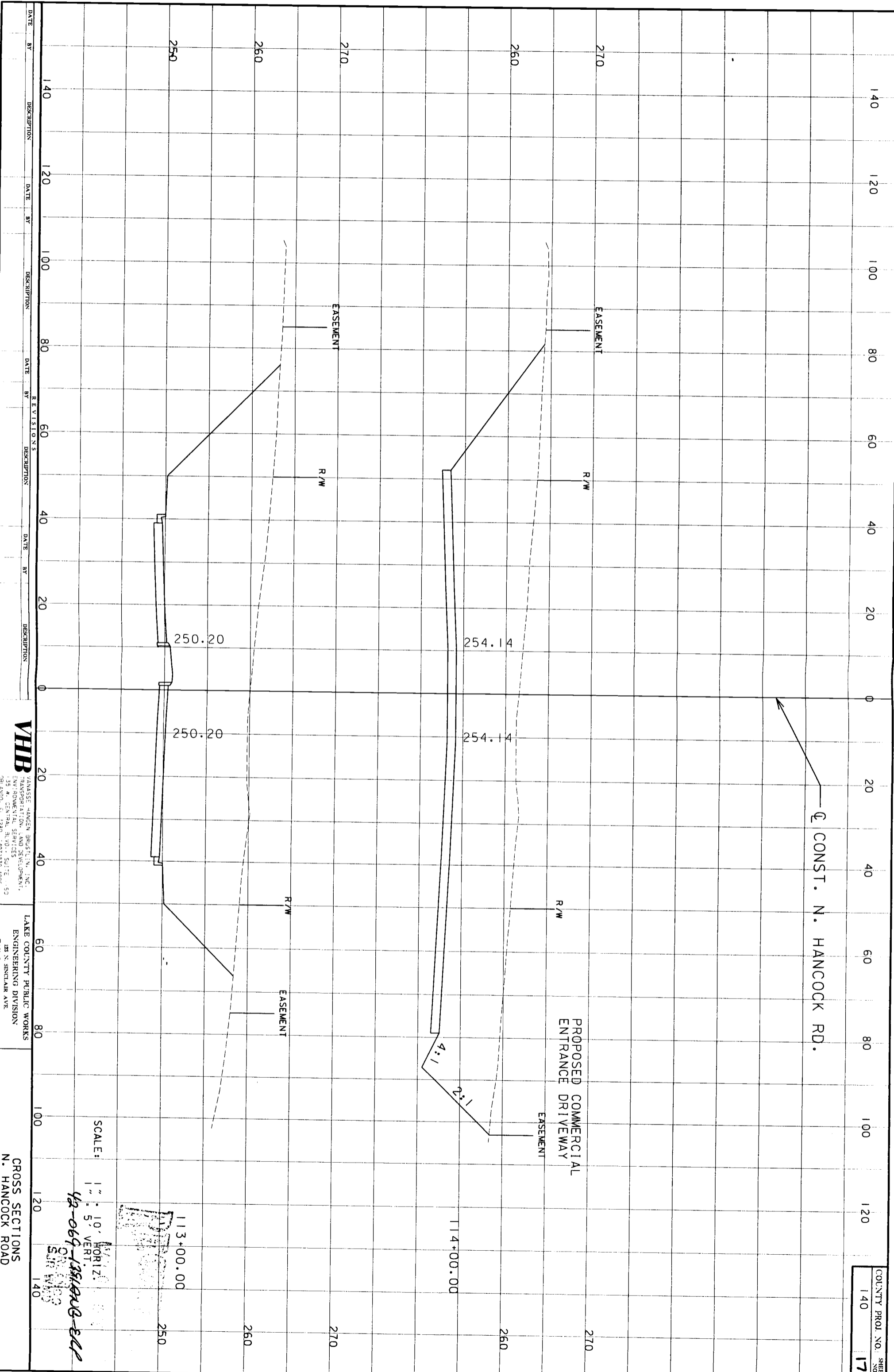
LAKE COUNTY PUBLIC WORKS
 ENGINEERING DIVISION
 103 N. SINGLAR AVE.
 TAVANUS, FLORIDA 32781

CROSS SECTIONS
 N. HANCOCK ROAD

SCALE: 1" = 10' HORIZ.
 1" = 5' VERT.

48-069-13917-00-ELL

*****SYTIME*****
 *****DGN SPECIFICATIONS*****



COUNTY PROJ. NO. SHEET
 140 17

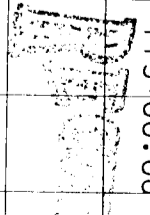
VHB
 VANASSE HANGEN BRUSTLIN, INC.
 TRANSPORTATION, LAND DEVELOPMENT,
 ENVIRONMENTAL SERVICES
 135 W. CENTRAL BLVD., SUITE 1150
 ORLANDO, FL 32801-4071 833-4106

LAKE COUNTY PUBLIC WORKS
 ENGINEERING DIVISION
 128 N. SINCLEAR AVE.
 TAYLORS FLORIDA 32789

CROSS SECTIONS
 N. HANCOCK ROAD

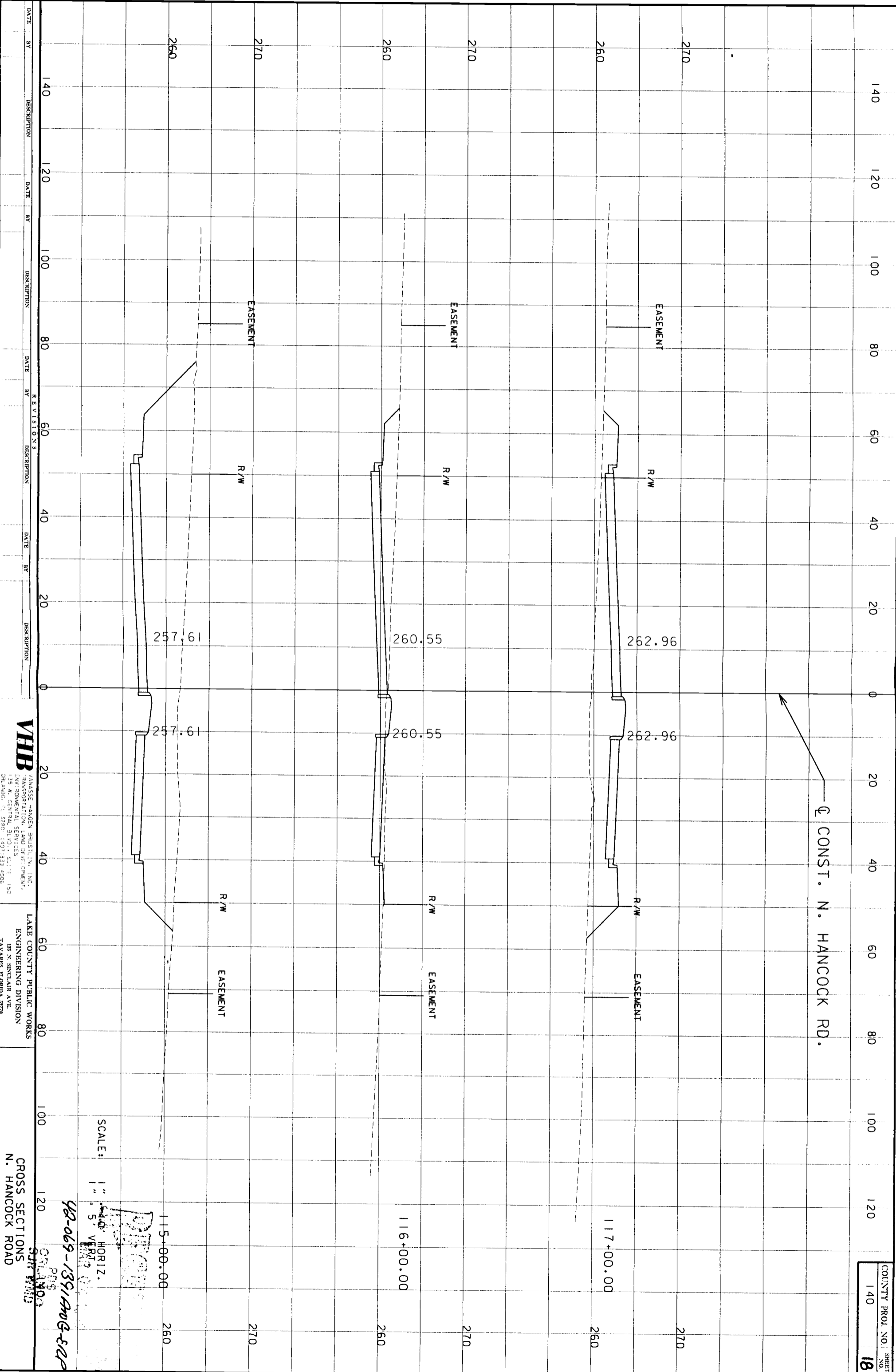
SCALE:
 1" = 10' HORIZ.
 1" = 5' VERT.

113+00.00
 114+00.00



42-069-13518-06-ELP
 5/21/2009

*****SYTIME*****
*****XONSPECIFICATIONS*****



VHB
VANASSE HANGEN BRUSTLIN, INC.
TRANSPORTATION, LAND DEVELOPMENT,
ENVIRONMENTAL SERVICES
135 W. CENTRAL BLVD., SUITE 1150
ORLANDO, FL 32801 (407) 833-4006

LAKE COUNTY PUBLIC WORKS
ENGINEERING DIVISION
123 N. SINGLAIER AVE.
TAVARES, FLORIDA 32780

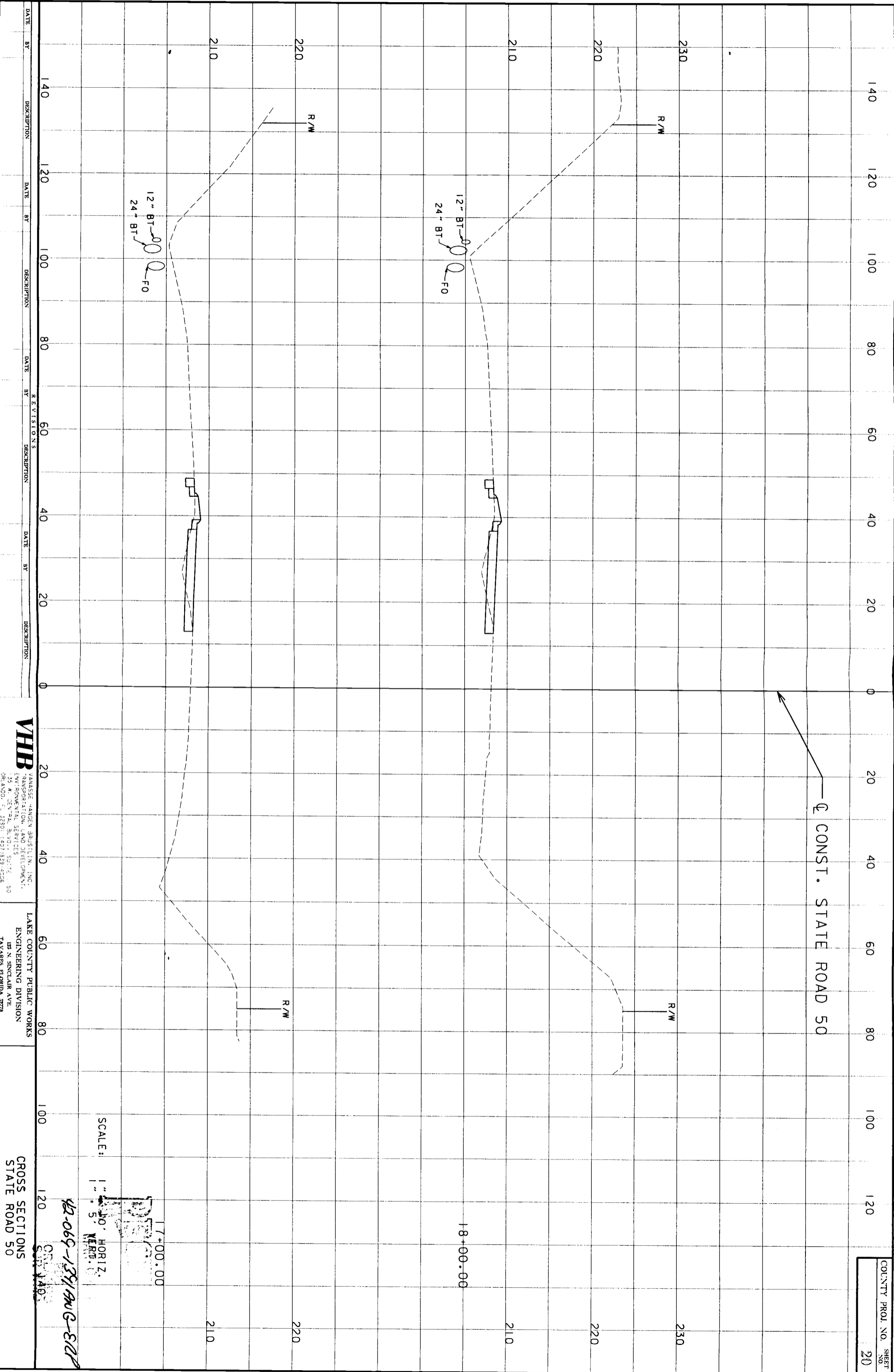
CROSS SECTIONS
N. HANCOCK ROAD

SCALE: 1" = 40' HORIZ.
5" = 100' VERT.

48-069-1391A00G-E02

[Handwritten signature]

COUNTY PROJ. NO. 140
SHEET NO. 18



CONST. STATE ROAD 50

SCALE: 1" = 10' HORIZ.
 1" = 5' VERT.

17+00.00
 18+00.00

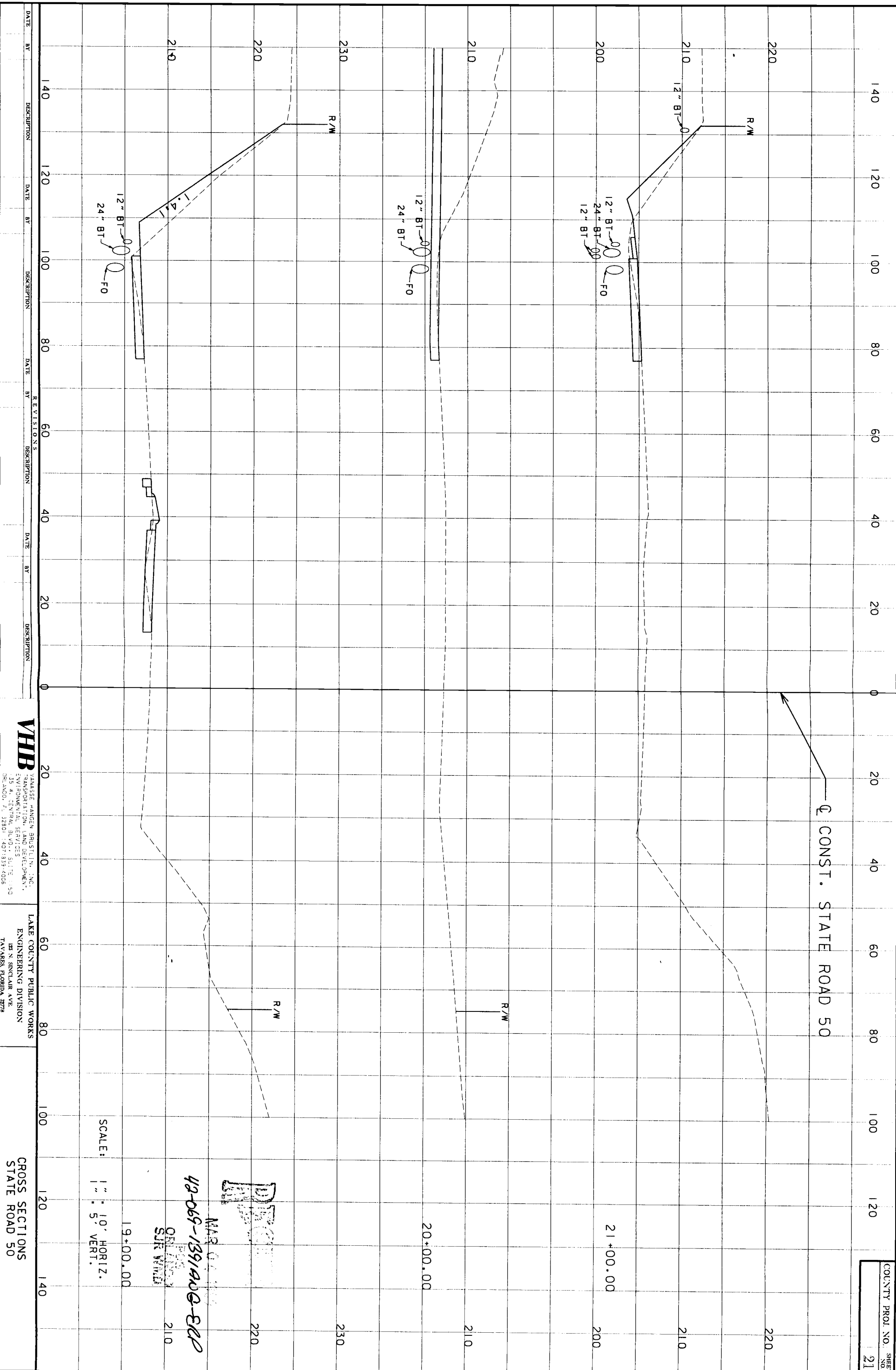
VHB
 VANASSE HANGEN BRUSTLIN, INC.
 TRANSPORTATION, LAND DEVELOPMENT,
 ENVIRONMENTAL SERVICES
 135 N. CENTRAL BLVD., SUITE 50
 ORLANDO, FL 32801 (407) 839-4206

LAKE COUNTY PUBLIC WORKS
 ENGINEERING DIVISION
 143 N. SINCLAIR AVE.
 TAYLORS FLORIDA 32788

CROSS SECTIONS
 STATE ROAD 50

42-064-135190G-322

*****SYTIME*****
 *****DGN SPECIFICATION*****



COUNTY PROJ. NO. SHEET
 21

CONST. STATE ROAD 50

SCALE:
 1" = 10' HORIZ.
 1" = 5' VERT.

19+00.00

20+00.00

21+00.00

DISCLOSED
 MAR 07 1999
 48-065-1391A00-EE2
 GEN. ENG. DIV.
 SUR. WIND

VHB
 VANASSE HANGEN BRUSTLIN, INC.
 TRANSPORTATION, LAND DEVELOPMENT,
 ENVIRONMENTAL SERVICES
 35 N. CENTRAL BLVD., SUITE 1150
 ORLANDO, FL 32801-4078/313-4066

LAKE COUNTY PUBLIC WORKS
 ENGINEERING DIVISION
 128 N. SINCLAIR AVE.
 TAVARES, FLORIDA 32780

CROSS SECTIONS
 STATE ROAD 50

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DATE	BY	DESCRIPTION

*****SYTIME*****
 *****SPECIFICATIONS*****



COUNTY PROJ. NO.:
 SHEET NO.: 29

CONST. STATE ROAD 50

23+00.00

SCALE:

1" = 10' HORIZ.
 5" = 1' VERT.

MAP OF
 48-069-1391A00-B01

VHB
 VANASSE HANGEN BRUSTLIN, INC.
 TRANSPORTATION, LAND DEVELOPMENT,
 ENVIRONMENTAL SERVICES
 135 W. CENTRAL AVE., SUITE 1150
 ORLANDO, FL 32801 (407) 359-4066

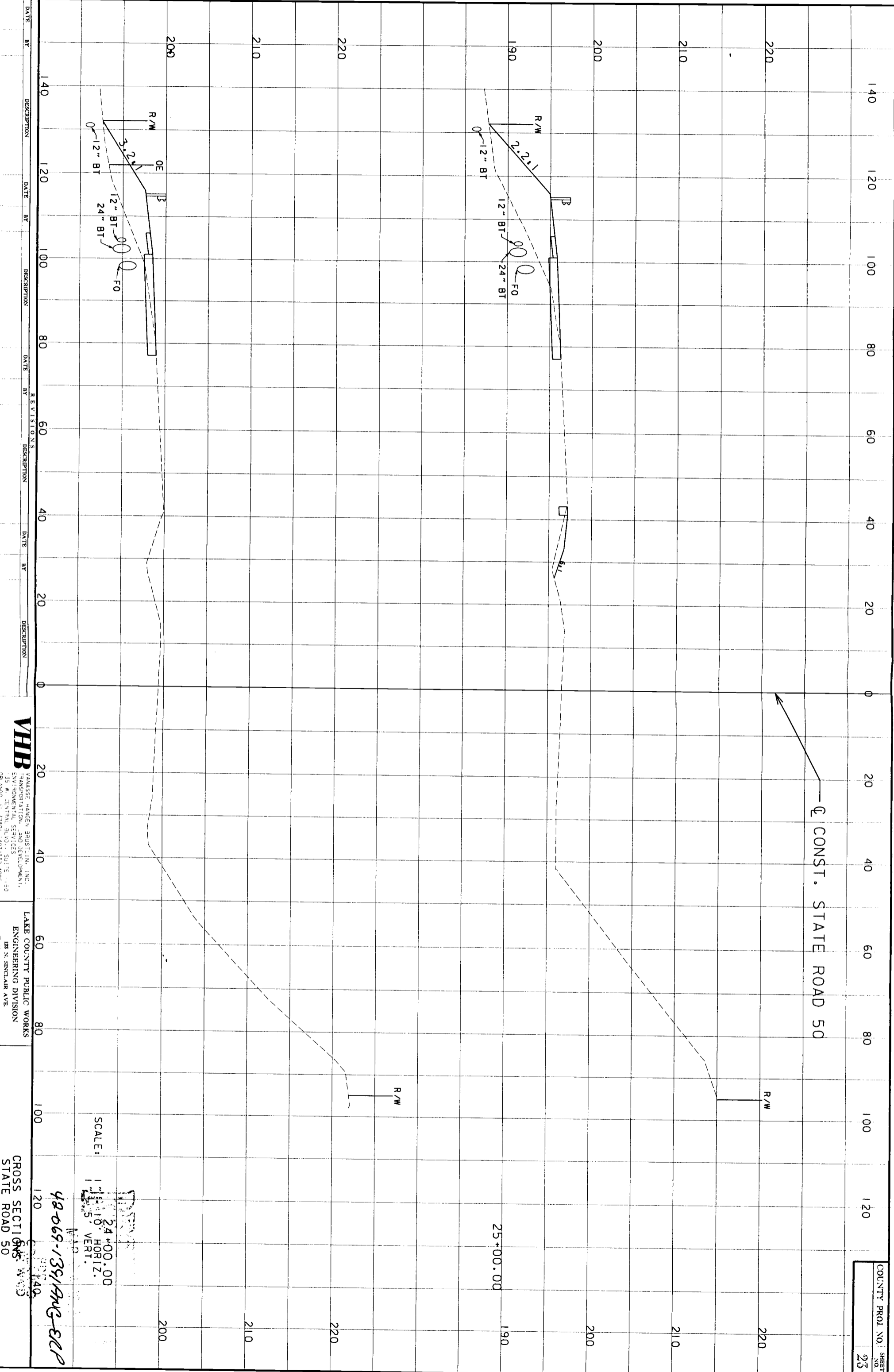
LAKE COUNTY PUBLIC WORKS
 ENGINEERING DIVISION
 121 N. SINGLAIR AVE.
 TAVARES, FLORIDA 32780

CROSS SECTIONS SURV.
 STATE ROAD 50

DATE BY DESCRIPTION

REVISIONS

DATE BY DESCRIPTION



DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

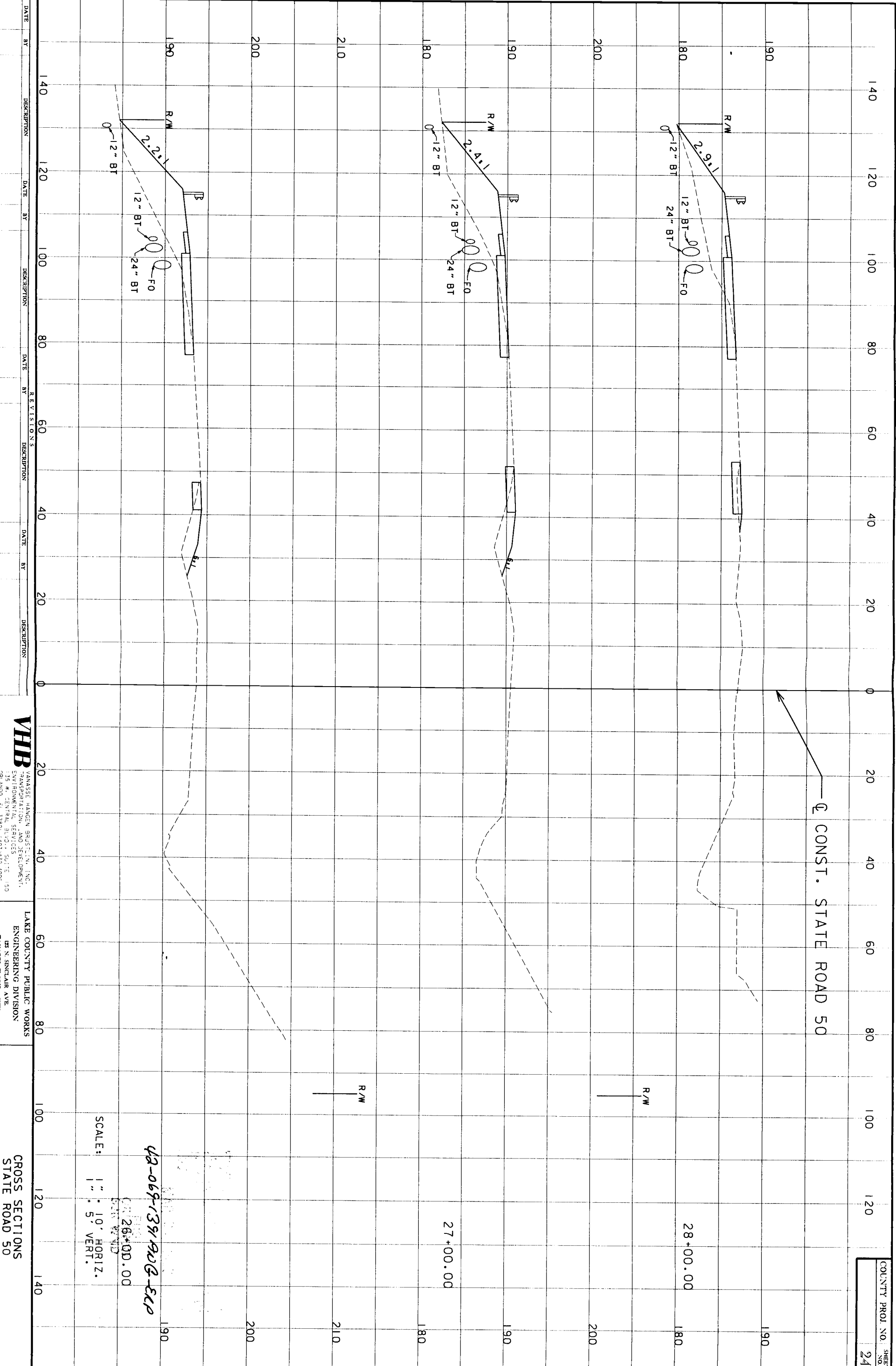
VHB
 VANASSE HANGEN BRUSTLIN, INC.
 TRANSPORTATION AND SERVICES
 ENVIRONMENTAL SERVICES
 35 W. CENTRAL BLVD., SUITE 1150
 ORLANDO, FL 32801 (407) 333-4006

LAKE COUNTY PUBLIC WORKS
 ENGINEERING DIVISION
 125 N. SINGLAP AVE.
 TAVARES, FLORIDA 32780

CROSS SECTIONS
 STATE ROAD 50

SCALE:
 1" = 10' HORIZ.
 1" = 5' VERT.

48-069-139/170G-ELP



← CONST. STATE ROAD 50

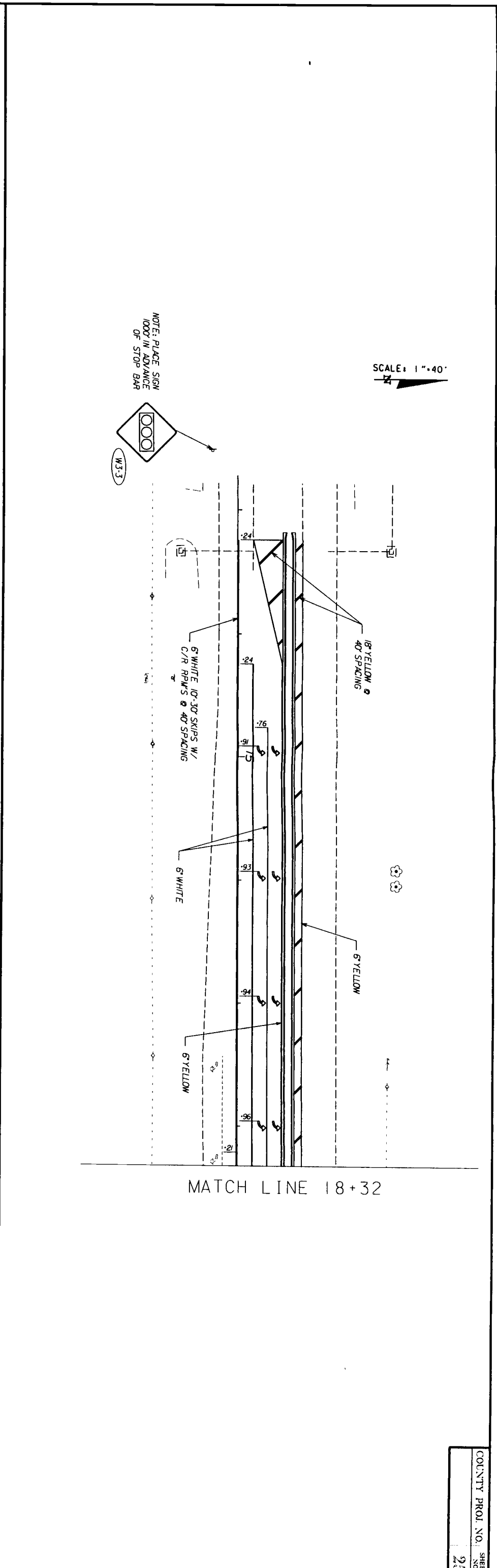
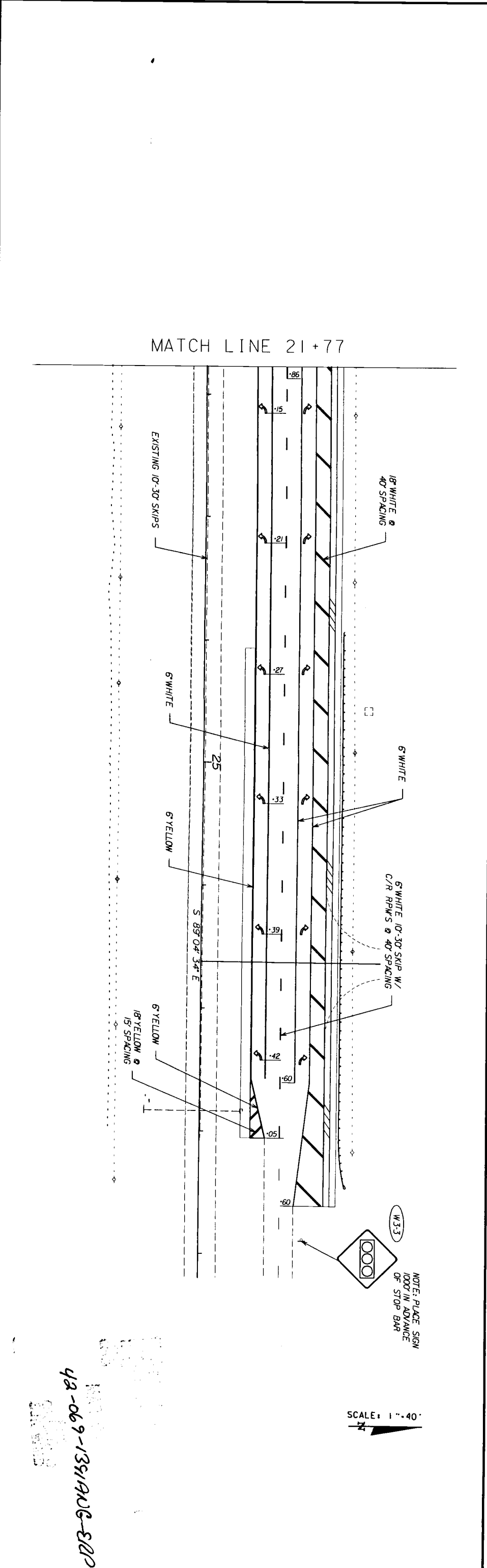
42-069-139190G-EXP
 STA 26+00.00
 SCALE: 1" = 10' HORIZ.
 1" = 5' VERT.

VHB
 HANSEN BRUSTLIN, INC.
 TRANSPORTATION AND DEVELOPMENT
 ENVIRONMENTAL SERVICES
 135 W. CENTRAL AVENUE, SUITE 150
 ORLANDO, FL 32801 (407)333-4056

LAKE COUNTY PUBLIC WORKS
 ENGINEERING DIVISION
 DR. N. SINCLAIR AVE.
 TAVARES, FLORIDA 32778

CROSS SECTIONS
 STATE ROAD 50

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
REVISIONS					



VHB
 VANCE HANSEN BRUSTLIN, INC.
 TRANSPORTATION AND DEVELOPMENT
 35 N. CENTRAL BLVD. SUITE 1150
 ORLANDO, FL 32801 (407) 833-6005

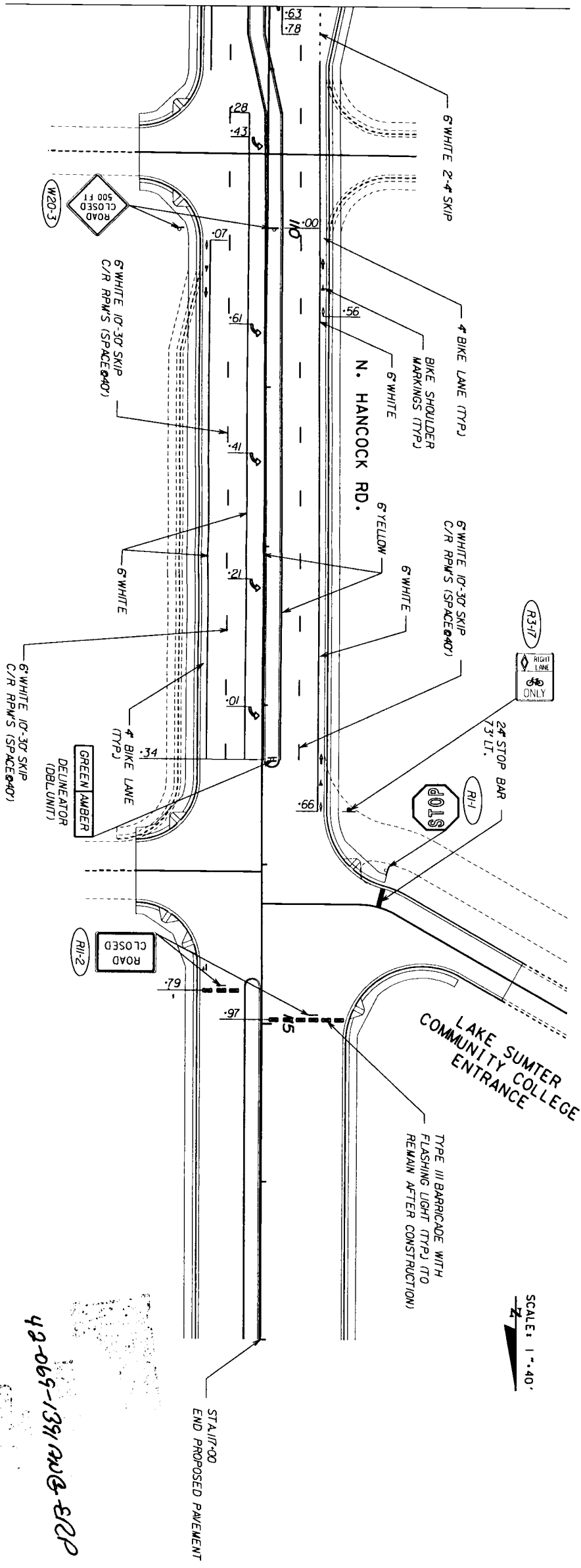
LAKE COUNTY PUBLIC WORKS
 ENGINEERING DIVISION
 141 N. SINGULAR AVE.
 TAYLORS FLORIDA 32788

SIGNING & MARKING PLANS
 S.R. 50 AT N. HANCOCK RD.
 STA. 13+24 TO 18+32 AND STA. 21+77 TO 28+60

42-069-1391906-202

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MATCH LINE 108+60



SCALE: 1"=40'

STA 117+00
END PROPOSED PAVEMENT

LAKE SUMTER
COMMUNITY COLLEGE
ENTRANCE

TYPE III BARRICADE WITH
FLASHING LIGHT (TYP) TO
REMAIN AFTER CONSTRUCTION

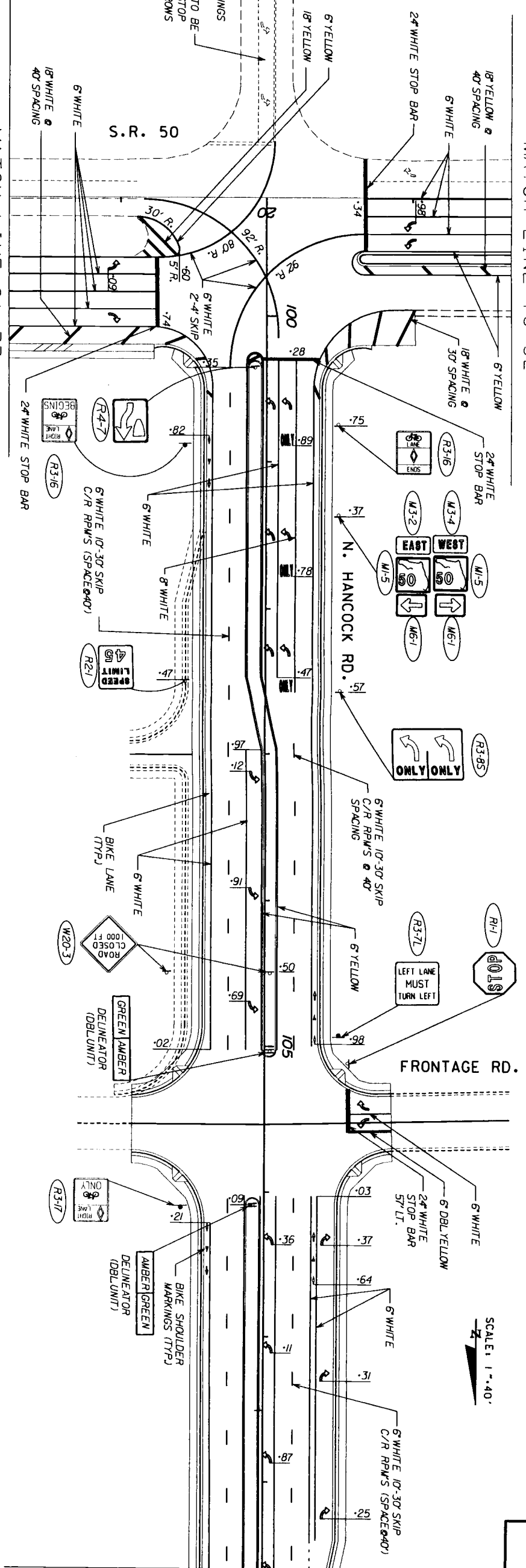
42-065-1391 RD @ SDRP

SIGNING & MARKING PLANS
N. HANCOCK ROAD
STA 99+48.49 TO STA 117+00

VHB
VANASSE HANGEN BRUSTLIN INC.
TRANSPORTATION AND DEVELOPMENT
ENGINEERING SERVICES
35 W. CENTRAL BLVD., SUITE 1150
ORLANDO, FL 32801 (407) 333-4005

LAKE COUNTY PUBLIC WORKS
ENGINEERING DIVISION
125 N. SINGLAR AVE.
TAVARES, FLORIDA 32778

MATCH LINE 21+77

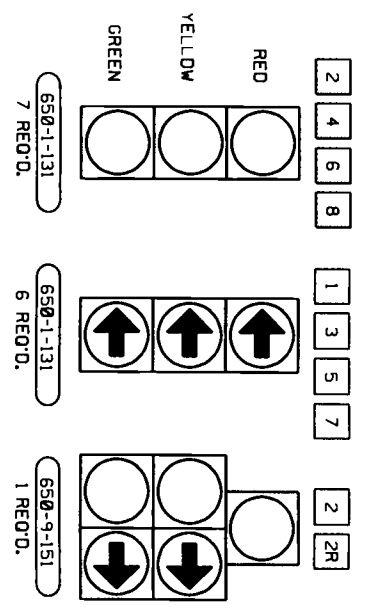


SCALE: 1"=40'

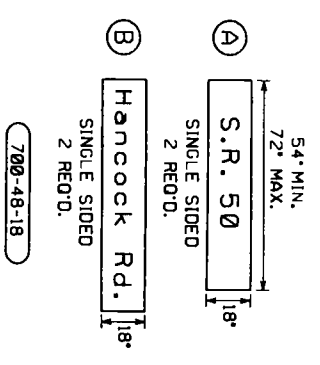
MATCH LINE 108+60

MATCH LINE 18+32

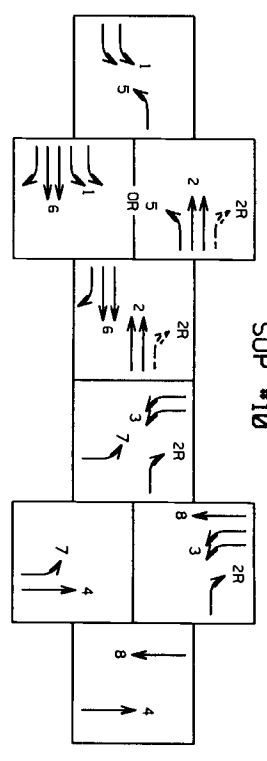
SIGNAL HEAD DETAILS



OVERHEAD SIGNS



MOVEMENT DIAGRAM
SOP #10

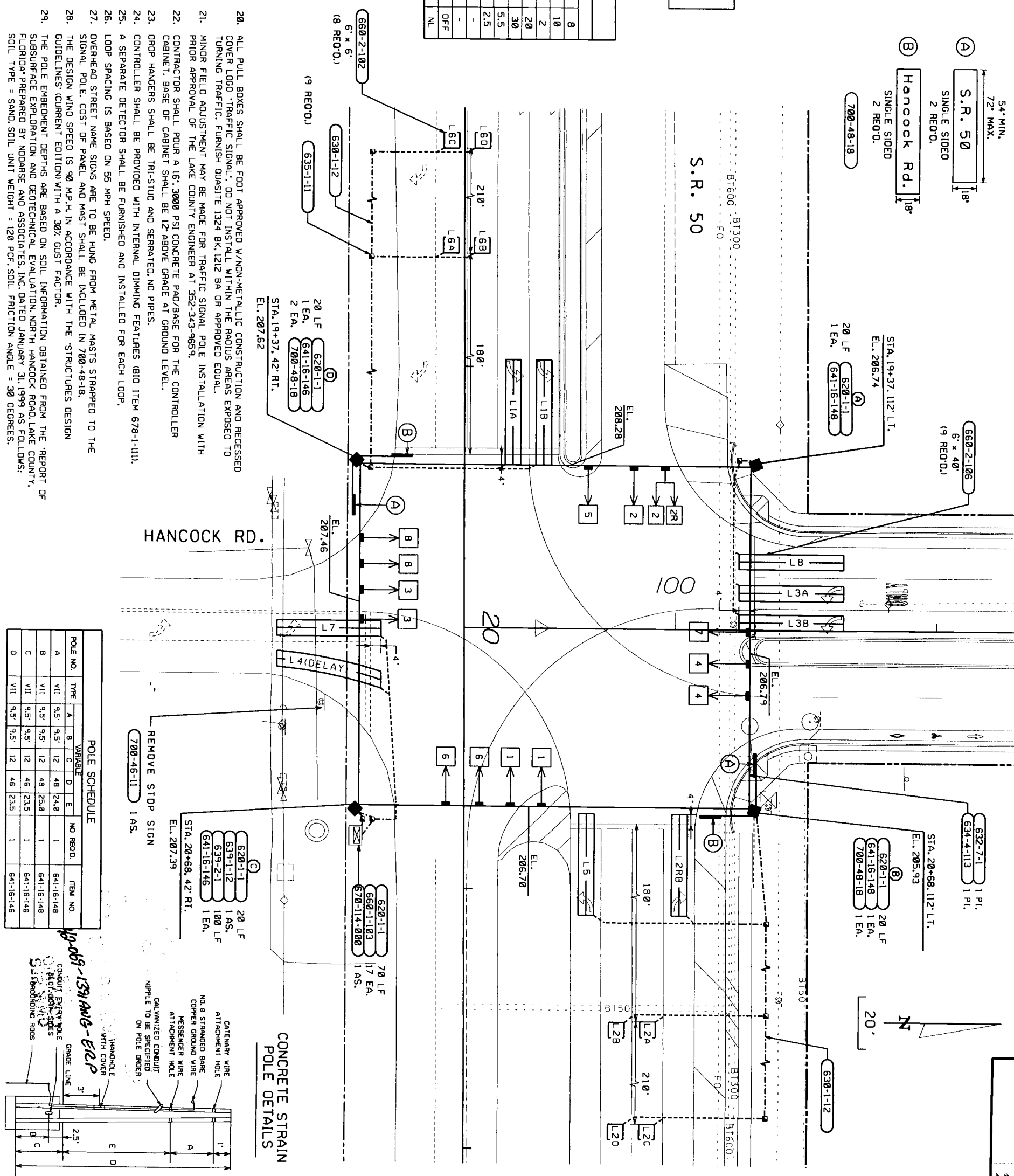


INITIAL CONTROLLER TIMING PLAN

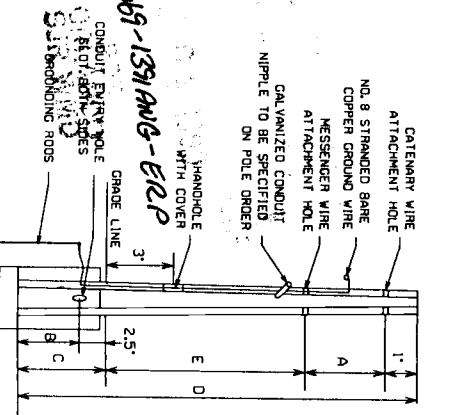
TIMING INTERVAL	TIMING FUNCTION							
	1	2	3	4	5	6	7	8
MINIMUM GREEN (INITIAL)	6	20	6	10	6	20	6	10
EXTENSION (PASSAGE)	2	3	2	2	2	3	2	2
MAXIMUM GREEN I	14	56	16	11	6	64	7	20
MAXIMUM GREEN II	19	90	23	15	10	99	8	30
YELLOW	4.0	5.0	4.0	5.5	4.0	5.0	4.0	5.5
ALL RED	-	2.0	-	2.5	-	2.0	-	2.5
PEDESTRIAN WALK	-	-	-	-	-	-	-	-
PEDESTRIAN CLEAR	-	-	-	-	-	-	-	-
MINIMUM RECALL	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF
DETECTOR FUNCTION	NL	L	NL	NL	NL	NL	L	NL

GENERAL NOTES

- ALL SIGNAL HEADS SHALL BE CAST ALUMINUM WITH GLASS LENSES.
- DELAY DETECTORS TO BE SET AT 5 SECONDS.
- ALL LOOP WIRE AND SIGNAL CABLE SHALL BE INSTALLED IN SEPARATE PULL BOXES.
- ALL LANE CLOSURES MUST BE APPROVED BY THE COUNTY PROJECT ENGINEER.
- CONTRACTOR TO NOTIFY PROJECT ENGINEER 96 HOURS PRIOR TO BEGINNING CONSTRUCTION (FRED J. SCHNEIDER, 352-343-9659).
- MAJOR STREET IS S.R. 50, MINOR STREET IS HANCOCK ROAD. FLASH YELLOW ON S.R. 50, FLASH RED ON HANCOCK ROAD.
- MESSENGER LINES SHALL BE 7/16" CATENARY WIRE SHALL BE 3/8".
- ALL EQUIPMENT AND MATERIALS MUST BE FOOT CERTIFIED.
- INDUCTIVE LOOP DETECTORS MUST BE SINGLE CHANNEL, SOLID STATE, SELF TUNE, SHELF MOUNTED AND BE MANUFACTURED TO N.E.M.A. SPECIFICATIONS.
- SIGNAL HEAD MINIMUM HEIGHT SHALL BE 17' FROM THE CROWN OF THE ROAD ON ALL APPROACHES.
- SIGNAL HEADS SHALL BE WIRED DIRECTLY TO TERMINAL BLOCK (NO "JONES PLUGS").
- CUT-AWAY VISORS SHALL BE INSTALLED ON ALL SIGNAL HEAD SECTIONS.
- EACH TYPE "F" LOOP SHALL HAVE A SEPARATE TERMINATION, LIGHTNING SUPPRESSION AND DETECTOR HARNESS.
- THE POWER INPUT ON THE POWER PANEL SHALL HAVE AT LEAST SHP 300-10 LIGHTNING SUPPRESSION.
- SIGNAL DISCONNECTS SHALL HAVE THE HINGED COVER AND BE EITHER COAST CAST OR ENGINEERED CASTINGS.
- THE LOCATION AND COORDINATION OF UNDERGROUND UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- LOOP SEALANT SHALL BE COMPATIBLE WITH ROAD MATERIAL.
- LOOP ASSEMBLY WIRE SHALL BE AT LEAST 14 GA FOR BOTH THE LOOP AND HOME RUN.
- LOOP SAW CUTS SHALL BE MAXIMUM 3" DEEP AND NO MORE THAN TWO RUNS PER SAW CUT.
- IF LOOPS ARE INSTALLED IN LEVELING COURSE, 1/4" SAW CUTS ARE ACCEPTABLE.

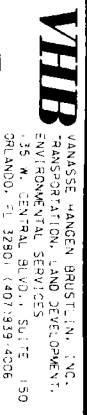


CONCRETE STRAIN POLE DETAILS



POLE SCHEDULE

POLE NO.	TYPE	VARIABLE				NO. RECD.	ITEM NO.
		A	B	C	D		
A	VII	9.5'	9.5'	12'	48'	24.0	641-16-148
B	VII	9.5'	9.5'	12'	48'	25.0	641-16-148
C	VII	9.5'	9.5'	12'	46'	23.5	641-16-146
D	VII	9.5'	9.5'	12'	46'	23.5	641-16-146



LAKE COUNTY PUBLIC WORKS
ENGINEERING DIVISION
225 N. SINCLAIR AVE.
TAMPA, FLORIDA 33778

SIGNALIZATION PLAN
S.R. 50 AND N. HANCOCK RD.