

S-310  
2+71.54  
S-311  
3+17.00

REDTAIL BLVD  
SCALE  
1" = 40' Horizontal  
1" = 10' Vertical

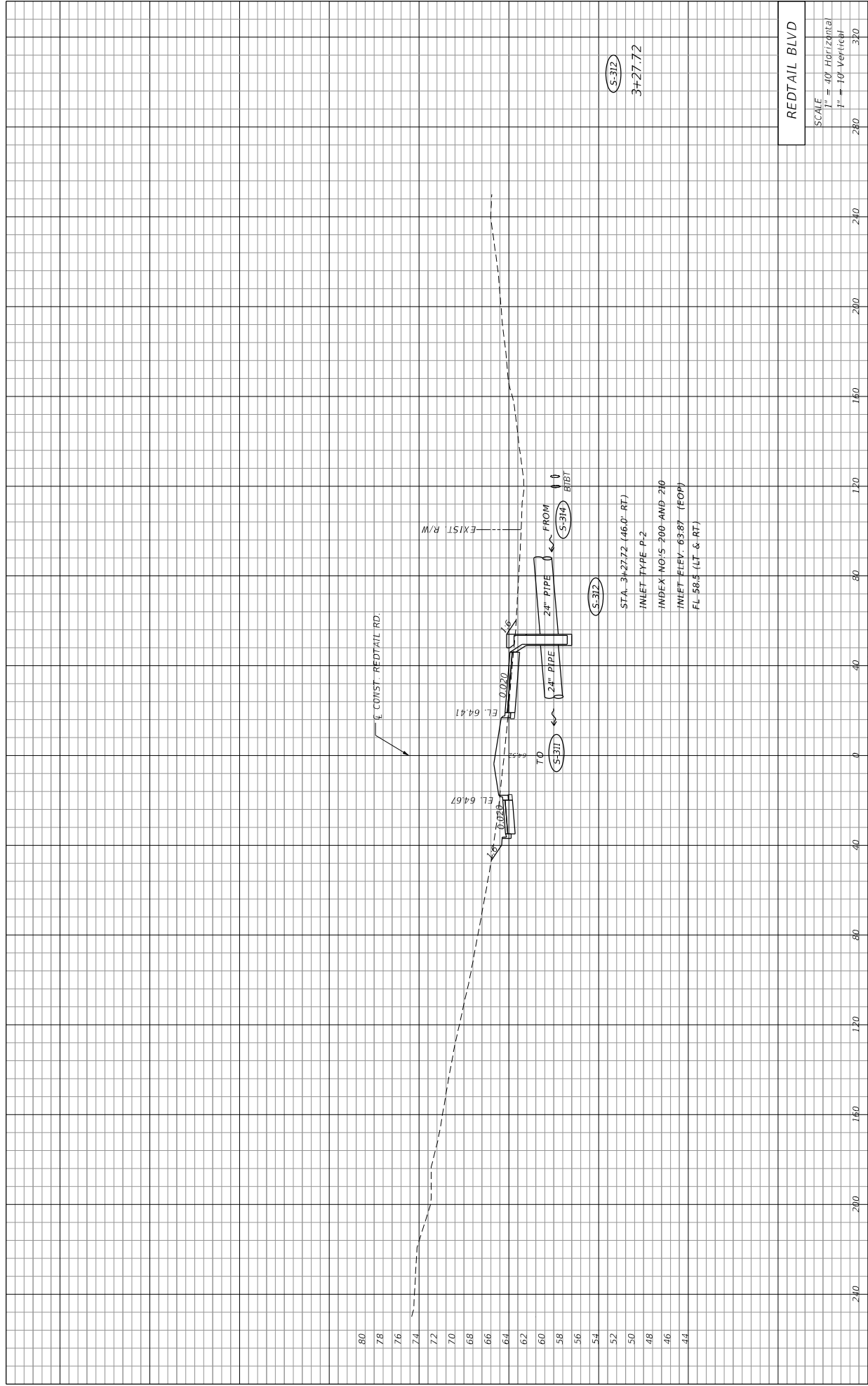
DATE	REVISIONS	DESCRIPTION
	DATE	
	800	
	760	
	720	
	680	
	640	
	600	
	560	
	520	
	480	
	440	
	400	
	360	
	320	
	280	
	240	

PREPARED BY: CDM Smith 2301 MAITLAND CENTER PARKWAY, SUITE 300 MAITLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 36982	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A COUNTY LAKE FINANCIAL PROJECT ID 238275-8-52-01	SHEET NO. 105
---	---	---------------

DRAINAGE STRUCTURES

11/14/2015 1:47:20 PM C:\Projects\CR46A\_Improvement\3887385201.dwg DWG:DRW34007.DWG WHEBERGTP



REDTAIL BLVD

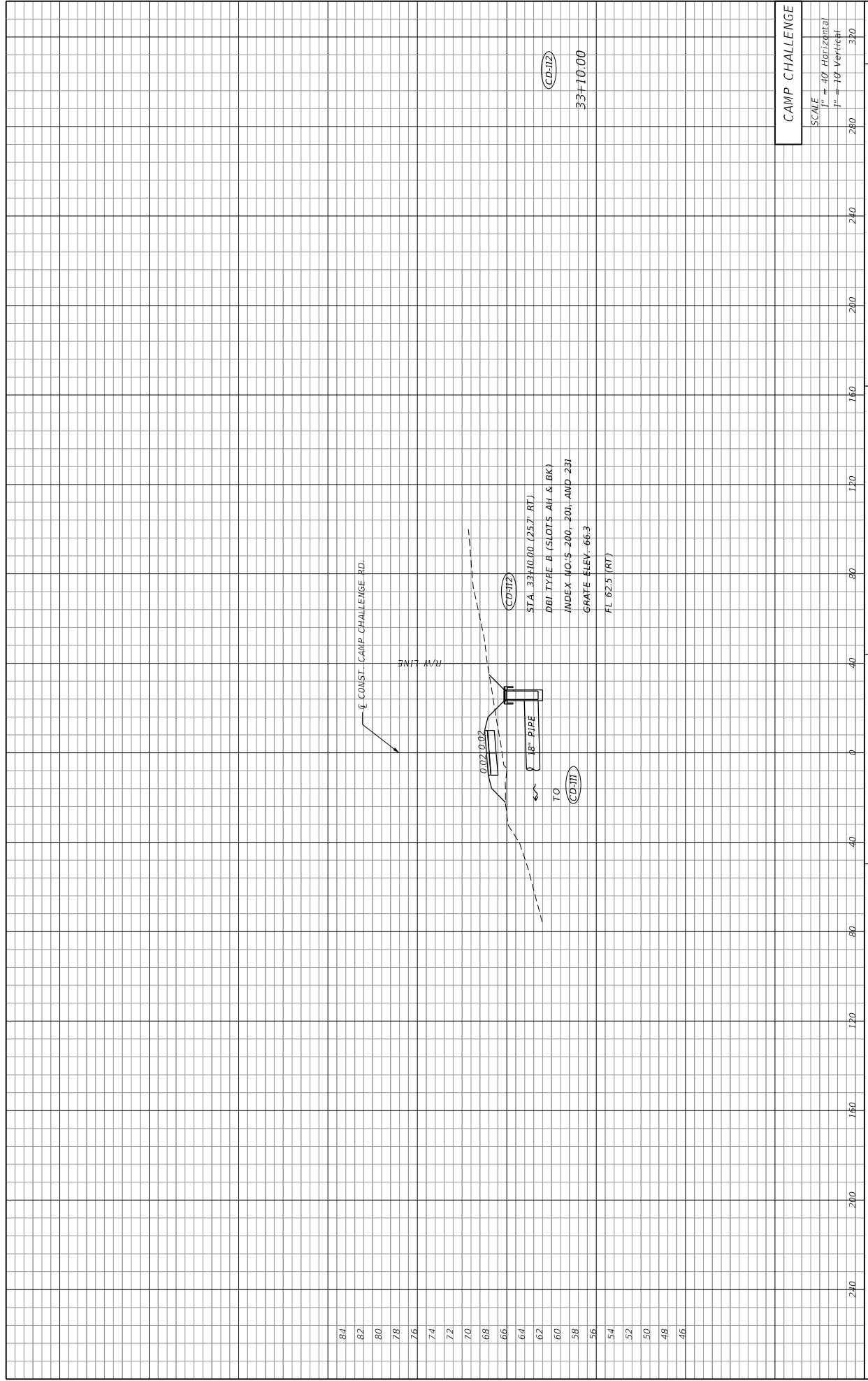
SCALE	280	320
1" = 40' Horizontal		
1" = 10' Vertical		

S-312  
3+27.72

S-312

STA. 3+27.72 (46'-0" RT)  
INLET TYPE P-2  
INDEX NO.'S 200-AND-210  
INLET FLEV. 63.87 (FOP)  
FL 58.5 (LT & RT)

DATE	DESCRIPTION	REVISIONS	STATE OF FLORIDA		SHEET NO. 106
			DEPARTMENT OF TRANSPORTATION		
PREPARED BY: CDM Smith 2301 WATLAND CENTER PARKWAY, SUITE 300 MAITLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 36982			ROAD NO. CR 46A	COUNTY LAKE	FINANCIAL PROJECT ID 238275-8-52-01
			LAKE COUNTY		11/4/2015
			WHEELER GP		G:\Projects\CR46A_Realignm\238275\2015.dwg



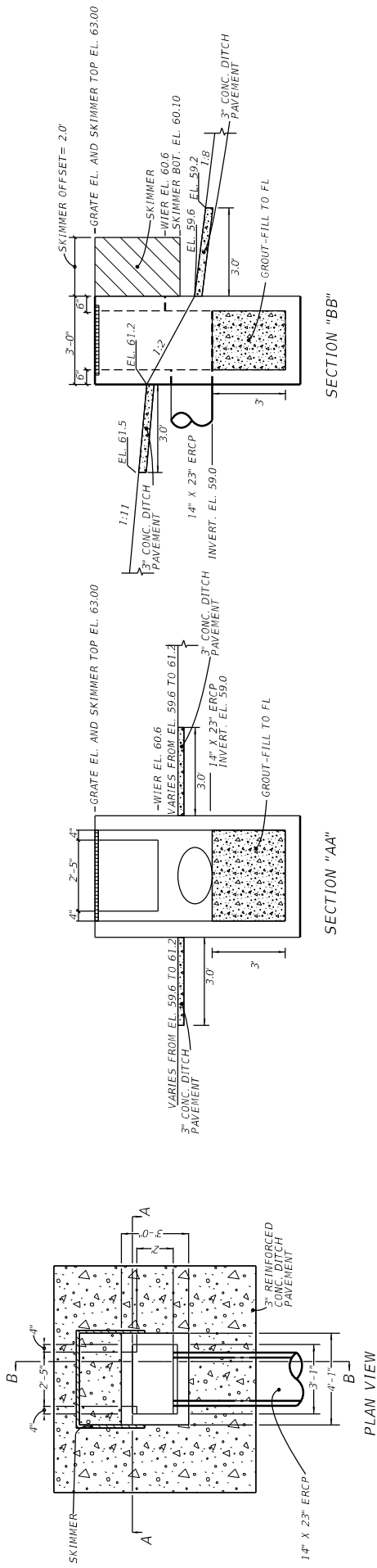
**CAMP CHALLENGE**

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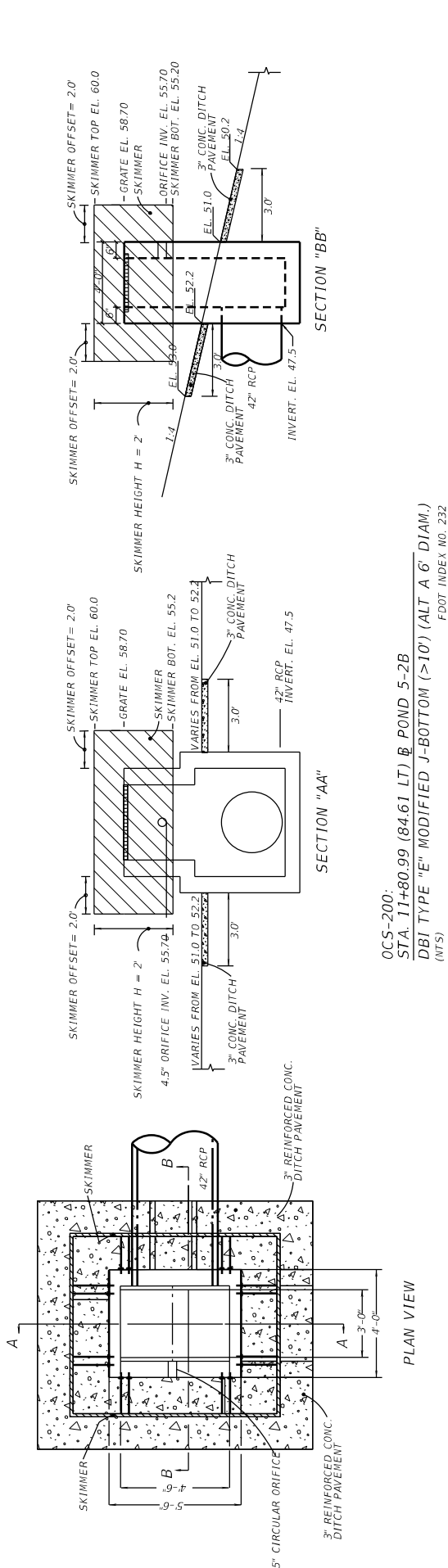
DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

PREPARED BY: CDM Smith 2301 MAITLAND CENTER PARKWAY, SUITE 300 MAITLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 36982	DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A COUNTY LAKE FINANCIAL PROJECT ID 238275-8-52-01	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION COUNTY LAKE FINANCIAL PROJECT ID 238275-8-52-01	SHEET NO. <b>107</b>
---	---	--	-------------------------



OCS-300:  
 STA. 378+19.41 (137.76 RT) @ CR46A  
 DBI TYPE "C" MODIFIED FDOT INDEX NO. 232  
 (NTS)



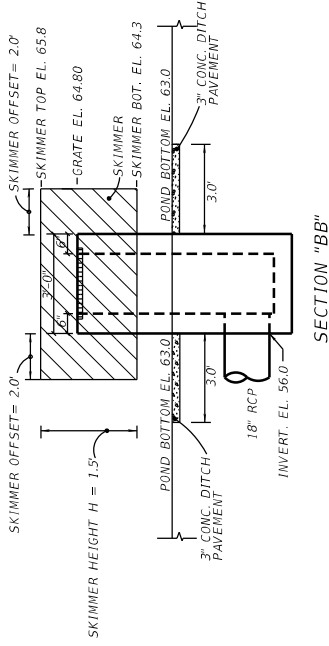
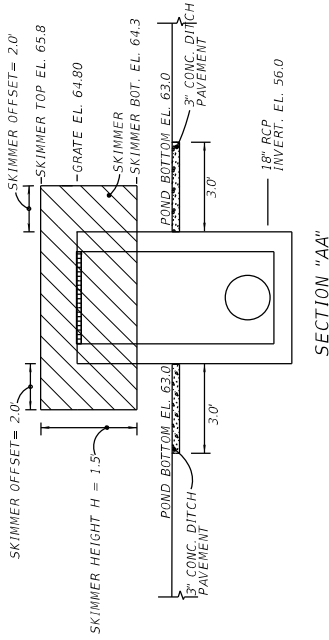
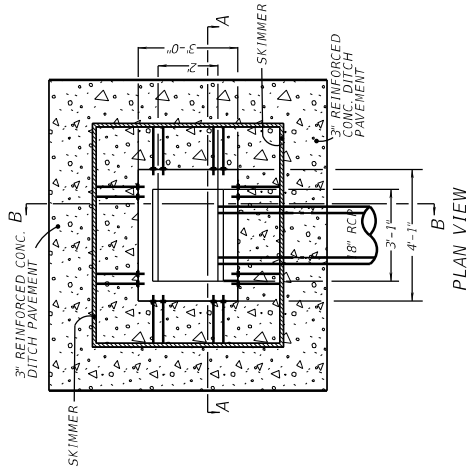
OCS-200:  
 STA. 11+80.99 (84.61 LT) @ POND 5-2B  
 DBI TYPE "E" MODIFIED J-BOTTOM (>10') (ALT A 6' DIAM.)  
 (NTS)  
 FDOT INDEX NO. 232

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

PREPARED BY:  
 CDM Smith  
 2301 WATLAND CENTER PARKWAY, SUITE 300  
 WATLAND, FL 32751 - PHONE: (407) 660-2552  
 PAUL O. SNEAD, P.E.  
 P.E. NUMBER: 36982

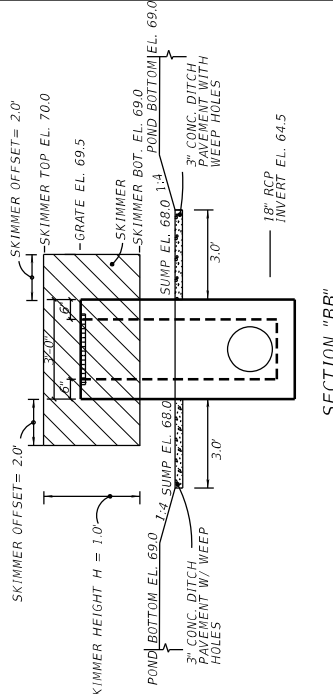
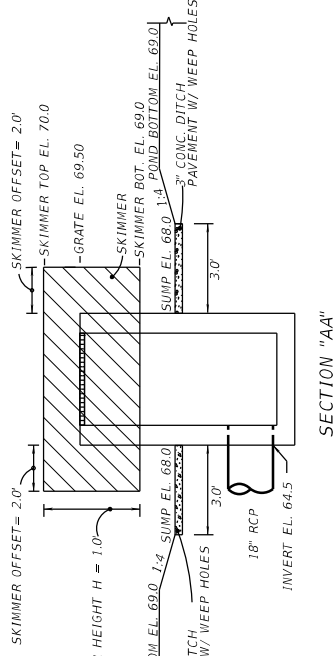
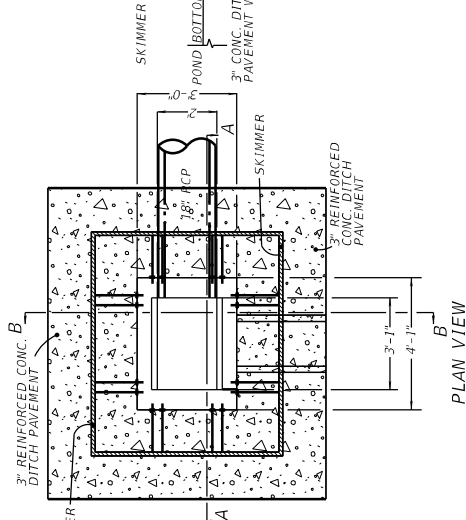
STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. CR 46A  
 COUNTY LAKE  
 FINANCIAL PROJECT ID 238275-8-52-01  
 WHEREGITP

MISCELLANEOUS  
 DRAINAGE DETAILS (1)  
 SHEET NO. 108  
 11/17/2015 1:47:35 PM  
 C:\Projects\CR46A\_Realign\238275-8-52-01\Drawings\DR01.DWG



OCS-100:  
STA. 460+70.08 (130.82 RT)  $\pm$  CR 46A

DBI TYPE "C" MODIFIED FDOT INDEX NO. 232  
(NTS)



OCS-101A:  
STA. 471+29.00 (76.21 RT)  $\pm$  CR 46A

DBI TYPE "C" MODIFIED FDOT INDEX NO. 232

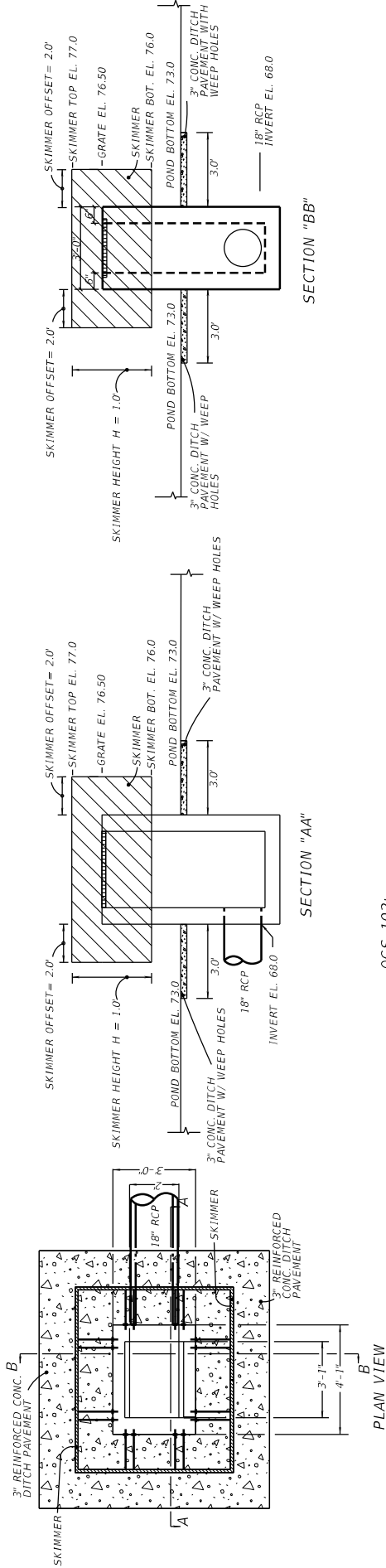
DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

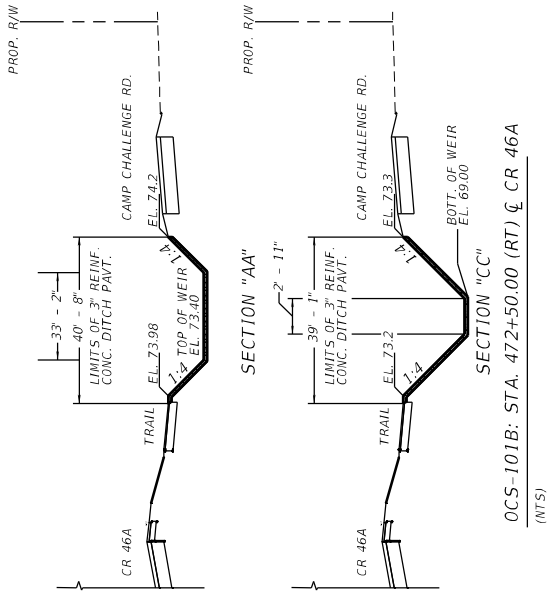
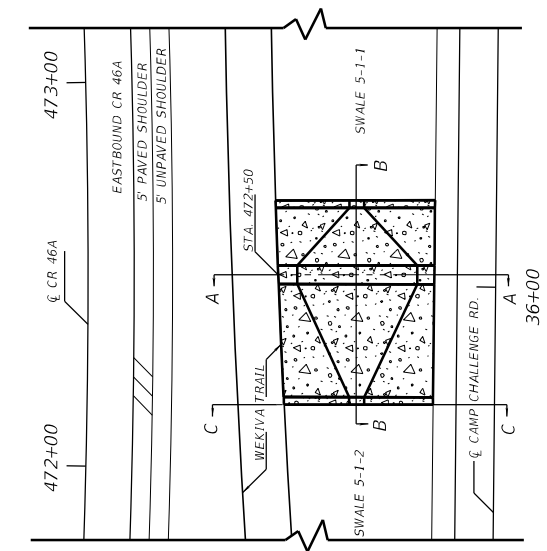
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	ROAD NO. CR 46A	COUNTY LAKE	FINANCIAL PROJECT ID 238275-8-52-01	SHEET NO. 109
PREPARED BY: CDM Smith 2301 WATLAND CENTER PARKWAY, SUITE 300 WATLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 36982				

MISCELLANEOUS DRAINAGE DETAILS (2)	11/17/2015 1:47:38 PM C:\Projects\CR46A_Realignm\3282758201\Drawings\DR01.DWG
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OCS-102:  
 STA. 476+29.70 (42.69 RT)  $\zeta$  CR 46A  
 DBI TYPE "C" MODIFIED FDOT INDEX NO. 232



OCS-101B: STA. 472+50.00 (RT)  $\zeta$  CR 46A  
 (NTS)

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

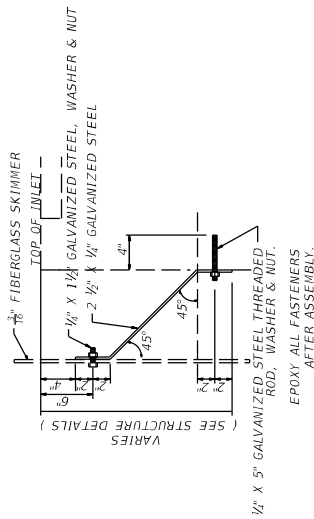
STATE OF FLORIDA	DEPARTMENT OF TRANSPORTATION
COUNTY	LAKE
ROAD NO.	CR 46A
FINANCIAL PROJECT ID	238275-8-52-01

PREPARED BY:	CDM Smith
2301 WATLAND CENTER PARKWAY, SUITE 300	WATLAND, FL 32751 - PHONE: (407) 660-2552
ENGINEER OF RECORD	PAUL O. SNEAD, P.E.
P.E. NUMBER:	36982

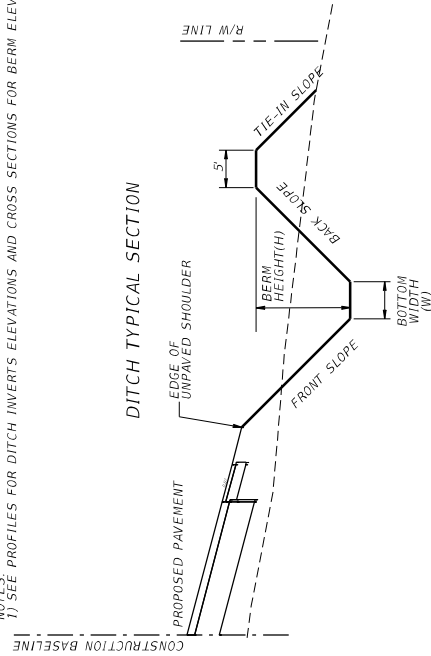
MISCELLANEOUS	SHEET NO.
DRAINAGE DETAILS (5)	110



SKIMMER DETAILS FOR OCS-100, OCS-101A,  
OCS-102, OCS-200 & OCS-300

N.T.S.

NOTES:  
1) SEE PROFILES FOR DITCH INVERTS ELEVATIONS AND CROSS SECTIONS FOR BERM ELEVATIONS.



DATE	DESCRIPTION	REVISIONS	DESCRIPTION

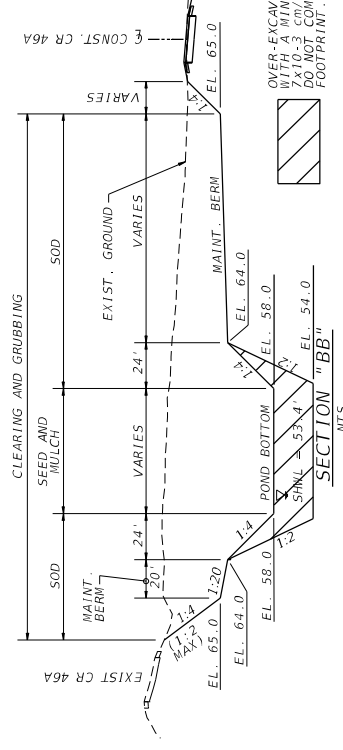
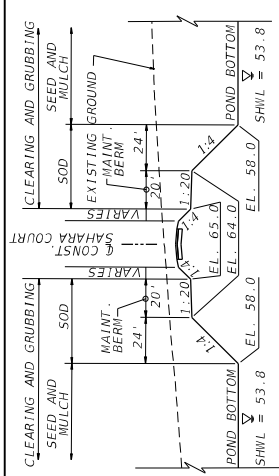
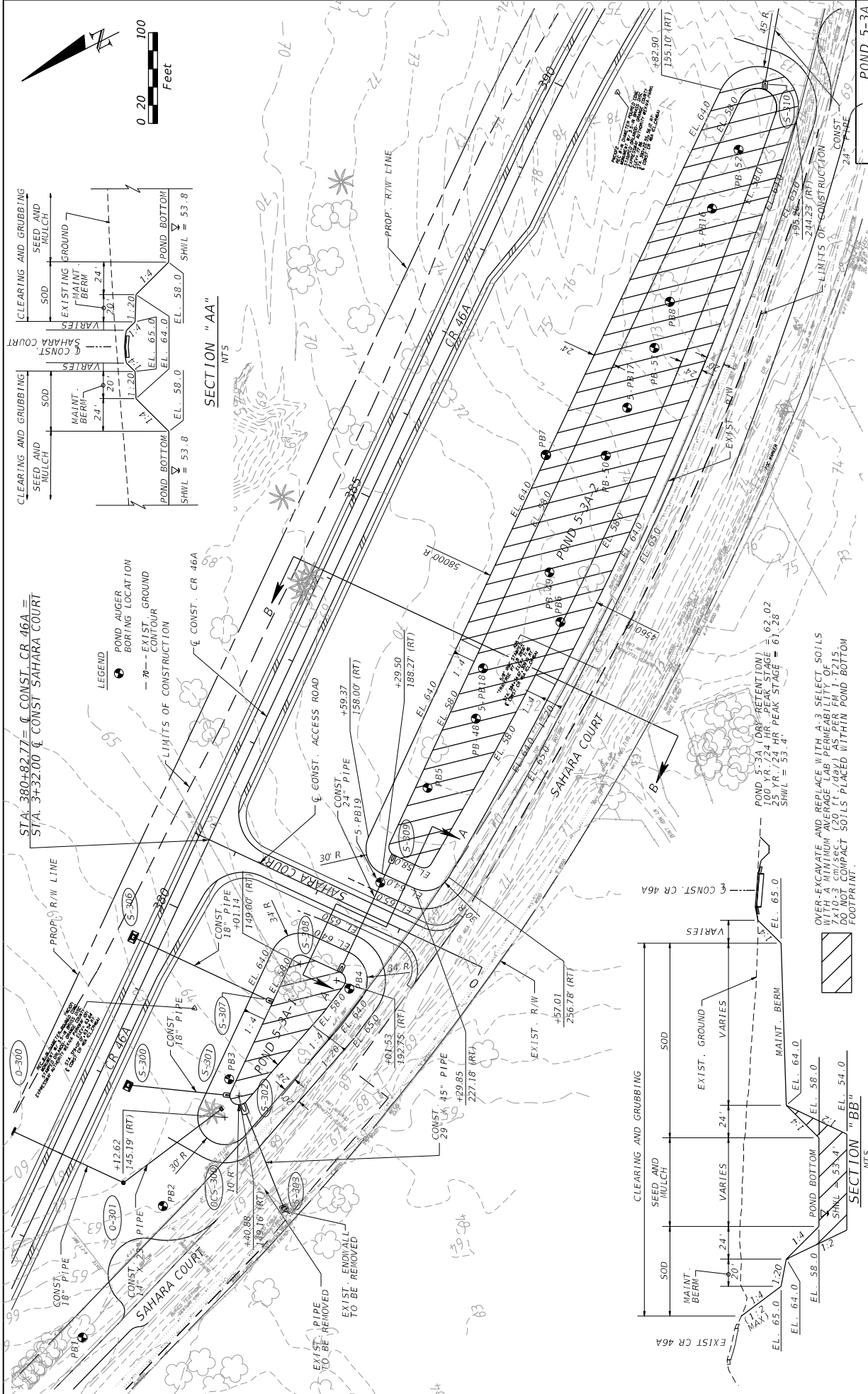
  

PREPARED BY: CDM Smith 2301 WATLAND CENTER PARKWAY, SUITE 300 WATLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 36982	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A	COUNTY LAKE	FINANCIAL PROJECT ID 238275-8-52-01
---	--	----------------	--

MISCELLANEOUS DRAINAGE DETAILS (4)			SHEET NO. 111
---------------------------------------	--	--	---------------------





OVER-EXCAVATE AND REPLACE WITH A-3 SELECT SOILS  
 FROM 10' TO 12' DEPTH TO BE PLACED WITHIN POND BOTTOM  
 FOOTPRINT.

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

STATE OF FLORIDA	DEPARTMENT OF TRANSPORTATION
CR 46A	CR 46A
238275-8-52-01	238275-8-52-01

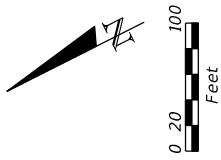
CDM Smith 2301 MAITLAND CENTER PARKWAY, SUITE 300 MAITLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 30982	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A
---	---

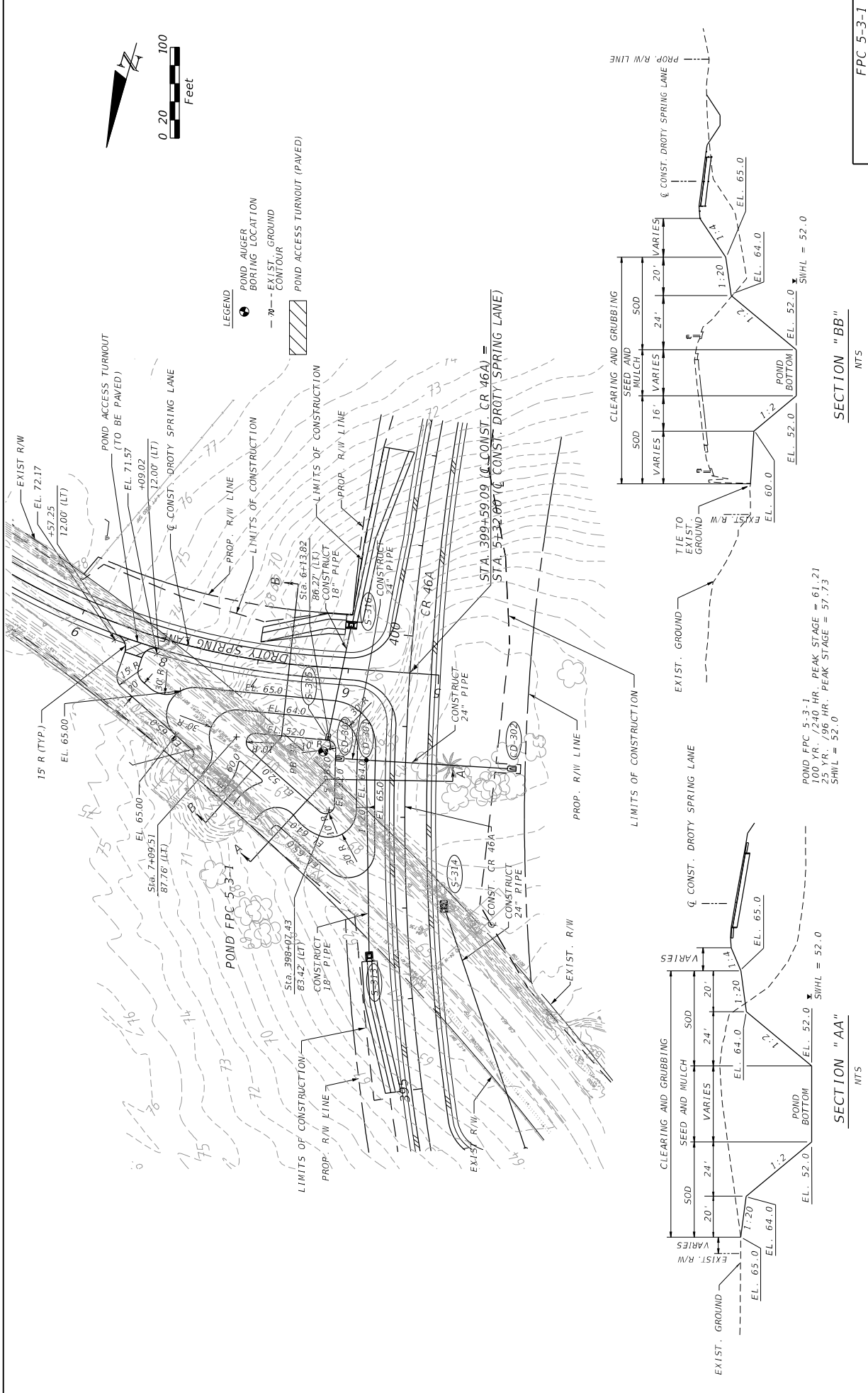
  

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POND DETAIL SHEET

SHEET NO. 112



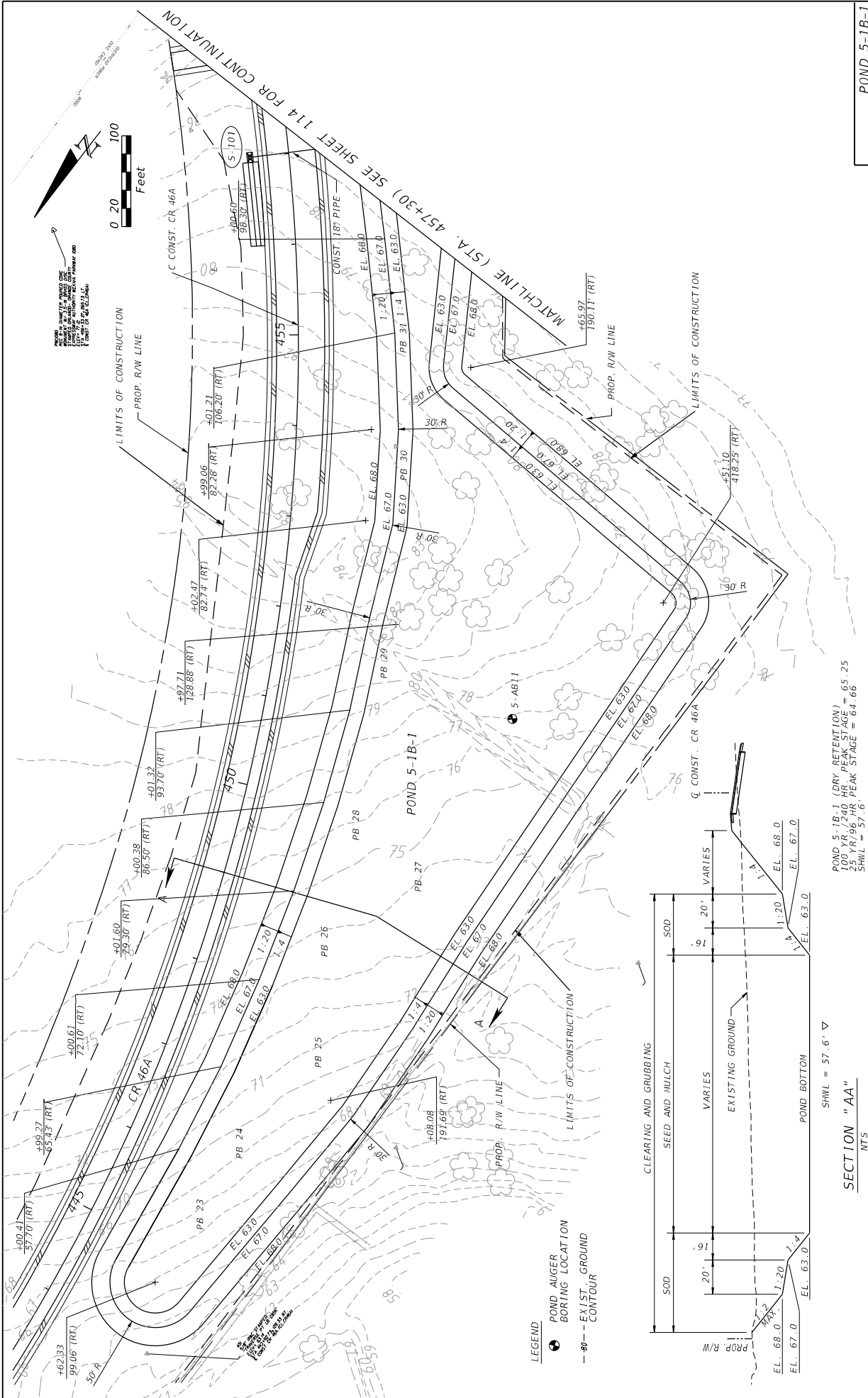


DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

PREPARED BY: CDM Smith 2301 MAITLAND CENTER PARKWAY, SUITE 300 MAITLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 36982		DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A COUNTY LAKE FINANCIAL PROJECT ID 238275-8-52-01	
STATE OF FLORIDA		FPC 5-3-1	
SHEET NO. 113		POND DETAIL SHEET	





POND 5-1B-1 (DRY RETENTION)  
 100 YR./240 HR. PEAK STAGE = 65.25  
 25 YR./96 HR. PEAK STAGE = 64.66  
 SHWL = 57.6'

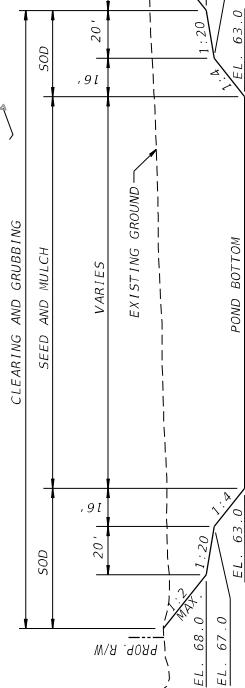
PREPARED BY:  
 CDM Smith  
 2301 MAITLAND CENTER PARKWAY, SUITE 300  
 MAITLAND, FL 32751 - PHONE: (407) 660-2552  
 ENGINEER OF RECORD  
 PAUL O. SNEAD, P.E.  
 P.E. NUMBER: 36982

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. CR 46A  
 COUNTY LAKE  
 FINANCIAL PROJECT ID 238275-8-52-01

SHEET NO. 115  
 POND 5-1B-1

11/17/2015 1:48:11 PM C:\Projects\CR46A\_Realignm\3282758201\cr46a\pdp\0605.dwg

WHEREABOUT

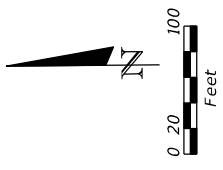


SHWL = 57.6' ▽

SECTION "AA"  
 NTS

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

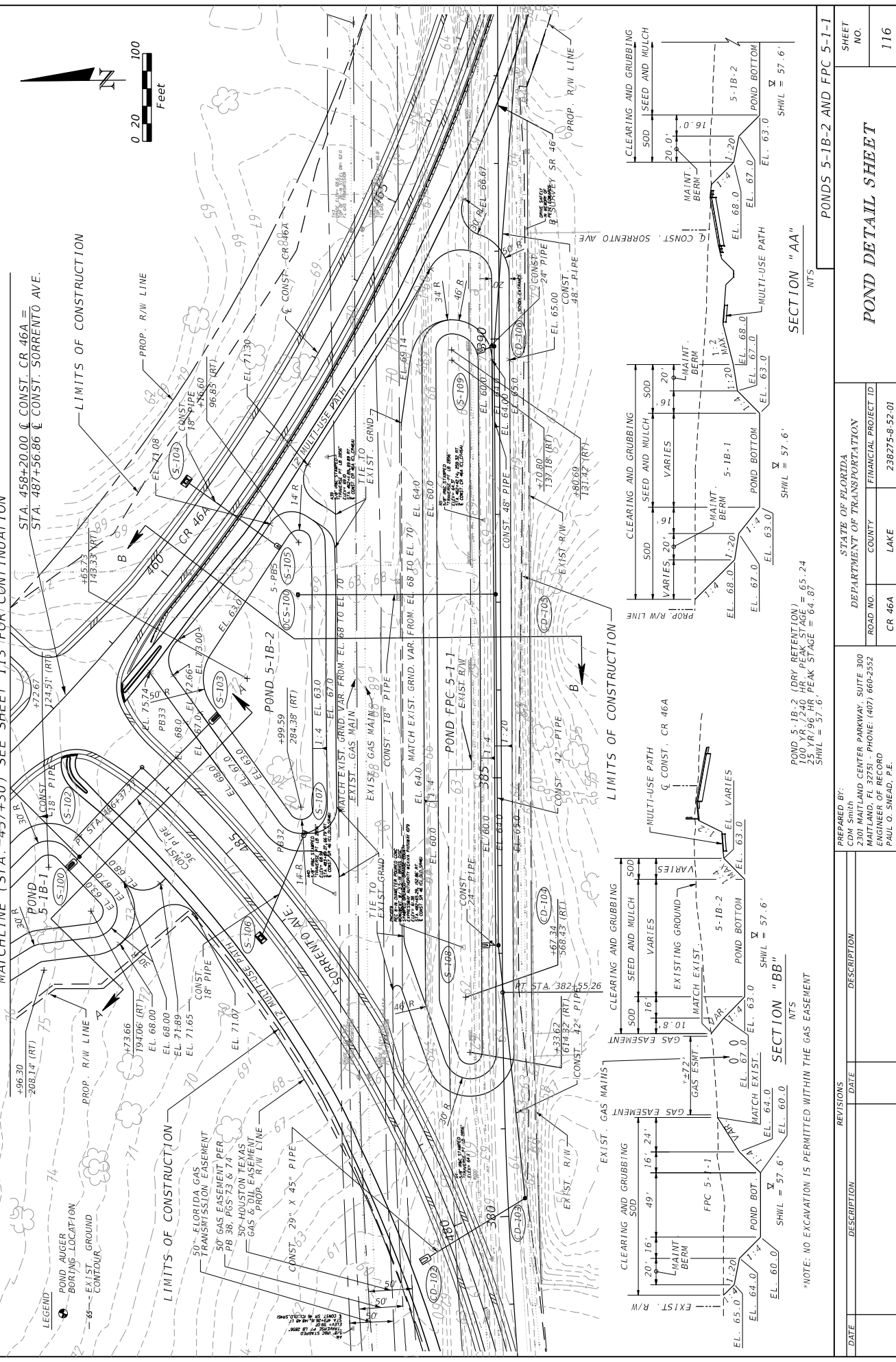
- LEGEND
- POND AUGER BORING LOCATION
- 60 - - EXIST. GROUND
- 60 - - CONTOUR



MATCHLINE (STA. 457+30) SEE SHEET 113 FOR CONTINUATION

STA. 458+20.00 C CONST. CR 46A =  
STA. 487+56.86 C CONST. SORRENTO AVE.

LIMITS OF CONSTRUCTION

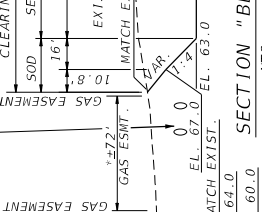
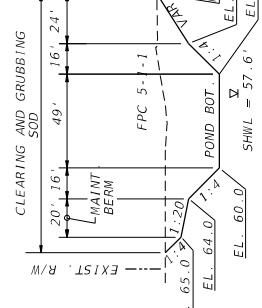


LEGEND  
POND AUGER BORING LOCATION  
EX- EXIST. GROUND CONTOUR

50'- FLORIDA GAS TRANSMISSION EASEMENT  
50' GAS EASEMENT PER PB 38, POS 73 & 74  
50'- HOUSTON TEXAS GAS PROP. R/W LINE  
CONST. 29" X 45" PIPE

50'- HOUSTON TEXAS GAS PROP. R/W LINE  
CONST. 29" X 45" PIPE

50'- HOUSTON TEXAS GAS PROP. R/W LINE  
CONST. 29" X 45" PIPE



\*NOTE: NO EXCAVATION IS PERMITTED WITHIN THE GAS EASEMENT

SECTION "BB"

SECTION "AA"

POND 5-1B-2 (DRY RETENTION)  
100 YR. 7.240 HR. PEAK STAGE = 65.24  
1 YR. 9.7 HR. PEAK STAGE = 64.07  
SHWL = 57.6'

POND 5-1B-1  
100 YR. 7.240 HR. PEAK STAGE = 65.24  
1 YR. 9.7 HR. PEAK STAGE = 64.07  
SHWL = 57.6'

POND 5-1B-2  
100 YR. 7.240 HR. PEAK STAGE = 65.24  
1 YR. 9.7 HR. PEAK STAGE = 64.07  
SHWL = 57.6'

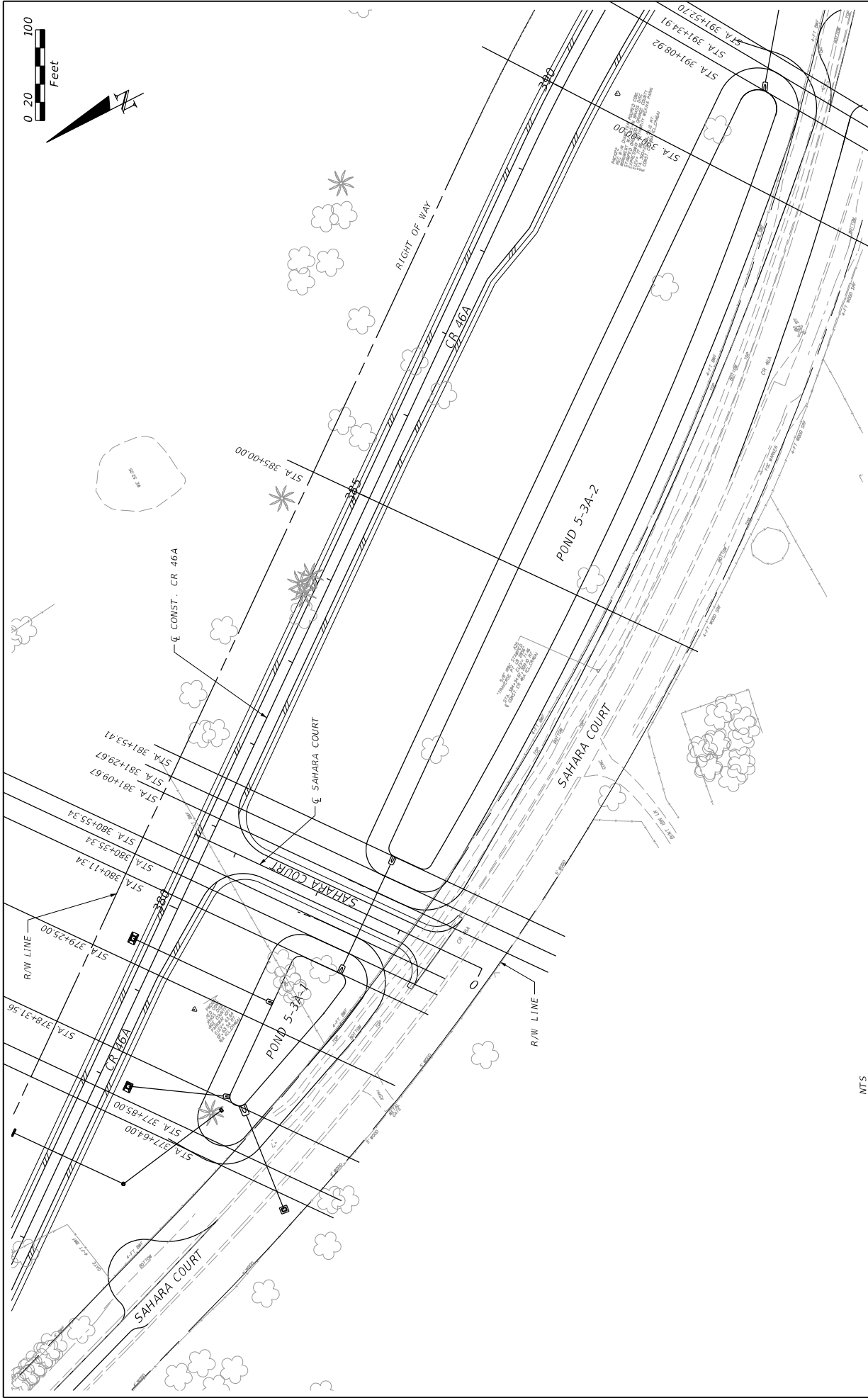
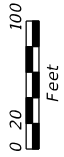
SECTION "AA"

SECTION "BB"

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION

DATE	DESCRIPTION	REVISIONS	DESCRIPTION

PREPARED BY: CDM Smith 2301 WATLAND CENTER PARKWAY, SUITE 300 WATLAND, FL 32751 - PHONE: (407) 660-2552 PAUL O. SNEAD, P.E. P.E. NUMBER: 30982	ROAD NO. CR 46A	FINANCIAL PROJECT ID 238275-8-52-01	LAKE
DEPARTMENT OF TRANSPORTATION		COUNTY	LAKE
STATE OF FLORIDA		PROJECT NO.	238275-8-52-01
		POND DETAIL SHEET	
		SHEET NO.	
		116	



NTS

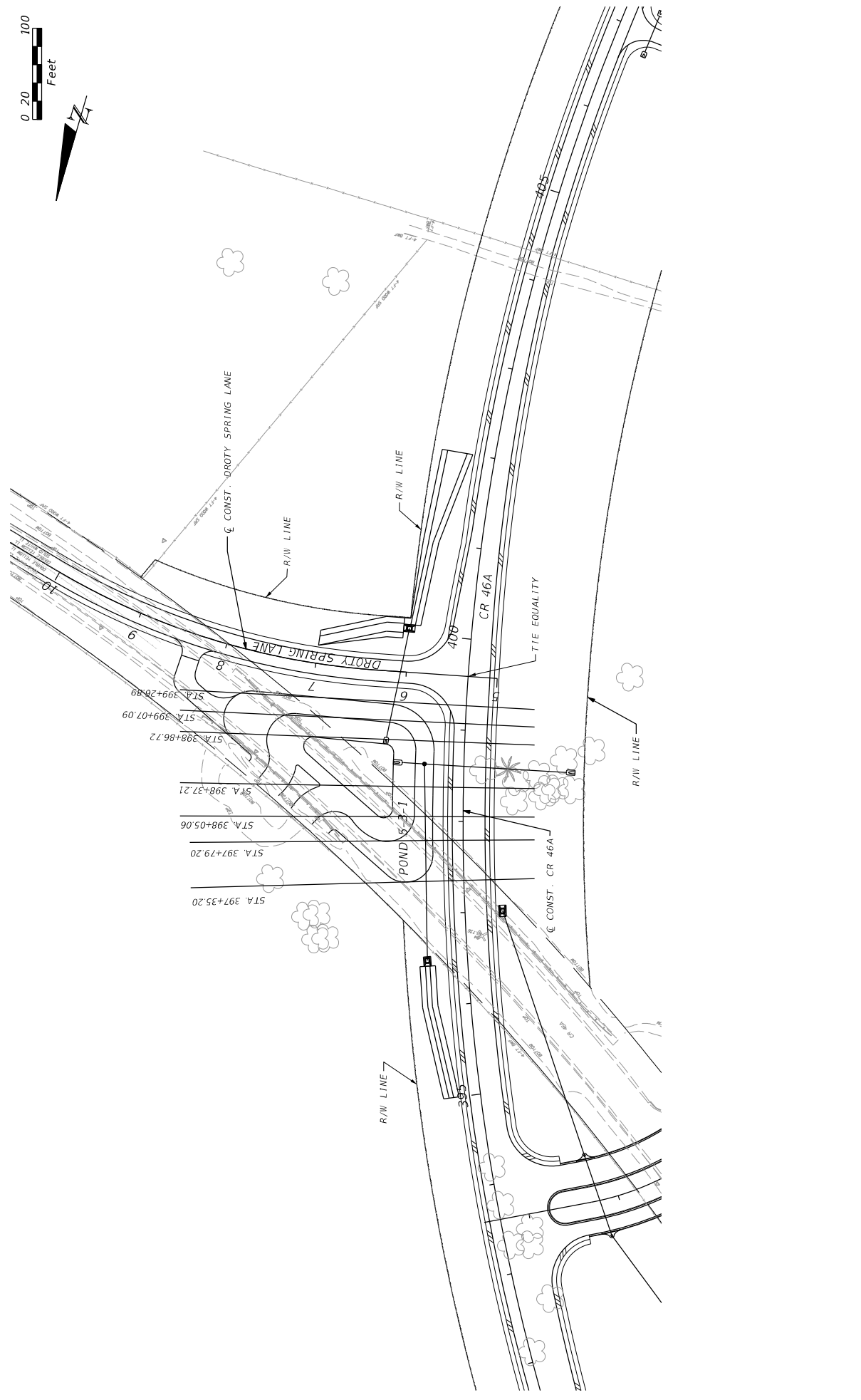
DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

STATE OF FLORIDA		DEPARTMENT OF TRANSPORTATION	
ROAD NO. CR 46A		FINANCIAL PROJECT ID 238275-8-52-01	
COUNTY LAKE		#140235-PA	
DATE 11/17/2015		11/17/2015	
DRAWN BY: CDM SMITH		PROJECT NO. 238275-8-52-01	
3001 WATLAND CENTER PARKWAY, SUITE 300		DATE 11/17/2015	
MAITLAND, FL 32751 - PHONE: (407) 660-2552		DRAWN BY: CDM SMITH	
ENGINEER OF RECORD		DATE 11/17/2015	
PAUL O. SNEAD, P.E.		DRAWN BY: CDM SMITH	
P.E. NUMBER: 30982		DATE 11/17/2015	

**POND CROSS SECTION PATTERN**

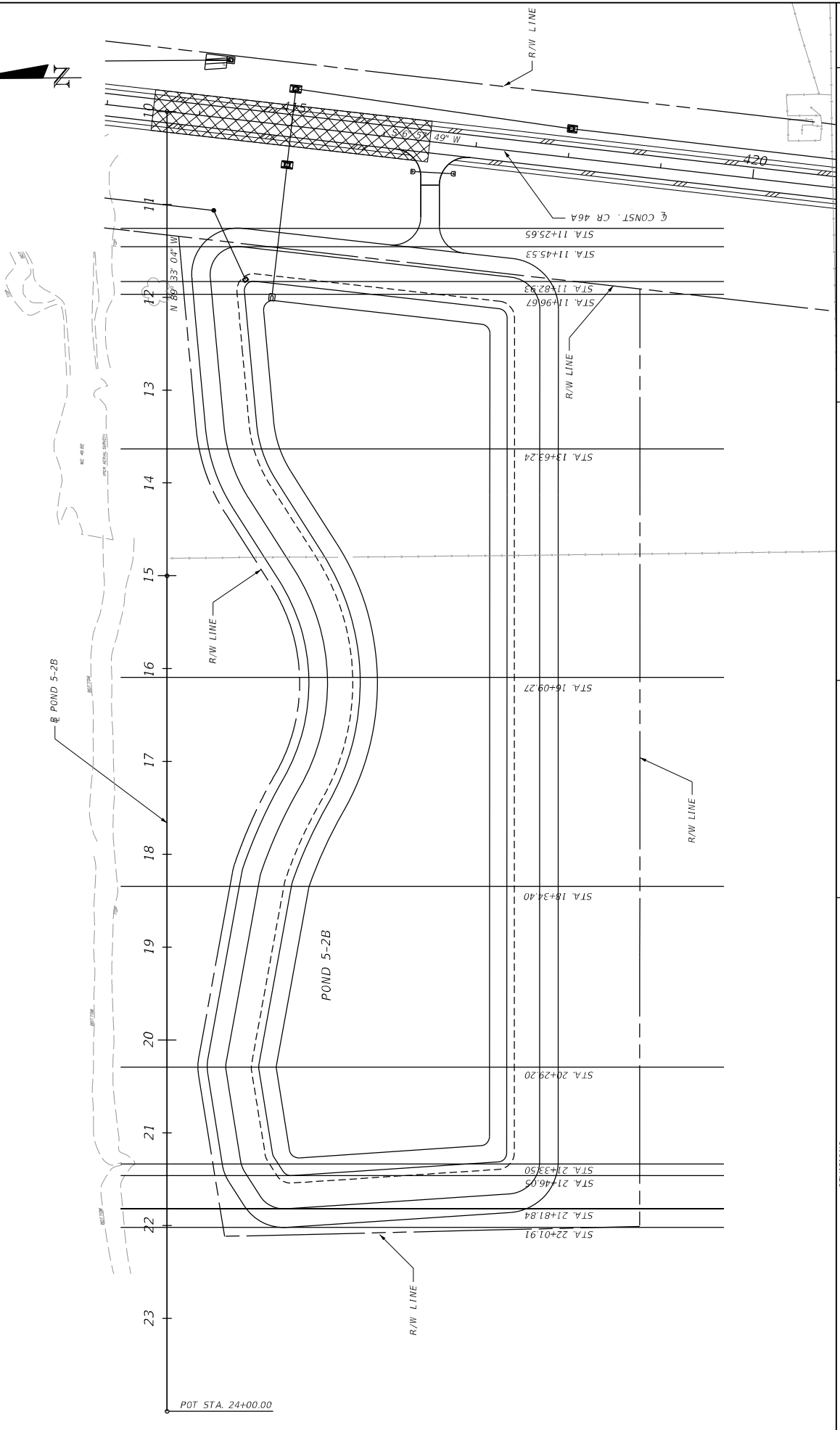
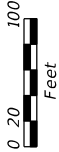
SHEET NO. 117



REVISIONS		DESCRIPTION	
DATE	DESCRIPTION	DATE	DESCRIPTION

PREPARED BY: CDM Smith 2301 WATLAND CENTER PARKWAY, SUITE 300 WATLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 36982		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A COUNTY LAKE FINANCIAL PROJECT ID 238275-8-52-01	
SHEET NO. 118		POND CROSS SECTION PATTERN	

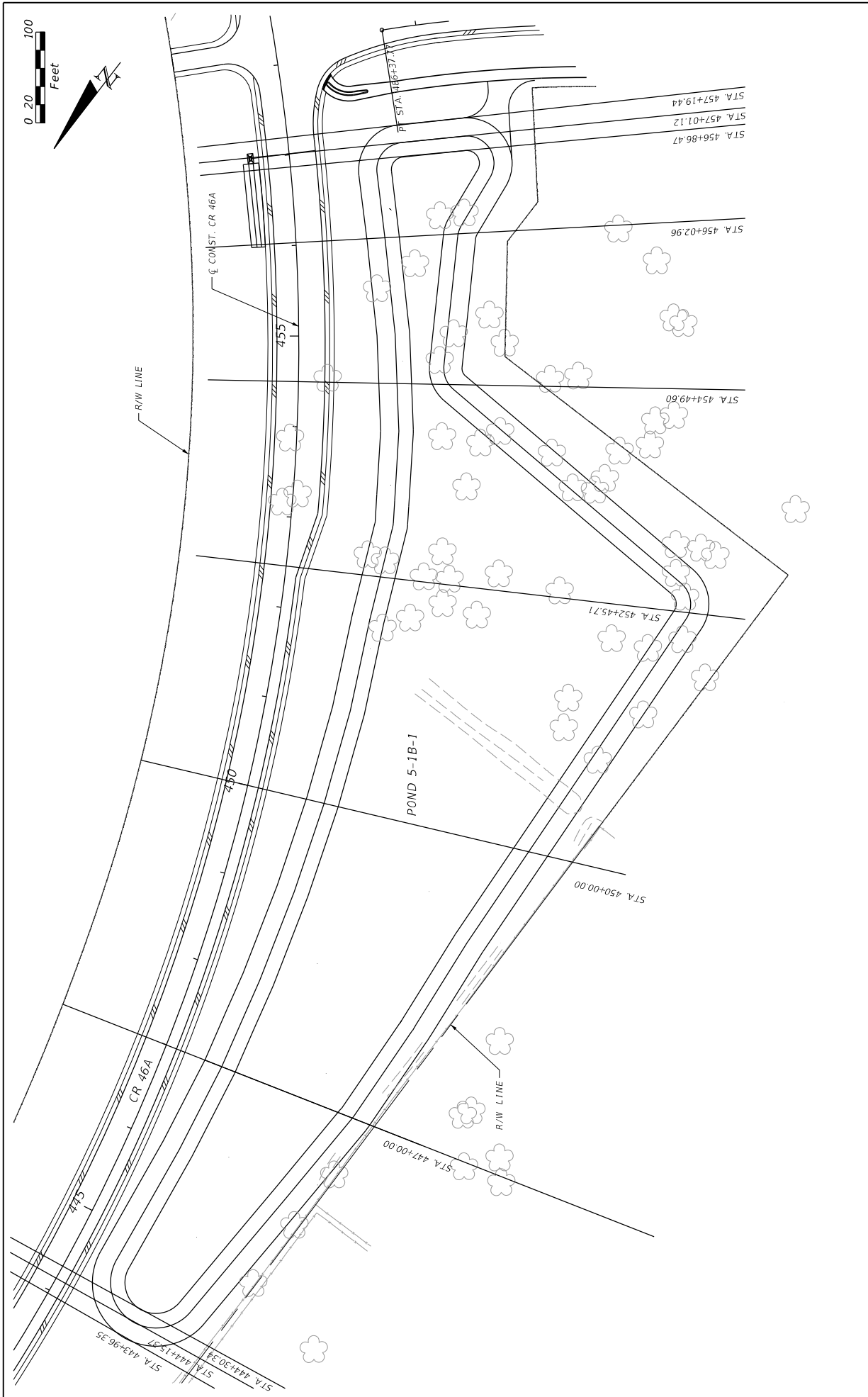


REVISIONS		DESCRIPTION	
DATE	DESCRIPTION	DATE	DESCRIPTION

PREPARED BY: CDM Smith 2301 MAITLAND CENTER PARKWAY, SUITE 300 MAITLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 36982		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A	FINANCIAL PROJECT ID 238275-8-52-01
COUNTY LAKE		SHEET NO. 119	





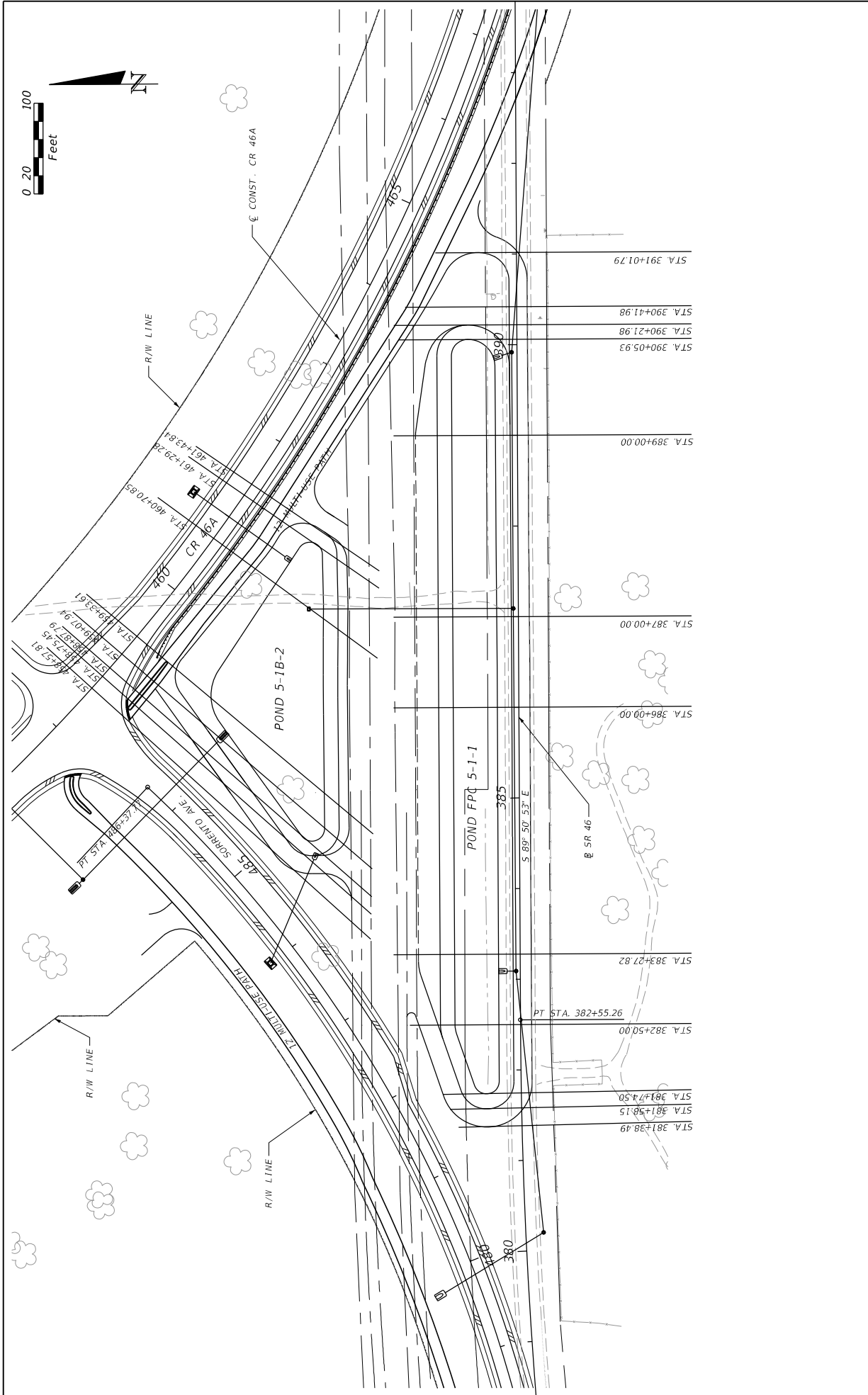
DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

PREPARED BY: CDM Smith 2301 WATLAND CENTER PARKWAY, SUITE 300 WATLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 36982		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A	
FINANCIAL PROJECT ID 238275-8-52-01		COUNTY LAKE	

<b>POND</b> <b>CROSS SECTION PATTERN</b>	
SHEET NO.	120



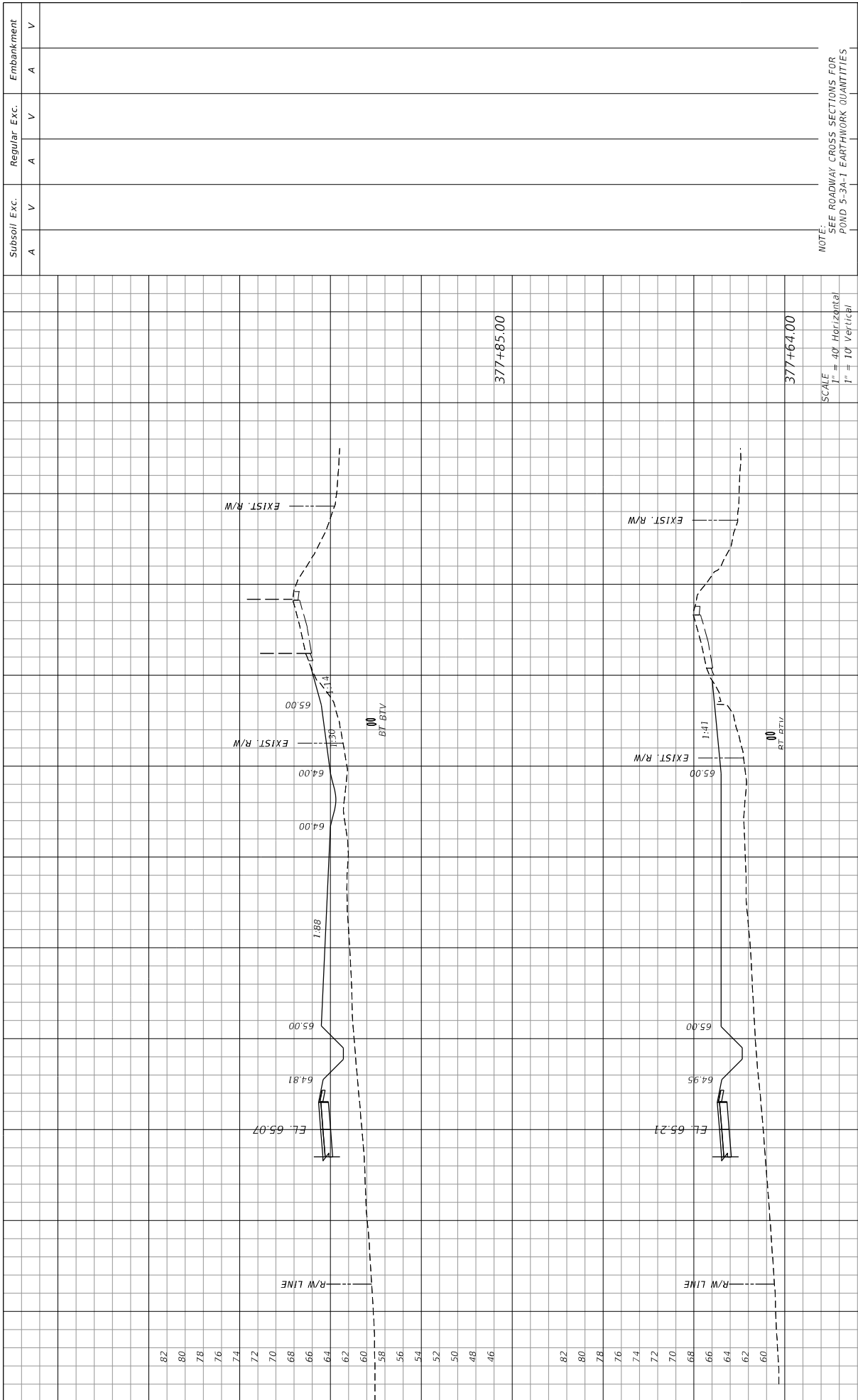
DATE	REVISIONS	DESCRIPTION

PREPARED BY: CDM Smith 2301 WATLAND CENTER PARKWAY, SUITE 300 WATLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 36982	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A COUNTY LAKE FINANCIAL PROJECT ID 238275-8-52-01
---	---

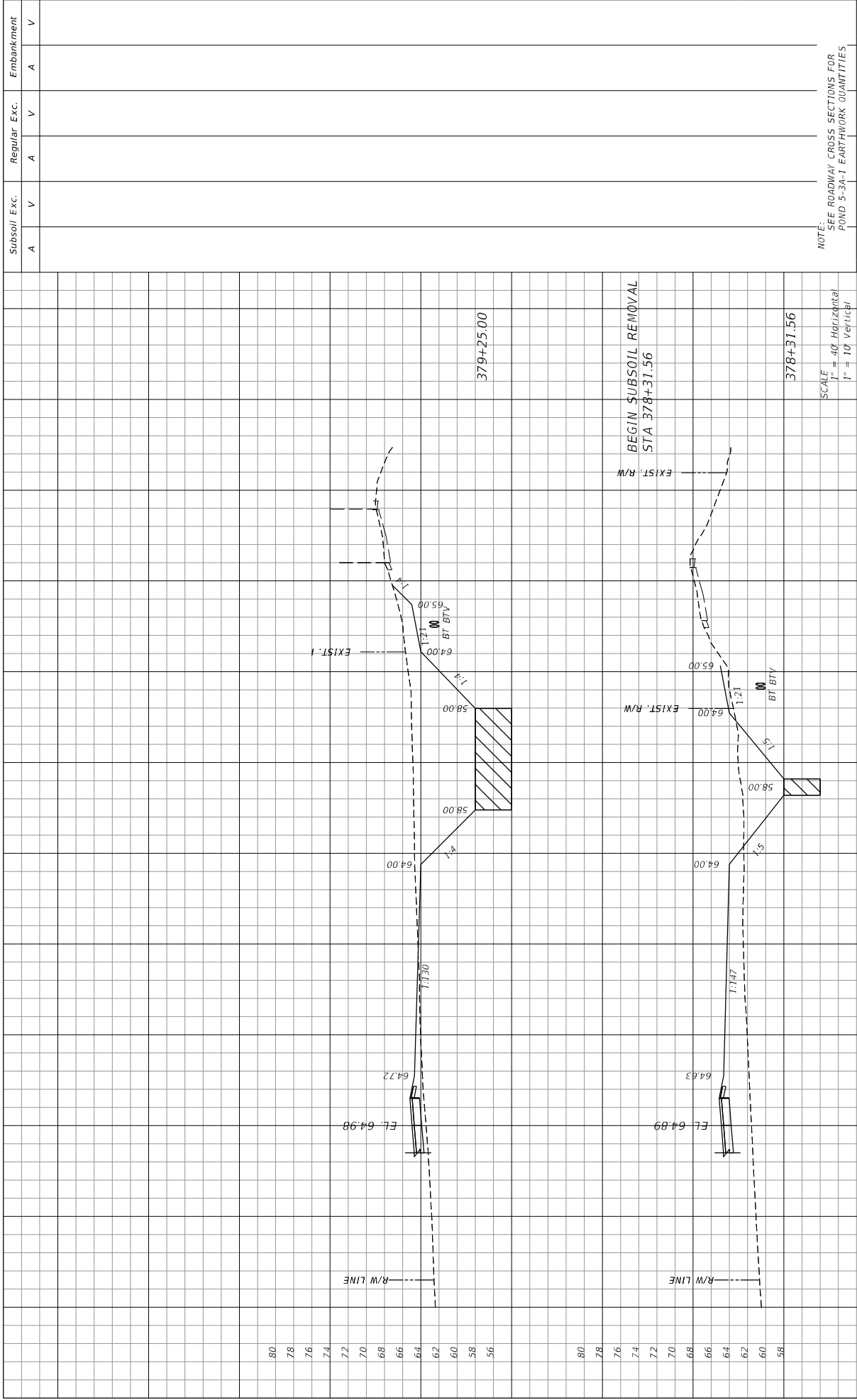
SHEET NO. 121	POND CROSS SECTION PATTERN
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DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

PREPARED BY: CDM Smith 2301 MAITLAND CENTER PARKWAY, SUITE 300 MAITLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 36982		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A COUNTY LAKE		FINANCIAL PROJECT ID 238275-8-52-01	
POND 5-3A-1				SHEET NO. 122	



NOTE:  
SEE ROADWAY CROSS SECTIONS FOR  
POND 5-3A-1 EARTHWORK QUANTITIES

POND 5-3A-1

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

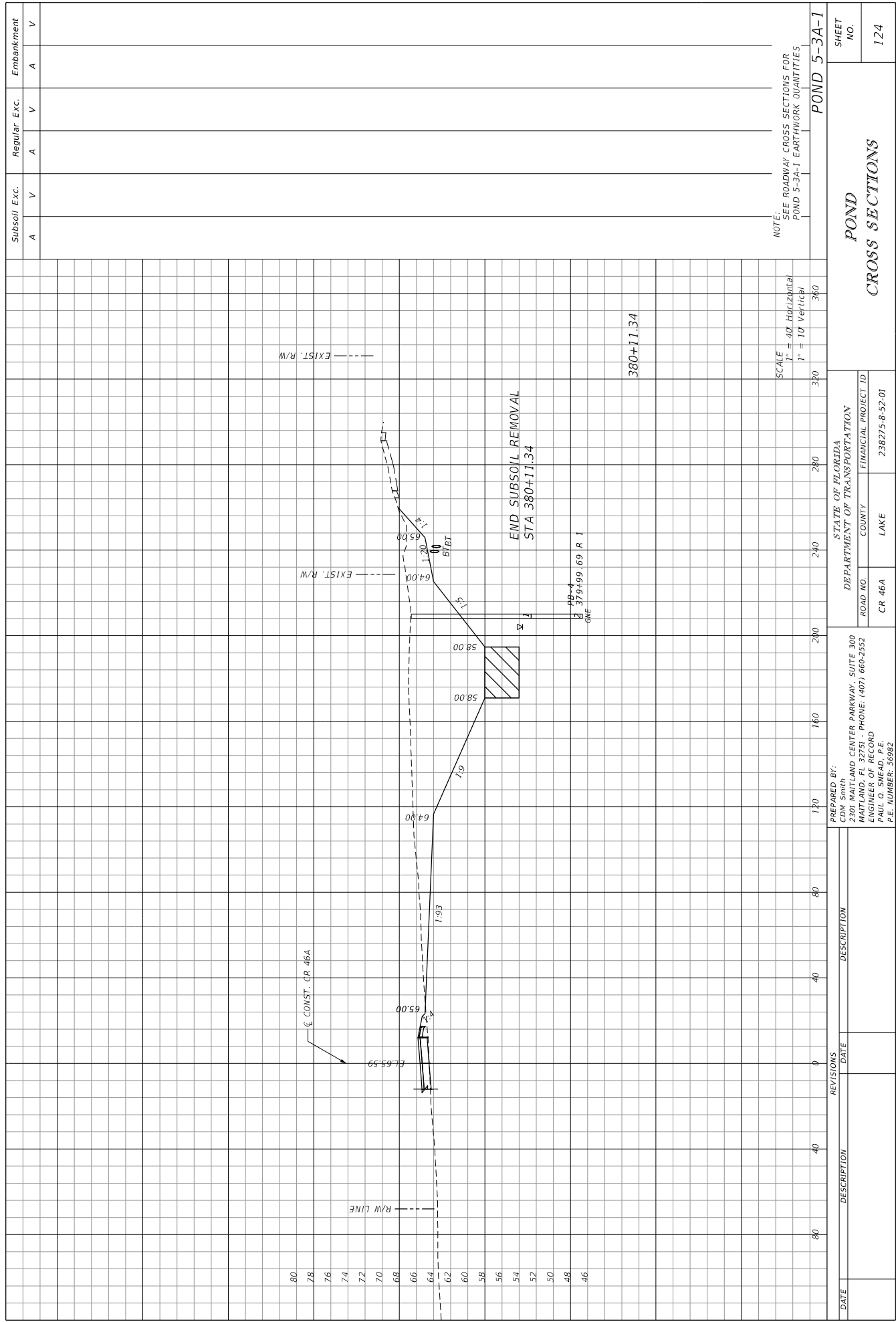
STATE OF FLORIDA	DEPARTMENT OF TRANSPORTATION
LAKE COUNTY	CR 46A
FINANCIAL PROJECT ID	238275-8-52-01

PREPARED BY:	CDM Smith
2301 WATLAND CENTER PARKWAY, SUITE 300	WATLAND, FL 32751 - PHONE: (407) 660-2552
ENGINEER OF RECORD	PAUL O. SNEAD, P.E.
P.E. NUMBER:	30982

Subsoil Exc.	Regular Exc.	Embankment
A	A	A
V	V	V



NOTE: SEE ROADWAY CROSS SECTIONS FOR POND 5-3A-1 EARTHWORK QUANTITIES

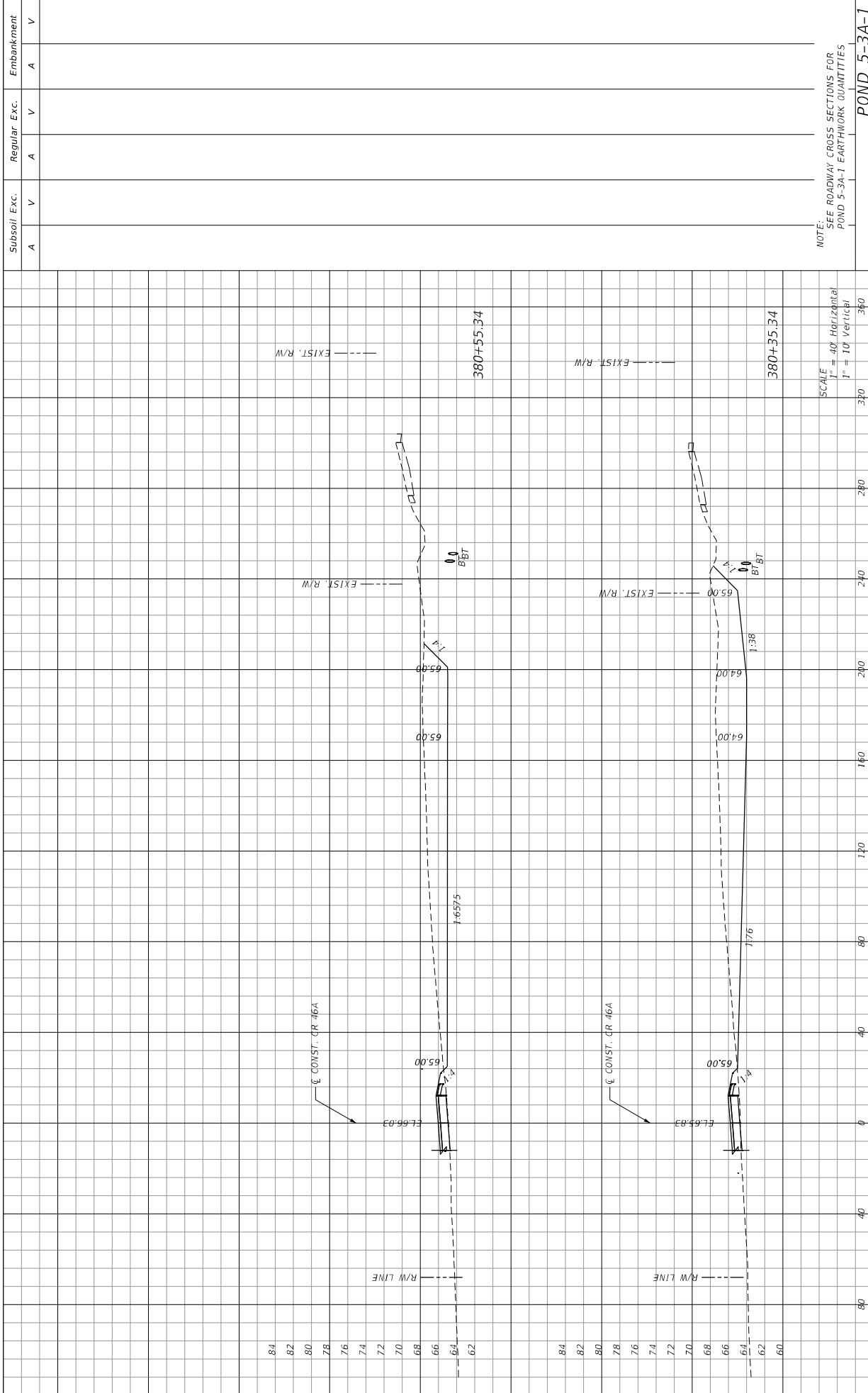
SCALE  
1" = 40' Horizontal  
1" = 10' Vertical

POND 5-3A-1

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

PREPARED BY: CDM Smith 2301 WATLAND CENTER PARKWAY, SUITE 300 WATLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 30982		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A COUNTY LAKE FINANCIAL PROJECT ID 238275-8-52-01	SHEET NO. 124
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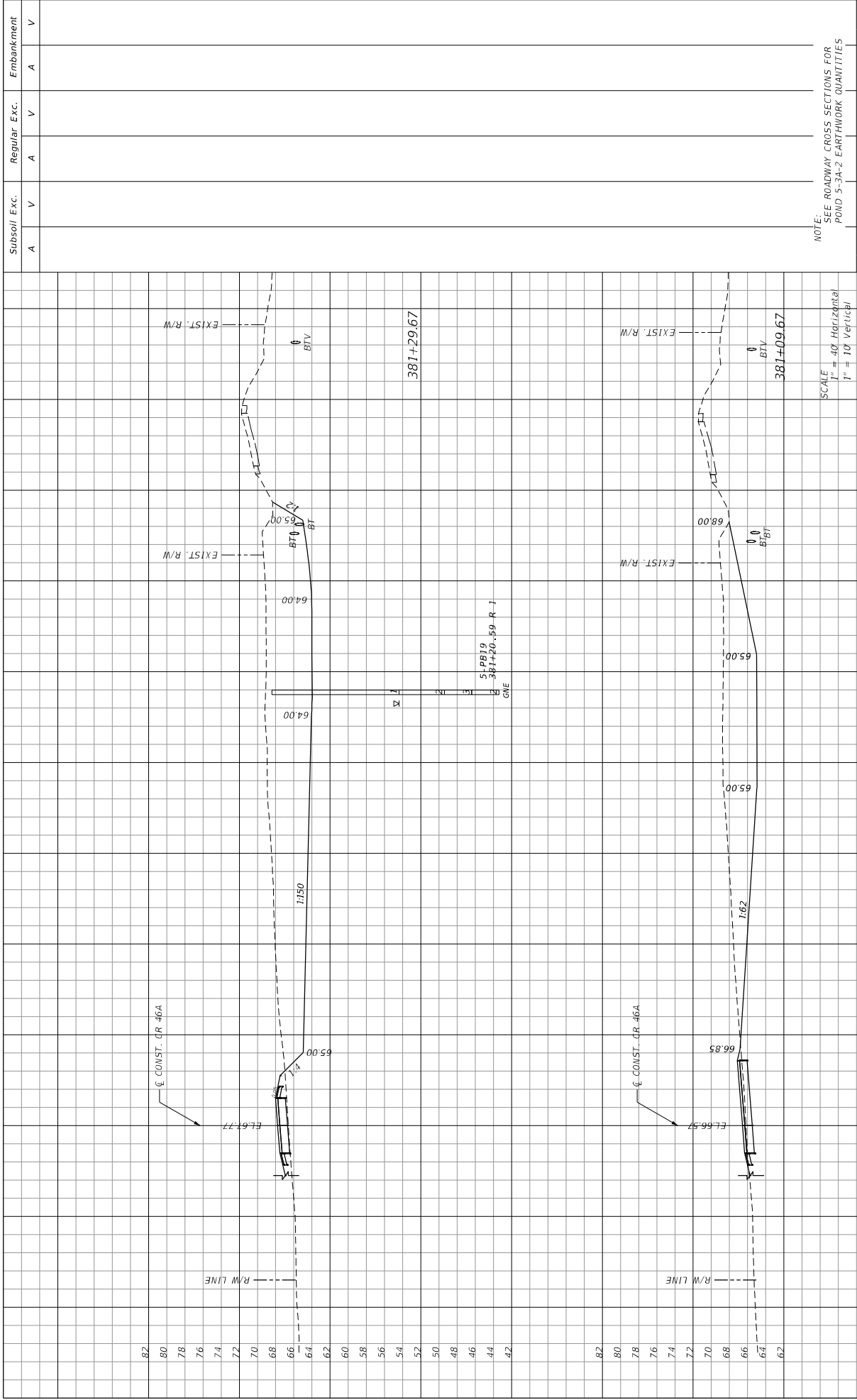


NOTE: SEE ROADWAY CROSS SECTIONS FOR POND 5-3A-1 EARTHWORK QUANTITIES

SCALE  
1" = 40' Horizontal  
1" = 10' Vertical

POND 5-3A-1

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION
PREPARED BY: CDM Smith 2301 WATLAND CENTER PARKWAY, SUITE 300 WATLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 30982				
DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A COUNTY LAKE FINANCIAL PROJECT ID 238275-8-52-01				
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A COUNTY LAKE FINANCIAL PROJECT ID 238275-8-52-01				
<b>POND CROSS SECTIONS</b>				
SHEET NO. 125				

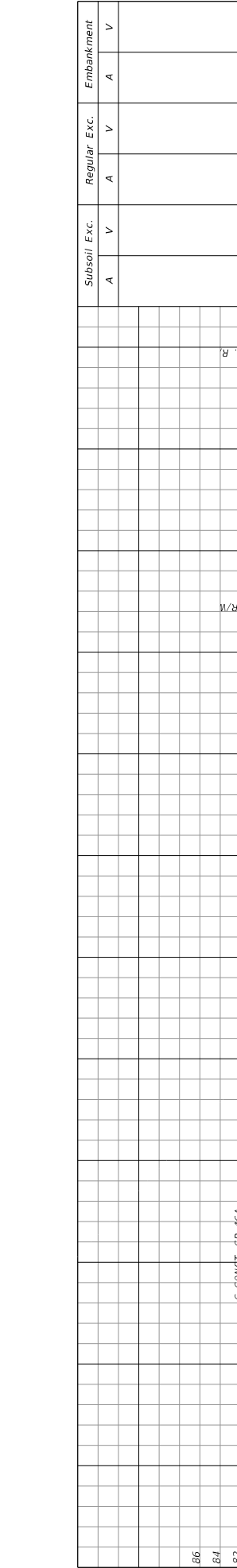


NOTE: SEE ROADWAY CROSS SECTIONS FOR POND 5-3A-2 EARTHWORK QUANTITIES

SCALE  
1" = 40' Horizontal  
1" = 10' Vertical

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION
			0	

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	ROAD NO. CR 46A	COUNTY LAKE	FINANCIAL PROJECT ID 238275-8-52-01
PREPARED BY: CDM Smith 2301 WATLAND CENTER PARKWAY, SUITE 300 WATLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 30982			
POND CROSS SECTIONS			SHEET NO. 126
Subsoil Exc. A V Regular Exc. A V Embankment A V			POND 5-3A-2



DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION
86				
84				
82				
80				
78				
76				
74				
72				
70				
68				
66				
64				
62				
60				
58				
56				
54				
52				
50				
48				
46				

Subsoil Exc. A V A V A V A V

Regular Exc. A V A V A V A V

Embankment A V A V A V A V

NOTE: SEE ROADWAY CROSS SECTIONS FOR POND 5-3A-2 EARTHWORK QUANTITIES

POND 5-3A-2

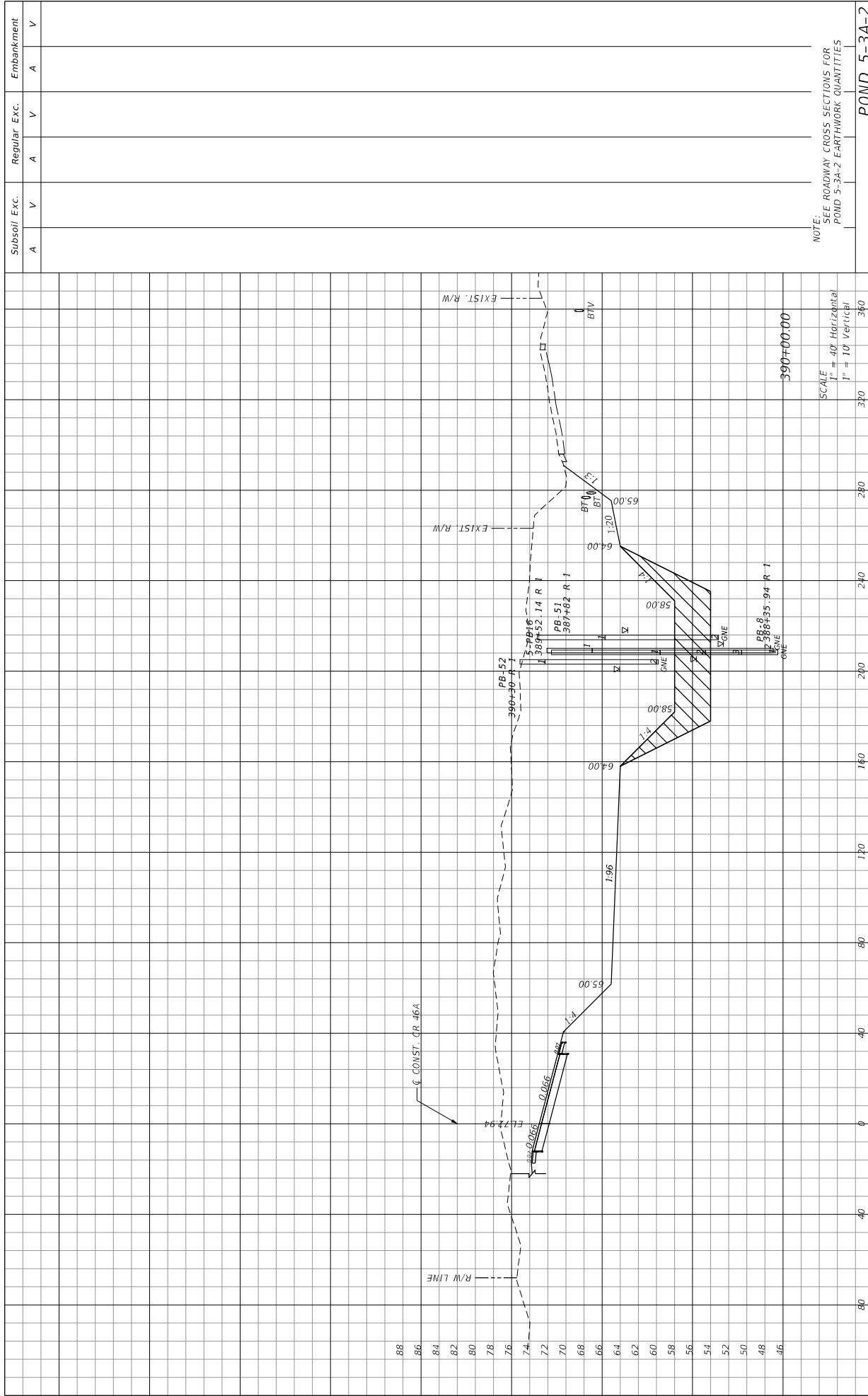
SCALE: 1" = 40' Horizontal, 1" = 10' Vertical

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION  
ROAD NO. CR 464  
COUNTY LAKE  
FINANCIAL PROJECT ID 238275-8-52-01

PREPARED BY:  
CDM Smith  
2301 WATLAND CENTER PARKWAY, SUITE 300  
WATLAND, FL 32751 - PHONE: (407) 660-2552  
ENGINEER OF RECORD  
PAUL O. SNEAD, P.E.  
P.E. NUMBER: 36982

11/4/2015 1:49:36 PM G:\Projects\CR464\_Realignm\2382756201.dwg (page 2) 5/10/2015 127





NOTE:  
SEE ROADWAY CROSS SECTIONS FOR  
POND 5-3A-2 EARTHWORK QUANTITIES

SCALE  
1" = 40' Horizontal  
1" = 10' Vertical

POND 5-3A-2

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	ROAD NO. CR 46A	COUNTY LAKE	FINANCIAL PROJECT ID 238275-8-52-01
--	--------------------	----------------	--

PREPARED BY: CDM Smith 2301 WATLAND CENTER PARKWAY, SUITE 300 WATLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 36982	WHEELER GP 11/14/2015 1:49:44 PM G:\Projects\CR46A_Realign\2382755201.dwg (page 2) S:\022.DWG
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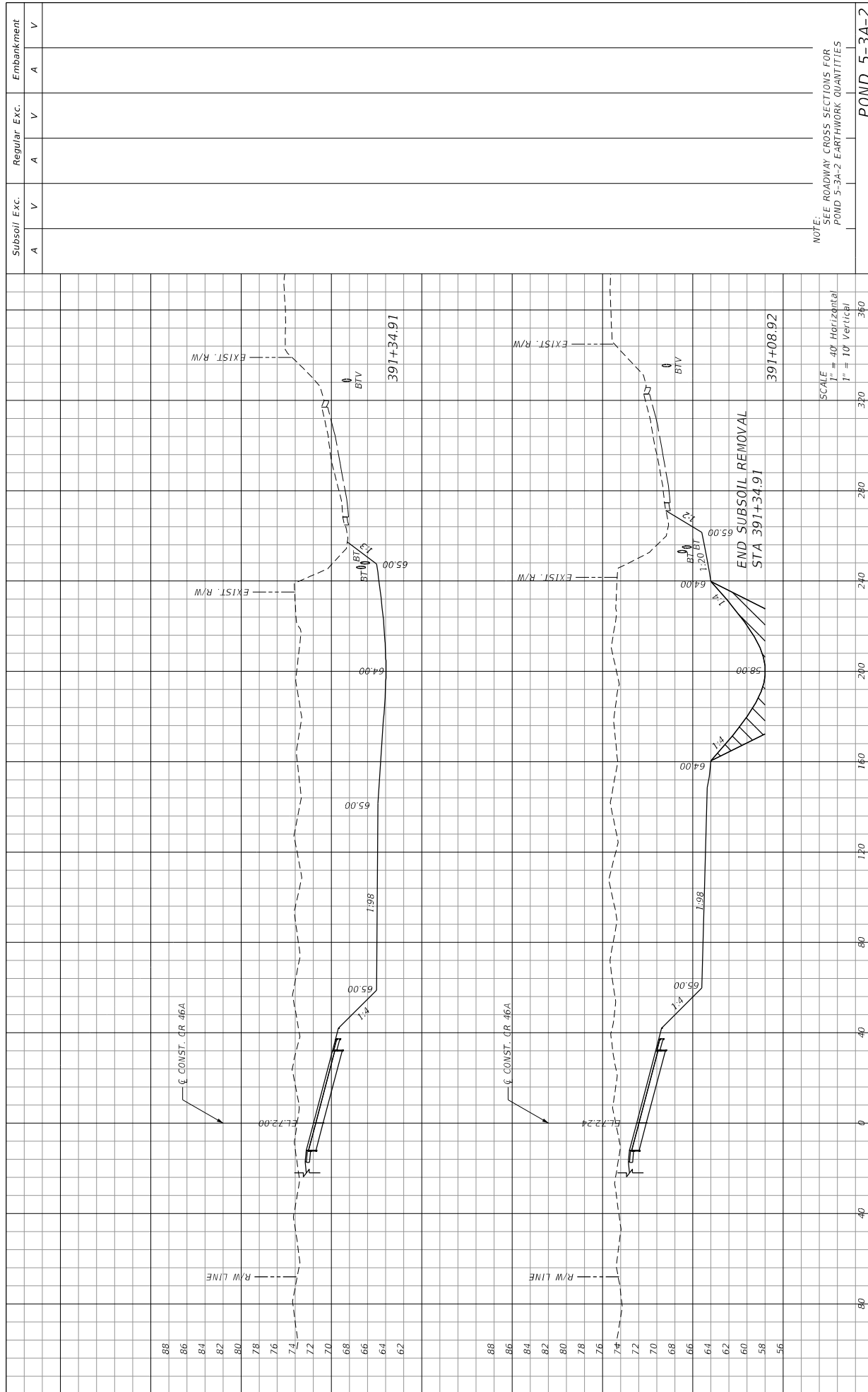
  

Subsoil Exc.	Regular Exc.	Embankment
A	A	A
V	V	V
V	V	V

POND  
CROSS SECTIONS

SHEET NO.

128



NOTE:  
SEE ROADWAY CROSS SECTIONS FOR  
POND 5-3A-2 EARTHWORK QUANTITIES

POND 5-3A-2  
CROSS SECTIONS

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION  
ROAD NO. CR 46A  
COUNTY LAKE  
FINANCIAL PROJECT ID 238275-8-52-01

PREPARED BY:  
CDM Smith  
2301 MAITLAND CENTER PARKWAY, SUITE 300  
MAITLAND, FL 32751 - PHONE: (407) 660-2552  
ENGINEER OF RECORD  
PAUL O. SNEAD, P.E.  
P.E. NUMBER: 30982

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

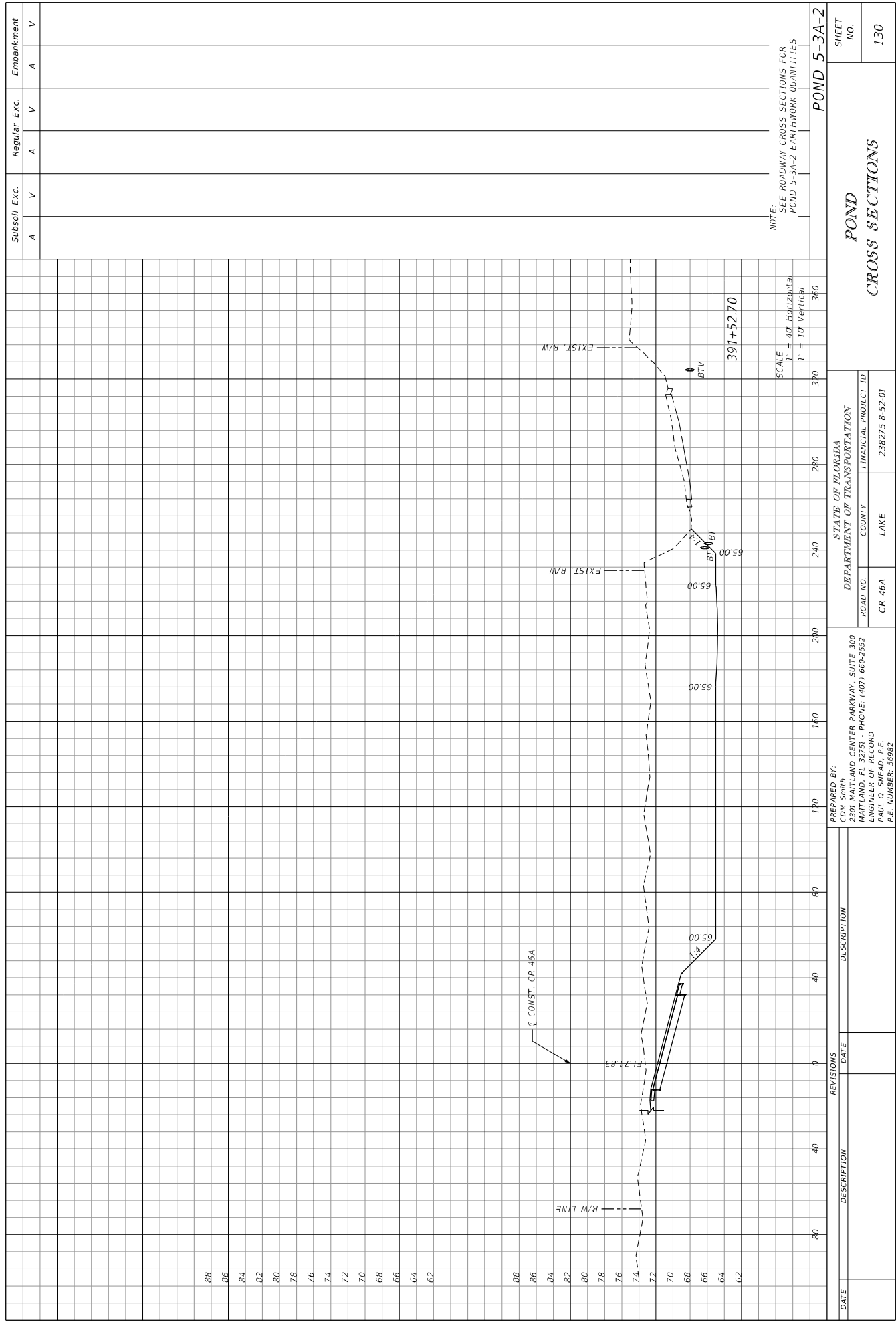
Subsoil Exc.	V	Regular Exc.	V	Embankment	V
A		A		A	

SHEET NO. 129

11/14/2015 1:49:51 PM

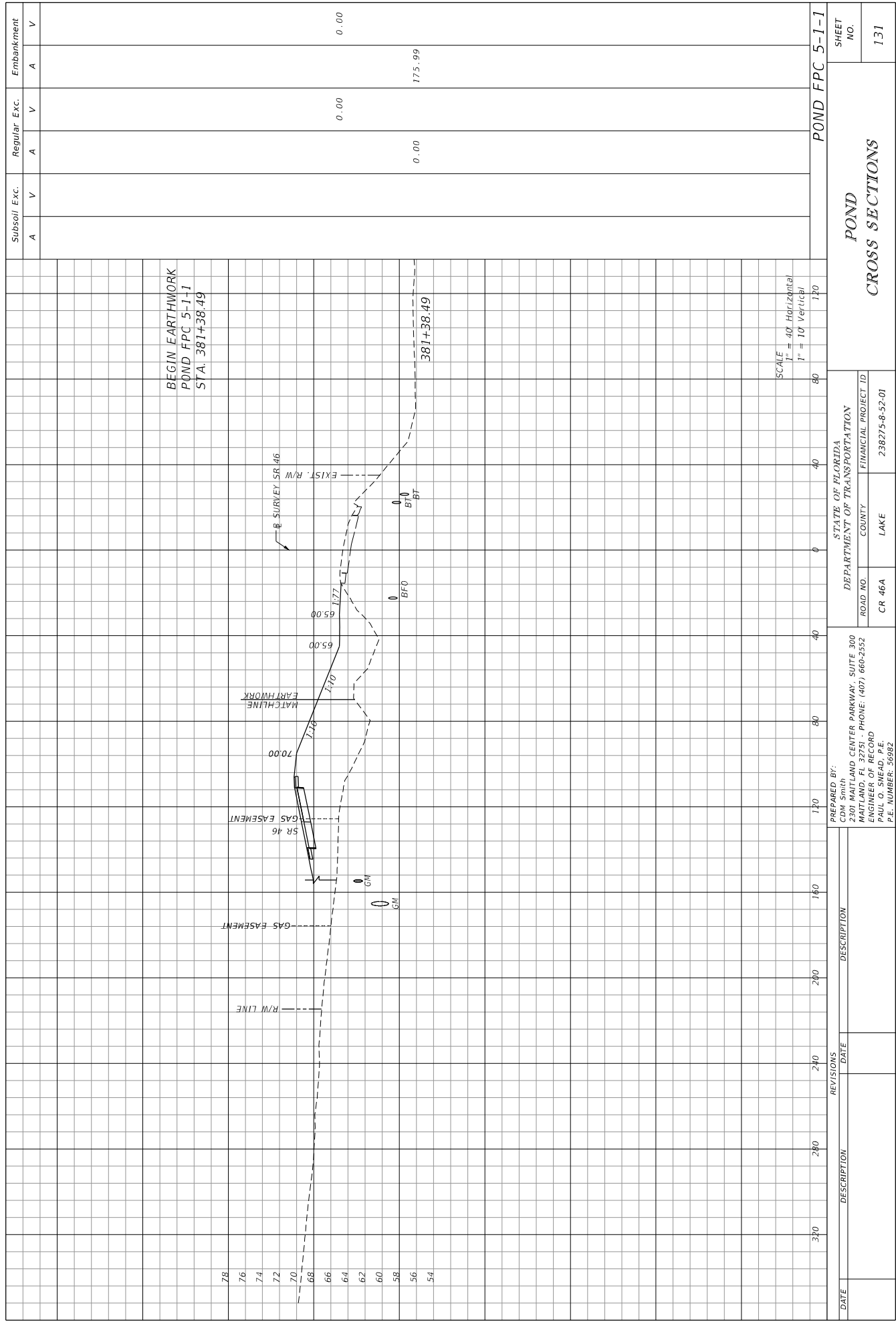
WHEENER@TP

G:\Projects\CR46A\_Requirement\382755201.dwg (page 2) 5/10/2015 2:01



DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

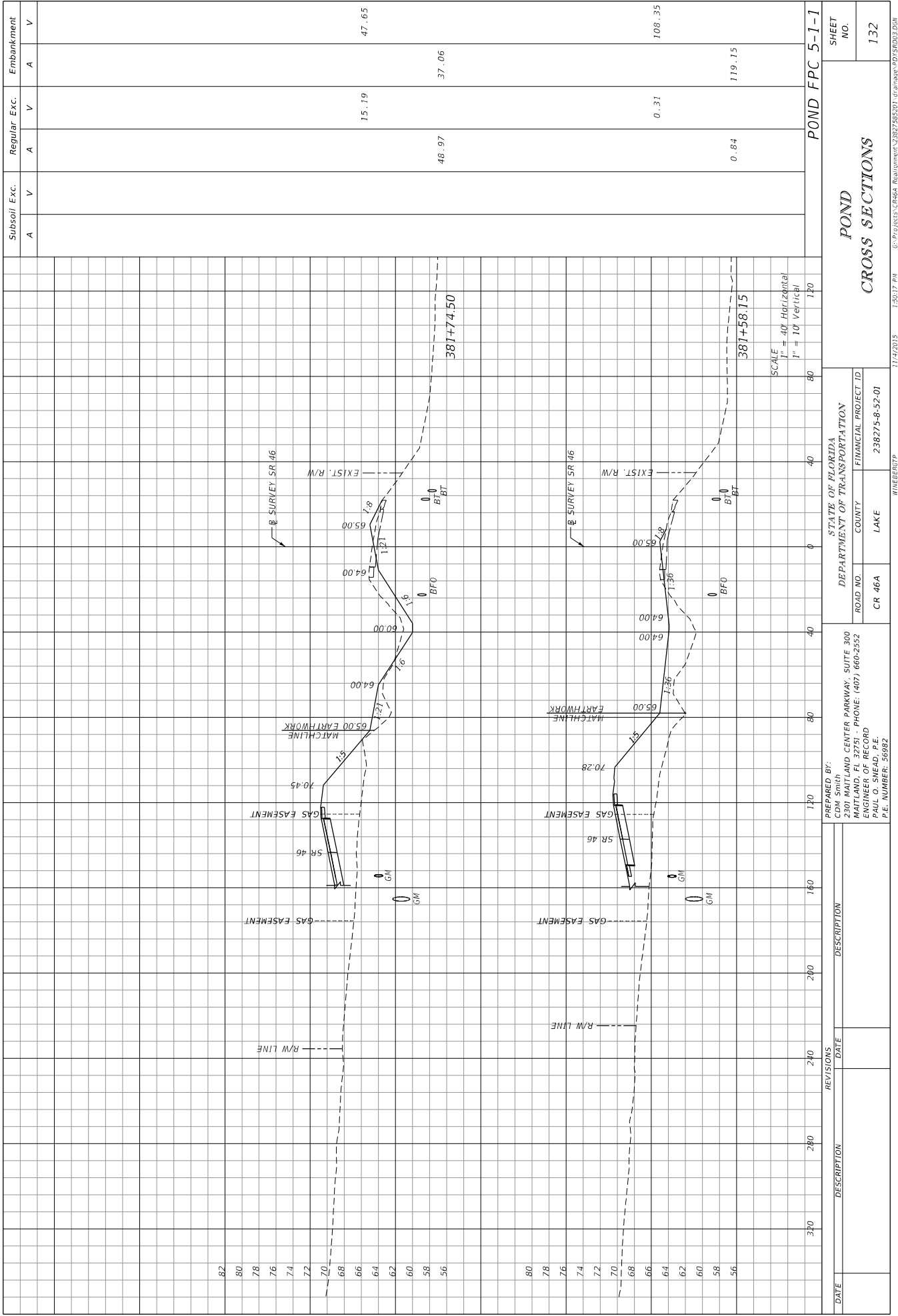
<b>POND</b>		SHEET NO.
<b>CROSS SECTIONS</b>		130
<b>POND 5-3A-2</b>		



STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. CR 46A  
 COUNTY LAKE  
 FINANCIAL PROJECT ID 238275-8-52-01  
 PREPARED BY: CDM Smith  
 2301 MAITLAND CENTER PARKWAY, SUITE 300  
 MAITLAND, FL 32751 - PHONE: (407) 660-2552  
 ENGINEER OF RECORD  
 PAUL O. SNEAD, P.E.  
 P.E. NUMBER: 36982

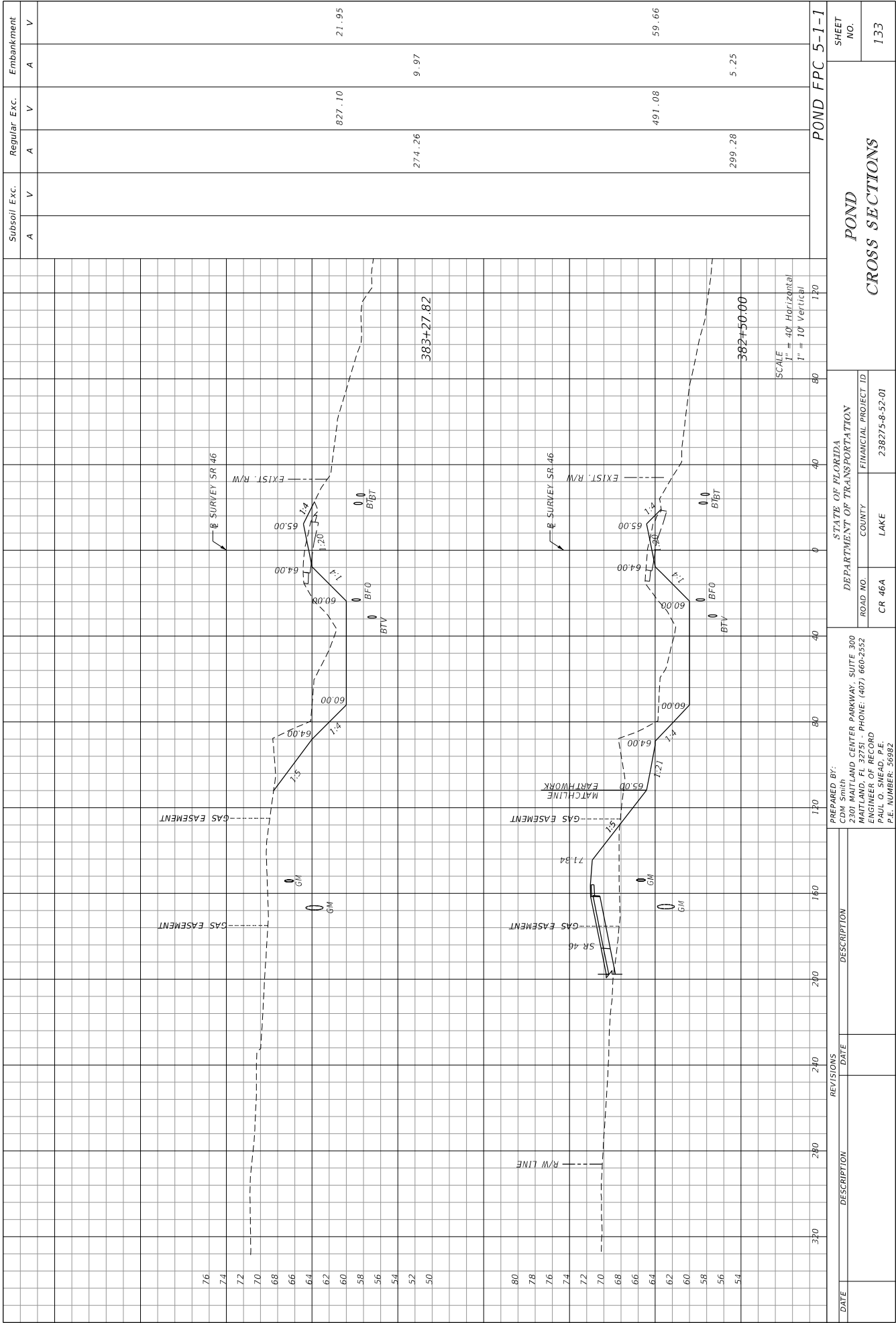
DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

POND  
 CROSS SECTIONS  
 SHEET NO. 131



STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		ROAD NO. CR 46A		COUNTY LAKE		FINANCIAL PROJECT ID 238275-8-52-01	
PREPARED BY: CDM Smith 2301 WATLAND CENTER PARKWAY, SUITE 300 MAITLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 36982				DATE			
DESCRIPTION				REVISIONS			
DATE				DESCRIPTION			
SHEET NO.		132		PROJECT NO.		114/2015	
DRAWN BY		WHEENER/P		DATE		1/50/17 PM	

SCALE  
1" = 40' Horizontal  
1" = 10' Vertical



DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

STATION	Subsoil Exc.	Regular Exc.	Embankment
383+27.82		827.10	21.95
382+50.00		274.26	9.97
		491.08	59.66
		299.28	5.25

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. CR 46A  
 COUNTY LAKE  
 FINANCIAL PROJECT ID 238275-8-52-01

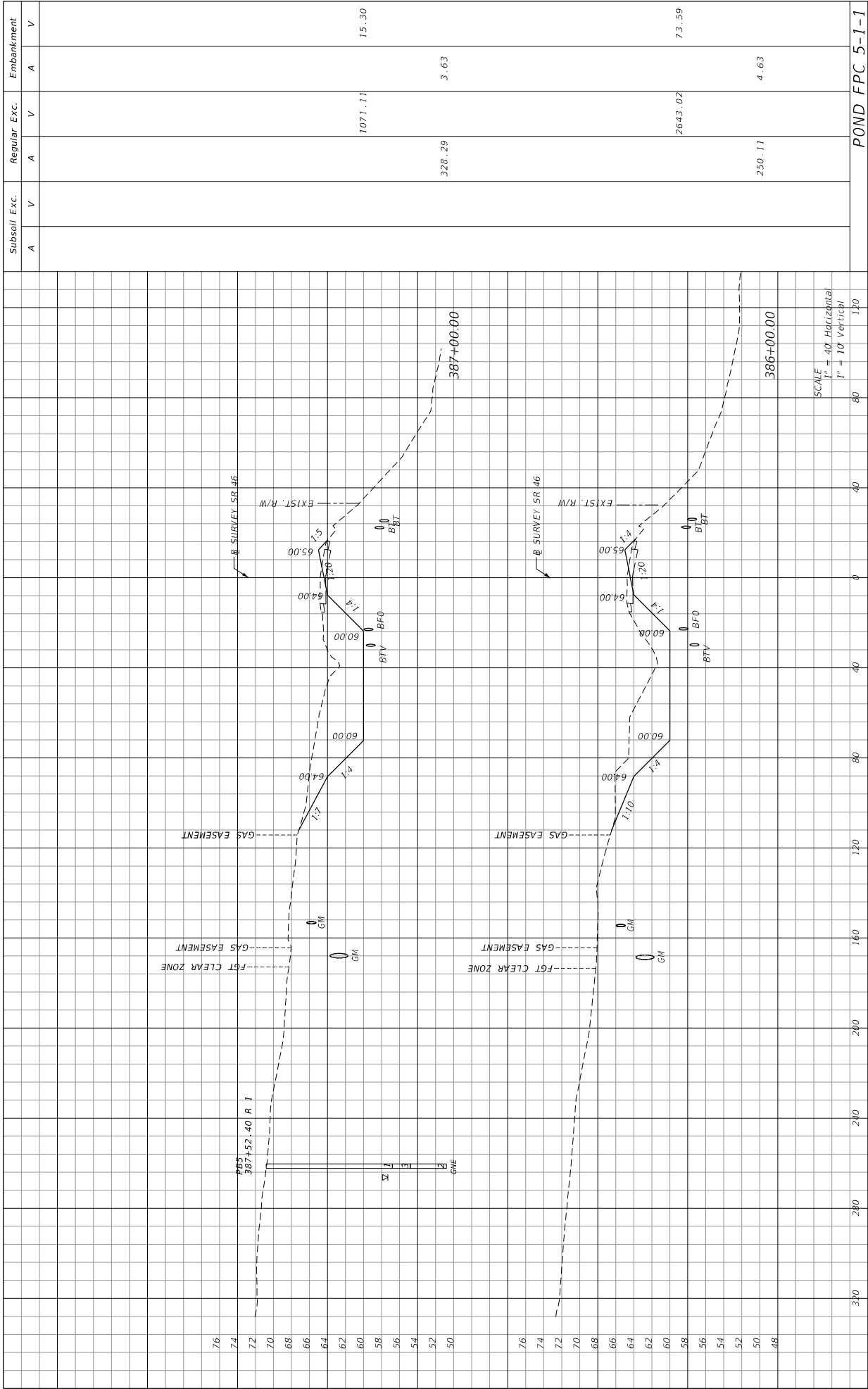
PREPARED BY:  
 CDM Smith  
 2301 WATLAND CENTER PARKWAY, SUITE 300  
 WATLAND, FL 32751 - PHONE: (407) 660-2552  
 ENGINEER OF RECORD  
 PAUL O. SNEAD, P.E.  
 P.E. NUMBER: 36982

SCALE  
 1" = 40' Horizontal  
 1" = 10' Vertical

POND FPC 5-1-1

SHEET NO. 133

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DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

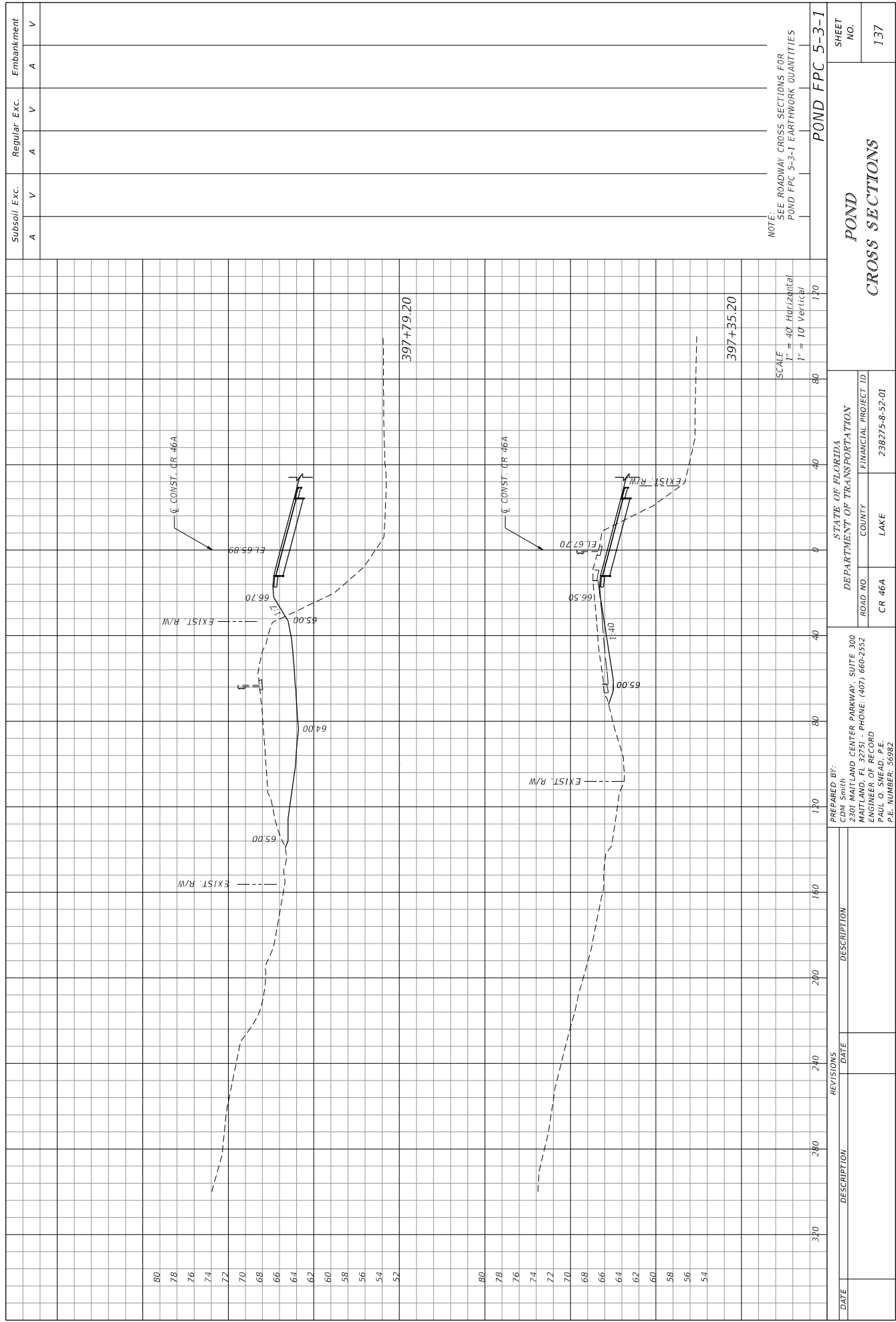
  

PREPARED BY: CDM Smith 2301 WATLAND CENTER PARKWAY, SUITE 300 WATLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 30982		DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A COUNTY LAKE FINANCIAL PROJECT ID 238275-8-52-01	
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		POND CROSS SECTIONS	
		SHEET NO. 134	









NOTE:  
SEE ROADWAY CROSS SECTIONS FOR  
POND FPC 5-3-1 EARTHWORK QUANTITIES

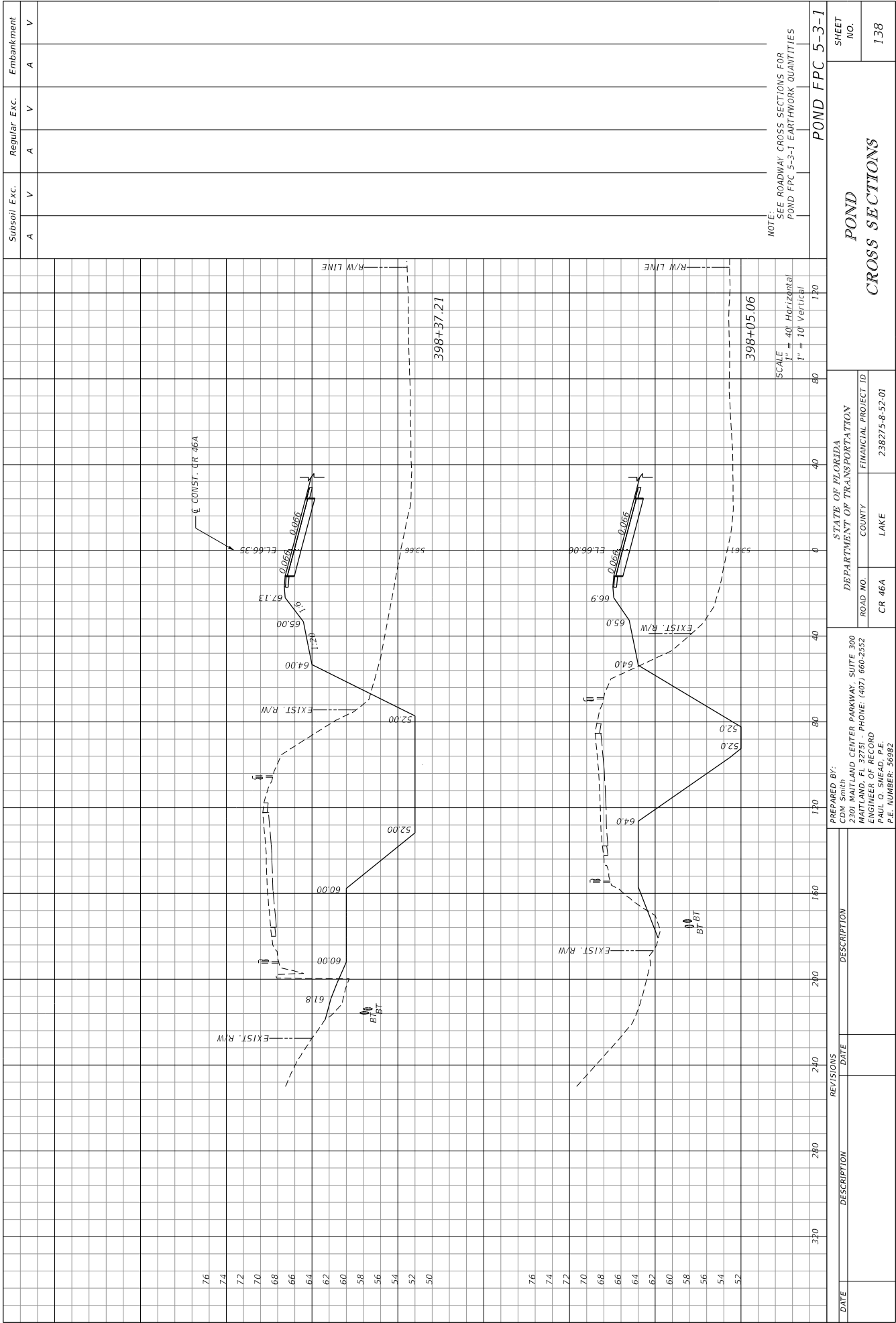
POND FPC 5-3-1

Subsoil Exc.	Regular Exc.	Embankment
A	A	A
V	V	V

STATE OF FLORIDA	DEPARTMENT OF TRANSPORTATION
ROAD NO. CR 46A	FINANCIAL PROJECT ID 238275-8-52-01
COUNTY LAKE	

PREPARED BY:  
CDM Smith  
2301 MAITLAND CENTER PARKWAY, SUITE 300  
MAITLAND, FL 32751 - PHONE: (407) 660-2552  
ENGINEER OF RECORD  
PAUL O. SNEAD, P.E.  
P.E. NUMBER: 30982

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION



NOTE:  
SEE ROADWAY CROSS SECTIONS FOR  
POND FPC 5-3-1 EARTHWORK QUANTITIES

POND FPC 5-3-1

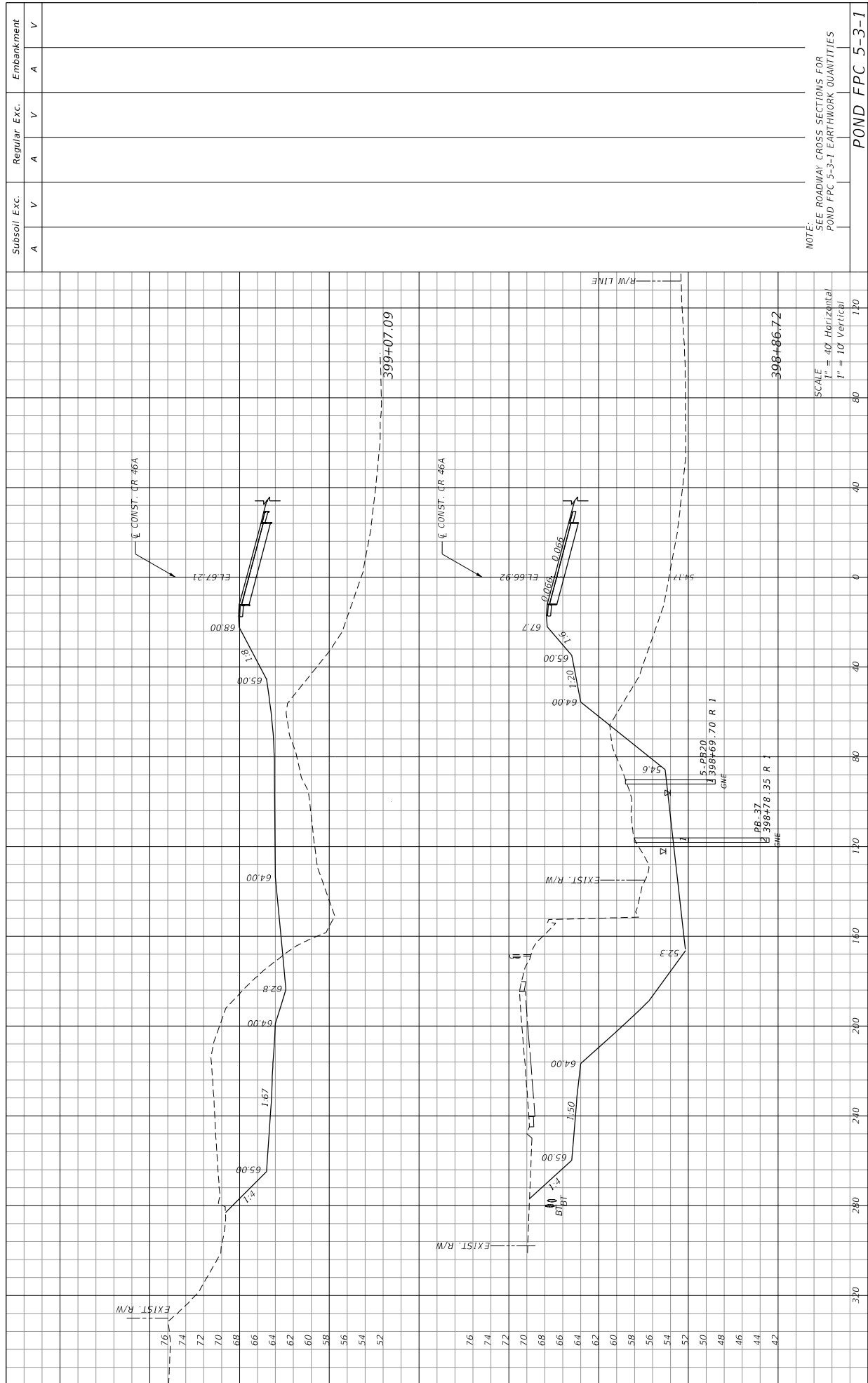
Subsoil Exc.	A	V	A	V	A	V	Embankment	A	V
Regular Exc.	A	V	A	V	A	V		A	V

SCALE  
1" = 40' Horizontal  
1" = 10' Vertical

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION  
ROAD NO. CR 46A  
COUNTY LAKE  
FINANCIAL PROJECT ID 238275-8-52-01

PREPARED BY:  
CDM Smith  
2301 WATLAND CENTER PARKWAY, SUITE 300  
WATLAND, FL 32751 - PHONE: (407) 660-2552  
ENGINEER OF RECORD  
PAUL O. SNEAD, P.E.  
P.E. NUMBER: 36982

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION



NOTE:  
SEE ROADWAY CROSS SECTIONS FOR  
POND FPC 5-3-1 EARTHWORK QUANTITIES

Subsoil Exc.	Regular Exc.	Embankment
A	A	A
V	V	V
A	A	A
V	V	V

SCALE  
1" = 40' Horizontal  
1" = 10' Vertical

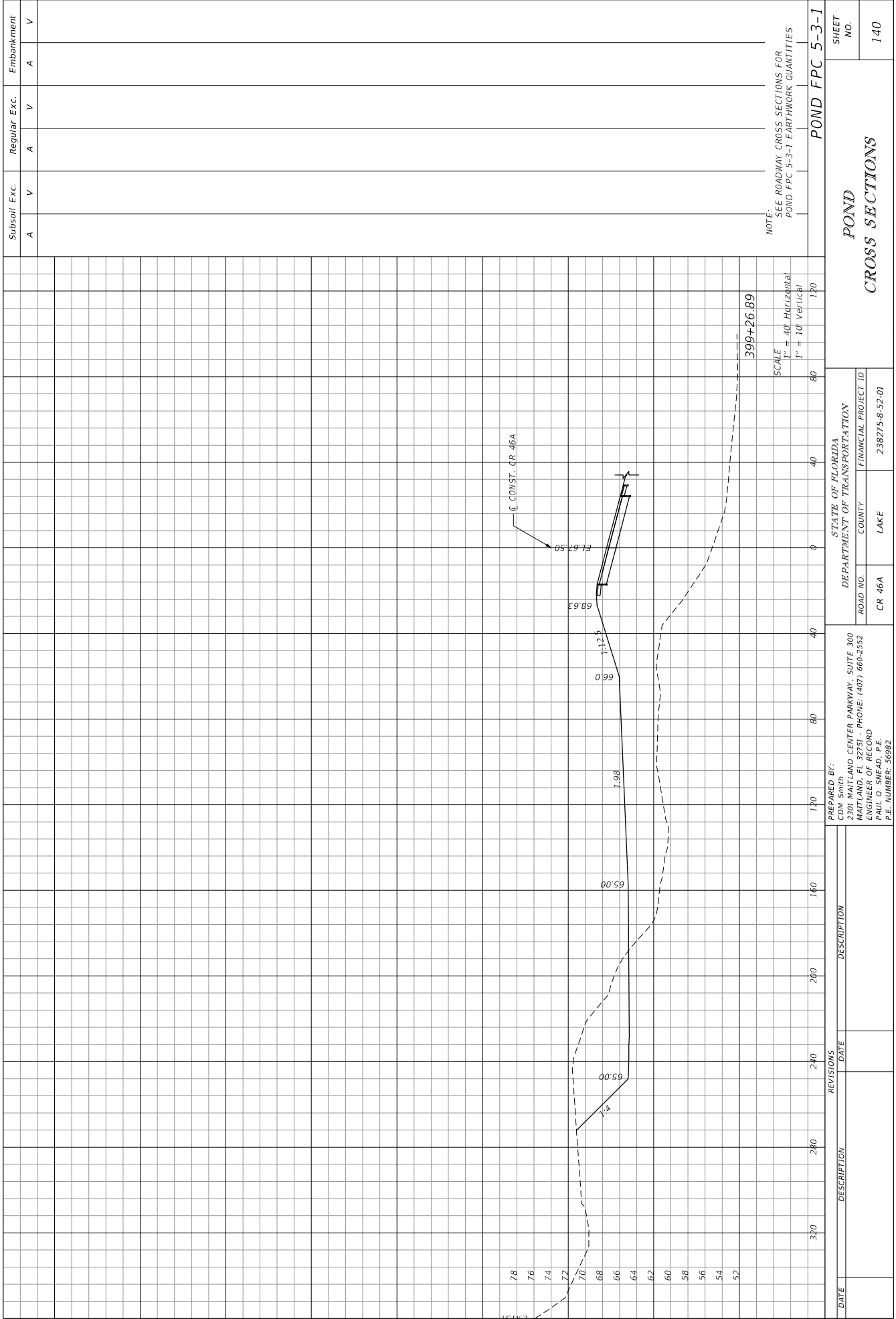
STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION  
ROAD NO. CR 46A  
COUNTY LAKE  
FINANCIAL PROJECT ID 238275-8-52-01

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

PREPARED BY:  
CDM Smith  
2301 WATLAND CENTER PARKWAY, SUITE 300  
WATLAND, FL 32751 - PHONE: (407) 660-2552  
ENGINEER OF RECORD  
PAUL O. SNEAD, P.E.  
P.E. NUMBER: 30982

11/4/2015 1:51:11 PM  
WHEEGER/P

POND FPC 5-3-1  
CROSS SECTIONS  
SHEET NO. 139



Subsoil Exc.	Regular Exc.	Embankment
A	A	A
V	V	V

NOTE: SEE ROADWAY CROSS SECTIONS FOR POND FPC 5-3-1 EARTHWORK QUANTITIES

POND FPC 5-3-1	
POND	
CROSS SECTIONS	
SHEET NO.	140

STATE OF FLORIDA	
DEPARTMENT OF TRANSPORTATION	
ROAD NO.	CR 46A
COUNTY	LAKE
FINANCIAL PROJECT ID	238275-8-52-01

PREPARED BY:  
 CDM Smith  
 2301 WATLAND CENTER PARKWAY, SUITE 300  
 WATLAND, FL 32751 - PHONE: (407) 660-2552  
 ENGINEER OF RECORD  
 PAUL O. SNEAD, P.E.  
 P.E. NUMBER: 36982

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

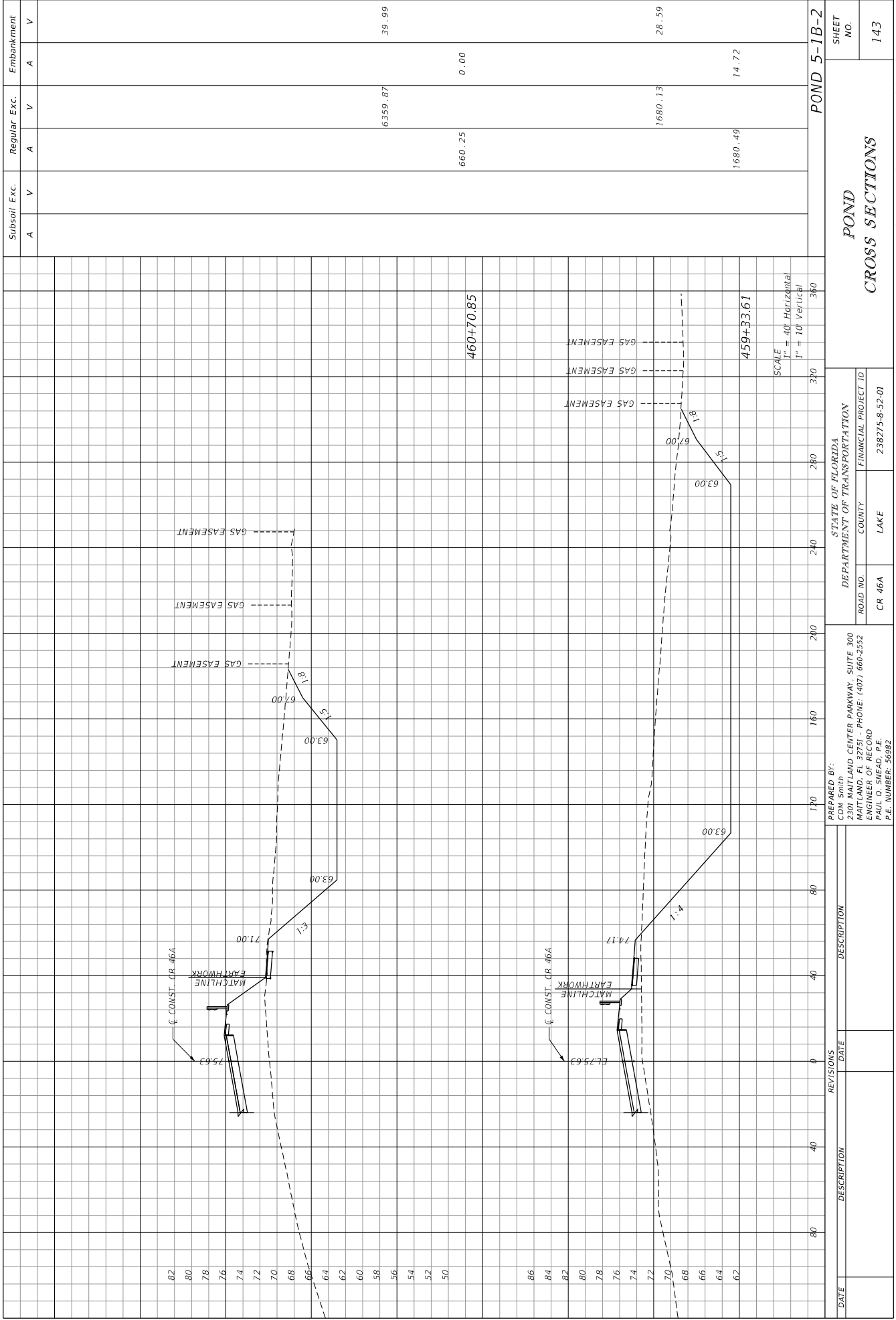
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WHEEBOGP

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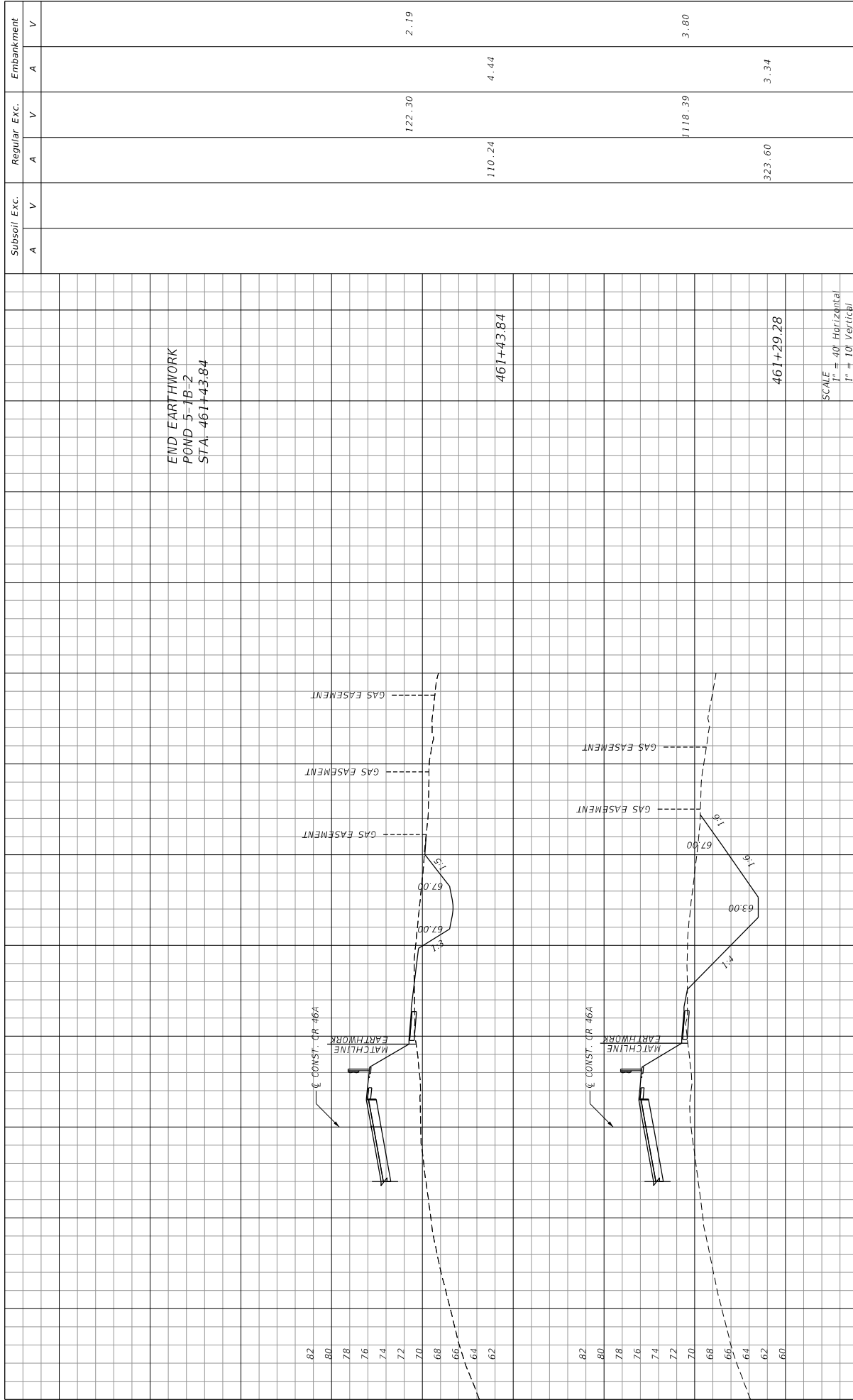
PREPARED BY:  
 CDM Smith  
 2301 WATLAND CENTER PARKWAY, SUITE 300  
 WATLAND, FL 32751 - PHONE: (407) 660-2552  
 ENGINEER OF RECORD  
 PAUL O. SNEAD, P.E.  
 P.E. NUMBER: 36982

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. CR 46A  
 COUNTY LAKE  
 FINANCIAL PROJECT ID 238275-8-52-01

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

POND  
 CROSS SECTIONS  
 SHEET NO. 143  
 POND 5-1B-2





END EARTHWORK  
POND 5-1B-2  
STA. 461+43.84

SCALE  
1" = 40' Horizontal  
1" = 10' Vertical

DATE		DESCRIPTION	REVISIONS	DATE	DESCRIPTION

STATE OF FLORIDA		DEPARTMENT OF TRANSPORTATION	
ROAD NO.	CR 46A	COUNTY	LAKE
FINANCIAL PROJECT ID		238275-8-52-01	

PREPARED BY:	CDM Smith
2301 WATLAND CENTER PARKWAY, SUITE 300	
WATLAND, FL 32751 - PHONE: (407) 660-2552	
ENGINEER OF RECORD	PAUL O. SNEAD, P.E.
P.E. NUMBER:	30982

POND		SHEET NO.	
CROSS SECTIONS		144	

POND 5-1B-2	
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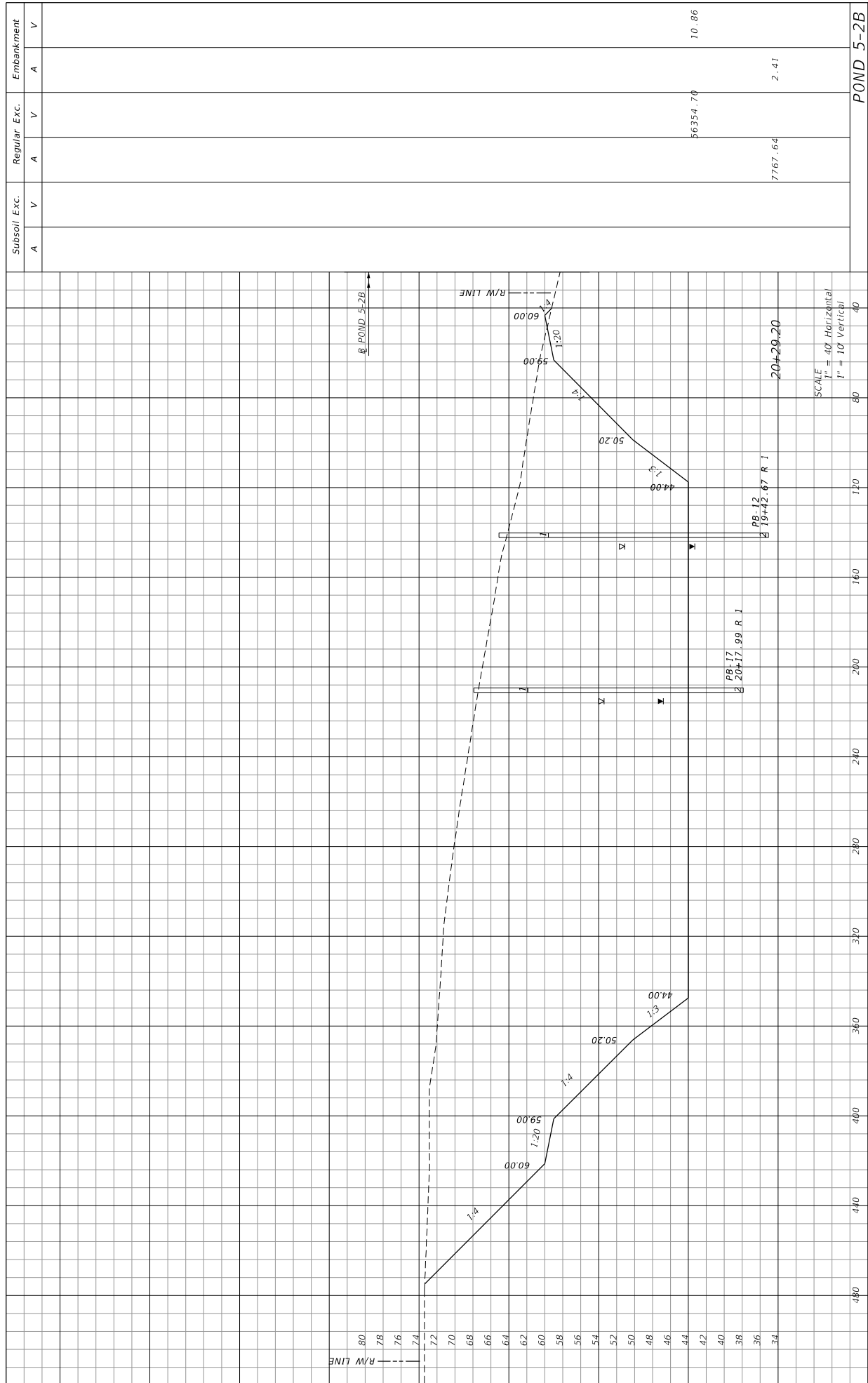












DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

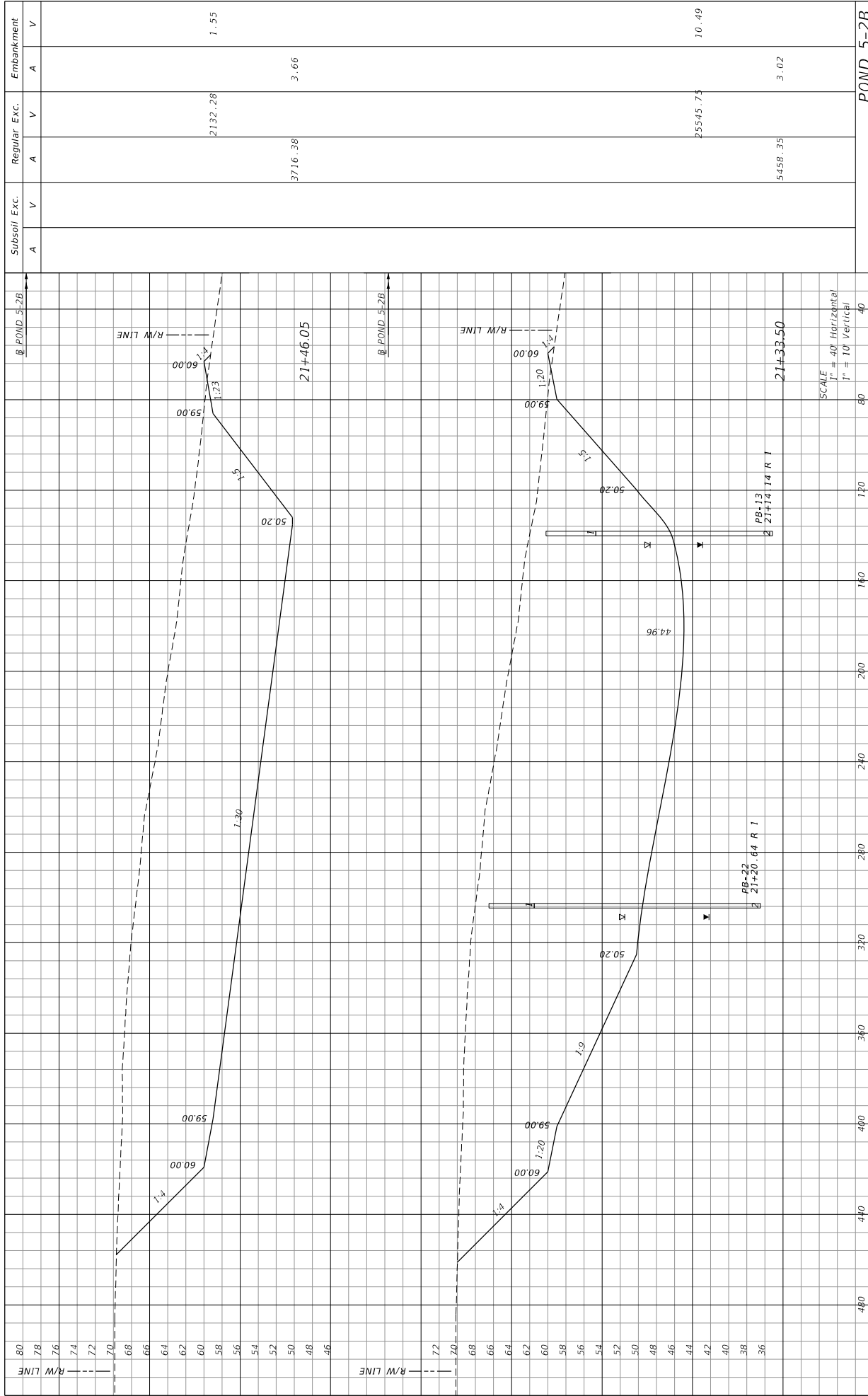
PREPARED BY: CDM Smith 2301 WATLAND CENTER PARKWAY, SUITE 300 WATLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 36982		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A COUNTY LAKE FINANCIAL PROJECT ID 238275-8-52-01	
---	--	---	--

<b>POND</b> <b>CROSS SECTIONS</b>		SHEET NO. 150
--------------------------------------	--	------------------

Subsoil Exc. A V	Regular Exc. A V	Embankment A V
---------------------	---------------------	-------------------



DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

PREPARED BY: CDM Smith 2301 MAITLAND CENTER PARKWAY, SUITE 300 MAITLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 36982		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A COUNTY LAKE FINANCIAL PROJECT ID 238275-8-52-01	
---	--	---	--

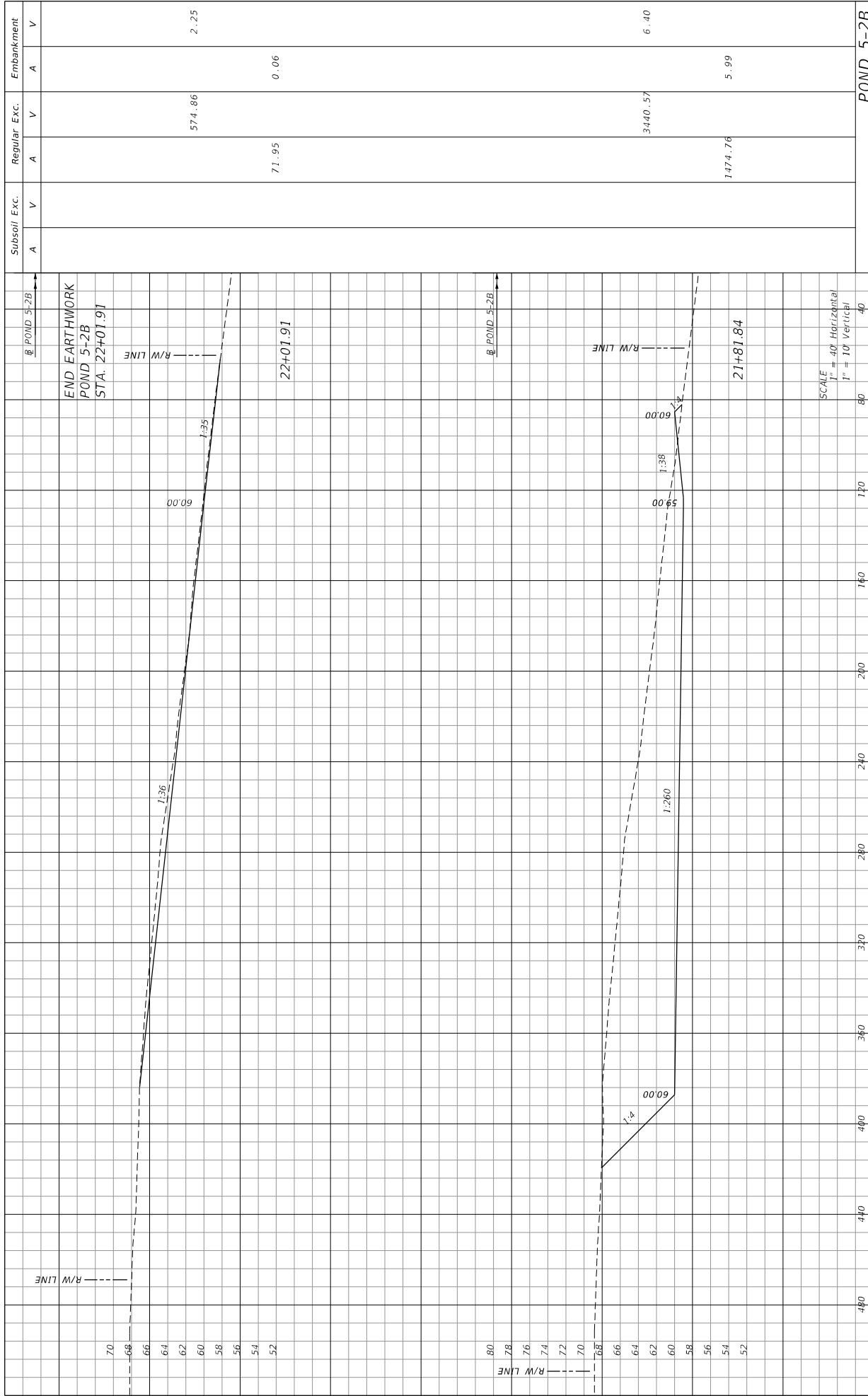
  

POND CROSS SECTIONS		SHEET NO. 151
------------------------	--	------------------

Subsoil Exc. A V	Regular Exc. A V	Embankment A V
2132.28 3716.38 25545.75 5458.35	1.55 3.66 10.49 3.02	POND 5-2B 40 80 120 160 200 240 280 320 360 400 440 480





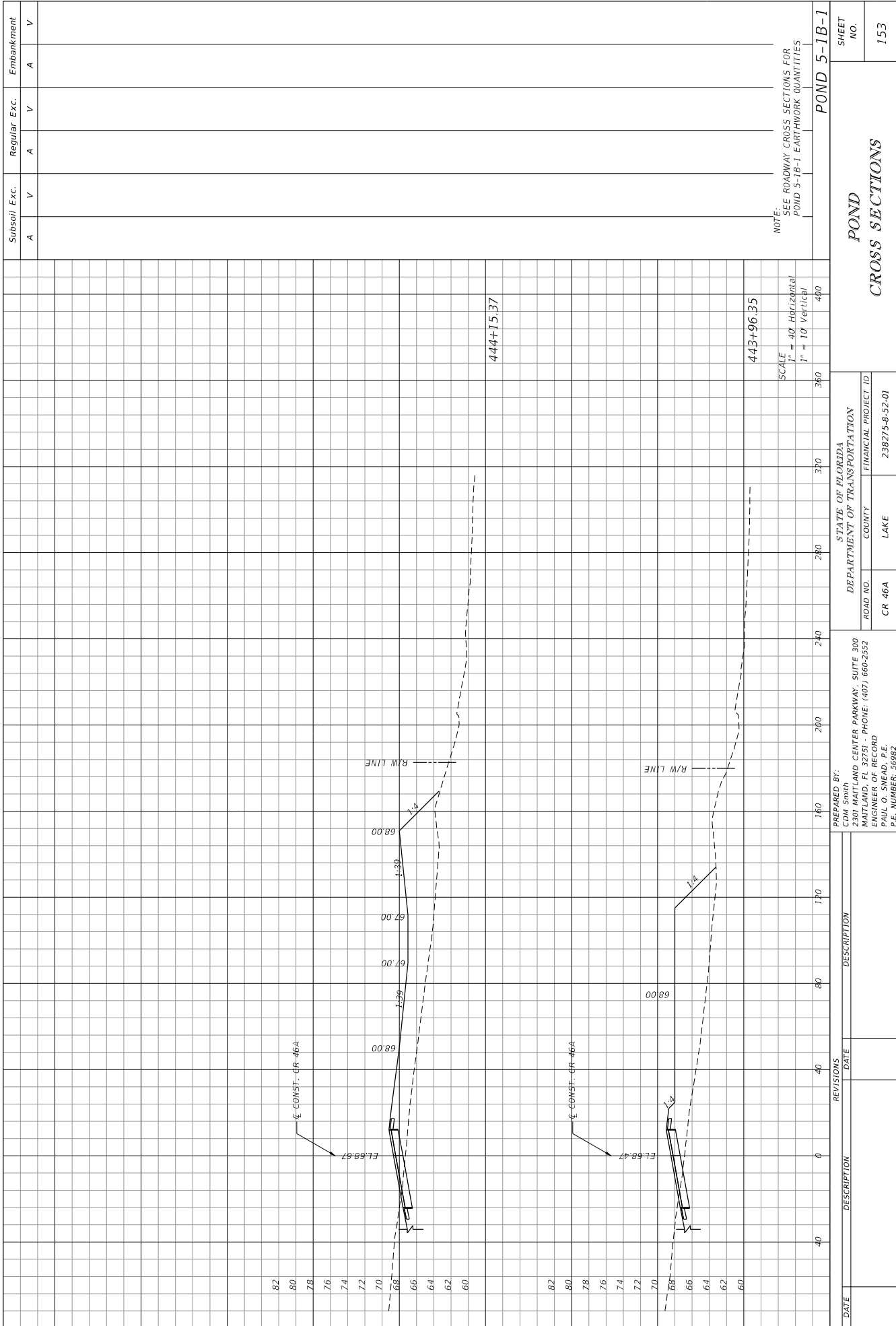
DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

PREPARED BY: CDM Smith 2301 MAITLAND CENTER PARKWAY, SUITE 300 MAITLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 36982	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A COUNTY LAKE FINANCIAL PROJECT ID 238275-8-52-01
---	---

SUBSOIL EXC. A V	REGULAR EXC. A V	EMBANKMENT A V
70 68 66 64 62 60 58 56 54 52	71.95 574.86	0.06 2.25
80 78 76 74 72 70 68 66 64 62 60 58 56 54 52	1474.76 3440.57	5.99 6.40



NOTE: SEE ROADWAY CROSS SECTIONS FOR POND 5-1B-1 EARTHWORK QUANTITIES

SCALE  
1" = 40' Horizontal  
1" = 10' Vertical

POND 5-1B-1

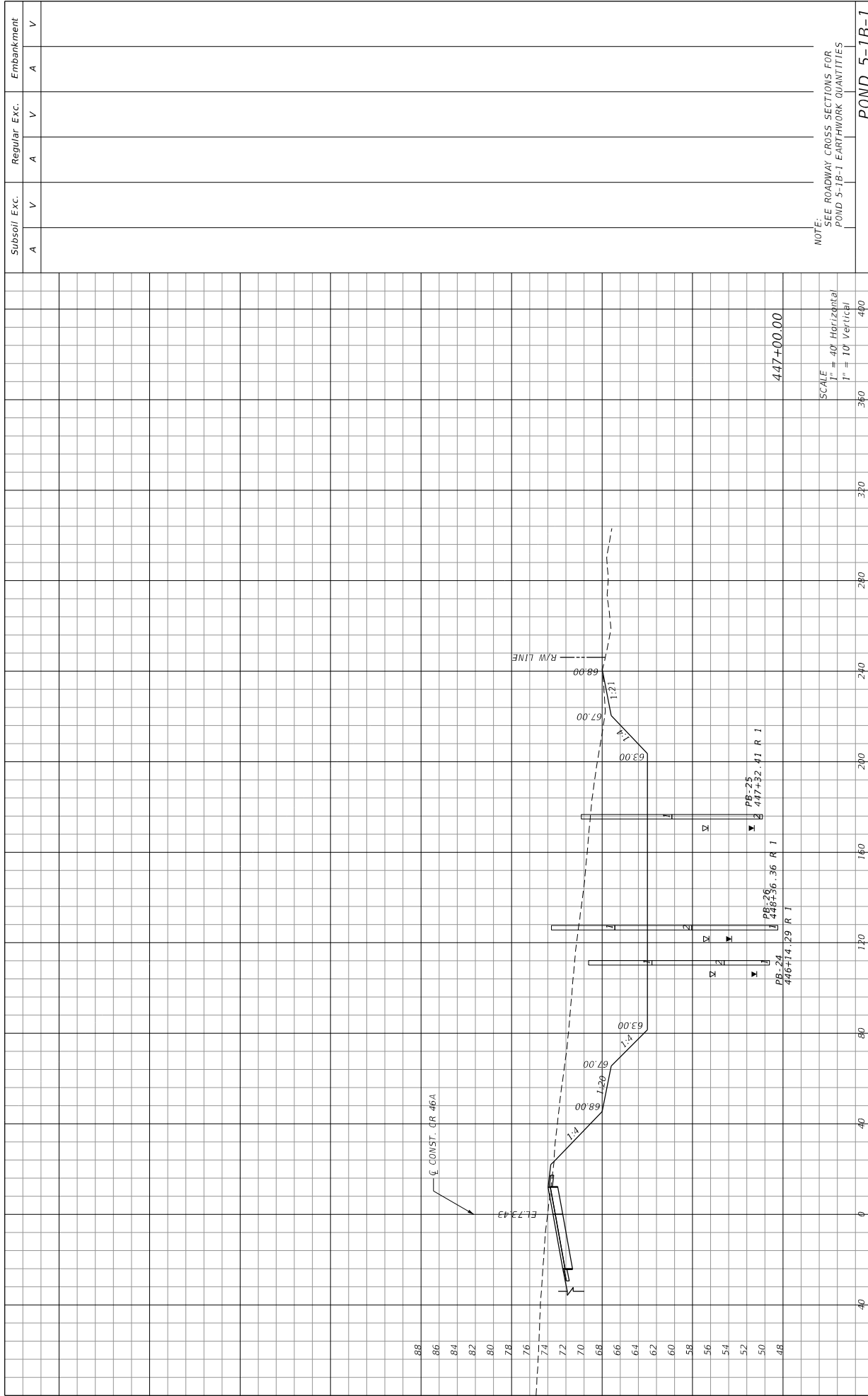
Subsoil Exc.	Regular Exc.	Embankment
A	A	A
V	V	V

STATE OF FLORIDA	
DEPARTMENT OF TRANSPORTATION	
ROAD NO.	FINANCIAL PROJECT ID
CR 46A	238275-8-52-01
COUNTY	LAKE

PREPARED BY:  
CDM Smith  
2301 WATLAND CENTER PARKWAY, SUITE 300  
MAITLAND, FL 32751 - PHONE: (407) 660-2552  
ENGINEER OF RECORD  
PAUL O. SNEAD, P.E.  
P.E. NUMBER: 30982

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION





NOTE: SEE ROADWAY CROSS SECTIONS FOR POND 5-1B-1 EARTHWORK QUANTITIES

SCALE  
1" = 40' Horizontal  
1" = 10' Vertical

POND 5-1B-1

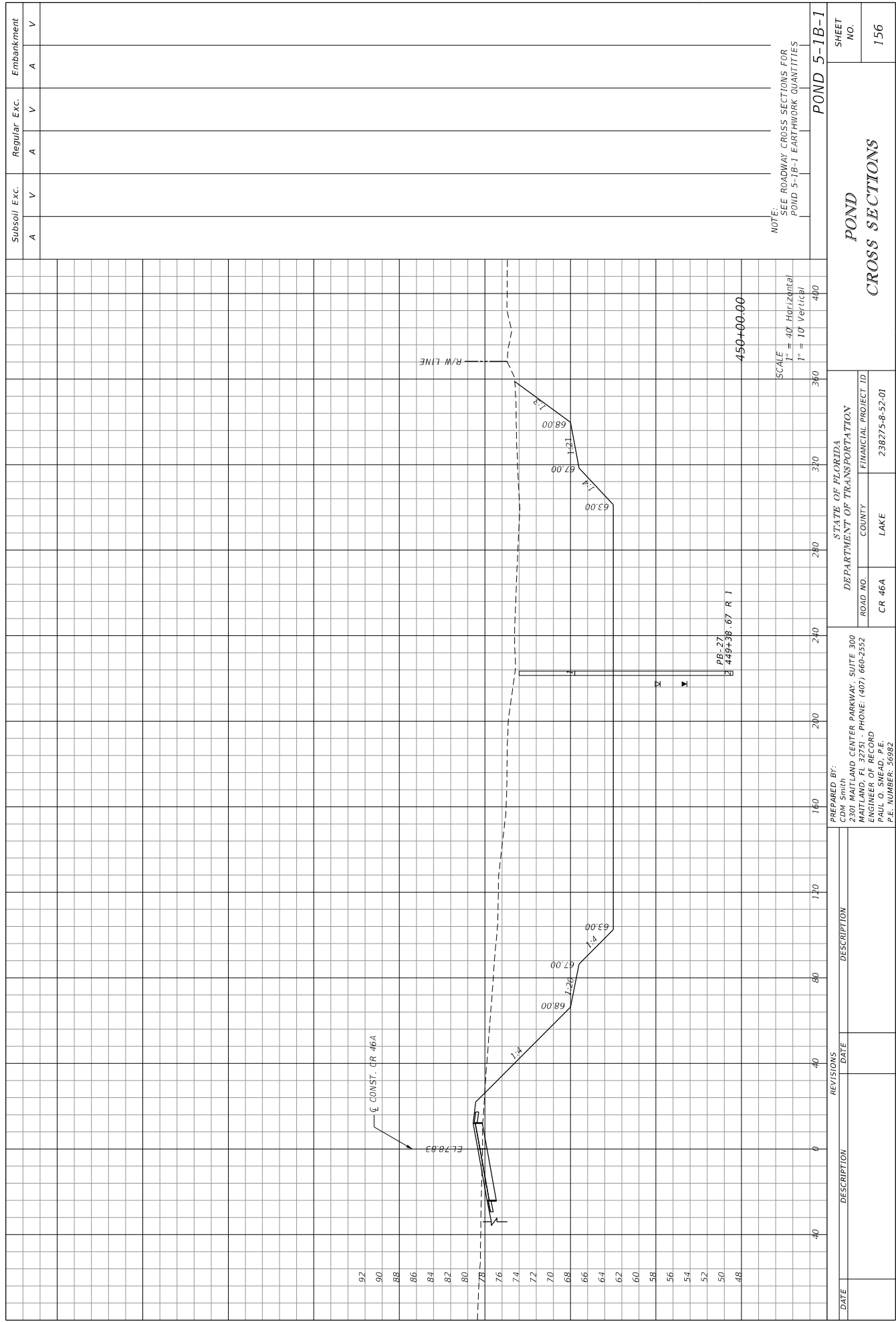
DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

STATE OF FLORIDA		DEPARTMENT OF TRANSPORTATION	
2301 WATLAND CENTER PARKWAY, SUITE 300		FINANCIAL PROJECT ID	
MAITLAND, FL 32751 - PHONE: (407) 660-2552		ROAD NO.	
ENGINEER OF RECORD		COUNTY	
PAUL O. SNEAD, P.E.		LAKE	
P.E. NUMBER: 36982		CR 46A	
		238275-8-52-01	

Subsoil Exc.	Regular Exc.	Embankment
A	A	A
V	V	V



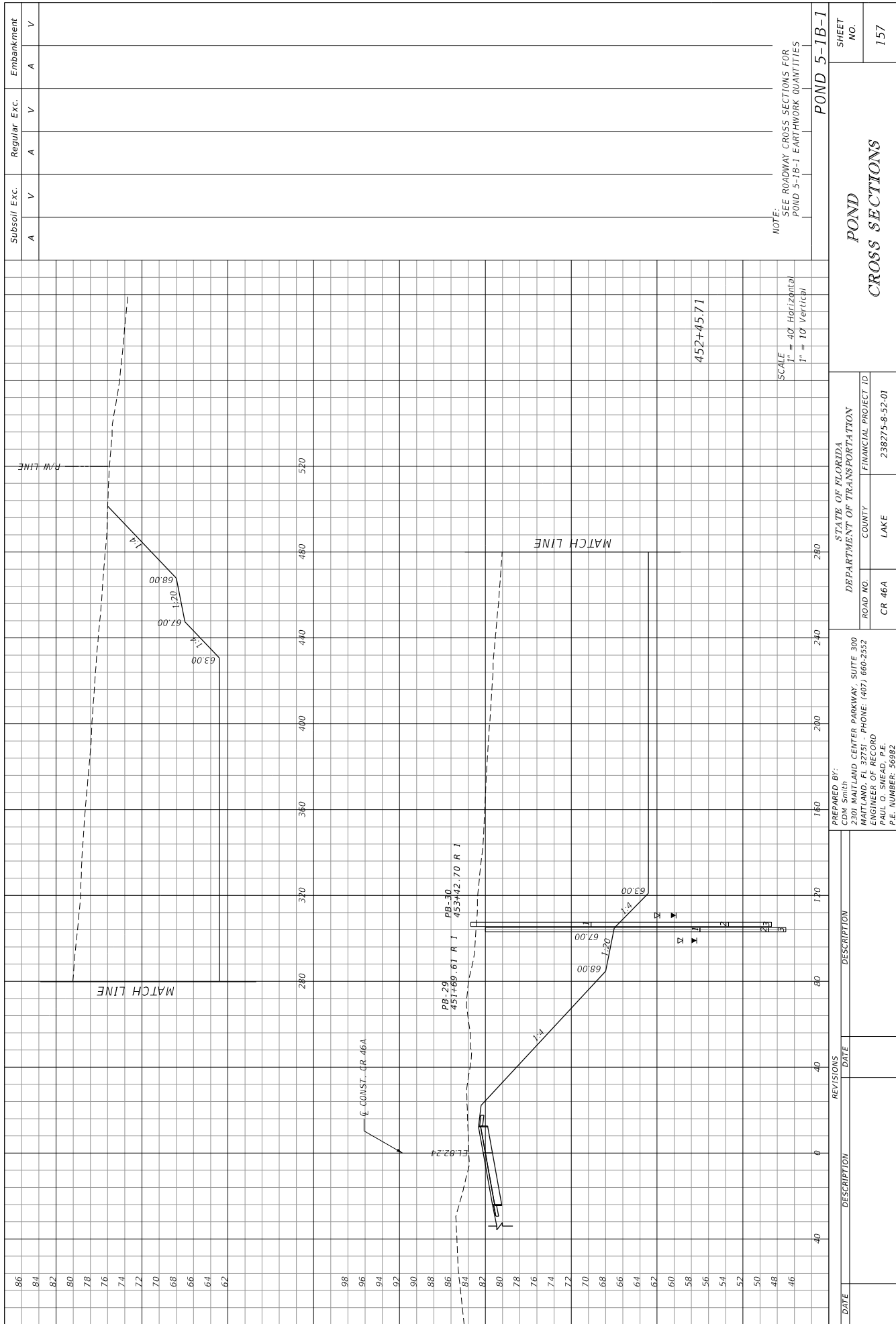
DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

PREPARED BY: CDM Smith 2301 WATLAND CENTER PARKWAY, SUITE 300 WATLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 36982	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A	COUNTY LAKE	FINANCIAL PROJECT ID 238275-8-52-01
---	--	----------------	--

SEE ROADWAY CROSS SECTIONS FOR POND 5-1B-1 EARTHWORK QUANTITIES	SHEET NO. 156
--	---------------------



STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. CR 46A COUNTY LAKE  
 FINANCIAL PROJECT ID 238275-8-52-01  
 PREPARED BY: CDM Smith  
 2301 WATLAND CENTER PARKWAY, SUITE 300  
 WATLAND, FL 32751 - PHONE: (407) 660-2552  
 ENGINEER OF RECORD  
 PAUL O. SNEAD, P.E.  
 P.E. NUMBER: 36982

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

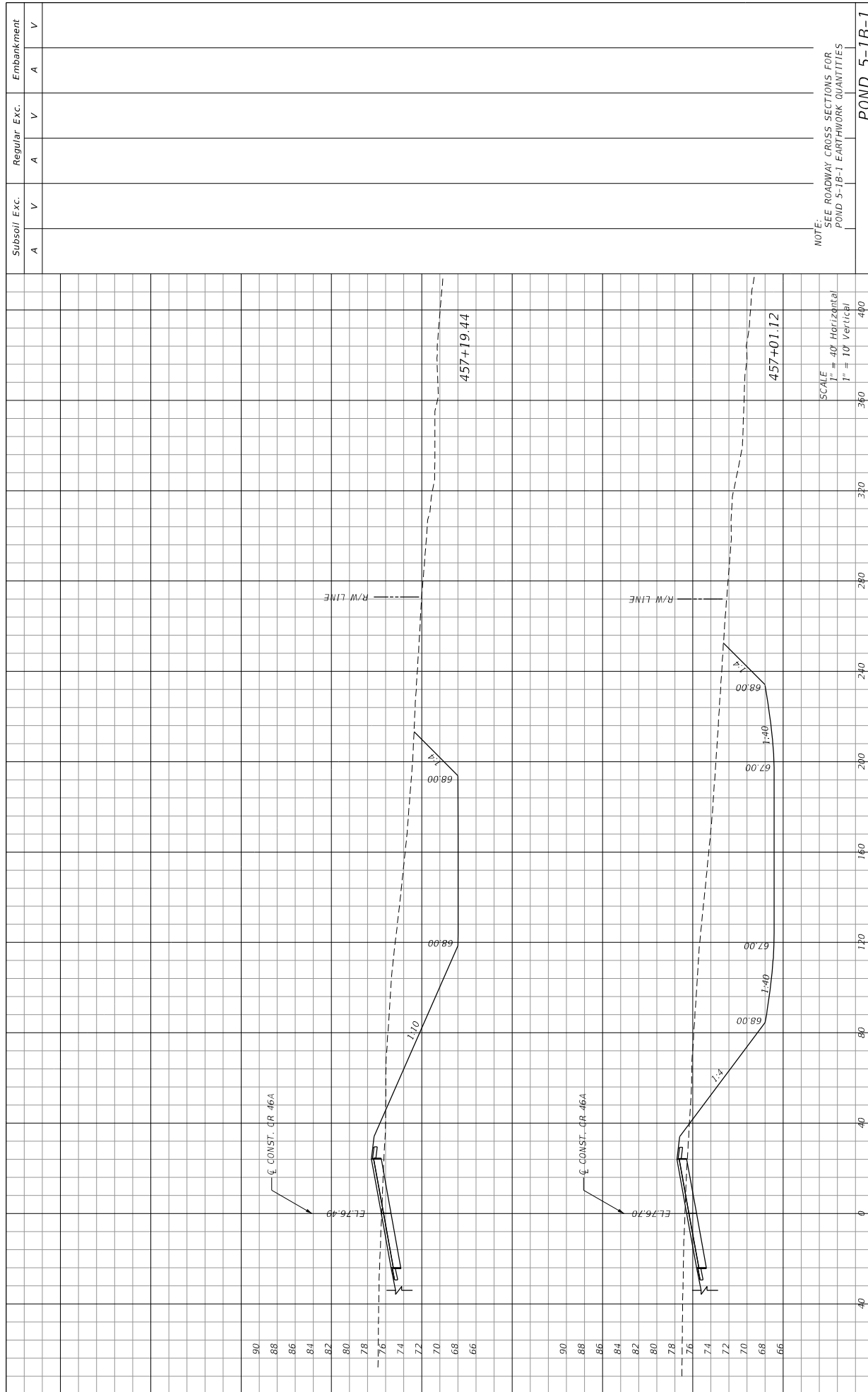
SCALE  
 1" = 40' Horizontal  
 1" = 10' Vertical

NOTE: SEE ROADWAY CROSS SECTIONS FOR POND 5-1B-1 EARTHWORK QUANTITIES









NOTE: SEE ROADWAY CROSS SECTIONS FOR POND 5-1B-1 EARTHWORK QUANTITIES

Subsoil Exc.	Regular Exc.	Embankment
A	A	A
V	V	V

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION  
ROAD NO. CR 46A  
COUNTY LAKE  
FINANCIAL PROJECT ID 238275-8-52-01

PREPARED BY:  
CDM Smith  
2301 WATLAND CENTER PARKWAY, SUITE 300  
MAITLAND, FL 32751 - PHONE: (407) 660-2552  
ENGINEER OF RECORD  
PAUL O. SNEAD, P.E.  
P.E. NUMBER: 30982

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

POND 5-1B-1

POND CROSS SECTIONS

SHEET NO.

160

DATES OF SURVEY: DECEMBER 2013, JANUARY THROUGH AUGUST 2014,  
 JANUARY 2015, NOVEMBER 2015  
 SURVEY MADE BY: GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC.  
 SUBMITTED BY: DANIEL C. STANFILL, P.E.

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 MATERIALS AND RESEARCH

DISTRICT: 5  
 ROAD NO.: CR 46A  
 COUNTY: LAKE

FINANCIAL PROJECT ID : 238275-8-52-02

PROJECT NAME: CR 46A REALIGNMENT FROM SR 46 TO NORTH OF ARUNDEL WAY

CROSS SECTION SOIL SURVEY FOR THE DESIGN OF ROADS

CR 46A SURVEY BEGINS STA. : 367+22 SURVEY ENDS STA. : 495+00  
 OLD SR 46 SURVEY BEGINS STA. : 474+00 SURVEY ENDS STA. : 487+00

STRATUM NO. OF TESTS	ORGANIC CONTENT	MOISTURE CONTENT	SIEVE ANALYSIS RESULTS PERCENT PASS (%)					ATTERBERG LIMITS (%)	NO. OF TESTS	LIQUID LIMIT	PLASTIC INDEX	AASHTO GROUP	DESCRIPTION	NO. OF TESTS	CORROSION TEST RESULTS			
			10 MESH	40 MESH	60 MESH	100 MESH	200 MESH								RESISTIVITY OHM-CM	CHLORIDE ppm	SULFATES ppm	pH
1	2	1	7	67	99-100	87-99	71-96	20-74	2-10	0	-	A-3	LIGHT BROWN TO DARK BROWN TO ORANGE FINE SAND TO FINE SAND WITH SILT, OCCASIONAL TRACE ORGANIC MATERIAL AND ROOTS	10	23,041,112,000	30.75	<5-38	5.2-7.0
2	0	2	11-13	100	73-100	62-98	34-88	11-28	2	NP-27	NP-10	A-2-4	LIGHT BROWN TO DARK BROWN TO GRAY TO ORANGE FINE SAND WITH SILT TO SILTY FINE SAND, OCCASIONAL TRACE ORGANIC MATERIAL	1	23,647	30	30	4.9
3	0	5	13-26	100	89-99	69-97	49-83	26-69	5	31-49	15-27	A-4, A-2-6, A-7-6	LIGHT BROWN TO BROWN TO ORANGE SILTY FINE SAND TO CLAYEY FINE SAND TO SANDY CLAY	1	27,174	30	17	5.0
4	5	5	12-842	100	94-99	83-98	41-94	8-92	0	-	-	A-8	BROWN TO DARK BROWN MUCKY FINE SAND TO SANDY MUCK TO MUCK, OCCASIONAL TRACE TO SOME ROOTS	0	-	-	-	-

STATIONS REFERENCE: CENTERLINE OF SURVEY

NOTES

- STRATA BOUNDARIES ARE APPROXIMATE AND REPRESENT SOIL STRATA AT EACH BORING LOCATION ONLY. ANY STRATUM CONNECTING LINES THAT ARE SHOWN ARE FOR ESTIMATING EARTHWORK ONLY AND DO NOT INDICATE ACTUAL STRATUM LIMITS. SUBSURFACE VARIATIONS BETWEEN BORINGS SHOULD BE ANTICIPATED AS INDICATED IN SECTION 2-4 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. FOR FURTHER DETAILS SEE SECTION 120-3.
- WATER TABLE SHOWN AS ▽ WHERE ENCOUNTERED AT TIME OF SURVEY. GROUNDWATER NOT ENCOUNTERED SHOWN AS ∇. ESTIMATED SEASONAL HIGH GROUNDWATER SHOWN AS ∇. ESTIMATED SEASONAL HIGH GROUNDWATER LEVEL ABOVE GROUND SURFACE SHOWN AS ▽.
- REMOVAL OF MUCK AND PLASTIC MATERIAL OCCURRING WITHIN ROADWAY SHALL BE ACCOMPLISHED IN ACCORDANCE WITH INDEX NO. 500 OF THE FDOT DESIGN STANDARDS UNLESS OTHERWISE SHOWN ON PLANS. THE MATERIAL USED IN EMBANKMENT CONSTRUCTION SHALL BE IN ACCORDANCE WITH INDEX NO. 505 OF THE FDOT DESIGN STANDARDS.
- SOIL TEST RESULTS INCLUDES DATA FROM ROADWAY AND POND AUGER BORINGS PERFORMED FOR THIS STUDY AND DATA INCLUDED IN THE LINE AND GRADE STUDY REPORT OF PRELIMINARY ROADWAY SOIL SURVEY FOR WEKIVA PARKWAY - SECTION 5, DATED JUNE 20, 2012.
- THE SYMBOL "-" REPRESENTS AN UNMEASURED PARAMETER.
- THE SYMBOL "NP" REPRESENTS NON-PLASTIC.
- STRATA 1 AND 2 SHALL BE TREATED AS SELECT (S) MATERIAL IN ACCORDANCE WITH FDOT INDEX NOS. 500 AND 505.
- STRATUM 2 MAY RETAIN EXCESS MOISTURE AND MAY BE DIFFICULT TO DRY AND COMPACT.
- STRATUM 3 SHALL BE TREATED AS PLASTIC (P) MATERIAL IN ACCORDANCE WITH FDOT INDEX NOS. 500 AND 505.
- STRATUM 4 SHALL BE TREATED AS MUCK (M) IN ACCORDANCE WITH FDOT INDEX NOS. 500 AND 505.
- ROADWAY SPT BORINGS ARE DEPICTED ON CROSS SECTIONS IN PROJECT PLANS BUT HAVE BEEN TRUNCATED TO A MAXIMUM DEPTH OF 50 FEET.

FIGURE 2

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		FINANCIAL PROJECT ID	
ROAD NO. CR 46A	COUNTY LAKE	238275-8-52-01	

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 ROADWAY SOIL SURVEY

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC. (GEC)  
 919 Lake Baldwin Lane  
 Orlando, FL 32814 407-248-4937  
 Certificate of Accreditation No. 5882  
 DANIEL C. STANFILL PE NO. 42763

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 ROADWAY SOIL SURVEY

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 ROADWAY SOIL SURVEY

SHEET NO.

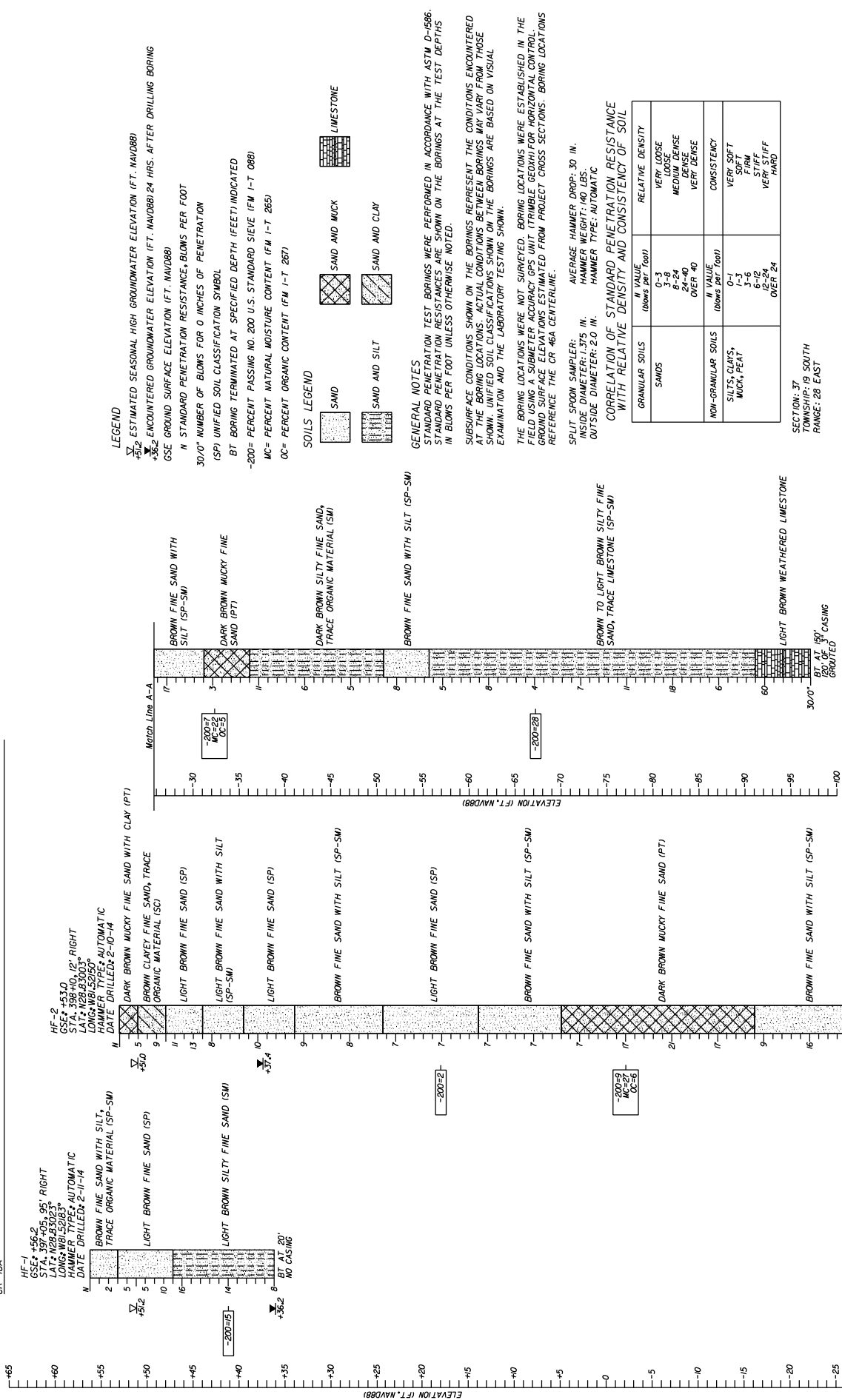
GR-1

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SECRET

CR 46A



**LEGEND**  
 +56.2 ESTIMATED SEASONAL HIGH GROUNDWATER ELEVATION (FT. NAVD88)  
 +37.4 ENCOUNTERED GROUNDWATER ELEVATION (FT. NAVD88) 24 HRS. AFTER DRILLING BORING  
 GSE= GROUND SURFACE ELEVATION (FT. NAVD88)  
 N= STANDARD PENETRATION RESISTANCE, BLOWS PER FOOT  
 30/0' NUMBER OF BLOWS FOR 0 INCHES OF PENETRATION  
 (SP) UNIFIED SOIL CLASSIFICATION SYMBOL  
 BT BORING TERMINATED AT SPECIFIED DEPTH (FEET) INDICATED  
 -200' PERCENT PASSING NO. 200 U.S. STANDARD SIEVE (FM I-T 088)  
 MC= PERCENT NATURAL MOISTURE CONTENT (FM I-T 285)  
 OC= PERCENT ORGANIC CONTENT (FM I-T 287)

**SOILS LEGEND**  
 SAND  
 SAND AND SILT  
 SAND AND MUCK  
 SAND AND CLAY  
 LIMESTONE

**GENERAL NOTES**  
 STANDARD PENETRATION TEST BORINGS WERE PERFORMED IN ACCORDANCE WITH ASTM D-1586.  
 STANDARD PENETRATION RESISTANCES ARE SHOWN ON THE BORINGS AT THE TEST DEPTHS  
 IN BLOWS PER FOOT UNLESS OTHERWISE NOTED.  
 SUBSURFACE CONDITIONS SHOWN ON THE BORINGS REPRESENT THE CONDITIONS ENCOUNTERED  
 DURING THE BORING OPERATIONS. THE BORINGS WERE DRILLED WITH AN AUTOMATIC  
 SWAY UNIFIED SOIL CLASSIFICATIONS SHOWN ON THE BORINGS ARE BASED ON VISUAL  
 EXAMINATION AND THE LABORATORY TESTING SHOWN.  
 THE BORING LOCATIONS WERE NOT SURVEYED. BORING LOCATIONS WERE ESTABLISHED IN THE  
 FIELD USING A SUBMETER ACCURACY GPS UNIT (TRIMBLE GEOXH) FOR HORIZONTAL CONTROL.  
 GROUND SURFACE ELEVATIONS ESTIMATED FROM PROJECT CROSS SECTIONS. BORING LOCATIONS  
 REFERENCE THE CR 46A CENTERLINE.

SPLIT SPOON SAMPLER: AVERAGE HAMMER DROP: 30 IN.  
 INSIDE DIAMETER: 1.375 IN. HAMMER WEIGHT: 140 LBS.  
 OUTSIDE DIAMETER: 2.0 IN. HAMMER TYPE: AUTOMATIC

**CORRELATION OF STANDARD PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY OF SOIL**

GRANULAR SOILS	N VALUE (BLOWS PER FOOT)	RELATIVE DENSITY
SANDS	3-8	VERY LOOSE
	8-24	MEDIUM DENSE
	24-40	DENSE
NON-GRANULAR SOILS	OVER 40	VERY DENSE
	N VALUE (BLOWS PER FOOT)	CONSISTENCY
SILTS, CLAYS, MUCK, PEAT	0-1	VERY SOFT
	1-2	SOFT
	2-5	FIRM
	5-12	STIFF
	OVER 24	VERY STIFF

SECTION 37  
 TOWNSHIP: 19 SOUTH  
 RANGE: 28 EAST

**FIGURE 17**

**ROADWAY SPT BORING RESULTS**

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION

ROAD NO. CR 46A COUNTY LAKE  
 FINANCIAL PROJECT ID 238275-8-52-02

**GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC. (GEC)**  
 918 Lake Park Way  
 Orlando, FL 32814 Phone: 407-898-1837  
 Certificate of Authorization No. 5882

DANIEL C. STANFILL PE NO. 42783

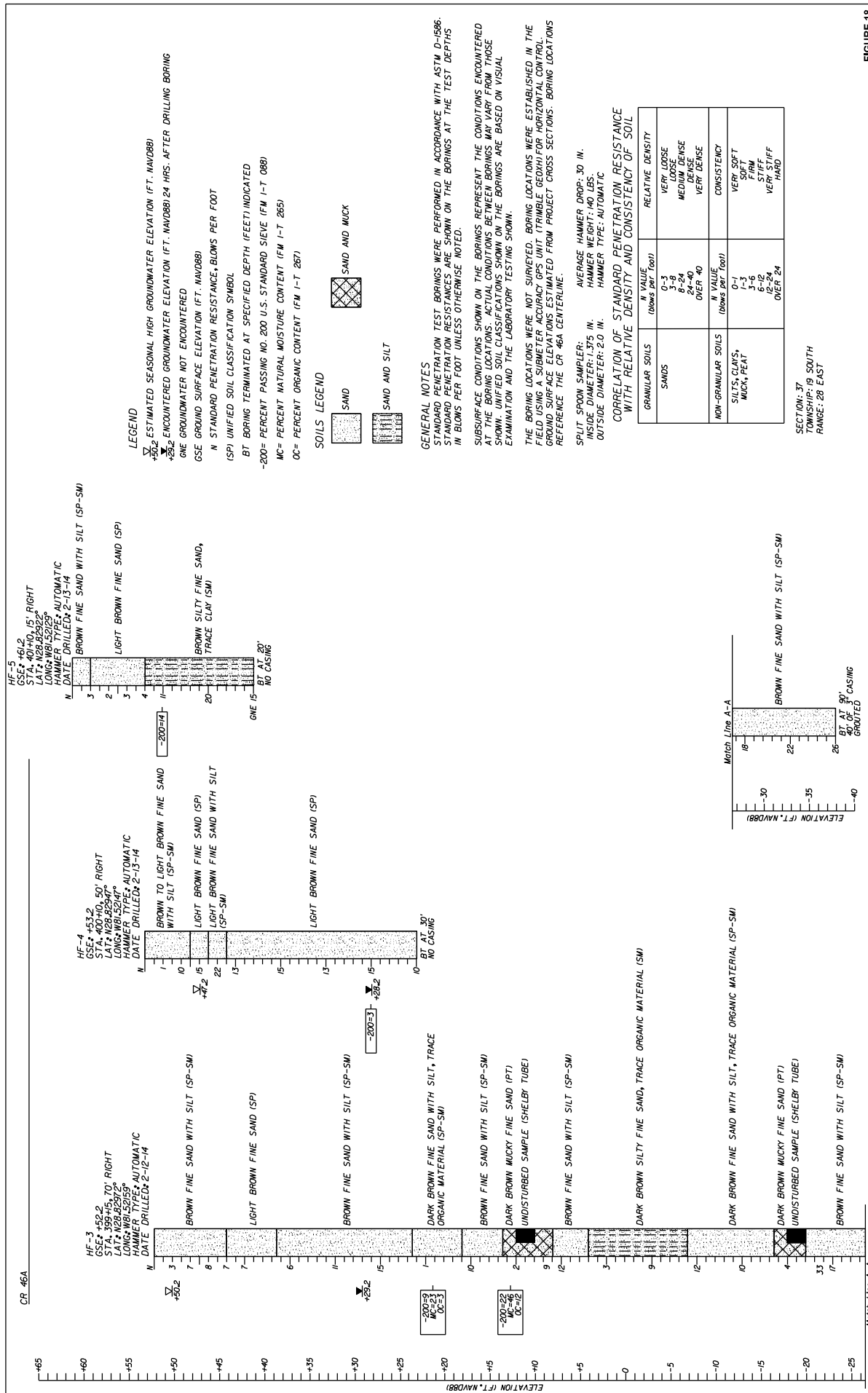
DATE DESCRIPTION DATE DESCRIPTION

REVISIONS

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3/28/2014 2:17:59 PM

3/28/2014 2:17:59 PM



**FIGURE 18**

**ROADWAY SPT BORING RESULTS**

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION

ROAD NO. CR 46A COUNTY LAKE  
 FINANCIAL PROJECT ID 238275-9-52-02

SECTION 37  
 TOWNSHIP: 19 SOUTH  
 RANGE: 28 EAST

DATE DESCRIPTION REVISIONS DATE DESCRIPTION

**GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC. (GEC)**  
 919 Lake Shoreway Lane  
 Orlando, FL 32816 F 407-848-1837  
 Certificate of Authorization No. 5882

**DANIEL C. STANFILL PE NO. 42783**

3/28/2014 21.1334 R/W 3.0105347005\310901001.000

SECRET

SHEET NO. GR-3

CR 46A



**LEGEND**  
 ▲ ESTIMATED SEASONAL HIGH GROUNDWATER LEVEL ABOVE EXISTING GROUND SURFACE  
 ▽ ESTIMATED SEASONAL HIGH GROUNDWATER ELEVATION (FT. NAVD88)  
 +24 ENCOUNTERED GROUNDWATER ELEVATION (FT. NAVD88) 24 HRS. AFTER DRILLING BORING  
 +24 GSE GROUND SURFACE ELEVATION (FT. NAVD88)  
 N STANDARD PENETRATION RESISTANCE BLOWS PER FOOT  
 50/55 NUMBER OF BLOWS FOR 5.5 INCHES OF PENETRATION  
 (SPI) UNIFIED SOIL CLASSIFICATION SYMBOL  
 BT BORING TERMINATED AT SPECIFIED DEPTH (FEET) INDICATED  
 -200- PERCENT PASSING NO. 200 U.S. STANDARD SIEVE (FM 1-T 08B)  
 MC= PERCENT NATURAL MOISTURE CONTENT (FM 1-T 265)  
 OC= PERCENT ORGANIC CONTENT (FM 1-T 267)

**SOILS LEGEND**

SAND  
 SAND AND MUCK  
 SAND AND SILT

**GENERAL NOTES**  
 STANDARD PENETRATION TEST BORINGS WERE PERFORMED IN ACCORDANCE WITH ASTM D-1586. STANDARD PENETRATION RESISTANCES ARE SHOWN ON THE BORINGS AT THE TEST DEPTHS IN BLOWS PER FOOT UNLESS OTHERWISE NOTED.  
 SUBSURFACE CONDITIONS SHOWN ON THE BORINGS REPRESENT THE CONDITIONS ENCOUNTERED AT THE BORING LOCATIONS. ACTUAL CONDITIONS BETWEEN BORINGS MAY VARY FROM THOSE SHOWN. UNIFIED SOIL CLASSIFICATIONS SHOWN ON THE BORINGS ARE BASED ON VISUAL EXAMINATION AND THE LABORATORY TESTING SHOWN.  
 THE BORING LOCATIONS WERE SURVEYED BY SOUTHEASTERN SURVEYING AND MAPPING CORP. FOR VERTICAL AND HORIZONTAL CONTROL. BORING LOCATIONS REFERENCE THE CR 46A CENTERLINE.

GRANULAR SOILS	N VALUE (blows per foot)	RELATIVE DENSITY
SANDS	0-4	VERY LOOSE
	4-10	LOOSE
	10-30	MEDIUM DENSE
	30-50	DENSE
	OVER 50	VERY DENSE
NON-GRANULAR SOILS	N VALUE (blows per foot)	CONSISTENCY
SILTS, CLAYS, MUCK, PEAT	0-2	VERY SOFT
	2-4	SOFT
	4-8	FIRM
	8-15	STIFF
	15-30	VERY STIFF
	OVER 30	HARD

SECTION: 21  
 TOWNSHIP: 19 SOUTH  
 RANGE: 28 EAST

FIGURE 19

SHEET NO. GR-4

**ROADWAY SPT BORING RESULTS**

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. CR 46A  
 COUNTY LAKE  
 FINANCIAL PROJECT ID 238275-9-52-02

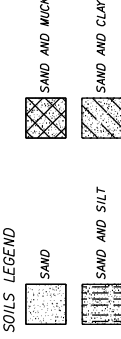
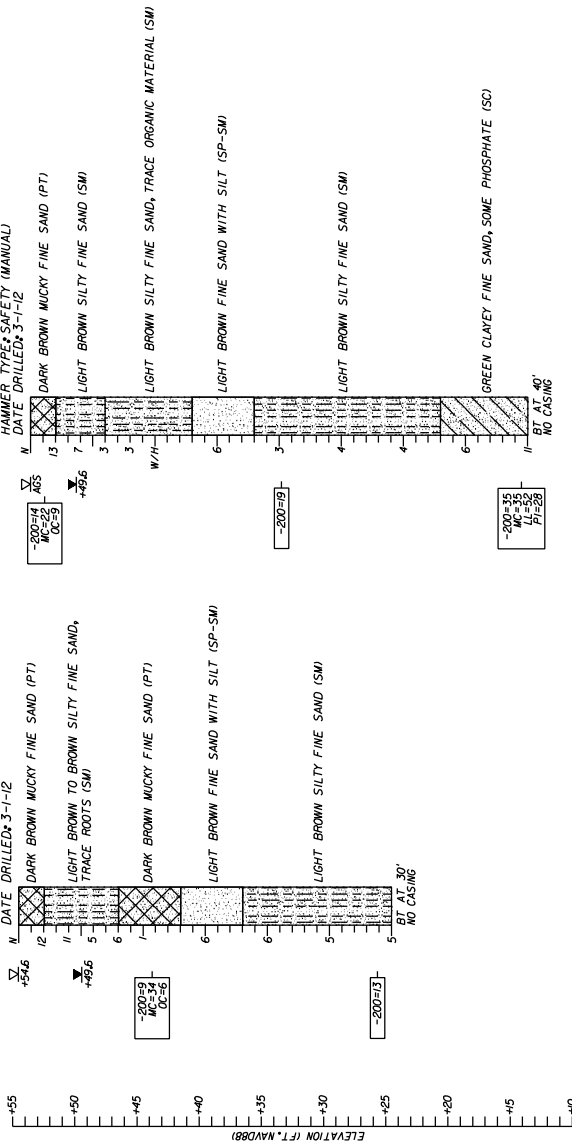
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC. (GEC)  
 918 Lake N.W. Lane  
 Orlando, FL 32814 F 407-848-1837  
 Certificate of Authorization No. 5682  
 DANIEL C. STANFILL PE NO. 42783

DATE	DESCRIPTION	REVISIONS

**LEGEND**

▽ ESTIMATED SEASONAL HIGH GROUNDWATER LEVEL ABOVE EXISTING GROUND SURFACE  
 ▲ ESTIMATED SEASONAL HIGH GROUNDWATER ELEVATION (FT. NAVD88)  
 ▲ ESTIMATED SEASONAL HIGH GROUNDWATER ELEVATION (FT. NAVD88) 24 HRS. AFTER DRILLING BORING  
 ▲ ENCOUNTERED GROUNDWATER ELEVATION (FT. NAVD88) 24 HRS. AFTER DRILLING BORING

GSE GROUND SURFACE ELEVATION (FT. NAVD88)  
 N STANDARD PENETRATION RESISTANCE, BLOWS PER FOOT  
 W/H WEIGHT OF HAMMER  
 (SP) UNIFIED SOIL CLASSIFICATION SYMBOL  
 BT BORING TERMINATED AT SPECIFIED DEPTH (FEET) INDICATED  
 -200= PERCENT PASSING NO. 200 U.S. STANDARD SIEVE (FM I-T 088)  
 MC= PERCENT NATURAL MOISTURE CONTENT (FM I-T 265)  
 LL= LIQUID LIMIT (FM I-T 089)  
 PI= PLASTICITY INDEX (FM I-T 090)  
 OC= PERCENT ORGANIC CONTENT (FM I-T 267)



**GENERAL NOTES**

STANDARD PENETRATION TEST BORINGS WERE PERFORMED IN ACCORDANCE WITH ASTM D-1586. STANDARD PENETRATION RESISTANCES ARE SHOWN ON THE BORINGS AT THE TEST DEPTHS IN BLOWS PER FOOT UNLESS OTHERWISE NOTED.

SUBSURFACE CONDITIONS SHOWN ON THE BORINGS REPRESENT THE CONDITIONS ENCOUNTERED DURING THE BORING. ACTUAL CONDITIONS BETWEEN BORINGS MAY VARY. SOIL CLASSIFICATIONS SHOWN ON THE BORINGS ARE BASED ON VISUAL EXAMINATION AND THE LABORATORY TESTING SHOWN.

THE BORING LOCATIONS WERE SURVEYED BY SOUTHEASTERN SURVEYING AND MAPPING CORP. FOR VERTICAL AND HORIZONTAL CONTROL. BORING LOCATIONS REFERENCE THE CR 46A CENTERLINE.

SPLIT SPOON SAMPLER: AVERAGE HAMMER DROP: 30 IN.  
 INSIDE DIAMETER: 1.375 IN. HAMMER WEIGHT: 140 LBS.  
 OUTSIDE DIAMETER: 2.0 IN. HAMMER TYPE: SAFETY (MANUAL)

**CORRELATION OF STANDARD PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY OF SOIL**

GRANULAR SOILS	N VALUE (blows per foot)	RELATIVE DENSITY
SANDS	0-4	VERY LOOSE
	5-30	MEDIUM DENSE
	30-50	DENSE
	OVER 50	VERY DENSE
NON-GRANULAR SOILS	N VALUE (blows per foot)	CONSISTENCY
SILTS, CLAYS, MUCK, PEAT	0-2	VERY SOFT
	3-4	SOFT
	4-8	FIRM
	8-15	STIFF
	OVER 30	VERY STIFF / HARD

SECTION: Z1  
 TOWNSHIP: 19 SOUTH  
 RANGE: 28 EAST

**FIGURE 20**

**ROADWAY SPT BORING RESULTS**

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION

ROAD NO. CR 46A COUNTY LAKE FINANCIAL PROJECT ID 238275-8-52-02

DATE DESCRIPTION REVISIONS DATE DESCRIPTION

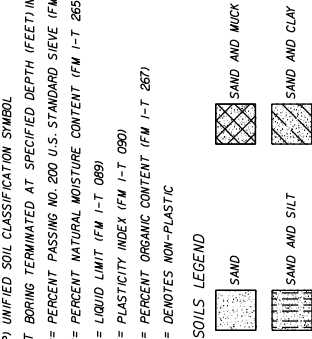
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC. (GEC)  
 10000  
 Orlando, FL 32816  
 F 407-398-1816 F 407-398-1837  
 DANIEL C. STANFILL PE NO. 42183

SHEET NO. GR-5

**LEGEND**

- ▽ ESTIMATED SEASONAL HIGH GROUNDWATER LEVEL ABOVE EXISTING GROUND SURFACE
- ▲ ENCOUNTERED GROUNDWATER ELEVATION (FT. NAVD88) 24 HRS. AFTER DRILLING BORING
- GSE GROUND SURFACE ELEVATION (FT. NAVD88)
- N STANDARD PENETRATION RESISTANCE, BLOWS PER FOOT
- W/H WEIGHT OF HAMMER
- 1/18" NUMBER OF BLOWS FOR 18 INCHES OF PENETRATION
- (SPL) UNIFIED SOIL CLASSIFICATION SYMBOL
- BT BORING TERMINATED AT SPECIFIED DEPTH (FEET) INDICATED
- 200= PERCENT PASSING NO. 200 U.S. STANDARD SIEVE (FM 1-T 08B)
- MC= PERCENT NATURAL MOISTURE CONTENT (FM 1-T 265)
- LL= LIQUID LIMIT (FM 1-T 08B)
- PI= PLASTICITY INDEX (FM 1-T 08B)
- OC= PERCENT ORGANIC CONTENT (FM 1-T 267)
- NP= DENOTES NON-PLASTIC

**SOILS LEGEND**



**GENERAL NOTES**

STANDARD PENETRATION TEST BORINGS WERE PERFORMED IN ACCORDANCE WITH ASTM D-1586. STANDARD PENETRATION RESISTANCES ARE SHOWN ON THE BORINGS AT THE TEST DEPTHS IN BLOWS PER FOOT UNLESS OTHERWISE NOTED.

SUBSURFACE CONDITIONS SHOWN ON THE BORINGS REPRESENT THE CONDITIONS ENCOUNTERED AT THE BORING LOCATIONS. ACTUAL CONDITIONS BETWEEN BORINGS MAY VARY FROM THOSE SHOWN. UNIFIED SOIL CLASSIFICATIONS SHOWN ON THE BORINGS ARE BASED ON VISUAL EXAMINATION AND THE LABORATORY TESTING SHOWN.

THE BORING LOCATIONS WERE SURVEYED BY SOUTHEASTERN SURVEYING AND MAPPING CORP. FOR VERTICAL AND HORIZONTAL CONTROL. BORING LOCATIONS REFERENCE THE CR 46A CENTERLINE.

SPLIT SPOON SAMPLER: AVERAGE HAMMER DROP: 30 IN.  
INSIDE DIAMETER: 1.375 IN. HAMMER WEIGHT: 140 LBS.  
OUTSIDE DIAMETER: 2.0 IN. HAMMER TYPE: SAFETY (MANUAL)

CORRELATION OF STANDARD PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY OF SOIL

GRANULAR SOILS	N VALUE (blows/foot)	RELATIVE DENSITY
SANDS	0-4	VERY LOOSE
	4-10	LOOSE
	10-30	MEDIUM DENSE
	30-50	DENSE
	OVER 50	VERY DENSE
NON-GRANULAR SOILS	N VALUE (blows/foot)	CONSISTENCY
SILTS, CLAYS, MUCK, PEAT	0-2	VERY SOFT
	2-4	SOFT
	4-8	FIRM
	8-15	STIFF
	OVER 30	VERY STIFF TO HARD

SECTION: 21  
TOWNSHIP: 19 SOUTH  
RANGE: 28 EAST

**FIGURE 21**

SHEET NO. GR-6

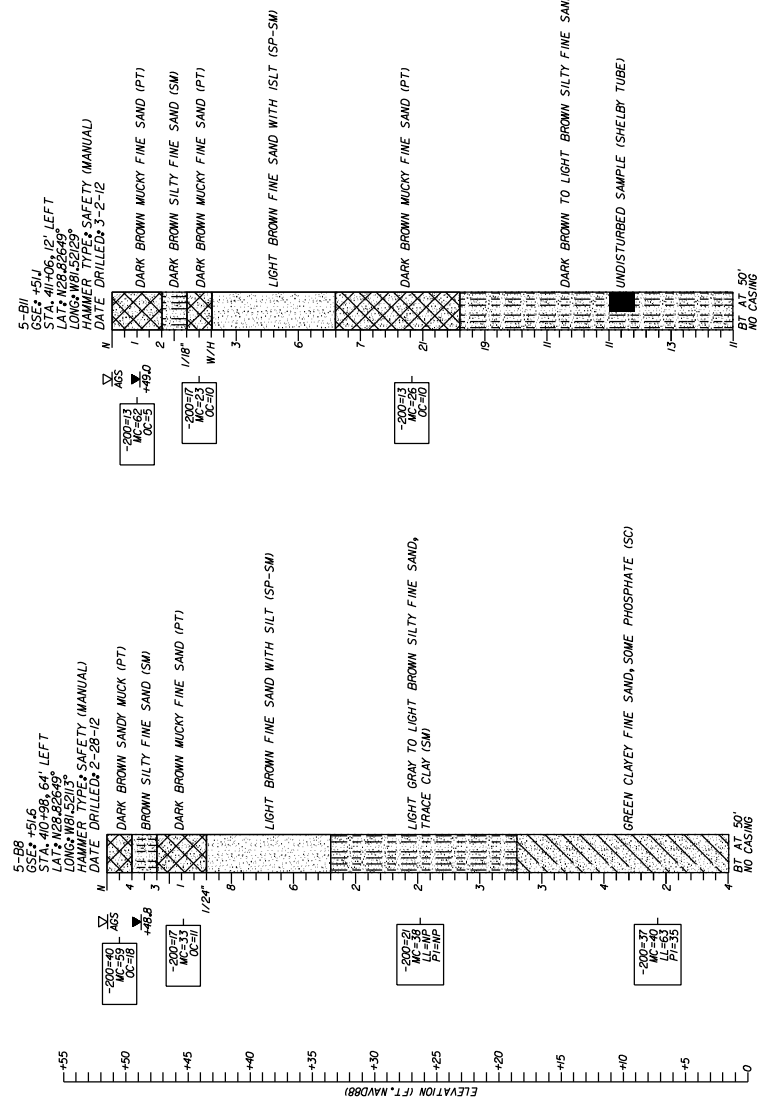
**ROADWAY SPT BORING RESULTS**

STATE OF FLORIDA	
DEPARTMENT OF TRANSPORTATION	
ROAD NO.	FINANCIAL PROJECT ID
CR 46A	238275-8-52-02
COUNTY	LAKE

**GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC. (GEC)**  
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 Orlando, FL 32816  
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 F 407-888-1818  
 DANIEL C. STANFILL PE NO. 42183

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

CR 46A



CR 46A

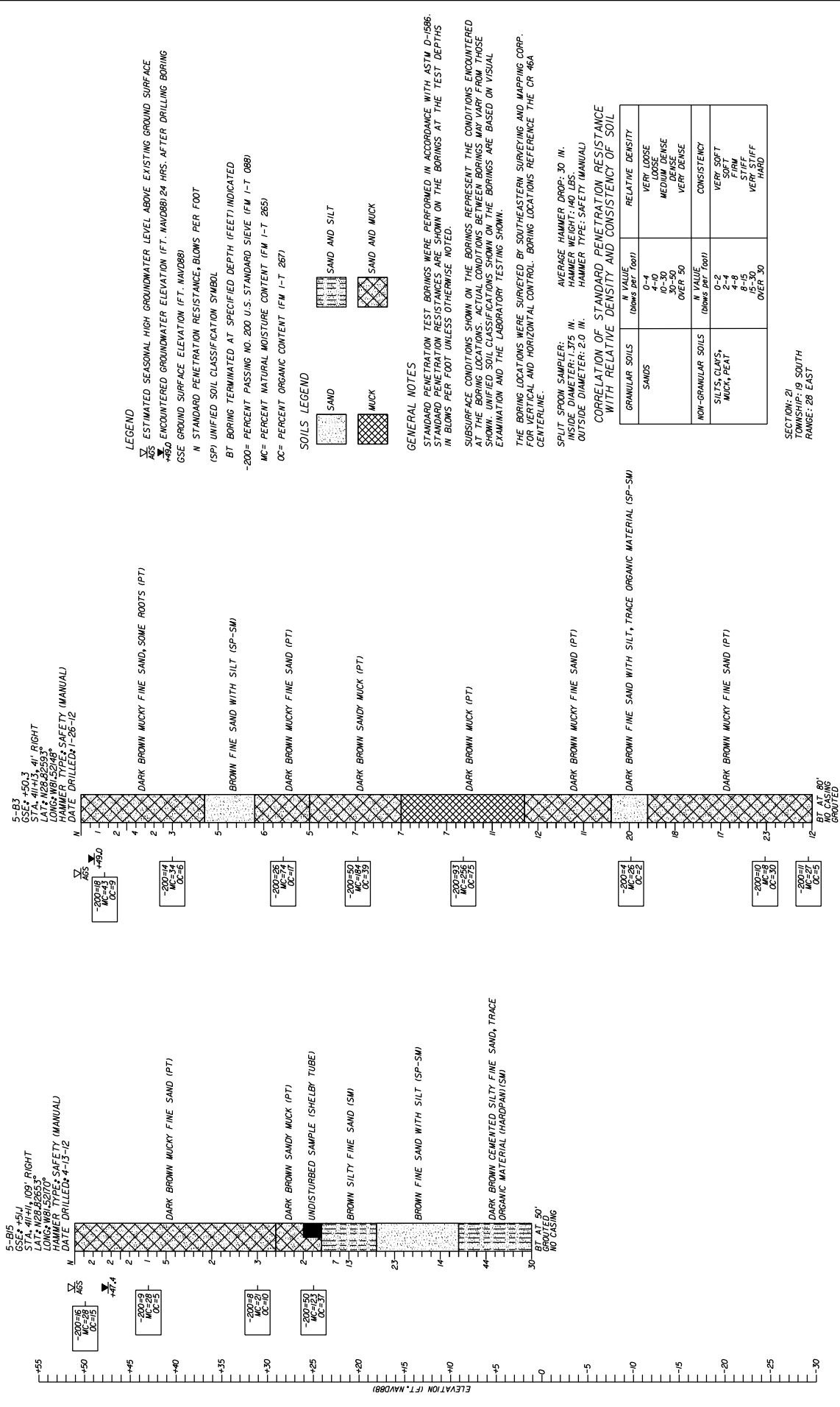


FIGURE 22

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

STATE OF FLORIDA		DEPARTMENT OF TRANSPORTATION	
ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
CR 46A	LAKE	238275-8-52-02	

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC. (GEC)  
 10000 W. BIRCHWOOD BLVD.  
 ORLANDO, FL 32816  
 TEL: 407-398-1816 FAX: 407-398-1827  
 WWW.GEOTECHCONSULTANTS.COM  
 DANIEL C. STANFILL PE NO. 42183

SHEET NO. GR-7



**LEGEND**

- ▽ ESTIMATED SEASONAL HIGH GROUNDWATER LEVEL ABOVE EXISTING GROUND SURFACE
- ▽ ESTIMATED SEASONAL HIGH GROUNDWATER ELEVATION (FT. NAVD88) ABOVE EXISTING GROUND SURFACE
- ▽ ENCOUNTERED GROUNDWATER ELEVATION (FT. NAVD88) 24 HRS. AFTER DRILLING BORING
- GSE ENCOUNTERED GROUNDWATER ELEVATION (FT. NAVD88)
- N STANDARD PENETRATION RESISTANCE, BLOWS PER FOOT
- (SP) UNIFIED SOIL CLASSIFICATION SYMBOL
- BT BORING TERMINATED AT SPECIFIED DEPTH (FEET) INDICATED
- 200= PERCENT PASSING NO. 200 U.S. STANDARD SIEVE (FM 1-T 088)
- MC= PERCENT NATURAL MOISTURE CONTENT (FM 1-T 265)
- OC= PERCENT ORGANIC CONTENT (FM 1-T 267)

**SOILS LEGEND**

- [Symbol] SAND
- [Symbol] SAND AND SILT
- [Symbol] SAND AND MUCK
- [Symbol] MUCK

**GENERAL NOTES**

STANDARD PENETRATION TEST BORINGS WERE PERFORMED IN ACCORDANCE WITH ASTM D-1586. STANDARD PENETRATION RESISTANCES ARE SHOWN ON THE BORINGS AT THE TEST DEPTHS IN BLOWS PER FOOT UNLESS OTHERWISE NOTED.

SUBSURFACE CONDITIONS SHOWN ON THE BORINGS REPRESENT THE CONDITIONS ENCOUNTERED AT THE BORING LOCATIONS. ACTUAL CONDITIONS BETWEEN BORINGS MAY VARY FROM THOSE SHOWN. UNIFIED SOIL CLASSIFICATIONS SHOWN ON THE BORINGS ARE BASED ON VISUAL EXAMINATION AND THE LABORATORY TESTING SHOWN.

THE BORING LOCATIONS 5-B14 AND 5-B2 WERE SURVEYED BY SOUTHEASTERN SURVEYING AND MAPPING CORP. FOR VERTICAL AND HORIZONTAL CONTROL. THE BORING LOCATION HF-6 WAS NOT SURVEYED. THE HF-6 BORING LOCATION WAS ESTABLISHED IN THE FIELD USING A THEODOLITE. THE SURFACE ELEVATION AT BORING LOCATION HF-6 WAS ESTIMATED FROM PROJECT CROSS SECTIONS. BORING LOCATIONS REFERENCE THE CR 46A CENTERLINE.

SPLIT SPOON SAMPLER: AVERAGE HAMMER DROP: 30 IN.  
 INSIDE DIAMETER: 1.375 IN. HAMMER WEIGHT: 140 LBS.  
 OUTSIDE DIAMETER: 2.0 IN. HAMMER TYPE: SAFETY MANUAL / AUTOMATIC

**CORRELATION OF STANDARD PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY OF SOIL**

GRANULAR SOILS	SAFETY MANUAL N VALUE (blows per foot)	AUTOMATIC N VALUE (blows per foot)	RELATIVE DENSITY
SANDS	0-4	0-3	VERY LOOSE
	5-10	3-8	LOOSE
	10-30	8-24	MEDIUM DENSE
	30-50	24-40	VERY DENSE
NON-GRANULAR SOILS	0-2	0-1	VERY SOFT
	3-4	1-2	SOFT
	5-15	3-6	FIRM
	15-30	6-12	STIFF
	OVER 30	OVER 24	VERY STIFF HARD

SECTION: 21  
 TOWNSHIP: 19 SOUTH  
 RANGE: 28 EAST

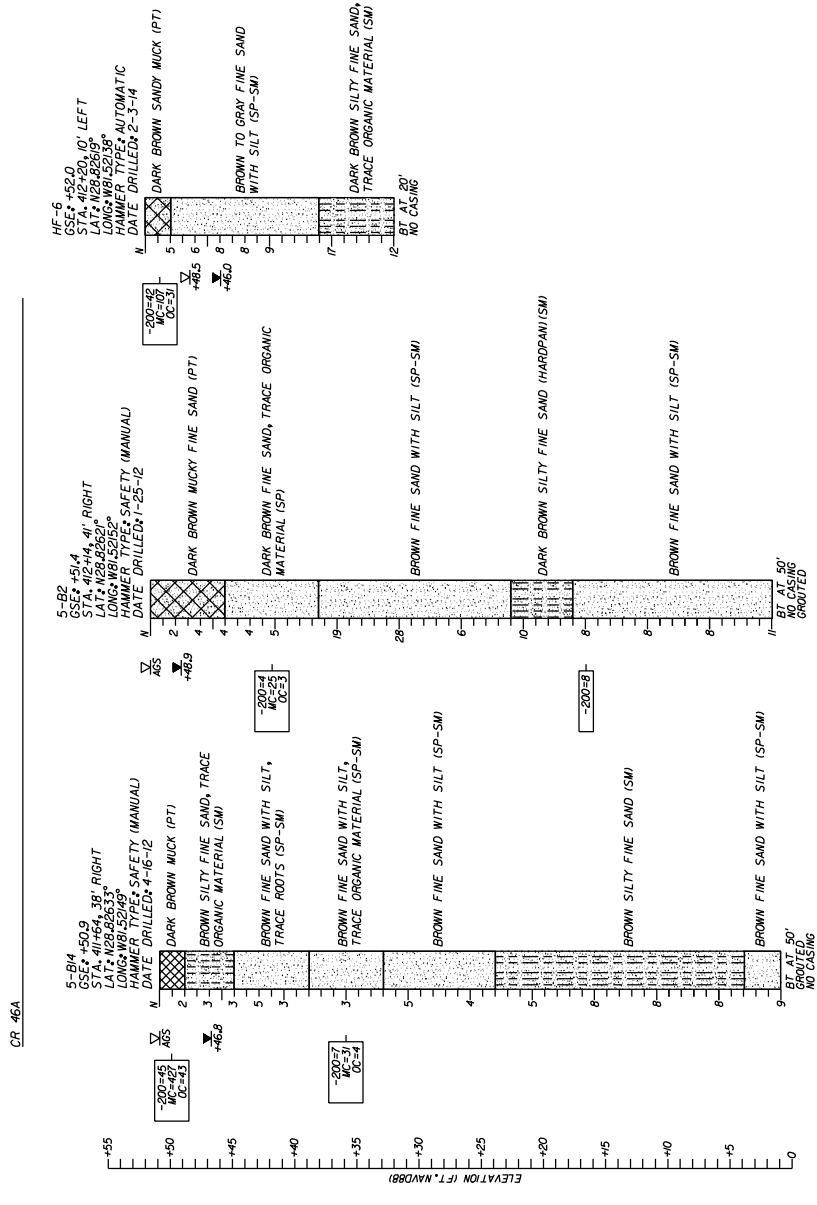
**FIGURE 23**

**ROADWAY SPT BORING RESULTS**

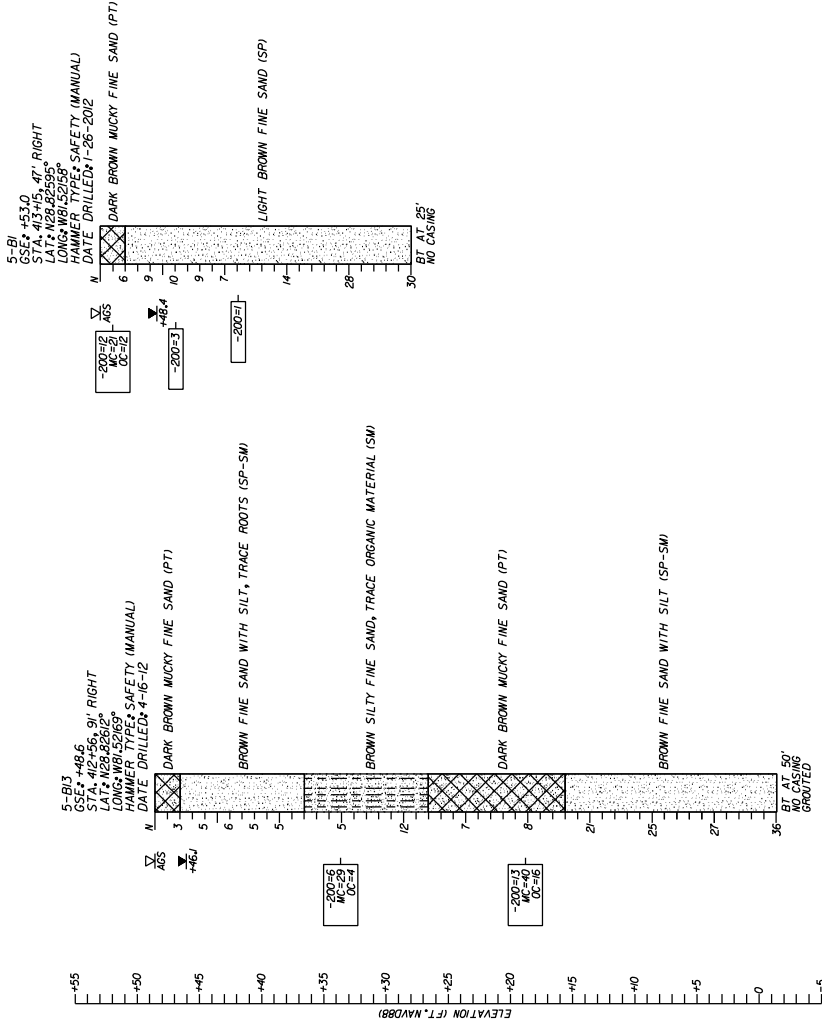
STATE OF FLORIDA	
DEPARTMENT OF TRANSPORTATION	
ROAD NO.	FINANCIAL PROJECT ID
CR 46A	238275-8-52-02

**GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC. (GEC)**  
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 www.gecinc.com  
 DANIEL C. STANFILL PE NO. 42183

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION



CR 46A



**LEGEND**  
 ▽ ESTIMATED SEASONAL HIGH GROUNDWATER LEVEL ABOVE EXISTING GROUND SURFACE  
 ▲ ENCOUNTERED GROUNDWATER ELEVATION (FT. NAVD88) 24 HRS. AFTER DRILLING BORING  
 N GSE GROUND SURFACE ELEVATION (FT. NAVD88)  
 N STANDARD PENETRATION RESISTANCE, BLOWS PER FOOT  
 (SP) UNIFIED SOIL CLASSIFICATION SYMBOL  
 BT BORING TERMINATED AT SPECIFIED DEPTH (FEET) INDICATED  
 -200= PERCENT PASSING NO. 200 U.S. STANDARD SIEVE (FM 1-T 088)  
 MC= PERCENT NATURAL MOISTURE CONTENT (FM 1-T 265)  
 OC= PERCENT ORGANIC CONTENT (FM 1-T 267)

**SOILS LEGEND**  
 SAND  
 SAND AND MUCK  
 SAND AND SILT

**GENERAL NOTES**  
 STANDARD PENETRATION TEST BORINGS WERE PERFORMED IN ACCORDANCE WITH ASTM D-1586. ALL PENETRATION TESTS WERE MADE DOWN ON THE BORINGS AT THE TEST DEPTHS IN BLOWS PER FOOT UNLESS OTHERWISE NOTED.  
 SUBSURFACE CONDITIONS SHOWN ON THE BORINGS REPRESENT THE CONDITIONS ENCOUNTERED AT THE BORING LOCATIONS. ACTUAL CONDITIONS BETWEEN BORINGS MAY VARY FROM THOSE SHOWN. UNIFIED SOIL CLASSIFICATIONS SHOWN ON THE BORINGS ARE BASED ON VISUAL EXAMINATION AND THE LABORATORY TESTING SHOWN.  
 THE BORING LOCATIONS WERE SURVEYED BY SOUTHEASTERN SURVEYING AND MAPPING, CORP. FOR VERTICAL AND HORIZONTAL CONTROL. BORING LOCATIONS REFERENCE THE CR 46A CENTERLINE.  
 SPLIT SPOON SAMPLER: AVERAGE HAMMER DROP: 30 IN.  
 INSIDE DIAMETER: 1.375 IN. HAMMER WEIGHT: 140 LBS.  
 OUTSIDE DIAMETER: 2.0 IN. HAMMER TYPE: SAFETY (MANUAL)  
 CORRELATION OF STANDARD PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY OF SOIL

GRANULAR SOILS	N VALUE (blows per foot)	RELATIVE DENSITY
SANDS	0-4	VERY LOOSE
	4-10	LOOSE
	10-30	MEDIUM DENSE
NON-GRANULAR SOILS	0-2	VERY SOFT
	2-4	SOFT
	4-6	FIRM
	6-10	STIFF
	10-30	VERY STIFF
	OVER 30	HARD

SECTION: 21  
 TOWNSHIP: 19 SOUTH  
 RANGE: 28 EAST

**STATE OF FLORIDA**  
**DEPARTMENT OF TRANSPORTATION**

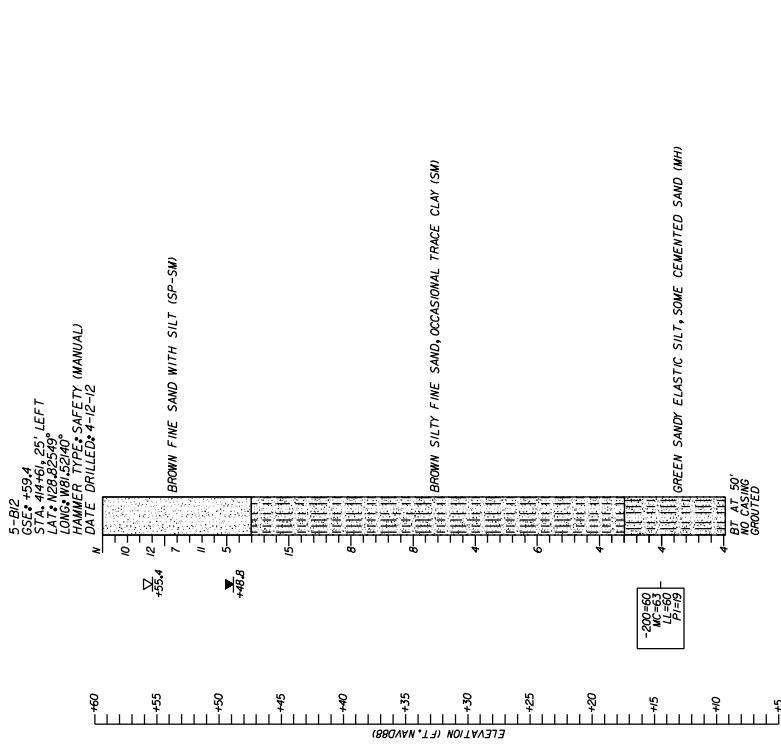
ROAD NO. CR 46A COUNTY LAKE FINANCIAL PROJECT ID 238275-8-52-02

**GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC. (GEC)**  
 10000  
 Orlando, FL 32816  
 F 407-988-1816 F 407-988-1857  
 F 407-988-1818  
 DANIEL C. STANFILL PE NO. 42183

**ROADWAY SPT BORING RESULTS**

FIGURE 24 SHEET NO. GR-9

CR 46A



- LEGEND**
- ▽ ESTIMATED SEASONAL HIGH GROUNDWATER ELEVATION (FT. NAVD83)
  - ▽ ENCOUNTERED GROUNDWATER ELEVATION (FT. NAVD83) 24 HRS. AFTER DRILLING BORING
  - GROUND SURFACE ELEVATION (FT. NAVD83)
  - N STANDARD PENETRATION RESISTANCE, BLOWS PER FOOT (SPI) UNIFIED SOIL CLASSIFICATION SYMBOL
  - BT BORING TERMINATED AT SPECIFIED DEPTH (FEET) INDICATED
  - MC= PERCENT PASSING NO. 200 U.S. STANDARD SIEVE (FM 1-T 088)
  - LL= LIQUID LIMIT (FM 1-T 089)
  - PI= PLASTICITY INDEX (FM 1-T 089)

**SOILS LEGEND**



**GENERAL NOTES**

STANDARD PENETRATION TEST BORINGS WERE PERFORMED IN ACCORDANCE WITH ASTM D-1586. STANDARD PENETRATION RESISTANCES ARE SHOWN ON THE BORINGS AT THE TEST DEPTHS IN BLOWS PER FOOT UNLESS OTHERWISE NOTED.

SURFACE CONDITIONS SHOWN ON THE BORINGS REPRESENT THE CONDITIONS ENCOUNTERED AT THE BORING LOCATIONS. ACTUAL CONDITIONS BETWEEN BORINGS MAY VARY FROM THOSE SHOWN. UNIFIED SOIL CLASSIFICATIONS SHOWN ON THE BORINGS ARE BASED ON VISUAL EXAMINATION AND THE LABORATORY TESTING SHOWN.

THE BORING LOCATIONS WERE SURVEYED BY SOUTHEASTERN SURVEYING AND MAPPING CORP. FOR VERTICAL AND HORIZONTAL CONTROL. BORING LOCATIONS REFERENCE THE CR 46A CENTERLINE.

SPLIT SPOON SAMPLER: AVERAGE HAMMER DROP: 30 IN.  
INSIDE DIAMETER: 1.375 IN. HAMMER WEIGHT: 140 LBS.  
OUTSIDE DIAMETER: 2.0 IN. HAMMER TYPE: SAFETY (MANUAL)

CORRELATION OF STANDARD PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY OF SOIL

GRANULAR SOILS	N VALUE (blows per foot)	RELATIVE DENSITY
SANDS	0-4	VERY LOOSE
	10-30	MEDIUM DENSE
	30-50	DENSE
NON-GRANULAR SOILS	0-2	VERY SOFT
	4-8	SOFT
SILTS, CLAYS, MUD, FEN	4-8	FIRM
	8-15	STIFF
	OVER 30	VERY STIFF

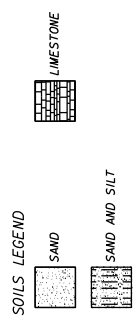
SECTION: 21  
TOWNSHIP: 18 SOUTH  
RANGE: 28 EAST

<p>STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION</p>		<p>ROAD NO. CR 46A</p>		<p>COUNTY LAKE</p>		<p>FINANCIAL PROJECT ID 238275-8-52-02</p>	
<p>DATE</p>		<p>DESCRIPTION</p>		<p>REVISIONS</p>		<p>DATE</p>	
<p>DESCRIPTION</p>		<p>DESCRIPTION</p>		<p>DESCRIPTION</p>		<p>DESCRIPTION</p>	
<p>GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC. (GEC) 10000 Orlando, FL 32816 T 407-298-8816 F 407-298-1827 www.gecinc.com</p>				<p>DANIEL C. STANFILL PE NO. 42183</p>			
<p><b>ROADWAY SPT BORING RESULTS</b></p>							
<p>FIGURE 25 SHEET NO. CR-10</p>							

CR 46A

5-BT-4571  
STA. 414+98.14' LEFT  
LAT: N28.622°40'  
LONG: W81.521°05'  
HAMMER TYPE: SAFETY (MANUAL)  
DATE DRILLED: 3-1-12

**LEGEND**  
 X̄ ESTIMATED SEASONAL HIGH GROUNDWATER LEVEL ABOVE EXISTING GROUND SURFACE  
 AGS ENCOUNTERED GROUNDWATER ELEVATION (FT. NAVD88) 24 HRS. AFTER DRILLING BORING  
 GSE GROUND SURFACE ELEVATION (FT. NAVD88)  
 N STANDARD PENETRATION RESISTANCE, BLOWS PER FOOT  
 W/R WEIGHT OF ROD  
 ◀ 100% PERCENT LOSS OF DRILLING FLUID  
 ◀ 50% PERCENT RETURN OF DRILLING FLUID  
 (SP) UNIFIED SOIL CLASSIFICATION SYMBOL  
 BT BORING TERMINATED AT SPECIFIED DEPTH (FEET) INDICATED  
 -200- PERCENT PASSING NO. 200 U.S. STANDARD SIEVE (FM 1-T 088)  
 MC= PERCENT NATURAL MOISTURE CONTENT (FM 1-T 265)  
 OC= PERCENT ORGANIC CONTENT (FM 1-T 267)



**GENERAL NOTES**  
 STANDARD PENETRATION TEST BORINGS WERE PERFORMED IN ACCORDANCE WITH ASTM D-1586. PENETRATION RESISTANCE IS SHOWN ON THE BORINGS AT THE TEST DEPTHS IN BLOWS PER FOOT UNLESS OTHERWISE NOTED.  
 SUBSURFACE CONDITIONS SHOWN ON THE BORINGS REPRESENT THE CONDITIONS ENCOUNTERED AT THE BORING LOCATIONS. ACTUAL CONDITIONS BETWEEN BORINGS MAY VARY FROM THOSE SHOWN. UNIFIED SOIL CLASSIFICATIONS SHOWN ON THE BORINGS ARE BASED ON VISUAL EXAMINATION AND THE LABORATORY TESTING SHOWN.  
 THE BORING LOCATIONS WERE SURVEYED BY SOUTHEASTERN SURVEYING AND MAPPING CORP. FOR VERTICAL AND HORIZONTAL CONTROL. BORING LOCATIONS REFERENCE THE CR 46A CENTERLINE.

SPLIT SPOON SAMPLER: AVERAGE HAMMER DROP: 30 IN.  
 INSIDE DIAMETER: 1.375 IN. HAMMER WEIGHT: 60 LBS.  
 OUTSIDE DIAMETER: 2.0 IN. HAMMER TYPE: SAFETY (MANUAL)  
 CORRELATION OF STANDARD PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY OF SOIL

GRANULAR SOILS	N VALUE (blows per foot)	RELATIVE DENSITY
SANDS	0-4	VERY LOOSE
	4-10	LOOSE
	10-30	MEDIUM DENSE
	OVER 30	VERY DENSE
NON-GRANULAR SOILS	N VALUE (blows per foot)	CONSISTENCY
	0-2	VERY SOFT
	2-4	SOFT
	4-8	FIRM
	8-15	VERY STIFF
	OVER 30	HARD

SECTION: 21  
 TOWNSHIP: 19 SOUTH  
 RANGE: 28 EAST

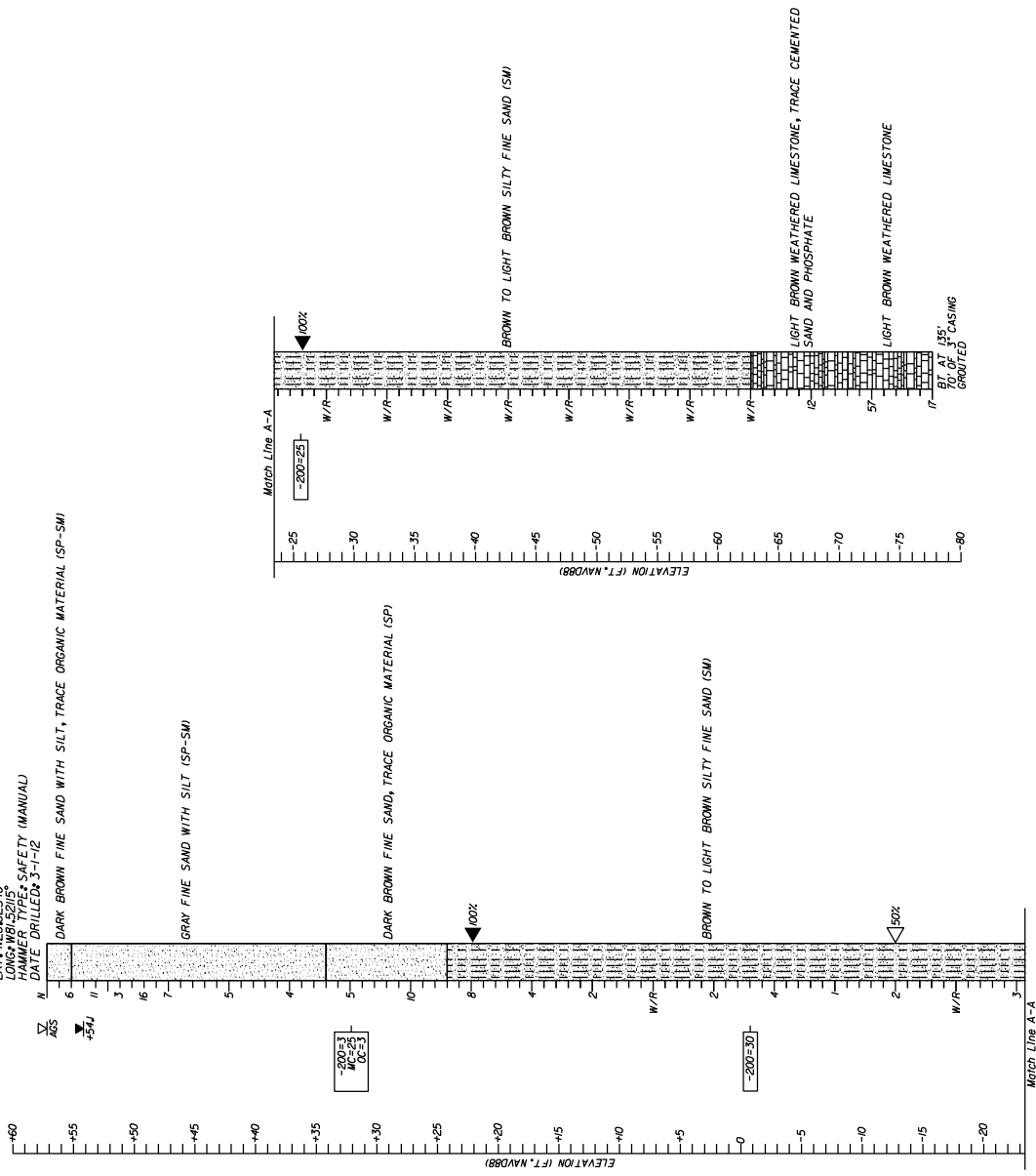


FIGURE 26

SHEET NO. CR-11

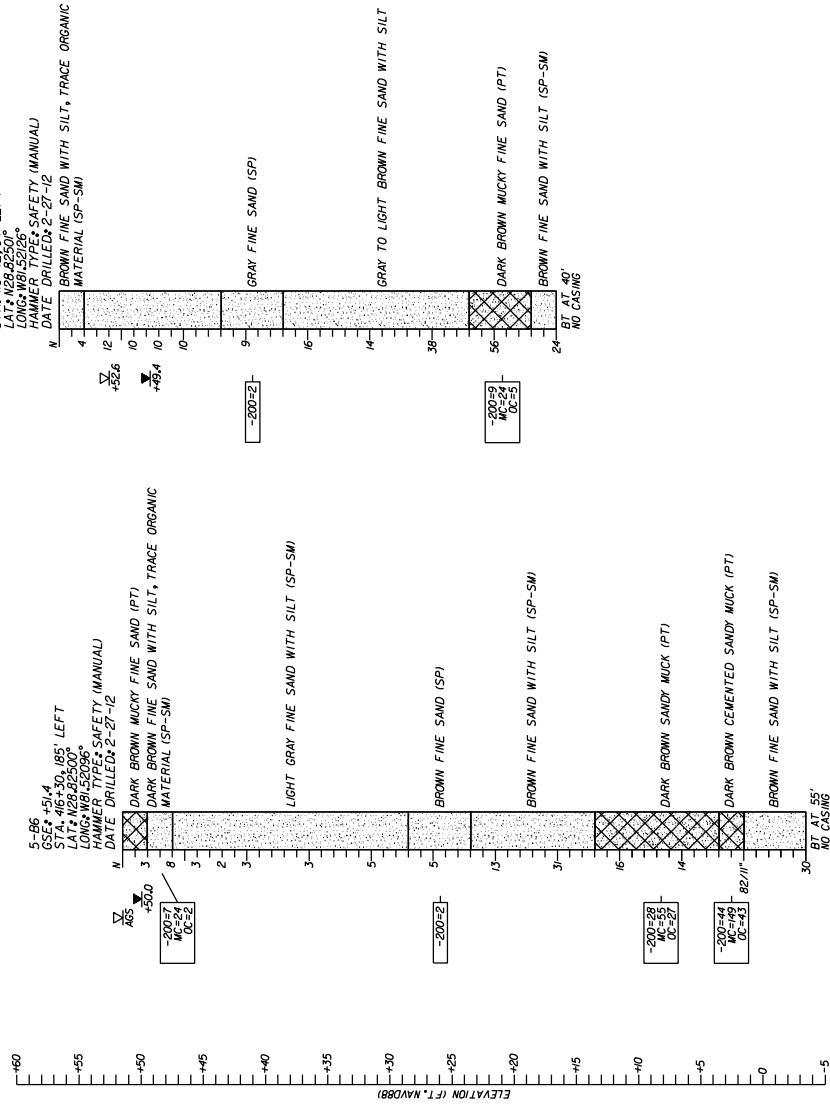
**ROADWAY SPT BORING RESULTS**

STATE OF FLORIDA	
DEPARTMENT OF TRANSPORTATION	
ROAD NO.	FINANCIAL PROJECT ID
CR 46A	238275-8-52-02
COUNTY	LAKE

**GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC. (GEC)**  
 600  
 Orlando, FL 32816  
 T 407-998-1816 F 407-998-1857  
 D 407-998-1816  
 DANIEL C. STANFILL PE NO. 42183

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

CR 46A



**LEGEND**

▽ ESTIMATED SEASONAL HIGH GROUNDWATER LEVEL ABOVE EXISTING GROUND SURFACE  
 ▽ ESTIMATED SEASONAL HIGH GROUNDWATER ELEVATION (FT. NAVD88)  
 ▽ ENCOUNTERED GROUNDWATER ELEVATION (FT. NAVD88) 24 HRS. AFTER DRILLING BORING  
 GSE GROUND SURFACE ELEVATION (FT. NAVD88)  
 N STANDARD PENETRATION RESISTANCE, BLOWS PER FOOT  
 BT BORING TERMINATED AT SPECIFIED DEPTH (FEET) INDICATED  
 (SP) UNIFIED SOIL CLASSIFICATION SYMBOL  
 -200- PERCENT PASSING NO. 200 U.S. STANDARD SIEVE (FM 1-T 088)  
 MC= PERCENT NATURAL MOISTURE CONTENT (FM 1-T 265)  
 CC= PERCENT ORGANIC CONTENT (FM 1-T 267)



**GENERAL NOTES**

STANDARD PENETRATION TEST BORINGS WERE PERFORMED IN ACCORDANCE WITH ASTM D-1586. STANDARD PENETRATION RESISTANCES ARE SHOWN ON THE BORINGS AT THE TEST DEPTHS IN BLOWS PER FOOT UNLESS OTHERWISE NOTED.

SUBSURFACE CONDITIONS SHOWN ON THE BORINGS REPRESENT THE CONDITIONS ENCOUNTERED AT THE BORING LOCATIONS. ACTUAL CONDITIONS BETWEEN BORINGS MAY VARY FROM THOSE SHOWN ON THE BORINGS. THE BORINGS ARE BASED ON VISUAL EXAMINATION AND THE LABORATORY TESTING SHOWN.

THE BORING LOCATIONS WERE SURVEYED BY SOUTHEASTERN SURVEYING AND MAPPING CORP. FOR VERTICAL AND HORIZONTAL CONTROL. BORING LOCATIONS REFERENCE THE CR 46A CENTERLINE.

SPLIT SPOON SAMPLER: AVERAGE HAMMER DROP: 30 IN.  
 HAMMER WEIGHT: 14 LBS.  
 HAMMER TYPE: SAFETY (MANUAL)  
 OUTSIDE DIAMETER: 2.0 IN.

**CORRELATION OF STANDARD PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY OF SOIL**

GRANULAR SOILS	N VALUE (blows per foot)	RELATIVE DENSITY
SANDS	0-4	VERY LOOSE
	4-10	LOOSE
	10-30	MEDIUM DENSE
	30-50	DENSE
	OVER 50	VERY DENSE
NON-GRANULAR SOILS	N VALUE (blows per foot)	CONSISTENCY
SILTS, CLAYS, MUCK, PEAT	0-2	VERY SOFT
	2-4	SOFT
	4-8	STIFF
	8-15	VERY STIFF
	15-30	STIFF
	OVER 30	HARD

SECTION: 21  
 TOWNSHIP: 19 SOUTH  
 RANGE: 28 EAST

FIGURE 27

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	SHEET NO.
ROAD NO. CR 46A	CR-12
COUNTY LAKE	
FINANCIAL PROJECT ID 238275-8-52-02	

**ROADWAY SPT BORING RESULTS**

**GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC. (GEC)**  
 1000  
 Orlando, FL 32816  
 F 407-398-1816 F 407-398-1837  
 F 407-398-1818  
 DANIEL C. STANFILL PE NO. 42183

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

CR 46A

HF-7  
GSE+466.5  
STA. 466+00, 15' LEFT  
LAT. N28.8129°  
LONG. W81.5182°  
HAMMER TYPE: AUTOMATIC  
DATE DRILLED: 8-21-14

AB-168A  
GSE+456.2  
STA. 467+40, 70' RIGHT  
LAT. N28.8126°  
LONG. W81.5178°  
HAMMER TYPE: AUTOMATIC  
DATE DRILLED: 2-10-14

HF-7  
GSE+466.5  
STA. 466+00, 15' LEFT  
LAT. N28.8129°  
LONG. W81.5182°  
HAMMER TYPE: AUTOMATIC  
DATE DRILLED: 8-21-14

AB-168A  
GSE+456.2  
STA. 467+40, 70' RIGHT  
LAT. N28.8126°  
LONG. W81.5178°  
HAMMER TYPE: AUTOMATIC  
DATE DRILLED: 2-10-14

HF-7  
GSE+466.5  
STA. 466+00, 15' LEFT  
LAT. N28.8129°  
LONG. W81.5182°  
HAMMER TYPE: AUTOMATIC  
DATE DRILLED: 8-21-14

AB-168A  
GSE+456.2  
STA. 467+40, 70' RIGHT  
LAT. N28.8126°  
LONG. W81.5178°  
HAMMER TYPE: AUTOMATIC  
DATE DRILLED: 2-10-14



**LEGEND**

- ▲ ESTIMATED SEASONAL HIGH GROUNDWATER ELEVATION (FT. NAVDB)
- ▼ ENCOUNTERED GROUNDWATER ELEVATION (FT. NAVDB) 24 HRS. AFTER DRILLING BORING
- GSE GROUND SURFACE ELEVATION (FT. NAVDB)
- N STANDARD PENETRATION RESISTANCE, BLOWS PER FOOT
- W/R WEIGHT OF ROD
- W/H WEIGHT OF HAMMER
- (SP) UNIFIED SOIL CLASSIFICATION SYMBOL
- BT BORING TERMINATED AT SPECIFIED DEPTH (FEET) INDICATED
- 200= PERCENT NATURAL MOISTURE CONTENT (FM 1-T 265)
- MC= PERCENT ORGANIC CONTENT (FM 1-T 267)

**SOILS LEGEND**

- SAND
- SAND AND SILT
- SAND AND MUCK
- MUCK

**GENERAL NOTES**

STANDARD PENETRATION TEST BORINGS WERE PERFORMED IN ACCORDANCE WITH ASTM D-1586. STANDARD PENETRATION RESISTANCES ARE SHOWN ON THE BORINGS AT THE TEST DEPTHS IN BLOWS PER FOOT UNLESS OTHERWISE NOTED.

SUBSURFACE CONDITIONS SHOWN ON THE BORINGS REPRESENT THE CONDITIONS ENCOUNTERED AT THE BORING LOCATIONS. ACTUAL CONDITIONS BETWEEN BORINGS MAY VARY FROM THOSE SHOWN. UNIFIED SOIL CLASSIFICATIONS SHOWN ON THE BORINGS ARE BASED ON VISUAL EXAMINATION AND THE LABORATORY TESTING SHOWN.

THE BORING LOCATIONS WERE NOT SURVEYED. BORING LOCATIONS WERE ESTABLISHED IN THE FIELD USING A SUBMETER ACCURACY GPS UNIT (TRIMBLE GEOFF) FOR HORIZONTAL CONTROL. GROUND SURFACE ELEVATIONS ESTIMATED FROM PROJECT CROSS SECTIONS. BORING LOCATIONS REFERENCE THE CR 46A CENTERLINE.

SPLIT SPOON SAMPLER: AVERAGE HAMMER DROP: 30 IN.  
INSIDE DIAMETER: 1.375 IN. HAMMER WEIGHT: 140 LBS.  
OUTSIDE DIAMETER: 2.0 IN. HAMMER TYPE: AUTOMATIC

CORRELATION OF STANDARD PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY OF SOIL

GRANULAR SOILS	N VALUE (blows per foot)	RELATIVE DENSITY
SANDS	0-3	VERY LOOSE
	4-7	LOOSE
	8-24	MEDIUM DENSE
	24-40	VERY DENSE
OVER 40		
NON-GRANULAR SOILS	N VALUE (blows per foot)	CONSISTENCY
SILTS, CLAYS, MUCKS, PEAT	0-1	VERY SOFT
	1-3	SOFT
	4-10	MEDIUM STIFF
	10-24	STIFF
	OVER 24	VERY STIFF

SECTION: 28  
TOWNSHIP: 19 SOUTH  
RANGE: 28 EAST

**STATE OF FLORIDA**  
DEPARTMENT OF TRANSPORTATION

**ROADWAY SPT BORING RESULTS**

ROAD NO. CR 46A COUNTY LAKE FINANCIAL PROJECT ID 238275-8-52-02

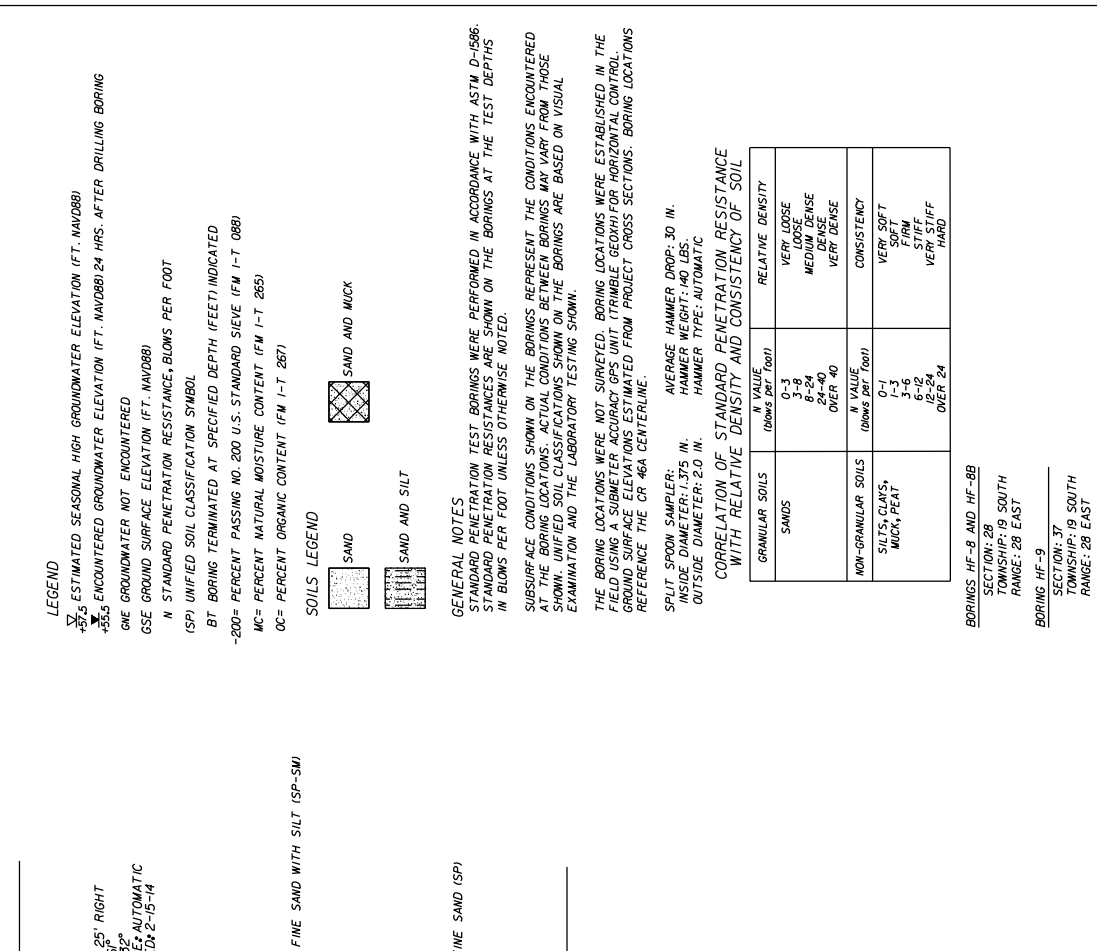
DATE DESCRIPTION REVISIONS DATE DESCRIPTION

**GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC. (GEC)**  
Orlando, FL 32814  
919 Lake Baldwin Lane  
Orlando, FL 32814  
Professional Engineer  
Certificate of Authorization No. 5882

DANIEL C. STANFILL PE NO. 42763

FIGURE 29 SHEET NO. GR-13

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**LEGEND**

▽ ESTIMATED SEASONAL HIGH GROUNDWATER ELEVATION (FT. NAVD88)  
 +37.5 ENCOUNTERED GROUNDWATER ELEVATION (FT. NAVD88) 24 HRS. AFTER DRILLING BORING  
 ○ ONE GROUNDWATER NOT ENCOUNTERED  
 GSE GROUND SURFACE ELEVATION (FT. NAVD88)  
 N STANDARD PENETRATION RESISTANCE, BLOWS PER FOOT  
 (SPI) UNIFIED SOIL CLASSIFICATION SYMBOL  
 BT BORING TERMINATED AT SPECIFIED DEPTH (FEET) INDICATED  
 -200= PERCENT PASSING NO. 200 U.S. STANDARD SIEVE (FM I-T 088)  
 MC= PERCENT NATURAL MOISTURE CONTENT (FM I-T 265)  
 OC= PERCENT ORGANIC CONTENT (FM I-T 267)

**SOILS LEGEND**

SAND  
 SAND AND MUCK  
 SAND AND SILT

**GENERAL NOTES**

STANDARD PENETRATION TEST BORINGS WERE PERFORMED IN ACCORDANCE WITH ASTM D-1586. STANDARD PENETRATION RESISTANCE VALUES ARE SHOWN ON THE BORINGS AT THE TEST DEPTHS IN BLOWS PER FOOT UNLESS OTHERWISE NOTED.

SUBSURFACE CONDITIONS SHOWN ON THE BORINGS REPRESENT THE CONDITIONS ENCOUNTERED AT THE BORING LOCATIONS. ACTUAL CONDITIONS BETWEEN BORINGS MAY VARY FROM THOSE SHOWN. UNIFIED SOIL CLASSIFICATIONS SHOWN ON THE BORINGS ARE BASED ON VISUAL EXAMINATION AND THE LABORATORY TESTING SHOWN.

THE BORING LOCATIONS WERE NOT SURVEYED. BORING LOCATIONS WERE ESTABLISHED IN THE FIELD USING A SURVEYOR. ACCURACY GPS UNIT OBTAINABLE. GEOMAT FOR HORIZONTAL CONTROL. GROUND SURFACE ELEVATIONS ESTIMATED FROM PROJECT CROSS SECTIONS. BORING LOCATIONS REFERENCE THE CR 46A CENTERLINE.

SPLIT SPOON SAMPLER: AVERAGE HAMMER DROP: 30 IN.  
 INSIDE DIAMETER: 1.375 IN. HAMMER WEIGHT: 140 LBS.  
 OUTSIDE DIAMETER: 2.0 IN. HAMMER TYPE: AUTOMATIC

**CORRELATION OF STANDARD PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY OF SOIL**

GRANULAR SOILS	N VALUE (blows per foot)	RELATIVE DENSITY
SANDS	0-3	VERY LOOSE
	3-8	LOOSE
	8-15	MEDIUM DENSE
	15-30	VERY DENSE
NON-GRANULAR SOILS	N VALUE (blows per foot)	CONSISTENCY
	0-1	VERY SOFT
	1-3	SOFT
	3-16	FIRM
	16-30	STIFF
	30-50	VERY STIFF
	OVER 50	HARD

**BORINGS HF-8 AND HF-8B**

SECTION: 28  
 TOWNSHIP: 19 SOUTH  
 RANGE: 28 EAST

**BORING HF-9**

SECTION: 37  
 TOWNSHIP: 19 SOUTH  
 RANGE: 28 EAST

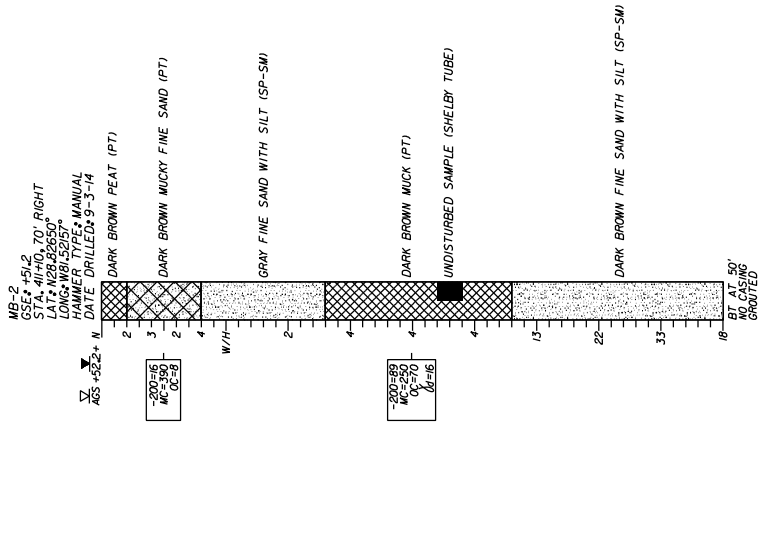
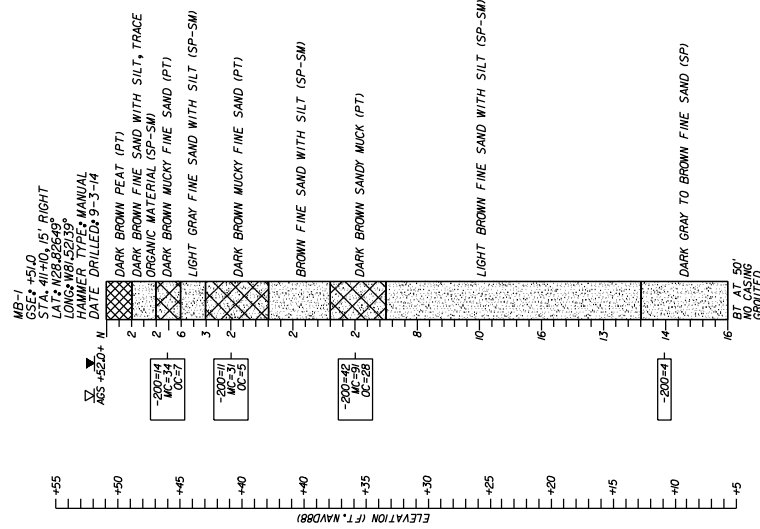
**FIGURE 29**

**ROADWAY SPT BORING RESULTS**

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		ROAD NO. CR 46A	COUNTY LAKE	FINANCIAL PROJECT ID 238275-9-52-02	SHEET NO. GR-14
<b>GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS INC. (GEC)</b> <small>918 Lake Shoreway Lane          Orlando, FL 32819          Phone: (407) 848-1837          Certificate of Authorization No. 5882</small>		<b>DANIEL C. STANFILL</b> <small>PE NO. 42783</small>		<b>FIGURE 29</b>	

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CR 46A



**LEGEND**

▽ ESTIMATED SEASONAL HIGH GROUNDWATER LEVEL ABOVE GROUND SURFACE  
 ▲ ENCOUNTERED STANDING GROUNDWATER ELEVATION (FT. NAVD88) 24 HRS. AFTER DRILLING BORING  
 +200= GROUND SURFACE ELEVATION (FT. NAVD88)  
 N STANDARD PENETRATION RESISTANCE, BLOWS PER FOOT  
 W/H WEIGHT OF HAMMER  
 (SP) UNIFIED SOIL CLASSIFICATION SYMBOL  
 BT BORING TERMINATED AT SPECIFIED DEPTH (FEET) INDICATED  
 -200= PERCENT PASSING NO. 200 U.S. STANDARD SIEVE (FM 1-T 088)  
 MC= PERCENT NATURAL MOISTURE CONTENT (FM 1-T 285)  
 OC= PERCENT ORGANIC CONTENT (FM 1-T 287)  
 γ<sub>d</sub>= DRY UNIT WEIGHT (pcf)

**SOILS LEGEND**

SAND  
 MUCK / PEAT  
 SAND AND MUCK

**GENERAL NOTES**

STANDARD PENETRATION TEST BORINGS WERE PERFORMED IN ACCORDANCE WITH ASTM D-1586. STANDARD PENETRATION RESISTANCES ARE SHOWN ON THE BORINGS AT THE TEST DEPTHS IN BLOWS PER FOOT UNLESS OTHERWISE NOTED.

SUBSURFACE CONDITIONS SHOWN ON THE BORINGS REPRESENT THE CONDITIONS ENCOUNTERED AT THE BORING LOCATIONS. ACTUAL CONDITIONS BETWEEN BORINGS MAY VARY FROM THOSE SHOWN. UNIFIED SOIL CLASSIFICATIONS SHOWN ON THE BORINGS ARE BASED ON VISUAL EXAMINATION AND THE LABORATORY TESTING SHOWN.

THE BORING LOCATIONS WERE NOT SURVEYED. BORING LOCATIONS WERE ESTABLISHED IN THE FIELD BY ACCURATELY LOCATING THE GROUNDWATER MONITORING POINTS. THE GROUNDWATER MONITORING POINT SURFACE ELEVATIONS ESTIMATED FROM PROJECT CROSS SECTIONS. BORING LOCATIONS REFERENCE THE CR 46A CENTERLINE.

SPLIT SPOON SAMPLER: AVERAGE HAMMER DROP: 30 IN.  
 INSIDE DIAMETER: 1.375 IN. HAMMER WEIGHT: 140 LBS.  
 OUTSIDE DIAMETER: 2.0 IN. HAMMER TYPE: MANUAL

**CORRELATION OF STANDARD PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY OF SOIL**

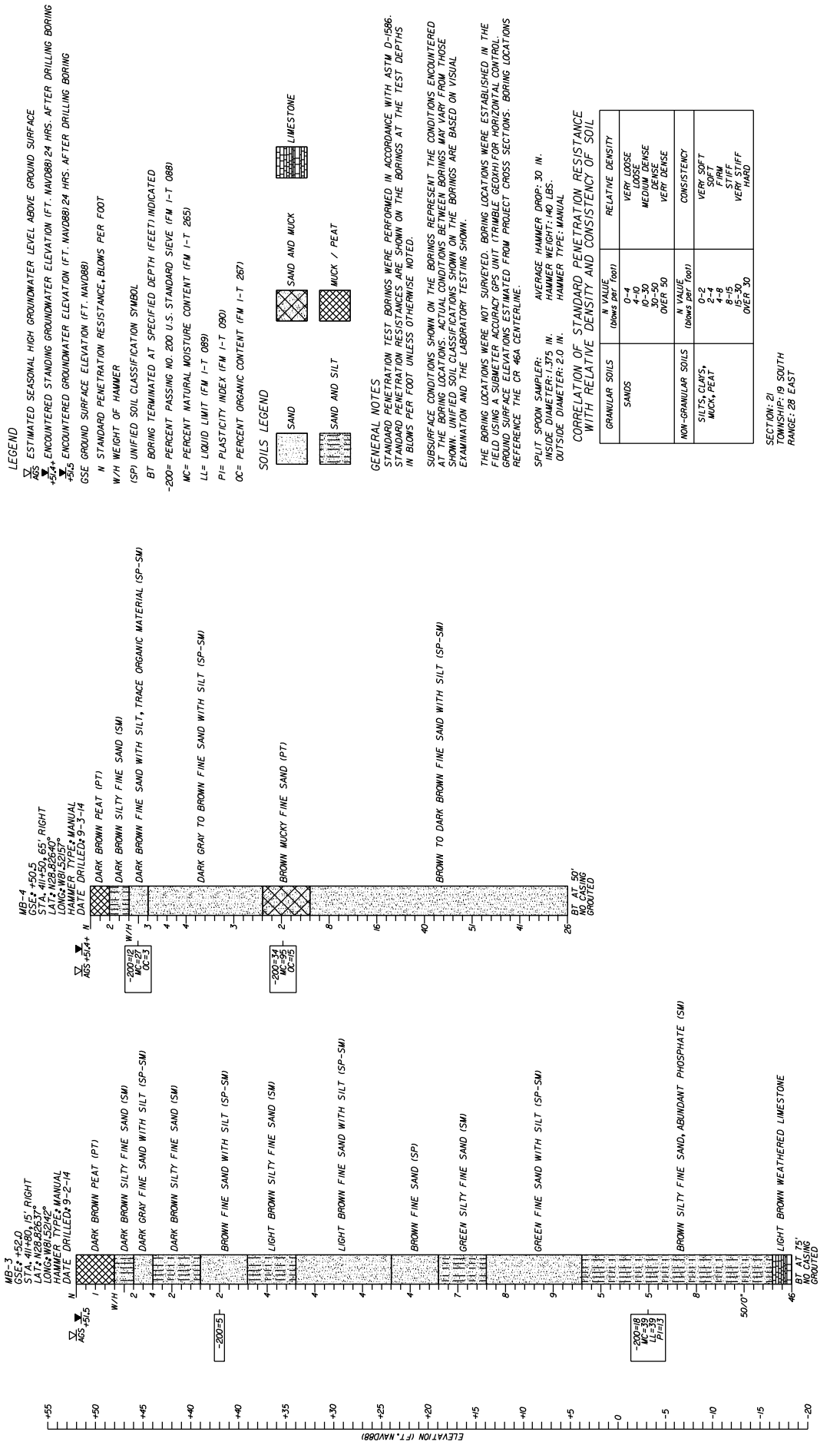
GRANULAR SOILS	N VALUE (blows per foot)	RELATIVE DENSITY
SANDS	0-4	VERY LOOSE
	4-10	LOOSE
	10-30	MEDIUM DENSE
	OVER 30	VERY DENSE
NON-GRANULAR SOILS	0-2	CONSISTENCY
	2-4	VERY SOFT
	4-8	SOFT
	8-15	FIRM
	15-30	VERY STIFF
	OVER 30	HARD

SECTION 21  
 TOWNSHIP: 19 SOUTH  
 RANGE: 28 EAST

<p>STATE OF FLORIDA          DEPARTMENT OF TRANSPORTATION</p>		<p>ROAD NO. CR 46A          COUNTY LAKE</p>	<p>FINANCIAL PROJECT ID          238275-9-52-02</p>	<p>FIGURE          SHEET NO.          GR-15</p>
<p>GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS INC. (GEC)          918 Lake Shoreway Lane          Orlando, FL 32819 F 407-848-1837          Certificate of Authorization No. 5682</p>				
<p>DATE</p>		<p>REVISIONS</p>		<p>PROJECT NO. 42763          DANIEL C. STANFILL PE NO. 42763</p>
<p>DESCRIPTION</p>		<p>DESCRIPTION</p>		



CR 46A



**LEGEND**

▽ ESTIMATED SEASONAL HIGH GROUNDWATER LEVEL ABOVE GROUND SURFACE  
 ▲ ENCOUNTERED STANDING GROUNDWATER ELEVATION (FT. NAVD88) 24 HRS. AFTER DRILLING BORING  
 +55 ENCOUNTERED GROUNDWATER ELEVATION (FT. NAVD88) 24 HRS. AFTER DRILLING BORING  
 GSE GROUND SURFACE ELEVATION (FT. NAVD88)  
 N STANDARD PENETRATION RESISTANCE, BLOWS PER FOOT  
 W/H WEIGHT OF HAMMER  
 (SP) UNIFIED SOIL CLASSIFICATION SYMBOL  
 BT BORING TERMINATED AT SPECIFIED DEPTH (FEET) INDICATED  
 -200= PERCENT PASSING NO. 200 U.S. STANDARD SIEVE (FM I-T 088)  
 MC= PERCENT NATURAL MOISTURE CONTENT (FM I-T 265)  
 LL= LIQUID LIMIT (FM I-T 089)  
 PI= PLASTICITY INDEX (FM I-T 089)  
 OC= PERCENT ORGANIC CONTENT (FM I-T 267)

**SOILS LEGEND**

SAND  
 SAND AND SILT  
 SAND AND MUCK  
 MUCK / PEAT  
 LIMESTONE

**GENERAL NOTES**

STANDARD PENETRATION TEST BORINGS WERE PERFORMED IN ACCORDANCE WITH ASTM D-1586. STANDARD PENETRATION RESISTANCES ARE SHOWN ON THE BORINGS AT THE TEST DEPTHS IN BLOWS PER FOOT UNLESS OTHERWISE NOTED.

SUBSURFACE CONDITIONS SHOWN ON THE BORINGS REPRESENT THE CONDITIONS ENCOUNTERED AT THE BORING LOCATIONS. ACTUAL CONDITIONS BETWEEN BORINGS MAY VARY FROM THOSE SHOWN. UNIFIED SOIL CLASSIFICATIONS SHOWN ON THE BORINGS ARE BASED ON VISUAL EXAMINATION AND THE LABORATORY TESTING SHOWN.

THE BORING LOCATIONS WERE NOT SURVEYED. BORING LOCATIONS WERE ESTABLISHED IN THE FIELD BY A SURVEYOR. UNITS (7) HAVE BEEN GEODAS HORIZONTAL CONTROL POINTS. GROUND SURFACE ELEVATIONS ESTIMATED FROM PROJECT CROSS SECTIONS. BORING LOCATIONS REFERENCE THE CR 46A CENTERLINE.

SPLIT SPOON SAMPLER:  
 AVERAGE HAMMER DROP: 30 IN.  
 INSIDE DIAMETER: 1.375 IN.  
 HAMMER WEIGHT: 140 LBS.  
 OUTSIDE DIAMETER: 2.0 IN.

**CORRELATION OF STANDARD PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY OF SOIL**

GRANULAR SOILS	N VALUE (blows per foot)	RELATIVE DENSITY
SANDS	0-4	VERY LOOSE
	4-10	LOOSE
	10-30	MEDIUM DENSE
NON-GRANULAR SOILS	0-2	VERY SOFT
	2-4	SOFT
	4-8	FIRM
SILTS; CLAYS; MUCK; PEAT	0-2	VERY STIFF
	2-4	STIFF
	4-8	HARD

SECTION: 21  
 TOWNSHIP: 19 SOUTH  
 RANGE: 28 EAST

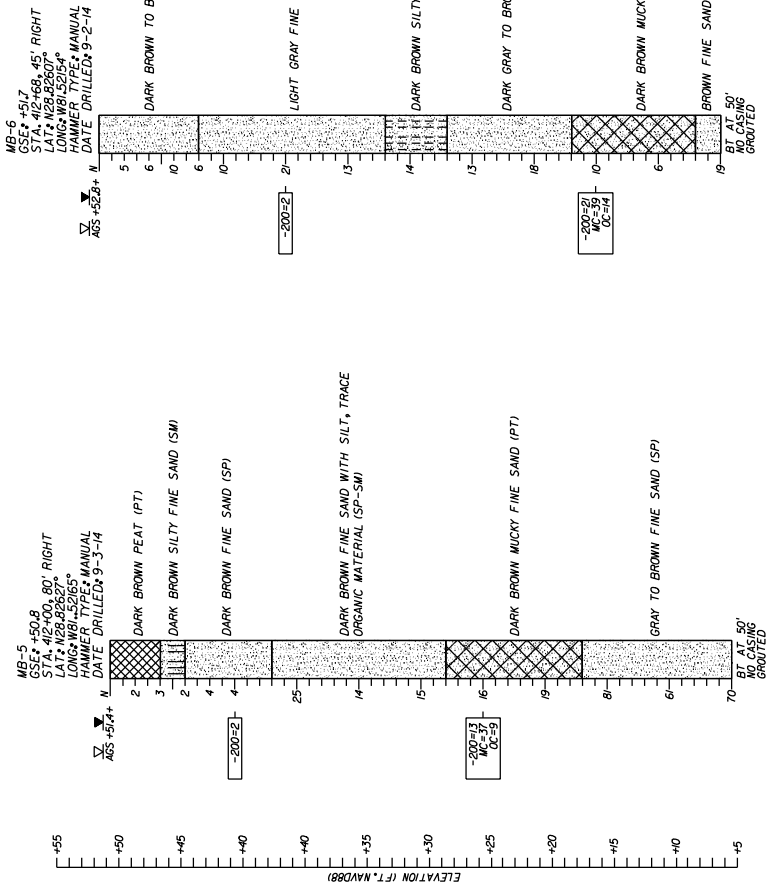
**STATE OF FLORIDA**  
**DEPARTMENT OF TRANSPORTATION**  
 ROAD NO. CR 46A  
 COUNTY LAKE  
 FINANCIAL PROJECT ID 238275-8-52-02

**GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS INC. (GEC)**  
 918 Lake Shoreway Lane  
 Orlando, FL 32814 F 407-848-1837  
 Certificate of Authorization No. 5882  
 DANIEL C. STANFILL PE NO. 42783

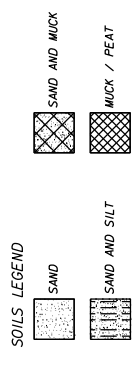
DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

**FIGURE** SHEET NO. GR-16

CR 46A



**LEGEND**  
 AS+ ESTIMATED SEASONAL HIGH GROUNDWATER LEVEL ABOVE GROUND SURFACE  
 AS+ ENCOUNTERED STANDING GROUNDWATER ELEVATION (FT. NAVD88) 24 HRS. AFTER DRILLING BORING  
 GSE GROUND SURFACE ELEVATION (FT. NAVD88)  
 N STANDARD PENETRATION RESISTANCE BLOWS PER FOOT  
 (SP) UNIFIED SOIL CLASSIFICATION SYMBOL  
 BT BORING TERMINATED AT SPECIFIED DEPTH (FEET) INDICATED  
 -200+ PERCENT PASSING NO. 200 U.S. STANDARD SIEVE (FM 1-T 088)  
 MC= PERCENT NATURAL MOISTURE CONTENT (FM 1-T 265)  
 OC= PERCENT ORGANIC CONTENT (FM 1-T 287)



**GENERAL NOTES**  
 STANDARD PENETRATION TEST BORINGS WERE PERFORMED IN ACCORDANCE WITH ASTM D-1586. STANDARD PENETRATION RESISTANCES ARE SHOWN ON THE BORINGS AT THE TEST DEPTHS IN BLOWS PER FOOT UNLESS OTHERWISE NOTED.  
 SUBSURFACE CONDITIONS SHOWN ON THE BORINGS REPRESENT THE CONDITIONS ENCOUNTERED AT THE BORING LOCATIONS. ACTUAL CONDITIONS BETWEEN BORINGS MAY VARY FROM THOSE SHOWN. UNIFIED SOIL CLASSIFICATIONS SHOWN ON THE BORINGS ARE BASED ON VISUAL EXAMINATION AND THE LABORATORY TESTING SHOWN.  
 THE BORING LOCATIONS WERE NOT SURVEYED. BORING LOCATIONS WERE ESTABLISHED IN THE FIELD BY MEANS OF A SURFACE SURVEY. HORIZONTAL LOCATIONS SHOWN ON THE GROUND SURFACE ELEVATIONS ESTIMATED FROM PROJECT CROSS SECTIONS. BORING LOCATIONS REFERENCE THE CR 46A CENTERLINE.  
 SPLIT SPOON SAMPLER: AVERAGE HAMMER DROP: 30 IN.  
 INSIDE DIAMETER: 1.375 IN. HAMMER WEIGHT: 140 LBS.  
 OUTSIDE DIAMETER: 2.0 IN. HAMMER TYPE: MANUAL  
 CORRELATION OF STANDARD PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY OF SOIL

RELATIVE DENSITY	CONSISTENCY
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
OVER 50	VERY DENSE
CONSISTENCY	RELATIVE DENSITY
0-2	VERY SOFT
2-4	SOFT
4-8	FIRM
8-15	STIFF
15-30	VERY STIFF
OVER 30	HARD

SECTION: 21  
 TOWNSHIP: 19 SOUTH  
 RANGE: 28 EAST

**STATE OF FLORIDA**  
 DEPARTMENT OF TRANSPORTATION

**CR 46A** COUNTY: LAKE ROAD NO. 238275-8-52-02

**FINANCIAL PROJECT ID**

**FIGURE** SHEET NO. GR-17

**MUCK DELINEATION**  
**SPT BORING RESULTS**

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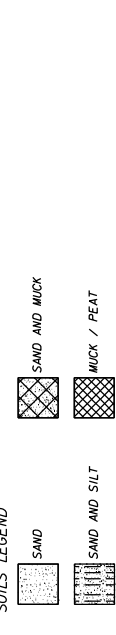
**GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC. (GEC)**  
 918 Lake Shoreway Lane  
 Orlando, FL 32816 F 407-898-1937  
 Certificate of Authorization No. 5882  
 DANIEL C. STANFILL PE NO. 42783

DATE	DESCRIPTION

SECRET

**LEGEND**

▲ ESTIMATED SEASONAL HIGH GROUNDWATER LEVEL ABOVE GROUND SURFACE  
 ▲ ENCOUNTERED STANDING GROUNDWATER ELEVATION (FT. NAVD88) 24 HRS. AFTER DRILLING BORING  
 ▲ GROUND SURFACE ELEVATION (FT. NAVD88)  
 N STANDARD PENETRATION RESISTANCE, BLOWS PER FOOT  
 W/H WEIGHT OF HAMMER  
 (SP) UNIFIED SOIL CLASSIFICATION SYMBOL  
 BT BORING TERMINATED AT SPECIFIED DEPTH (FEET) INDICATED  
 -200= PERCENT PASSING NO. 200 U.S. STANDARD SIEVE (FM I-T 268)  
 MC= PERCENT NATURAL MOISTURE CONTENT (FM I-T 265)  
 OC= PERCENT ORGANIC CONTENT (FM I-T 267)



**GENERAL NOTES**

STANDARD PENETRATION TEST BORINGS WERE PERFORMED IN ACCORDANCE WITH ASTM D-1586. STANDARD PENETRATION RESISTANCES ARE SHOWN ON THE BORINGS AT THE TEST DEPTHS IN BLOWS PER FOOT UNLESS OTHERWISE NOTED.

SUBSURFACE CONDITIONS SHOWN ON THE BORINGS REPRESENT THE CONDITIONS ENCOUNTERED AT THE BORING LOCATIONS. ACTUAL CONDITIONS BETWEEN BORINGS MAY VARY FROM THOSE SHOWN. UNIFIED SOIL CLASSIFICATIONS SHOWN ON THE BORINGS ARE BASED ON VISUAL EXAMINATION AND THE LABORATORY TESTING SHOWN.

THE BORING LOCATIONS WERE NOT SURVEYED. BORING LOCATIONS WERE ESTABLISHED IN THE FIELD BY VISUAL MEANS. UNLESS OTHERWISE INDICATED, ALL HORIZONTAL CONTROL POINTS AND GROUND SURFACE ELEVATIONS ESTIMATED FROM PROJECT CROSS SECTIONS. BORING LOCATIONS REFERENCE THE CR 46A CENTERLINE.

SPLIT SPOON SAMPLER:  
 AVERAGE HAMMER DROP: 30 IN.  
 INSIDE DIAMETER: 1.375 IN.  
 HAMMER WEIGHT: 140 LBS.  
 OUTSIDE DIAMETER: 2.0 IN.  
 HAMMER TYPE: MANUAL

**CORRELATION OF STANDARD PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY OF SOIL**

GRANULAR SOILS	N VALUE (blows per foot)	RELATIVE DENSITY
SANDS	0-4	VERY LOOSE
	4-10	LOOSE
	10-30	MEDIUM DENSE
NON-GRANULAR SOILS	0-2	VERY SOFT
	2-4	SOFT
	4-8	FIRM
SILTS; CLAYS; MUCK; PEAT	8-15	VERY STIFF
	15-30	STIFF
	OVER 30	HARD

SECTION: 21  
 TOWNSHIP: 19 SOUTH  
 RANGE: 28 EAST

FIGURE

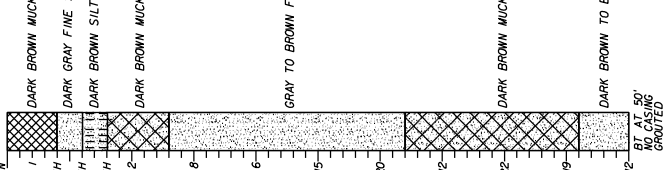
SHEET NO.  
 GR-18

**MUCK DELINEATION  
 SPT BORING RESULTS**

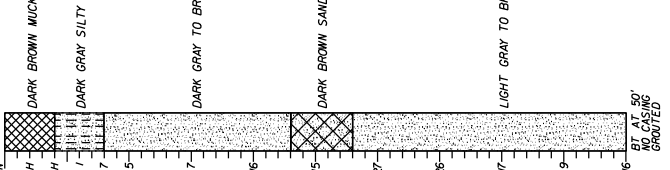
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CR 46A

MB-7  
 GSE+50.8  
 STA. 411+30.40' RIGHT  
 LAT. N28.8264°  
 LONG. W81.5292°  
 LONG. MB 15025  
 HAMMER TYPE: MANUAL  
 DATE DRILLED: 9-5-14



MB-8  
 GSE+51.0  
 STA. 411+50.95' RIGHT  
 LAT. N28.8264°  
 LONG. W81.5292°  
 LONG. MB 15025  
 HAMMER TYPE: MANUAL  
 DATE DRILLED: 9-5-14



**GEOTECHNICAL AND ENVIRONMENTAL  
 CONSULTANTS, INC. (GEC)**  
 918 Lake Park Way  
 Orlando, FL 32814 F 407-848-1837  
 Certificate of Authorization No. 5882

DANIEL C. STANFILL PE NO. 42783

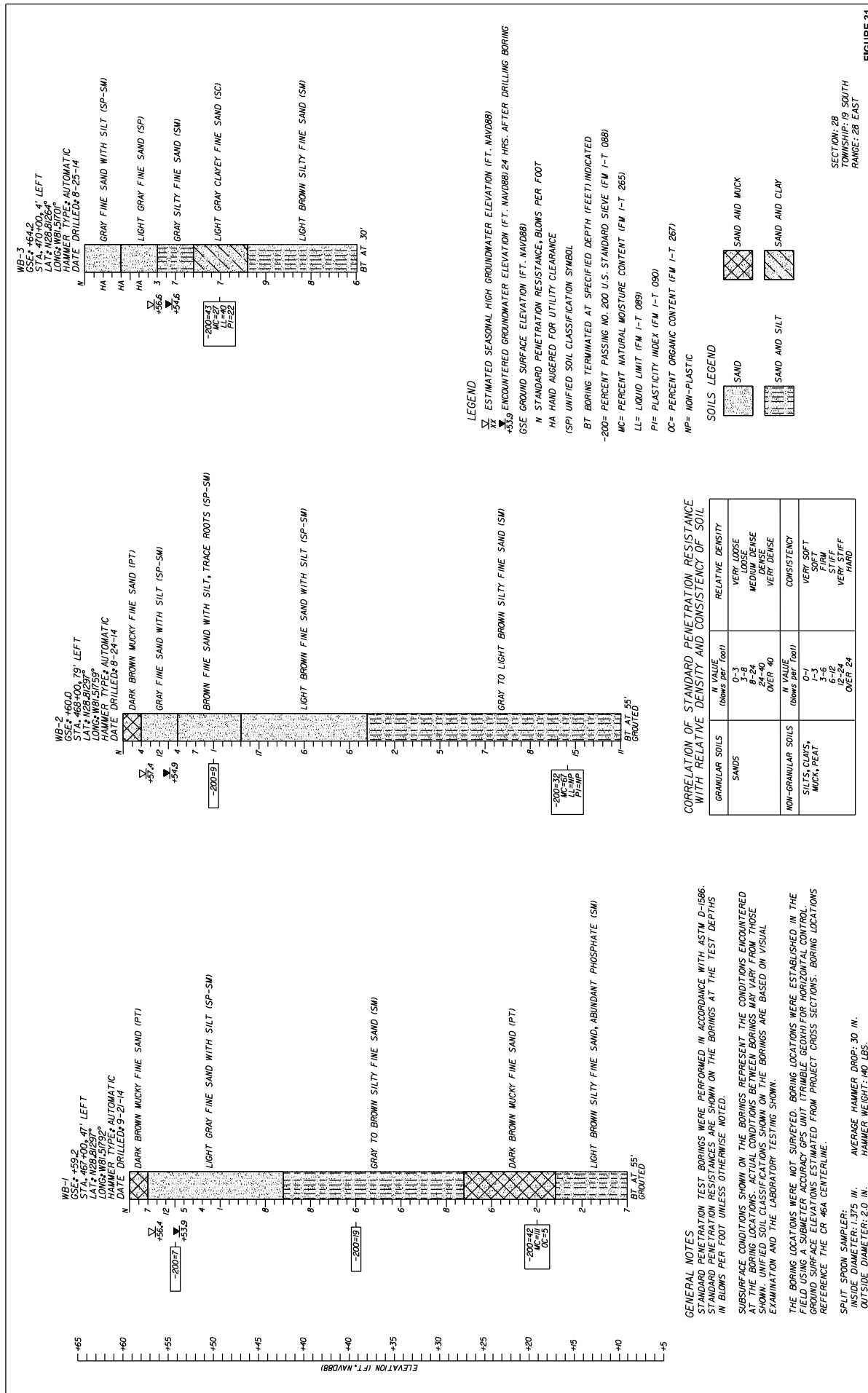
STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION

ROAD NO. CR 46A COUNTY LAKE  
 FINANCIAL PROJECT ID 238275-9-52-02

DATE DESCRIPTION DATE DESCRIPTION

REVISIONS

SCALE



DATE	DESCRIPTION	DATE	DESCRIPTION

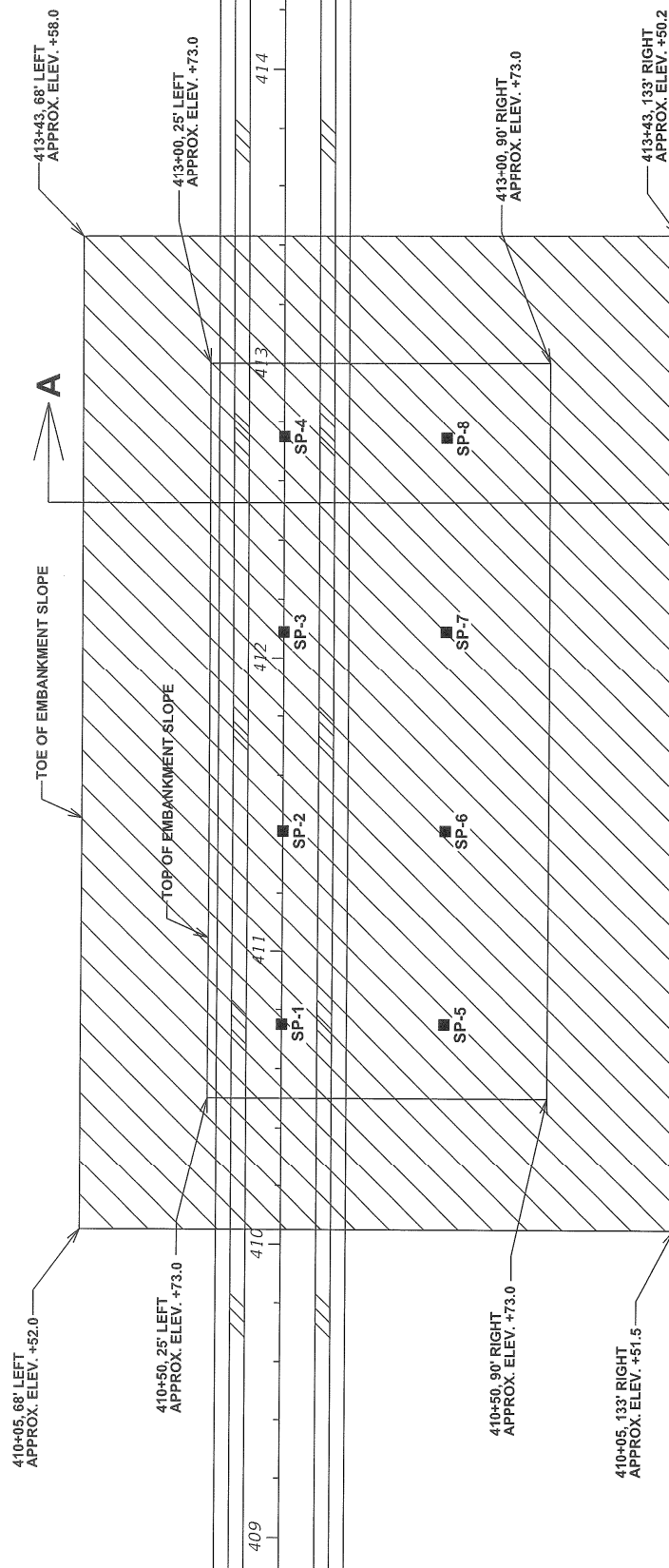
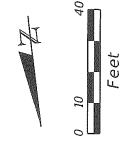
  

<b>GENERAL NOTES</b> STANDARD PENETRATION TEST BORINGS WERE PERFORMED IN ACCORDANCE WITH ASTM D-1586. STANDARD PENETRATION RESISTANCES ARE SHOWN ON THE BORINGS AT THE TEST DEPTHS IN BLOWS PER FOOT UNLESS OTHERWISE NOTED. SUBSURFACE CONDITIONS SHOWN ON THE BORINGS REPRESENT THE CONDITIONS ENCOUNTERED AT THE BORING LOCATIONS. ACTUAL CONDITIONS BETWEEN BORINGS MAY VARY FROM THOSE SHOWN. UNIFIED SOIL CLASSIFICATIONS SHOWN ON THE BORINGS ARE BASED ON VISUAL EXAMINATION AND THE LABORATORY TESTING SHOWN. THE BORING LOCATIONS WERE NOT SURVEYED. BORING LOCATIONS WERE ESTABLISHED IN THE FIELD BY THE USE OF THE GROUND SURFACE ELEVATIONS ESTIMATED FROM PROJECT GROUND SECTIONS. BORING LOCATIONS REFERENCE THE CR 46A CENTERLINE. SPLIT SPOON SAMPLER: INSIDE DIAMETER: 1.375 IN. OUTSIDE DIAMETER: 2.0 IN. AVERAGE HAMMER DROP: 30 IN. HAMMER WEIGHT: 140 LBS.	
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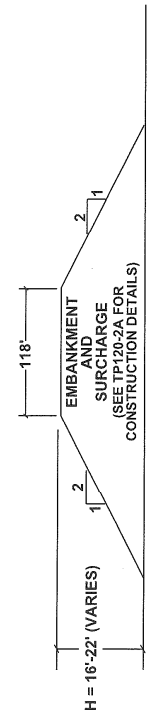
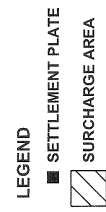
<b>GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS INC. (GEC)</b> 918 Lake Shoreway Lane Orlando, FL 32814 F 407-848-1837 Certificate of Authorization No. 5882		DEPARTMENT OF TRANSPORTATION ROAD NO. COUNTY CR 46A LAKE	
DANIEL C. STANFILL PE NO. 42783		FINANCIAL PROJECT ID 238275-9-52-02	

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. COUNTY  
 CR 46A LAKE



SETTLEMENT PLATE NUMBER	CR 46A STATION, OFFSET
SP-1	410+75, C/L
SP-2	411+41, C/L
SP-3	412+09, C/L
SP-3	412+75, C/L
SP-3	410+75, 55' RIGHT
SP-3	411+41, 55' RIGHT
SP-3	412+09, 55' RIGHT
SP-3	412+75, 55' RIGHT

NOTE  
FOR SURCHARGE PROGRAM CONSTRUCTION SEQUENCE, PLEASE SEE  
TECHNICAL PROVISION TP120-2A.



DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

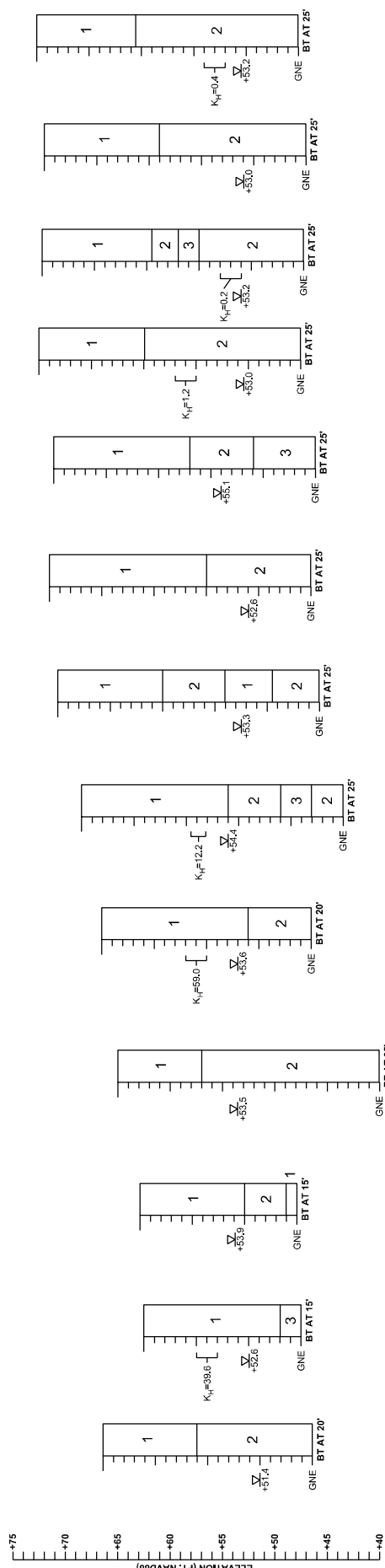
  

<b>GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC. (GEC)</b> <small>619 Lake Baldwin Lane Tallahassee, Florida 32310 T 407-898-1818 F 407-598-1837 Certificate of Authorization No. 5882</small>		<b>STATE OF FLORIDA</b> <b>DEPARTMENT OF TRANSPORTATION</b> <small>ROAD NO. COUNTY FINANCIAL PROJECT ID</small> CR 46A LAKE 238275-8-52-02	
DANIEL C. STANFILL PE NO. 42763		<b>SURCHARGE CONTROL SHEET</b> FIGURE SHEET NO. GR-20	

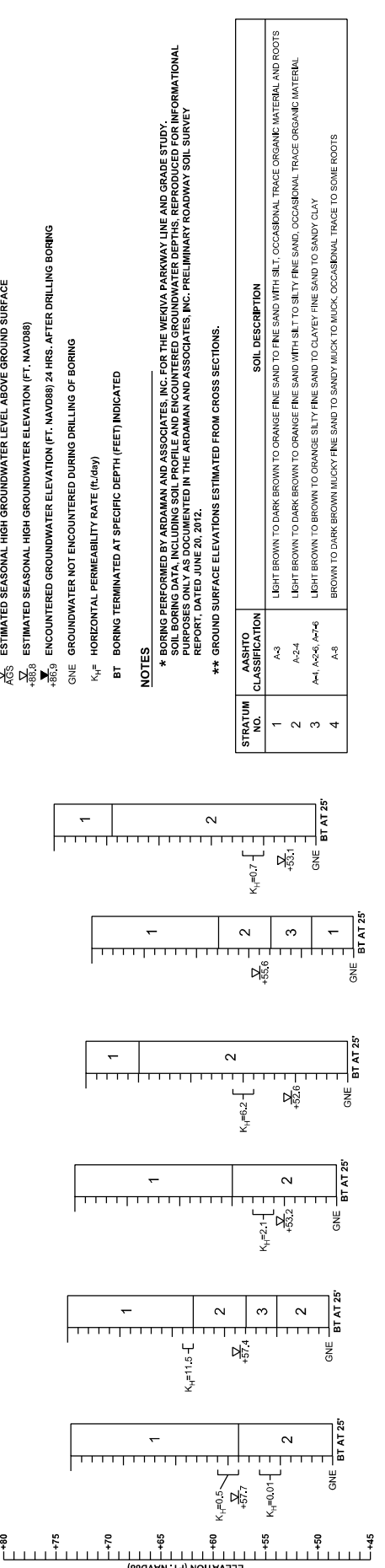
5-3A-1/2

NO LONGER WITHIN POND FOOTPRINT

BORING NO.	STATION	OFFSET	GSE	DATE DRILLED	PR-1	PR-2	PR-3	PR-4	PR-5	PR-6	PR-7
					375-22	378-35	378-50	380-00	382-35	384-60	385-20
					102' RIGHT	125' RIGHT	137' RIGHT	210' RIGHT	195' RIGHT	245' RIGHT	155' RIGHT
					+68.4	+62.6	+65.0	+66.6	+70.8	+73.5	+72.7
					1-23-14	1-22-14	1-28-14	1-22-14	1-22-14	1-22-14	1-22-14



BORING NO.	STATION	OFFSET	GSE	DATE DRILLED	PR-8	PR-9	PR-10	PR-11	PR-12
					387-17	387-45	387-60	388-20	390-30
					217' RIGHT	215' RIGHT	204' RIGHT	204' RIGHT	204' RIGHT
					+73.7	+72.1	+71.6	+75.1	+74.5
					9-17-15	1-22-14	2-27-12	9-17-15	9-17-15



GENERAL LEGEND

- GSE GROUND SURFACE ELEVATION (FT. NAVD88)
- AGS ESTIMATED SEASONAL HIGH GROUNDWATER LEVEL ABOVE GROUND SURFACE
- ▲ ESTIMATED SEASONAL HIGH GROUNDWATER ELEVATION (FT. NAVD88)
- ▼ ENCOUNTERED GROUNDWATER ELEVATION (FT. NAVD88) 24 HRS. AFTER DRILLING BORING
- GNE GROUNDWATER NOT ENCOUNTERED DURING DRILLING OF BORING
- K<sub>f</sub> HORIZONTAL PERMEABILITY RATE (ft./day)
- BT BORING TERMINATED AT SPECIFIC DEPTH (FEET) INDICATED

NOTES

\* BORING PERFORMED BY ARDAMAN AND ASSOCIATES, INC. FOR THE WEKIVA PARKWAY LINE AND GRADE STUDY. SOIL BORING DATA, INCLUDING SOIL PROFILE AND ENCOUNTERED GROUNDWATER DEPTHS, REPRODUCED FOR INFORMATIONAL PURPOSES ONLY AS DOCUMENTED IN THE ARDAMAN AND ASSOCIATES, INC. PRELIMINARY ROADWAY SOIL SURVEY REPORT, DATED JUNE 20, 2012.

\*\* GROUND SURFACE ELEVATIONS ESTIMATED FROM CROSS SECTIONS.

STRATUM NO.	ASHTO CLASSIFICATION	SOIL DESCRIPTION
1	A-3	LIGHT BROWN TO DARK BROWN TO ORANGE FINE SAND TO FINE SAND WITH SILT, OCCASIONAL TRACE ORGANIC MATERIAL AND ROOTS
2	A-2-4	LIGHT BROWN TO DARK BROWN TO ORANGE FINE SAND WITH SILT TO SILTY FINE SAND, OCCASIONAL TRACE ORGANIC MATERIAL
3	A-1, A-2-6, A-7-6	LIGHT BROWN TO BROWN TO ORANGE SILTY FINE SAND TO CLAYEY FINE SAND TO SANDY CLAY
4	A-3	BROWN TO DARK BROWN MUCKY FINE SAND TO SANDY MUCK TO MUCK, OCCASIONAL TRACE TO SOME ROOTS

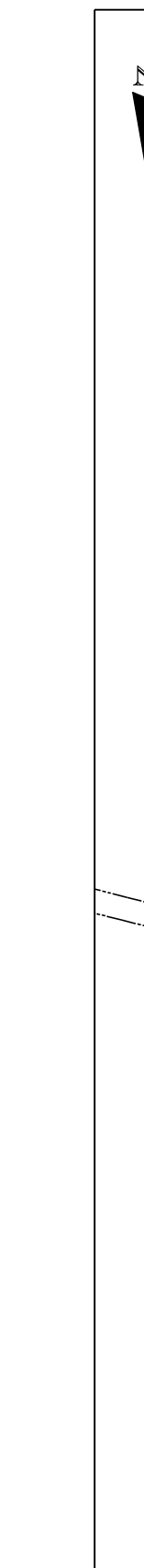
FIGURE 13

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		ROAD NO. COUNTY FINANCIAL PROJECT ID	
CR 464	LAKE	238275-9-52-01	
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC. (GEC)		PE NO. 42763	
916 Lake Park Way Orlando, FL 32814 Certificate of Authorization No. 5582		DANIEL C. STANFILL	

POND AUGER BORING RESULTS

SHEET NO.

G-21



STA. 393+60.36 C.C. CONST. CR 46A=  
 STA. 4+32.00 C.C. CONST. REDTAIL BLVD.

STA. 389+59.00 C.C. CONST. CR 46A=  
 STA. 5+32.00 C.C. CONST. DROTY SPRING LANE

STA. 413+64.02 C.C. CONST. CR 46A=  
 STA. 10+00.00 C.C. CONST. POND 5-2B

STA. 380+82.77 C.C. CONST. CR 46A=  
 STA. 3+32.00 C.C. CONST. SAHARA COURT

POND FPC 5-3-1  
 POND 5-3A-1  
 POND 5-3A-2  
 POND 5-2B

CL REDTAIL-1  
 CL CR46A-1  
 CL CR46A-2

DROTY SPRING LANE  
 RED TAIL BLVD.  
 SAHARA COURT  
 ARUNDEL WAY

CR 46A  
 CR 46A ULTIMATE

BEGIN PROJECT  
 BEGIN CONSTRUCTION  
 STA. 365+42.00  
 C.C. CONST. CR 46A

MATCHLINE STA. 440+00 B CONST. CR46A

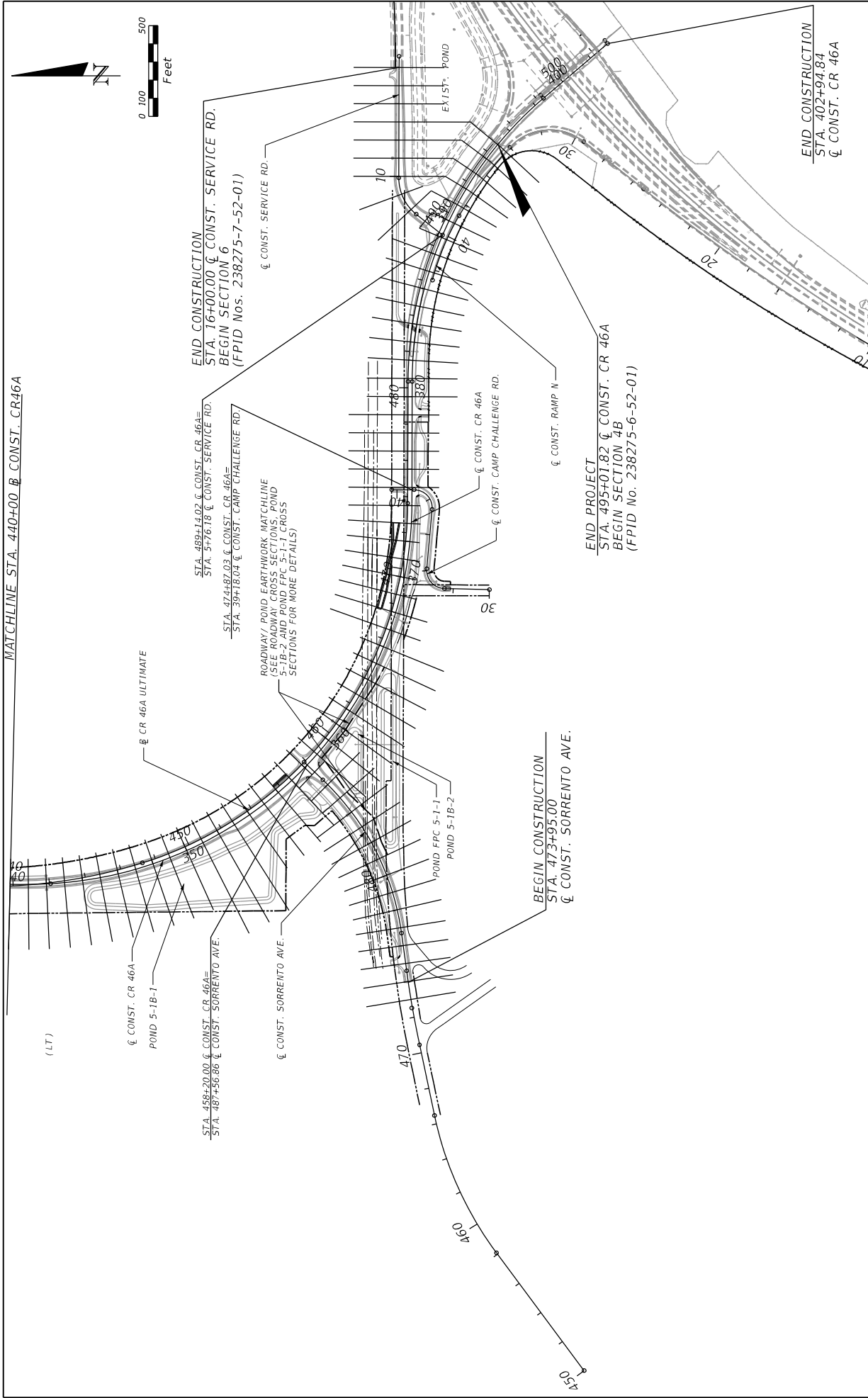
DATE	REVISIONS	DESCRIPTION

PREPARED BY:  
 CDM SMITH  
 2301 WATLAND CENTER PARKWAY, SUITE 300  
 WATLAND, FL 32751 - PHONE: (407) 660-2552  
 ENGINEER OF RECORD  
 PAUL O. SNEAD, P.E.  
 P.E. NUMBER: 30882

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. CR 46A  
 COUNTY LAKE  
 FINANCIAL PROJECT ID 238275-8-52-01

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CROSS SECTION PATTERN (1)	
SHEET NO.	161



DATE	REVISIONS	DESCRIPTION

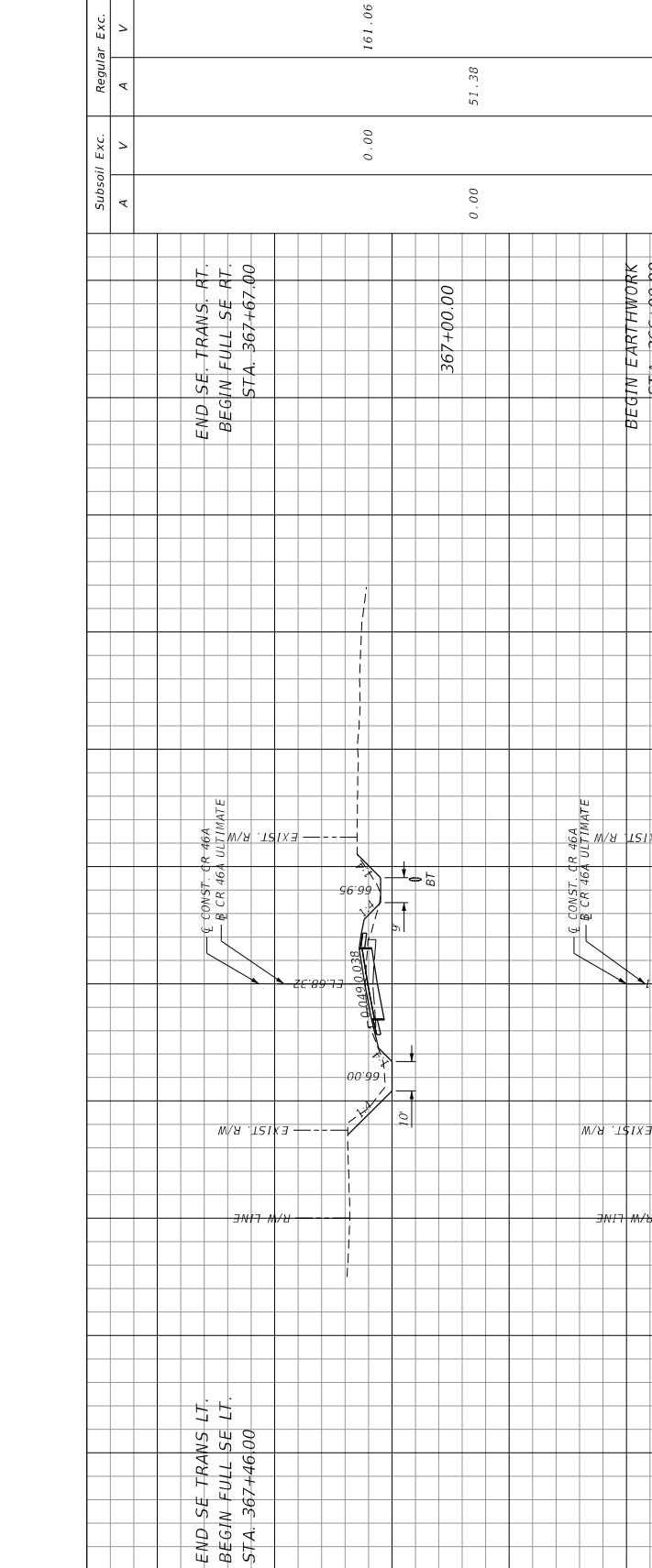
  

PREPARED BY: CDM Smith 2301 WATLAND CENTER PARKWAY, SUITE 300 WATLAND, FL 32751 - PHONE: (407) 660-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 30882	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A	FINANCIAL PROJECT ID LAKE 238275-8-52-01
---	--	--

<b>CROSS SECTION PATTERN (2)</b>		SHEET NO. 162
--------------------------------------	--	---------------------





DATE	DESCRIPTION	DATE	DESCRIPTION

STATION	Subsoil Exc.	Regular Exc.	Embankment
367+00.00	0.00	161.06	15.06
366+00.00	0.00	51.38	7.81
365+00.00	0.00	35.59	0.32

SCALE  
1" = 40' Horizontal  
1" = 10' Vertical

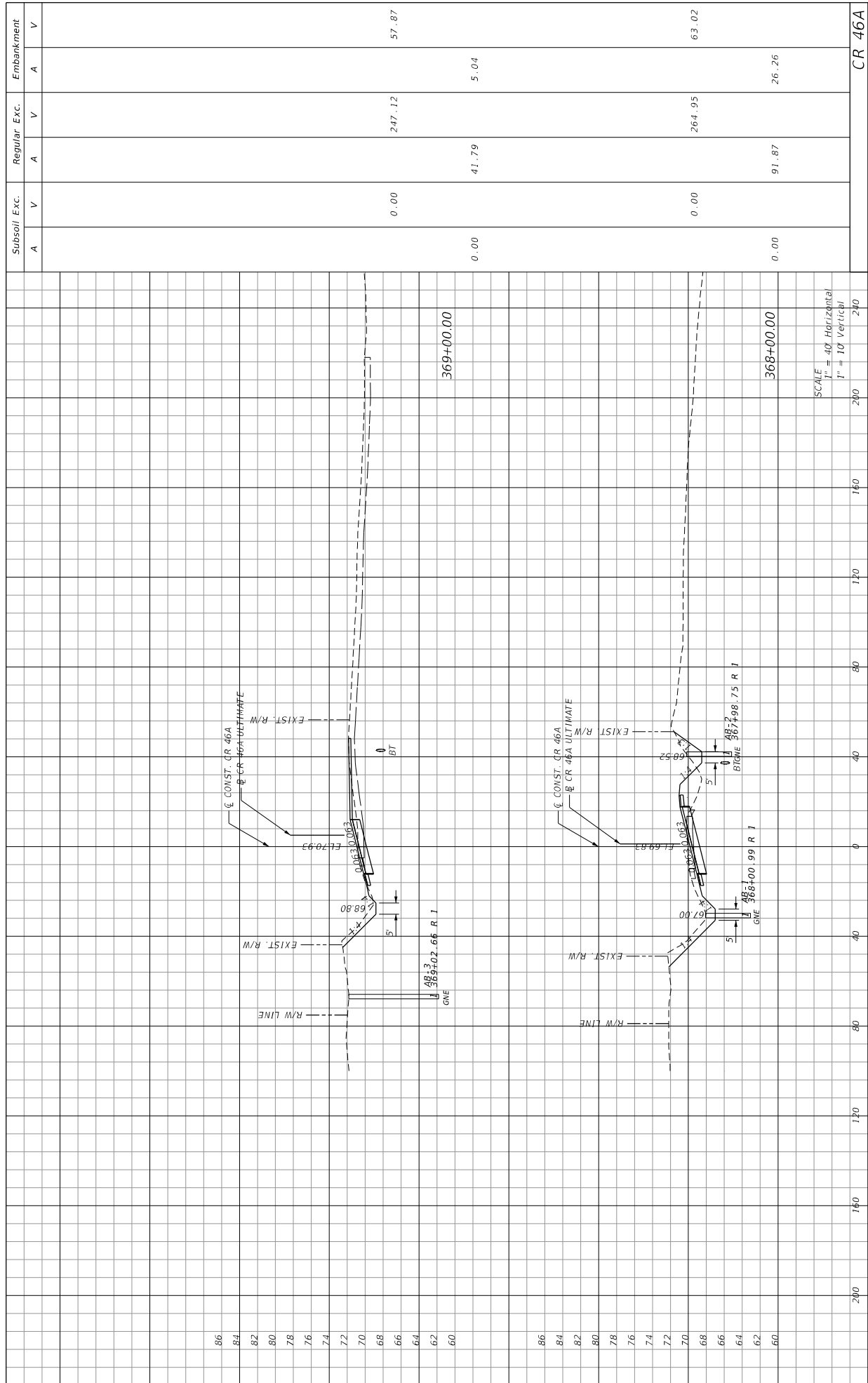
STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION  
ROAD NO. CR 46A  
COUNTY LAKE  
FINANCIAL PROJECT ID 238275-8-52-01

PREPARED BY:  
CDM Smith  
2301 WATLAND CENTER PARKWAY, SUITE 300  
MAITLAND, FL 32751 - PHONE: (407) 866-2552  
ENGINEER OF RECORD  
PAUL O. SNEAD, P.E.  
P.E. NUMBER: 30982

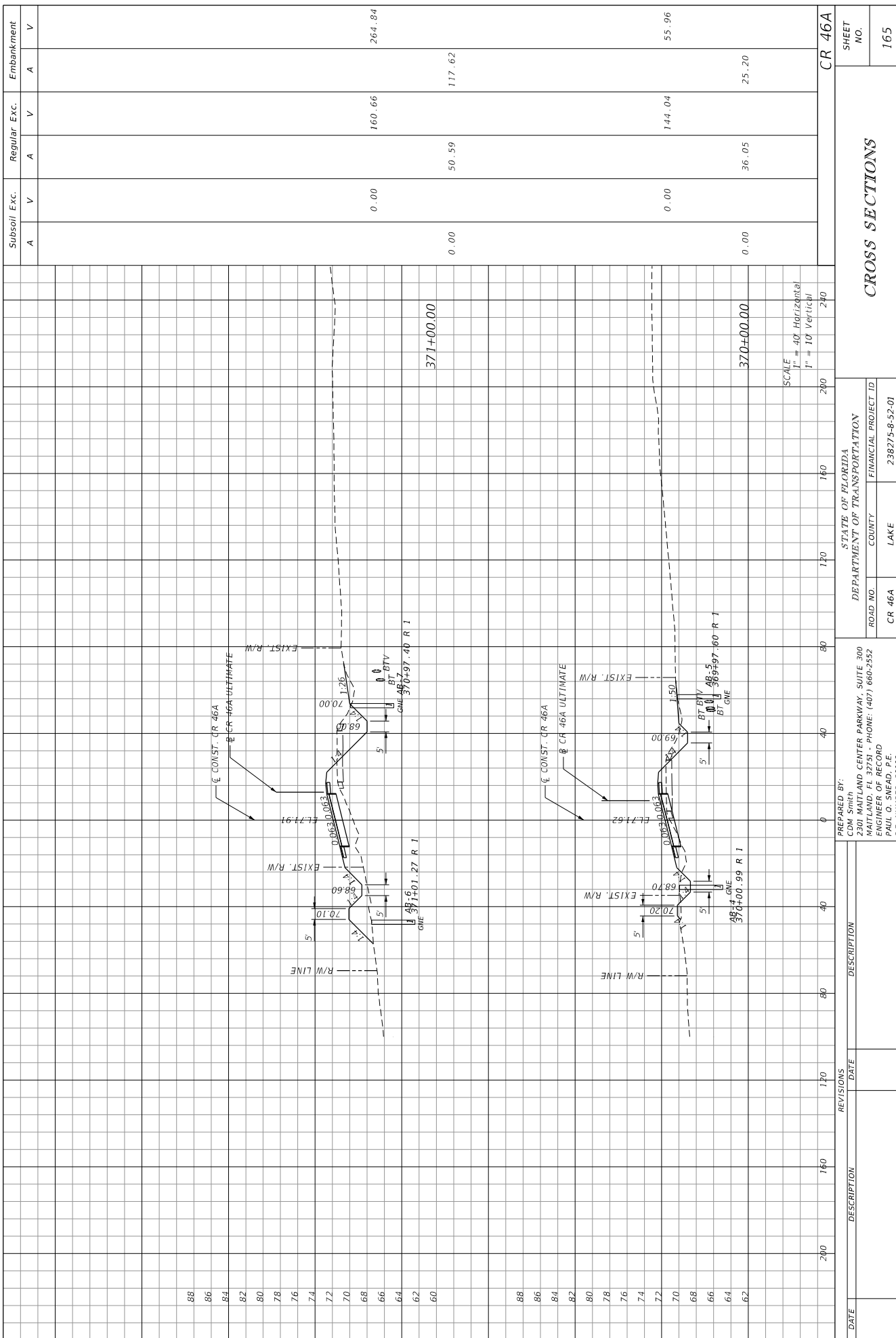
CR 46A  
SHEET NO. 163  
CROSS SECTIONS

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CR 46A



DATE	DESCRIPTION	REVISIONS		DATE	DESCRIPTION	STATE OF FLORIDA				SHEET NO.			
		DESCRIPTION	DATE			ROAD NO.	COUNTY	FINANCIAL PROJECT ID	CR 46A		LAKE	238275-8-52-01	
						DEPARTMENT OF TRANSPORTATION				CR 46A	LAKE	238275-8-52-01	CR 46A
						PREPARED BY: CDM Smith 2301 MAITLAND CENTER PARKWAY, SUITE 300 MAITLAND, FL 32751 - PHONE: (407) 866-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 30382							
						WHEELEGITP 11/4/2015 1:55:27 PM G:\Projects\CR46A_Realign\CR46A_Realign\238275-8-52-01\roadway\RD5\RD01.dgn							164



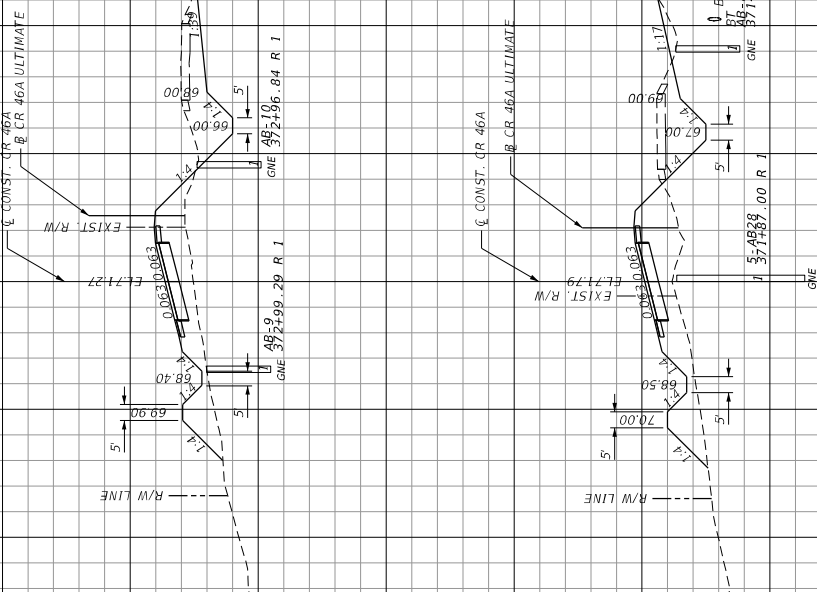
Subsoil Exc.		Regular Exc.		Embankment	
A	V	A	V	A	V
0.00		160.66			264.84
0.00		50.59			117.62
0.00		144.04			55.96
0.00		36.05			25.20

SCALE  
 1" = 40' Horizontal  
 1" = 10' Vertical

DATE	REVISIONS	DESCRIPTION

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	ROAD NO. CR 46A	COUNTY LAKE	FINANCIAL PROJECT ID 238275-8-52-01	SHEET NO. <b>165</b>
CR 46A	CR 46A ULTIMATE			CR 46A
371+00.00	370+00.00			
PREPARED BY: CDM Smith 2301 MATLAND CENTER PARKWAY, SUITE 300 MATLAND, FL 32751 - PHONE: (407) 666-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 30982	11/4/2015			

DATE	REVISIONS	DESCRIPTION	DATE	STATE OF FLORIDA						EMPA	SHEET NO.												
				DEPARTMENT OF TRANSPORTATION																			
				ROAD NO.		COUNTY		FINANCIAL PROJECT ID															
				200	160	120	80	40	0	40	80	120	160	200	240		CR 46A		238275-8-52-01			CR 46A	166
				200	160	120	80	40	0	40	80	120	160	200	240		CR 46A		238275-8-52-01			CR 46A	166

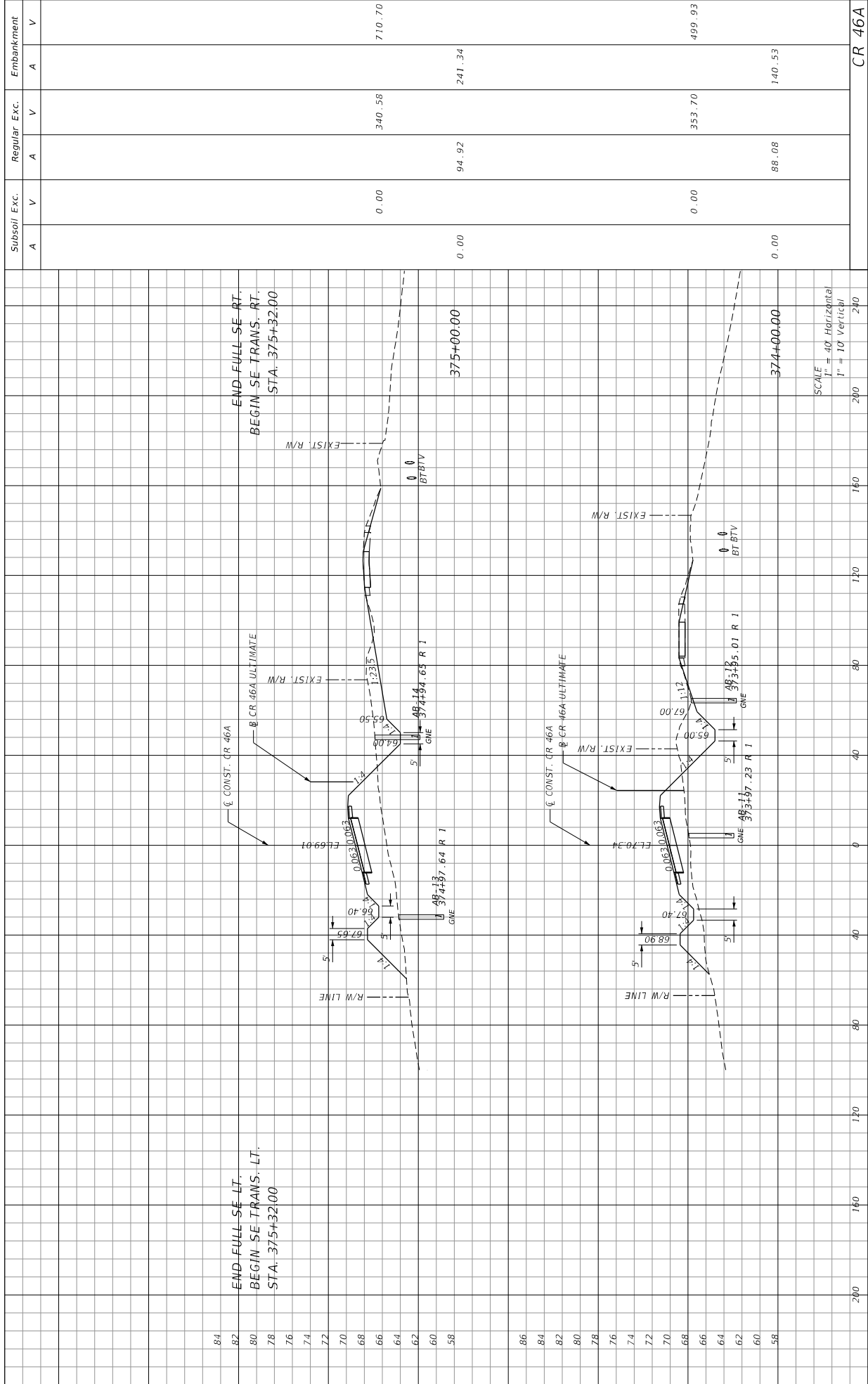


SCALE  
1" = 40' Horizontal  
1" = 10' Vertical

DATE	DESCRIPTION	DATE	DESCRIPTION

PREPARED BY:  
CDM Smith  
2301 MITLAND CENTER PARKWAY, SUITE 300  
MAITLAND, FL 32751 - PHONE: (407) 866-2552  
ENGINEER OF RECORD  
PAUL O. SNEAD, P.E.  
P.E. NUMBER: 90982

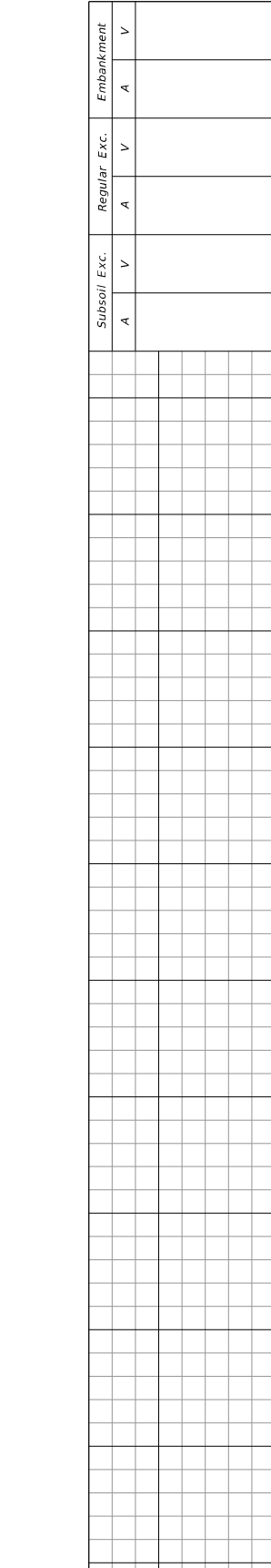
STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION  
ROAD NO. CR 46A  
COUNTY LAKE  
FINANCIAL PROJECT ID 238275-8-52-01  
WHEELER GP



DATE	DESCRIPTION	REVISIONS		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	ROAD NO. CR 46A	COUNTY LAKE	FINANCIAL PROJECT ID 238275-8-52-01	SHEET NO. 167
		DESCRIPTION	DATE					
				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	CR 46A	LAKE	238275-8-52-01	CR 46A
				PREPARED BY: CDM Smith 2301 WATLAND CENTER PARKWAY, SUITE 300 WATLAND, FL 32751 - PHONE: (407) 666-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 30382				
				SCALE 1" = 40' Horizontal 1" = 10' Vertical				

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NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

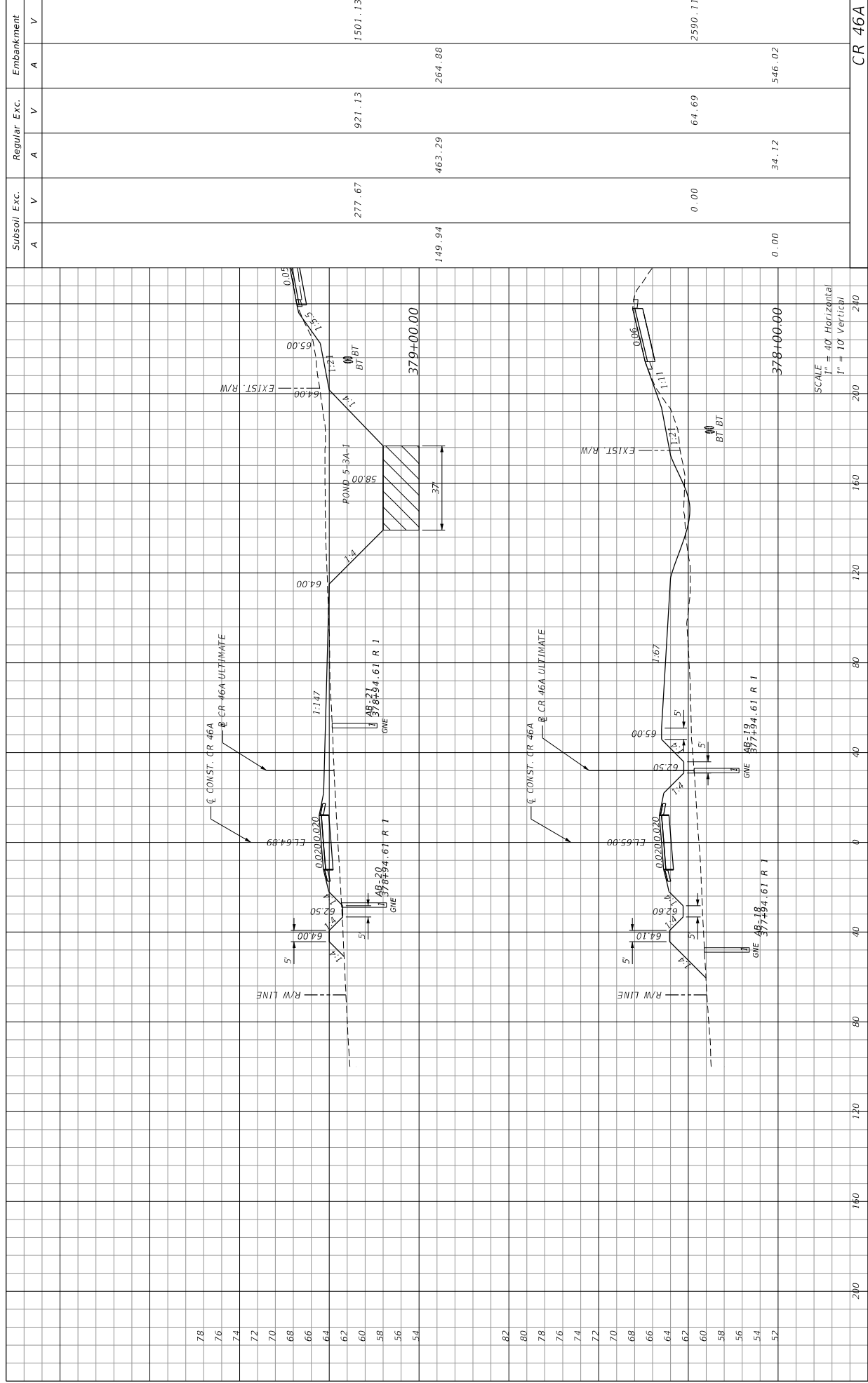


Subsoil Exc.	Regular Exc.	Embankment
A	V	A
0.00	17.83	2404.13
0.00	0.81	852.64
0.00	192.51	1274.72
0.00	8.82	445.59
CR 46A		

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION
82				
80				
78				
76				
74				
72				
70				
68				
66				
64				
62				
60				
58				
56				
54				
52				
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84				
82				
80				
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72				
70				
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66				
64				
62				
60				
58				
56				

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION  
ROAD NO. CR 46A  
COUNTY LAKE  
FINANCIAL PROJECT ID 238275-8-52-01  
PREPARED BY: CDM Smith  
300 WATLAND CENTER PARKWAY, SUITE 300  
MAITLAND, FL 32751 - PHONE: (407) 666-2552  
ENGINEER OF RECORD  
PAUL O. SNEAD, P.E.  
P.E. NUMBER: 30382

SCALE  
1" = 40' Horizontal  
1" = 10' Vertical



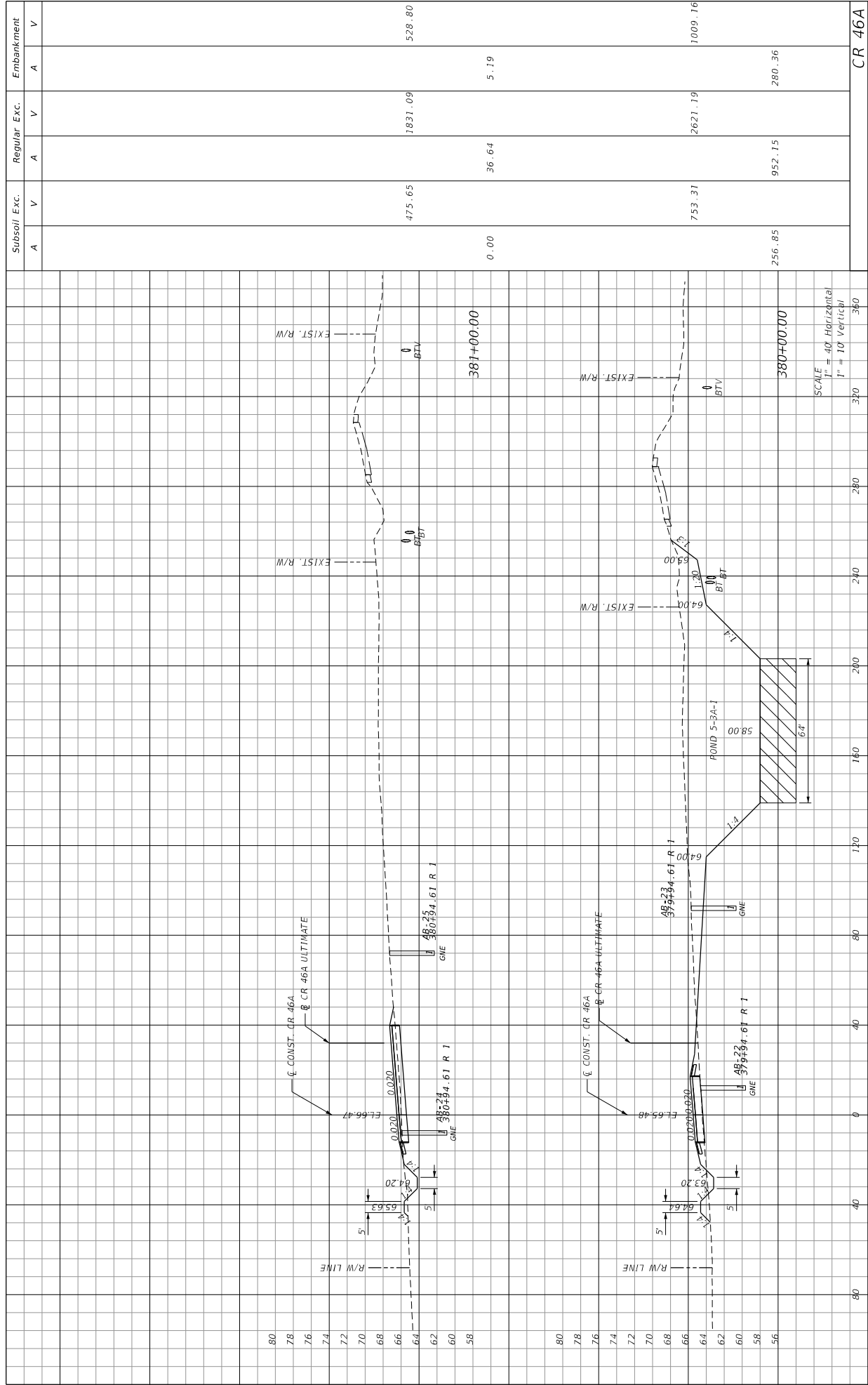
DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

PREPARED BY: CDM Smith 2301 MAITLAND CENTER PARKWAY, SUITE 300 MAITLAND, FL 32751 - PHONE: (407) 866-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 30382	ROAD NO. CR 46A	COUNTY LAKE	FINANCIAL PROJECT ID 238275-8-52-01
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			
CROSS SECTIONS			
SHEET NO. 169			

Subsoil Exc.	Regular Exc.	Embankment
A	A	A
V	V	V
277.67	921.13	1501.13
149.94	463.29	264.88
0.00	64.69	2590.11
0.00	34.12	546.02
CR 46A		



DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

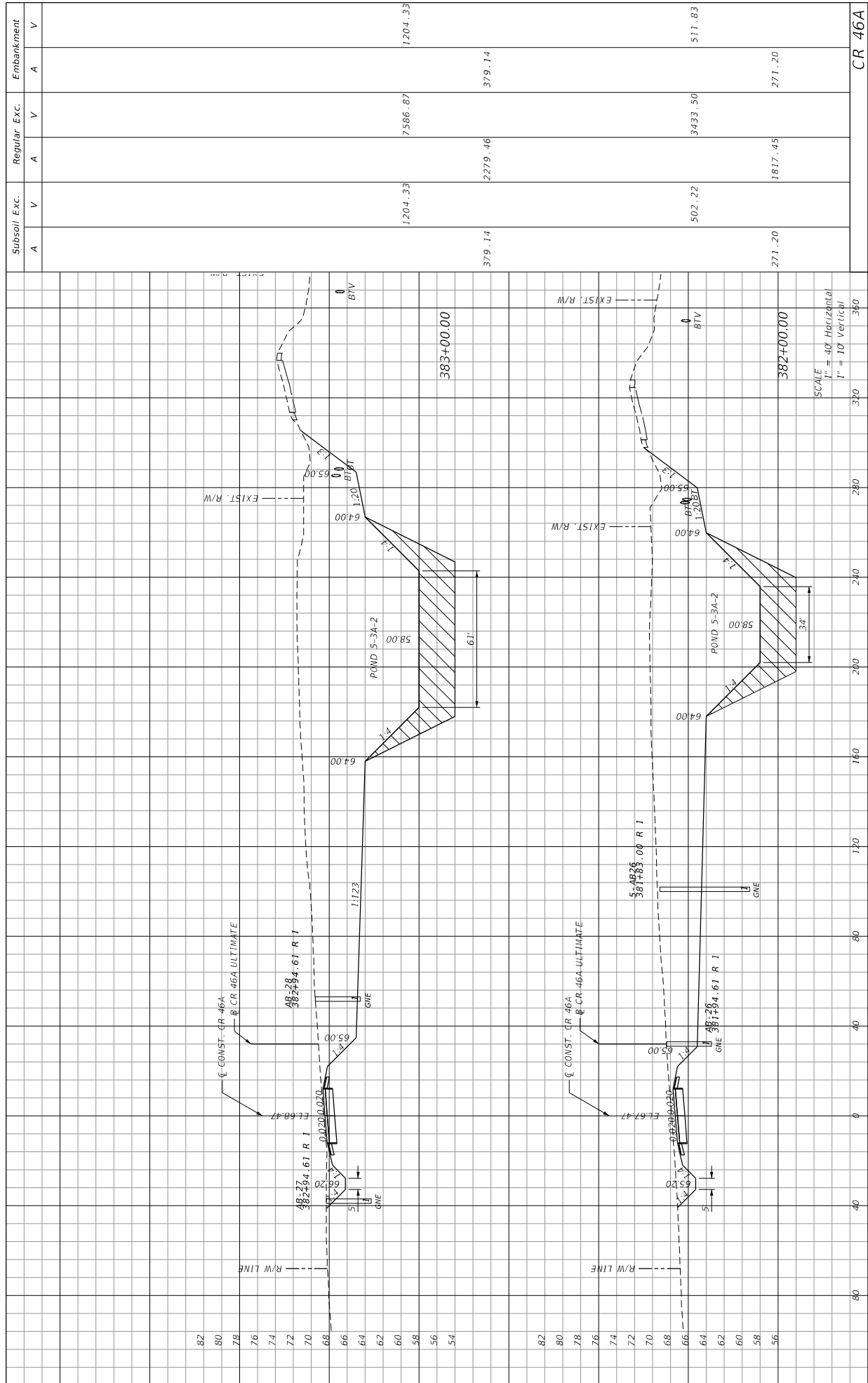
  

PREPARED BY: CDM Smith 2301 MAITLAND CENTER PARKWAY, SUITE 300 MAITLAND, FL 32751 - PHONE: (407) 866-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 30382	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A COUNTY LAKE FINANCIAL PROJECT ID 238275-8-52-01	SHEET NO. 170 CROSS SECTIONS CR 46A
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DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION
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			40	
			0	
			40	
			80	
			120	
			160	
			200	
			240	
			280	
			320	
			360	
				CR 46A

Subsoil Exc.	Regular Exc.	Embankment
A	A	A
V	V	V
1204.33	7586.87	1204.33
379.14	2279.46	379.14
502.22	3433.50	511.83
271.20	1817.45	271.20

STATE OF FLORIDA	DEPARTMENT OF TRANSPORTATION
ROAD NO.	CR 46A
COUNTY	LAKE
FINANCIAL PROJECT ID	238275-8-52-01

DATE	DESCRIPTION

PREPARED BY:  
 CDM Smith  
 2301 MAITLAND CENTER PARKWAY, SUITE 300  
 MAITLAND, FL 32751 - PHONE: (407) 866-2552  
 ENGINEER OF RECORD  
 PAUL O. SNEAD, P.E.  
 P.E. NUMBER: 30982

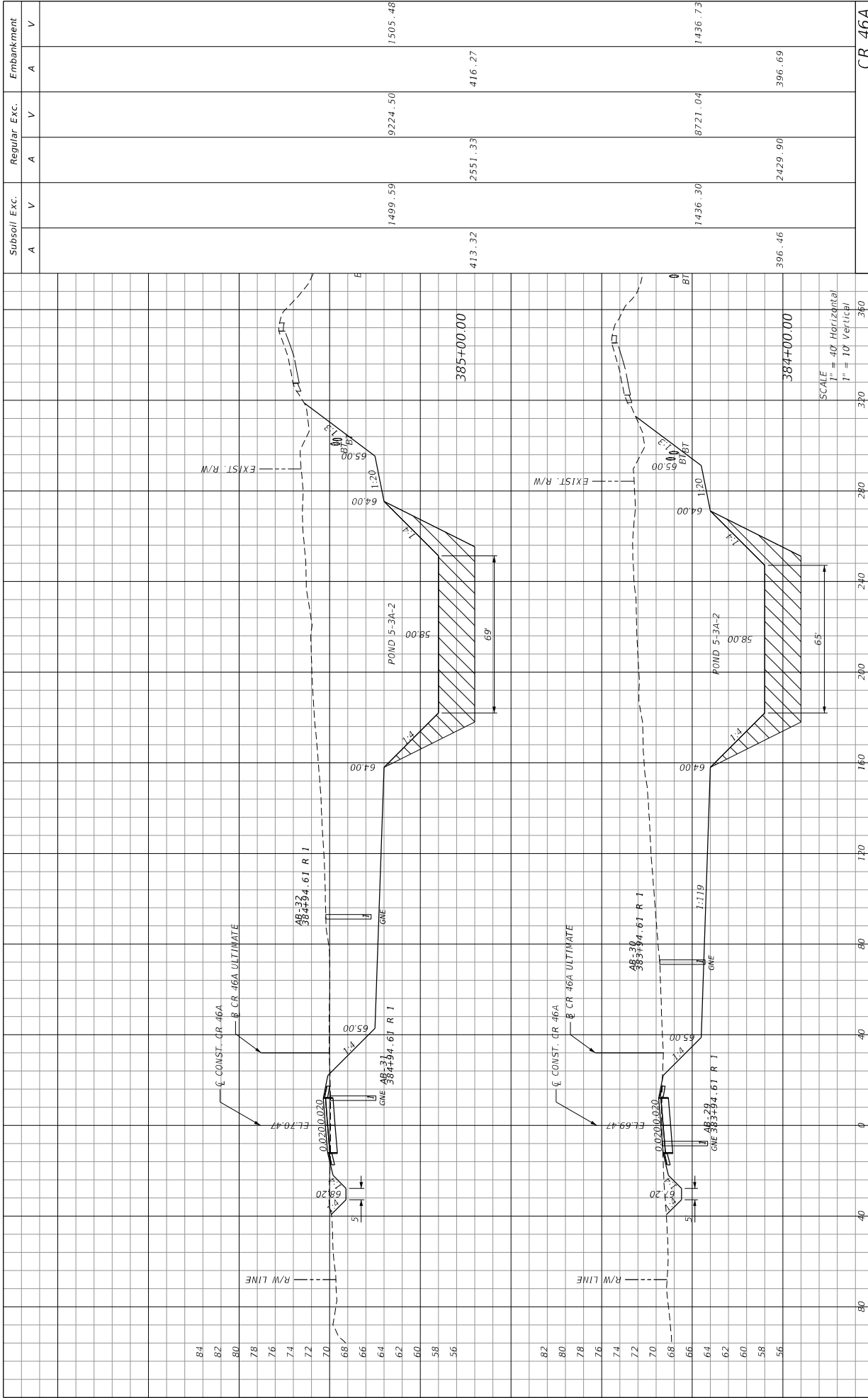
SCALE  
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 1" = 10' Vertical

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. CR 46A  
 COUNTY LAKE  
 FINANCIAL PROJECT ID 238275-8-52-01

CR 46A

171

11/4/2015 1:55:40 PM C:\Projects\CR46A\_Realign\Drawings\23827585201 roadway\RD5\RD01.dgn



SCALE  
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1" = 10' Vertical

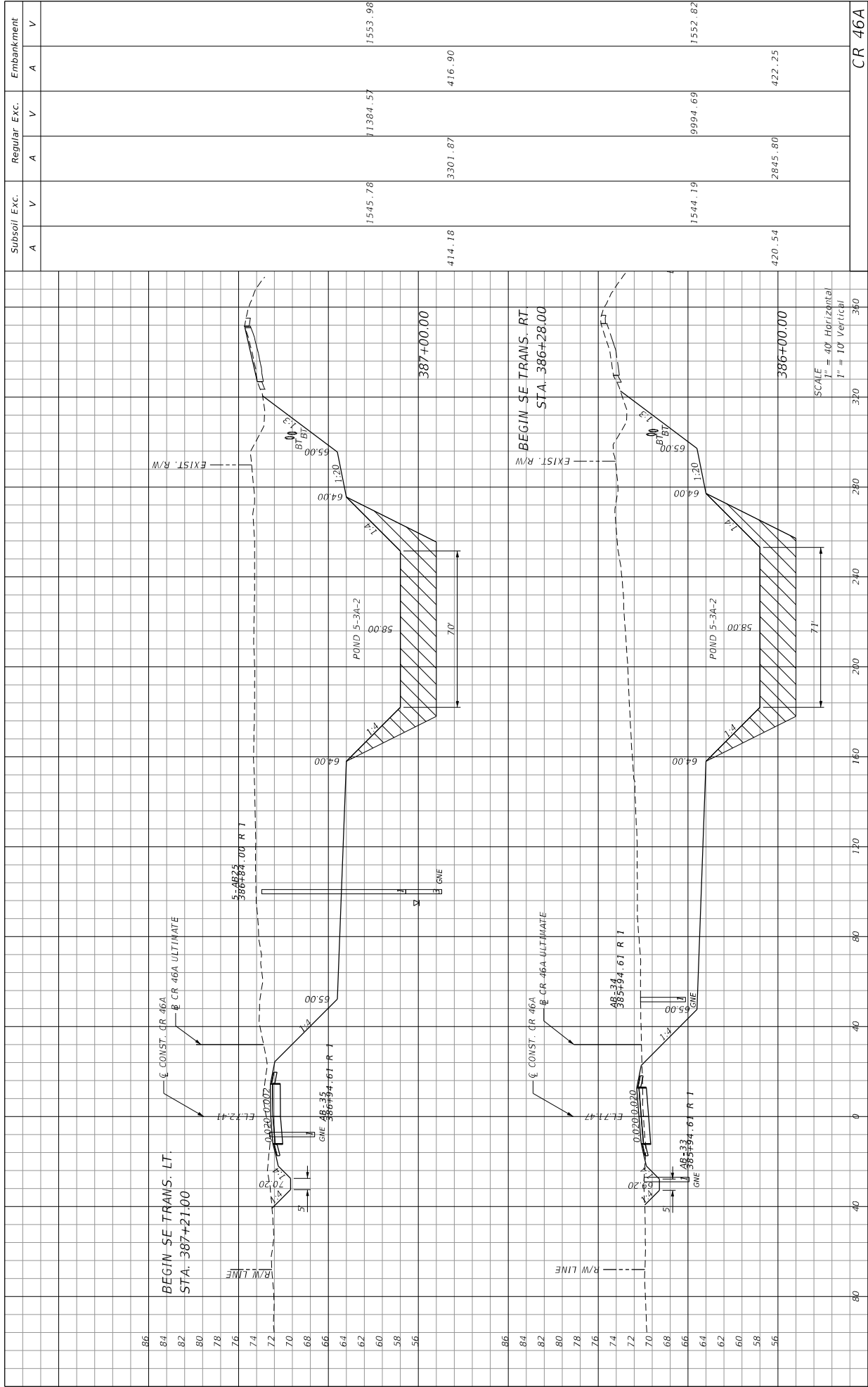
DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

PREPARED BY: CDM Smith 2301 MAITLAND CENTER PARKWAY, SUITE 300 MAITLAND, FL 32751 - PHONE: (407) 666-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 30382	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A COUNTY LAKE FINANCIAL PROJECT ID 238275-8-52-01
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CR 46A	CR 46A	CR 46A	CR 46A
1505.48	9224.50	416.27	1436.73
1499.59	2551.33	413.32	1436.30
396.46	2429.90	396.69	396.46
CR 46A			



DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

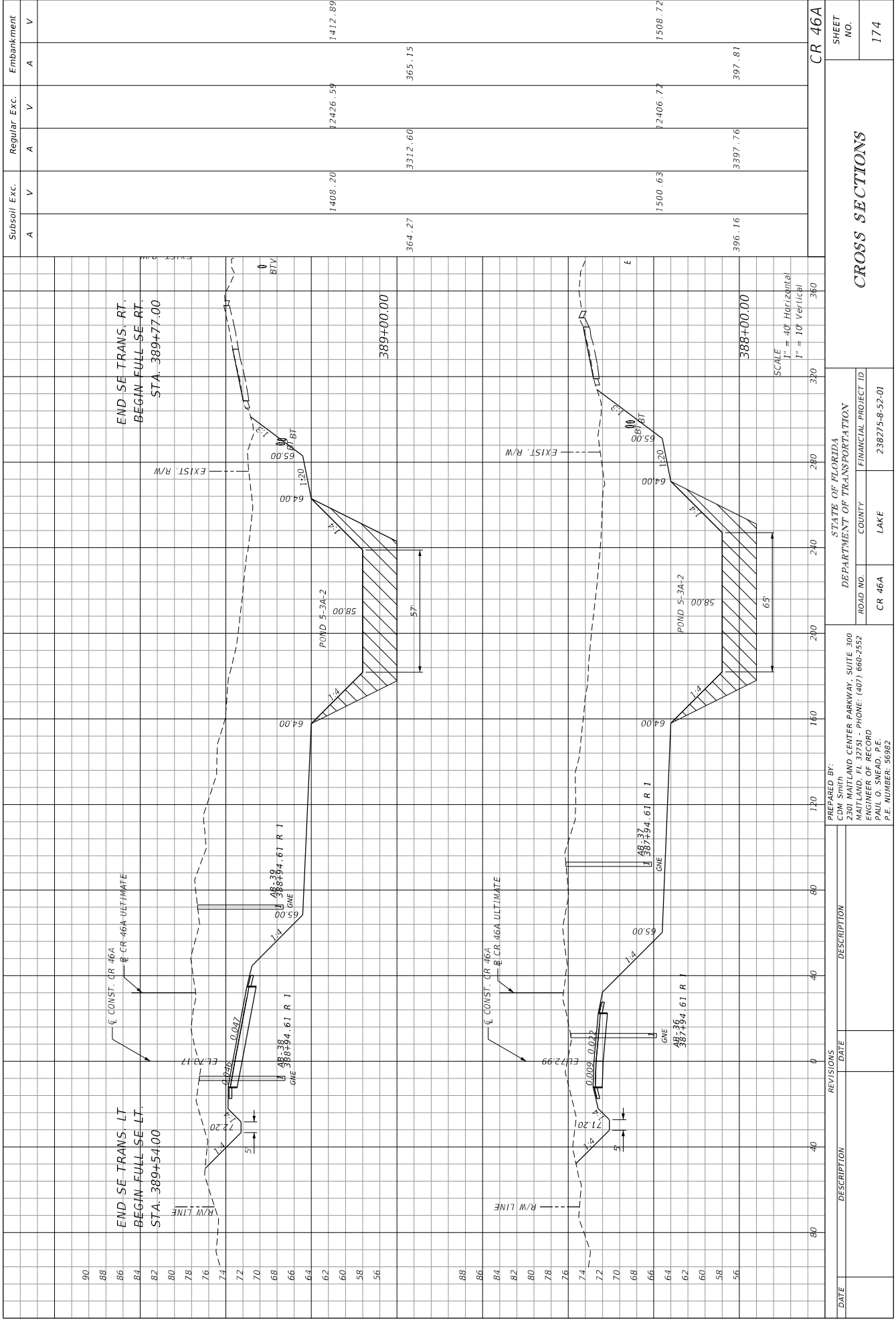
  

PREPARED BY: CDM Smith 2301 MAITLAND CENTER PARKWAY, SUITE 300 MAITLAND, FL 32751 - PHONE: (407) 666-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 30382		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A COUNTY LAKE FINANCIAL PROJECT ID 238275-8-52-01	
---	--	---	--

Subsoil Exc.	Regular Exc.	Embankment
A	A	A
V	V	V
1545.78	11384.57	1553.98
414.18	3301.87	416.90
1544.19	9994.69	1552.82
420.54	2845.80	422.25
CR 46A		

CROSS SECTIONS



PREPARED BY:  
 CDM Smith  
 2301 MAITLAND CENTER PARKWAY, SUITE 300  
 MAITLAND, FL 32751 - PHONE: (407) 666-2552  
 ENGINEER OF RECORD  
 PAUL O. SNEAD, P.E.  
 P.E. NUMBER: 30382

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. CR 46A  
 COUNTY LAKE  
 FINANCIAL PROJECT ID 238275-8-52-01

DATE DESCRIPTION DATE DESCRIPTION

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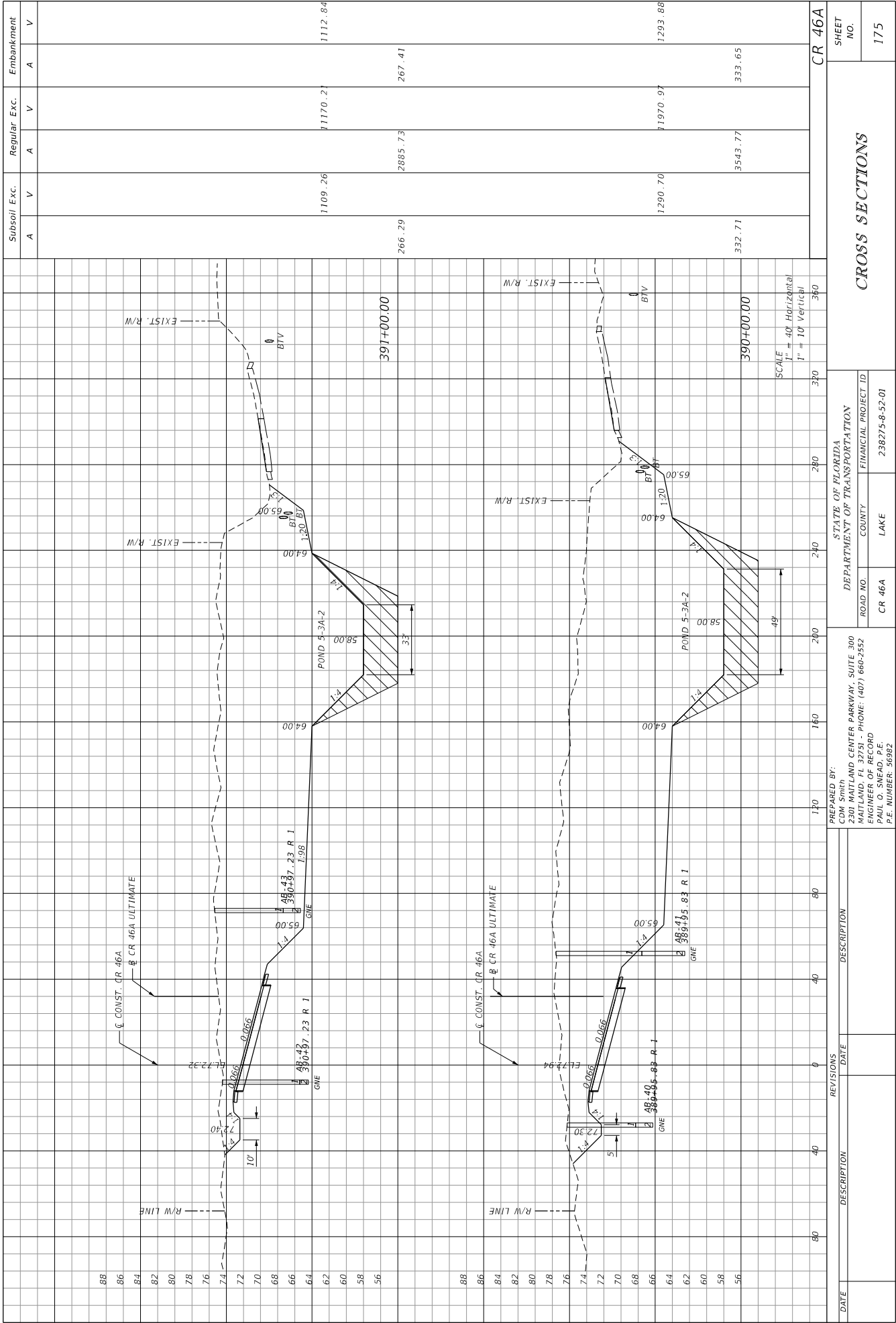
WHEENER@TP

CR 46A

CROSS SECTIONS

174

CR 46A



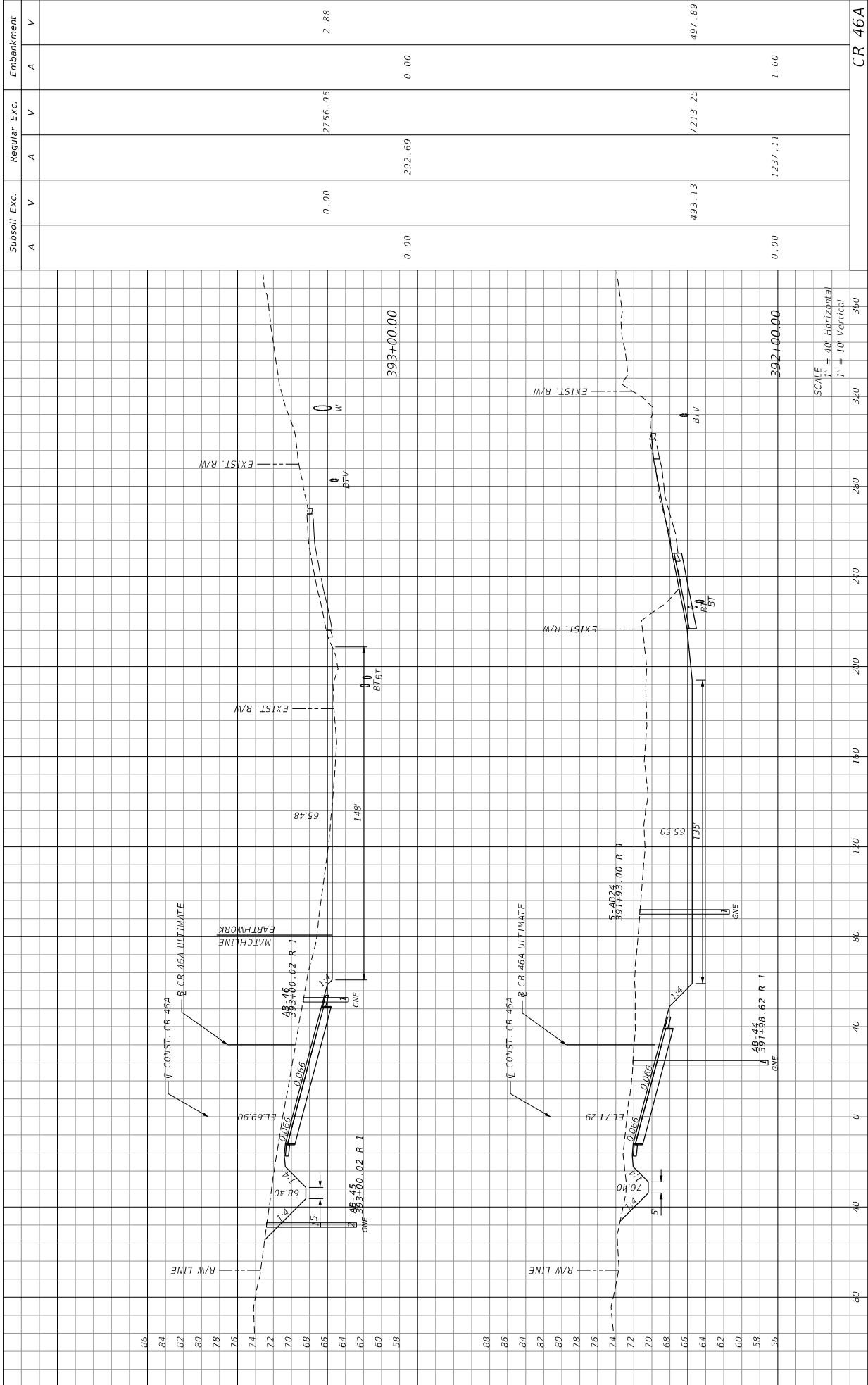
Subsoil Exc.	Regular Exc.	Embankment
A	A	V
V	V	A
V	V	V
1109.26	11170.21	1112.84
266.29	2885.73	267.41
1290.70	11970.97	1293.88
332.71	3543.77	333.65
<b>CR 46A</b>		

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. CR 46A  
 COUNTY LAKE  
 FINANCIAL PROJECT ID 238275-8-52-01  
 PREPARED BY: CDM Smith  
 2301 MAITLAND CENTER PARKWAY, SUITE 300  
 MAITLAND, FL 32751 - PHONE: (407) 666-2552  
 ENGINEER OF RECORD  
 PAUL O. SNEAD, P.E.  
 P.E. NUMBER: 30982

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

**CROSS SECTIONS**

SHEET NO. 175



DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION
80			80	
40			40	
0			0	
40			40	
80			80	
120			120	
160			160	
200			200	
240			240	
280			280	
320			320	
360			360	

Subsoil Exc.	Regular Exc.	Embankment
A	A	A
V	V	V
0.00	2756.95	2.88
0.00	292.69	0.00
493.13	7213.25	497.89
0.00	1237.11	1.60
<b>CR 46A</b>		

PREPARED BY:  
CDM Smith  
2301 MAITLAND CENTER PARKWAY, SUITE 300  
MAITLAND, FL 32751 - PHONE: (407) 666-2552  
ENGINEER OF RECORD  
PAUL O. SNEAD, P.E.  
P.E. NUMBER: 30382

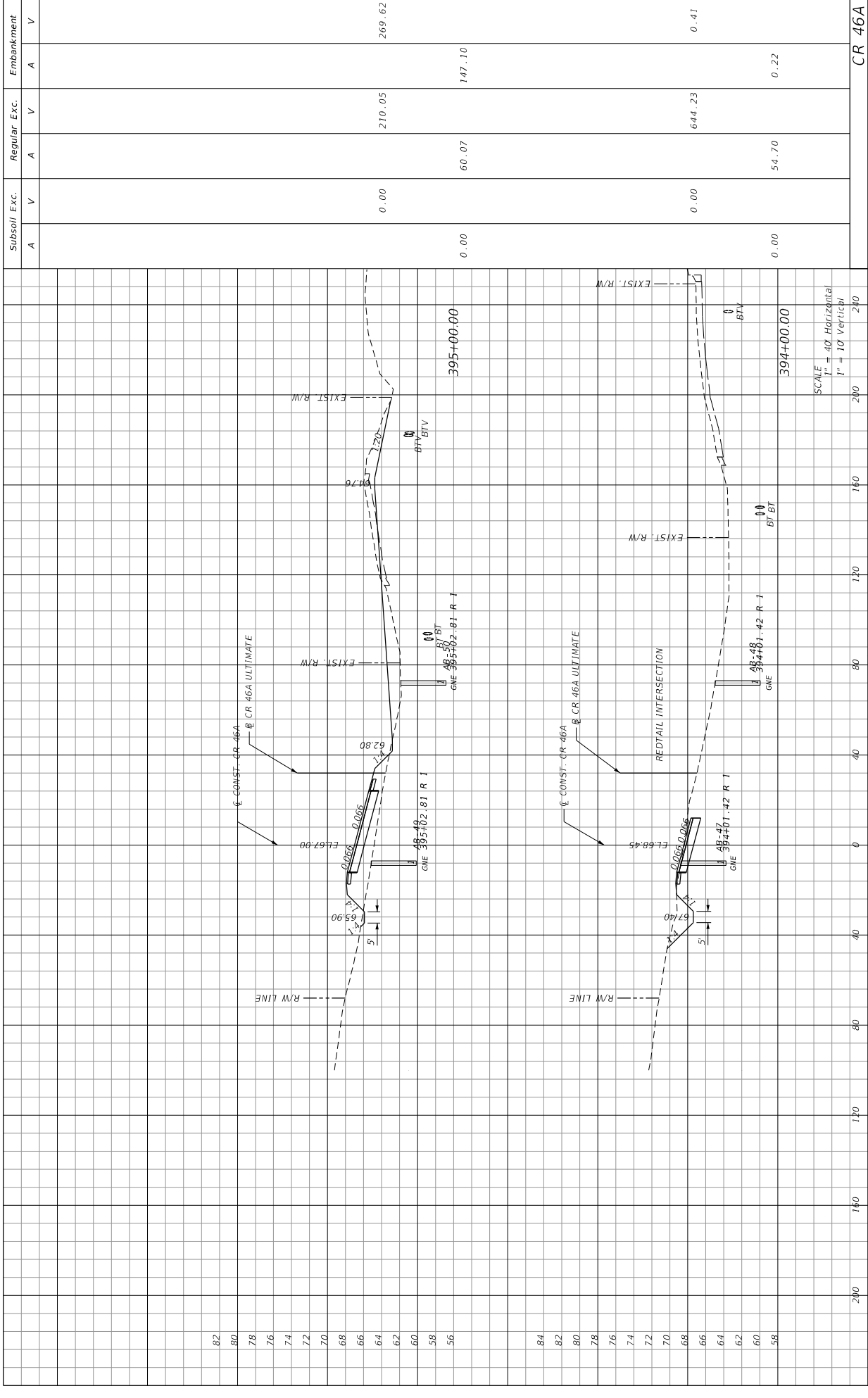
STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION  
ROAD NO. CR 46A  
COUNTY LAKE  
FINANCIAL PROJECT ID 238275-8-52-01  
WHEELERGP

SCALE  
1" = 40' Horizontal  
1" = 10' Vertical

DATE

CROSS SECTIONS

SHEET NO. 176



DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

PREPARED BY: CDM Smith 2301 MATLAND CENTER PARKWAY, SUITE 300 MATLAND, FL 32751 - PHONE: (407) 866-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 30382			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ROAD NO. CR 46A	COUNTY LAKE	FINANCIAL PROJECT ID 238275-8-52-01	

Subsoil Exc.	Regular Exc.	Embankment
A	A	A
V	V	V
0.00	210.05	269.62
0.00	60.07	147.10
0.00	644.23	0.41
0.00	54.70	0.22
CR 46A		

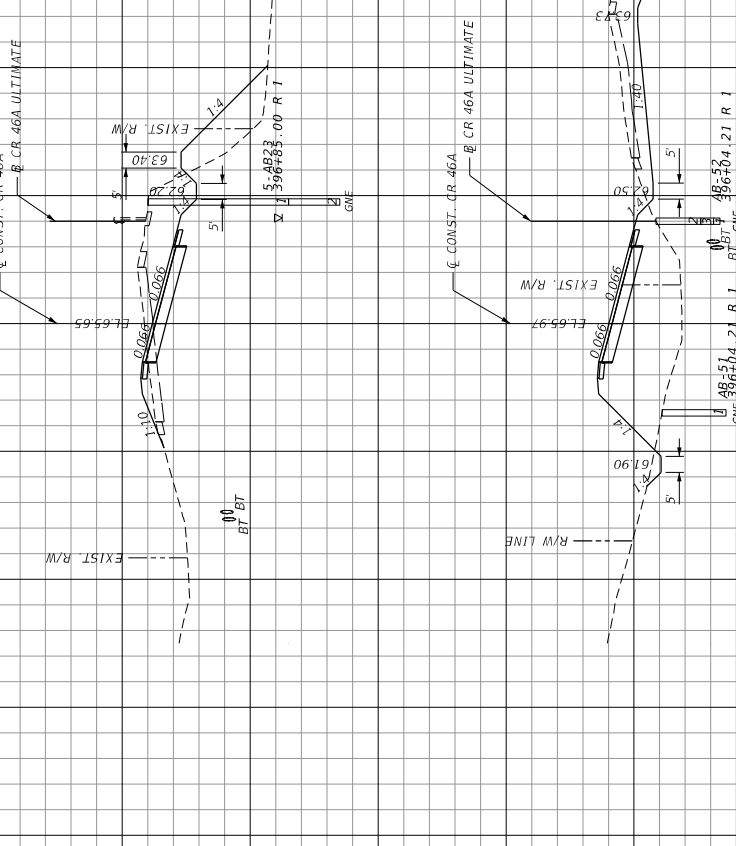
DATE	REVISIONS	DESCRIPTION	DEPARTMENT OF TRANSPORTATION		STATE OF FLORIDA	ROAD NO.	COUNTY	LAKE	FINANCIAL PROJECT ID	SHEET NO.
			ROAD NO.	COUNTY						
			CR 46A	LAKE	FLORIDA	CR 46A		238274-8-52-01	178	CR 46A

Station	Subsoil Exc. A	Subsoil Exc. V	Regular Exc. A	Regular Exc. V	Embankment A	Embankment V
396+00.00	0.00	0.00	168.38	413.75	268.70	753.05
397+00.00	0.00	0.00	144.84	572.12	93.26	661.15

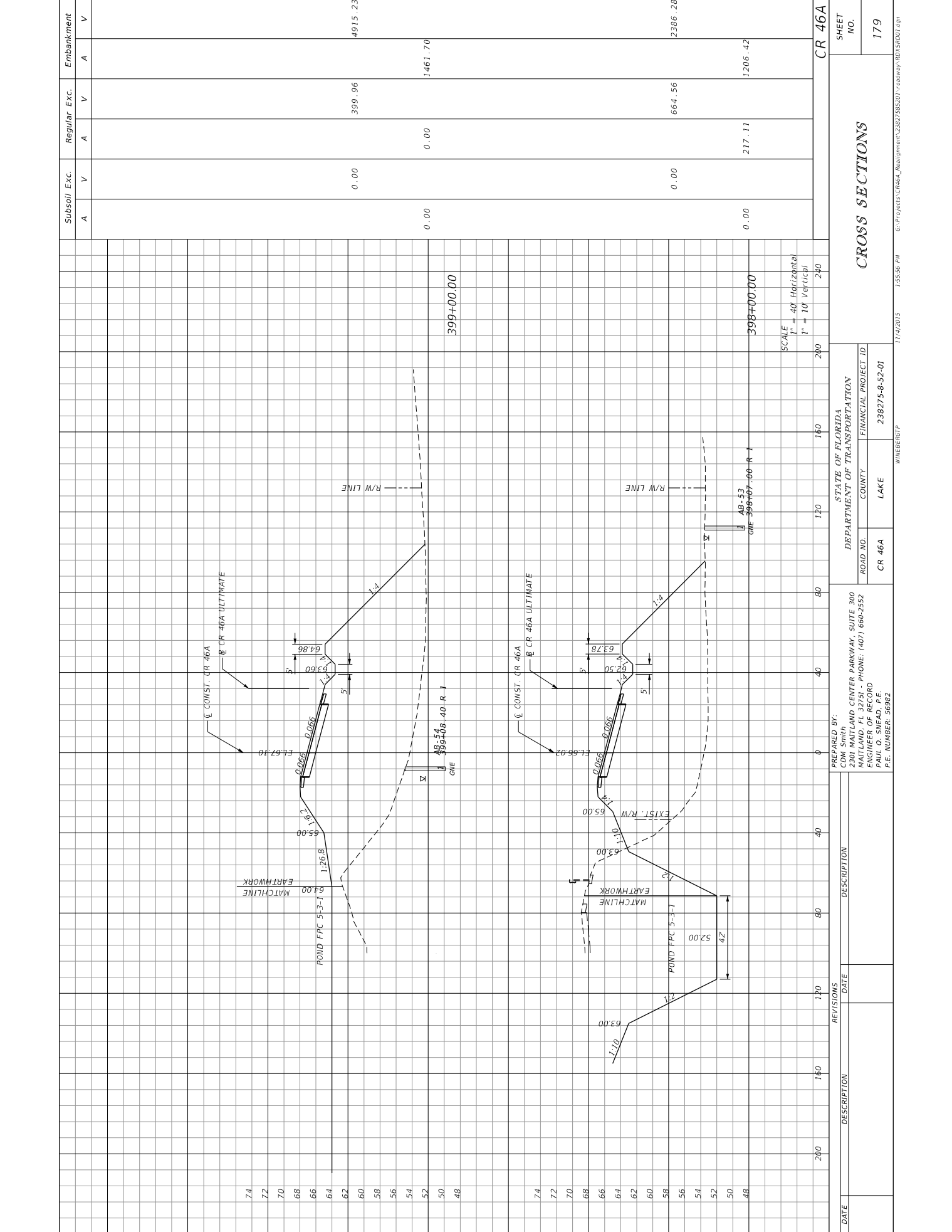
DATE	REVISIONS	DESCRIPTION



SCALE  
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 1" = 10' Vertical



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DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

PREPARED BY:  
 CDM Smith  
 2301 MATLAND CENTER PARKWAY, SUITE 300  
 MATLAND, FL 32751 - PHONE: (407) 866-2552  
 ENGINEER OF RECORD  
 PAUL O. SNEAD, P.E.  
 P.E. NUMBER: 30982

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION

ROAD NO. CR 46A  
 COUNTY LAKE  
 FINANCIAL PROJECT ID 238275-8-52-01

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SCALE  
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 1" = 10' Vertical

SHEET NO. 179

CROSS SECTIONS

CR 46A

CR 46A

CR 46A

CR 46A

CR 46A

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CR 46A

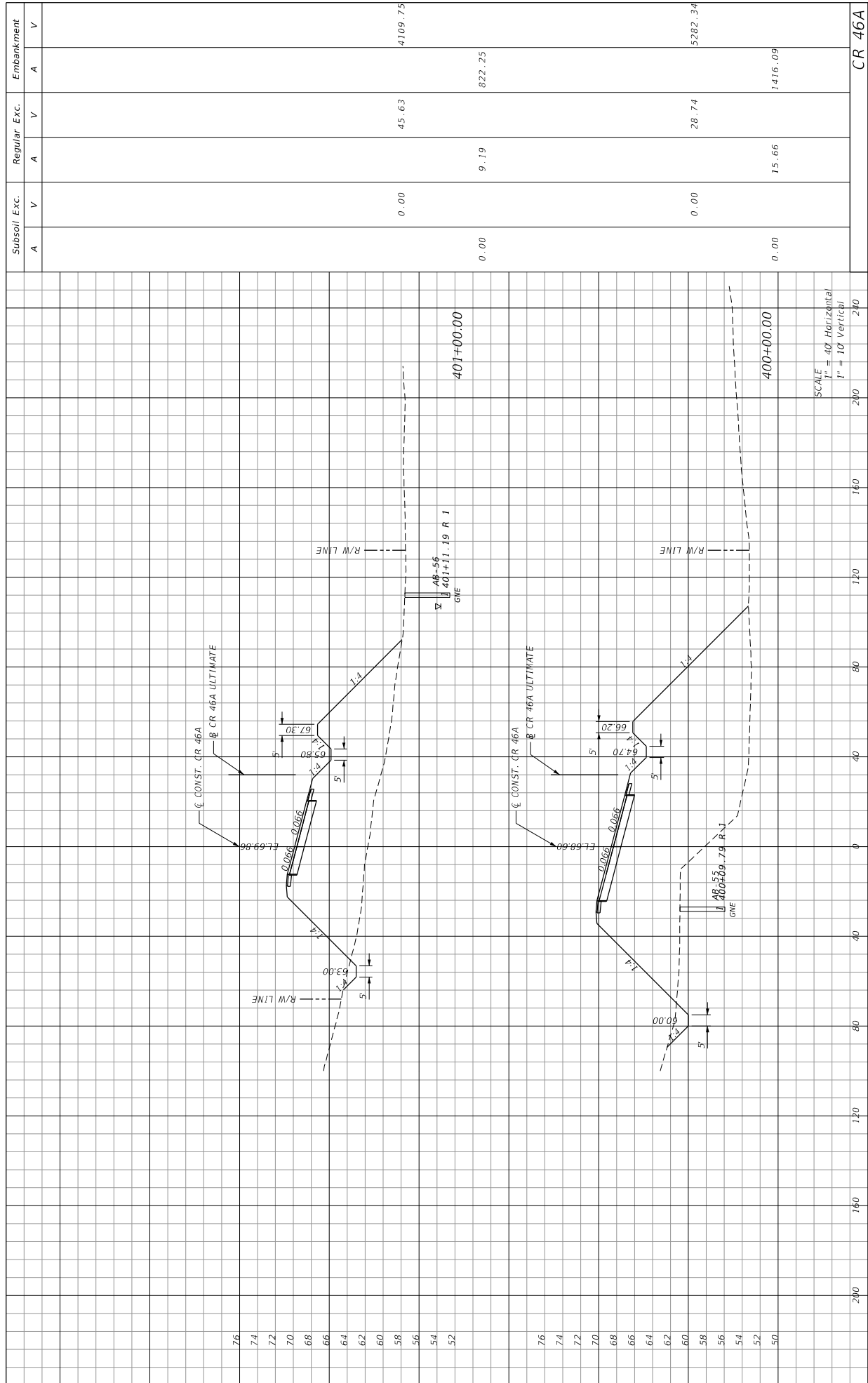
CR 46A

CR 46A

CR 46A

CR 46A

CR 46A



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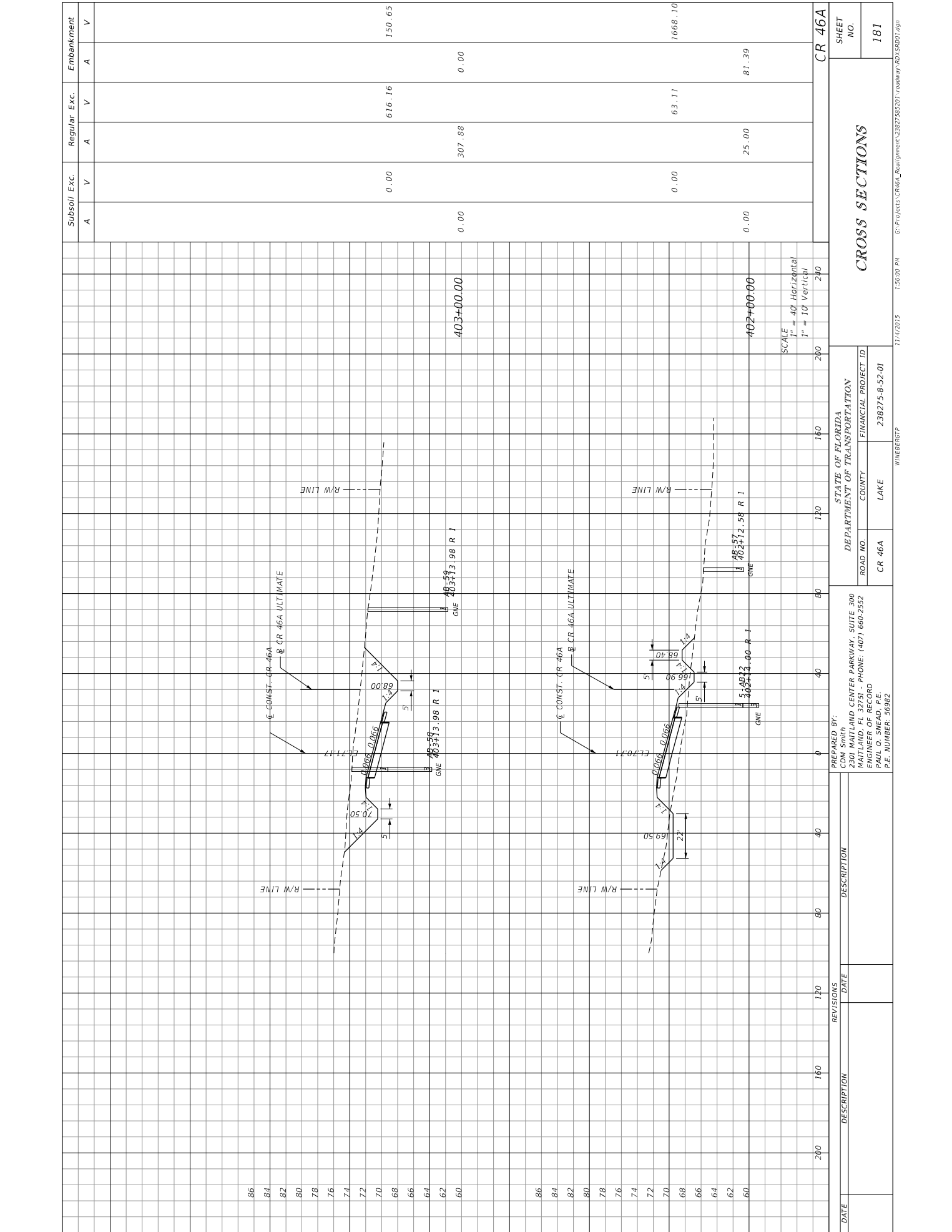
PREPARED BY:  
CDM Smith  
2301 MITLAND CENTER PARKWAY, SUITE 300  
MITLAND, FL 32751 - PHONE: (407) 866-2552  
ENGINEER OF RECORD  
PAUL O. SNEAD, P.E.  
P.E. NUMBER: 30982

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION

ROAD NO. CR 46A  
COUNTY LAKE  
FINANCIAL PROJECT ID 238275-8-52-01

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DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION	STATE OF FLORIDA				SHEET NO.	
					DEPARTMENT OF TRANSPORTATION		FINANCIAL PROJECT ID			
					ROAD NO.	CR 46A	COUNTY	LAKE	238275-8-52-01	181

Subsoil Exc.	Regular Exc.	Embankment
A	A	A
V	V	V

0.00	616.16	150.65
0.00	307.88	0.00
0.00	63.11	1668.10
0.00	25.00	81.39

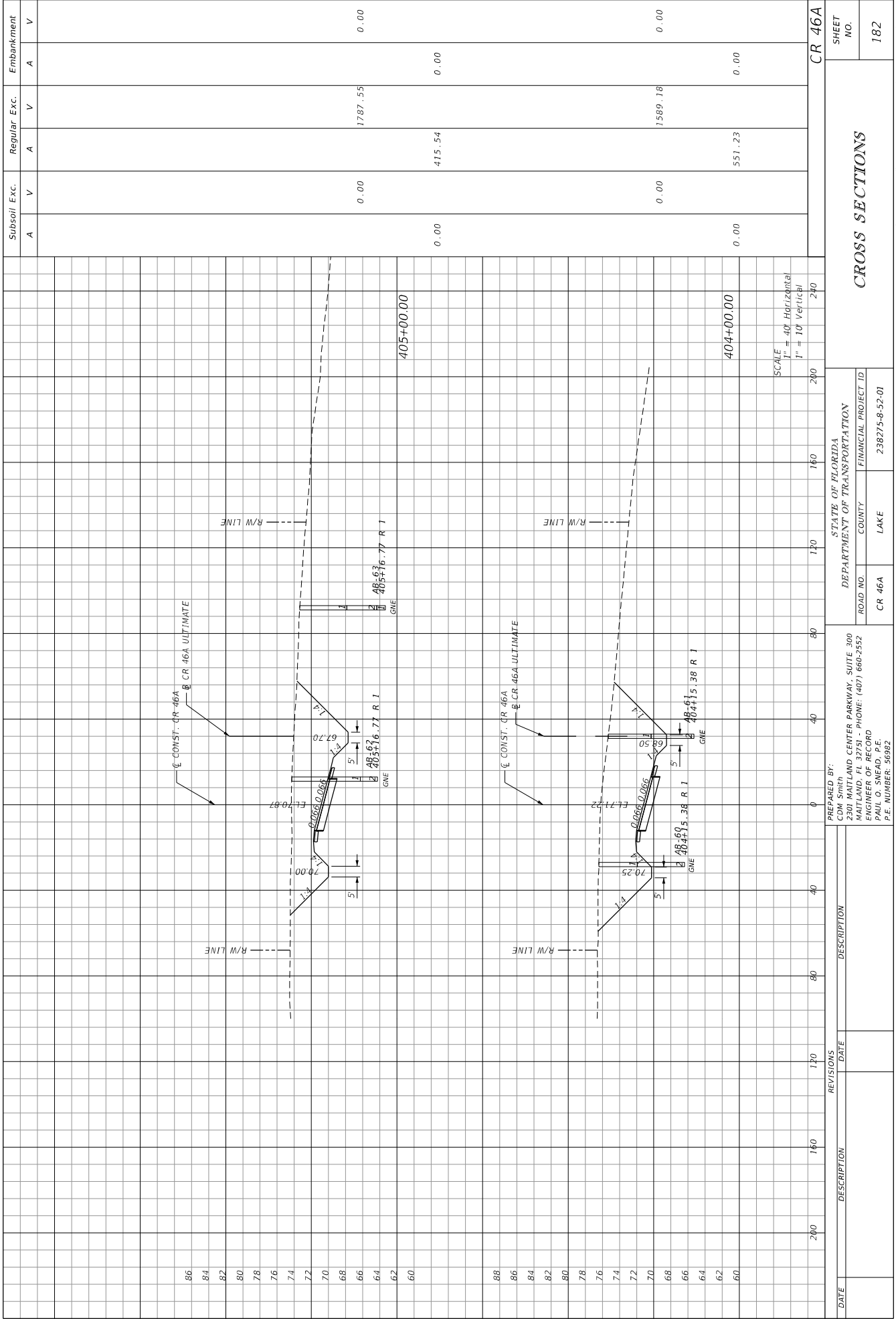
Station	Value
403+00.00	
402+00.00	

SCALE  
1" = 40' Horizontal  
1" = 10' Vertical

PREPARED BY:  
CDM Smith  
2301 MATLAND CENTER PARKWAY, SUITE 300  
MATLAND, FL 32751 - PHONE: (407) 666-2552  
ENGINEER OF RECORD  
PAUL O. SNEAD, P.E.  
P.E. NUMBER: 30382

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11/4/2015 1:50:00 PM  
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CR 46A



DATE	REVISIONS	DESCRIPTION	Subsoil Exc.		Regular Exc.		Embankment	
			A	V	A	V	A	V
			0.00	0.00	1787.55	0.00		
			0.00	0.00	415.54	0.00		
			0.00	0.00	1589.18	0.00		
			0.00	0.00	551.23	0.00		
								CR 46A

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION

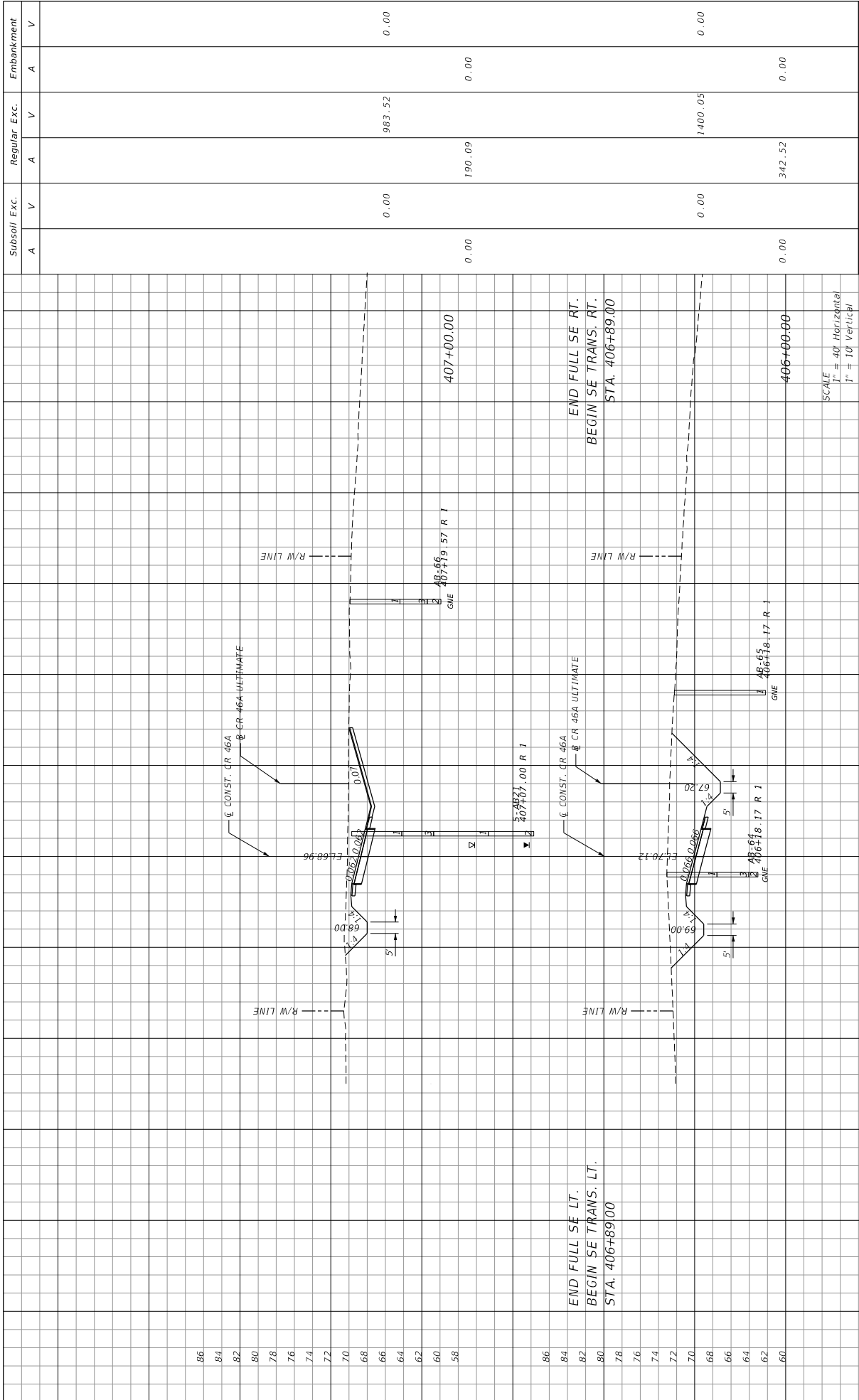
ROAD NO. CR 46A COUNTY LAKE FINANCIAL PROJECT ID 238275-8-52-01

PREPARED BY: CDM Smith  
2301 MAITLAND CENTER PARKWAY, SUITE 300  
MAITLAND, FL 32751 - PHONE: (407) 866-2552  
ENGINEER OF RECORD  
PAUL O. SNEAD, P.E.  
P.E. NUMBER: 30982

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SCALE  
1" = 40' Horizontal  
1" = 10' Vertical

SHEET NO. 182



STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. CR 46A COUNTY LAKE  
 FINANCIAL PROJECT ID 238275-8-52-01

PREPARED BY:  
 CDM Smith  
 2301 MAITLAND CENTER PARKWAY, SUITE 300  
 MAITLAND, FL 32751 - PHONE: (407) 866-2552  
 ENGINEER OF RECORD  
 PAUL O. SNEAD, P.E.  
 P.E. NUMBER: 30382

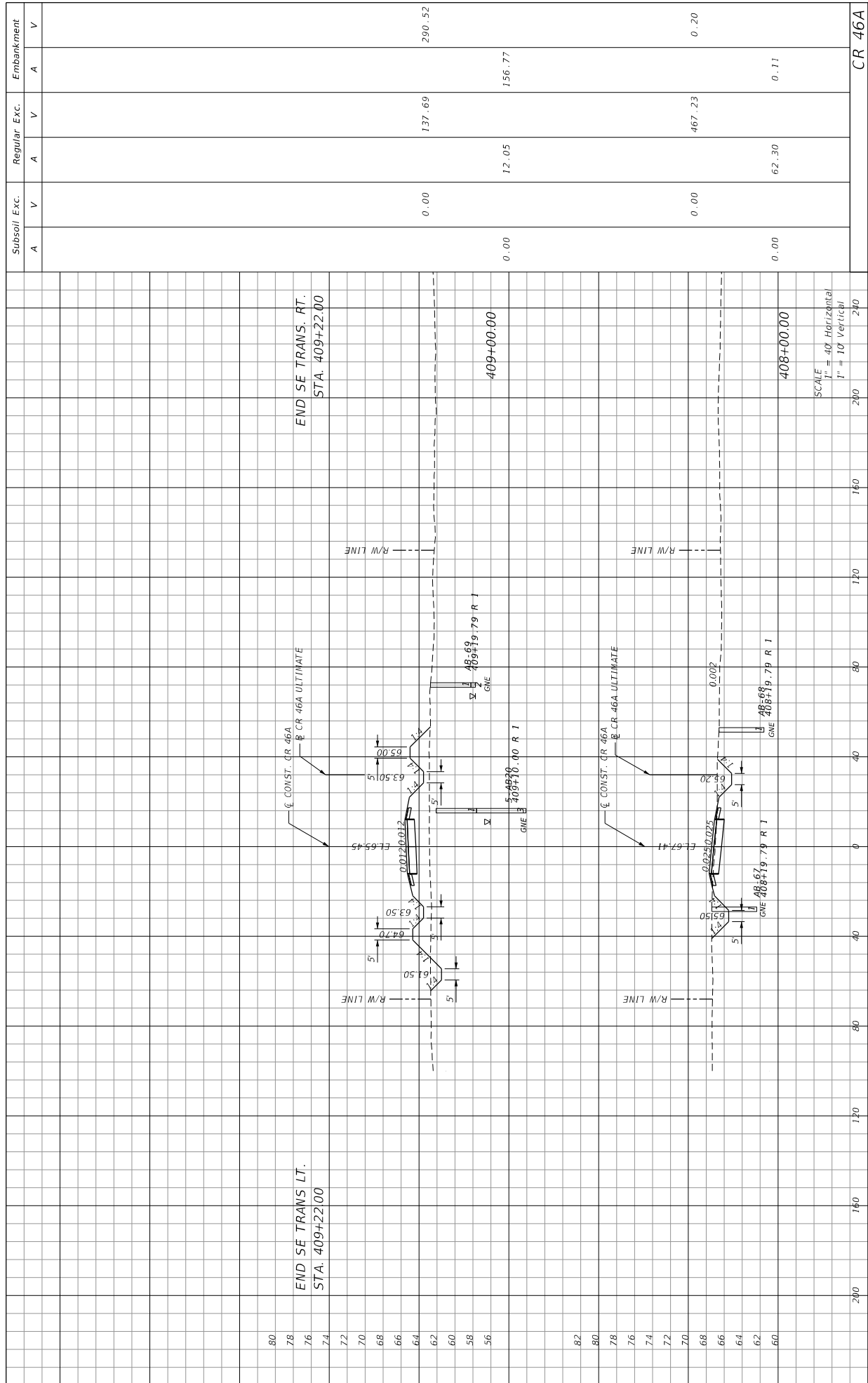
DATE DESCRIPTION REVISIONS DATE DESCRIPTION

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SHEET NO. 183

**CROSS SECTIONS**



DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

PREPARED BY: CDM Smith 2301 MAITLAND CENTER PARKWAY, SUITE 300 MAITLAND, FL 32751 - PHONE: (407) 866-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 30382	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. CR 46A COUNTY LAKE FINANCIAL PROJECT ID 238275-8-52-01
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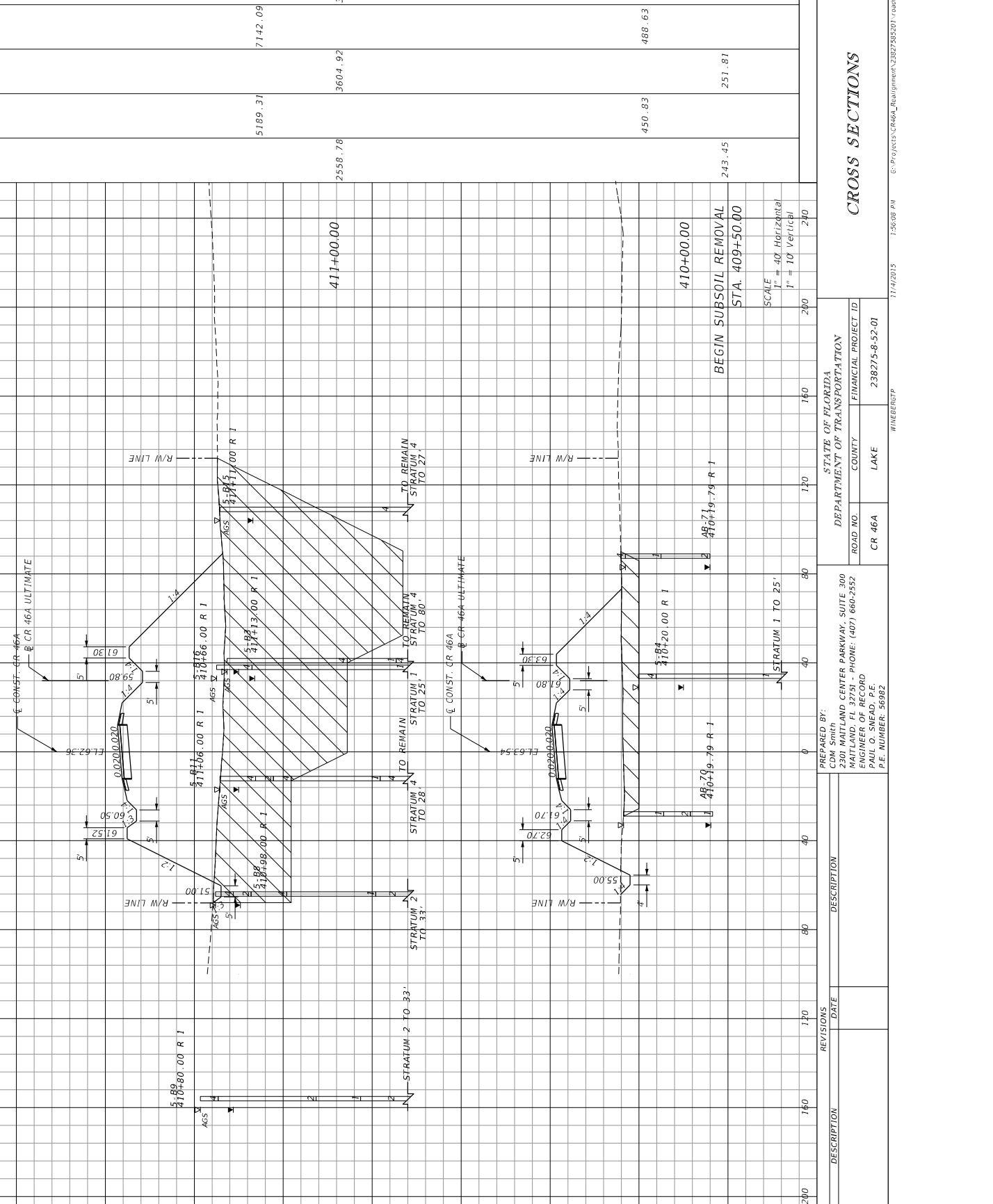
CR 46A	CR 46A
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CR 46A	SHEET NO. 184
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DATE	DESCRIPTION	REVISIONS		DATE	DESCRIPTION
		NO.	DATE		



Subsoil Exc.	Regular Exc.	Embankment
A	A	A
V	V	V
5189.31	7142.09	8764.53
2558.78	3604.92	3811.24
450.83	488.63	2071.06
243.45	251.81	961.60
CR 46A		

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. COUNTY FINANCIAL PROJECT ID  
 CR 46A LAKE 238275-8-52-01  
 WHEELER/P  
 11/4/2015 1:56:08 PM  
 PREPARED BY:  
 CDM Smith  
 2301 WATLAND CENTER PARKWAY, SUITE 300  
 MAITLAND, FL 32751 - PHONE: (407) 866-2552  
 ENGINEER OF RECORD  
 PAUL O. SNEAD, P.E.  
 P.E. NUMBER: 90982

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION  
ROAD NO. CR 46A  
COUNTY LAKE  
FINANCIAL PROJECT ID 238275-8-52-01  
WHEBERGP  
11/14/2015 1:56:10 PM

### CROSS SECTIONS

SHEET NO. 186

CR 46A

SCALE  
1" = 40' Horizontal  
1" = 10' Vertical

PREPARED BY:  
CDM Smith  
2301 MAITLAND CENTER PARKWAY, SUITE 300  
MAITLAND, FL 32751 - PHONE: (407) 866-2552  
ENGINEER OF RECORD  
PAUL O. SNEAD, P.E.  
P.E. NUMBER: 30382

REVISIONS

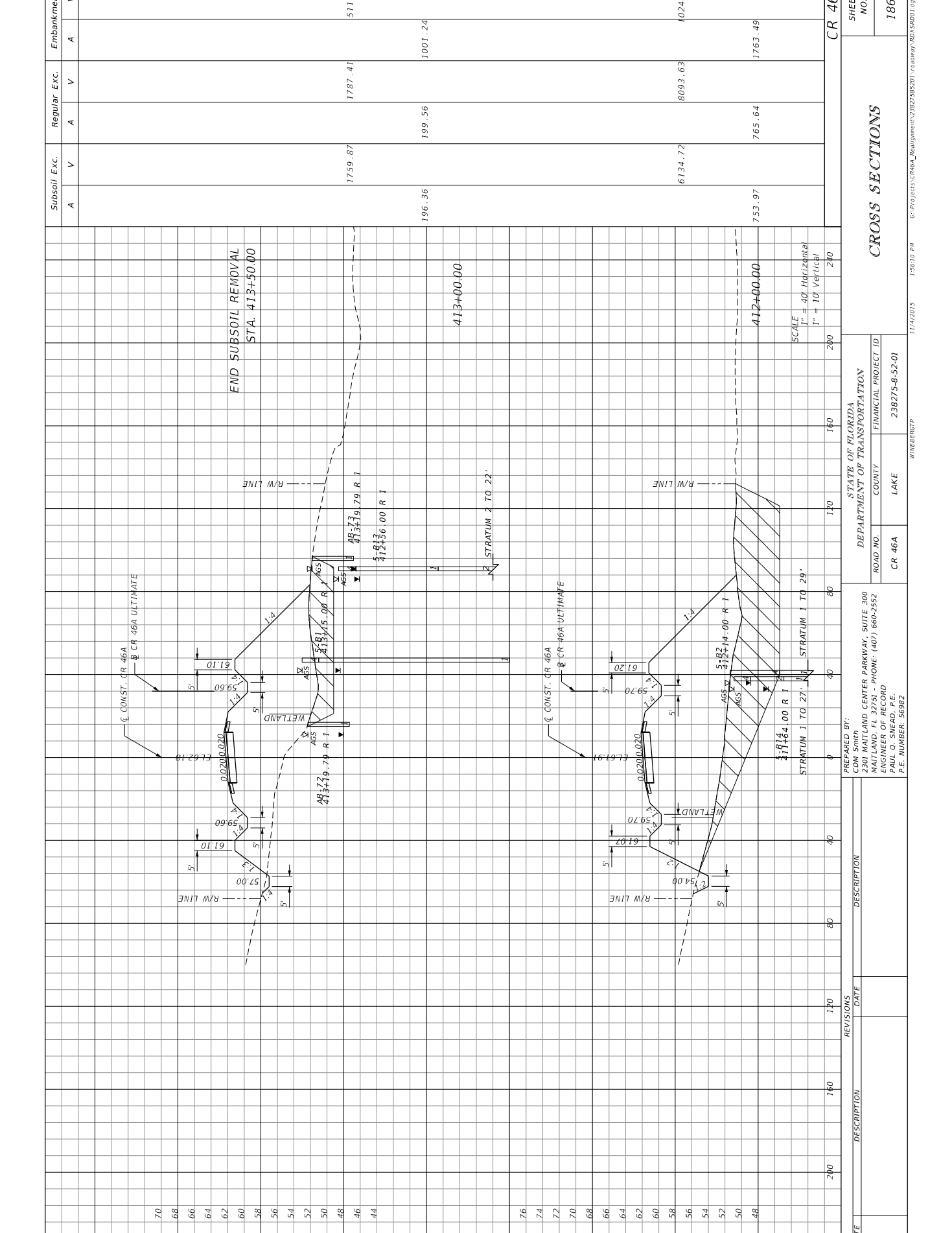
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DESCRIPTION

DATE

DESCRIPTION

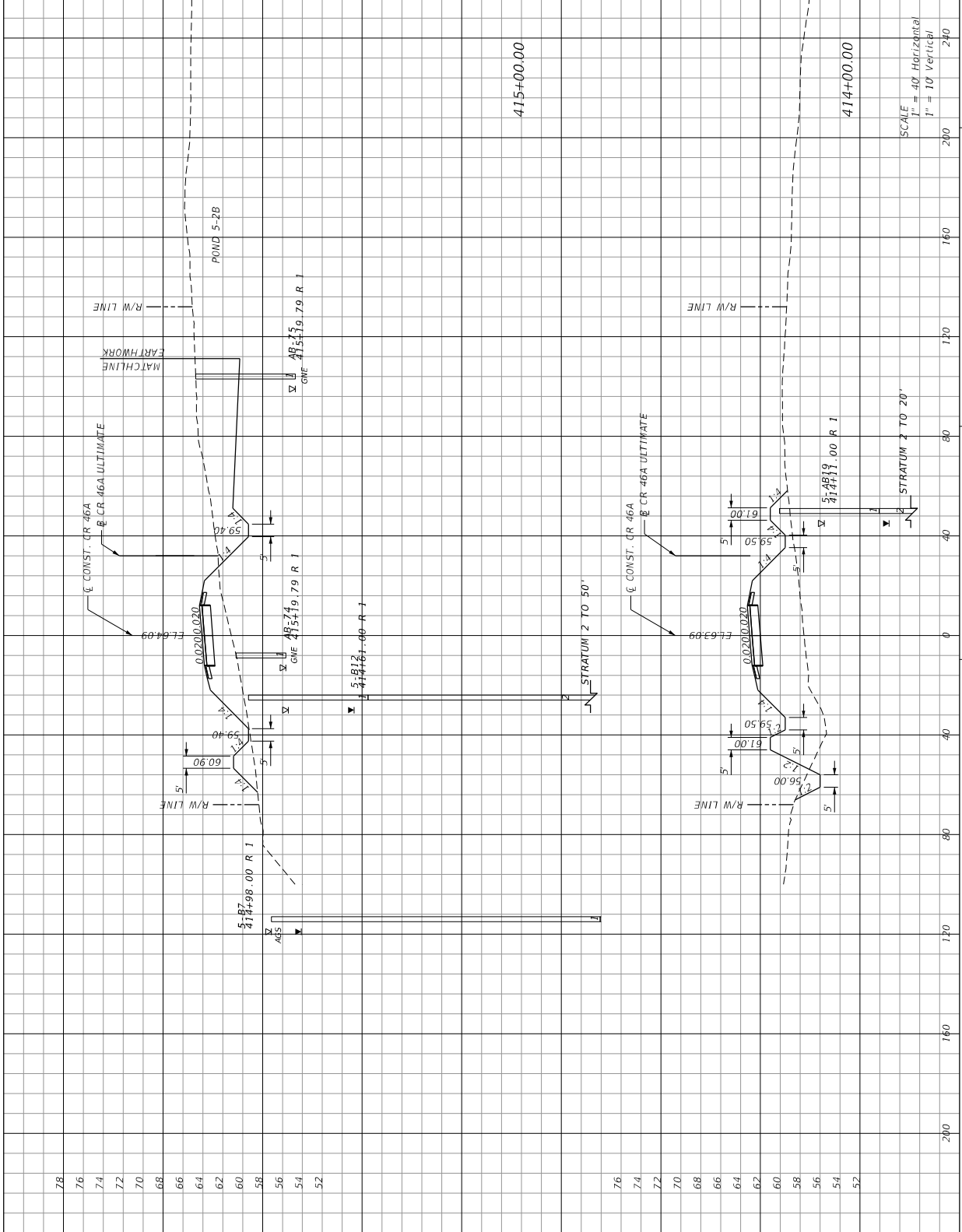
DATE



Subsoil Exc.	Regular Exc.	Embankment
A	A	A
V	V	V
1759.87	1787.41	5119.87
196.36	199.56	1001.24
6134.72	8093.63	10249.52
753.97	765.64	1763.49
413+00.00		
412+00.00		
CR 46A		



Subsoil Exc.	Regular Exc.	Embankment
A	V	A
A	V	V
0.00	526.07	1020.06
0.00	269.52	150.76
0.00	396.52	2595.02
0.00	14.56	400.07
<b>CR 46A</b>		

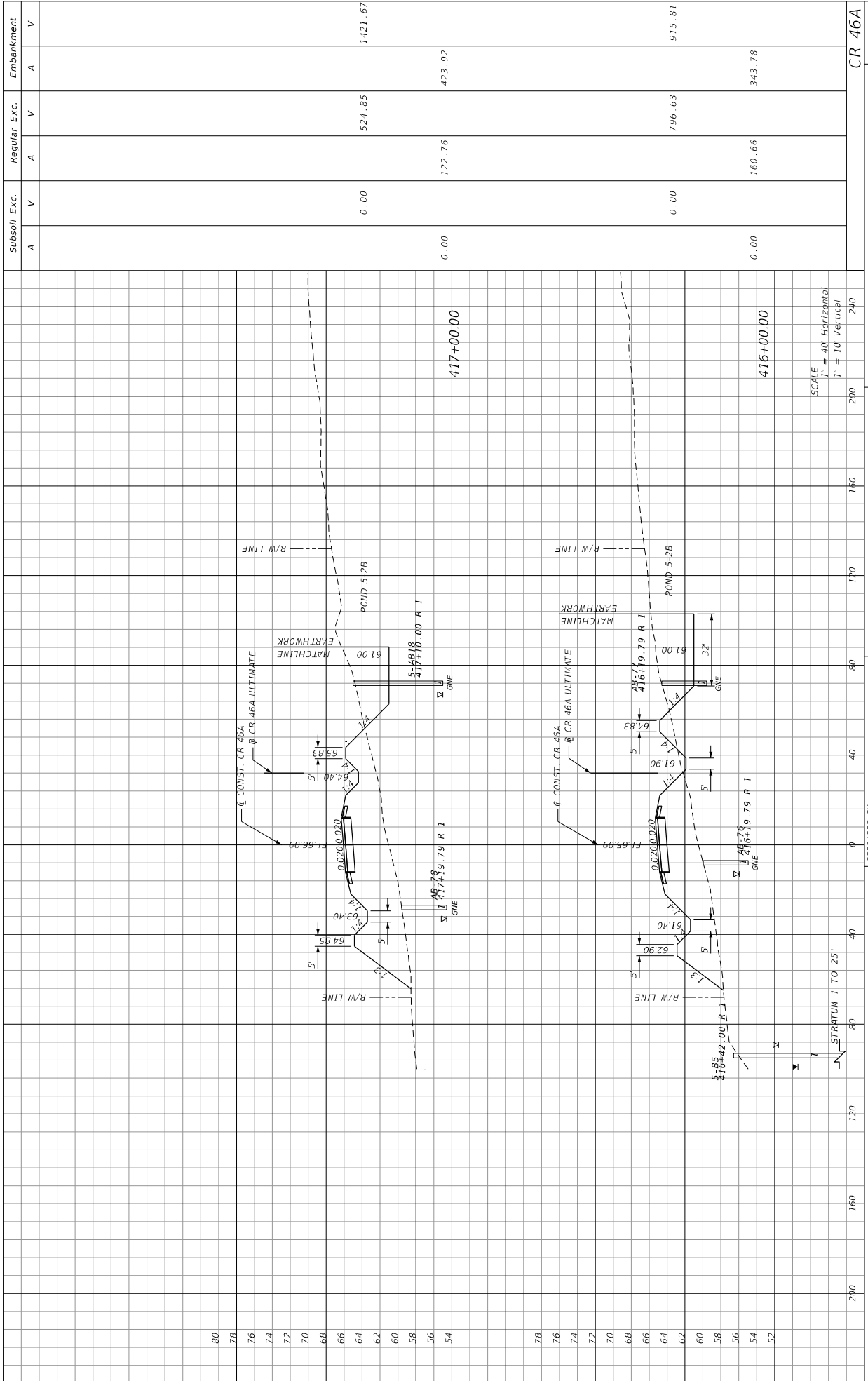


SCALE  
 1" = 40' Horizontal  
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DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

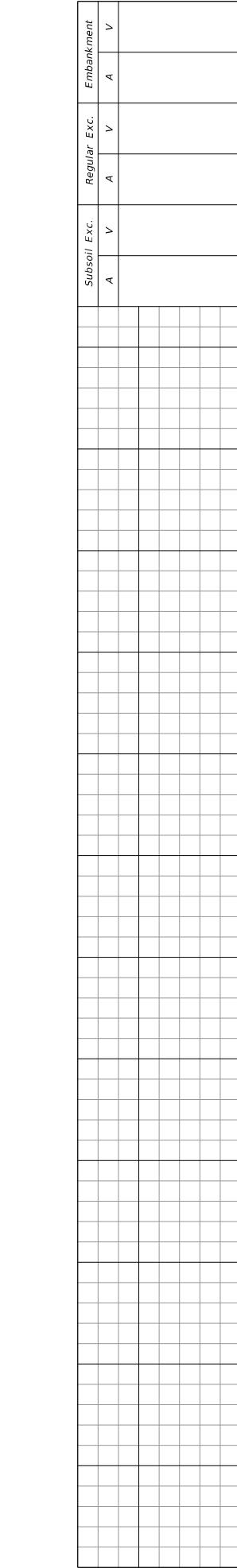
  

<b>STATE OF FLORIDA</b> DEPARTMENT OF TRANSPORTATION		<b>CROSS SECTIONS</b> ROAD NO. <b>CR 46A</b> COUNTY <b>LAKE</b> PROJECT ID <b>238275-8-52-01</b>	
PREPARED BY: <b>COM Smith</b> 2301 MATLAND CENTER PARKWAY, SUITE 300 MATLAND, FL 32751 - PHONE: (407) 866-2552 ENGINEER OF RECORD <b>PAUL O. SNEAD, P.E.</b> P.E. NUMBER: 30982		WHEEINGRP 11/4/2015 1:56:12 PM G:\Projects\CR46A_Requirement\3827585201\ roadway\RD5\RD01.dgn	
<b>CR 46A</b>		<b>SHEET NO. 187</b>	

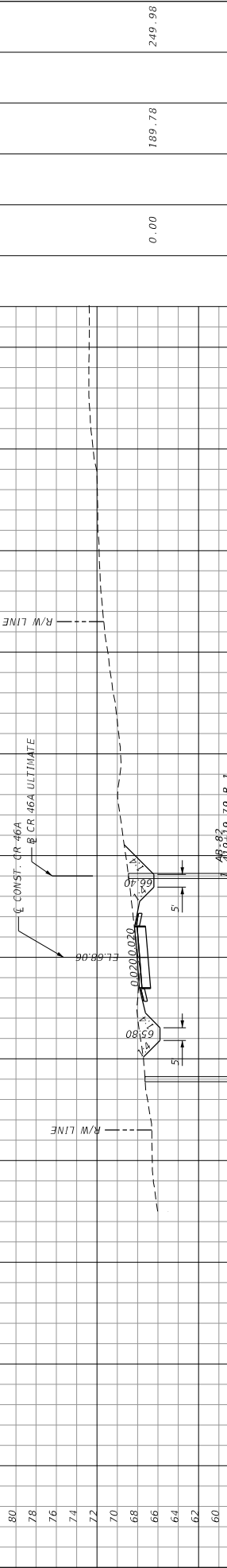


DATE	DESCRIPTION	REVISIONS		DATE	DESCRIPTION	STATE OF FLORIDA		DEPARTMENT OF TRANSPORTATION		ROAD NO.	FINANCIAL PROJECT ID		SHEET NO.
						COUNTY	LAKE	CR 46A	CR 46A		PROJECT ID	NO.	
						LAKE		CR 46A		238275-8-52-01	238275-8-52-01		188
PREPARED BY: CDM Smith 2301 MAITLAND CENTER PARKWAY, SUITE 300 MAITLAND, FL 32751 - PHONE: (407) 866-2552 ENGINEER OF RECORD: PAUL O. SNEAD, P.E. P.E. NUMBER: 36982													
											11/14/2015	1:50/1.4" PV	C:\Projects\CR46A_Req\Drawings\3827585201\roadway\0455RD01.dgn

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



Subsoil Exc.	Regular Exc.		Embankment
	A	V	
0.00	189.78	249.98	
0.00	99.11	0.00	
0.00	233.57	1035.02	
0.00	3.37	134.99	
			CR 46A



Subsoil Exc.	Regular Exc.		Embankment
	A	V	
0.00	189.78	249.98	
0.00	99.11	0.00	
0.00	233.57	1035.02	
0.00	3.37	134.99	
			CR 46A

SCALE  
1" = 40' Horizontal  
1" = 10' Vertical

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION

ROAD NO. CR 46A COUNTY LAKE

FINANCIAL PROJECT ID 238274-8-52-01

SHEET NO. 189

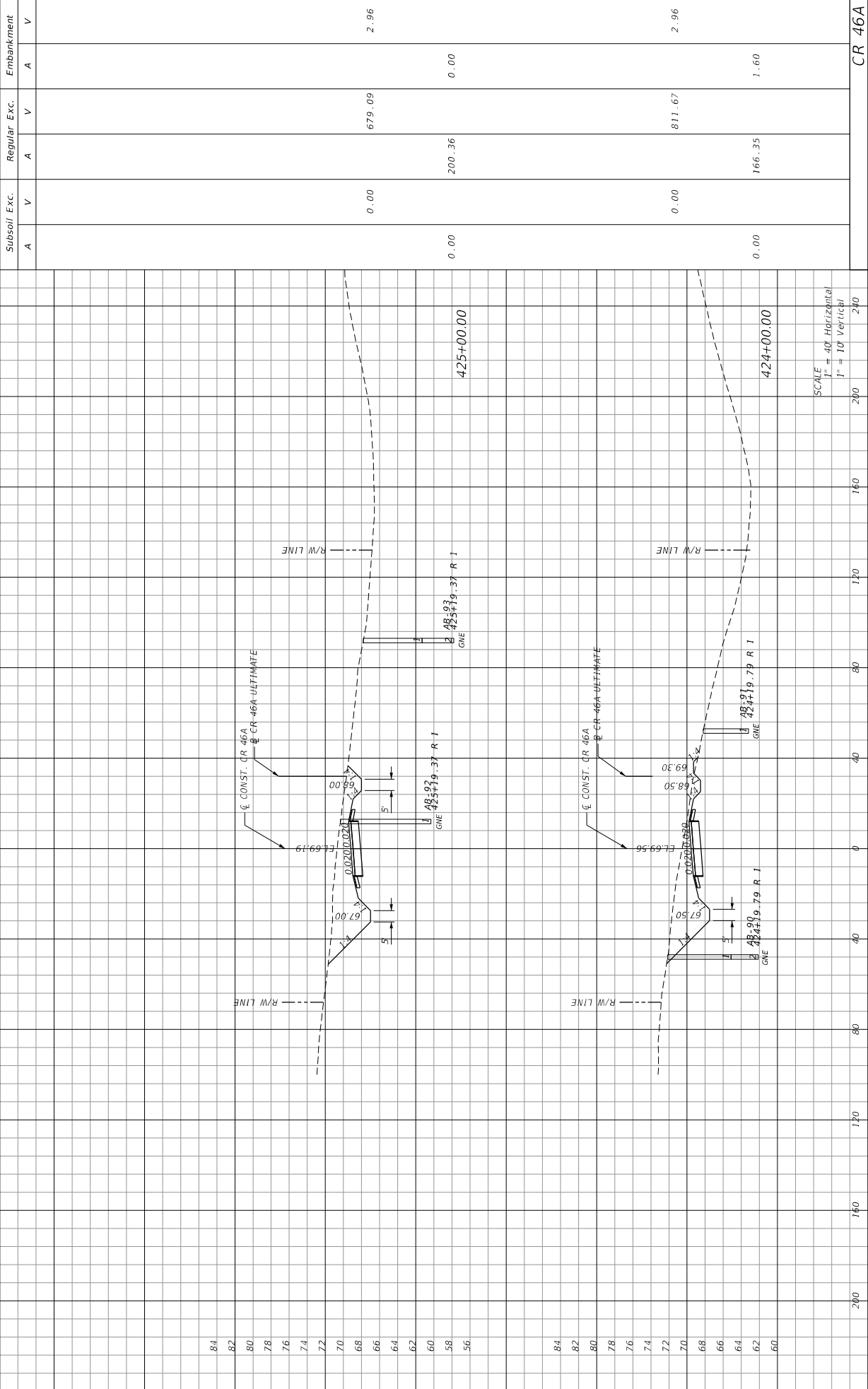
---

PREPARED BY: CDM Smith  
2301 MAITLAND CENTER PARKWAY, SUITE 300  
MAITLAND, FL 32751 - PHONE: (407) 866-2552  
ENGINEER OF RECORD: PAUL O. SNEAD, P.E.  
P.E. NUMBER: 30382

DATE	DESCRIPTION	REVISIONS



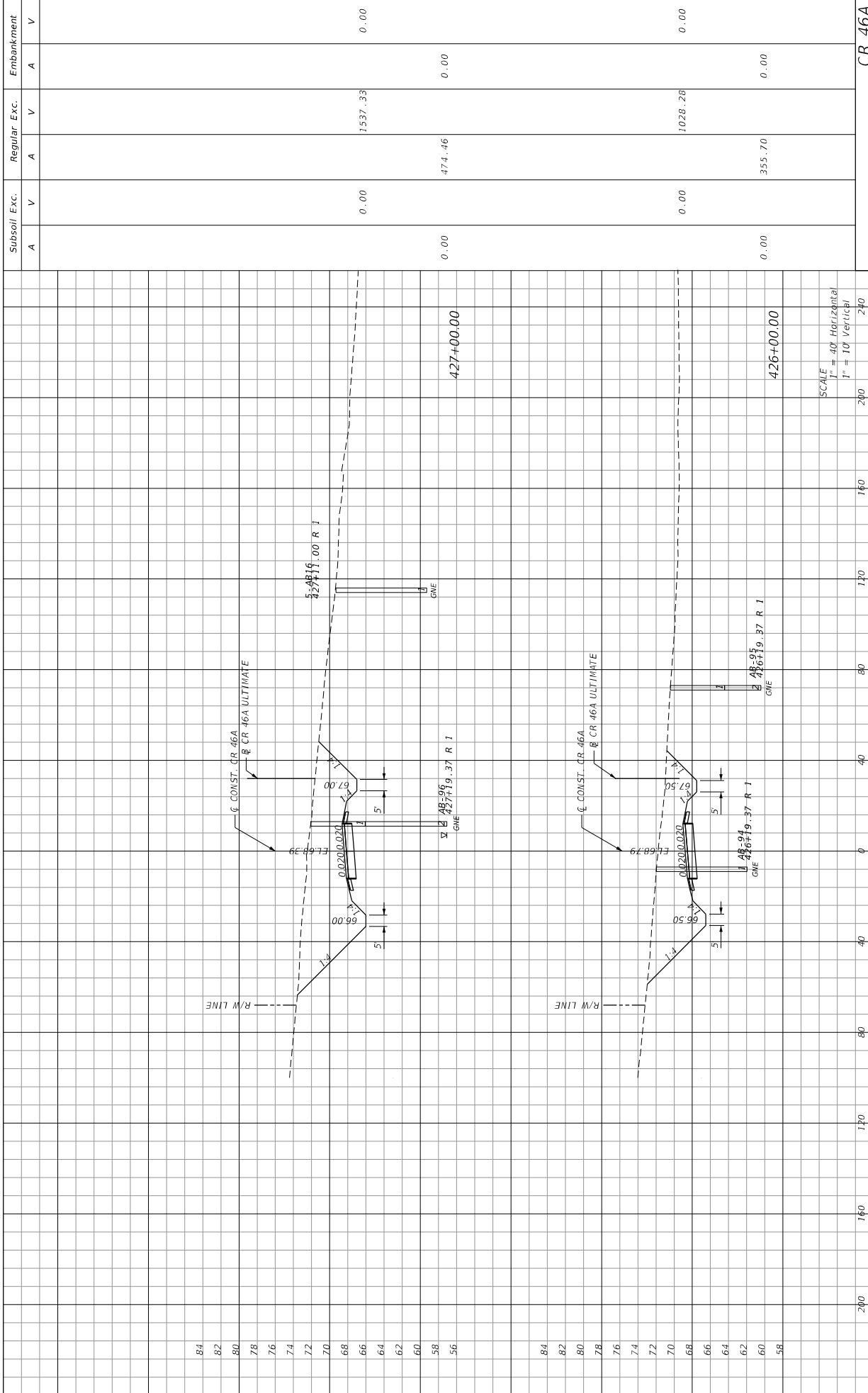




Subsoil Exc.		Regular Exc.		Embankment	
A	V	A	V	A	V
0.00	0.00	200.36	679.09	0.00	2.96
0.00	0.00	166.35	811.67	0.00	1.60
<b>CR 46A</b>					

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			<b>CROSS SECTIONS</b>			SHEET NO. <b>192</b>		
PREPARED BY: CDM Smith 2301 MATLAND CENTER PARKWAY, SUITE 300 MATLAND, FL 32751 - PHONE: (407) 866-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 36982			ROAD NO. CR 46A			FINANCIAL PROJECT ID 238275-8-52-01		
			COUNTY LAKE			WHEELER TP 11/4/2015 1:50:22 PM		



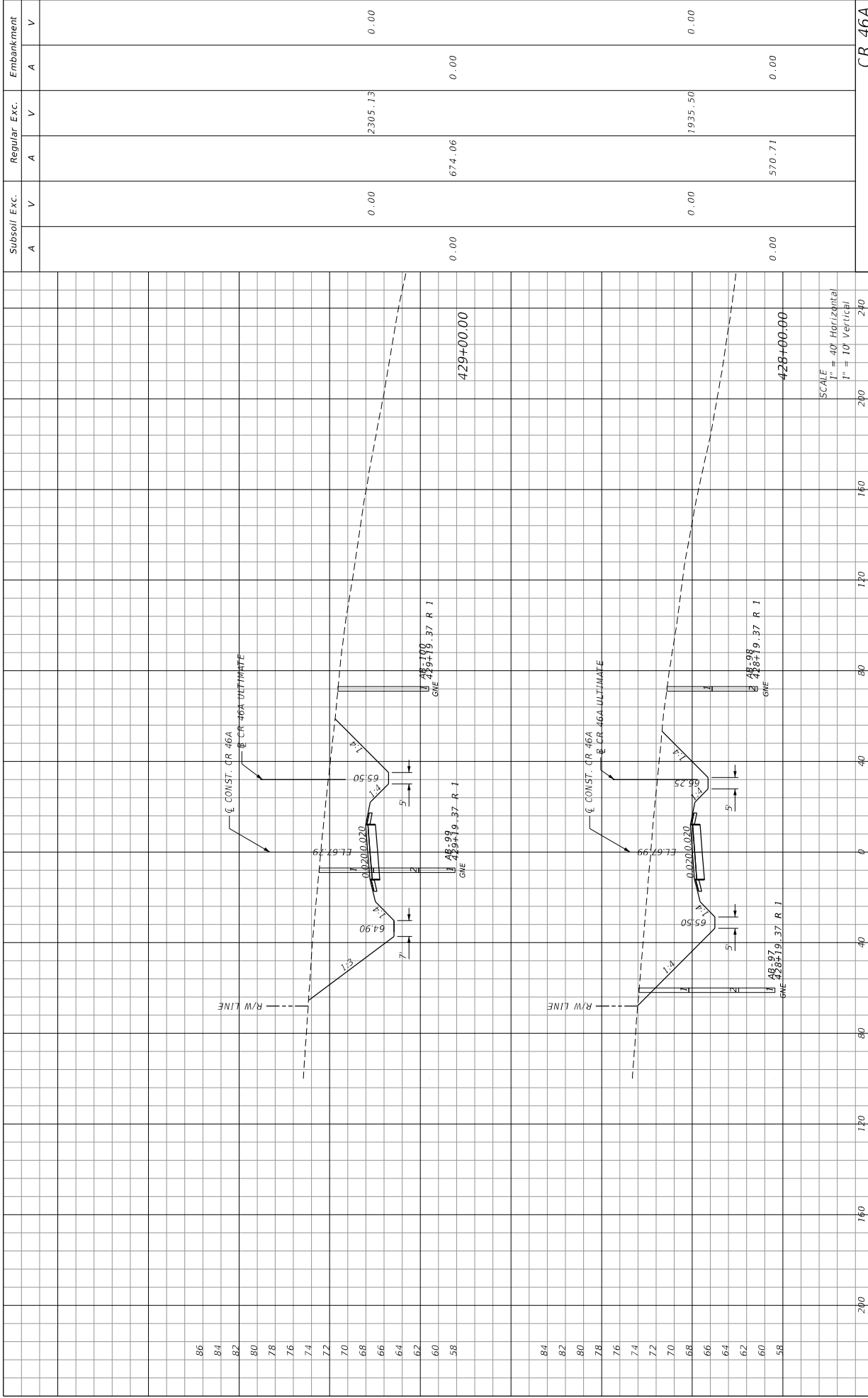
SCALE  
1" = 40' Horizontal  
1" = 10' Vertical

Subsoil Exc.	Regular Exc.		Embankment
	A	V	
0.00	1537.33	0.00	0.00
0.00	474.46	0.00	0.00
0.00	1028.28	0.00	0.00
0.00	355.70	0.00	0.00

CR 46A	CR 46A	CR 46A
<b>CROSS SECTIONS</b>		
STATE OF FLORIDA	DEPARTMENT OF TRANSPORTATION	SHEET NO.
ROAD NO. CR 46A	FINANCIAL PROJECT ID 238275-8-52-01	193

PREPARED BY:  
CDM Smith  
2301 MITLAND CENTER PARKWAY, SUITE 300  
MAITLAND, FL 32751 - PHONE: (407) 666-2552  
ENGINEER OF RECORD  
PAUL O. SNEAD, P.E.  
P.E. NUMBER: 30982

REVISIONS  
DATE DESCRIPTION



DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION	Subsoil Exc.	Regular Exc.	Embankment
A	V	A	V	A	V	A	V
					0.00	2305.13	0.00
					0.00	674.06	0.00
					0.00	1935.50	0.00
					0.00	570.71	0.00
							CR 46A

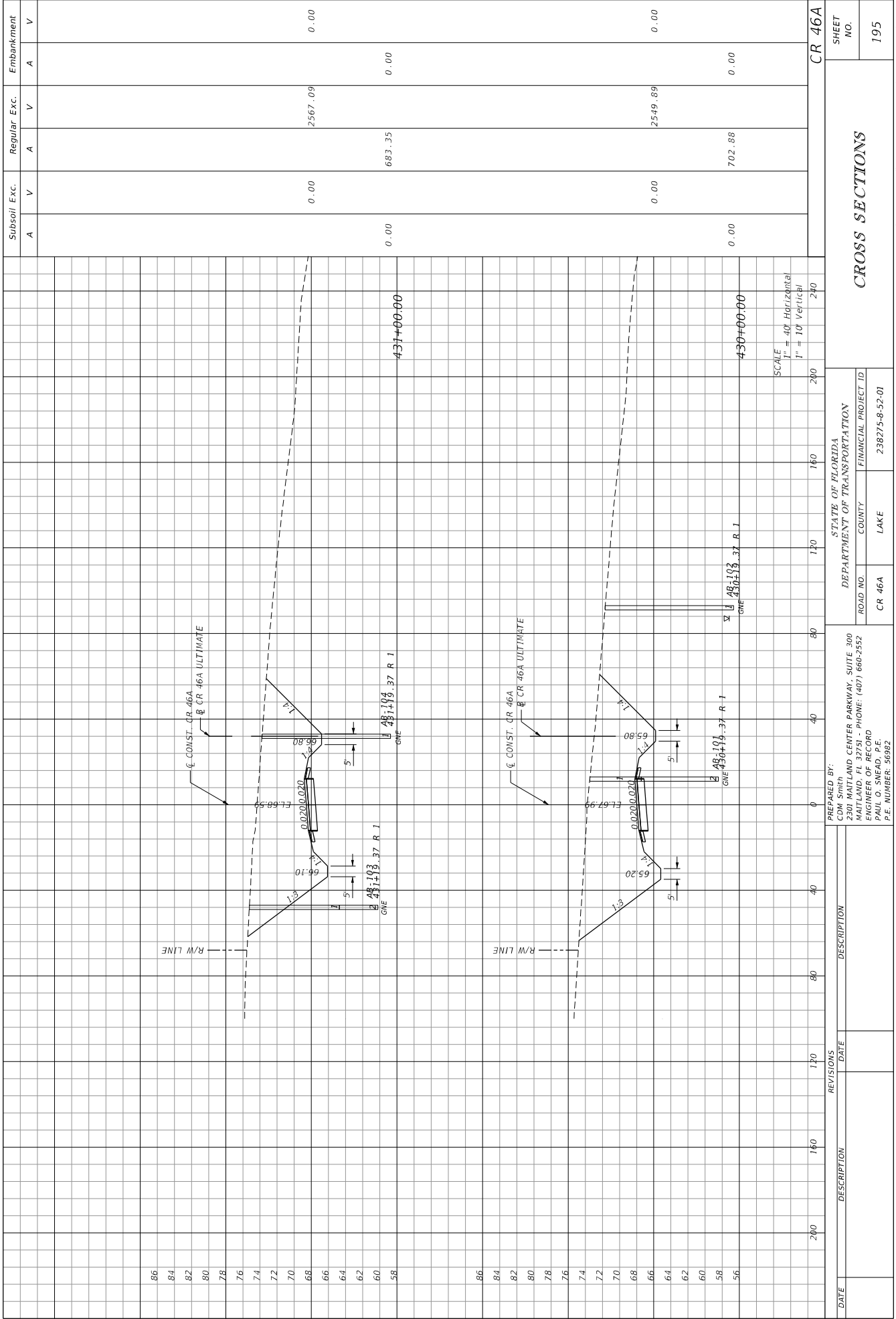
SCALE  
 1" = 40' Horizontal  
 1" = 10' Vertical

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. CR 46A  
 COUNTY LAKE  
 FINANCIAL PROJECT ID 238274-8-52-01

PREPARED BY:  
 CDM Smith  
 2301 MATLAND CENTER PARKWAY, SUITE 300  
 MATLAND, FL 32751 - PHONE: (407) 866-2552  
 ENGINEER OF RECORD  
 PAUL O. SNEAD, P.E.  
 P.E. NUMBER: 30982

WHEBERGP  
 11/14/2015 1:56:25 PM  
 G:\Projects\CR46A\_Realign\CR46A\_Realign\23827485201 roadway\RD5\RD01.dgn





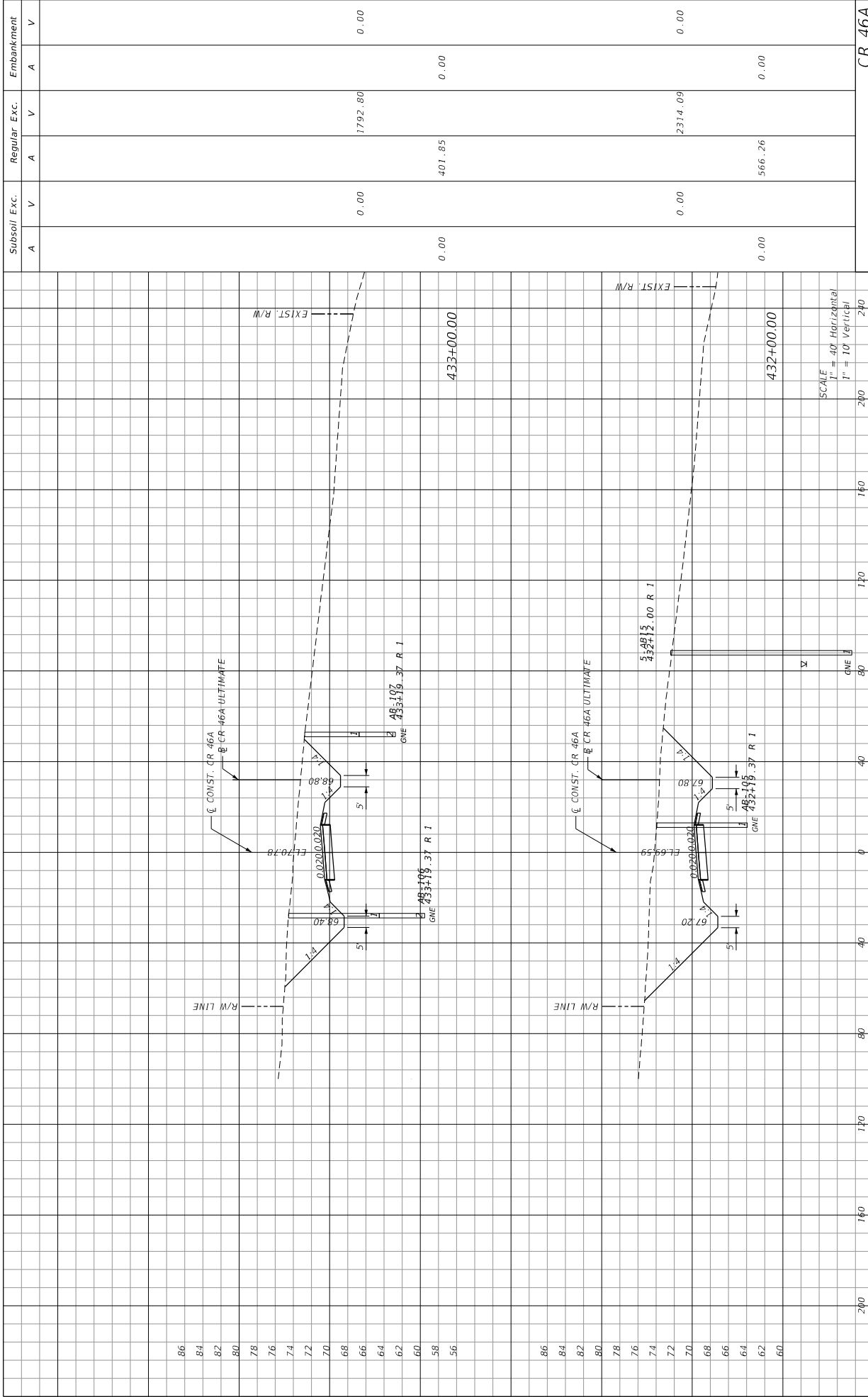
Subsoil Exc.	Regular Exc.	Embankment
A	V	A
0.00	2567.09	0.00
0.00	683.35	0.00
0.00	702.88	0.00
		CR 46A

CROSS SECTIONS

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. CR 46A  
 COUNTY LAKE  
 FINANCIAL PROJECT ID 238275-8-52-01

PREPARED BY:  
 CDM Smith  
 2301 MAITLAND CENTER PARKWAY, SUITE 300  
 MAITLAND, FL 32751 - PHONE: (407) 866-2552  
 ENGINEER OF RECORD  
 PAUL O. SNEAD, P.E.  
 P.E. NUMBER: 30982

DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION



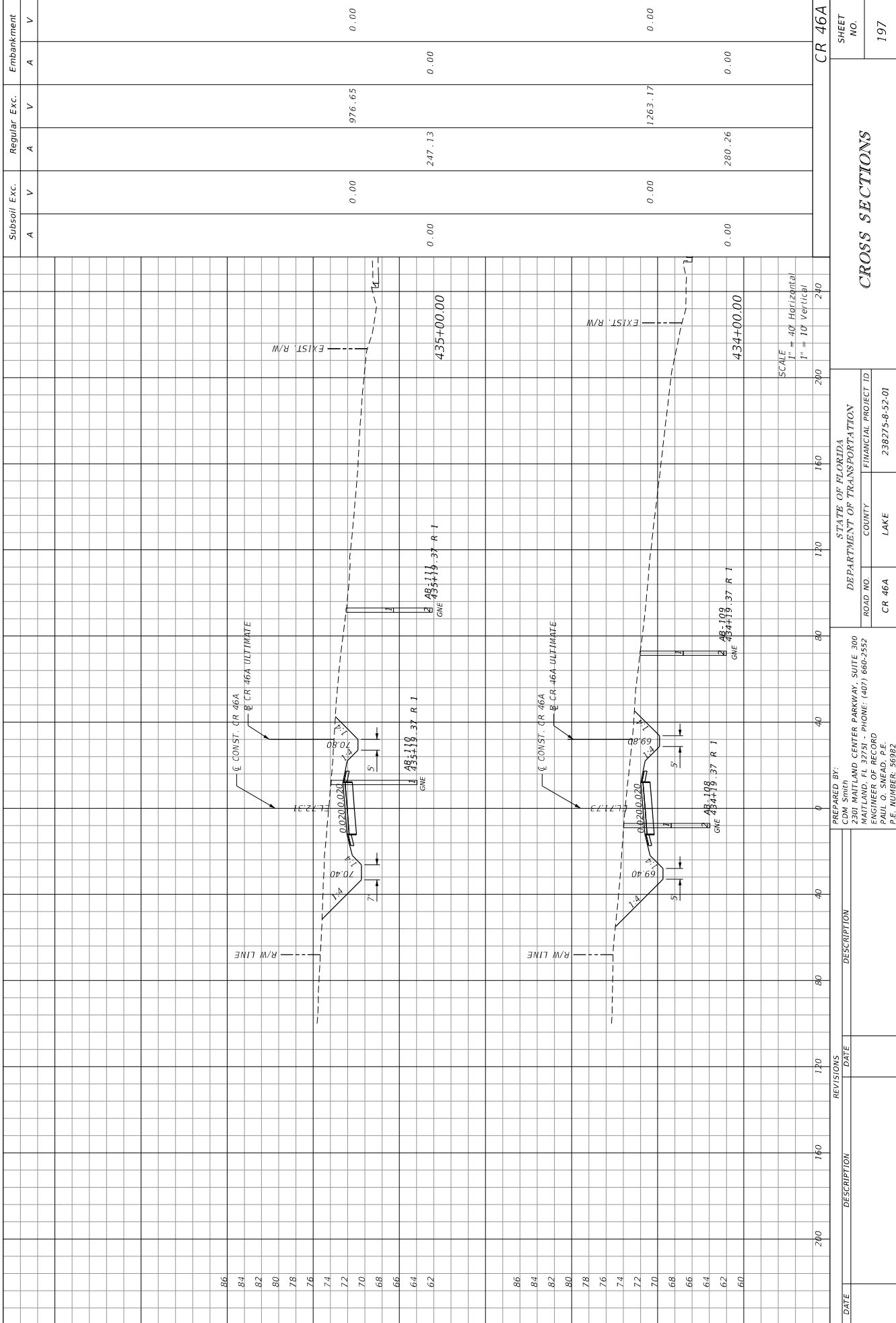
DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION
86				
84				
82				
80				
78				
76				
74				
72				
70				
68				
66				
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62				
60				
58				
56				
86				
84				
82				
80				
78				
76				
74				
72				
70				
68				
66				
64				
62				
60				

Subsoil Exc.	A	V	0.00	Regular Exc.	A	V	1792.80	Embankment	A	V	0.00
433+00.00											
432+00.00											
SCALE 1" = 40' Horizontal 1" = 10' Vertical											
CR 46A											

STATE OF FLORIDA		DEPARTMENT OF TRANSPORTATION	
ROAD NO. CR 46A		FINANCIAL PROJECT ID 238275-8-52-01	
COUNTY LAKE		COUNTY LAKE	
PREPARED BY: CDM Smith 2301 MAITLAND CENTER PARKWAY, SUITE 300 MAITLAND, FL 32751 - PHONE: (407) 866-2552 ENGINEER OF RECORD PAUL O. SNEAD, P.E. P.E. NUMBER: 30982		WHEELERGP	
DATE		11/4/2015	
SHEET NO.		196	



Subsoil Exc.		Regular Exc.		Embankment	
A	V	A	V	A	V
0.00	0.00	976.65	0.00	0.00	0.00
0.00	0.00	247.13	0.00	0.00	0.00
0.00	0.00	1263.17	0.00	0.00	0.00
0.00	0.00	280.26	0.00	0.00	0.00
					CR 46A

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION

ROAD NO. CR 46A COUNTY LAKE FINANCIAL PROJECT ID 238275-8-52-01

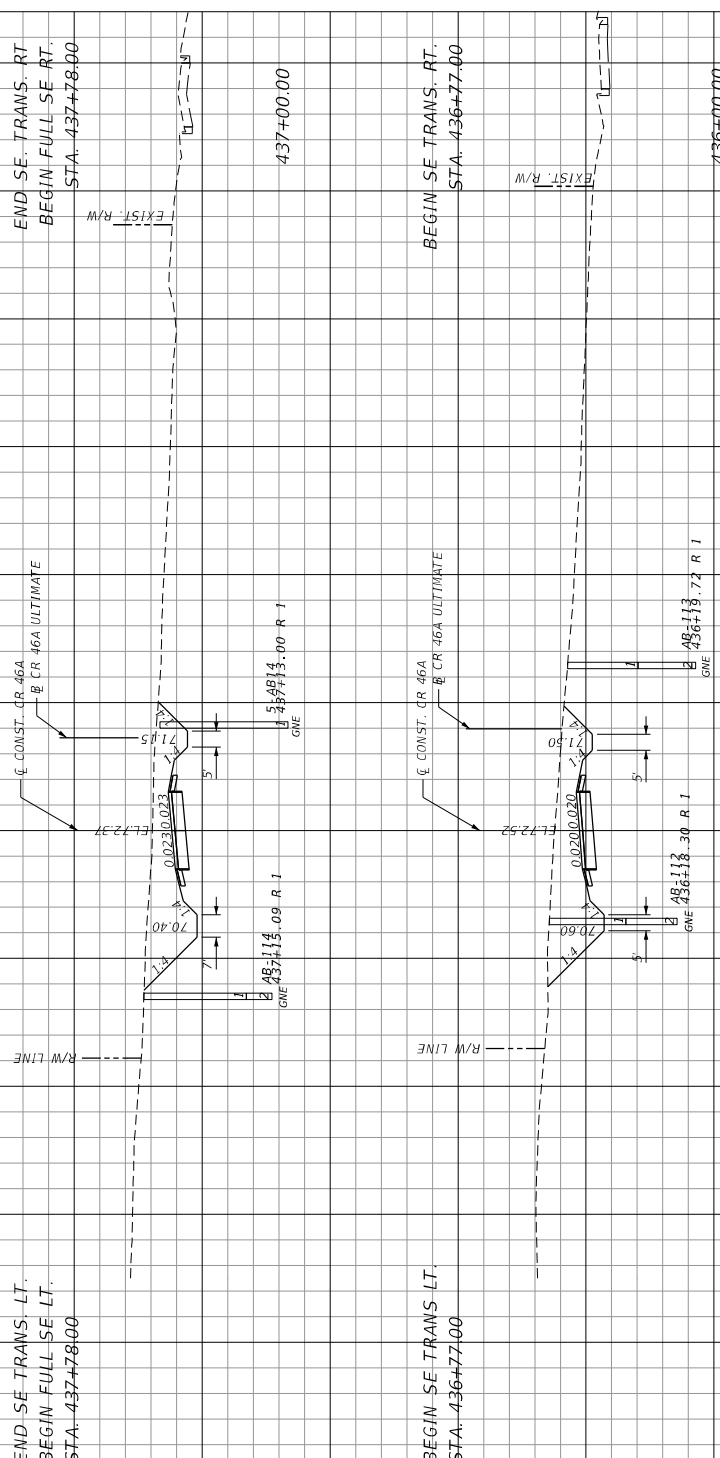
PREPARED BY: CDM Smith  
2301 MATLAND CENTER PARKWAY, SUITE 300  
MAITLAND, FL 32751 - PHONE: (407) 866-2552  
ENGINEER OF RECORD  
PAUL O. SNEAD, P.E.  
P.E. NUMBER: 30982

DATE DESCRIPTION REVISIONS DATE

19637 PW 11/14/2015 WHEEENRTP

SHEET NO. 197

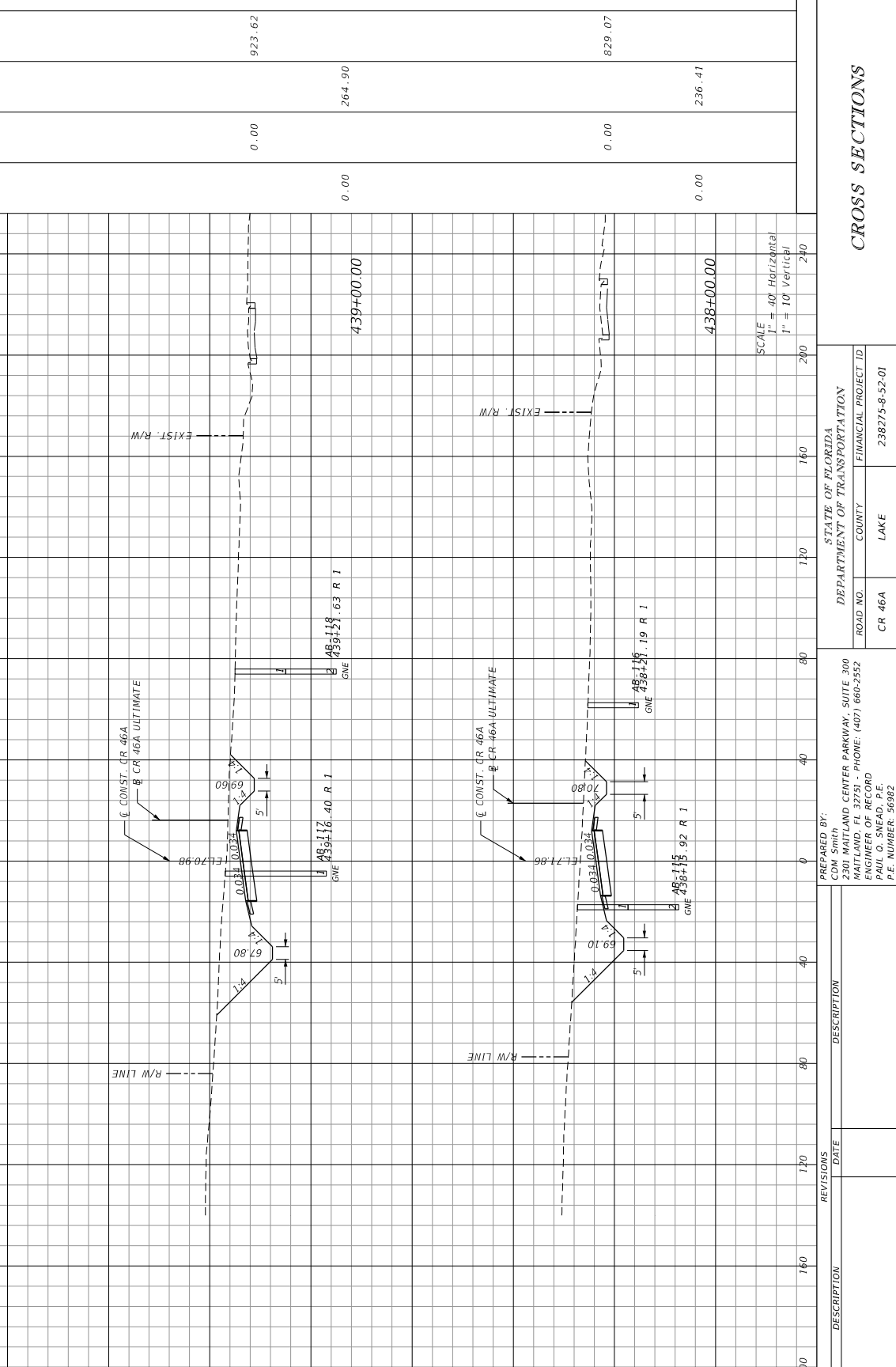
DATE	DESCRIPTION	REVISIONS	DATE	DESCRIPTION	Subsoil Exc.	Regular Exc.	Embankment
86	END SE TRANS. LT. BEGIN FULL SE LT. STA. 437+78.00				0.00	812.33	0.00
84					0.00	212.00	0.00
82					0.00		0.00
80					0.00		0.00
78							
76							
74							
72							
70							
68							
66							
64							
86	BEGIN SE TRANS. LT. STA. 436+77.00				0.00	877.39	0.00
84					0.00	226.66	0.00
82					0.00		0.00
80					0.00		0.00
78							
76							
74							
72							
70							
68							
66							
64							
62							



SCALE  
1" = 40' Horizontal  
1" = 10' Vertical

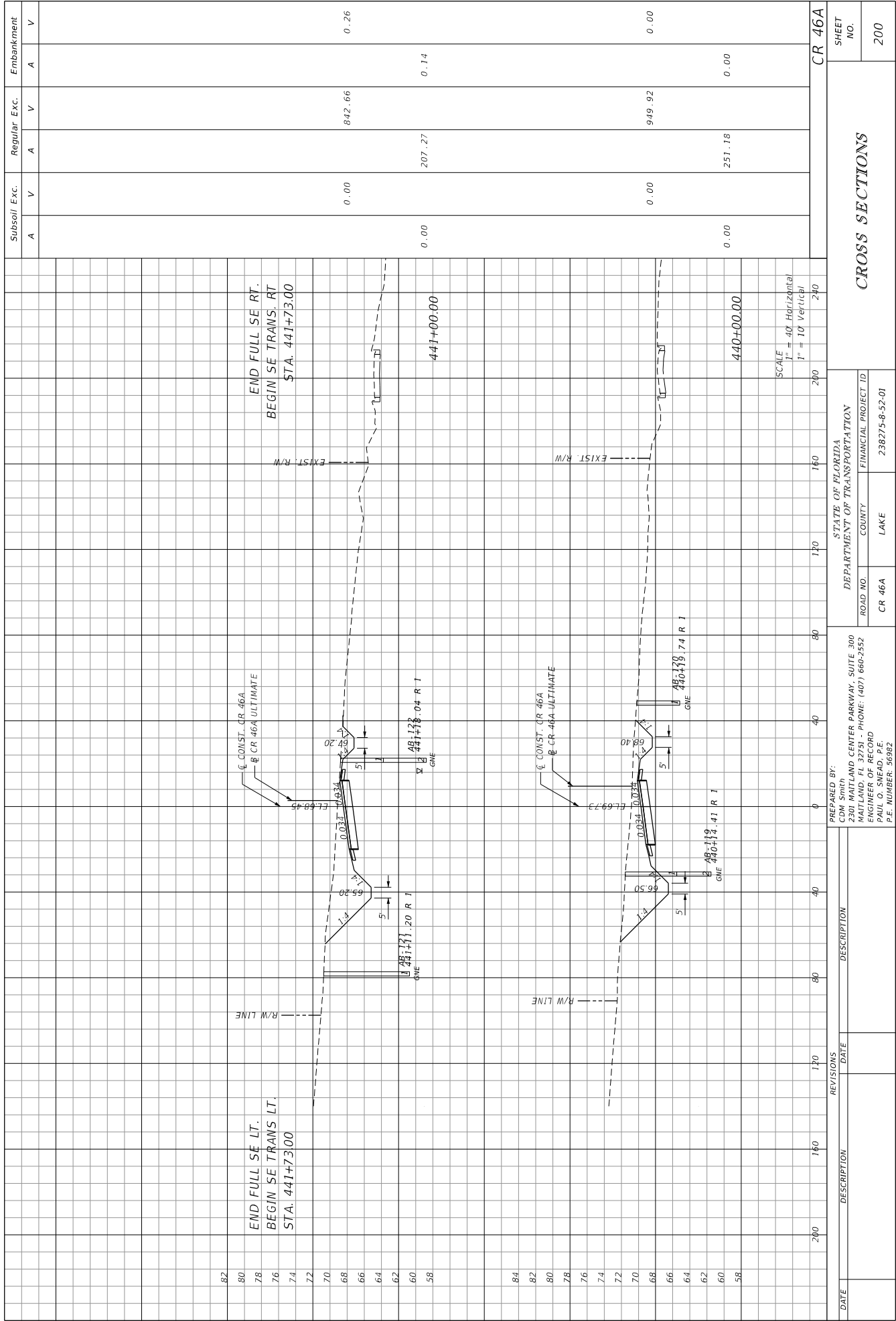
STATE OF FLORIDA	ROAD NO.	CR 46A	LAKE COUNTY	FINANCIAL PROJECT ID	238275-8-52-01	CR 46A	198
DEPARTMENT OF TRANSPORTATION	CR 46A	LAKE COUNTY	238275-8-52-01				
STATE OF FLORIDA		DEPARTMENT OF TRANSPORTATION		ROAD NO.		CR 46A	
DEPARTMENT OF TRANSPORTATION		FINANCIAL PROJECT ID		238275-8-52-01		CR 46A	
PREPARED BY:		CDM Smith		2301 WATLAND CENTER PARKWAY, SUITE 300		MAITLAND, FL 32751 - PHONE: (407) 866-2552	
ENGINEER OF RECORD:		PAUL O. SNEAD, P.E.		P.E. NUMBER: 30982		WHEBERGP	
DATE		DESCRIPTION		DATE		DESCRIPTION	

DATE	DESCRIPTION	REVISIONS		DATE	DESCRIPTION
		DESCRIPTION	DATE		



Subsoil Exc.	Regular Exc.	Embankment
A	A	A
V	V	V
0.00	264.90	0.00
0.00	923.62	0.00
0.00	829.07	0.00
0.00	236.41	0.00

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. CR 46A  
 COUNTY LAKE  
 FINANCIAL PROJECT ID 238275-8-52-01  
 PREPARED BY: CDM Smith  
 2301 MITLAND CENTER PARKWAY, SUITE 300  
 MAITLAND, FL 32751 - PHONE: (407) 866-2552  
 ENGINEER OF RECORD  
 PAUL O. SNEAD, P.E.  
 P.E. NUMBER: 30382



DATE	DESCRIPTION	REVISIONS		DATE	DESCRIPTION	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				ROAD NO. CR 46A	COUNTY LAKE	FINANCIAL PROJECT ID 238275-8-52-01	SHEET NO. 200
		NO.	DATE			NO.	DATE	ROAD NO.	COUNTY				

Subsoil Exc.	Regular Exc.	Embankment
A	V	A
V	V	V
0.00	842.66	0.26
0.00	207.27	0.14
0.00	949.92	0.00
0.00	251.18	0.00
		CR 46A