ROADWAY GEOTECHNICAL REPORT

Delhi Bypass
FAP Route 310
Section 42-2
Jersey County
D-98-034-00

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IDOT, Region 5, District 8

Date: February 26, 2020

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Attachments:
Plan & Profile
Boring Logs
Soil Test Data Sheets
Subgrade Support Ratios
Slope Stability Analyses
Grid Reinforced Slope Analyses
Settlement Analyses

This report has been prepared based on a preliminary plan and elevation sheets dated August 9, 2004. Contact the author if there are any questions regarding this report of if there are modifications to the horizontal or vertical alignment.

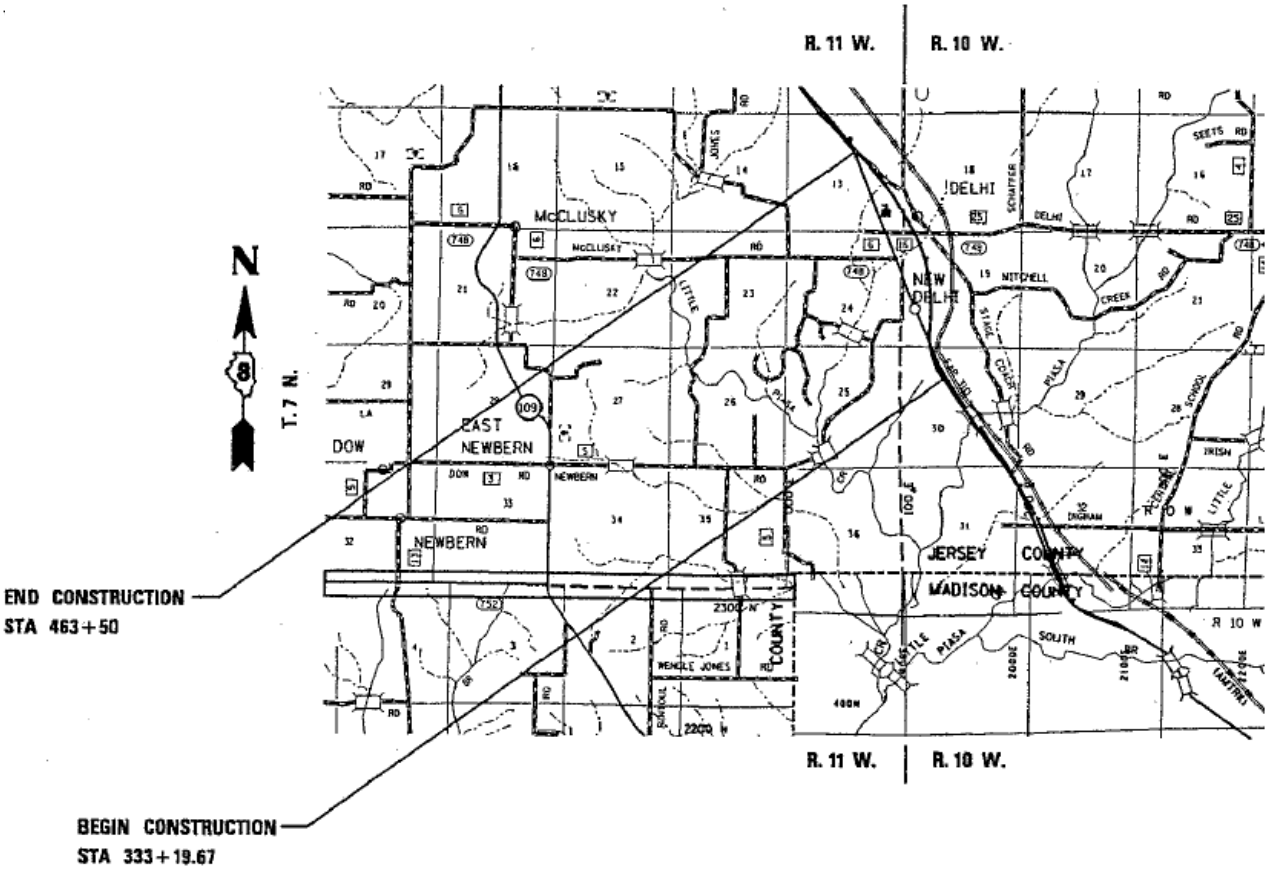
TABLE OF CONTENTS

APPENDICES

SECTION 1 INTRODUCTION

This report summarizes the results of the geotechnical investigation for the FAP 310 alignment, Section 42-2 in Jersey County, Illinois. The project begins north of Piasa Creek and extends north, around the east side of New Delhi, connecting back to US 67, approximately ¾ mile north of Delhi Road. The length of the project is 13,030 feet (2.5 miles). The proposed improvement consists of providing a four-lane facility with 12 foot lanes, 4 to 6 foot inside shoulders, and 10 to 13 foot outside shoulders and involves drainage structures, side road realignment, and service/connector roads. See Figure 1 for the proposed alignment.

Figure 1: Proposed Alignment



Traffic analyses indicate that the Annual Average Daily Traffic (AADT) is as shown in Table 1.

Table 1: Summary of AADT Analyses

LOCATION	AADT	PASSENGER VEHICLES	SINGLE-AXLE TRUCK UNITS	MULTIPLE-AXLE TRUCK UNITS	HEAVY COMMERCIAL VEHICLES (HVC)
US 67	9000	8400	350	250	600
Delhi Rd (US 67 – Stagecoach)	950	921	29	0	29
Delhi Rd (Stagecoach – Limits)	1300	1271	29	0	29

The preliminary mainline pavement design consists of 10 ½ inches of full depth portland cement concrete atop 4" stabilized subbase pavement. The preliminary pavement design for the side roads is as follows:

- Stagecoach Road / US 67 Connector / Service Road: 3 inches bituminous concrete, with 8 inches Type B aggregate base course.
- Delhi Road: 3 inches bituminous concrete, with 11 inches of Type B aggregate base course.

SECTION 2 AREA GEOLOGY

The proposed alignment lies in the Springfield Plain physiographic province of Illinois and in the Till Plains Section of the Central Lowland physiographic province of the United States. The generalized soil profile consists of silty clay and silts overlying clay till. The till was laid down by advancing glacial ice and covered by the overlying loess.

Based on the review of the Jersey County Soil Survey, the soil associations along the proposed alignment consist of the following:

Bottomland and Terrace Soil Association: nearly level to gently sloping, poorly drained to well drained bottomland soils and nearly level to steep, imperfectly drained to well drained terrace soils.

Clinton-Keomah Association: nearly level to very steep, poorly drained to moderately well-drained, light-colored and moderately dark-colored upland soils developed from moderately thick loess.

The project consists of surficial materials from the Glasford Formation – the Radnor Till and Sterling Till Members. Bedrock is generally from the Carbondale Formation, formed during the Pennsylvanian period. The Carbondale Formation consists of four coal layers – Nos. 2, 5, 6, 7; limestone; sandstone; shale; and underclay.

Elevations along the existing ground surface vary between 514 and 623 feet. The alignment includes residential developments, wooded areas, and farmland.

According to the Illinois State Geological Survey (ISGS), the nearest mine to the proposed project is approximately 1,100 feet east of the northern project limits. This mine, identified in the ISGS Coal Mine directory as Mine 4430, is of unknown name, type, and operational information.

SECTION 3 GENERAL PROJECT INFORMATION

3.1 *Slope Stability*

Slope stability analyses were performed at locations with fill or cut height exceeding 15 feet with slopes of 2:1 or steeper. Soil strength parameters were obtained from the stability borings that indicted the most critical soil conditions. Undrained shear strength values were obtained from Rimac tests. The XSTABL program was used to calculate the factors of safety according to the simplified Bishop (1955) method of analysis. This method uses the equilibrium approach.

3.2 *Settlement*
Settlement analysis was conducted for locations having soil layers with strength values less than 1.00 tons per square foot (tsf), moisture contents greater than 25%, and fill heights over 15 feet.

3.3 *Subgrade*
The subgrade will consist of in-situ soils and fill supplied from nearby borrow pits and earth excavation. The soils from these areas typically consist of silty clay loam and silty clay and are considered frost susceptible. These types of soil have clay contents greater than 20%; plasticity indices (PI's) greater than 15; and are considered suitable for lime modification, unless otherwise noted. Soil conditions should be field verified with a dynamic cone penetrometer (DCP) to determine the appropriate treatment depth.

The Illinois Bearing Ratio (IBR) for the fill and in-situ soils, unless otherwise noted, should be assumed to be 3. These soils are considered poorly draining and susceptible to frost action. The subgrade support ratio (SSR) for the majority of these types of soil is poor. See Appendix D for the SSR charts.

3.4 *Culverts*
As per Section 2.3.2 of the Bridge Manual, TS&L's are required for cast-in-place multiple barrel box culverts. Borings were taken at the proposed culvert locations to determine the suitability of cast-in-place or pre-cast culverts.

3.5 *Recommendations*
The subgrade, unless otherwise noted, should be modified with lime by-product. The treatment depth should be determined based upon field DCP measurements and existing boring information. The lime by-product will reduce the soils plasticity and shrink-swell potential and provide a stable working platform during paving operations. For estimating purposes, 4% by dry weight, of lime by-product should be assumed.

Because of generally poor drainage and frost susceptible soils, longitudinal subsurface drains are recommended at the edges of pavement for the proposed roadway. The drains should be constructed in accordance with the subsurface drain standard 601001.

SECTION 4 FAP 310 MAINLINE
STATION 333+19.67 to STATION 470+00
Box Culvert Structure STA 349+37
Box Culvert Structure STA 437+56
Box Culvert Structure STA 460+86.3

US 67 Connector STA 30+00 = STA 354+89 (FAP 310)
Delhi Road STA 50+00 = STA 410+78.8 (FAP 310)

4.1 *General Description*
The proposed alignment from Station 333+19.67 to Station 470+00 begins in the north half of Section 30, Township 7 North, Range 11 West, 3rd Principal Meridian (P.M.) and extends to the northwester quarter of Section 13, Township 7, Range 10 West, 3rd P.M. The general ground surface is moderately to steeply sloping, with elevations

ranging from 514 to 623 feet. Cut sections vary between 0 and 37 feet and fill heights vary between 0 to 47 feet. See Appendix A for plan and profile. This location is predominantly cultivated fields and residential areas.

4.2 *Soil Stratigraphy and Groundwater Conditions*

Generalized subsurface profiles were developed along the proposed improvements. The subsurface profiles are based on hand augers and stability borings performed by the District. The soil investigation was conducted during January, October, and December 2002; and January, February, March, July, August, and October 2003. The rainfall was below average for January and August 2003; average for October and December 2002, and February, March, July, and October 2003; and above average for January 2002. The boring logs are provided in Appendix B; corresponding soil test data is found in Appendix C.

The soil profile consists of intermingling layers of very soft to hard clay, clay loam, loam, sand, sandy clay, sandy clay loam, sandy loam, silt, silty clay, silty clay loam, and silty loam. Unconfined compressive strengths (UCS) range from 0.2 to 10.0 tsf with an average value of 2.6 tsf. Moisture contents range from 6 to 68%, with an average value of 18%.

Water levels at the boring locations were allowed to stabilize and were recorded at the time of drilling. The elevation of the groundwater during the investigation ranged between 451 and 596 feet. At the majority of the locations dry holes were encountered, indicating groundwater was below the final depth of the boring.

4.3 *Slope Stability*

Table 2 provides the results of the slope stability analyses for this section of the alignment.

Table 2: Summary of Slope Stability Analyses

Station	Boring	Location	Cut / Fill Height	Slope	Factor of Safety		Req'd FOS (MB / S)
					Mod. Bishop	Seismic	
336+00	SB 28	336+00, 38 ft LT	Cut, 18 ft	10:2:1	5.830	4.219	1.7 / 1.0
338+00	SB 29	338+00, 9 ft RT	Cut, 33 ft	10:2:1	8.562	6.521	1.7 / 1.0
347+00	SB 33	347+00, 40 ft LT	Fill, 22 ft	[1]	2.728	2.212	1.5 / 1.0
349+00, Lt	SB 34	349+00, 10 ft RT	Fill, 44 ft	[1]	1.800	1.464	1.5 / 1.0
349+00, Rt	SB 34	349+00, 10 ft RT	Fill, 44 ft	2:1	1.683	1.404	1.5 / 1.0
436+00	SB 65	436+00, 41 ft RT	Fill, 30 ft	[1]	3.351	2.717	1.5 / 1.0
438+00, Lt	SB 66	438+00, 41 ft LT	Fill, 40 ft	[1]	2.057	1.666	1.5 / 1.0
438+00, Rt	SB 66	438+00, 41 ft LT	Fill, 40 ft	[1]	2.062	1.656	1.5 / 1.0
452+00, Lt	SB 71	452+00, 36 ft RT	Cut, 19 ft	[2]	5.157	4.079	1.7 / 1.0
452+00, Rt	SB 71	452+00, 36 ft RT	Cut, 16 ft	[2]	6.079	4.776	1.7 / 1.0
454+00, Lt	SB 72	454+00, 2 ft RT	Cut, 28 ft	[2]	3.521	2.793	1.7 / 1.0
454+00, Rt	SB 72	454+00, 2 ft RT	Cut, 21 ft	[2]	5.194	4.025	1.7 / 1.0
456+00, Lt	SB 73	456+00, 26 ft LT	Cut, 22 ft	[2]	8.686	5.697	1.7 / 1.0
456+00, Rt	SB 73	456+00, 26 ft LT	Cut, 22 ft	[2]	6.306	4.994	1.7 / 1.0
458+00	SB 74	458+00, 31 ft RT	Cut, 16 ft	[2]	7.825	5.792	1.7 / 1.0

[1] 2:1 slope with two 10:1 benches, each 10 feet long
[2] 2:1 slope with one 10:1 bench, 10 feet long

Slope reinforcement will be required at locations with 2:1 slopes and fill heights exceeding 15 feet. Grid Reinforced Slopes will be needed from Station 346+90 to Station 351+20 and from Station 435+90 to Station 440+10. The Grid Reinforced Slope profiles and cross sections can be found in Appendix F.

No further slope stability problems are anticipated for this location. The soil profiles for the stability analysis can be found in Appendix E.

4.4 *Settlement*

Settlement calculations were based on empirical formulas utilizing classification data. Table 3 provides the results of the settlement analyses for this section of the alignment.

Table 3: Summary of Settlement Analyses

Station	Boring	Location	Fill Height (ft)	Settlement (in)	t_{90} (days)
347+50	BXC-1-1	347+52, 159.3 ft LT	20.4	1.97	4.58
423+20	C-3-1	423+20, 122 ft RT	16.5	3.97	10.22
423+66	C-3-2	423+67, CL	16.0	1.17	13.65

The amount of settlement at Stations 347+50 and 423+66 is less than 2 inches, which is considered negligible and should have little to no impact on the roadway. Station 423+20 lies along the footprint of a pipe culvert (Station 423+30, Skew 5° Left Ahead), and the problematic in-situ soils lie above the flow line, and will be excavated for the culvert installation, thereby negating settlement potential at this location.

Detailed settlement analysis is provided in Appendix G.

The remaining locations along this section of the alignment do not require settlement analyses. The subsurface soils do not exhibit properties that indicate significant settlement. Less than 2 inches of settlement is anticipated.

4.5 *Subgrade*

The subgrade materials from Station 335+00 to 345+50 are not reactive with lime. Type B subbase material should be used in lieu of lime in these locations. Fly-ash or slag-modified Portland cement can be used in lieu of lime to obtain the desired soil strength.

4.6 *Culverts*

Table 4 presents a summary of the soil conditions and type recommendation for the box culverts along this section of alignment. The soil types, UCS values, and water contents are for the five feet of soil below the flow line.

Table 4: Culvert Summary

Station	Size	Soil Types	UCS (tsf)	Water Content (%)	CIP or Pre-Cast
349+37	6’ x 6’	Sandy Loam, Silty Clay, Silty Loam	0.8 – 4.0 Avg = 3.0	16 – 25 Avg = 20	See Below
437+56	Double 8’ x 8’	Sand, Sandy Loam, Silty Clay, Silty Clay Loam	1.3 – 6.8 Avg = 4.2	6 – 16 Avg = 13	Pre-Cast
460+86.3	12’ x 6’	Clay, Clay Loam, Clayey Shale, Weathered Shale	0.6 – 4.5 Avg = 2.2	15 – 22 Avg = 18	Pre-Cast

The culverts at Stations 437+56 and 460+86.3 can be constructed as pre-cast structures. The culvert at Station 349+37 has soils at the flow line that have low strengths, and moderate water contents. This structure can be constructed as a pre-

cast structure if the 3.5 feet of unsuitable material below the flow line can be economically removed and replaced.

4.7 *Recommendations*

No settlement problems are anticipated along this section of alignment.

Grid Reinforced Slopes will be needed from Station 346+90 to Station 351+20 and from Station 435+90 to Station 440+10. An estimated quantity of 34,410 square yards of geogrid material will be necessary at these locations and a Grid Reinforced Slope Special Provision will be required.

The subgrade materials from Station 335+00 to 345+50 are not reactive with lime. Type B subbase material should be used in lieu of lime in these locations. Fly-ash or slag-modified Portland cement can be used in lieu of lime to obtain the desired soil strength.

The culverts at Stations 437+56 and 460+86.3 can be constructed as pre-cast structures. The culvert at Station 349+37 has soils at the flow line that have low strengths, and moderate water contents. This structure can be constructed as a pre-cast structure if the 3.5 feet of unsuitable material below the flow line can be economically removed and replaced.

SECTION 5 SERVICE ROAD STATION 100+00 to STATION 104+00

5.1 *General Description*

The proposed Service Road is located in the southwest quarter of Section 19, Township 7 North, Range 11 West, 3rd P.M. The general ground surface level ranges from 549 to 571 feet. Cut sections vary between 0 to 5 feet and fill heights vary between 0 to 14 feet. See Appendix A for plan and profile. The existing Service Road, known locally as Ivy Lane, will be reconstructed to allow access to existing US 67.

5.2 *Soil Stratigraphy and Groundwater Conditions*

Generalized subsurface profiles were developed along the proposed improvements. The subsurface profiles are based on stability borings performed by the District. The soil investigation was conducted during March 2003. The rainfall during this time was average. The boring logs are provided in Appendix B; corresponding soil test data is found in Appendix C.

The soil profile consists of intermingling layers of stiff to hard silty clay loam. UCS values ranged from 1.3 to 4.5 tsf, with average values of 2.2 tsf. Water contents ranged from 11 to 21%, with average values of 16%.

Dry holes were encountered at all boring locations, indicating groundwater was below the final depth of the boring.

SECTION 6 US 67 CONNECTOR STATION 24+30.47 to STATION 30+00

6.1 *General Description*

The proposed US 67 Connector alignment is located in the southwest quarter of Section 19, Township 7 North, Range 11 West, 3rd P.M. The general ground surface level ranges from 547 to 572 feet. Cut sections vary between 0 to 9 feet and fill heights vary between 0 to 20 feet. See Appendix A for plan and profile. The US 67 will connect existing US 67 with proposed US 67, south of Delhi Road.

6.2 *Soil Stratigraphy and Groundwater Conditions*

Generalized subsurface profiles were developed along the proposed improvements. The subsurface profiles are based on hand augers and stability borings performed by the District. The soil investigation was conducted during March and August 2003. The rainfall during March 2003 was average and below average during August 2003. The boring logs are provided in Appendix B; corresponding soil test data is found in Appendix C.

The soil profile consists of intermingling layers of soft to hard clay loam, loamy sand, sandy loam, silty clay, silty clay loam, and silty loam. UCS values ranged from 0.5 to 7.5 tsf, with average values of 2.4 tsf. Water contents ranged from 12 to 27%, with average values of 18%.

Water levels at the boring locations were allowed to stabilize and were recorded at time intervals ranging from 0 to 24 hours. The elevation of the groundwater during investigation was 541.6 feet, and at some locations, dry holes were encountered, indicating groundwater was below the final depth of the boring.

6.3 *Slope Stability*

Table 5 provides the results of the slope stability analyses for this section of the alignment.

Table 5: Summary of Slope Stability Analyses

Station	Boring	Location	Fill Height (ft)	Slope	Factor of Safety		Req'd FOS (MB / S)
					Mod. Bishop	Seismic	
26+64	SB 79	26+65, 25 ft LT	20	3:1	3.272	2.499	1.5 / 1.0

No slope stability problems are anticipated for this location.

6.4 *Settlement*

Settlement calculations at Station 26+65 were based on empirical formulas utilizing classification data from boring SB 79 (Station 26+65, 25 ft Left). Settlement below the proposed embankment was based on a fill height of 17 ft and 90% consolidation. Settlement is estimated to be 3.41 inches in 7.3 days. If the top 2.5 feet of in-situ material can be economically removed and replaced, the settlement will be reduced to 0.38 inches, which would have negligible impact on the roadway. Settlement analyses can be found in Appendix F.

6.5 *Recommendations*

Settlement problems are anticipated at Station 26+65; however, the possibility of

settlement is diminished upon the removal of the upper 2.5 feet of soil and replacement with granular materials.

No slope stability problems are anticipated at this location.

SECTION 7 DELHI ROAD
STATION 36+51.03 to STATION 66+20.86

Stagecoach Road North STA 70+00 = STA 55+00 (Delhi Road)
Stagecoach Road South STA 70+00 = STA 57+50 (Delhi Road)

7.1 *General Description*

The proposed Delhi Road alignment begins in the southeast quarter of Section 13, Township 7 North, Range 11 West, 3rd P.M. and extends easterly to the southwest quarter of Section 18, Township 7 North, Range 10 West, 3rd P.M. The general ground surface level ranges from 576 to 598 ft. Cut sections vary from 0 to 10 feet and fill heights vary from 0 to 8 feet. See Appendix A for plan and profile. Existing Delhi Road will be reconstructed from existing US 67 east to just past Stagecoach Road.

7.2 *Soil Stratigraphy and Groundwater Conditions*

Generalized subsurface profiles were developed along the proposed improvements. The subsurface profiles are based on hand augers performed by the District. The soil investigation was conducted during February and March 2003. The rainfall during this time was average. The boring logs are provided in Appendix B; corresponding soil test data is found in Appendix C.

The soil profile consists of intermingling layers of clayey silt, loamy silt, sandy loam, silty clay, silty clay loam, and silty loam. UCS values ranged from 0.7 to 2.7 tsf, with average values of 1.8 tsf. Water contents ranged from 22 to 24%, with average values of 23%.

Along Delhi Road, dry holes were encountered; indicating groundwater was below the final depth of the boring.

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Appendix A

Plan and Profile

Plan and Profile

Station 333+19.67 to Station 463+50

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
310	42-2	JERSEY	393	36
STA. 331+45.00	TO STA. 340+00.00			

EXISTING CONDITIONS:

CONTRACT NO. 76568

PR CURVE P1_103
PI STA 344+84.06
Δ = 39° 05' 22" (RT)
D = 1° 44' 49"
T = 1,164.36'
R = 3,280.00'
L = 2,237.74'
E = 200.55'
e = -5.0%
TR IN = 45 FT
SE RUN IN = 331+77.50 TO 333+90.75
SE RUN OUT = 354+86.33 TO 356+99.58
TR OUT = 45 FT
PC STA 333+19.67
PT STA 355+57.41

PROPOSED ROW
AC
TEMP. EASEMENT
G
24" CMP
PC STA 333+19.67
24" RCP
BORING NO. SB 28
STA. 335+00, 38.00' LT
BEGIN SOUTHBOUND LANES
STATION 337+00
CONSTRUCTION LIMITS
4' PCC SHOULDERS
2' AGGREGATE SHOULDERS
10' PCC SHOULDERS
EXISTING ROW
EXISTING RIPRAP
325+00
330+00
335+00
+32
+20
24'
BEGIN IMPROVEMENTS
STATION 331+32.50
GUTTER REMOVAL
EXISTING RAILROAD ROW
MATCH LINE STA 340+00
STONE RIPRAP, CLASS A3
333+46 TO 342+25
TRAFFIC BARRIER TERMINAL, TYPE 1, (SPECIAL) TANGENT
STA 337+02.5 RT
CONSTRUCTION LIMITS
BORING NO. SB 29
STA. 338+00, 9.00' RT
GWWR
N

50' 0 50' 100'
SCALE: 1" = 50'

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
BKM. NOTED
STRUCTURE NOTATING CHKD
NOTE BOOK
NO.
BY
DATE

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
PLT. OF R.W. CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROPOSED ℄ FAP 310
+19.67
534.50
531.29
+4.00%
-5.32%
RT DITCH
EXISTING GROUND LINE ALONG ℄ FAP 310
RT DITCH +46.00 525.30
534+50
SB 28 BEGINNING ELEV. 539.5
SB 28
Ou WX
L4 S/15
L3 S/20
L5 S/15
3.5 S/15
4.5 S/10
BORING 2/20/03
SB 28 ENDING ELEV. 526.0
SB 29 BEGINNING ELEV. 551.5
SB 29
STA. 338+25.00
ELEVATION 551.51
+1.16%
+4.0
5.3 S/15
2.8 B/20
4.5 S/10
BROWN CLAY LOAM
GRAY SAND
BORING 2/20/03
SB 29 ENDING ELEV. 540.5
890.00' V.C.
552.38

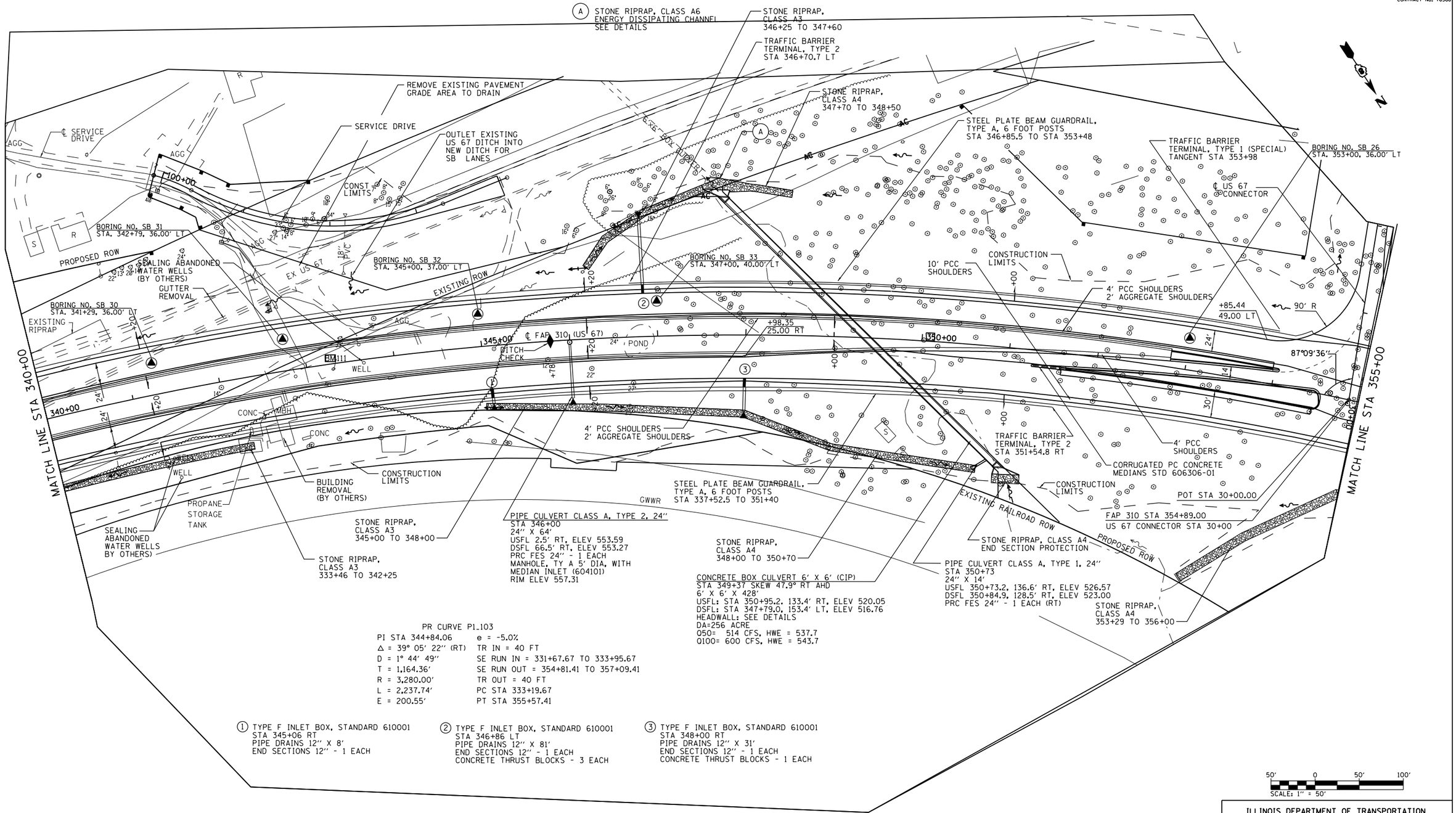
	328+00	329+00	330+00	331+00	332+00	333+00	334+00	335+00	336+00	337+00	338+00	339+00	340+00
	507.25	509.25	511.26	513.26	515.26	517.26	519.26	521.26	523.26	525.26	527.26	529.26	531.26
	510.49	**512.49**	**514.50**	**516.50**	**518.50**	**520.50**	**522.50**	**524.50**	**526.50**	**528.50**	**530.50**	**532.50**	**534.50**
	533.19	535.04	537.72	540.40	543.68	546.96	548.21	549.72	551.01	552.00	554.38	559.26	
	536.43	**538.28**	**540.04**	**541.73**	**543.34**	**544.87**	**546.32**	**547.70**	**548.99**	**550.20**	**551.33**	**552.38**	

STA 328+00 TO STA 340+00

HOMER L. CHASTAIN & ASSOCIATES, LLP
CONSULTING ENGINEERS
DECATUR (217) 422-8844
CHICAGO (773) 714-0660
ROCKFORD (815) 497-0660
184-001397

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
310	42-2	JERSEY	393	37
STA.	TO STA.			
EXISTING CONDITIONS:				

CONTRACT NO. 76568



PR CURVE P1_103

PI STA 344+84.06	e = -5.0%
Δ = 39° 05' 22" (RT)	TR IN = 40 FT
D = 1° 44' 49"	SE RUN IN = 331+67.67 TO 333+95.67
T = 1,164.36'	SE RUN OUT = 354+81.41 TO 357+09.41
R = 3,280.00'	TR OUT = 40 FT
L = 2,237.74'	PC STA 333+19.67
E = 200.55'	PT STA 355+57.41

(1) TYPE F INLET BOX, STANDARD 610001
STA 345+06 RT
PIPE DRAINS 12" X 8'
END SECTIONS 12" - 1 EACH

(2) TYPE F INLET BOX, STANDARD 610001
STA 346+86 LT
PIPE DRAINS 12" X 81'
END SECTIONS 12" - 1 EACH
CONCRETE THRUST BLOCKS - 3 EACH

(3) TYPE F INLET BOX, STANDARD 610001
STA 348+00 RT
PIPE DRAINS 12" X 31'
END SECTIONS 12" - 1 EACH
CONCRETE THRUST BLOCKS - 1 EACH

50' 0 50' 100'
SCALE: 1" = 50'

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ROADWAY PLAN STA 340+00 TO 355+00

FAP ROUTE 310 (US 67)
SECTION 42-2
JERSEY COUNTY

DRAWN BY: EMR CHECKED BY: CAS

STA 340+00 TO STA 355+00

PLAN | SURVEYED | DATE
NOTE BOOK | ALIGNMENT CHECKED | BY
NO. | PLT. OF R/W CHECKED
CADD FILE NAME

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184-001397

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
310	42-2	JERSEY	393	38

STA. TO STA.

EXISTING CONDITIONS:

CONTRACT NO. 76568

HOMER L. CHASTAIN & ASSOCIATES, LLP
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DECATUR (217) 422-8544
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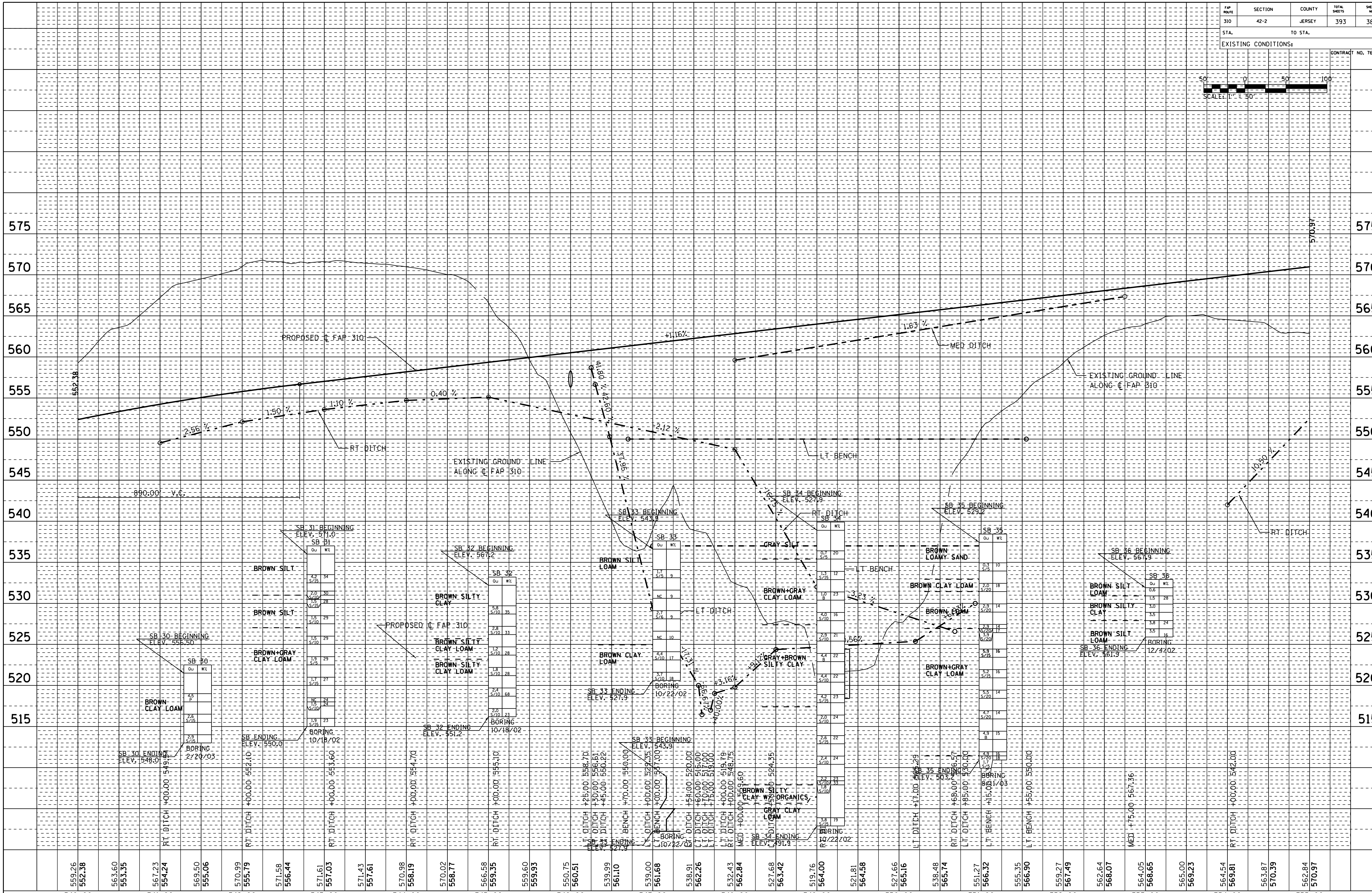
ROCKFORD (815) 489-0050
184-001397

PLAN	BY	DATE
SURVEYED		
PLOTTED		
ALIGNMENT CHECKED		
RT. OF WAY CHECKED		
CADD FILE NAME		
NOTE BOOK NO.		

PROFILE	BY	DATE
SURVEYED		
PLOTTED		
GRADES CHECKED		
B.M. NOTED		
STRUCTURE NOTAT'NS CH'KD		
NOTE BOOK NO.		


SCALE: 1" = 50'
PROPOSED ℄ FAP 310
+1.16%
1.63 %
MED DITCH
EXISTING GROUND LINE ALONG ℄ FAP 310
RT DITCH
LT BENCH
LT DITCH
890.00' V.C.
2.56 %
1.50 %
1.10 %
0.40 %
2.12 %
3.23 %
10.50 %
SB 30 BEGINNING ELEV. 556.50
SB 30 ENDING ELEV. 548.0
BORING 2/20/03
SB 31 BEGINNING ELEV. 571.0
SB ENDING ELEV. 550.0
BORING 10/18/02
SB 32 BEGINNING ELEV. 567.2
SB 32 ENDING ELEV. 551.2
BORING 10/18/02
SB 33 BEGINNING ELEV. 543.9
SB 33 ENDING ELEV. 527.9
BORING 10/22/02
SB 34 BEGINNING ELEV. 527.9
SB 34 ENDING ELEV. 491.9
BORING 10/22/02
SB 35 BEGINNING ELEV. 529.2
SB 35 ENDING ELEV. 503.2
BORING 8/21/03
SB 36 BEGINNING ELEV. 567.9
SB 36 ENDING ELEV. 561.9
BORING 12/4/02
BROWN SILT
BROWN+GRAY CLAY LOAM
BROWN CLAY LOAM
BROWN SILTY CLAY
BROWN SILTY CLAY LOAM
BROWN SILT LOAM
GRAY SILT
GRAY+BROWN SILTY CLAY
BROWN SILTY CLAY W/ ORGANICS
GRAY CLAY LOAM
BROWN LOAMY SAND
BROWN LOAM
340+00
341+00
342+00
343+00
344+00
345+00
346+00
347+00
348+00
349+00
350+00
351+00
352+00
353+00
354+00
355+00

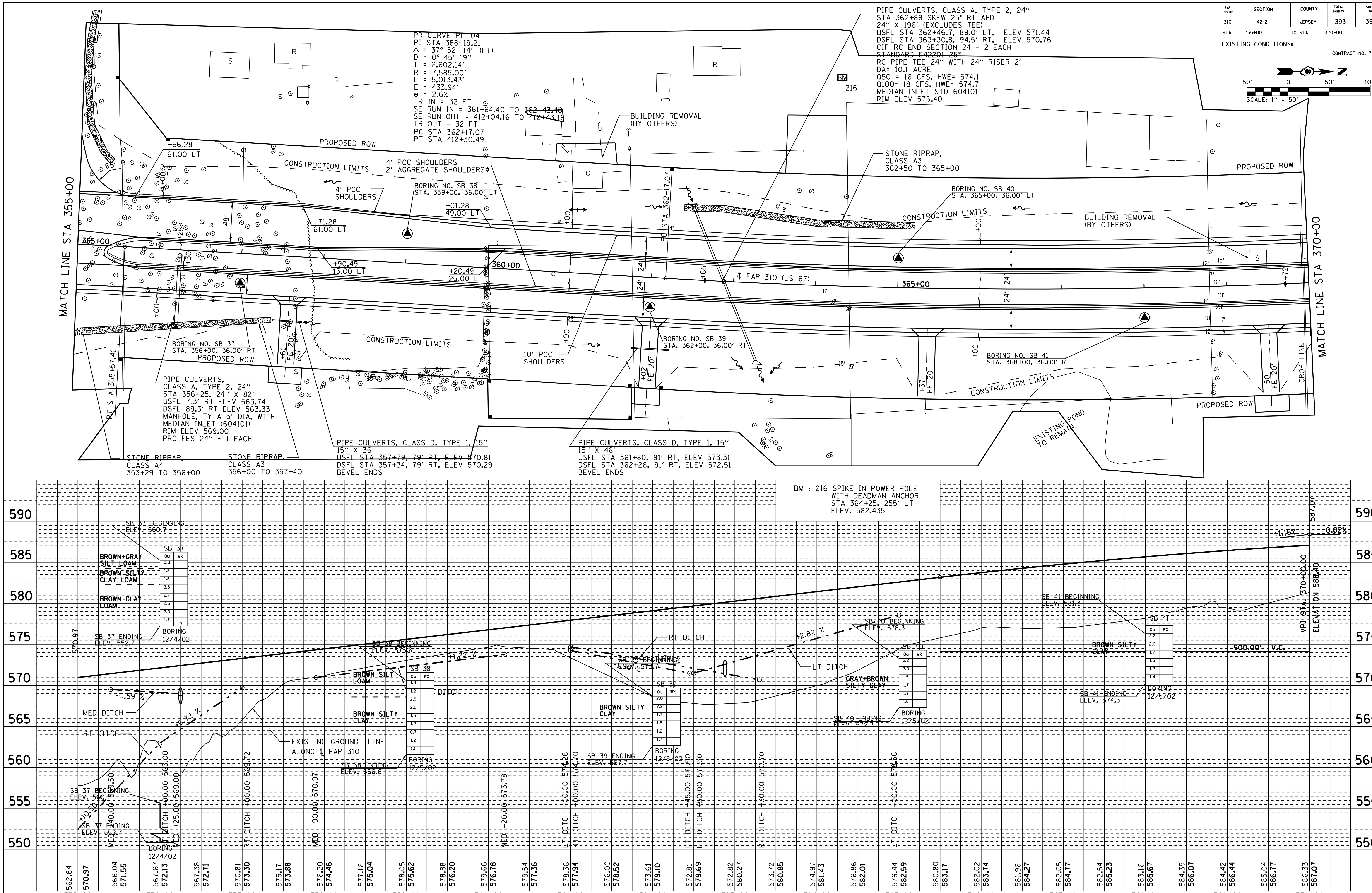
STA 340+00 TO STA 355+00

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
310	42-2	JERSEY	393	39

STA. 355+00 TO STA. 370+00

EXISTING CONDITIONS:

CONTRACT NO. 76568



STA 355+00 TO STA 370+00

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PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTAT'NS CH'KD; NOTE BOOK; NO.; BY; DATE

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
310	42-2	JERSEY	393	40
STA. 370+00		TO STA. 385+00		
EXISTING CONDITIONS±				

CONTRACT NO. 76568

PR CURVE PI_104
PI STA 388+19.21
△ = 37° 52' 14" (LT)
D = 0° 45' 19"
T = 2,602.14'
R = 7,585.00'
L = 5,013.43'
E = 433.94'
e = 2.6%
TR IN = 32 FT
SE RUN IN = 361+64.40 TO 362+43.40
SE RUN OUT = 412+04.16 TO 412+43.16
TR OUT = 32 FT
PC STA 362+17.07
PT STA 412+30.49

PIPE CULVERTS, CLASS A, TYPE 1, 24"
STA 378+00, 24" X 69'
USFL 9.5' LT, ELEV 582.90
DSFL 78.5 LT, ELEV 581.43
PRC FES 24" - 1 EACH
INLET BOX STANDARD 542501

10' PCC SHOULDERS

4' PCC SHOULDERS
2' AGGREGATE SHOULDERS

PIPE CULVERTS, CLASS D, TYPE 1, 15"
15" X 45'
USFL STA 376+62, 91' RT, ELEV 583.31
DSFL STA 377+07, 91' RT, ELEV 583.14
BEVEL ENDS

BORING NO. SB 42
STA. 371+00, 36.00' LT

BORING NO. SB 43
STA. 374+00, 36.00' RT

BORING NO. SB 44
STA. 377+00, 36.00' LT

BORING NO. SB 45
STA. 380+00, 36.00' RT

BORING NO. SB 46
STA. 383+00, 36.00' LT

MATCH LINE STA 370+00

MATCH LINE STA 385+00

℄ FAP 310 (US 67)

PROPOSED ROW

CONSTRUCTION LIMITS

CROP LINE

WELL

AGG

+88 FE 20'

+00 FE 20'

50' 0 50' 100'
SCALE: 1" = 50'

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PLT. OF R/W CHECKED
NOTE BOOK
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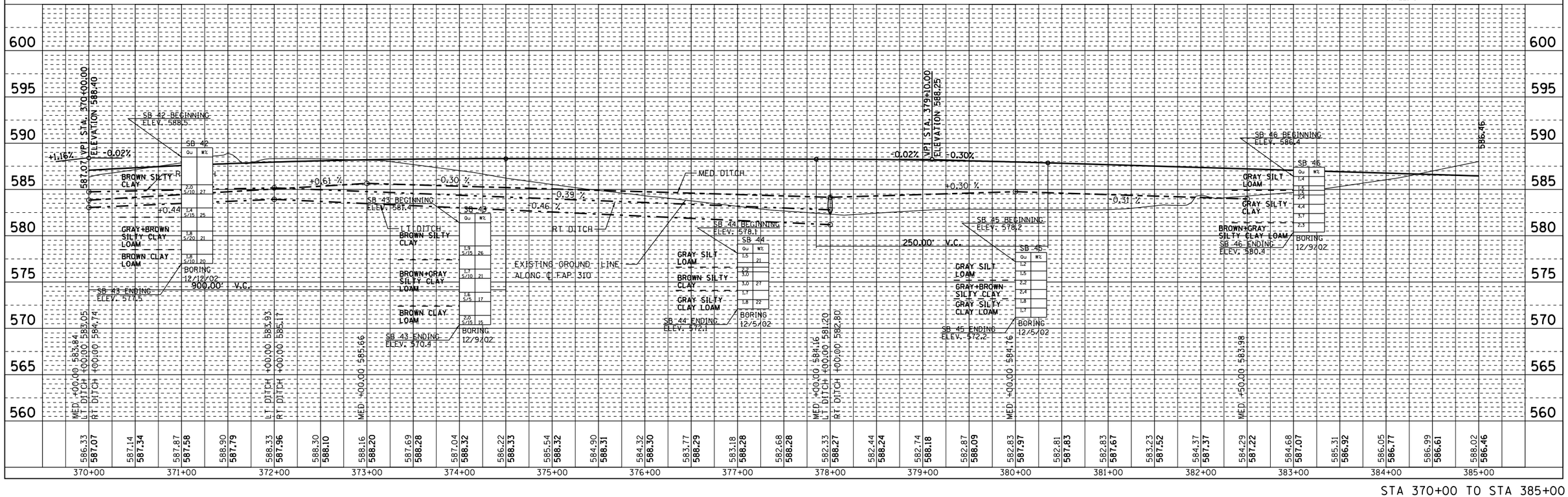

STA 370+00 TO STA 385+00

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
310	42-2	JERSEY	393	41
STA.	385+00	TO STA.	400+00	
EXISTING CONDITIONS:				

CONTRACT NO. 76568

PR CURVE PI_104
PI STA 388+19.21
Δ = 37° 52' 14" (LT)
D = 0° 45' 19"
T = 2,602.14'
R = 7,585.00'
L = 5,013.43'
E = 433.94'
e = 2.6%
TR IN = 32 FT
SE RUN IN = 361+64.40 TO 362+43.40
SE RUN OUT = 412+04.16 TO 412+43.16
TR OUT = 32 FT
PC STA 362+17.07
PT STA 412+30.49

PIPE CULVERT CLASS A, TYPE 1, 24"
STA 390+00, 24" X 57'
USFL 13.8' LT, ELEV 580.71
DSFL 70.8' LT, ELEV 579.41
INLET BOX STANDARD 542511 - 1 EACH
PRC FES 24" - 1 EACH

PIPE CULVERT CLASS A, TYPE 2, 24"
STA 398+50, 24" X 86'
USFL 2.5' LT, ELEV 574.12
DSFL 88.5' LT, ELEV 573.69
PRC FES 24" - 1 EACH
~~MANHOLE~~, TY A 5' DIA, WITH
MEDIAN INLET (604101)
RIM ELEV 579.28

STONE RIPRAP,
CLASS A4
399+00 TO 400+09

STONE RIPRAP,
CLASS A3
398+00 TO 399+00

PROPOSED ROW
CONSTRUCTION LIMITS
10' PCC SHOULDERS
CROP LINE
MATCH LINE STA 385+00
MATCH LINE STA 400+00
℄ FAP 310 (US 67)
390+00
395+00
BORING NO. SB 47
STA. 386+00, 36.00' RT
BORING NO. SB 48
STA. 389+00, 36.00' LT
BORING NO. SB 49
STA. 392+00, 36.00' RT
BORING NO. SB 50
STA. 395+00, 36.00' LT
BORING NO. SB 51
STA. 398+00, 36.00' RT
4' PCC SHOULDERS
2' AGGREGATE SHOULDERS
TRAFFIC BARRIER TERMINAL,
TYPE 1 (SPECIAL) TANGENT
STA 398+14.5 RT
STEEL PLATE BEAM
GUARDRAIL, TYPE A,
6 FOOT POSTS
STA 398+64.5 TO STA 402+14.5

SCALE: 1" = 50'

EXISTING GROUND LINE
ALONG ℄ FAP 310

SB 47 BEGINNING ELEV. 590.3
SB 47 ENDING ELEV. 579.3
SB 48 BEGINNING ELEV. 591.7
SB 48 ENDING ELEV. 579.7
SB 49 BEGINNING ELEV. 592.3
SB 49 ENDING ELEV. 576.3
SB 50 BEGINNING ELEV. 591.3
SB 50 ENDING ELEV. 575.3
SB 51 BEGINNING ELEV. 572.2
SB 51 ENDING ELEV. 556.2

GRAY SILT LOAM
BROWN SILTY CLAY
BROWN+GRAY SILTY CLAY LOAM
GRAY+BROWN SILTY CLAY LOAM
GRAY+BROWN CLAY LOAM
BROWN+GRAY SILTY CLAY
BROWN+GRAY CLAY LOAM
BROWN+GRAY CLAY LOAM

PROPOSED ℄ FAP 310
-0.30 %
-6.00 %
-3.50 %
MED DITCH
LT DITCH
RT DITCH
LT DITCH +00.00 581.53
LT DITCH +00.00 579.00
MED +00.00 579.43
LT DITCH +00.00 576.60
MED +50.00 579.13
LT DITCH +00.00 570.60
RT DITCH +00.00 579.69
RT DITCH +70.00 573.00

385+00	386+00	387+00	388+00	389+00	390+00	391+00	392+00	393+00	394+00	395+00	396+00	397+00	398+00	399+00	400+00
588.02	589.17	590.33	590.70	590.76	590.95	590.76	590.78	591.24	592.05	591.85	591.83	591.97	592.08	592.20	592.45
586.46	**586.31**	**586.16**	**586.01**	**585.86**	**585.70**	**585.55**	**585.40**	**585.25**	**585.10**	**584.95**	**584.80**	**584.64**	**584.49**	**584.34**	**584.19**
592.42	590.52	589.60	587.93	587.08	589.12	588.26	584.39	571.85	571.87	570.78	568.85				
583.58	**583.43**	**583.28**	**583.13**	**582.98**	**582.83**	**582.67**	**582.55**	**582.46**	**582.41**	**582.39**	**582.42**				

STA 385+00 TO STA 400+00

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PLAN
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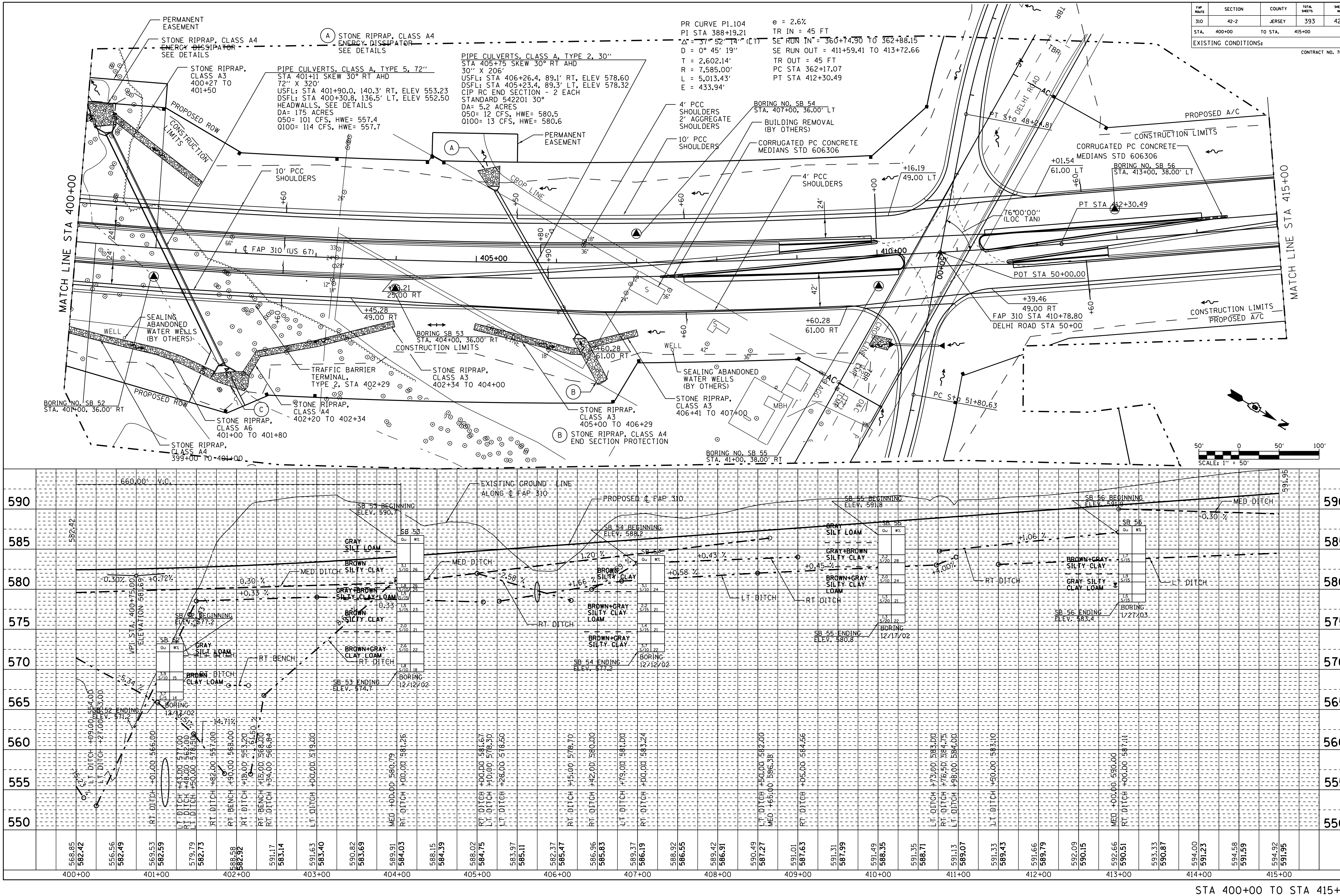
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
DRAWN
CHECKED
GRADES CHECKED
BM. NOTED
STRUCTURE NOTATING CHKD
NOTE BOOK
NO.
BY
DATE

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
310	42-2	JERSEY	393	42
STA. 400+00	TO STA. 415+00			
EXISTING CONDITIONS:				

CONTRACT NO. 76568



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PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTAT'NS CH'KD — NOTE BOOK, NO. — BY — DATE

STA 400+00 TO STA 415+00

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
310	42-2	JERSEY	393	43
STA.	415+00	TO STA.	430+00	
EXISTING CONDITIONS:				

CONTRACT NO. 76568

PROPOSED ROW

4' PCC SHOULDERS

PROPOSED A/C

BORING NO. SB 58
STA. 419+00, 36.00' LT

+01.54
61.00 LT

+67.32
25.00 LT

+16.54
49.00 LT

+60

+50

CONSTRUCTION LIMITS

MATCH LINE STA 415+00

PC STA 415+41.20

BORING NO. SB 57
STA. 416+00, 36.00' RT

CROP LINE

PROPOSED ROW

PIPE CULVERTS, CLASS A, TYPE 2, 24"
STA 416+00 24" X 91'
USFL 3' RT, ELEV 585.40
DSFL 89' LT, ELEV 584.94
MANHOLE, TYPE A, 5' DIA,
MEDIAN INLET STANDARD 604101
RIM ELEV 589.10
PRC FES 24" 1 - EACH

PIPE CULVERTS, CLASS D, TYPE 1, 15"
15" X 42'
USFL STA 419+52, 79' LT, ELEV 591.62
DSFL STA 419+10, 79' LT, ELEV 591.41
BEVEL ENDS

+28
FE 20'

(A) STONE RIPRAP, CLASS A4
ENERGY DISSIPATOR
SEE DETAILS

24'

1420+00

℄ FAP 310 (US 67)

1425+00

STONE RIPRAP,
CLASS A3
421+00 TO 423+36

STONE RIPRAP,
CLASS A3
422+00 TO 422+95

PERM.
EASEMENT

PERM.
EASEMENT

PIPE CULVERTS, CLASS A, TYPE 5, 48"
STA 423+30, SKEW 5° LT AHD
48" X 248'
USFL STA 423+19.4, 124.3' RT, ELEV 574.09
DSFL STA 423+40.7, 122.6' LT, ELEV 573.50
PRC FES 48" - 2 EACH
DA= 34.3 ACRES
Q50= 55 CFS, HWE= 577.7
Q100= 63 CFS, HWE= 578.0

STONE RIPRAP,
CLASS A3
423+64 TO 426+00

STONE RIPRAP,
CLASS A3
423+40 TO 423+80

BORING NO. SB 59
STA. 422+00, 36.00' RT

BORING NO. SB 60
STA. 424+00, 36.00' LT

BORING NO. SB 61
STA. 426+00, 36.00' RT

BUILDING REMOVAL
(BY OTHERS)

STONE RIPRAP,
CLASS A3
425+35 TO 427+00

BORING SB 62
STA. 429+00, 36.00' LT

4' PCC SHOULDERS
2' AGGREGATE SHOULDERS

10' PCC
SHOULDERS

PROPOSED ROW

CONSTRUCTION LIMITS

MATCH LINE STA 430+00

PR CURVE P1_105
PI STA 430+24.17
Δ = 7° 15' 09" (LT)
D = 0° 14' 41"
T = 1,482.97'
R = 23,400.00'
L = 2,961.97'
E = 46.94'
PC STA 415+41.20
PT STA 445+03.17

SCALE: 1" = 50'

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PLAN
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ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
BAL. NOTED
STRUCTURE NOTATIONS CKD
NOTE BOOK
NO.
BY
DATE

591.95
593.74
PROPOSED ℄ FAP 310
EXISTING GROUND LINE ALONG ℄ FAP 310
VPI STA. 421+26.00
ELEVATION 596.46
660.00' V.C.
+0.72%
-0.31%
0.30 %
0.40 %
2.84%
-2.00 %
0.28 %
0.57 %
-5.81%
4.44 %
1.29 %
1.19 %
2.15 %
-1.73 %
-1.20 %
-0.03 %

MED DITCH
SB 57 BEGINNING
ELEV. 589.2
0.30
SB 57
BROWN SILTY CLAY
BROWN SILTY CLAY LOAM
BROWN CLAY LOAM
SB 57 ENDING
ELEV. 584.2
BORING
1/27/03
LT DITCH +00.00 590.90
MED +00.00 588.10

SB 58 BEGINNING
ELEV. 593.7
SB 58
BROWN SILTY LOAM
BROWN SILTY CLAY
BROWN+GRAY SILTY CLAY
SB 58 ENDING
ELEV. 588.2
BORING
12/20/02
RT DITCH +00.00 589.99
LT DITCH +00.00 591.35

SB 59 BEGINNING
ELEV. 587.40
SB 59
BROWN SILTY CLAY
BROWN SILTY CLAY LOAM
SB 59 ENDING
ELEV. 581.4
BORING
12/20/02
RT DITCH +00.00 592.22
LT DITCH +43.00 586.00

SB 60 BEGINNING
ELEV. 580.62
SB 60
BROWN SILTY CLAY
BROWN CLAY LOAM
SB 60 ENDING
ELEV. 569.6
BORING
2/7/03
RT DITCH +00.00 574.00
LT DITCH +36.00 574.00
MED +46.00 575.00
RT DITCH +97.00 575.00

SB 61 BEGINNING
ELEV. 585.3
SB 61
BROWN SILTY CLAY
BROWN+GRAY CLAY LOAM
SB 61 ENDING
ELEV. 579.3
BORING
12/13/02
RT DITCH +00.00 586.80
LT DITCH +35.00 584.00

SB 62 BEGINNING
ELEV. 595.2
SB 62
GRAY+BROWN SILTY CLAY
BROWN+GRAY SILTY CLAY LOAM
GRAY+BROWN SILTY CLAY
BROWN+GRAY CLAY LOAM
SB 62 ENDING
ELEV. 584.2
BORING
12/17/02
RT DITCH +00.00 591.33
LT DITCH +00.00 590.65

RT DITCH +10.00 577.00
RT DITCH +27.00 577.00
RT DITCH +80.00 583.12
LT DITCH +50.00 592.21
RT DITCH +50.00 592.77
LT DITCH +43.00 592.17
MED +50.00 592.17
LT DITCH +00.00 592.31
RT DITCH +00.00 592.17

	600	595	590	585	580	575	570	565	560
415+00									
416+00									
417+00									
418+00									
419+00									
420+00									
421+00									
422+00									
423+00									
424+00									
425+00									
426+00									
427+00									
428+00									
429+00									
430+00									

415+00	594.92	591.95	594.92	592.31	594.86	592.67	594.62	593.03	594.33	593.39	593.51	593.75	592.98	594.11	593.90	594.45	594.21	594.75	594.22	595.01	593.11	595.23	590.84	595.41	588.87	595.55	586.80	595.65	585.25	595.72
416+00	583.94	595.74	581.53	595.73	578.84	595.67	581.64	595.58	583.13	595.45	583.09	595.29	584.56	595.14	586.35	594.98	587.98	594.83	589.65	594.67	591.40	594.52	593.45	594.36	594.83	594.20	595.66	594.05	595.82	593.89
417+00	595.27	593.74																												

STA 415+00 TO STA 430+00

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
310	42-2	JERSEY	393	44
STA. 430+00		TO STA. 445+00		
EXISTING CONDITIONS:				

CONTRACT NO. 76568

PR CURVE P1_105
PI STA 430+24.17
Δ = 7° 15′ 09″ (LT)
D = 0° 14′ 41″
T = 1,482.97′
R = 23,400.00′
L = 2,961.97′
E = 46.94′
PC STA 415+41.20
PT STA 445+03.17

PIPE CULVERTS, CLASS A, TYPE 1, 24″
STA 431+55, 24″ X 60′
USFL 11.9′ RT, ELEV 588.50
DSFL 71.9′ RT, ELEV 587.74
INLET BOX STANDARD 542506 - 1 EACH
INLET BOX STANDARD 542516 - 1 EACH

PERMANENT EASEMENT
GRADE TO DRAIN

PROPOSED ROW

CROP LINE

CONSTRUCTION LIMITS

BORING NO. SB 64
STA. 434+00, 36.00′ LT

STONE RIPRAP, CLASS A5
ENERGY DISSIPATING CHANNEL
SEE DETAILS

PIPE CULVERTS, CLASS A, TYPE 2, 24″
STA 434+70, 24″ x 84′
USFL 2.5′ LT, ELEV 585.71
DSFL 86.5′ LT, ELEV 585.29
PRC FES 24″ - 1 EACH
MANHOLE, TY A, 5′ DIA WITH
MEDIAN INLET (604101)
RIM ELEV 589.29

STONE RIPRAP, CLASS A3
433+70 TO 436+70

TRAFFIC BARRIER TERMINAL, TYPE 2
STA 434+70.2

PERMANENT EASEMENT
STONE RIPRAP, CLASS A4
437+20 TO 439+00

PRECAST CONCRETE BOX CULVERT, DOUBLE 8′ X 8′
STA 437+56, SKEW 18° RT AHD
2 - EACH 8′ X 8′ X 300′
USFL 438+01.2, 139.8′ RT, ELEV 550.11
DSFL 437+08.3, 145.8′ LT, ELEV 549.24
BOX CULVERT END SECTION CULVERT NO. 1
DA= 1.07 SQ MI
Q50= 1062 CFS, HWE= 561.2
Q100= 1238 CFS, HWE= 562.6

STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
STA 434+85.0 TO STA 443+47.5

STONE RIPRAP, CLASS A4
442+00 TO 444+00

PIPE CULVERTS, CLASS A, TYPE 2, 24″
STA 443+65, 24″ x 84′
USFL 3.0′ LT, ELEV 589.24
DSFL 87.3′ LT, ELEV 589.53
PRC FES 24″ - 1 EACH (LT)
MANHOLE, TY A, 5′ DIA WITH
MEDIAN INLET (604101)
RIM ELEV 592.97

AC
EXISTING ROW

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
STA 443+97.5

BORING NO. SB 68
STA. 443+00, 36.00′ LT

MATCH LINE STA 430+00

430+00
℄ FAP 310 (US 67)
435+00
440+00

MATCH LINE STA 445+00

10′ PCC SHOULDERS

BORING NO. SB 67
STA. 440+00, 36.00′ RT

STONE RIPRAP, CLASS A3
432+00 TO 432+45

4′ PCC SHOULDERS
2′ AGGREGATE SHOULDERS

BORING NO. SB 65
STA. 435+84, 41.00′ RT

STONE RIPRAP, CLASS A3
435+50 TO 437+85

TRAFFIC BARRIER TERMINAL, TYPE 2
STA 440+41.8

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
STA 432+14.5

STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
STA 432+64.5 TO STA 440+27

STONE RIPRAP, CLASS A4
END SECTION PROTECTION

BORING NO. SB 63
STA. 432+00, 36.00′ RT

PERMANENT EASEMENT

STONE RIPRAP, CLASS A4
438+25 TO 441+00

PIPE CULVERTS, CLASS A, TYPE 1, 24″
STA 431+55, 24″ X 55′
USFL 66.9′ RT, ELEV 588.60
DSFL 11.9′ RT, ELEV 588.50
INLET BOX STANDARD 542516 - 1 EACH
INLET BOX STANDARD 542506 - 1 EACH

① TYPE F INLET BOX, STANDARD 610001
STA 435+05 4.5 LT
PIPE DRAINS 12″ X 54′
END SECTIONS 12″ - 1 EACH
CONCRETE THRUST BLOCKS - 3 EACH

② TYPE F INLET BOX, STANDARD 610001
STA 435+88 RT
PIPE DRAINS 12″ X 20′
END SECTIONS 12″ - 1 EACH
CONCRETE THRUST BLOCKS - 1 EACH

50′ 0 50′ 100′
SCALE: 1″ = 50′

PLAN | SURVEYED | BY | DATE
NOTE BOOK | ALIGNMENT CHECKED
NO. | PLT. OF R.W. CHECKED
CADD FILE NAME

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ROADWAY PLAN STA 430+00 TO 445+00

FAP ROUTE 310 (US 67)
SECTION 42-2
JERSEY COUNTY

DRAWN BY: EMR CHECKED BY: CAS

STA 430+00 TO STA 445+00

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
310	42-2	JERSEY	393	45
STA.	TO STA.			
EXISTING CONDITIONS:			CONTRACT NO. 76568	

SCALE: 1" = 50'

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PLAN — SURVEYED ____ BY ____ DATE ____ ; STAKED ____ ; ALIGNMENT CHECKED ____ ; GRADES CHECKED ____ ; R.T. OF WAY CHECKED ____ ; E.&M. NOTED ____ ; CADD FILE NAME ____ ; NOTE BOOK ____ ; NO. ____ ; STRUCTURE NOTATIONS CHKD

PROFILE — SURVEYED ____ BY ____ DATE ____ ; STAKED ____ ; GRADES CHECKED ____ ; E.&M. NOTED ____ ; NOTE BOOK ____ ; NO. ____ ; STRUCTURE NOTATIONS CHKD

660.00' V.C.

593.74

596.95

RT DITCH +0.30 %
-1.28 %
-1.19 %
+0.50 %
+0.67 %
LT DITCH
-0.30 %
-0.30 %
4.0 %
-0.31%
+0.57%
VPI STA 436+02.00
ELEVATION 588.86
+0.30 %
MED DITCH
PROPOSED ℄ FAP 310
EXISTING GROUND LINE ALONG ℄ FAP 310
RT BENCH
LT BENCH
RT DITCH
LT DITCH
16.49 %
-10.02 %
-16.80 %
-15.46 %
-5.00 %
2.95%
3.67 %
4.42 %
2.68 %
0.40%
11.49 %
0.30 %
LT DITCH

SB 64 BEGINNING ELEV. 600.2
SB 64
BROWN SILTY CLAY
BROWN SILTY CLAY LOAM
BROWN CLAY LOAM
SB 64 ENDING ELEV. 584.2
BORING 12/17/02

SB 63 BEGINNING ELEV. 594.9
SB 63
GRAY SILT LOAM
BROWN SILTY CLAY LOAM
BROWN SILTY CLAY LOAM
SB 63 ENDING ELEV. 588.9
BORING 12/13/02

SB 65 BEGINNING ELEV. 582.0
SB 65
BROWN CLAY LOAM
BROWN SILTY CLAY LOAM
SB 65 ENDING ELEV. 577.0
BORING 12/17/02

SB 67 BEGINNING ELEV. 587.5
SB 67
BROWN SILTY CLAY
BROWN SILT LOAM
SB 67 ENDING ELEV. 581.0
BORING 12/20/02

SB 68 BEGINNING ELEV. 594.4
SB 68
BROWN SILTY CLAY LOAM
BROWN SILTY CLAY
BROWN SILTY CLAY LOAM
BROWN CLAY LOAM
SB ENDING ELEV. 687.4
BORING 12/20/02

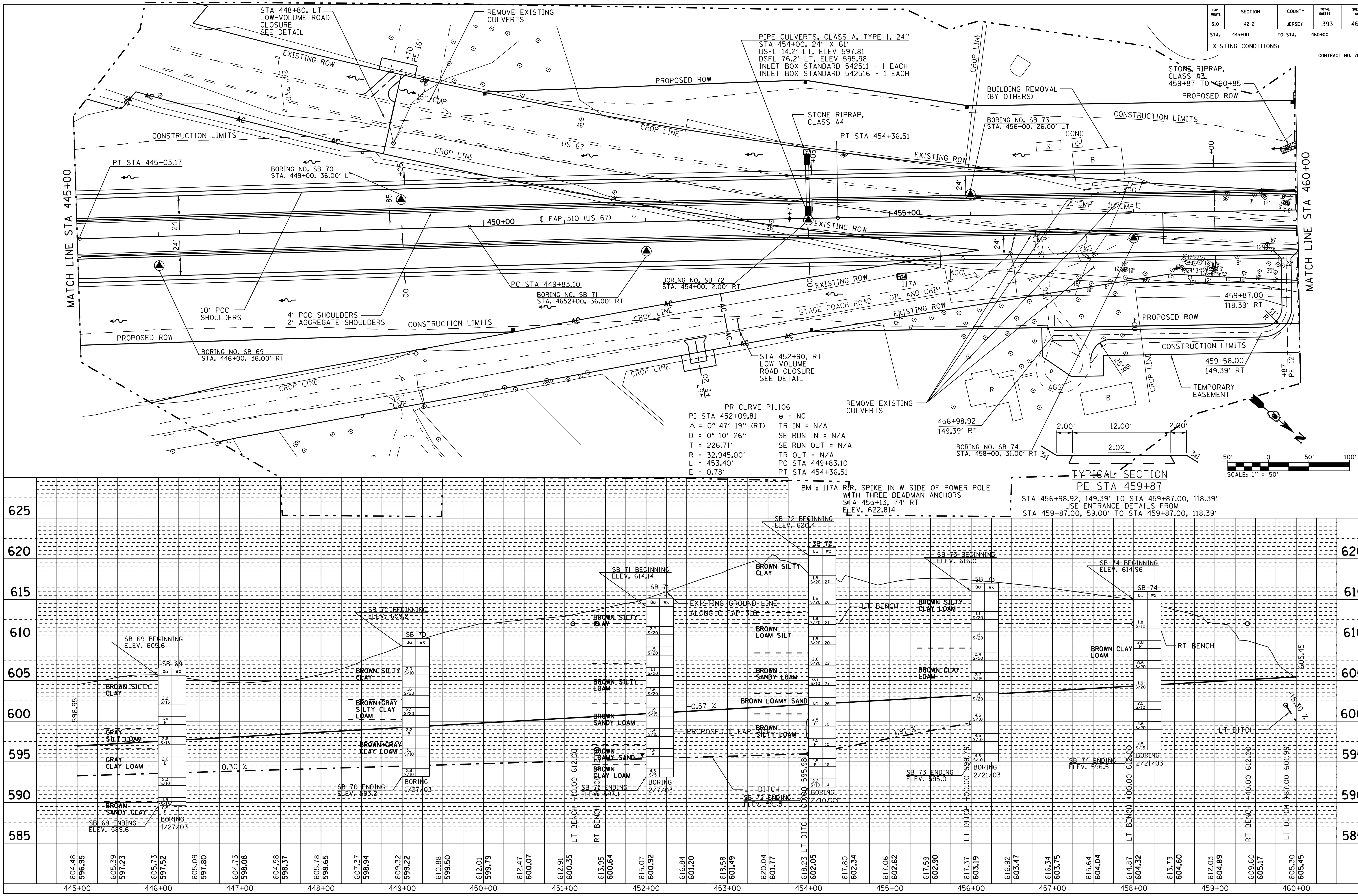
STA	MED +00.00	LT DITCH	RT DITCH	LT BENCH	RT BENCH
430+00	590.5	595.27	593.74		
431+00		593.84	593.58		
432+00		592.36	593.42		
433+00		591.70	593.27		
434+00		591.67	593.11		
435+00		593.76	592.96		
436+00		596.24	592.81		
437+00		597.50	592.69		
438+00		596.82	592.60		
439+00		594.37	592.54		
440+00		588.23	592.52		
441+00		577.85	592.54		
442+00		572.50	592.58		
443+00		562.55	592.66		
444+00		556.52	592.77		
445+00		551.17	592.92		

STA	LT DITCH	RT DITCH	MED DITCH	LT BENCH	RT BENCH
430+00	+45.00 587.74	+55.00 588.60	+55.00 588.41	+60.00 587.74	
431+00	+70.00 589.25	+70.00 588.25	+70.00 589.59		
432+00	+70.00 585.25	+70.00 589.29	+80.00 586.00	+80.00 588.71	
433+00	+80.00 556.50	+80.00 566.00	+90.00 588.71		
434+00	+70.00 569.17	+80.00 549.50	+90.00 569.00		
435+00	+00.00 564.13	+20.00 549.67			
436+00	+85.00 551.00	+99.00 552.00			
437+00	+25.00 550.14				
438+00	+00.00 555.71				
439+00	+25.00 566.00	+35.00 555.05	+60.00 569.00		
440+00	+00.00 590.88	+20.00 581.00			
441+00	+90.00 580.00	+00.00 591.10			
442+00	+00.00 591.50				
443+00	+87.00 580.00				
444+00	+00.00 592.98				
445+00					

STA 430+00 TO STA 445+00

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
310	42-2	JERSEY	393	46
STA. 445+00	TO STA. 460+00			
EXISTING CONDITIONS:				

CONTRACT NO. 76568



HOMER L. CHASTAIN & ASSOCIATES, LLP
CONSULTING ENGINEERS
DECATUR (217) 422-8544
CHICAGO (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

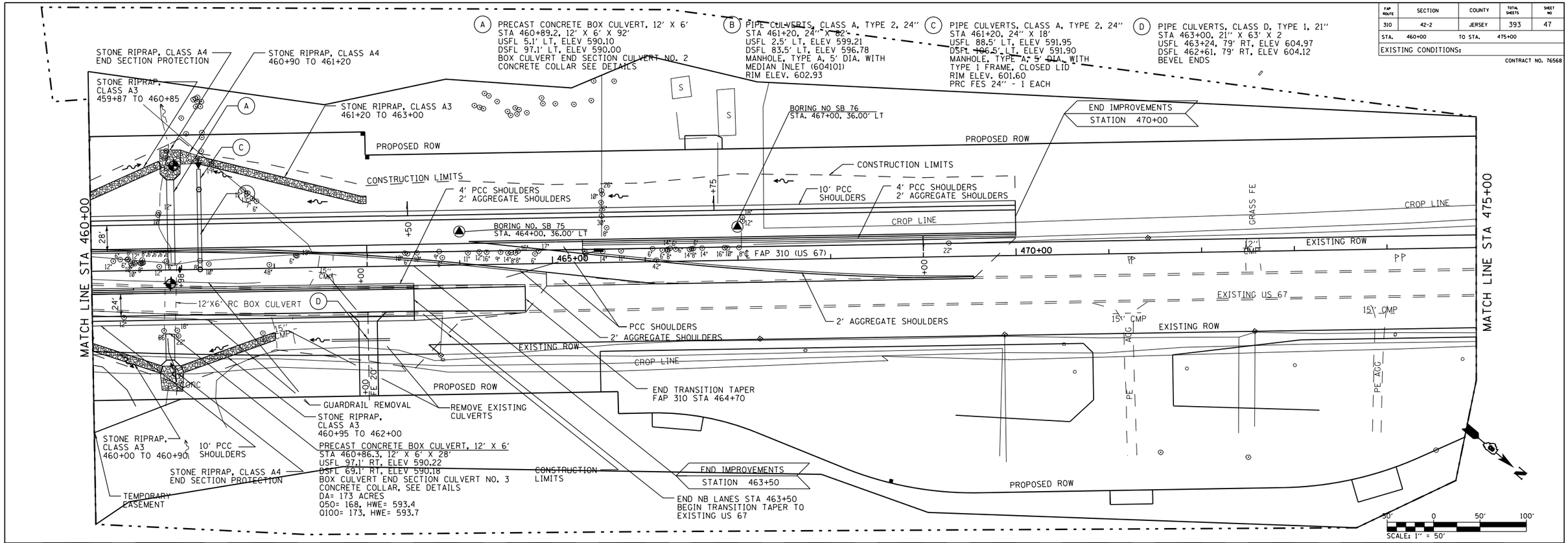
PLAN	BY	DATE
SURVEYED		
PLOTTED		
ALIGNMENT CHECKED		
RT. OF WAY CHECKED		
CADD FILE NAME		
NOTE BOOK NO.		

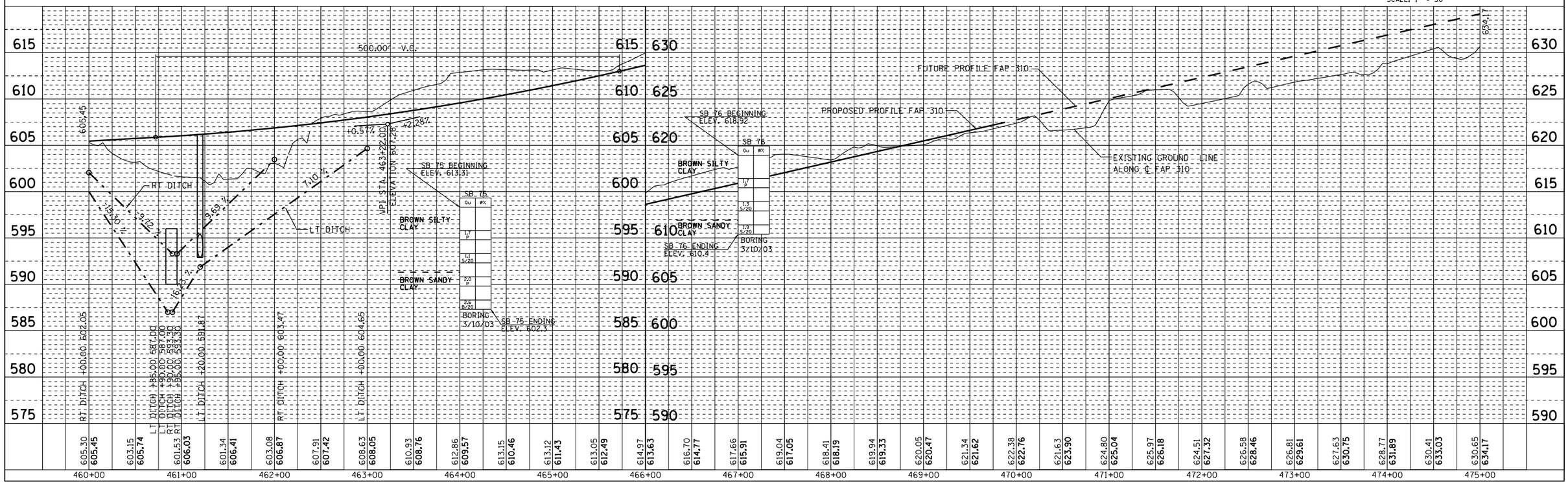
PROFILE	BY	DATE
SURVEYED		
PLOTTED		
GRADES CHECKED		
B.M. NOTED		
STRUCTURE NOTAT'NS CH'KD		
NOTE BOOK NO.		

STA 445+00 TO STA 460+00

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
310	42-2	JERSEY	393	47
STA. 460+00	TO STA. 475+00			
EXISTING CONDITIONS:				

CONTRACT NO. 76568





STA 460+00 TO STA 475+00

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ROCKFORD (815) 489-0660
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PROFILE: SURVEYED, DRAWN, GRADES CHECKED, BM. NOTED, STRUCTURE NOTATING CHKD, NOTE BOOK, NO., BY, DATE

Plan and Profile

Service Road

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
310	42-2	JERSEY	393	48
STA. 100+00	TO STA. 104+10.01			

EXISTING CONDITIONS:

CONTRACT NO. 76568

PROP CURVE SERVICE-1
PI STA = 100+13.09
Δ = 14° 28′ 46″ (RT)
D = 31° 31′ 03″
R = 181.79′
T = 23.09′
L = 45.94′
E = 1.46′
e = NA
TR = NA
SE RUN = NA
PC STA = 99+90.00
PT STA = 100+35.94

PROP CURVE SERVICE-2
PI STA = 101+94.47
Δ = 51° 19′ 11″ (LT)
D = 17° 21′ 44″
R = 330.00′
T = 158.53′
L = 295.58′
E = 36.11′
e = NA
TR = NA
SE RUN = NA
PC STA = 100+35.94
PT STA = 103+31.52

PROP CURVE SERVICE-3
PI STA = 103+70.76
Δ = 0° 46′ 27″ (RT)
D = 0° 59′ 11″
R = 5,808.90′
T = 39.24′
L = 78.48′
E = 0.13′
e = NA
TR = NA
SE RUN = NA
PC STA = 103+31.52
PT STA = 104+10.01

BEGIN IMPROVEMENTS
SERVICE DR STA 100+00.00

END IMPROVEMENTS
SERVICE DR STA 104+00.00

PC STA 99+90.00
PRC STA 100+35.94
PRC STA 103+31.52
PT STA 104+10.01
℄ SERVICE DRIVE
AGG
GUARDRAIL REMOVAL
FENCE REMOVAL
BORING SB 77
STA. 101+75, 57.00′ RT
FILLING EXISTING CULVERTS
CONST LIMITS
FLARED END SECTION REMOVAL
PROPOSED ROW
EXISTING RIPRAP
EX US 67
EXISTING ROW
℄ FAP 310 (US 67)
POND
BM 111
+98.35
25.00 RT
Ⓐ STONE RIPRAP, CLASS A6 ENERGY DISSIPATING CHANNEL SEE DETAILS
STONE RIPRAP, CLASS A3 346+25 TO 347+60
STONE RIPRAP, CLASS A4 347+70 TO 348+50
6'-0" BOX CULVERT
CONSTRUCTION LIMITS
SCALE: 1″ = 50′

SB 77
BROWN SILTY CLAY LOAM
BROWN SILTY CLAY LOAM
BORING 3/7/03
PROPOSED ℄ SERVICE DRIVE
280.00′ V.C.
570.05
559.70
EXISTING GROUND LINE ALONG ℄ SERVICE DRIVE
SB 77 BEGINNING ELEV. 554.55
-4.91%
+0.80%
VPI STA. 102+60.00
ELEVATION 558.58

	100+00	101+00	102+00	103+00	104+00
	570.05	567.06	563.16	553.05	553.42	558.62	558.99	559.33	559.70
	570.05	**567.84**	**565.64**	**563.51**	**561.82**	**560.59**	**559.83**	**559.53**	**559.70**

SERVICE DRIVE STA 100+00 TO STA 104+00

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ROCKFORD (815) 459-0660
184-001397

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PROFILE: SURVEYED, BY; PLOTTED; GRADES CHECKED; BM. NOTED; NOTE BOOK; SIGNATURE; NO.; ALTERNATIVES CHKD; DATE

Plan and Profile

US 67 Connector

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
310	42-2	JERSEY	393	49
STA.	24+30	TO STA.	30+00	
EXISTING CONDITIONS:				

CONTRACT NO. 76568

PLAN
SURVEYED
PLOTTED
GRADES CHECKED
BKM. NOTED
STRUCTURE NOTATING CHKD
NOTE BOOK
NO.
BY
DATE
ALIGNMENT CHECKED
PT. OF BEG. CHECKED
CADD FILE NAME

CRAWFORD, MURPHY & TILLY, INC.
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DECATUR (217) 422-8544
CHICAGO (773) 714-0060
ROCKFORD (815) 489-0060
184-001397

BEGIN IMPROVEMENTS
US 67 CONN STA 24+30.47

BORING NO. SB 79
STA. 26+65, 25.00' LT

PERMANENT EASEMENT

STONE RIPRAP, CLASS A5 26+50 TO 27+00

STONE RIPRAP, CLASS A3 27+00 TO 29+00

STONE RIPRAP, CLASS A4 25+75 TO 26+40

℄ US 67 CONNECTOR

2 CENTER CURVE 65-500-10 O/S

BORING NO. SB 80
STA. 28+50, 0.00' CL

+22.05
11.00 RT

CONSTRUCTION LIMITS

+92.90
22.49 LT

+86.30
11.00 LT

+59.67
11.00 LT

PROPOSED ROW

FAP RTE 310 STA 354+89.00
US 67 CONNECTOR STA 30+00

BORING NO. SB 78
STA. 24+50, 0.00' CL

+59.14
11.01 RT

+90.58
33.22 RT

CONSTRUCTION LIMITS

2 CENTER CURVE 40-350-20 O/S

FENCE REMOVAL

PIPE CULVERTS, CLASS D, TYPE 4, 30"
STA 26+64, SKEW 15° RT AHD
30" X 127'
USFL STA 26+47.0, 63.6' LT, ELEV 550.18
DSFL STA 26+79.8, 57.9 RT, ELEV 544.67
BEVEL END, UP STREAM
DA= 9.0 ACRES
Q30= 15 CFS, HWE 552.2
Q100= 20 CFS, HWE 552.4

PIPE CULVERTS, CLASS D, TYPE 2, 30"
STA 26+64, SKEW 15° RT AHD
30" X 34'
USFL STA 26+80.9, 62.1' RT, ELEV 540.11
DSFL STA 26+89.7, 94.5' RT, ELEV 539.98
BEVEL END, DOWN STREAM
DA= 9.0 ACRES
Q30= 15 CFS, HWE 552.2
Q100= 20 CFS, HWE 552.4

MANHOLE, 5' DIA, TYPE A WTIF CL
STA 26+80, 60.0' RT
RIM ELEV= 551.46
INLET= 544.67
OUTLET= 540.11

STONE RIPRAP, CLASS A3 25+85 TO 26+85

87°09'36"

50' 0 50' 100'
SCALE: 1" = 50'

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
BKM. NOTED
STRUCTURE NOTATING CHKD
NOTE BOOK
NO.
BY
DATE

180.00' V.C.

SB 78 BEGINNING ELEV. 565.8

SB 78

Qu	W%
0.6	
1.6	
1.0	
1.2	
1.5	
1.5	

BROWN SILTY LOAM

PROPOSED ℄ US 67 CONNECTOR

BROWN SANDY LOAM

RT ℄

SB 78 ENDING ELEV. 559.8

BORING 3/7/03

-1.63 %

VPI STA 26+00.00
ELEVATION 565.09

GRAY SILTY CLAY LOAM

GRAY CLAY LOAM

GRAY LOAMY SAND

-1.04 %

SB 79

Qu	W%	
	NC	27
1.1	S/20	21
0.5	S/20	19
	NC	21
	NC	17
4.0	P	16
7.5	S/20	12
4.4	S/10	12

BORING 8/11/03

SB 79 BEGINNING ELEV. 552.1

GRAY CLAY LOAM

LT DITCH

-1.98 %

SB 79 ENDING ELEV. 536.1

EXISTING GROUND LINE ALONG US 67 CONNECTOR

VPI STA. 28+10.00
ELEVATION 570.34

+2.50%

+1.19%

572.02

SB 80 BEGINNING ELEV. 563.2

SB 80

Qu	W%
2.5	
2.0	
3.0	
3.5	
2.5	
3.0	

BROWN SILTY LOAM

BROWN SILTY CLAY LOAM

BORING 8/14/03

SB 80 ENDING ELEV. 557.2

	575	570	565	560	555	550	545	540
RT +75.00	564.00							
LT +75.00	561.90							
RT +80.00	562.21							
LT +40.00	549.50							
RT +85.00	540.00							
	565.96 **566.65**	570.99 **566.13**	570.90 **565.77**	559.87 **565.89**	547.45 **566.50**	554.70 **567.59**	563.28 **568.84**	561.91 **569.92**	563.75 **570.77**	568.35 **571.41**	568.74 **572.01**
	25+00			26+00		27+00		28+00		29+00	

US 67 CONNECTOR STA 24+30.47 TO STA 30+00.00

Plan and Profile

Delhi Road

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
310	42-2	JERSEY	393	50
STA. 36+41.08	TO STA. 50+00			

EXISTING CONDITIONS:

CONTRACT NO. 76568

1 PIPE CULVERTS, CLASS D, TYPE 1, 15"
15" X 87'
USFL STA 39+25, 25.0' LT, ELEV 583.95
DSFL STA 38+38, 25.0' LT, ELEV 582.42
BEVEL ENDS

2 INLET TYPE A
TYPE 8 GRATE
STA 39+26
EAST INVERT ELEV 583.95
WEST INVERT ELEV 583.95
RIM ELEV. 585.61

3 PIPE CULVERTS, CLASS D, TYPE 1, 15"
15" X 56'
USFL STA 39+82, 25.0' LT, ELEV 584.84
DSFL STA 39+27, 25.0' LT, ELEV 583.95
BEVEL USFL END

PROP. CURVE DELHI-1
PI STA. = 40+15.00
Δ = 8° 42' 43" (RT)
D = 2° 41' 24"
R = 2,130.00'
T = 162.25'
L = 323.87'
E = 6.17'
e = 4.1%
T.R. IN = 34 FT
S.E. RUN IN = 37+83.00 TO 38+86.00
S.E. RUN OUT = 41+43.00 TO 42+44.00
T.R. OUT = 37 FT
P.C. STA. = 38+52.75
P.T. STA. = 41+76.62

PR CURVE DELHI-2
PI STA = 46+43.88
Δ = 27° 27' 48" (LT)
D = 7° 26' 28"
R = 770.00'
T = 188.16'
L = 369.08'
E = 22.66'
e = 6.0%
TR IN = 33 FT
SE RUN IN = STA 43+67.72 TO STA 44+99.72
SE RUN OUT = SEE INTERSECTION DETAIL
TR OUT = N/A
PC STA = 44+55.72
PT STA = 48+24.80

EX FL = 577.03
3 CENTER CURVE
300-100-300
Ø1 = 9' O/S
Ø2 = 15' O/S
CONSTRUCTION LIMITS
GRADE TO DRAIN
REMOVE EXISTING CULVERT
SCHOOL
CONSTRUCTION LIMITS
BORING NO. SB 81
STA. 40+24, 10.00' RT
BORING NO. SB 83
STA. 46+00, 8.00' LT
PROPOSED ROW
CROP LINE
PROPOSED A/C CONSTRUCTION LIMITS
REMOVE EXISTING CULVERT
2 CENTER CURVE
65' R - 500' R
10' O/S
MATCH LINE STA 51+00
POT STA 36+51.03
BEGIN IMPROVEMENTS
DELHI RD STA 36+51.03
PC STA 38+52.75
PROPOSED ROW
℄ DELHI ROAD
CONSTRUCTION LIMITS
TEMPORARY EASEMENT
DELHI ROAD (O&C)
PT STA 41+76.63
PC STA 44+55.72
PT STA 48+24.80
BORING NO. SB 82
STA. 43+00, 48.00' RT
BORING NO. SB 84
STA. 49+00, 18.00' RT
103°00'00" (LOC TAN)
CONSTRUCTION LIMITS SHOWN INCLUDE DELHI AND DELHI DETOUR ALL STAGES
1 BILLBOARD TO REMAIN

BM : 115
R.R. SPIKE IN W SIDE OF POWER POLE AT NE QUAD OF US67 AND DELHI RD, 37+15, 54' LT
ELEV. 586.236

3 CENTER CURVE
40-80-1250
Ø1 = -20' O/S
Ø2 = 10' O/S

4 PIPE CULVERTS, CLASS D, TYPE 1, 15"
15" X 110'
USFL STA 38+03, 25.6' LT, ELEV 581.69
DSFL STA 37+31, 37.5' LT, ELEV 580.58
BEVEL ENDS

5 PIPE CULVERTS, CLASS D, TYPE 1, 15"
15" X 100'
USFL STA 37+30, 43.1' RT, ELEV 581.27
DSFL STA 36+95, 50.7' LT, ELEV 580.58
BEVEL ENDS

PIPE CULVERTS, CLASS A, TYPE 1, 24"
STA 46+70
24" X 48'
USFL STA 46+70, 21.3' LT, ELEV 582.53
DSFL STA 46+70, 25.8' RT, ELEV 582.40
PRC FES - 24" - 2 EACH
DA= 7.5 ACRES
Q50= 13 CFS, HWE= 584.7
Q100= 18 CFS, HWE= 585.0

SCALE: 1" = 50'

HOMER L. CHASTAIN & ASSOCIATES, LLP
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PLAN
SURVEYED
PLOTTED
GRADES CHECKED
BAK NOTED
STRUCTURE LOCATING CHKD
NOTE BOOK
NO.
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CAD FILE NAME
BY
DATE

PROFILE
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PLOTTED
GRADES CHECKED
BAK NOTED
STRUCTURE LOCATING CHKD
NOTE BOOK
NO.
BY
DATE

PROFILE

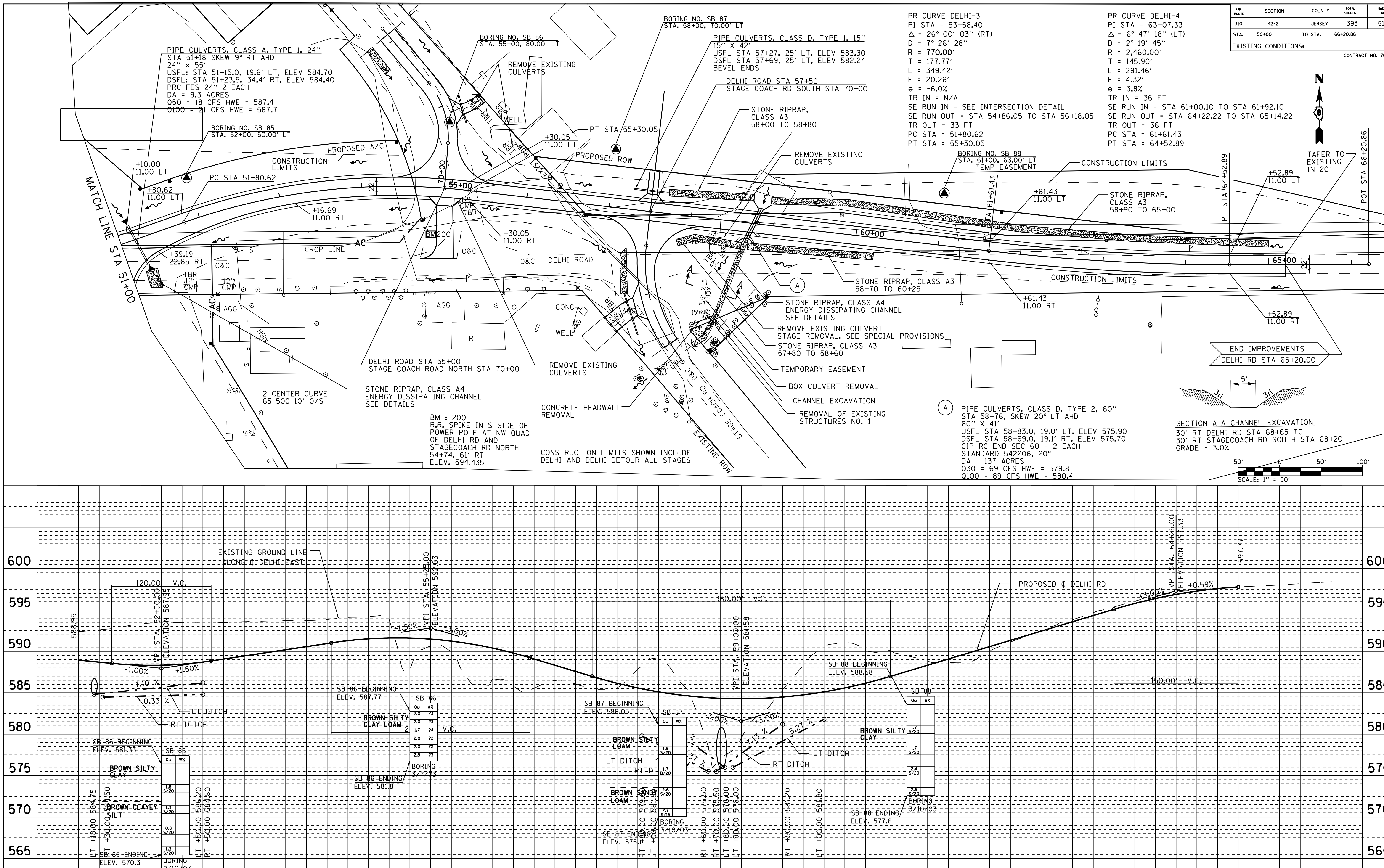
150.00' V.C.
VPI STA. 38+00.00
ELEVATION 584.62
EXISTING GROUND LINE ALONG ℄ DELHI WEST
SB 81 BEGINNING ELEV. 588.62
SB 81 ENDING ELEV. 582.6
BORING 3/7/03
SB 81
BROWN SILTY LOAM
BROWN SILTY CLAY
600.00
VPI STA. 43+00.00
ELEVATION 592.62
PROPOSED ℄ DELHI RD
SB 82 BEGINNING ELEV. 589.50
SB 82 ENDING ELEV. 583.5
BORING 3/10/03
SB 82
PROPOSED ℄ DELHI WEST
SB 83 BEGINNING ELEV. 586.65
SB 83 ENDING ELEV. 580.7
BORING 3/10/03
SB 83
BROWN SILTY CLAY
160.00' V.C.
VPI STA. 47+87.00
ELEVATION 586.78
VPI STA. 49+49.49
ELEVATION 588.39
VPI STA. 50+50.49
ELEVATION 589.45
SB 84 BEGINNING ELEV. 585.8
SB 84 ENDING ELEV. 574.8
BORING 3/10/03
SB 84
BROWN LOAMY SILT
LT DITCH
RT DITCH

	585.17	580.58	581.27	581.92	581.69	582.47	587.23	582.60	584.95	583.10	588.39
		LT +95.21	RT +30.39	RT +54.95	LT +02.62	RT +76.00	LT +55.00	LT +70.00	RT +50.00	LT +00.00	RT +00.00
	585.26	586.86	588.36	589.31	589.75	589.71	589.46	587.98	589.03	588.68	588.40
	585.38	**585.12**	**584.92**	**585.01**	**585.46**	**586.22**	**587.02**	**587.82**	**588.56**	**589.19**	**589.70**
	588.48	588.98	589.46	589.35	588.49	586.87	585.88	586.66	586.42	585.61	584.37
	590.09	**590.36**	**590.52**	**590.56**	**590.49**	**590.30**	**589.99**	**589.56**	**589.02**	**588.42**	**587.82**
	585.34	586.29	588.18	589.99	589.42	591.68	591.88	592.37			
	587.35	**587.22**	**587.42**	**587.90**	**588.40**	**588.92**	**589.44**	**588.95**			

DELHI WEST STA 36+51.03 TO STA 50+00

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
310	42-2	JERSEY	393	51
STA. 50+00	TO STA. 66+20.86			
EXISTING CONDITIONS:				

CONTRACT NO. 76568



PIPE CULVERTS, CLASS A, TYPE 1, 24″
STA 51+18 SKEW 9° RT AHD
24″ x 55′
USFL: STA 51+15.0, 19.6′ LT, ELEV 584.70
DSFL: STA 51+23.5, 34.4′ RT, ELEV 584.40
PRC FES 24″ 2 EACH
DA = 9.3 ACRES
Q50 = 18 CFS HWE = 587.4
Q100 = 21 CFS HWE = 587.7
BORING NO. SB 85
STA. 52+00, 50.00′ LT
BORING NO. SB 86
STA. 55+00, 80.00′ LT
REMOVE EXISTING CULVERTS
BORING NO. SB 87
STA. 58+00, 70.00′ LT
PIPE CULVERTS, CLASS D, TYPE 1, 15″
15″ X 42′
USFL STA 57+27, 25′ LT, ELEV 583.30
DSFL STA 57+69, 25′ LT, ELEV 582.24
BEVEL ENDS
DELHI ROAD STA 57+50
STAGE COACH RD SOUTH STA 70+00
STONE RIPRAP, CLASS A3
58+00 TO 58+80
PR CURVE DELHI-3
PI STA = 53+58.40
Δ = 26° 00′ 03″ (RT)
D = 7° 26′ 28″
R = 770.00′
T = 177.77′
L = 349.42′
E = 20.26′
e = -6.0%
TR IN = N/A
SE RUN IN = SEE INTERSECTION DETAIL
SE RUN OUT = STA 54+86.05 TO STA 56+18.05
TR OUT = 33 FT
PC STA = 51+80.62
PT STA = 55+30.05
PR CURVE DELHI-4
PI STA = 63+07.33
Δ = 6° 47′ 18″ (LT)
D = 2° 19′ 45″
R = 2,460.00′
T = 145.90′
L = 291.46′
E = 4.32′
e = 3.8%
TR IN = 36 FT
SE RUN IN = STA 61+00.10 TO STA 61+92.10
SE RUN OUT = STA 64+22.22 TO STA 65+14.22
TR OUT = 36 FT
PC STA = 61+61.43
PT STA = 64+52.89
N
MATCH LINE STA 51+00
+10.00 11.00 LT
+80.62 11.00 LT
PC STA 51+80.62
PROPOSED A/C
CONSTRUCTION LIMITS
+16.69 11.00 RT
+39.19 22.65 RT
TBR 12″ CMP
CROP LINE
AC
O&C
AGG
MBH
BM 200
+30.05 11.00 LT
PT STA 55+30.05
PROPOSED ROW
EXIST ROW
+30.05 11.00 RT
DELHI ROAD
WELL
CONC
R
REMOVE EXISTING CULVERTS
BORING NO. SB 88
STA. 61+00, 63.00′ LT
TEMP EASEMENT
CONSTRUCTION LIMITS
PC STA 61+61.43
+61.43 11.00 LT
STONE RIPRAP, CLASS A3
58+90 TO 65+00
PT STA 64+52.89
+52.89 11.00 LT
TAPER TO EXISTING IN 20′
POT STA 66+20.86
60+00
65+00
22′
STONE RIPRAP, CLASS A3
58+70 TO 60+25
+61.43 11.00 RT
+52.89 11.00 RT
STONE RIPRAP, CLASS A4
ENERGY DISSIPATING CHANNEL
SEE DETAILS
REMOVE EXISTING CULVERT
STAGE REMOVAL, SEE SPECIAL PROVISIONS
STONE RIPRAP, CLASS A3
57+80 TO 58+60
TEMPORARY EASEMENT
BOX CULVERT REMOVAL
CHANNEL EXCAVATION
REMOVAL OF EXISTING STRUCTURES NO. 1
END IMPROVEMENTS
DELHI RD STA 65+20.00
DELHI ROAD STA 55+00
STAGE COACH ROAD NORTH STA 70+00
REMOVE EXISTING CULVERTS
STONE RIPRAP, CLASS A4
ENERGY DISSIPATING CHANNEL
SEE DETAILS
2 CENTER CURVE
65-500-10′ O/S
BM : 200
R.R. SPIKE IN S SIDE OF POWER POLE AT NW QUAD OF DELHI RD AND STAGECOACH RD NORTH
54+74, 61′ RT
ELEV. 594.435
CONCRETE HEADWALL REMOVAL
CONSTRUCTION LIMITS SHOWN INCLUDE DELHI AND DELHI DETOUR ALL STAGES
STAGE COACH RD
EXISTING ROW
(A) PIPE CULVERTS, CLASS D, TYPE 2, 60″
STA 58+76, SKEW 20° LT AHD
60″ X 41′
USFL STA 58+83.0, 19.0′ LT, ELEV 575.90
DSFL STA 58+69.0, 19.1′ RT, ELEV 575.70
CIP RC END SEC 60 - 2 EACH
STANDARD 542206, 20°
DA = 137 ACRES
Q30 = 69 CFS HWE = 579.8
Q100 = 89 CFS HWE = 580.4
5′
3:1
SECTION A-A CHANNEL EXCAVATION
30′ RT DELHI RD STA 68+65 TO
30′ RT STAGECOACH RD SOUTH STA 68+20
GRADE - 3.0%
50′ 0 50′ 100′
SCALE: 1″ = 50′
600
595
590
585
580
575
570
565
EXISTING GROUND LINE
ALONG ℄ DELHI EAST
120.00′ V.C.
VPI STA. 52+00.00
ELEVATION 587.95
-1.00%
+1.50%
1.10 %
0.33 %
LT DITCH
RT DITCH
SB 85 BEGINNING
ELEV. 581.33
SB 85
BROWN SILTY CLAY
BROWN CLAYEY SILT
SB 85 ENDING
ELEV. 570.3
BORING 2/10/03
VPI STA. 55+25.00
ELEVATION 592.83
+1.50%
-3.00%
SB 86 BEGINNING
ELEV. 587.77
SB 86
BROWN SILTY CLAY LOAM
SB 86 ENDING
ELEV. 581.8
BORING 3/7/03
360.00′ V.C.
VPI STA. 59+00.00
ELEVATION 581.58
SB 87 BEGINNING
ELEV. 586.05
SB 87
BROWN SILTY LOAM
BROWN SANDY LOAM
SB 87 ENDING
ELEV. 575.1
BORING 3/10/03
-3.00%
+3.00%
5.27 %
LT DITCH
RT DITCH
SB 88 BEGINNING
ELEV. 588.58
SB 88
BROWN SILTY CLAY
SB 88 ENDING
ELEV. 577.6
BORING 3/10/03
PROPOSED ℄ DELHI RD
VPI STA. 64+25.00
ELEVATION 597.33
+3.00%
+0.59%
150.00′ V.C.
597.77

Station	51+00		52+00		53+00		54+00		55+00		56+00		57+00		58+00		59+00		60+00		61+00		62+00		63+00		64+00		65+00		66+00
Existing	592.37	592.88	593.45	593.53	593.58	593.71	593.85	594.21	587.76	589.95	586.68	585.55	586.05	585.58	589.07	581.53	579.50	585.37	590.52	590.06	589.47	588.67	590.06	592.05	593.82	595.37	596.68	597.41	597.77	598.03	598.33	
Proposed	**588.95**	**588.46**	**588.33**	**588.71**	**589.45**	**590.20**	**590.95**	**591.51**	**591.61**	**591.23**	**590.39**	**589.08**	**587.58**	**586.15**	**585.11**	**584.49**	**584.28**	**584.49**	**585.11**	**586.15**	**587.58**	**589.08**	**590.58**	**592.08**	**593.58**	**595.08**	**596.38**	**597.28**	**597.77**			

DELHI EAST STA 50+00 TO STA 66+20.86

HOMER L. CHASTAIN & ASSOCIATES, LLP
CONSULTING ENGINEERS
DECATUR (217) 422-8544
CHICAGO (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

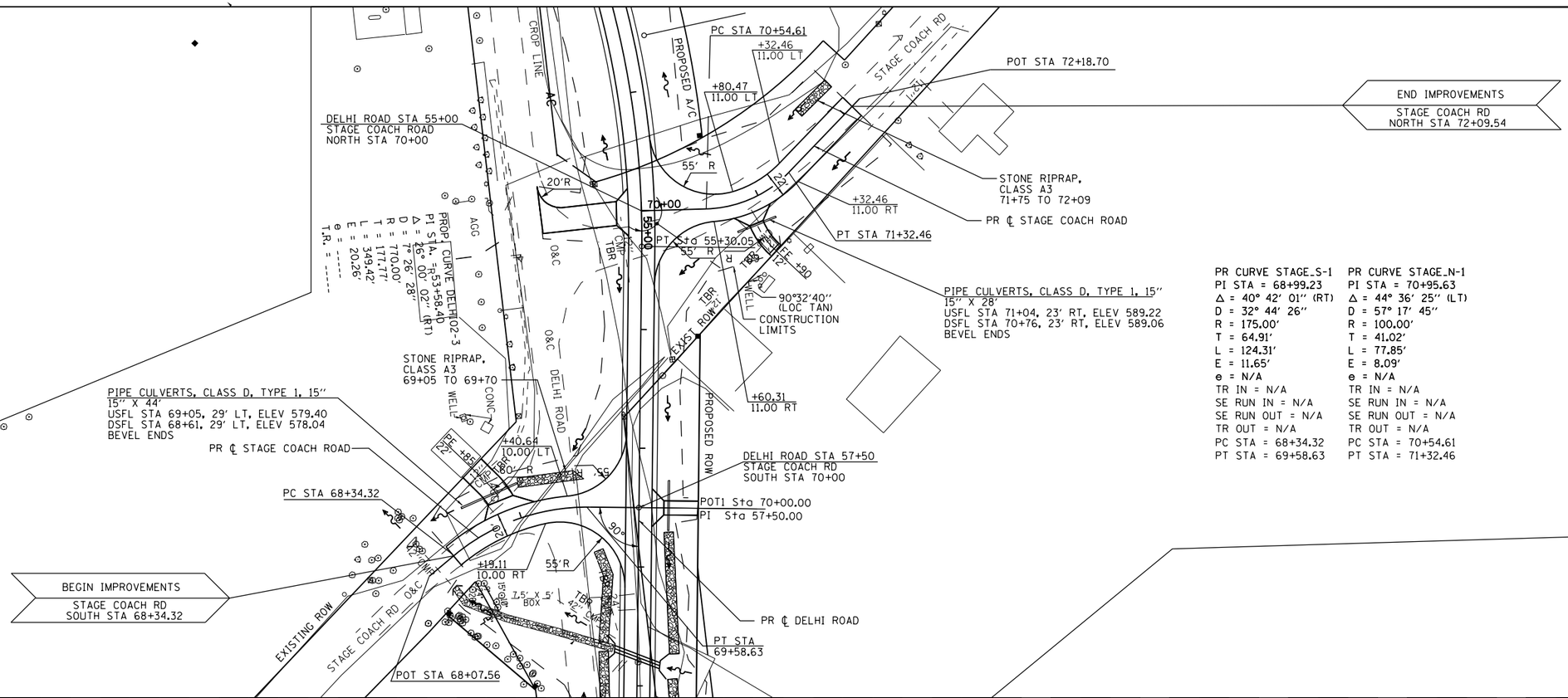
PLAN		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	ALIGNMENT CHECKED		
	RT. OF WAY CHECKED		
	CADD FILE NAME		

PROFILE		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	GRADES CHECKED		
	B.M. NOTED		
	STRUCTURE NOTAT'NS CH'KD		

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
310	42-2	JERSEY	393	52
STA.	69+00	TO STA.	72+00	

EXISTING CONDITIONS:

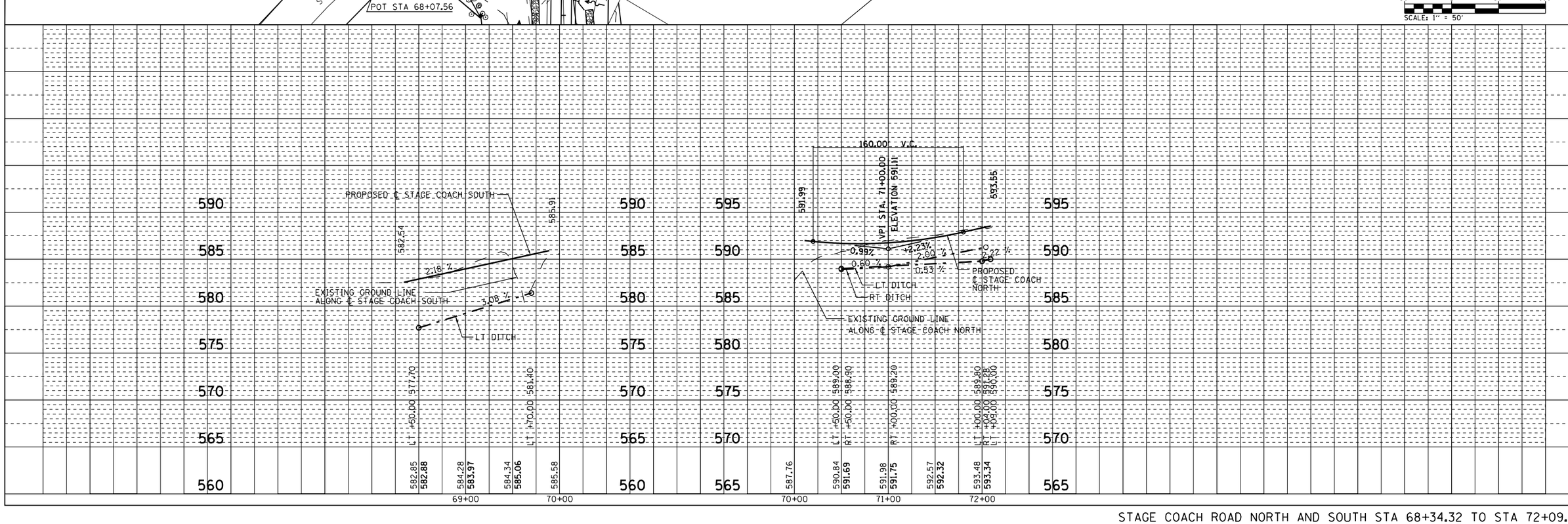
CONTRACT NO. 76568



PR CURVE STAGE_S-1
PI STA = 68+99.23
Δ = 40° 42' 01" (RT)
D = 32° 44' 26"
R = 175.00'
T = 64.91'
L = 124.31'
E = 11.65'
e = N/A
TR IN = N/A
SE RUN IN = N/A
SE RUN OUT = N/A
TR OUT = N/A
PC STA = 68+34.32
PT STA = 69+58.63

PR CURVE STAGE_N-1
PI STA = 70+95.63
Δ = 44° 36' 25" (LT)
D = 57° 17' 45"
R = 100.00'
T = 41.02'
L = 77.85'
E = 8.09'
e = N/A
TR IN = N/A
SE RUN IN = N/A
SE RUN OUT = N/A
TR OUT = N/A
PC STA = 70+54.61
PT STA = 71+32.46

50' 0 50' 100'
SCALE: 1" = 50'



STAGE COACH ROAD NORTH AND SOUTH STA 68+34.32 TO STA 72+09.54

HOMER L. CHASTAIN & ASSOCIATES, LLP
CONSULTING ENGINEERS
DECATUR (217) 422-8844
CHICAGO (773) 714-0660
ROCKFORD (815) 459-0660
184-001397

PLAN: SURVEYED ____ BY ____ DATE ____; PLOTTED ____ BY ____ DATE ____; ALIGNMENT CHECKED ____ BY ____ DATE ____; PLT. OF R/W CHECKED ____ BY ____ DATE ____; CADD FILE NAME ____; NOTE BOOK ____ NO. ____

PROFILE: SURVEYED ____ BY ____ DATE ____; PLOTTED ____ BY ____ DATE ____; GRADES CHECKED ____ BY ____ DATE ____; BM. NOTED ____ BY ____ DATE ____; STRUCTURE NOTATING CHKD ____ BY ____ DATE ____; NOTE BOOK ____ NO. ____

Appendix B

Boring Logs

Boring Logs

Station 333+19.67 to Station 463+50

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 2/20/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Mark Schreader

SECTION 42-2 LOCATION NE 1/4, SEC. 30, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 28
Station 335+00
Offset 38.00ft LT
Ground Surface Elev. 539.5 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				Brown Clay LOAM
	2			
	3	1.4		
	4	S/15		
-5	4			
	5	1.3		
	9	S/20		
	6			
	9	1.5		
	9	S/15		
-10	6			
	9	3.9		
	12	S/15		
	6			
	10	4.5		
526.0	13	S/10		
				End of Boring
-15				
-20				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 2/20/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Mark Schreader

SECTION 42-2 LOCATION NW 1/4, SEC. 30, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 29
Station 338+00
Offset 9.00ft RT
Ground Surface Elev. 551.5 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Clay LOAM			
	7		
	11	--	
	11		
-5	6		
	10	3.3	
	12	S/15	
	7		
	17	2.6	
	37	B/20	
-10	17		
541.0	37	4.5	
Gray SAND 540.5	50	S/10	
End of Boring			
-15			
-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 2/20/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Mark Schreader

SECTION 42-2 LOCATION NW 1/4, SEC. 30, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 30
Station 341+29
Offset 36.00ft LT
Ground Surface Elev. 556.5 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
Brown Clay LOAM				
	10			
	16 19	4.5 P		
-5	6			
	18 24	2.6 S/15		
	11			
548.0	18 25	2.9 S/15		
End of Boring				
-10				
-15				
-20				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 10/18/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Larry Ford

SECTION 42-2 LOCATION NW 1/4, SEC. 30, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 31
Station 342+79
Offset 36.00ft LT
Ground Surface Elev. 571.0 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown SILT A-7-6(17) See Classification @ 2.5 feet		6		
		9 11	4.2 S/15	34
	566.0 -5	6	2.0	30
		7	S/10	
Brown SILT A-6(10) See Classification @ 7.5 feet		8	1.5 S/15	28
		5		
		7 9	1.5 S/10	29
	562.0			
Brown and Gray Silt LOAM A-6(11) See Classification @ 15 ft	-10	5		
		7 8	1.5 S/10	29
		3		
		6 9	1.9 S/5	29
	-15	4		
		7 7	1.7 S/15	27
		1		
Semi-Saturated		2	NC	24
		4	1.5 S/10	24
	-20	4		
Brown and Gray Silt LOAM *(continued)*	550.0	6 8	1.9 S/15	23
End of Boring	-25			
	-30			
	-35			
	-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 10/18/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Larry Ford

SECTION 42-2 LOCATION NW 1/4, SEC. 30, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 32
Station 345+00
Offset 37.00ft LT
Ground Surface Elev. 567.2 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				Brown Silty CLAY
	5			
	7	5.8		
	10.	S/10	35	
-5	5			
	6	2.8		
	7	S/10	33	
560.7				
	4			Brown Silty Clay LOAM
	5	1.2		
	6	S/10	28	
558.2				
-10	4			Brown Silty Clay LOAM
	5	1.8		
	7	S/10	28	
	4			
	6	2.4		
	8	S/10	68	
-15	5			
	8	2.0		
551.2	9	S/10	23	
				End of Boring
-20				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 10/22/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Larry Ford

SECTION 42-2 LOCATION NW 1/4, SEC. 30, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 33
Station 347+00
Offset 40.00ft LT
Ground Surface Elev. 543.9 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silt LOAM (Fill)		3		
		6 7	1.7 S/5	9
(Very Dry and Crumbly)	-5	7		
		8 9	NC	9
		6		
		9 9	2.7 S/5	9
	-10	8		
		14 13	NC	10
532.4				
Brown Clay LOAM		3		
		6 6	4.4 S/10	17
	-15	4		
		8 12	3.7 S/10	18
527.9				
End of Boring	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 8/14/03

ROUTE FAP 310 DESCRIPTION Delhi Bypass Mainline Pipe Culvert LOGGED BY Mark Schreader

SECTION 42-2 LOCATION NW 1/4, SEC. 30, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. BXC-1-1
Station 347+52
Offset 159.30ft LT
Ground Surface Elev. 524.4 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				Brown Sandy LOAM See Gradation @ 3 ft
	2			
	2		11	
	2	NC		
-5	3			
518.9	3	NC	11	
	2	0.8	17	
		S/20		Brown Sandy LOAM See Gradation @ 8 ft
	2			
	1		25	
	2	NC		
514.9				
-10	3			
	7	4.0	23	Brown Silty LOAM
	9	S/15		
	5			
	10	2.4	20	
	15	S/20		
-15	7			
	20	1.5	19	
508.4	25	S/10		
				End of Boring
-20				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 10/22/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Larry Ford

SECTION 42-2 LOCATION NW 1/4, SEC. 30, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 34
Station 349+00
Offset 10.00ft RT
Ground Surface Elev. 527.9 ft

Surface Water Elev. _____ ft
Stream Bed Elev. 517.0 ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				Gray SILT A-6(9) See Classification @ 2.0 feet
	2			
	2	0.7	20	
524.4	2	S/5		
				Brown and Gray Clay LOAM
-5	2			
	3	1.3	12	
	4	S/15		
	2			
	2	1.0	23	
	3	B		
-10	3			
	6	4.0	16	
	7	S/10		
516.4				
				Gray and Brown Silty CLAY
	4			
	8	2.9	21	
	11	S/10		
-15	5			
	10	4.4	22	
	12	B		
	6			
	8	4.4	22	
	13	S/10		
-20	5			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
	8	4.2	23	Gray and Brown Silty CLAY *(continued)*
	11	S/15		
506.4				
	3			Brown and Gray Silty Clay LOAM
	5	2.0	24	
	7	S/10		
-25	4			
	6	2.6	22	
	8	S/15		
	4			
	6	2.4	24	
	8	S/10		
-30	4			
497.4	6	2.2	23	
	8	S/10	33	
		1.8		Brown Silty CLAY with Organics
		S/10		
495.4				
				Gray Clay LOAM
-35	6			
	10	3.8	19	
491.9	14	S/15		
				End of Boring
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 8/14/03

ROUTE FAP 310 DESCRIPTION Delhi Bypass Mainline Pipe Culvert LOGGED BY Mark Schreader

SECTION 42-2 LOCATION SW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. BXC-1-3
Station 350+97
Offset 124.50ft RT
Ground Surface Elev. 523.1 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty CLAY			
	2		
	2	2.2	173
	5	S/20	
-5	3		
	8	4.0	16
	10	S/10	
	5		
	7	3.1	17
	10	S/20	
-10	4		
	6	2.9	18
	9	S/15	
	4		
	7	3.9	15
	9	S/20	
508.6			
-15	3		
Gray Silty LOAM	7	3.3	15
507.1	8	S/20	
End of Boring			
-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 8/11/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Mark Schreader

SECTION 42-2 LOCATION SW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 35
Station 351+00
Offset 56.00ft RT
Ground Surface Elev. 529.2 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				Brown Loamy SAND
	4			
	3	0.3	10	
	3	S/5		
524.7				
-5	3			
	5	2.0	18	Brown Clay LOAM
523.2	6	S/20		
				Brown LOAM
	7			
	9	2.9	14	
	15	S/20		
-10	7			
518.7	8	2.9	14	
	10	S/20	17	
		3.9		Gray and Brown Clay LOAM
	5	S/20		
	11	5.9	15	
	13	S/15		
-15	5			
	9	5.2	16	
	10	S/15		
	7			
	16	5.5	14	
	22	S/20		
-20	5			
	10	4.7	14	Gray and Brown Clay LOAM *(continued)*
	12	S/20		
	5			
	9	4.9	15	
	11	B		
-25	5			
503.7	16	4.9	16	
503.2	30	S/20	18	
		1.7		End of Boring
		S/5		
-30				
-35				
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/4/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Larry Ford

SECTION 42-2 LOCATION SW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO.
Station

BORING NO. SB 36
Station 353+00
Offset 36.00ft LT
Ground Surface Elev. 567.9 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown SILT A-4(8) See Classification @ 0.5 ft			0.6	
566.9			1.5	28
Brown SIlty CLAY A-6(14) See Classification @ 3.5 ft			3.0	
			3.5	
563.9			3.8	24
Brown Silty Clay LOAM A-6(11) See Classification @ 5.5 ft	-5		3.5	16
561.9				
End of Hand Auger **Pocket Penetrometer used for Qu**	-10 -15 -20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/4/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Larry Ford

SECTION 42-2 LOCATION SW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO. _____
Station _____

BORING NO. SB 37
Station 356+00
Offset 36.00ft RT
Ground Surface Elev. 560.7 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown and Gray Silt LOAM			0.8	
559.7				
Brown Silty CLAY			1.2	
			1.8	
557.7				
Brown Clay LOAM A-6(9) See Classification @ 7.5 ft			3.5	
	-5		2.7	
			2.5	
			2.0	
			1.7	13
552.7				
End of Hand Auger				
Pocket Penetrometer used for Qu	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/5/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Larry Ford

SECTION 42-2 LOCATION SW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO. _____
Station _____

BORING NO. SB 38
Station 359+00
Offset 36.00ft LT
Ground Surface Elev. 575.6 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silt LOAM			1.3	
			1.2	
573.6				
Brown Silty CLAY			2.5	
			2.2	
			1.5	
	-5			
			1.2	
			0.7	
			1.2	
			1.1	
566.6				
End of Hand Auger	-10			
Pocket Penetrometer used for Qu				
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/5/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Larry Ford

SECTION 42-2 LOCATION SW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO. _____
Station _____

BORING NO. SB 39
Station 362+00
Offset 36.00ft RT
Ground Surface Elev. 573.7 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty CLAY			2.0	
			2.2	
			1.3	
			1.5	
	-5		1.2	
			1.7	
567.7				
End of Hand Auger				
Pocket Penetrometer used for Qu	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/5/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Larry Ford

SECTION 42-2 LOCATION SW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO. _____
Station _____

BORING NO. SB 40
Station 365+00
Offset 36.00ft LT
Ground Surface Elev. 578.3 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray and Brown Silty CLAY			2.2	
			2.0	
			1.5	
			1.7	
			1.7	
	-5			
			1.5	
572.3				
End of Hand Auger				
Pocket Penetrometer used for Qu				
	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/5/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Larry Ford

SECTION 42-2 LOCATION SW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO.
Station

BORING NO. SB 41
Station 368+00
Offset 36.00ft RT
Ground Surface Elev. 581.3 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty CLAY			2.2	
			2.0	
			1.7	
			1.5	
	-5		1.2	
			1.5	
574.3			1.4	
End of Hand Auger				
Pocket Penetrometer used for Qu	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/12/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Larry Ford

SECTION 42-2 LOCATION SW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 42
Station 371+00
Offset 36.00ft LT
Ground Surface Elev. 588.5 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty CLAY		3		
		5 7	2.0 S/10	27
	-5	3		
		4 6	1.4 S/15	25
582.5				
Gray and Brown Silty Clay LOAM		3		
		6 7	1.8 S/20	21
579.0				
	-10	4		
Brown Clay LOAM		4 7	1.8 S/10	20
577.5				
End of Boring				
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/9/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Ford & Maue

SECTION 42-2 LOCATION SW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 43
Station 374+00
Offset 36.00ft RT
Ground Surface Elev. 581.4 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty CLAY		3		
		5 8	1.9 S/15	26
577.4				
Brown and Gray Silty Clay LOAM	-5	5		
		7 10	1.7 S/10	21
		5		
		6 7	1.6 S/5	17
572.4				
Brown Clay LOAM	-10	5		
		7 8	2.0 S/15	15
570.4				
End of Boring	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/5/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Larry Ford

SECTION 42-2 LOCATION SW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO. _____
Station _____

BORING NO. SB 44
Station 377+00
Offset 36.00ft LT
Ground Surface Elev. 578.1 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray SILT A-4(8) See Classification @ 0.5 ft			1.5	21
576.6				
			2.2	
Brown Silty CLAY A-7-6(19) See Classification @ 2.5 ft			3.0	
			3.0	27
574.1				
Gray Silty Clay LOAM A-6(10)	-5		1.7	
See Classification @ 4.5 ft			1.8	22
572.1				
End of Hand Auger				
Pocket Penetrometer used for Qu	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/5/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Larry Ford

SECTION 42-2 LOCATION SW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO. _____
Station _____

BORING NO. SB 45
Station 380+00
Offset 36.00ft RT
Ground Surface Elev. 578.2 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray Silt LOAM			1.2	
			1.5	
576.2				
Gray and Brown Silty CLAY			2.2	
			2.4	
574.2				
Gray Silty Clay LOAM	-5		1.8	
			1.7	
572.2				
End of Hand Auger				
Pocket Penetrometer used for Qu	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/9/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Ford & Maue

SECTION 42-2 LOCATION SW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO. _____
Station _____

BORING NO. SB 46
Station 383+00
Offset 36.00ft LT
Ground Surface Elev. 586.4 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray Silt LOAM			1.4	
584.9			1.5	
Gray Silty CLAY			1.5	
			2.4	
			4.4	
			3.7	
581.4	-5			
Brown and Gray Silty Clay LOAM			2.3	
580.4				
End of Hand Auger				
Pocket Penetrometer used for Qu				
	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/9/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Ford & Maue

SECTION 42-2 LOCATION NW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 47
Station 386+00
Offset 36.00ft RT
Ground Surface Elev. 590.3 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray Silt LOAM 589.8				
Brown Silty CLAY		3		
		5	1.9	
586.8		6	S/20	27
Brown and Gray Silty Clay LOAM	-5	3		
		5	1.7	
		5	S/15	25
		3		
		5	1.8	
		6	S/10	20
	-10	3		
		4	1.9	
579.3		5	S/15	21
End of Boring	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/9/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Ford & Maue

SECTION 42-2 LOCATION NW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO. _____
Station _____

BORING NO. SB 48
Station 389+00
Offset 36.00ft LT
Ground Surface Elev. 591.7 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
Gray Silt LOAM				
590.7				
Brown Silty CLAY	4			
	5	4.4		
	6	S/10	23	
587.7				
Gray and Brown Silty Clay LOAM -5	5			
	6	2.0		
	7	S/5	21	
585.2				
Gray and Brown Clay LOAM	3			
	5	2.3		
	4	S/20	21	
-10	2			
	3	1.1		
	4	S/15	22	
	6	1.5	23	
578.7	6	P		
End of Boring				
-15				
-20				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/9/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Ford & Maue

SECTION 42-2 LOCATION NW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 49
Station 392+00
Offset 36.00ft RT
Ground Surface Elev. 592.3 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray Silt LOAM				
591.3				
Brown Silty CLAY		3		
		5 6	2.0 S/10	26
588.3				
Gray and Brown Silty Clay LOAM	-5	3		
		4 6	1.7 S/15	27
586.3				
Brown and Gray Silty CLAY		2		
		3 5	1.4 S/20	23
	-10	3		
		3 4	1.1 S/10	22
580.8				
Brown and Gray Clay LOAM		3		
		4 4	1.5 S/10	22
	-15	3		
		4 4	1.5 S/10	21
576.3				
End of Boring	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/9/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Ford / Maue

SECTION 42-2 LOCATION NW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 50
Station 395+00
Offset 36.00ft LT
Ground Surface Elev. 591.3 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray Silt LOAM				
590.3				
Brown Silty CLAY		3		
		4	2.1	
		6	S/15	25
587.3				
Brown and Gray Silty Clay LOAM	-5	4		
		6	1.7	
		7	S/15	25
584.8				
Brown and Gray Silty CLAY		4		
		4	1.7	
		5	S/15	22
	-10	3		
		4	1.9	
580.3		5	S/15	21
Brown and Gray Clay LOAM		2		
		3	1.6	
		5	S/10	23
	-15	2		
		4	1.6	
575.3		6	S/20	19
End of Boring	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/12/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Larry Ford

SECTION 42-2 LOCATION NW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 51
Station 398+00
Offset 36.00ft RT
Ground Surface Elev. 572.2 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
			24	Gray SILT A-4(8) See Classification @ 0.5 ft
571.2				
	6			Brown Silty CLAY A-7-6(18) See Classification @ 3.0 ft
	7 10	5.8 S/5	16	
568.2				
-5	9			Gray and Brown Silty Clay LOAM A-6(11) See Classification @ 5.5 ft
	12 13	3.3 S/5	14	
565.7				
	5			Brown and Gray Clay LOAM
	7 10	2.8 S/15	18	
-10	6			
	7 10	2.8 S/10	19	
	4			
	7 8	1.9 S/5	17	
-15	2			
	4 5	1.8 S/10	17	
556.2				
				End of Boring
-20				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 7/29/03

ROUTE FAP 310 DESCRIPTION Delhi Bypass Mainline Culvert #2 LOGGED BY Mark Schreader

SECTION 42-2 LOCATION NW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. C-2-2
Station 400+58
Offset 141.70ft LT
Ground Surface Elev. 569.2 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Sandy LOAM		5		
		7 7	1.9 S/5	11
564.7	-5	8		
Brown SILT		10 12	0.2 S/5	7
562.2		5		
Brown Sandy LOAM		7 7	0.9 S/10	11
559.7	-10	13		
Brown Sandy Clay LOAM		22 26	4.2 S/15	10
		17		
		23 24	4.2 S/15	9
	-15	16		
		32 45	2.2 S/10	11
553.2				
End of Boring	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/17/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Ford / Anderson

SECTION 42-2 LOCATION NW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO. _____
Station _____

BORING NO. SB 52
Station 401+00
Offset 36.00ft RT
Ground Surface Elev. 577.2 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray Silt LOAM 576.7				
Brown Clay LOAM		5		
		5 8	3.9 S/10	15
	-5	5		
		9 11	3.7 S/5	14
571.2				
End of Boring	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 7/29/03

ROUTE FAP 310 DESCRIPTION Delhi Bypass Mainline Culvert #2 LOGGED BY Mark Schreader

SECTION 42-2 LOCATION NW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. C-2-1
Station 401+30
Offset 17.00ft LT
Ground Surface Elev. 576.0 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter 550.0 ft ▼
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Soil Description
				Brown Silty CLAY
	4			
	6	4.2	17	
	8	S/15		
-5	7			
	10	3.3	12	
	15	S/15		
569.0				
	9			Brown Sandy LOAM
	12	1.3	11	
	13	S/10		
-10	11			
	12	1.2	10	
	13	S/5		
564.0				
	12			Gray Sandy Clay LOAM
	19	6.6	10	
	25	S/10		
561.5				
-15	30			Brown Loamy SAND
	49		15	
	32	NC		
559.0				
	10			Gray Sandy Clay LOAM
	16	4.9	10	
	23	S/15		
-20	11			
	21	5.5	9	Gray Sandy Clay LOAM *(continued)*
	27	S/10		
	25			
	42	1.2	9	
	50	S/5		
551.5				
-25	11			Gray SAND with some Gravel
	34	1.9	10	See Gradation @ 30 ft
	50	S/5		
	50/5"			
	-		10	
	-	NC		
-30	47			
	50/2"	4.0	10	
	-	S/10		
	24			
-35	50/5.5"	7.7	10	
540.0	-	S/10		
				End of Boring
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 7/31/03

ROUTE FAP 310 DESCRIPTION Delhi Bypass Mainline Culvert #2 LOGGED BY Mark Schreader

SECTION 42-2 LOCATION NW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO. _____
Station _____

BORING NO. C-2-3
Station 401+80
Offset 127.50ft RT
Ground Surface Elev. 566.0 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty Clay LOAM			1.7	10
565.0				
Brown Silt LOAM			1.9	9
564.0				
Brown Sandy LOAM			2.1	9
562.5			NC	8
Brown SAND See Gradatiion @ 5 ft	-5		NC	8
560.0			NC	8
Gray Glacial TILL (Very Sandy)			4.0	8
558.5			NC	8
Gray Clay LOAM			4.2	
			NC	12
556.0	-10		4.5+	16
End of Hand Auger				
Pocket Penetrometer used for Qu	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation

Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/12/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Larry Ford

SECTION 42-2 LOCATION NW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO.
Station

BORING NO. SB 53
Station 404+00
Offset 36.00ft RT
Ground Surface Elev. 590.7 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray Silt LOAM				
589.7				
Brown Silty CLAY		4		
		5 8	3.1 S/10	26
	-5	4		
585.2		5	1.8	26
		7	S/10	25
Gray and Brown Silty Clay LOAM			1.5 S/15	
583.7		3		
Brown Silty Clay LOAM A-6(14) See Classification @ 10.5 ft		5 6	1.5 S/10	23
	-10	4		
579.7		5 6	2.0 S/10	21
Brown and Gray Clay LOAM		4		
		5 10	2.6 S/10	22
	-15	4		
574.7		6 6	1.8 S/10	18
End of Boring	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/12/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Larry Ford

SECTION 42-2 LOCATION NW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 54
Station 407+00
Offset 36.00ft LT
Ground Surface Elev. 588.2 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty CLAY		4		
		7	3.1	
584.7		10	S/10	24
Brown and Gray Silty Clay LOAM	-5	4		
		6	2.2	
		7	S/15	24
		3		
		5	1.4	
579.7		6	S/15	21
Brown and Gray Silty CLAY	-10	3		
		5	3.7	
577.2		10	S/10	22
End of Boring	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/17/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Ford / Anderson

SECTION 42-2 LOCATION NW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 55
Station 410+00
Offset 38.00ft RT
Ground Surface Elev. 591.8 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray Silt LOAM (Topsoil) 590.8				
Gray and Brown Silty CLAY		3		
		4 7	2.2 S/20	28
587.8				
Brown and Gray Silty Clay LOAM	-5	4		
		5 5	2.0 S/10	24
		2		
		4 5	1.3 S/20	21
	-10	2		
		4 5	1.3 S/20	22
580.8				
End of Boring	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 1/27/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Brent Maue

SECTION 42-2 LOCATION SW 1/4, SEC. 18, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 56
Station 413+00
Offset 38.00ft LT
Ground Surface Elev. 591.9 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter 585.4 ft ▼
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown and Gray Silty CLAY		3		
		6 5	1.7 S/15	
	-5	4		
586.9		4 4	1.9 S/15	
Gray Silty Clay LOAM	▼	3		
		3 4	1.5 S/15	
583.4				
End of Boring	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 1/27/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Brent Maue

SECTION 42-2 LOCATION SW 1/4, SEC. 18, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 57
Station 416+00
Offset 36.00ft RT
Ground Surface Elev. 595.2 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
Brown Silty CLAY				
	3			
	5	2.3		
	6	S/15		
-5	3			
589.7	4	1.4		
	4	S/15		
Brown Silty Clay LOAM				
	3			
	4	1.4		
	4	S/20		
586.2				
Brown Clay LOAM (Till)				
-10	3			
	4	1.6		
584.2	5	B		
End of Boring				
-15				
-20				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/20/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Brent Maue

SECTION 42-2 LOCATION SW 1/4, SEC. 18, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO.
Station

BORING NO. SB 58
Station 419+00
Offset 36.00ft LT
Ground Surface Elev. 594.2 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silt LOAM 593.7			1.5	
			2.0	
Brown Silty CLAY			3.0	
			3.1	
			2.5	
590.2				
Brown and Gray Silty CLAY			1.7	
	-5		1.9	
588.2				
End of Hand Auger				
Pocket Penetrometer used for Qu				
	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/20/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Brent Maue

SECTION 42-2 LOCATION SW 1/4, SEC. 18, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO. _____
Station _____

BORING NO. SB 59
Station 422+00
Offset 36.00ft RT
Ground Surface Elev. 587.4 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty CLAY A-7-6(18) See Classification @ 1.5 ft			2.0	28
			2.5	27
585.4				
Brown Silty Clay LOAM A-6(11) See Classification @ 5.5 ft			4.0	20
			4.5+	17
	-5		4.0	17
			4.0	19
581.4				
End of Hand Auger **Pocket Penetrometer used for Qu**	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 7/30/03

ROUTE FAP 310 DESCRIPTION Delhi Bypass Mainline Culvert #3 LOGGED BY Mark Schreader

SECTION 42-2 LOCATION SW 1/4, SEC. 18, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. C-3-1
Station 423+20
Offset 122.00ft RT
Ground Surface Elev. 581.2 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty Clay LOAM		1		
		2 4	0.8 S/20	22
	-5	1		
		1 2	0.3 S/20	30
		3		
		4 5	1.6 S/20	20
571.2	-10	2		
Brown Loamy SAND		1 1	NC	26
570.2				
End of Boring	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 7/30/03

ROUTE FAP 310 DESCRIPTION Delhi Bypass Mainline Culvert #3 LOGGED BY Mark Schreader

SECTION 42-2 LOCATION SW 1/4, SEC. 18, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO.
Station

BORING NO. C-3-3
Station 423+42
Offset 122.00ft LT
Ground Surface Elev. 575.6 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty LOAM			1.5	30
			1.0	29
	573.6			
Brown Silty Clay LOAM			1.25	23
			1.75	24
			1.75	23
	-5			
			1.5	22
	569.6			
End of Hand Auger				
Pocket Penetrometer used for Qu				
	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 7/30/03

ROUTE FAP 310 DESCRIPTION Delhi Bypass Mainline Culvert #3 LOGGED BY Mark Schreader

SECTION 42-2 LOCATION SW 1/4, SEC. 18, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. C-3-2
Station 423+67
Offset 0.00ft CL
Ground Surface Elev. 580.0 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter 566.5 ft ▼
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty CLAY		1		
		2 1	1.2 S/15	25
575.5				
Brown Silt LOAM	-5	1		
		2 1	0.7 S/20	25
573.0		2		
Brown Sandy Clay LOAM		4 4	1.3 S/20	19
	-10	0		
569.5		3 1	NC	22
Gray SAND with some Gravel See Gradation @ 11 ft				
568.0		7		
Gray-Brown Medium to Fine SAND See Gradation @ 14 ft ▼		15 25	NC	14
565.0	-15	10		
Brown Silty Clay LOAM		16 28	6.8 S/20	14
		10		
		20 22	4.9 S/20	17
	-20	7		

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty Clay LOAM *(continued)*		16 24	5.2 S/20	16
		9		
		16 25	5.9 S/20	14
	-25	9		
		33 28	4.2 S/20	16
		10		
		18 25	2.9 S/15	20
551.5				
End of Boring	-30			
	-35			
	-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 2/7/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Mark Schreader

SECTION 42-2 LOCATION SW 1/4, SEC. 18, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 60
Station 424+00
Offset 36.00ft LT
Ground Surface Elev. 580.6 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Clay LOAM A-6(13) See Classification @ 5.5 ft	3		
	4 5	2.0 S/15	18
-5	4		
	5 7	1.3 S/20	16
574.1			
Brown LOAM (Till) A-4(3) See Classification @ 10.5 ft	17		
	44 46	4.5 S/10	8
-10	17		
	23 27	4.5 S/10	7
569.6			
End of Boring			
-15			
-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/13/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Larry Ford

SECTION 42-2 LOCATION SE 1/4, SEC. 13, TWP. 7N, RNG. 11 W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO. _____
Station _____

BORING NO. SB 61
Station 426+00
Offset 36.00ft RT
Ground Surface Elev. 585.3 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty CLAY			1.5	
			2.0	
			2.2	
582.3				
Brown and Gray Clay LOAM			2.7	
			3.0	
	-5			
			2.2	
579.3				
End of Hand Auger				
Pocket Penetrometer used for Qu				
	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/17/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Ford / Anderson

SECTION 42-2 LOCATION SE 1/4, SEC. 13, TWP. 7N, RNG. 11W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 62
Station 429+00
Offset 36.00ft LT
Ground Surface Elev. 595.2 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray and Brown Silty CLAY		3		
		5 6	2.0 S/10	28
591.2				
Brown and Gray Silty Clay LOAM	-5	4		
		5 7	1.4 S/10	26
588.7				
Gray and Brown Silty CLAY		3		
		4 5	1.5 S/10	21
585.7				
	-10	3		
Brown and Gray Clay LOAM		5 6	2.1 S/20	20
584.2				
End of Boring				
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/13/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Larry Ford

SECTION 42-2 LOCATION SE 1/4, SEC. 13, TWP. 7N, RNG. 11W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO. _____
Station _____

BORING NO. SB 63
Station 432+00
Offset 36.00ft RT
Ground Surface Elev. 594.9 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray Silt LOAM			1.5	
593.4			2.0	
			2.5	
Brown Silty CLAY			3.0	
			2.5	
			2.8	
589.9	-5			
Brown and Gray Clay LOAM			2.6	
588.9				
End of Hand Auger				
Pocket Penetrometer used for Qu				
	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/17/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Ford / Anderson

SECTION 42-2 LOCATION SE 1/4, SEC. 13, TWP. 7N, RNG. 11W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 64
Station 434+00
Offset 36.00ft LT
Ground Surface Elev. 600.2 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty CLAY		4		
		6 8	4.4 S/10	22
596.2				
Brown Silty Clay LOAM	-5	6		
		6 5	1.7 S/10	24
		2		
		3 4	1.0 B	23
	-10	3		
589.7		3	0.9	22
		3	S/20	22
Brown Clay LOAM		4	1.1 S/15	
		4 6	1.8 S/20	20
	-15	4		
		6 8	1.8 S/10	20
584.2				
End of Boring	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/17/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Ford / Anderson

SECTION 42-2 LOCATION SE 1/4, SEC. 13, TWP. 7N, RNG. 11W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 65
Station 435+84
Offset 41.00ft RT
Ground Surface Elev. 582.0 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Clay LOAM				
		4		
		5	5.8	
		9	S/5	14
	-5	5		
		9	5.0	
		13	S/5	13
		9		
		11	3.3	
		20	S/5	12
573.0				
Brown Silt LOAM	-10	5		
		7		
571.0		9	NC	6
End of Boring	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 10/27/03

ROUTE FAP 310 DESCRIPTION Delhi Bypass Mainline Box Culvert LOGGED BY Mark Schreader

SECTION 42-2 LOCATION SE 1/4, SEC. 13, TWP. 7N, RNG. 11W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. BXC-2-1
Station 436+95
Offset 145.00ft LT
Ground Surface Elev. 552.0 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Sandy LOAM See Gradation @ 2 ft		3		
		5	NC	6
549.0		7	1.3	9
Brown Silty Clay LOAM			S/10	
	-5	6		
		12	4.2	15
		12	S/10	
		4		
		9	4.6	13
		13	S/10	
	-10	5		
		9	3.1	16
541.0		13	S/20	
End of Boring				
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 10/29/03

ROUTE FAP 310 DESCRIPTION Delhi Bypass Mainline Box Culvert LOGGED BY Mark Schreader

SECTION 42-2 LOCATION SE 1/4, SEC. 13, TWP. 7N, RNG. 11W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. BXC-2-2
Station 437+51
Offset 96.30ft LT
Ground Surface Elev. 555.4 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter 538.4 ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Soil Description
				Brown Silty Clay LOAM
	3			
552.4	4	1.6	17	
	5	S/20	12	Brown Sandy LOAM
		1.5		See Gradation @ 3.5 ft
550.9		S/10		
-5	3			
	5	3.3	15	Brown Silty CLAY
	7	S/5		
	5			
	11	6.8	14	
	15	S/15		
-10	6			
	13	6.7	11	
	15	S/20		
543.9				
	8			Brown Sandy LOAM
	13		14	See Gradation @ 15 ft
	18	NC		
-15	6			
	9		17	
	12	NC		
▼	6			
537.4	10	NC	16	
	12	3.4	17	
		S/20		Gray Silty CLAY
-20	5			
				Gray Silty CLAY *(continued)*
534.4	13	3.9	17	
	17	S/20		
				End of Boring
-25				
-30				
-35				
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 10/29/03

ROUTE FAP 310 DESCRIPTION Delhi Bypass Mainline Box Culvert LOGGED BY Mark Schreader

SECTION 42-2 LOCATION SE 1/4, SEC. 13, TWP. 7N, RNG. 11W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. BXC-2-3
Station 438+08
Offset 5.00ft LT
Ground Surface Elev. 553.5 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Soil Description
				Brown Sandy LOAM with Gravel See Gradation @ 2.5 ft
	5			
	7 7	1.5 S/20	11	
549.0				
-5	5			
	11 14	NC	7	Brown Medium to Fine SAND See Gradation @ 6 ft
546.5				
	5			
	8 9	4.6 S/20	16	Gray Silty CLAY
-10	5			
	9 3	4.2 S/15	16	
	9			
	12 14	4.2 S/20	15	
-15	4			
	10 10	2.9 S/20	14	Gravel
	5			
	11 13	4.0 S/20	13	
-20	5			
	9 13	2.3 S/20	17	Gray Silty CLAY *(continued)*
532.5				
				End of Boring
-25				
-30				
-35				
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 10/27/03

ROUTE FAP 310 DESCRIPTION Delhi Bypass Mainline Box Culvert LOGGED BY Mark Schreader

SECTION 42-2 LOCATION SE 1/4, SEC. 13, TWP. 7N, RNG. 11W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. BXC-2-4
Station 438+20
Offset 82.00ft RT
Ground Surface Elev. 555.5 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				Brown SAND with some Gravel See Gradation @ 2.5 ft
	6			
	6 7	NC	7	
552.0				
				Brown Silty Clay TILL
-5	5			
	6 10	3.9 S/20	14	
	6			
	11 13	4.4 S/10	14	
-10	4			
	7 12	4.5 S/15	15	
	6			
	8 9	3.6 S/20	18	Gravel
-15	3			
	8 10	3.3 S/20	17	
	5			
	8 19	3.3 S/20	17	
-20	4			
				Brown Silty Clay TILL *(continued)*
534.5	7 11	2.9 S/20	17	
				End of Boring
-25				
-30				
-35				
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 10/27/03

ROUTE FAP 310 DESCRIPTION Delhi Bypass Mainline Box Culvert LOGGED BY Mark Schreader

SECTION 42-2 LOCATION SE 1/4, SEC. 13, TWP. 7N, RNG. 11W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. BXC-2-5
Station 438+80
Offset 123.00ft RT.
Ground Surface Elev. 554.5 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				Brown Silty Clay TILL
	5			
	8 8	4.8 S/15	13	
-5	6			
	9 14	3.7 S/5	11	
	4			
	10 11	5.9 S/10	15	
-10	3			
	8 11	3.4 S/20	16	
543.5				
				End of Boring
-15				
-20				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/20/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Brent Maue

SECTION 42-2 LOCATION SE 1/4, SEC. 13, TWP. 7N, RNG. 11W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO. _____
Station _____

BORING NO. SB 67
Station 440+00
Offset 36.00ft RT
Ground Surface Elev. 587.5 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown CLAY A-6(12) See Classification @ 1.5 ft			1.0	28
			1.6	27
			4.3	18
584.5				
Brown Silty Clay LOAM A-6(12) See Classification @ 5.5 ft			4.1	16
	-5		4.5+	10
			4.5+	14
581.5				
End of Hand Auger **Pocket Penetrometer used for Qu**	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 12/20/02

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Brent Maue

SECTION 42-2 LOCATION SE 1/4, SEC. 13, TWP. 7N, RNG. 11W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO. _____
Station _____

BORING NO. SB 68
Station 443+00
Offset 36.00ft LT
Ground Surface Elev. 594.4 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty Clay LOAM			1.8	
			2.0	
592.4				
Brown Silty CLAY			4.2	
			4.5+	
			4.2	
589.4	-5			
Brown Silty Clay LOAM			4.0	
588.4				
Brown Clay LOAM			4.1	
587.4				
End of Hand Auger				
Pocket Penetrometer used for Qu				
	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 1/27/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Brent Maue

SECTION 42-2 LOCATION SE 1/4, SEC. 13, TWP. 7N, RNG. 11W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 69
Station 446+00
Offset 36.00ft RT
Ground Surface Elev. 605.6 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty CLAY		2		
		4 6	2.2 S/15	
	-5	3		
		3 4	1.6 B	
	599.1			
Gray Silt LOAM		4		
		5 6	2.6 S/15	
	596.6			
Gray Clay LOAM (Till)	-10	3		
		4 5	2.0 B	
		3		
		3 6	2.3 S/10	
	-15	3		
	590.1	3	1.9	
Brown Sandy CLAY	589.6	4	S/15	
			0.9 E	
End of Boring				
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 1/27/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Brent Maue

SECTION 42-2 LOCATION SE 1/4, SEC. 13, TWP. 7N, RNG. 11W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 70
Station 449+00
Offset 36.00ft LT
Ground Surface Elev. 609.2 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty CLAY		3		
		4 5	2.0 S/10	
	-5	3		
		4 5	1.6 S/20	
602.7				
Brown and Gray Silty Clay LOAM		3		
		4 4	2.1 S/20	
600.2				
Brown and Gray Clay LOAM (Till)	-10	3		
		4 4	2.2 B	
		4		
		5 7	3.1 S/15	
	-15	4		
		6 9	2.9 S/10	
593.2				
End of Boring	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 2/7/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Mark Schreader

SECTION 42-2 LOCATION NW 1/4, SEC. 13, TWP. 7N, RNG. 11W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 71
Station 452+00
Offset 36.00ft RT
Ground Surface Elev. 614.1 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter 595.6 ft ▼
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Soil Description
				Brown Silty CLAY
	2			
	4	2.2		
	6	S/20		
-5	3			
	3	1.5		
	3	S/20		
607.1				
	3			
				Brown Silty LOAM
	3	1.1		
	4	S/20		
-10	3			
	4	1.6		
	5	S/20		
602.1				
	4			
				Brown Sandy LOAM
	5	1.9		
	7	S/15		
-15	4			
	4	1.4		
	5	S/15		
597.1				
	3			
				Brown Loamy SAND
	9	1.5		
▼	15	P		
594.6				
-20	23			Brown Clay LOAM (Till)
-25	45	4.5		Brown Clay LOAM (Till) *(continued)*
593.1	50	S/5		
				End of Boring
-30				
-35				
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 2/10/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Mark Schreader

SECTION 42-2 LOCATION NW 1/4, SEC. 13, TWP. 7N, RNG. 11W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 72
Station 454+00
Offset 2.00ft RT
Ground Surface Elev. 620.0 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				Brown Silty Clay LOAM A-7-6(15) See Classification @ 5.5 ft
	3			
	5	1.8		
	5	S/20	27	
-5	3			
	4	1.6		
	5	S/20	26	
613.0				
	4			Brown Loamy SILT
	4	1.8		
	6	S/20	21	
-10	3			
	5	1.8		
	5	S/20	20	
608.0				
	3			Brown Sandy Clay LOAM A-6(4) See Classification @ 18.0 ft
	6	2.6		
	8	S/20	22	
-15	5			
	6	0.7		
	6	S/10	19	
603.0				
	1			Brown Loamy SAND
	2			
	3	NC	26	
600.5				
-20	10			Brown Sandy LOAM (Till)
	23	4.5		Brown Sandy LOAM (Till) *(continued)* A-6(3) See Classification @ 28.0 ft
	33	P	10	
	19			
	31	4.5		
	47	P	10	
-25	12			
	18	4.5		
	23	P	16	
	9			
	11	2.2		
591.5	15	S/20	14	
				End of Boring
-30				
-35				
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 2/21/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Mark Schreader

SECTION 42-2 LOCATION NW 1/4, SEC. 13, TWP. 7N, RNG. 11W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 73
Station 456+00
Offset 26.00ft LT
Ground Surface Elev. 616.0 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Soil Description
				Brown Silty Clay LOAM
	3			
	4	1.1		
	3	S/20		
-5	3			
	4	1.4		
	5	S/20		
609.0				
	3			
				Brown Clay LOAM (Till)
	5	2.4		
	6	S/20		
-10	4			
	6	2.2		
	9	S/15		
	2			
	5	1.5		
	8	S/20		
-15	10			
	14	4.5		
	23	S/10		
	11			
	21	4.5		
	30	S/10		
-20	8			
	15	4.5		Brown Clay LOAM (Till) *(continued)*
595.0	22	S/10		
				End of Boring
-25				
-30				
-35				
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 2/21/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Mark Schreader

SECTION 42-2 LOCATION NW 1/4, SEC. 13, TWP. 7N, RNG. 11W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 74
Station 458+00
Offset 31.00ft RT
Ground Surface Elev. 615.0 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				Brown Clay LOAM
	3			
	4 6	1.8 S/10		
-5	5			
	4 5	2.0 P		
	2			
	1 3	0.6 S/20		
-10	3			
	6 7	1.9 S/20		
	4			
	5 7	2.5 S/10		
-15	3			
	3 10	3.6 S/20		
	3			
596.5	16 20	4.5 S/15		
				End of Boring
-20				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 1/15/02

ROUTE FAP 310 DESCRIPTION US 67 over Unnamed Drainage Ditch LOGGED BY M. Tappan

SECTION 42-2 LOCATION NW 1/4, SEC. 13, TWP. 7N, RNG. 11W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. BX 10
Station 460+95
Offset 112.00ft LT
Ground Surface Elev. 593.9 ft

Surface Water Elev. 590.8 ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After - Hrs. Plugged ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray and Brown Moist Clay LOAM		1		
	-5	2 3	0.6 B	15
	588.4			
Gray and Yellowish Brown Moist Very Weatherered Clayey SHALE		2		
		7 3	4.0 P	15
	586.4			
Brown and Dark Gray to Black Moist Weathered Clayey SHALE		3		
		10 12	4.5+ P	20
	583.9 -10			
Brown and Dark Gray Moist Clayey SHALE (Iron Oxidized)		1		
		10 11	4.5+ P	16
	581.4			
Gray Dry Fissle Clayey SHALE		7		
		16 25	8.0 E	12
	-15			
		13		
		55 46/4"	10.0+ E	10
	-20			

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray Dry Fissle Clayey SHALE *(continued)*		9		
		53 47/3"	10.0+ E	10
	568.9 -25			
End of Boring	-30			
	-35			
	-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 1/15/02

ROUTE FAP 310 DESCRIPTION US 67 over Unnamed Drainage Ditch LOGGED BY M. Tappan

SECTION 42-2 LOCATION NW 1/4, SEC. 13, TWP. 7N, RNG. 11W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. BX-9
Station 461+05
Offset 20.00ft LT
Ground Surface Elev. 595.2 ft

Surface Water Elev. 590.8 ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After - Hrs. Plugged ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray & Brown Moist CLAY LOAM		1		
	-5	3 5	1.0 B	19
589.2				
Tan & Gray Moist Shaley CLAY		1		
		3 4	1.5 S/10	22
585.7		1		
Tan & Yellowish Gray to Black Moist Weathered Clayey SHALE	-10	6 6	1.5 P	19
584.7				
Clayey SHALE (iron oxidized)		2		
		6 8	4.5	24
582.2				
Gray Dry Fissile Clayey SHALE		7		
	-15	17 41	9.5 E	13
		10		
		38 62/4"	10.0+ E	10
		11		
	-20	51	10.0+	11
Gray Dry Fissile Clayey SHALE *(continued)*		49/3"	E	
		12		
	-25	74 26/1"	10.0+ E	9
569.7				
End of Boring	-30			
	-35			
	-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 3/10/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Mark Schreader

SECTION 42-2 LOCATION NW 1/4, SEC. 13, TWP. 7N, RNG. 11W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 75
Station 464+00
Offset 36.00ft LT
Ground Surface Elev. 613.31 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
	3			Brown Silty CLAY
	3	1.7		
	3	P		
-5	3			
	4	1.1		
	4	S/20		
606.3				
	3			Brown Sandy CLAY
	5	2.0		
	7	P		
-10	4			
	6	2.6		
602.3	8	B/20		
				End of Boring
-15				
-20				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 3/10/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Bypass Mainline LOGGED BY Mark Schreader

SECTION 42-2 LOCATION NW 1/4, SEC. 13, TWP. 7N, RNG. 11W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 76
Station 467+00
Offset 36.00ft LT
Ground Surface Elev. 618.92 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty CLAY		3		
		3 4	1.7 P	
	-5	4		
		4 5	1.3 S/20	
611.9		4		
Brown Sandy CLAY		5 8	1.9 S/20	
610.4				
End of Boring	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

Boring Logs

Service Road

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 3/7/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Service Road LOGGED BY Mark Schreader

SECTION 42-2 LOCATION NW 1/4, SEC. 30, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 77
Station 101+75
Offset 57.00ft RT
Ground Surface Elev. 554.55 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty Clay LOAM A-6(11) See Classification @ 2.5 ft		2		
		3 3	1.5 P	18
550.1	-5	2		
Brown Silty Clay LOAM (Till) A-6(10) See Classification @ 10.0 ft		3 5	1.3 S/20	21
		6		
		7 10	1.3 S/20	13
	-10	15		
		22 31	NS	-
		10		
		39 31	4.5 P	11
541.1				
End of Boring	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

Boring Logs

US 67 Connector

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 3/7/03

ROUTE FAP 310 DESCRIPTION Soil Survey on US 67 Connector LOGGED BY Mark Schreader

SECTION 42-2 LOCATION SW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO.
Station

BORING NO. SB 78
Station 24+50
Offset 0.00ft CL
Ground Surface Elev. 565.8 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty LOAM			0.6	
			0.6	
			1.0	
			1.2	
561.8				
Brown Sandy LOAM	-5		1.5	
			1.5	
559.8				
End of Hand Auger				
Pocket Penetrometer used for Qu	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 8/11/03

ROUTE FAP 310 DESCRIPTION Soil Survey on US 67 Connector LOGGED BY Mark Schreader

SECTION 42-2 LOCATION SW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 79
Station 26+65
Offset 25.00ft LT
Ground Surface Elev. 552.1 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter 541.6 ft ▼
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray Silty Clay LOAM		0		
		1	NC	27
		1		
547.6				
	-5	2		
Gray Clay LOAM		3	1.1	21
		4	S/20	
		1		
544.1		2	0.5	19
		3	S/10	21
Gray Loamy SAND			NC	
	-10	18		
541.6 ▼		16	NC	17
		27	4.0	12
Gray Clay LOAM			P	
		6		
		18	7.5	12
		25	S/20	
	-15	13		
		20	4.4	12
536.1		21	S/10	
End of Boring				
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 8/14/03

ROUTE FAP 310 DESCRIPTION Soil Survey on US 67 Connector LOGGED BY Mark Schreader

SECTION 42-2 LOCATION NW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO.
Station

BORING NO. SB 80
Station 28+50
Offset 0.00ft CL
Ground Surface Elev. 563.2 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty LOAM			2.5	
			2.0	
			3.0	
560.2				
Brown Silty Clay LOAM			3.5	
	-5		2.5	
			3.0	
557.2				
End of Hand Auger				
Pocket Penetrometer used for Qu	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

Boring Logs

Delhi Road

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 3/7/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Road LOGGED BY Mark Schreader

SECTION 42-2 LOCATION NW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO.
Station

BORING NO. SB 81
Station 40+24
Offset 10.00ft RT
Ground Surface Elev. 588.6 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty LOAM			1.5	
587.6				
Brown Silty CLAY			2.5	
			2.0	
			1.7	
	-5		1.5	
			1.7	
582.6				
End of Hand Auger				
Pocket Penetrometer used for Qu	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 3/10/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Road LOGGED BY Mark Schreader

SECTION 42-2 LOCATION NW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO.
Station

BORING NO. SB 82
Station 43+00
Offset 48.00ft RT
Ground Surface Elev. 589.5 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silt LOAM 588.5			0.7	
Brown Silty CLAY			2.0	
			2.2	
			2.0	
	-5		1.5	
583.5			1.2	
End of Hand Auger				
Pocket Penetrometer used for Qu	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 3/10/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Road LOGGED BY Mark Schreader

SECTION 42-2 LOCATION NW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO.
Station

BORING NO. SB 83
Station 46+00
Offset 8.00ft LT
Ground Surface Elev. 588.7 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		1.5	
Brown Silty CLAY		1.7	
		1.7	
		2.0	
-5		2.0	
582.7		1.7	
End of Hand Auger			
Pocket Penetrometer used for Qu			
-10			
-15			
-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 2/10/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Road LOGGED BY Mark Schreader

SECTION 42-2 LOCATION NW 1/4, SEC. 19, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 84
Station 49+00
Offset 18.00ft RT
Ground Surface Elev. 585.8 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				Brown Loamy SILT
	3			
	4	1.6		
	5	S/20		
-5	3			
	4	1.6		
	5	S/20		
	3			
	3	1.3		
	5	S/20		
-10	4			
	4	1.7		
574.8	6	S/15		
				End of Boring
-15				
-20				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 2/10/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Road LOGGED BY Mark Schreader

SECTION 42-2 LOCATION SW 1/4, SEC. 18, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 85
Station 52+00
Offset 50.00ft LT
Ground Surface Elev. 581.3 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty CLAY		2		
		4 5	1.8 S/20	
576.8	-5	3		
Brown Clayey SILT		3 5	1.3 S/20	
		3		
		2 4	0.8 S/20	
	-10	3		
570.3		3 4	1.3 S/20	
End of Boring	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 3/7/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Road LOGGED BY Mark Schreader

SECTION 42-2 LOCATION SW 1/4, SEC. 18, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO.
Station

BORING NO. SB 86
Station 55+00
Offset 80.00ft LT
Ground Surface Elev. 587.8 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		2.0	23
		2.0	23
		1.7	24
		2.0	22
		2.0	22
-5		2.5	23

Brown Silty Clay LOAM
A-6(11)
See Classification @ 2.5 ft

581.8

End of Hand Auger

Pocket Penetrometer used for Qu

-10

-15

-20

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 3/10/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Road LOGGED BY Mark Schreader

SECTION 42-2 LOCATION SW 1/4, SEC. 18, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 87
Station 58+00
Offset 70.00ft LT
Ground Surface Elev. 586.1 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
	4		
	5 6	1.9 S/20	
-5	3		
	5 5	1.7 B/20	
579.1			
	3		
Brown Sandy LOAM	6 8	2.6 S/20	
-10	4		
	5 8	2.7 S/15	
575.1			
End of Boring			
-15			
-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 3/10/03

ROUTE FAP 310 DESCRIPTION Soil Survey on Delhi Road LOGGED BY Mark Schreader

SECTION 42-2 LOCATION SW 1/4, SEC. 18, TWP. 7N, RNG. 10W, 3 PM

COUNTY Jersey DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____
Station _____

BORING NO. SB 88
Station 61+00
Offset 63.00ft LT
Ground Surface Elev. 588.6 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter DRY ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Silty CLAY			
	3		
	5	1.7	
	5	S/20	
-5	5		
	6	1.7	
	7	S/20	
	4		
	6	2.4	
	7	S/20	
-10	4		
	5	2.6	
577.6	6	S/20	
End of Boring			
-15			
-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Appendix C

Soil Test Data Sheets

Soil Test Data Sheets

Station 333+19.67 to Station 463+50

STATE OF ILLINOIS
Department of Transportation

SOIL TEST DATA

STATE JOB NUMBER D-98-034-00 ROUTE FAP 310 PROJECT US 67 (Delhi Bypass)

SECTION 42-2 COUNTY Jersey

BORING NO.		SB 31	SB 31	SB 31	SB 34	SB 36
LAB. NO.						
STATION		342+79	342+79	342+79	349+00	353+00
LOCATION		36 ft LT	36 ft LT	36 ft LT	10 ft RT	36 ft LT
DEPTH		0 - 5 ft	5 - 9 ft	9 - 21 ft	0 - 3.5 ft	0 - 1 ft
HRB CLASSIFICATION & GROUP INDEX		A-7-6(17)	A-6(10)	A-6(11)	A-6(9)	A-4(8)
GRAIN SIZE CLASSIFICATION		Silt	Silt	Silty Loam	Silt	Silt
GRADUATION-PASSING 1" SIEVE	%	100.00	100.00	100.00	100.00	100.00
" 3/4"	%	100.00	100.00	100.00	100.00	100.00
" 1/2"	%	100.00	100.00	99.17	100.00	100.00
" NO. 4	%	100.00	100.00	94.58	99.88	100.00
" NO. 10	%	100.00	99.93	90.32	98.78	100.00
" NO. 40	%	100.00	99.93	89.92	98.31	99.92
" NO. 100	%	99.98	99.25	88.65	96.25	99.09
" NO. 200	%	99.95	98.98	88.13	95.55	98.46
SAND	%	0.1	1.0	6.4	4.3	1.5
SILT	%	86.5	89.1	77.3	82.8	82.1
CLAY	%	13.5	9.9	10.9	12.7	16.3
LIQUID LIMIT	%	45	29	29	27	27
PLASTICITY INDEX	%	30	15	18	13	6
BEARING RATIO	%					
STANDARD DRY DENSITY AASHTO T99	%					
OPTIMUM MOISTURE	%					
REMARKS:				**5.4% Gravel in Sample**	**0.1% Gravel in Sample**	

STATE OF ILLINOIS
Department of Transportation

SOIL TEST DATA

STATE JOB NUMBER D-98-034-00 ROUTE FAP 310 PROJECT US 67 (Delhi Bypass)

SECTION 42-2 COUNTY Jersey

BORING NO.		SB 36	SB 36	SB 37	SB 44	SB 44
LAB. NO.						
STATION		353+00	353+00	356+00	377+00	377+00
LOCATION		36 ft LT	36 ft LT	36 ft RT	36 ft LT	36 ft LT
DEPTH		1 - 4 ft	4 - 6 ft	3 - 8 ft	0 - 1.5 ft	1.5 - 4 ft
HRB CLASSIFICATION & GROUP INDEX		A-6(14)	A-6(11)	A-6(9)	A-4(8)	A-7-6(19)
GRAIN SIZE CLASSIFICATION		Silty Clay Loam	Silty Clay Loam	Clay Loam	Silt	Silty Clay
GRADUATION-PASSING 1" SIEVE	%	100.00	100.00	100.00	100.00	100.00
" 3/4"	%	100.00	100.00	100.00	100.00	100.00
" 1/2"	%	100.00	100.00	100.00	100.00	100.00
" NO. 4	%	100.00	100.00	99.06	100.00	100.00
" NO. 10	%	100.00	100.00	93.07	99.94	100.00
" NO. 40	%	99.90	99.97	84.91	99.50	99.94
" NO. 100	%	99.67	99.65	63.83	98.63	98.59
" NO. 200	%	99.47	99.43	55.59	98.20	97.68
SAND	%	0.5	0.6	43.2	1.8	2.3
SILT	%	69.7	77.6	34.4	85.7	57.7
CLAY	%	29.8	21.8	21.5	12.5	40.0
LIQUID LIMIT	%	40	31	35	24	54
PLASTICITY INDEX	%	24	17	23	4	37
BEARING RATIO	%					
STANDARD DRY DENSITY AASHTO T99	%					
OPTIMUM MOISTURE	%					
REMARKS:				**0.9% Gravel in Sample**		

STATE OF ILLINOIS
Department of Transportation

SOIL TEST DATA

STATE JOB NUMBER D-98-034-00 ROUTE FAP 310 PROJECT US 67 (Delhi Bypass)

SECTION 42-2 COUNTY Jersey

BORING NO.		SB 44	SB 51	SB 51	SB 51	SB 53
LAB. NO.						
STATION		377+00	398+00	398+00	398+00	404+00
LOCATION		36 ft LT	36 ft RT	36 ft RT	36 ft RT	36 ft RT
DEPTH		4 - 6 ft	0 - 1 ft	1 - 4 ft	4 - 6.5 ft	7 - 11 ft
HRB CLASSIFICATION & GROUP INDEX		A-6(10)	A-4(8)	A-7-6(18)	A-6(11)	A-6(14)
GRAIN SIZE CLASSIFICATION		Silty Clay Loam	Silt	Silty Clay	Silty Clay Loam	Silty Clay Loam
GRADUATION-PASSING 1" SIEVE	%	100.00	100.00	100.00	100.00	100.00
" 3/4"	%	100.00	100.00	100.00	100.00	100.00
" 1/2"	%	100.00	100.00	100.00	100.00	100.00
" NO. 4	%	100.00	100.00	100.00	100.00	100.00
" NO. 10	%	100.00	100.00	100.00	100.00	99.76
" NO. 40	%	99.98	99.30	99.97	99.97	98.80
" NO. 100	%	99.95	99.16	99.76	99.39	94.74
" NO. 200	%	99.90	98.66	99.54	99.06	92.86
SAND	%	0.1	1.3	0.5	0.9	7.1
SILT	%	79.2	81.3	68.3	78.4	68.9
CLAY	%	20.7	17.3	31.3	20.6	24.0
LIQUID LIMIT	%	33	34	50	34	38
PLASTICITY INDEX	%	16	10	35	17	24
BEARING RATIO	%					
STANDARD DRY DENSITY AASHTO T99	%					
OPTIMUM MOISTURE	%					

REMARKS:

STATE OF ILLINOIS
Department of Transportation

SOIL TEST DATA

STATE JOB NUMBER D-98-034-00 ROUTE FAP 310 PROJECT US 67 (Delhi Bypass)

SECTION 42-2 COUNTY Jersey

BORING NO.		SB 59	SB 59	SB 60	SB 60	SB 67
LAB. NO.						
STATION		422+00	422+00	424+00	424+00	440+00
LOCATION		36 ft RT	36 ft RT	36 ft LT	36 ft LT	36 ft RT
DEPTH		0 - 2 ft	2 - 6 ft	0 - 6.5 ft	6.5 - 11 ft	0 - 3 ft
HRB CLASSIFICATION & GROUP INDEX		A-7-6(18)	A-6(11)	A-6(13)	A-4(3)	A-6(12)
GRAIN SIZE CLASSIFICATION		Silty Clay	Silty Clay Loam	Clay Loam	Loam	Clay
GRADUATION-PASSING 1" SIEVE	%	100.00	100.00	100.00	100.00	100.00
" 3/4"	%	100.00	100.00	100.00	100.00	100.00
" 1/2"	%	100.00	100.00	100.00	100.00	100.00
" NO. 4	%	100.00	100.00	98.85	96.68	100.00
" NO. 10	%	100.00	99.68	96.38	91.16	100.00
" NO. 40	%	99.61	99.66	88.16	73.24	96.42
" NO. 100	%	96.40	99.63	72.45	56.85	84.55
" NO. 200	%	95.01	99.57	65.53	48.95	79.58
SAND	%	5.0	0.4	33.3	47.7	20.4
SILT	%	61.2	76.2	36.7	35.6	48.8
CLAY	%	33.8	23.4	28.8	13.3	30.8
LIQUID LIMIT	%	48	32	38	19	36
PLASTICITY INDEX	%	33	17	26	10	20
BEARING RATIO	%					
STANDARD DRY DENSITY AASHTO T99	%					
OPTIMUM MOISTURE	%					
REMARKS:				**1.1% Gravel in Sample**	**3.3% Gravel in Sample**	

STATE OF ILLINOIS
Department of Transportation

SOIL TEST DATA

STATE JOB NUMBER D-98-034-00 ROUTE FAP 310 PROJECT US 67 (Delhi Bypass)

SECTION 42-2 COUNTY Jersey

BORING NO.		SB 67	SB 72	SB 72	SB 72	
LAB. NO.						
STATION		440+00	454+00	454+00	454+00	
LOCATION		36 ft RT	2 ft RT	2 ft RT	2 ft RT	
DEPTH		3 - 6 ft	0 - 7 ft	12 - 17 ft	19.5 - 28.5 ft	
HRB CLASSIFICATION & GROUP INDEX		A-6(12)	A-7-6(15)	A-6(4)	A-6(3)	
GRAIN SIZE CLASSIFICATION		Silty Clay Loam	Silty Clay Loam	Sandy Clay Loam	Sandy Loam	
GRADUATION-PASSING 1" SIEVE	%	100.00	100.00	100.00	100.00	
" 3/4"	%	100.00	100.00	100.00	100.00	
" 1/2"	%	100.00	100.00	99.26	99.51	
" NO. 4	%	99.66	100.00	92.84	97.52	
" NO. 10	%	99.10	100.00	86.19	92.21	
" NO. 40	%	98.77	99.87	74.73	78.39	
" NO. 100	%	98.18	98.87	52.24	59.02	
" NO. 200	%	97.75	98.39	42.94	50.05	
SAND	%	1.9	1.6	49.9	47.5	
SILT	%	74.3	70.6	22.0	35.4	
CLAY	%	23.4	27.8	21.0	14.6	
LIQUID LIMIT	%	32	41	30	31	
PLASTICITY INDEX	%	19	26	20	18	
BEARING RATIO	%					
STANDARD DRY DENSITY AASHTO T99	%					
OPTIMUM MOISTURE	%					
REMARKS:		**0.3% Gravel in Sample**		**7.2% Gravel in Sample**	**2.5% Gravel in Sample**	

Soil Test Data Sheets

Service Road

STATE OF ILLINOIS
Department of Transportation

SOIL TEST DATA

STATE JOB NUMBER D-98-034-00 ROUTE FAP 310 PROJECT Service Road

SECTION 42-2 COUNTY Jersey

BORING NO.		SB 77	SB 77			
LAB. NO.						
STATION		101+75	101+75			
LOCATION		57 ft RT	57 ft RT			
DEPTH		0 - 4.5 ft	4.5 - 13.5 ft			
HRB CLASSIFICATION & GROUP INDEX		A-6(11)	A-6(10)			
GRAIN SIZE CLASSIFICATION		Silty Clay Loam	Silty Clay Loam			
GRADUATION-PASSING 1" SIEVE	%	100.00	100.00			
" 3/4"	%	100.00	100.00			
" 1/2"	%	100.00	100.00			
" NO. 4	%	97.85	98.70			
" NO. 10	%	94.23	94.96			
" NO. 40	%	93.42	94.15			
" NO. 100	%	91.55	92.46			
" NO. 200	%	90.75	91.72			
SAND	%	7.1	7.0			
SILT	%	66.0	67.7			
CLAY	%	24.7	24.1			
LIQUID LIMIT	%	31	28			
PLASTICITY INDEX	%	18	16			
BEARING RATIO	%					
STANDARD DRY DENSITY AASHTO T99	%					
OPTIMUM MOISTURE	%					
REMARKS:		**2.1% Gravel in Sample**	**1.3% Gravel in Sample**			

Soil Test Data Sheets

Delhi Road

STATE OF ILLINOIS
Department of Transportation

SOIL TEST DATA

STATE JOB NUMBER D-98-034-00 ROUTE FAP 310 PROJECT Delhi Road

SECTION 42-2 COUNTY Jersey

BORING NO.		SB 86				
LAB. NO.						
STATION		55+00				
LOCATION		80 ft LT				
DEPTH		0 - 6 ft				
HRB CLASSIFICATION & GROUP INDEX		A-6(11)				
GRAIN SIZE CLASSIFICATION		Silty Clay Loam				
GRADUATION-PASSING 1" SIEVE	%	100.00				
" 3/4"	%	100.00				
" 1/2"	%	100.00				
" NO. 4	%	100.00				
" NO. 10	%	100.00				
" NO. 40	%	99.92				
" NO. 100	%	99.51				
" NO. 200	%	99.31				
SAND	%	0.7				
SILT	%	76.7				
CLAY	%	22.7				
LIQUID LIMIT	%	34				
PLASTICITY INDEX	%	18				
BEARING RATIO	%					
STANDARD DRY DENSITY AASHTO T99	%					
OPTIMUM MOISTURE	%					

REMARKS:

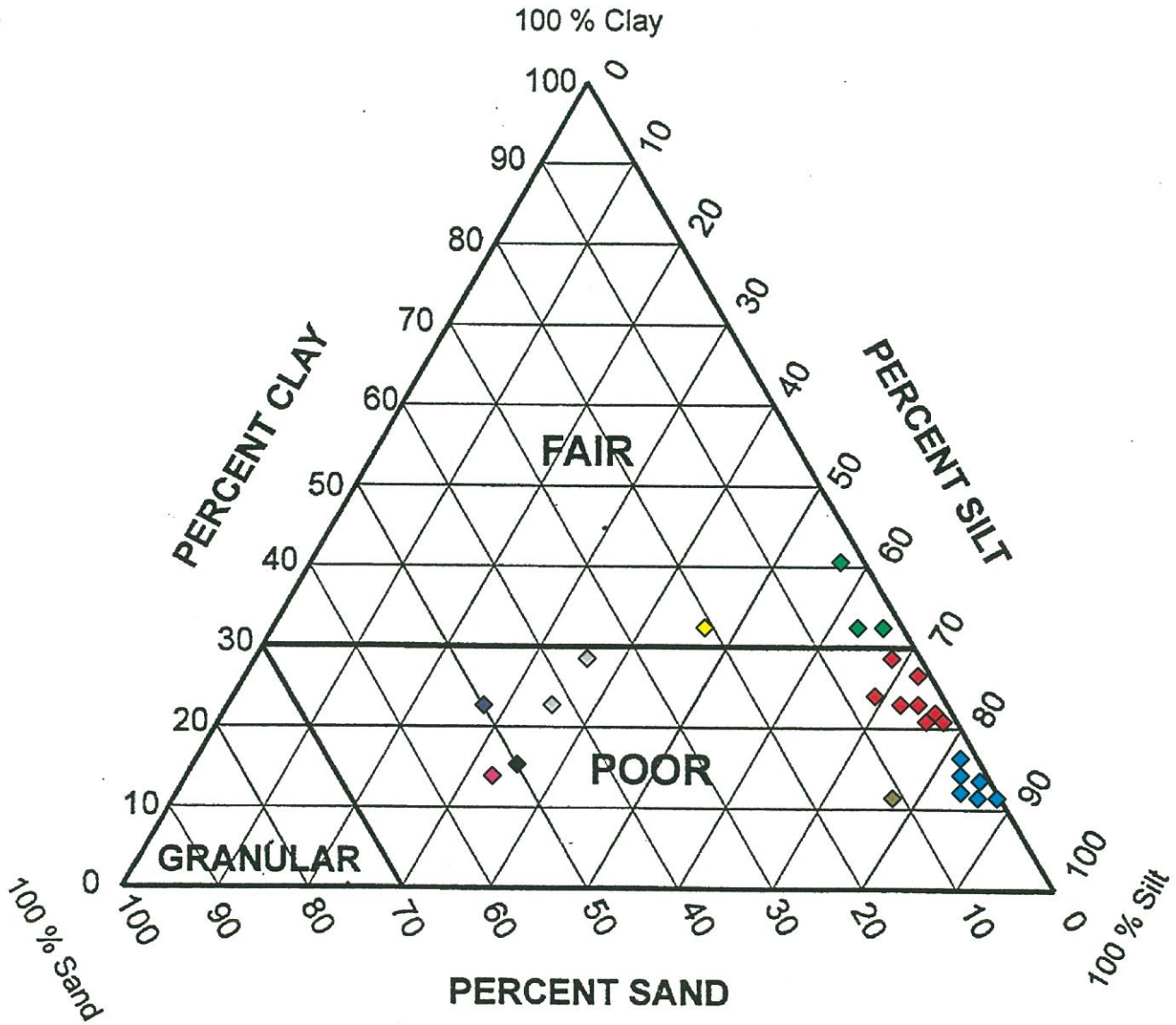
Appendix D

Subgrade Support Rating

Subgrade Support Rating

Station 333+19.67 to Station 463+50

SUBGRADE SUPPORT RATING
US 67 from Station 331+32.5 to 463+50



The subgrade support rating for the majority of these types of soil is **POOR**.

Soil classifications were conducted at approximately 1110 foot intervals along US 67.

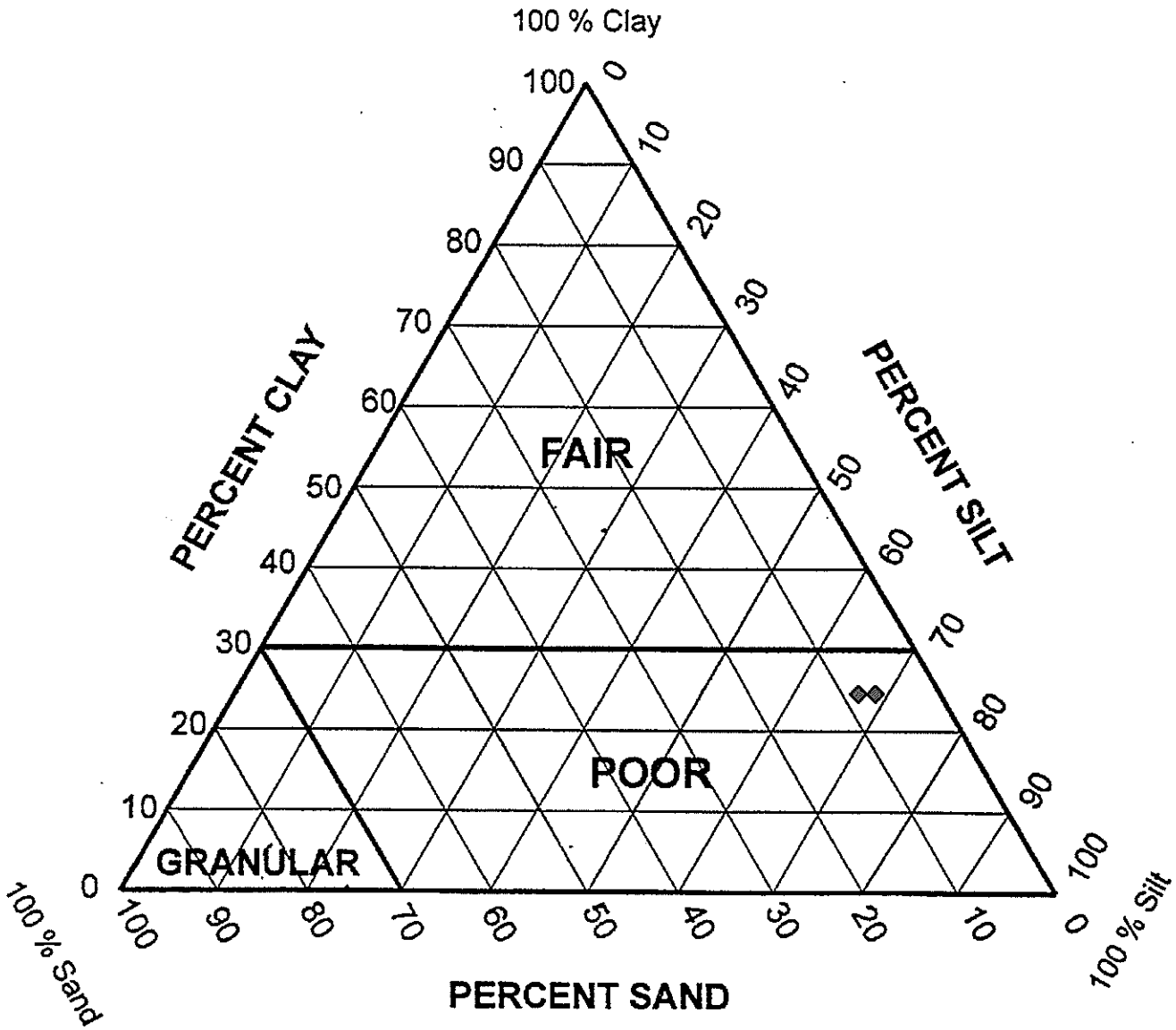
Particle Size Limits
Sand = 2.000 – 0.075 mm
Silt = 0.075 – 0.002 mm
Clay = Less than 0.002 mm

KEY: ◇ CLAY, ◇ CLAY LOAM, ◆ LOAM, ◆ SANDY CLAY LOAM, ◆ SANDY LOAM, ◆ SILT, ◆ SILTY CLAY, ◆ SILTY CLAY LOAM, ◆ SILTY LOAM

Subgrade Support Rating

Service Road

SUBGRADE SUPPORT RATING
Service Road



The subgrade support rating for these types of soil is **POOR**.

Soil classifications were conducted at Station 101+75, 57 feet Right on Service Road.

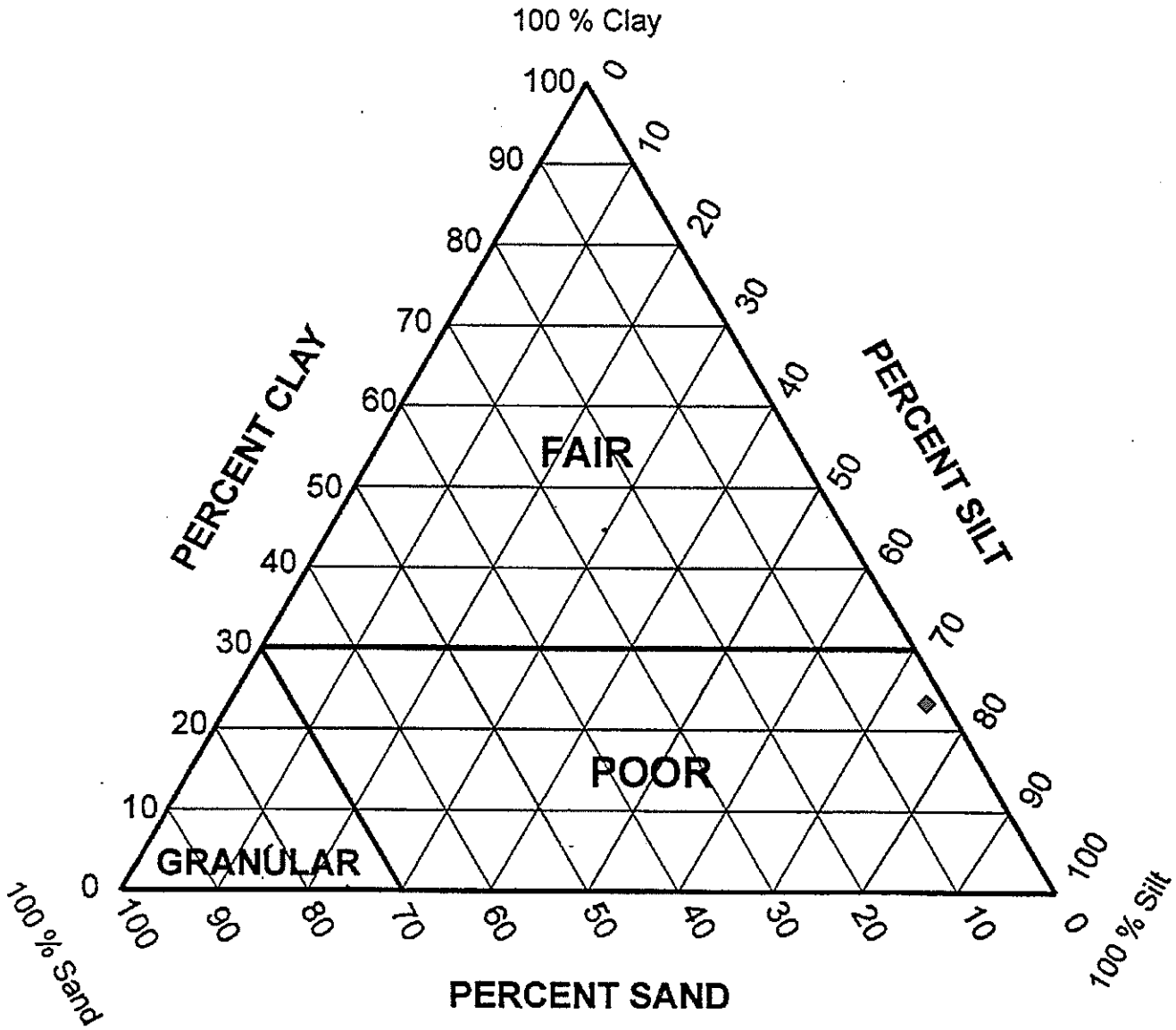
Particle Size Limits
Sand = 2.000 – 0.075 mm
Silt = 0.075 – 0.002 mm
Clay = Less than 0.002 mm

KEY: ◈ SILTY CLAY LOAM

Subgrade Support Rating

Delhi Road

SUBGRADE SUPPORT RATING
Delhi Road



The subgrade support rating for the majority of these types of soil is **POOR**.

Soil classifications were conducted at Station 55+00, 80 feet Left on Delhi Road.

Particle Size Limits
Sand = 2.000 – 0.075 mm
Silt = 0.075 – 0.002 mm
Clay = Less than 0.002 mm

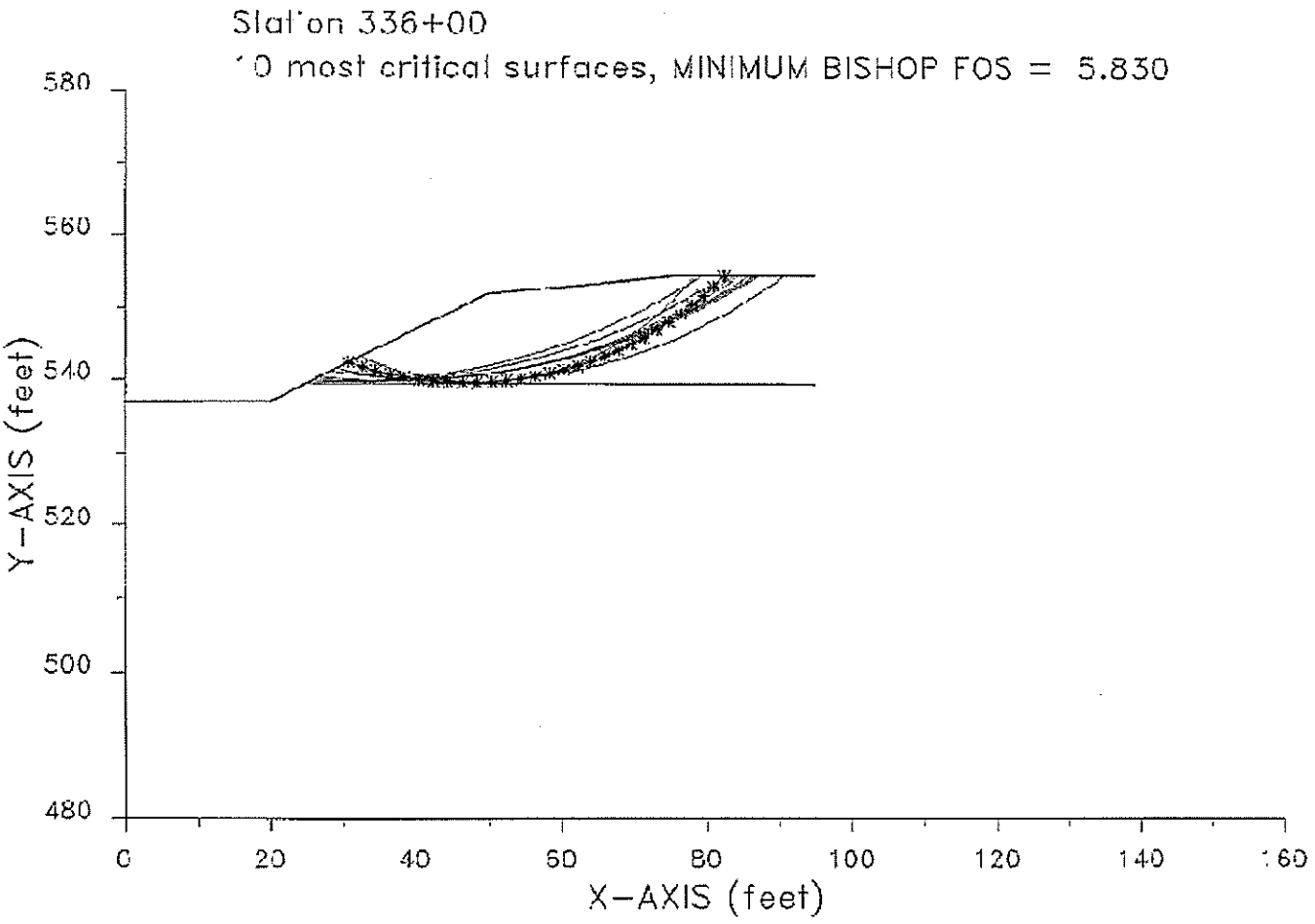
KEY: ◆ SILTY CLAY LOAM

Appendix E

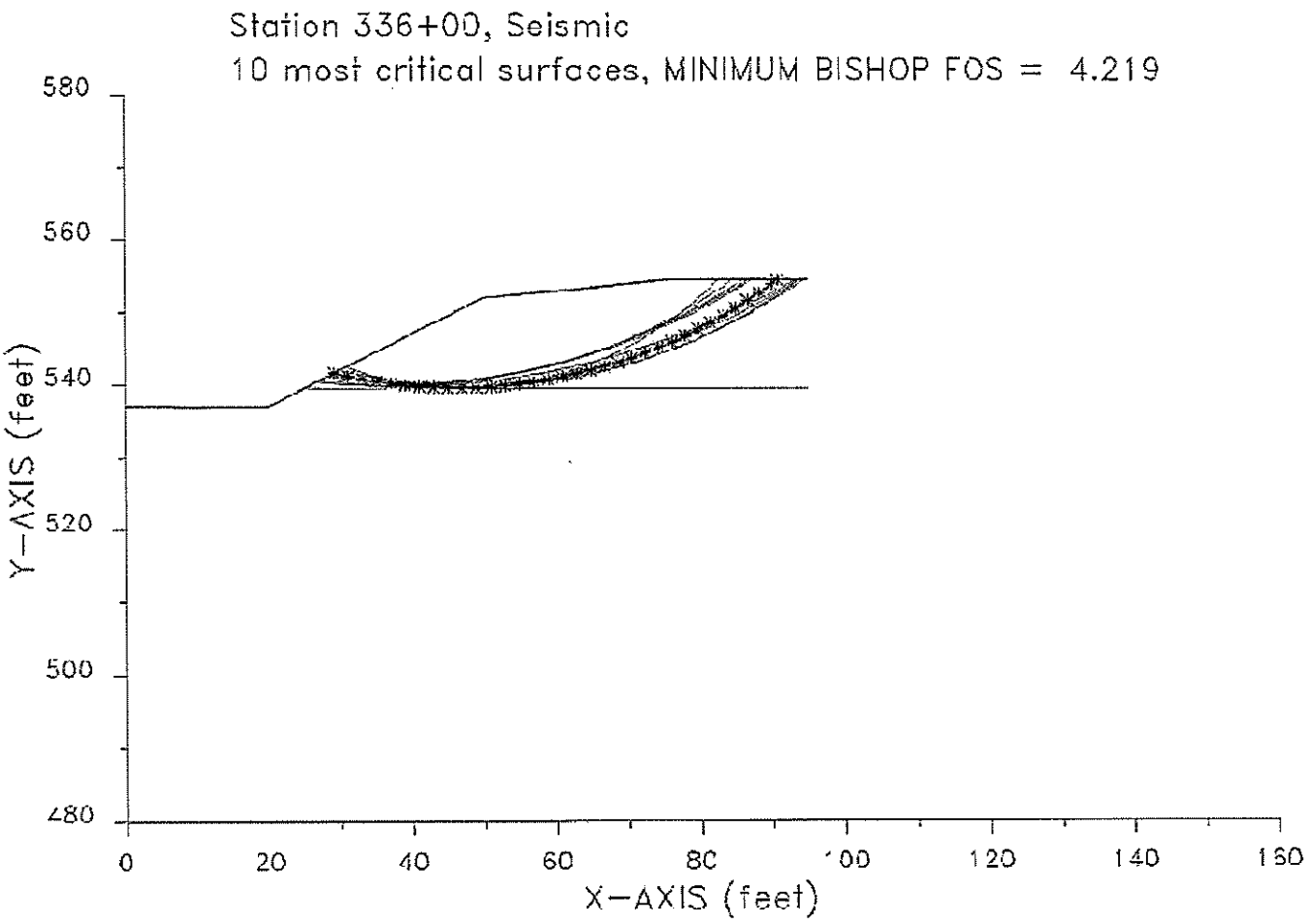
Slope Stability Analyses

Slope Stability Analyses

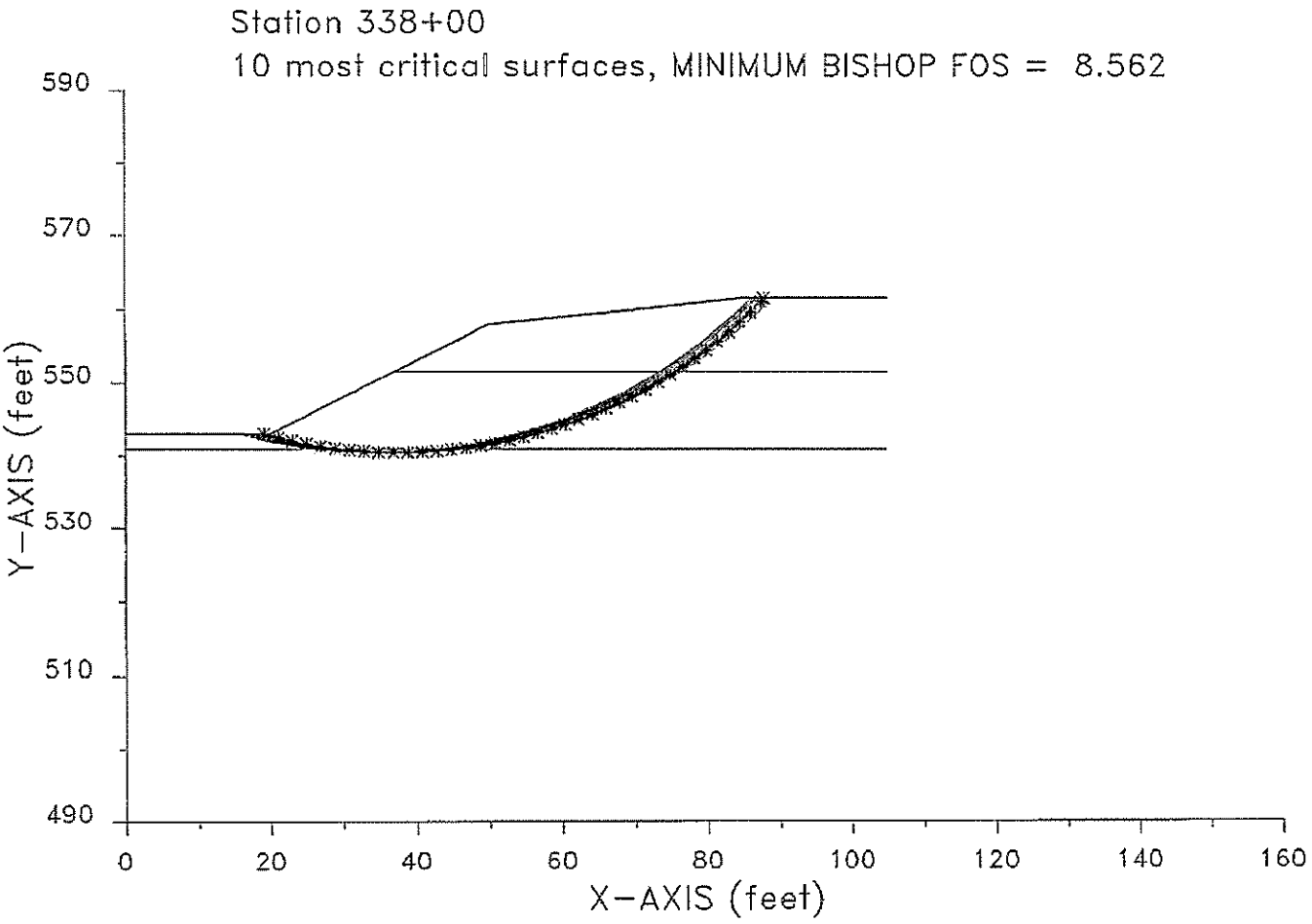
Station 333+19.67 to Station 463+50



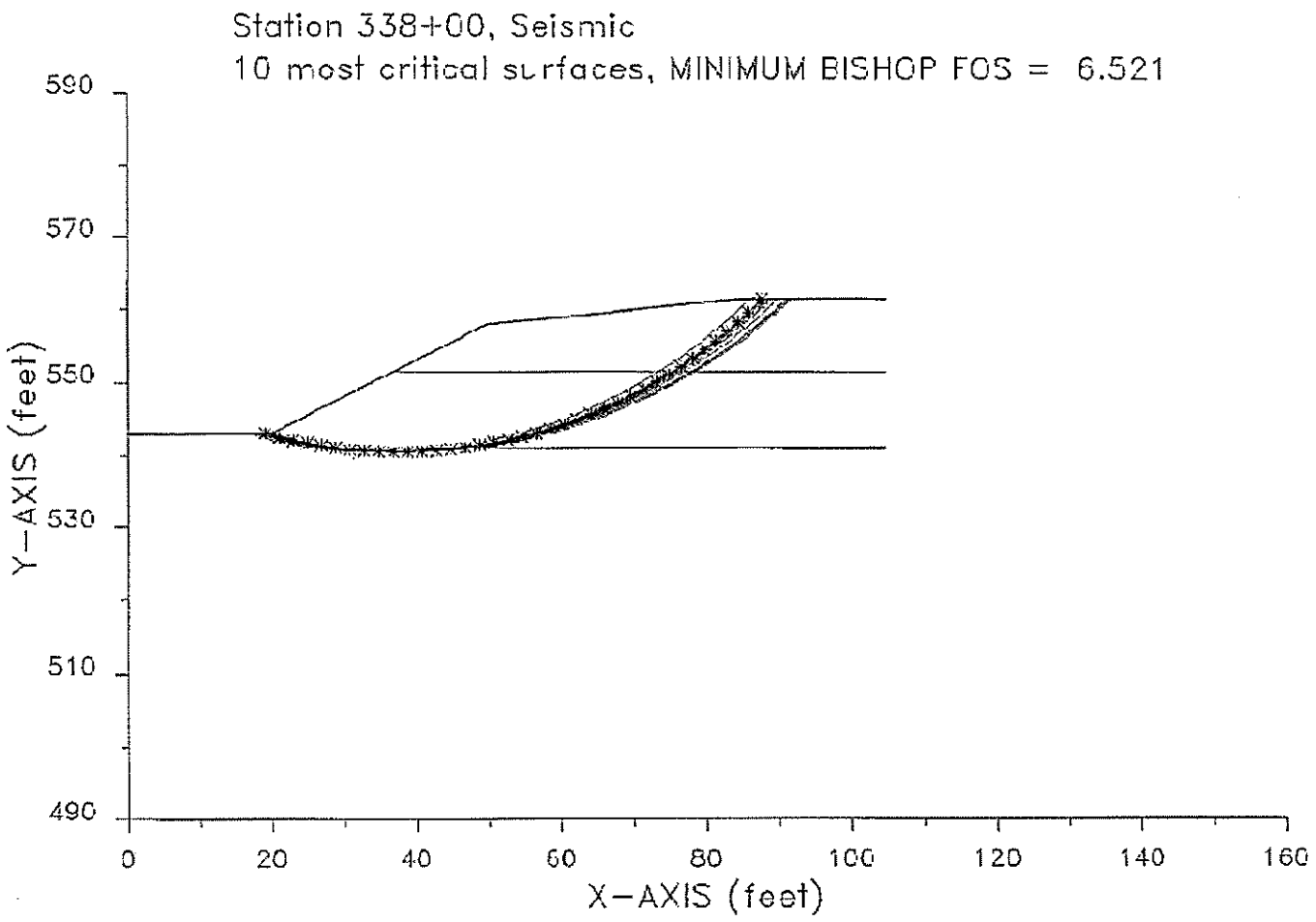

```
PROFIL                                    FILE: 33600     11-12-**   11:20    ft
Station 336+00
     6        5
       .0       537.0        20.0       537.0    2
     20.0       537.0        24.9       539.5    2
     24.9       539.5        50.0       552.0    1
     50.0       552.0        76.0       554.5    1
     76.0       554.5        95.0       554.5    1
     24.9       539.5        95.0       539.5    2
SOIL
  2
  120.0    125.0    1000.0       .00      .000         .0    0
  120.0    125.0    2520.0       .00      .000         .0    0
CIRCL2
    25       50
     15.0        35.0        77.0        95.0
    526.0          .0          .0          .0
```



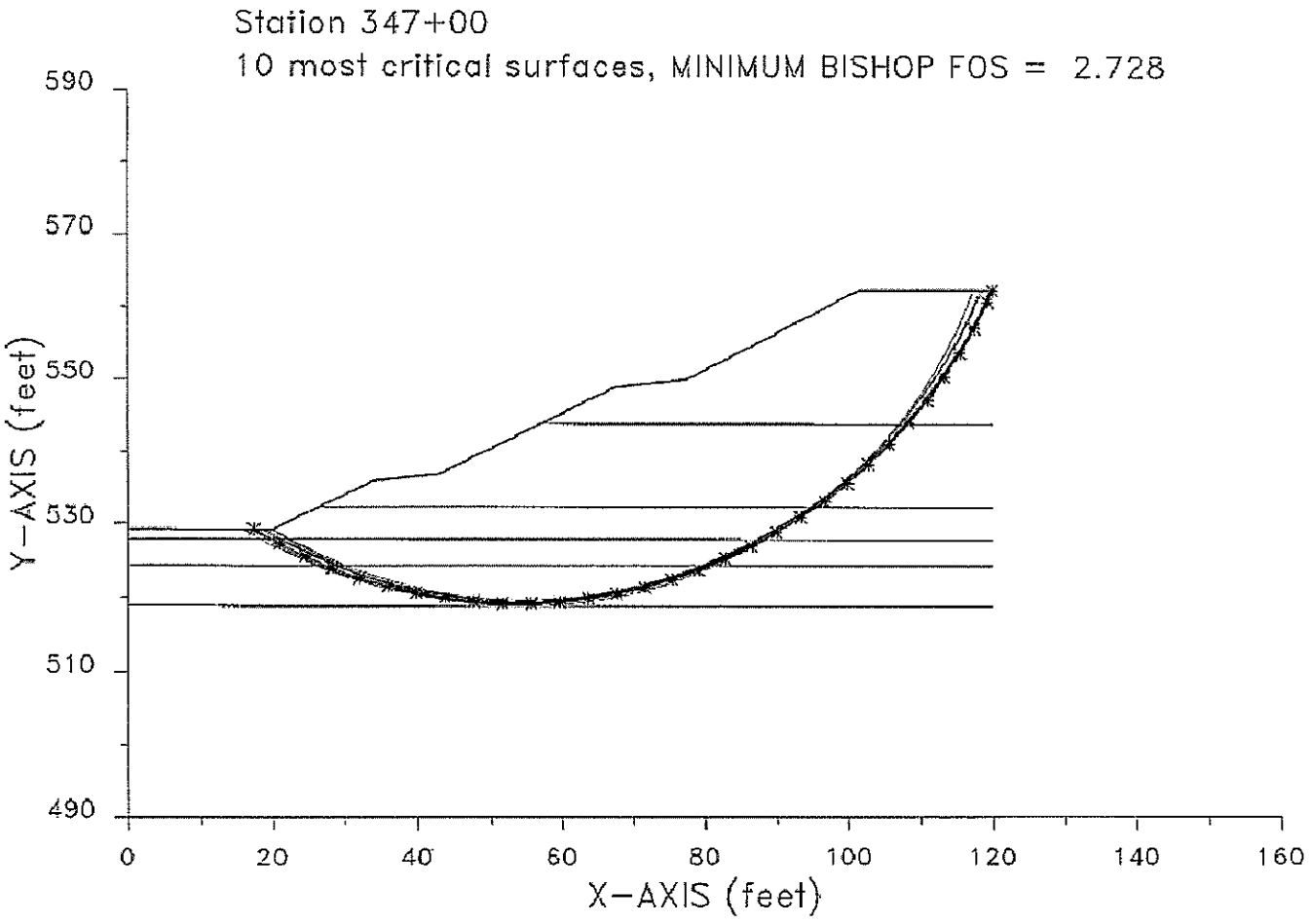

```
PROFIL                                        FILE: 33600E    11-12-**   11:21     ft
Station 336+00, Seismic
     6        5
       .0       537.0        20.0       537.0    2
     20.0       537.0        24.9       539.5    2
     24.9       539.5        50.0       552.0    1
     50.0       552.0        76.0       554.5    1
     76.0       554.5        95.0       554.5    1
     24.9       539.5        95.0       539.5    2
SOIL
  2
  120.0    125.0    1000.0       .00      .000         .0    0
  120.0    125.0    2520.0       .00      .000         .0    0
EQUAKE
    .085      .000
CIRCL2
     25       50
      15.0        35.0        77.0        95.0
     526.0          .0          .0          .0
```



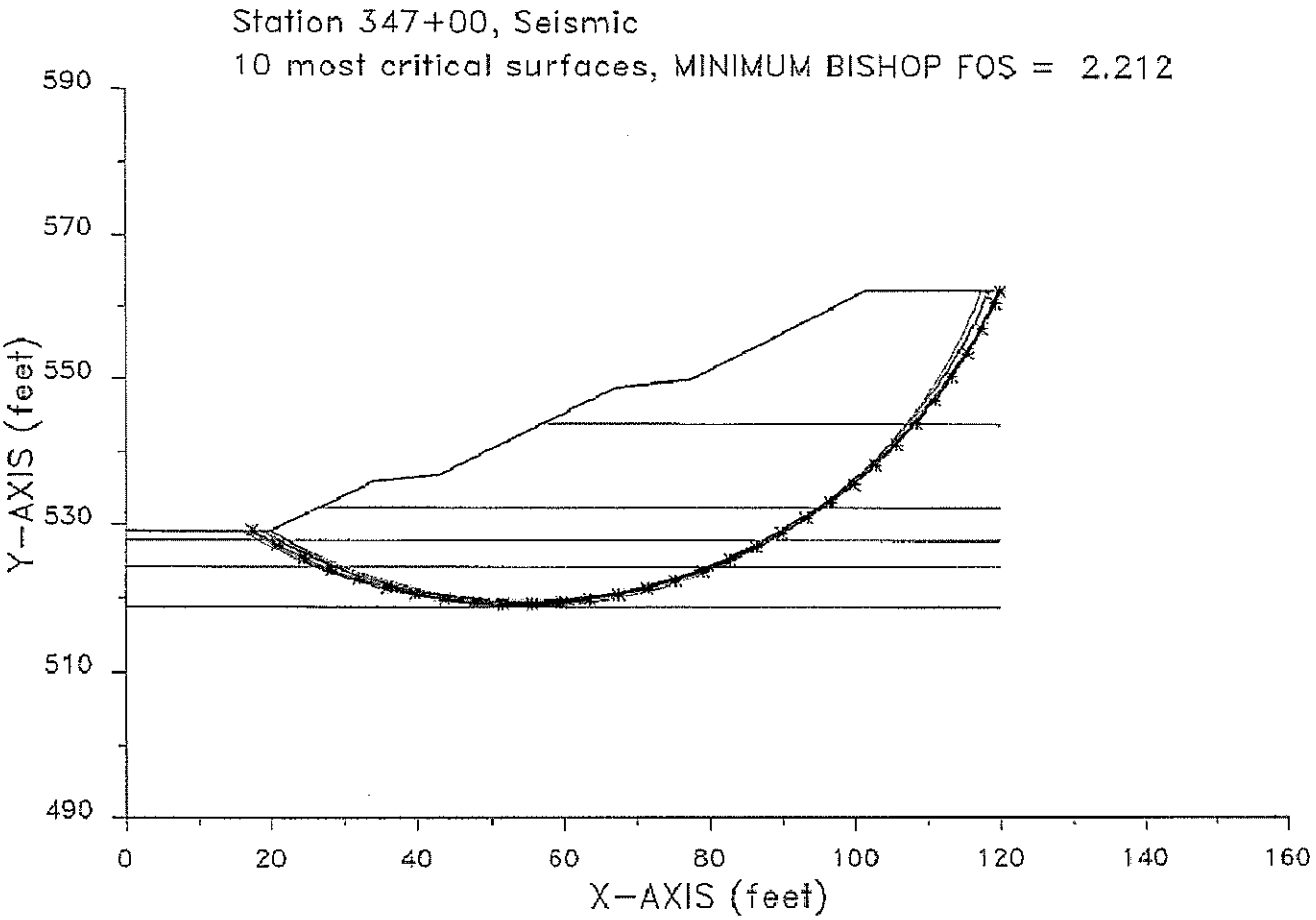

```
PROFIL                                    FILE: 33800     11-12-**   11:14    ft
Station 338+00
     7        5
       .0       543.0        20.0       543.0    2
     20.0       543.0        37.0       551.5    2
     37.0       551.5        50.0       558.0    1
     50.0       558.0        85.0       561.5    1
     85.0       561.5       105.0       561.5    1
     37.0       551.5       105.0       551.5    2
       .0       541.0       105.0       541.0    3
SOIL
  3
  120.0     125.0     1000.0        .00      .000          .0     0
  120.0     125.0     2950.0        .00      .000          .0     0
  120.0     125.0         .0      50.00      .000          .0     0
CIRCL2
    25        50
     15.0        35.0        86.0       105.0
    540.5          .0          .0          .0
```



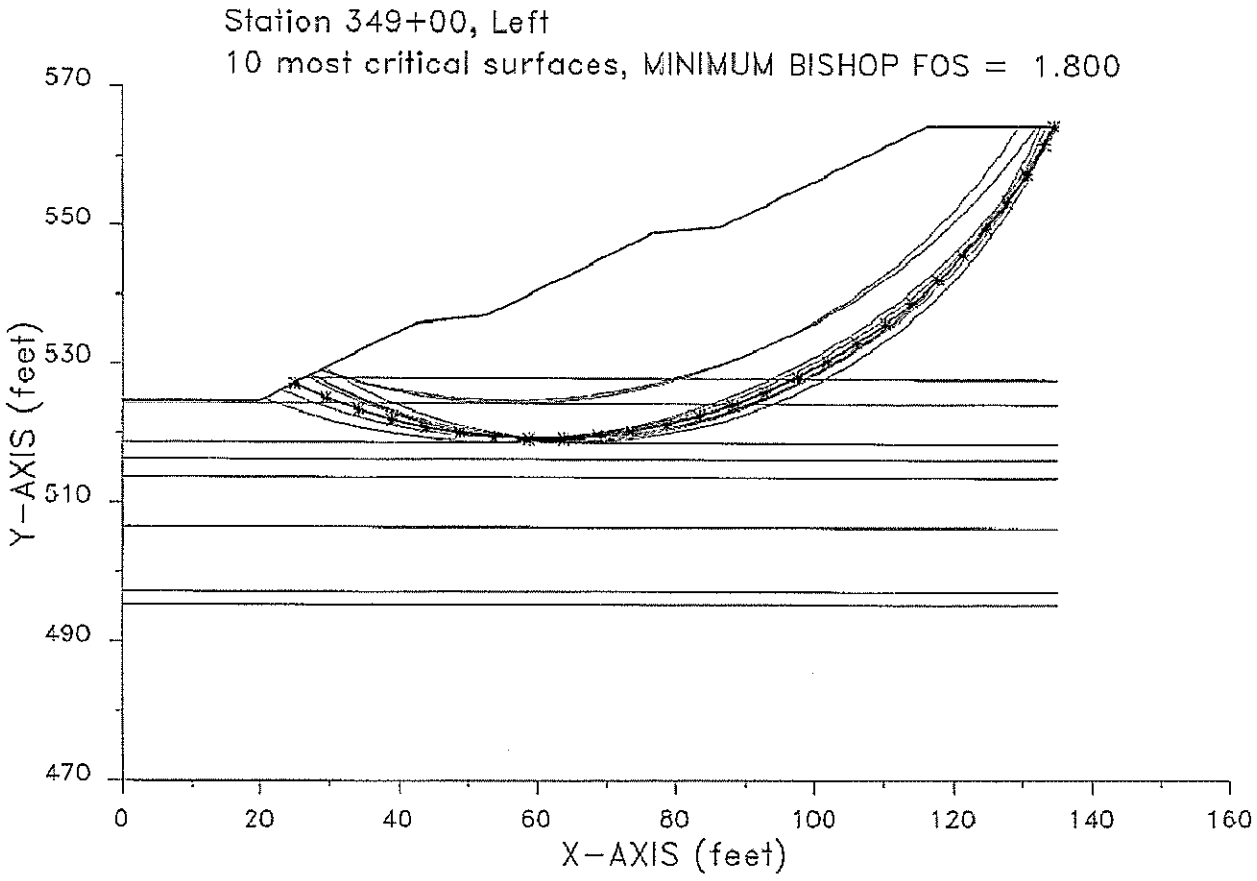

```
PROFIL                                   FILE: 33800E    11-12-**   11:14    ft
Station 338+00, Seismic
     7        5
       .0       543.0        20.0       543.0    2
     20.0       543.0        37.0       551.5    2
     37.0       551.5        50.0       558.0    1
     50.0       558.0        85.0       561.5    1
     85.0       561.5       105.0       561.5    1
     37.0       551.5       105.0       551.5    2
       .0       541.0       105.0       541.0    3
SOIL
  3
  120.0    125.0    1000.0       .00      .000        .0     0
  120.0    125.0    2950.0       .00      .000        .0     0
  120.0    125.0        .0     50.00      .000        .0     0
EQUAKE
   .085      .000
CIRCL2
    25       50
     15.0        35.0        86.0       105.0
    540.5          .0          .0          .0
```



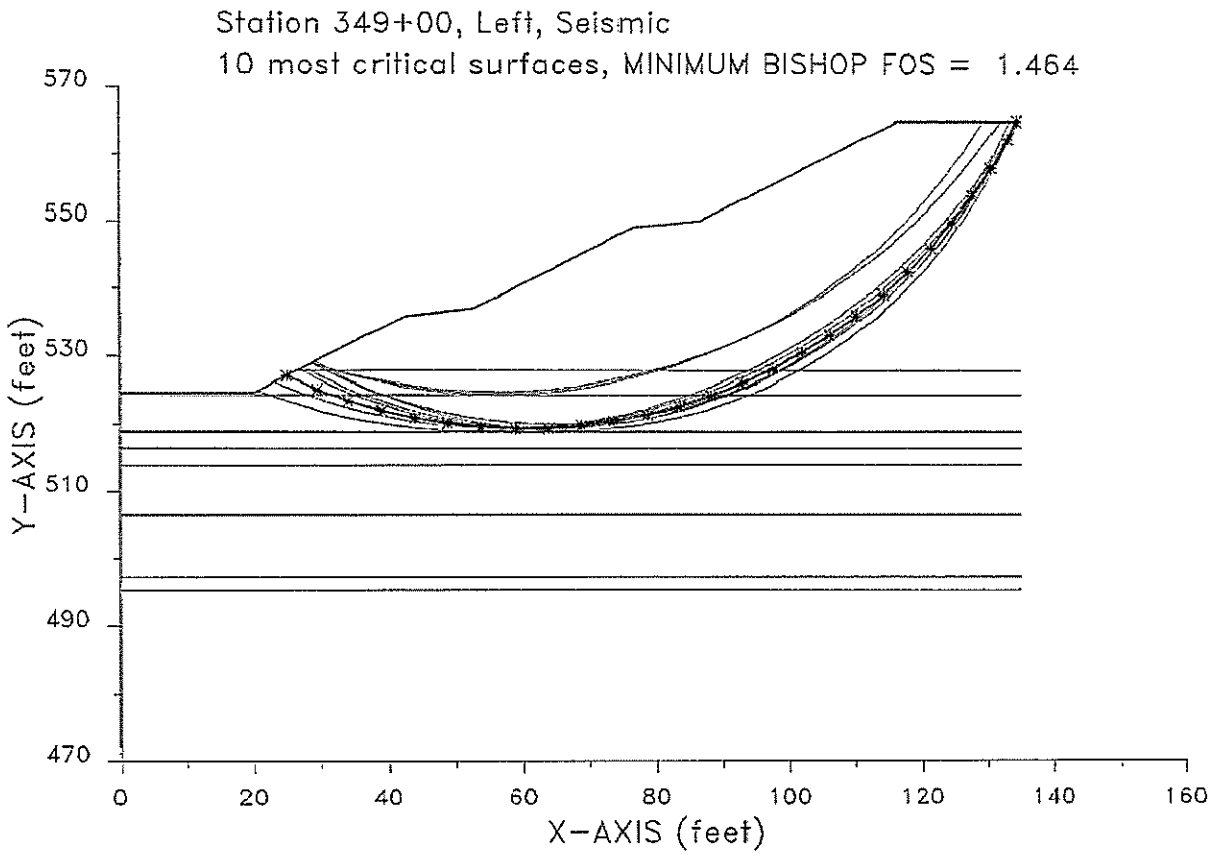

```
PROFIL                                    FILE: 34700      11 12 **   11:23     ft
Station 347+00
    14         9
      .0       529.2        20.0       529.2    3
     20.0      529.2        26.6       532.4    3
     26.6      532.4        34.0       536.0    2
     34.0      536.0        43.0       537.0    2
     43.0      537.0        57.1       543.9    2
     57.1      543.9        67.5       549.0    1
     67.5      549.0        77.5       550.0    1
     77.5      550.0       101.5       562.5    1
    101.5      562.5       120.0       562.5    1
     57.1      543.9       120.0       543.9    2
     26.6      532.4       120.0       532.4    3
      .0       527.9       120.0       527.9    4
      .0       524.4       120.0       524.4    5
      .0       518.9       120.0       518.9    6
SOIL
  6
  120.0    125.0    1000.0       .00      .000        .0     0
  120.0    125.0    2075.0       .00      .000        .0     0
  120.0    125.0    4050.0       .00      .000        .0     0
  120.0    125.0     700.0       .00      .000        .0     0
  120.0    125.0    1150.0       .00      .000        .0     0
  120.0    125.0    4000.0       .00      .000        .0     0
CIRCL2
    25        50
     15.0        27.0        102.0        120.0
    516.4          .0           0            0
```



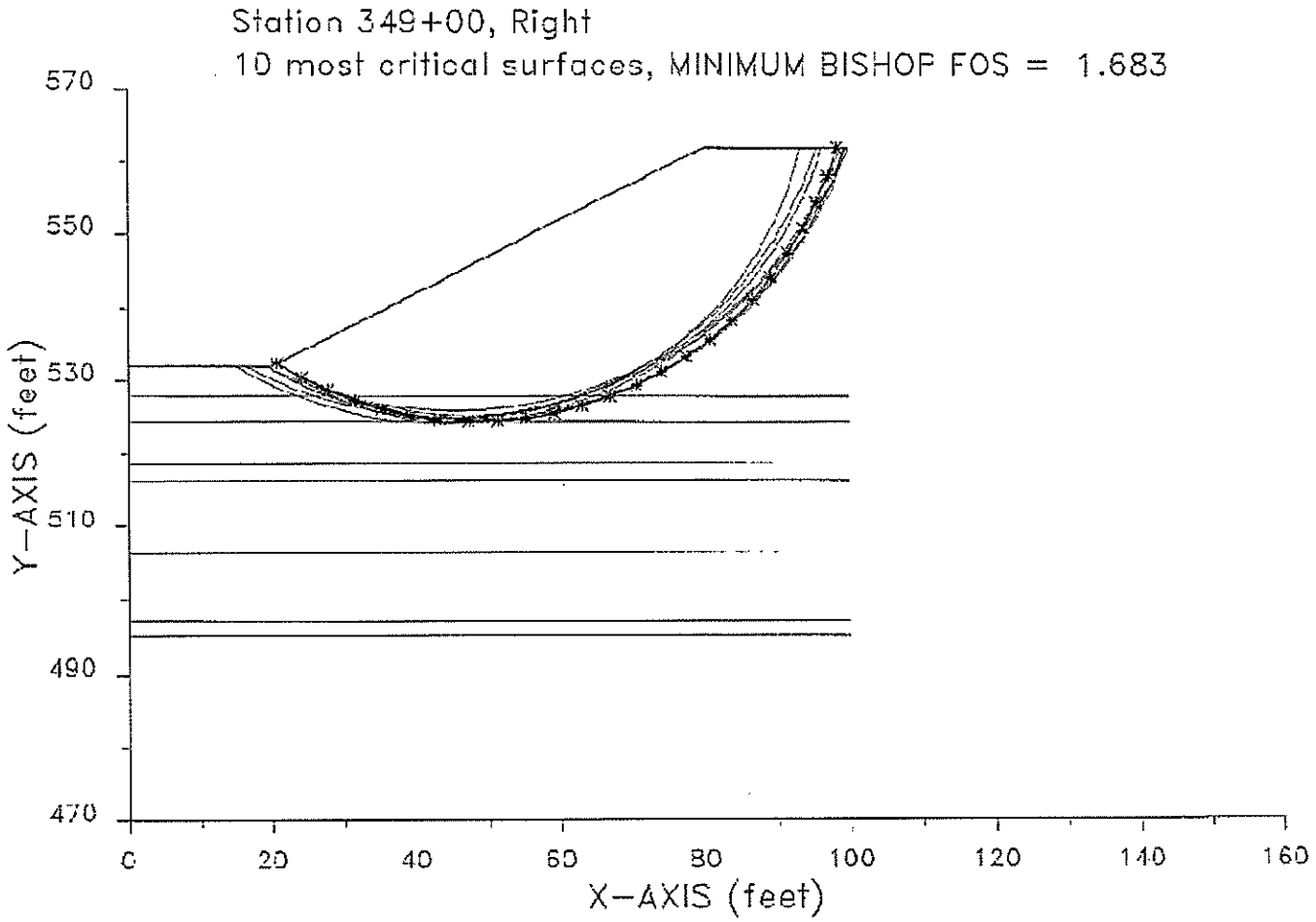

```
PROFIL                                          FILE: 34700E    11-12-**   11:23    ft
Station 347+00, Seismic
    14        9
      .0      529.2       20.0      529.2   3
    20.0      529.2       26.6      532.4   3
    26.6      532.4       34.0      536.0   2
    34.0      536.0       43.0      537.0   2
    43.0      537.0       57.1      543.9   2
    57.1      543.9       67.5      549.0   1
    67.5      549.0       77.5      550.0   1
    77.5      550.0      101.5      562.5   1
   101.5      562.5      120.0      562.5   1
    57.1      543.9      120.0      543.9   2
    26.6      532.4      120.0      532.4   3
      .0      527.9      120.0      527.9   4
      .0      524.4      120.0      524.4   5
      .0      518.9      120.0      518.9   6
SOIL
  6
  120.0    125.0    1000.0      .00      .000        .0    0
  120.0    125.0    2075.0      .00      .000        .0    0
  120.0    125.0    4050.0      .00      .000        .0    0
  120.0    125.0     700.0      .00      .000        .0    0
  120.0    125.0    1150.0      .00      .000        .0    0
  120.0    125.0    4000.0      .00      .000        .0    0
EQUAKE
   .085     .000
CIRCL2
    25       50
     15.0      27.0      102.0      120.0
    516.4        .0         .0         .0
```



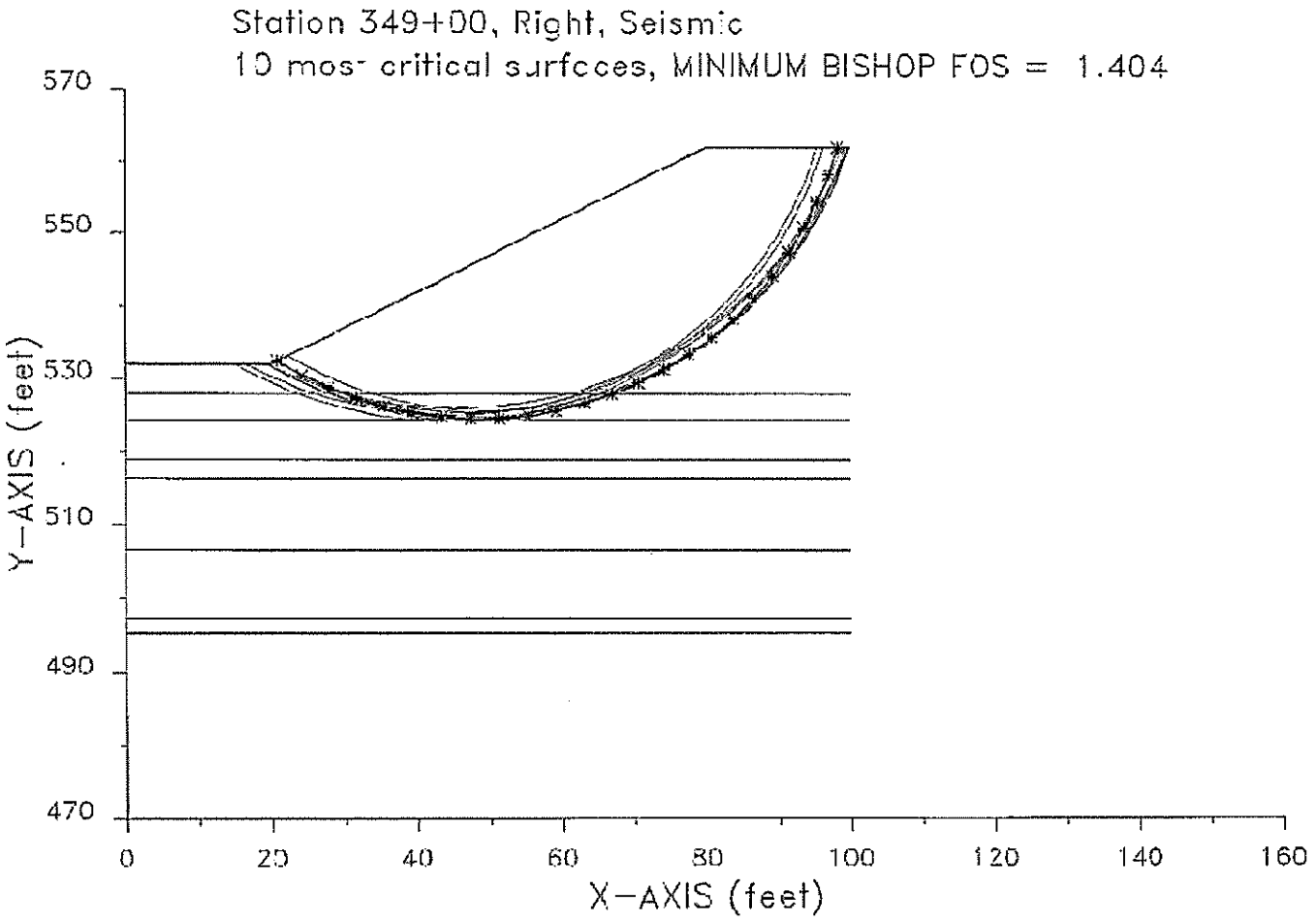

```
PROFIL                                          FILE: 34900L    11-12-**   11:15    ft
Station 349+00, Left
    16       8
      .0      524.7       20.0      524.7   2
    20.0      524.7       26.5      527.9   2
    26.5      527.9       42.7      536.0   1
    42.7      536.0       52.7      537.0   1
    52.7      537.0       76.7      549.0   1
    76.7      549.0       86.7      550.0   1
    86.7      550.0      116.3      564.8   1
   116.3      564.8      135.0      564.8   1
    26.5      527.9      135.0      527.9   2
      .0      524.4      135.0      524.4   3
      .0      518.9      135.0      518.9   4
      .0      516.4      135.0      516.4   5
      .0      513.9      135.0      513.9   6
      .0      506.4      135.0      506.4   7
      .0      497.4      135.0      497.4   8
      .0      495.4      135.0      495.4   9
SOIL
  9
  120.0    125.0    1000.0       .00      .000        .0    0
  120.0    125.0     700.0       .00      .000        .0    0
  120.0    125.0    1150.0       .00      .000        .0    0
  120.0    125.0    4000.0       .00      .000        .0    0
  120.0    125.0    2900.0       .00      .000        .0    0
  120.0    125.0    4333.3       .00      .000        .0    0
  120.0    125.0    2300.0       .00      .000        .0    0
  120.0    125.0    1800.0       .00      .000        .0    0
  120.0    125.0    3800.0       .00      .000        .0    0
CIRCL2
    25       50
     15.0        30.0       117.0       135.0
    491.9          .0          .0          .0
```



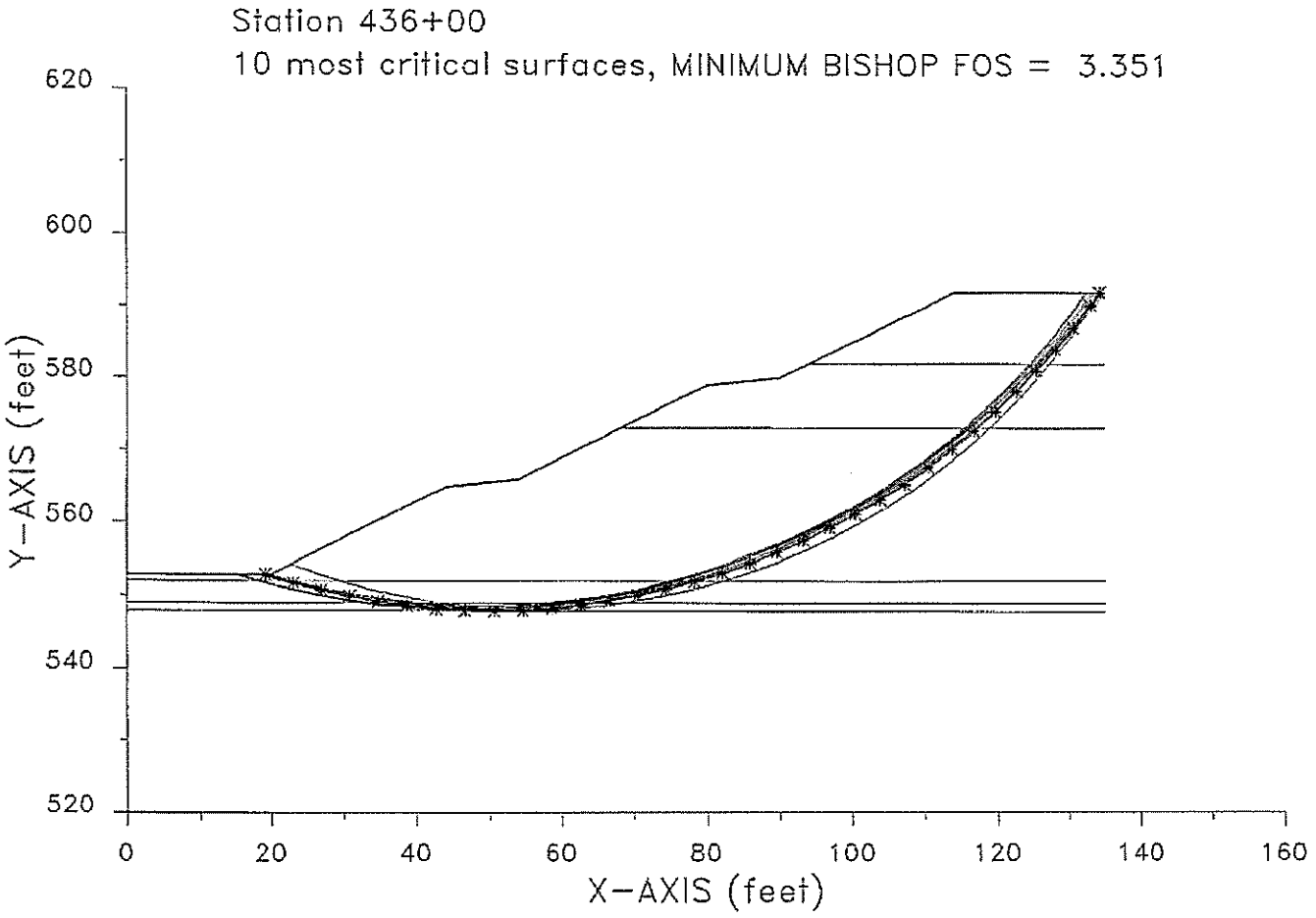

```
PROFIL                                        FILE: 34900LE   11-12-**   11:16    ft
Station 349+00, Left, Seismic
    16       8
      .0      524.7       20.0      524.7   2
    20.0      524.7       26.5      527.9   2
    26.5      527.9       42.7      536.0   1
    42.7      536.0       52.7      537.0   1
    52.7      537.0       76.7      549.0   1
    76.7      549.0       86.7      550.0   1
    86.7      550.0      116.3      564.8   1
   116.3      564.8      135.0      564.8   1
    26.5      527.9      135.0      527.9   2
      .0      524.4      135.0      524.4   3
      .0      518.9      135.0      518.9   4
      .0      516.4      135.0      516.4   5
      .0      513.9      135.0      513.9   6
      .0      506.4      135.0      506.4   7
      .0      497.4      135.0      497.4   8
      .0      495.4      135.0      495.4   9
SOIL
  9
  120.0    125.0    1000.0       .00      .000        .0    0
  120.0    125.0     700.0       .00      .000        .0    0
  120.0    125.0    1150.0       .00      .000        .0    0
  120.0    125.0    4000.0       .00      .000        .0    0
  120.0    125.0    2900.0       .00      .000        .0    0
  120.0    125.0    4333.3       .00      .000        .0    0
  120.0    125.0    2300.0       .00      .000        .0    0
  120.0    125.0    1800.0       .00      .000        .0    0
  120.0    125.0    3800.0       .00      .000        .0    0
EQUAKE
   .085     .000
CIRCL2
    25       50
     15.0       30.0       117.0       135.0
    491.9         .0          .0          .0
```



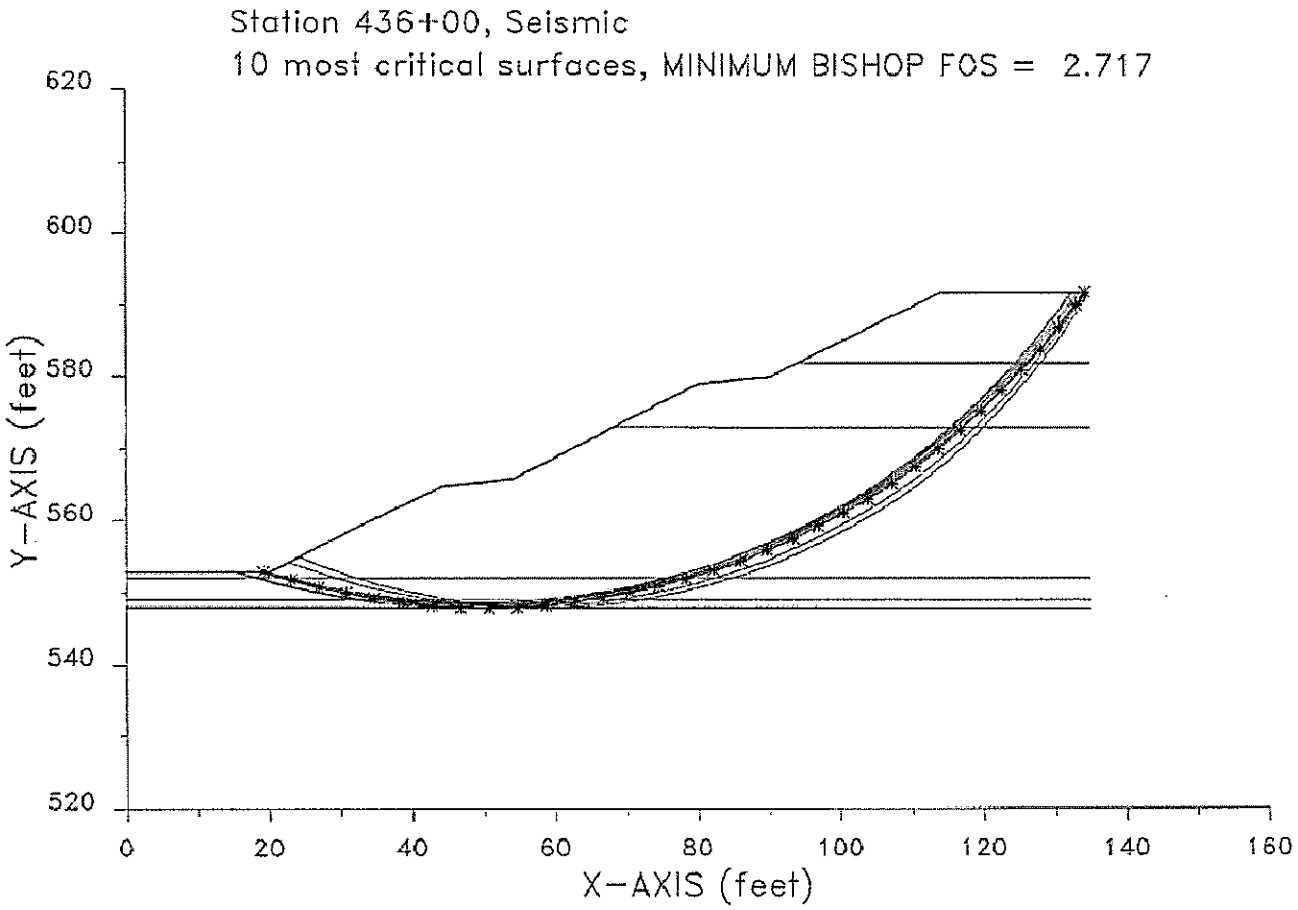

```
PROFIL                                        FILE: 34900R    11-12-**   11:24    ft
Station 349+00, Right
    10        3
      .0       532.0        20.0       532.0    1
    20.0       532.0        80.0       562.0    1
    80.0       562.0       100.0       562.0    1
      .0       527.9       100.0       527.9    2
      .0       524.4       100.0       524.4    3
      .0       518.9       100.0       518.9    4
      .0       516.4       100.0       516.4    5
      .0       506.4       100.0       506.4    6
      .0       497.4       100.0       497.4    7
      .0       495.4       100.0       495.4    8
SOIL
  8
  120.0    125.0    1000.0       .00      .000         .0     0
  120.0    125.0     700.0       .00      .000         .0     0
  120.0    125.0    1150.0       .00      .000         .0     0
  120.0    125.0    4000.0       .00      .000         .0     0
  120.0    125.0    3975.0       .00      .000         .0     0
  120.0    125.0    2300.0       .00      .000         .0     0
  120.0    125.0    1800.0       .00      .000         .0     0
  120.0    125.0    3800.0       .00      .000         .0     0
CIRCL2
    25       50
     15.0        50.0        81.0       100.0
    491.9          .0          .0          .0
```



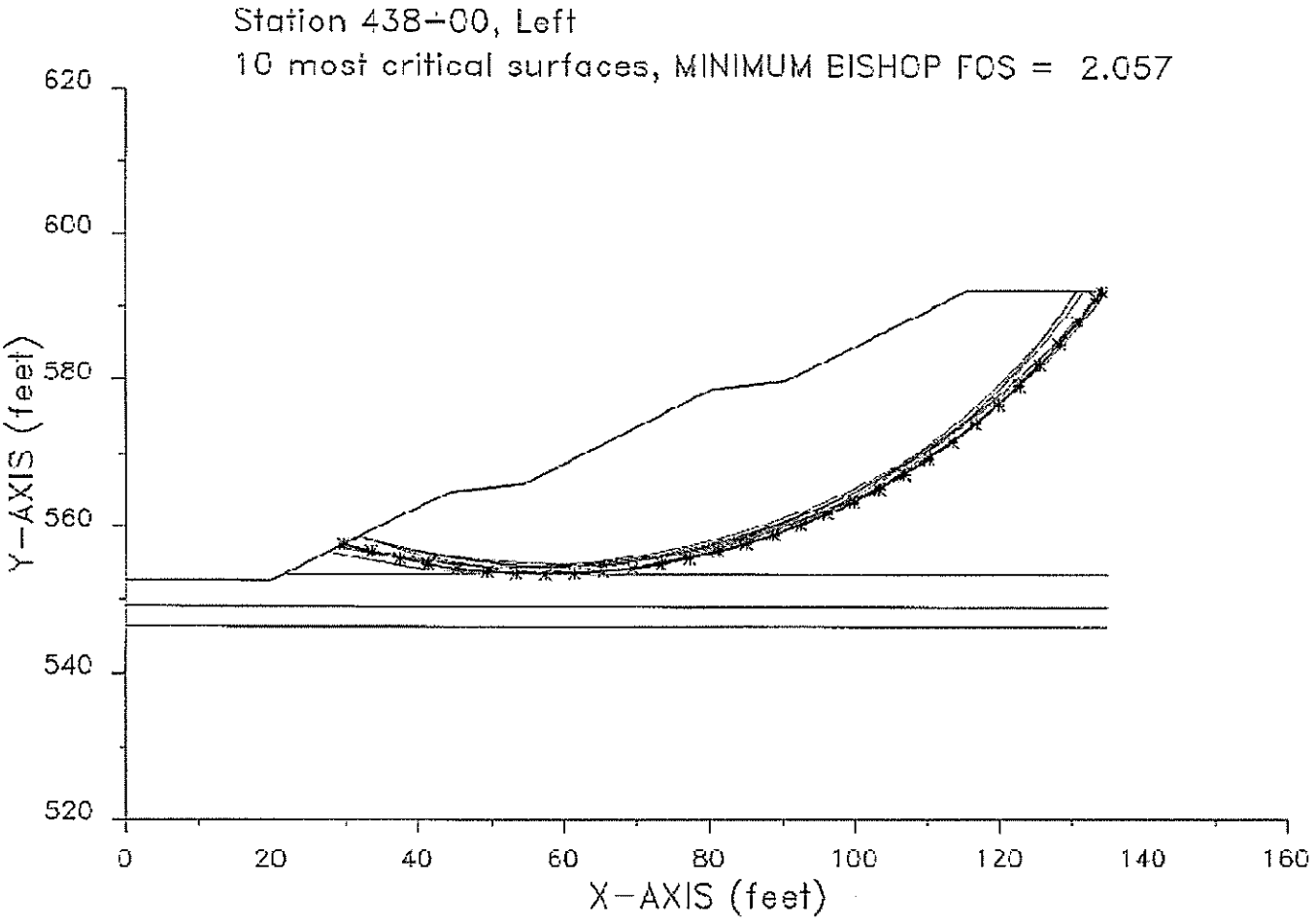

```
PROFIL                                   FILE: 34900RE   11-12-**   11:25     It
Station 349+00, Right, Seismic
    10        3
      .0      532.0       20.0      532.0   1
    20.0      532.0       80.0      562.0   1
    80.0      562.0      100.0      562.0   1
      .0      527.9      100.0      527.9   2
      .0      524.4      100.0      524.4   3
      .0      518.9      100.0      518.9   4
      .0      516.4      100.0      516.4   5
      .0      506.4      100.0      506.4   6
      .0      497.4      100.0      497.4   7
      .0      495.4      100.0      495.4   8
SOIL
  8
  120.0    125.0    1000.0       .00      .000          .0     0
  120.0    125.0     700.0       .00      .000          .0     0
  120.0    125.0    1150.0       .00      .000          .0     0
  120.0    125.0    4000.0       .00      .000          .0     0
  120.0    125.0    3975.0       .00      .000          .0     0
  120.0    125.0    2300.0       .00      .000          .0     0
  120.0    125.0    1800.0       .00      .000          .0     0
  120.0    125.0    3800.0       .00      .000          .0     0
EQUAKE
   .085      .000
CIRCL2
    25       50
     15.0       60.0       81.0      100.0
    491.9         .0         .0         .0
```



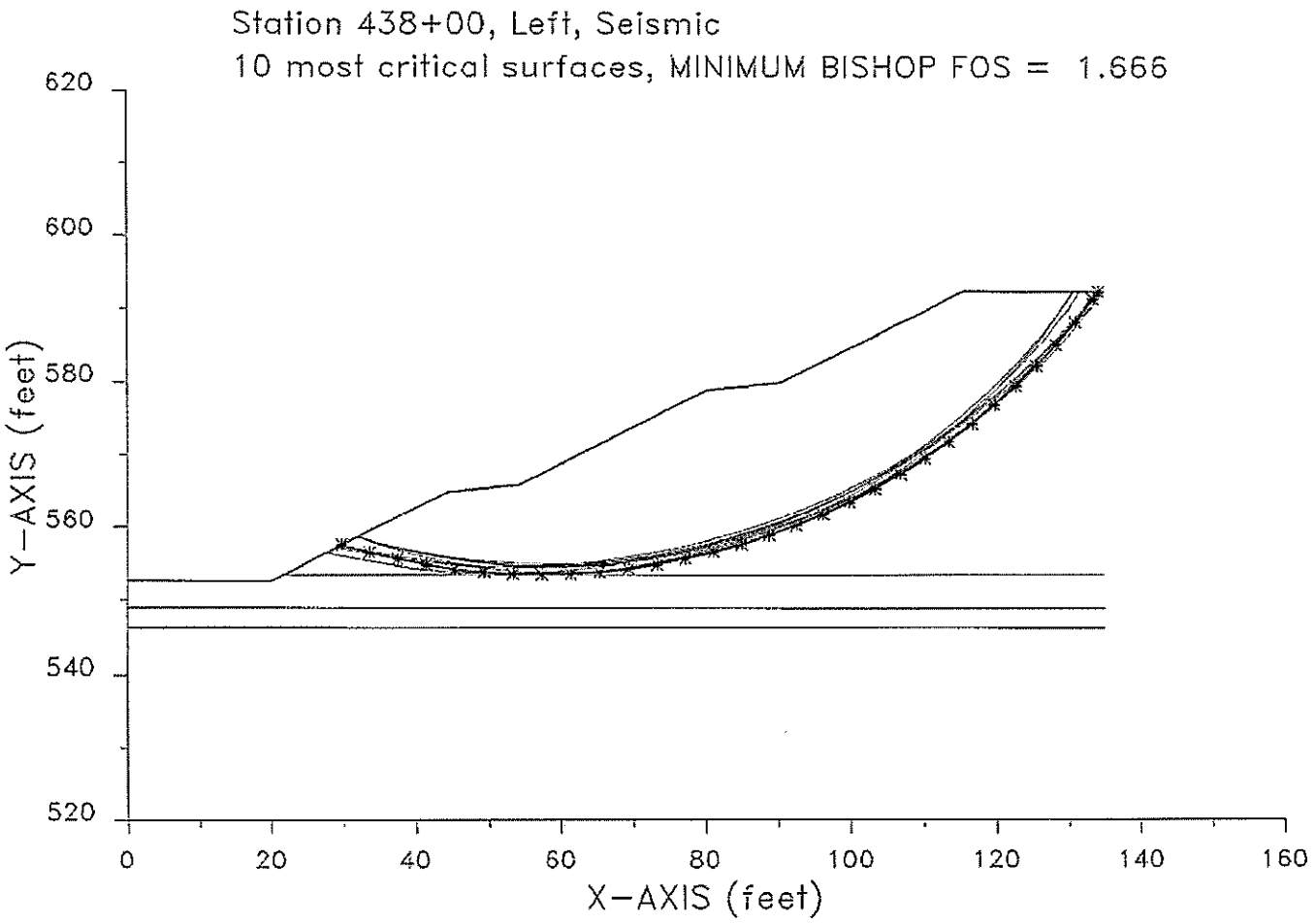

```
PROFIL                                          FILE: 43600     11-12-**   11:18    ft
Station 436+00
    15       10
      .0       552.9       20.0       552.9   3
     20.0      552.9       44.2       565.0   3
     44.2      565.0       54.2       566.0   3
     54.2      566.0       64.2       571.0   3
     64.2      571.0       68.2       573.0   3
     68.2      573.0       80.2       579.0   2
     80.2      579.0       90.2       580.0   2
     90.2      580.0       94.2       582.0   2
     94.2      582.0      114.2       592.0   1
    114.2      592.0      135.0       592.0   1
     94.2      582.0      135.0       582.0   2
     68.2      573.0      135.0       573.0   3
      .0       552.0      135.0       552.0   4
      .0       549.0      135.0       549.0   5
      .0       548.0      135.0       548.0   6
SOIL
  6
  120.0    125.0    1000.0       .00      .000        .0    0
  120.0    125.0    4700.0       .00      .000        .0    0
  120.0    125.0    2133.3       .00      .000        .0    0
  120.0    125.0        .0     31.00      .000        .0    0
  120.0    125.0    1300.0       .00      .000        .0    0
  120.0    125.0    3967.7       .00      .000        .0    0
CIRCL2
    25       50
     15.0        32.0       115.0       135.0
    541.0          .0          .0          .0
```



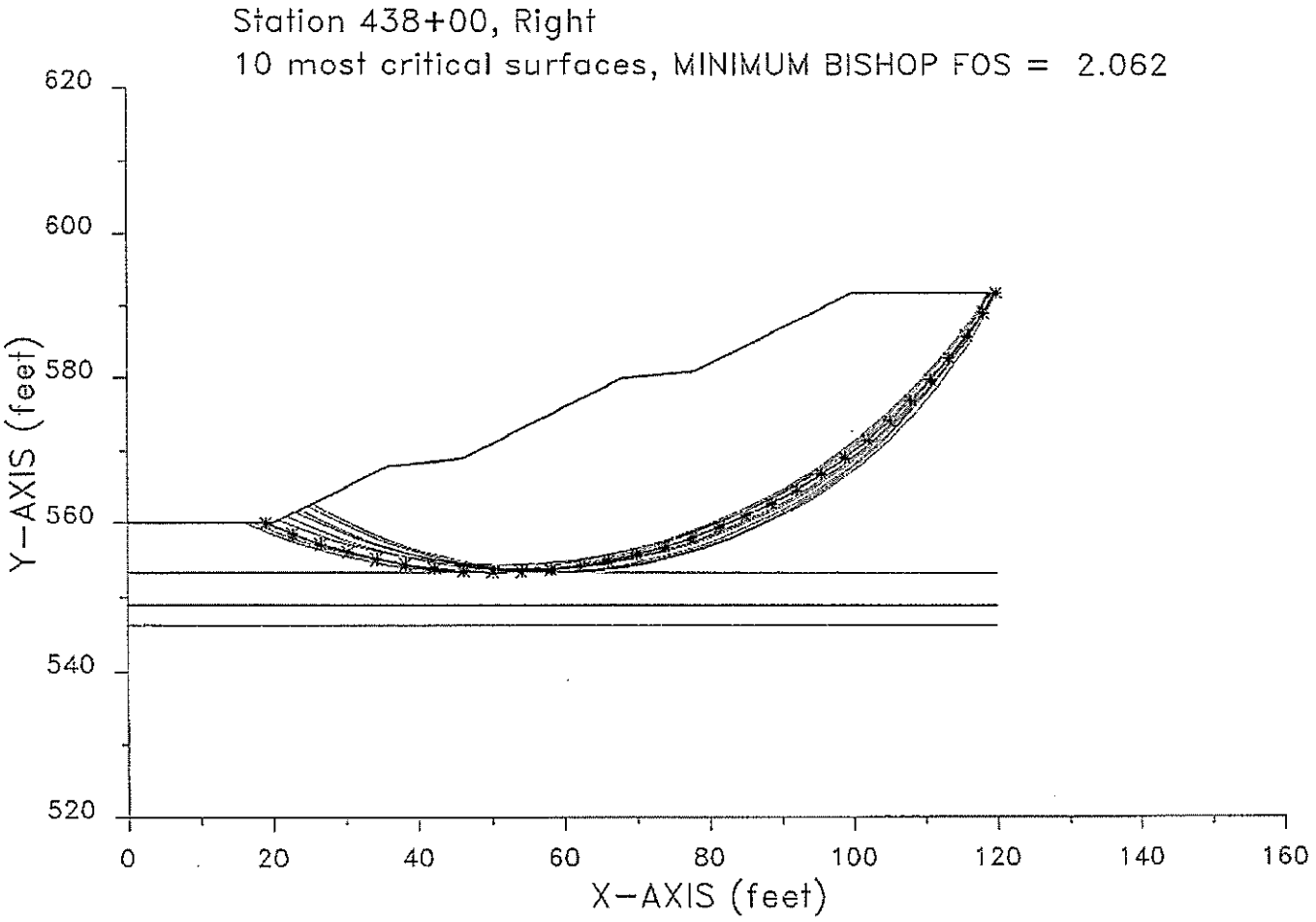

```
PROFIL                                        FILE: 43600E    11-12-**    11:19     ft
Station 436+00, Seismic
    15       10
       .0       552.9        20.0       552.9    3
     20.0       552.9        44.2       565.0    3
     44.2       565.0        54.2       566.0    3
     54.2       566.0        64.2       571.0    3
     64.2       571.0        68.2       573.0    3
     68.2       573.0        80.2       579.0    2
     80.2       579.0        90.2       580.0    2
     90.2       580.0        94.2       582.0    2
     94.2       582.0       114.2       592.0    1
    114.2       592.0       135.0       592.0    1
     94.2       582.0       135.0       582.0    2
     68.2       573.0       135.0       573.0    3
       .0       552.0       135.0       552.0    4
       .0       549.0       135.0       549.0    5
       .0       548.0       135.0       548.0    6
SOIL
  6
  120.0    125.0    1000.0       .00      .000        .0    0
  120.0    125.0    4700.0       .00      .000        .0    0
  120.0    125.0    2133.3       .00      .000        .0    0
  120.0    125.0        .0     31.00      .000        .0    0
  120.0    125.0    1300.0       .00      .000        .0    0
  120.0    125.0    3967.7       .00      .000        .0    0
EQUAKE
   .085      .000
CIRCL2
    25       50
     15.0        32.0        115.0        135.0
    541.0          .0          .0           .0
```



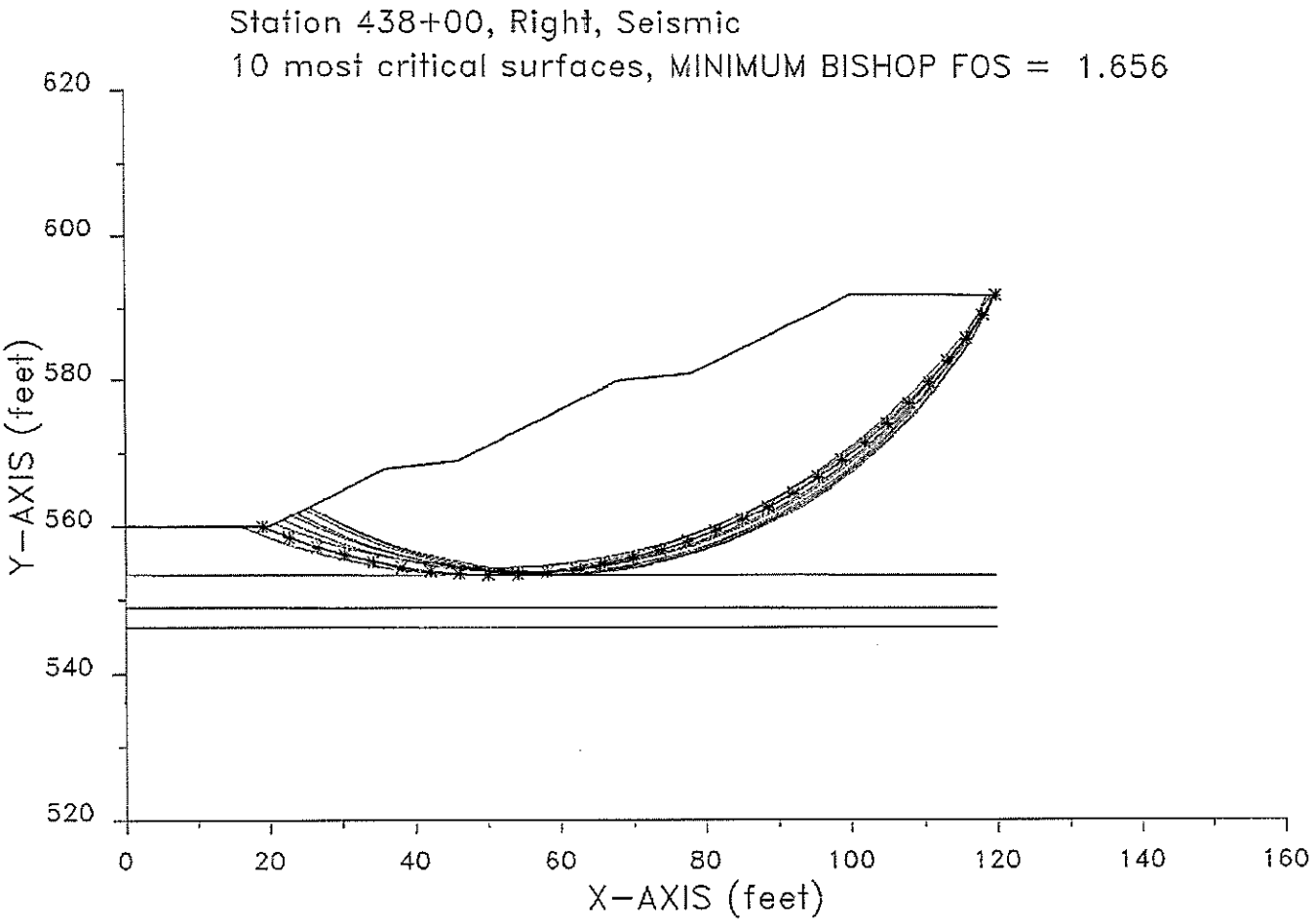

```
PROFIL                                          FILE: 43800L    11-12-**   11:25    ft.
Station 438+00, Left
    11        8
      .0      552.6       20.0      552.6    2
    20.0      552.6       21.8      553.5    2
    21.8      553.5       44.5      565.0    1
    44.5      565.0       54.5      566.0    1
    54.5      566.0       80.5      579.0    1
    80.5      579.0       90.5      580.0    1
    90.5      580.0      115.5      592.5    1
   115.5      592.5      135.0      592.5    1
    21.8      553.5      135.0      553.5    2
      .0      549.0      135.0      549.0    3
      .0      546.5      135.0      546.5    4
SOIL
   4
  120.0    125.0    1000.0      .00     .000       .0    0
  120.0    125.0    1500.0      .00     .000       .0    0
  120.0    125.0       .0     37.50     .000       .0    0
  120.0    125.0    3700.0      .00     .000       .0    0
CIRCL2
    25       50
    15.0      32.0      116.0      135.0
   532.5       .0         .0         .0
```



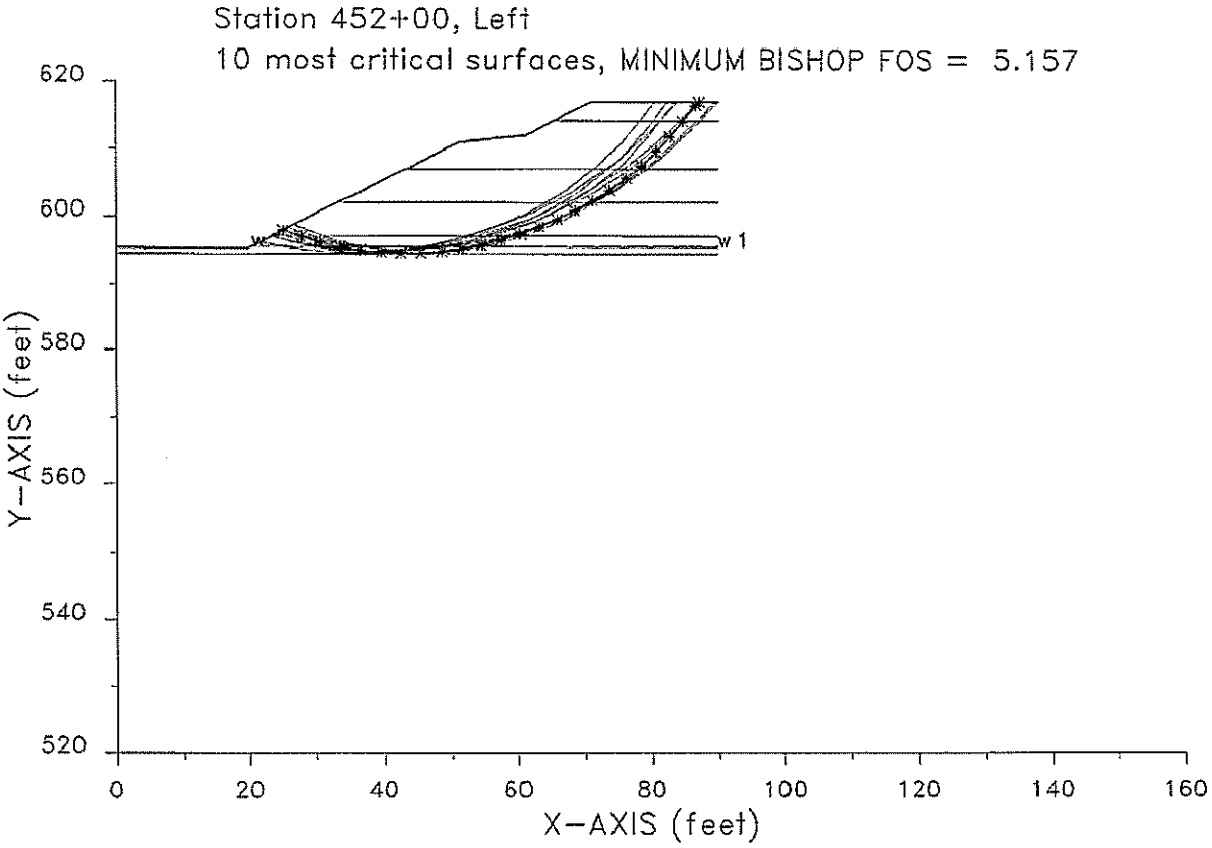

```
PROFIL                                        FILE: 43800LE   11-12-**   11:26     ft
Station 438+00, Left, Seismic
    11        8
      .0       552.6        20.0       552.6    2
     20.0      552.6        21.8       553.5    2
     21.8      553.5        44.5       565.0    1
     44.5      565.0        54.5       566.0    1
     54.5      566.0        80.5       579.0    1
     80.5      579.0        90.5       580.0    1
     90.5      580.0       115.5       592.5    1
    115.5      592.5       135.0       592.5    1
     21.8      553.5       135.0       553.5    2
      .0       549.0       135.0       549.0    3
      .0       546.5       135.0       546.5    4
SOIL
  4
  120.0    125.0    1000.0      .00      .000        .0     0
  120.0    125.0    1500.0      .00      .000        .0     0
  120.0    125.0        .0    37.50      .000        .0     0
  120.0    125.0    3700.0      .00      .000        .0     0
EQUAKE
   .085     .000
CIRCL2
    25       50
     15.0        32.0       116.0       135.0
    532.5          .0          .0          .0
```



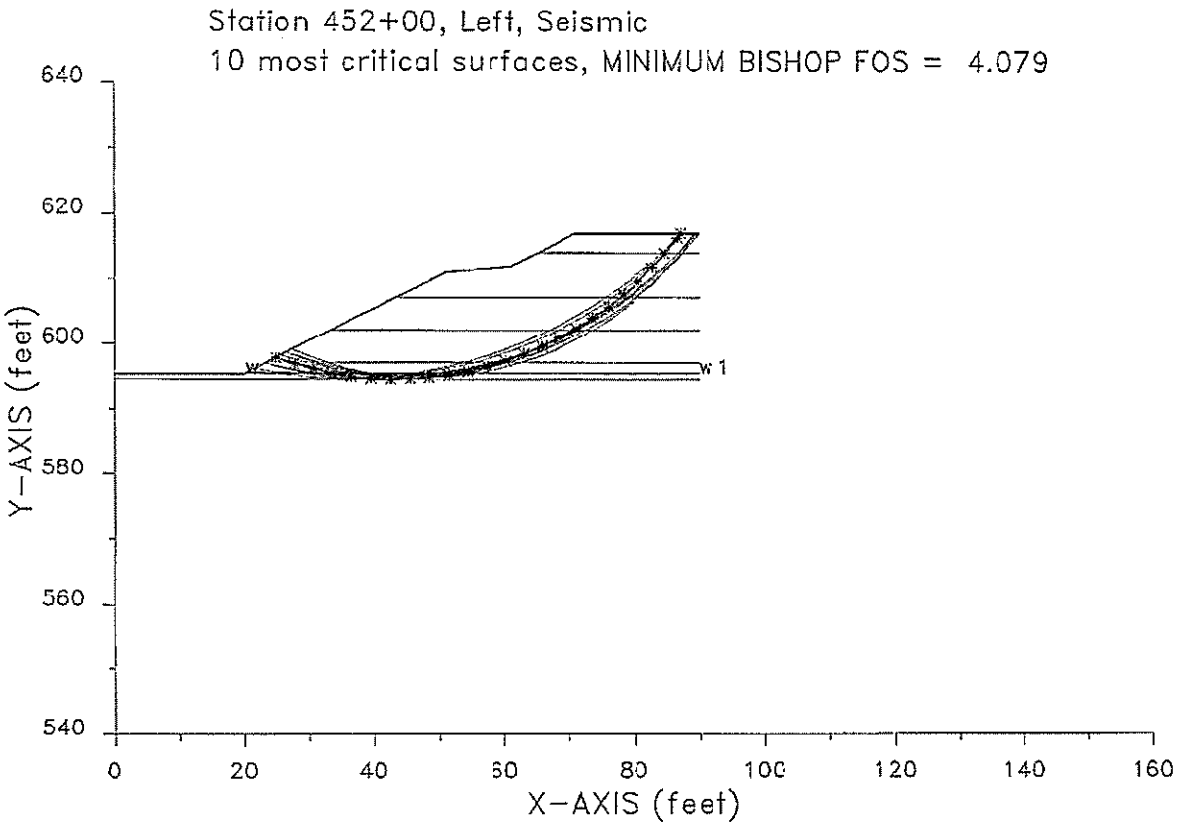

```
PROFIL                                        FILE: 43800R    11-12-**   11:11    ft
Station 438+00, Right
    10        7
      .0       560.0       20.0       560.0   1
     20.0      560.0       36.0       560.0   1
     36.0      563.0       46.0       569.0   1
     46.0      569.0       68.0       580.0   1
     68.0      580.0       78.0       581.0   1
     78.0      581.0      100.0       592.0   1
    100.0      592.0      120.0       592.0   1
      .0       553.5      120.0       553.5   2
      .0       549.0      120.0       549.0   3
      .0       546.5      120.0       546.5   4
SOIL
  4
  120.0    125.0    1000.0      .00      .000        .0    0
  120.0    125.0    1500.0      .00      .000        .0    0
  120.0    125.0        .0    37.50       000         0    0
  120.0    125.0    3700.0      .00      .000        .0    0
CIRCL2
    25       50
     15.0       29.0       101.0       120.0
    532.5         .0          .0          .0
```



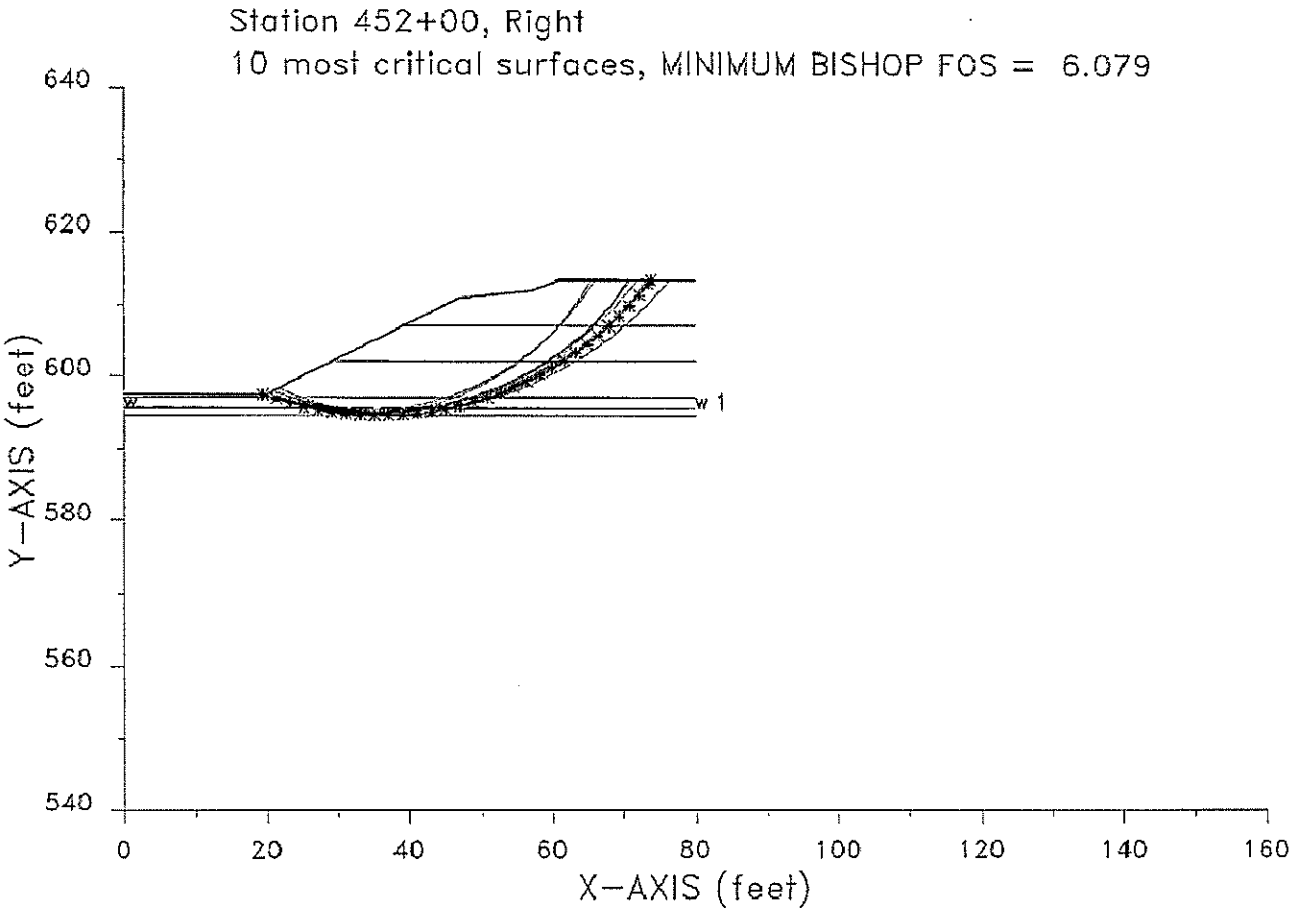

```
PROFIL                                        FILE: 43800RE   11-12-**   11:11     ft
Station 438+00, Right, Seismic
    10        7
      .0       560.0        20.0       560.0    1
     20.0      560.0        36.0       568.0    1
     36.0      568.0        46.0       569.0    1
     46.0      569.0        68.0       580.0    1
     68.0      580.0        78.0       581.0    1
     78.0      581.0       100.0       592.0    1
    100.0      592.0       120.0       592.0    1
      .0       553.5       120.0       553.5    2
      .0       549.0       120.0       549.0    3
      .0       546.5       120.0       546.5    4
SOIL
   4
  120.0    125.0    1000.0       .00      .000        .0     0
  120.0    125.0    1500.0       .00      .000        .0     0
  120.0    125.0        .0     37.50      .000        .0     0
  120.0    125.0    3700.0       .00      .000        .0     0
EQUAKE
   .085     .000
CIRCL2
    25       50
     15.0       29.0       101.0       120.0
    532.5         .0          .0          .0
```



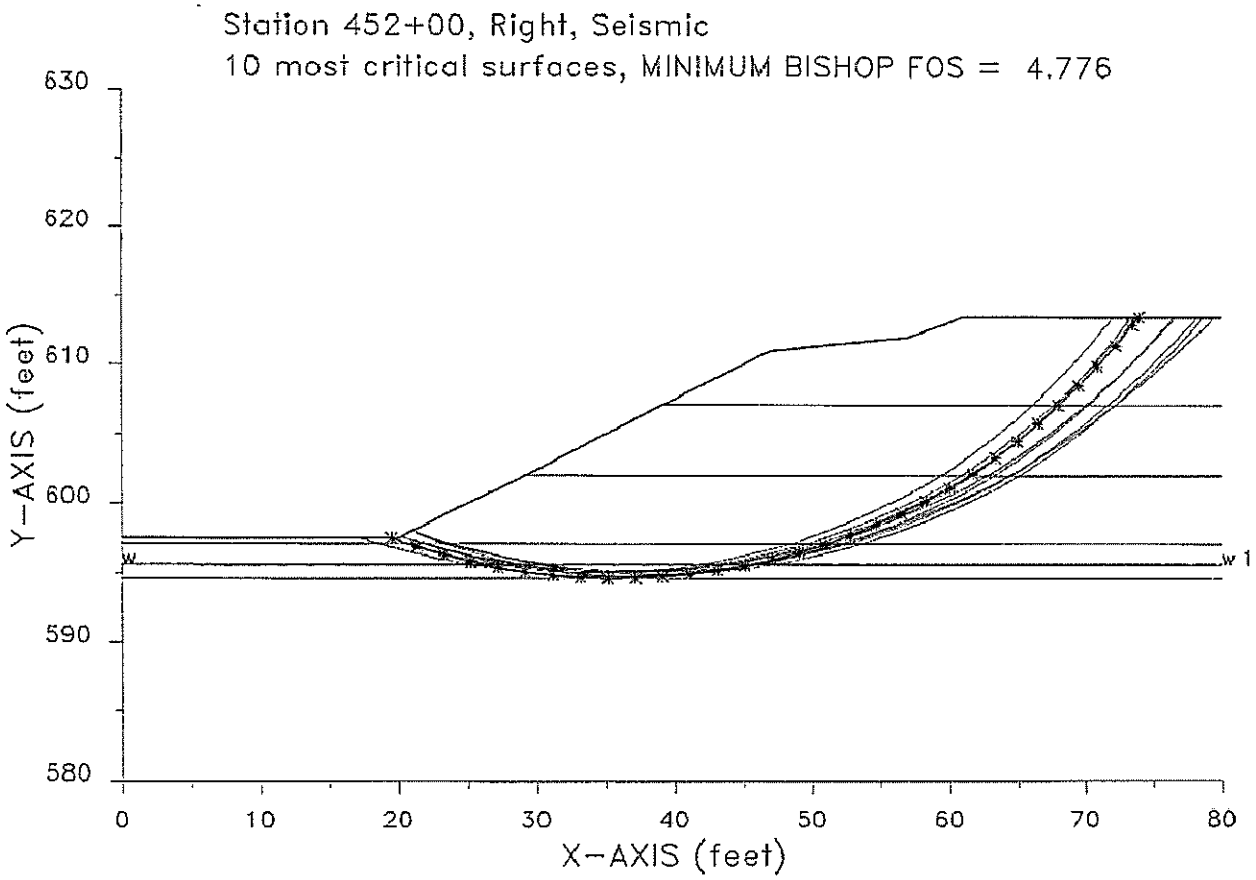

```
PROFIL                                          FILE: 45200L    11-12-**   11:12    ft
Station 452+00, Left
    16      10
      .0      595.4      20.0      595.4   6
    20.0      595.4      20.4      595.6   6
    20.4      595.6      23.4      597.1   5
    23.4      597.1      33.4      602.1   4
    33.4      602.1      43.4      607.1   3
    43.4      607.1      51.2      611.0   2
    51.2      611.0      61.2      612.0   2
    61.2      612.0      65.4      614.1   2
    65.4      614.1      71.2      617.0   1
    71.2      617.0      90.0      617.0   1
    65.4      614.1      90.0      614.1   2
    43.4      607.1      90.0      607.1   3
    33.4      602.1      90.0      602.1   4
    23.4      597.1      90.0      597.1   5
    20.4      595.6      90.0      595.6   6
      .0      594.6      90.0      594.6   7
SOIL
  7
  120.0    125.0    1030.0      .00      .000        .0    0
  120.0    125.0    1850.0      .00      .000        .0    0
  120.0    125.0    1350.0      .00      .000        .0    0
  120.0    125.0    1650.0      .00      .000        .0    0
  120.0    125.0    1500.0      .00      .000        .0    0
  120.0    125.0    1500.0      .00      .000        .0    1
  120.0    125.0    4500.0      .00      .000        .0    1
WATER
  1       62.40
    2
       20.4       595.6
       90.0       595.6
CIRCL2
    25      50
     15.0       35.0       72.0       90.0
    593.1         .0         .0         .0
```



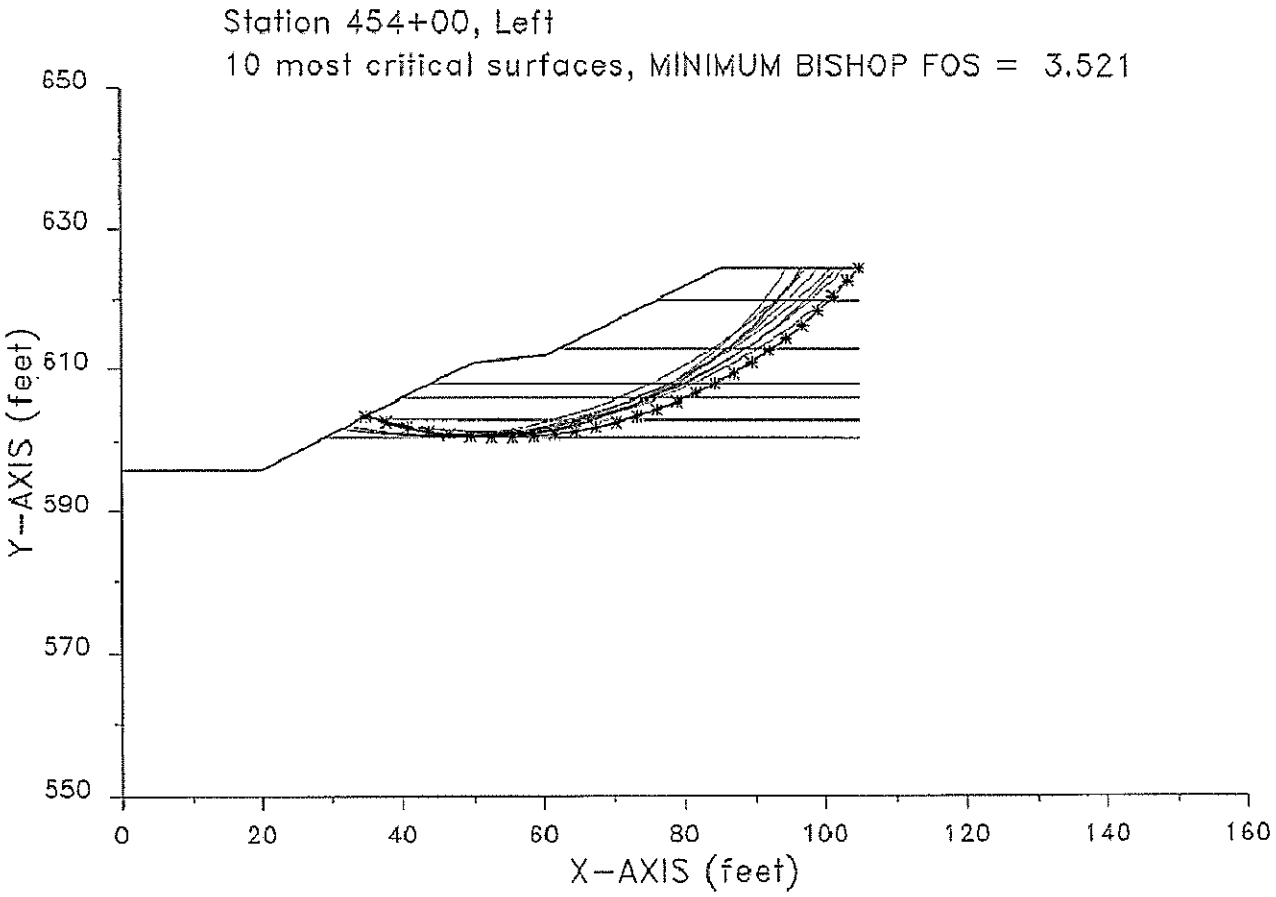

```
PROPIL                                          FILE: 45200LE   11-12-**   11:13     ft
Station 452+00, Left, Seismic
    15       10
      .0      595.4       20.0      595.4   6
    20.0      595.4       20.4      595.6   6
    20.4      595.6       23.4      597.1   5
    23.4      597.1       33.4      602.1   4
    33.4      602.1       43.4      607.1   3
    43.4      607.1       51.2      611.0   2
    51.2      611.0       61.2      612.0   2
    61.2      612.0       65.4      614.1   2
    65.4      614.1       71.2      617.0   1
    71.2      617.0       90.0      617.0   1
    65.4      614.1       90.0      614.1   2
    43.4      607.1       90.0      607.1   3
    33.4      602.1       90.0      602.1   4
    23.4      597.1       90.0      597.1   5
    20.4      595.6       90.0      595.6   6
      .0      594.6       90.0      594.6   7
SOIL
  7
  120.0    125.0    1000.0      .00     .000       .0    0
  120.0    125.0    1850.0      .00     .000       .0    0
  120.0    125.0    1350.0      .00     .000       .0    0
  120.0    125.0    1650.0      .00     .000        0    0
  120.0    125.0    1500.0      .00     .000       .0    0
  120.0    125.0    1500.0      .00     .000       .0    1
  120.0    125.0    4500.0      .00     .000       .0    1
WATER
  1       62.40
    2
      20.4        595.6
      90.0        595.6
EQUAKE
   .085      .000
CIRCL2
    25       50
     15.0       35.0       72.0       90.0
    593.1         .0         .0         .0
```



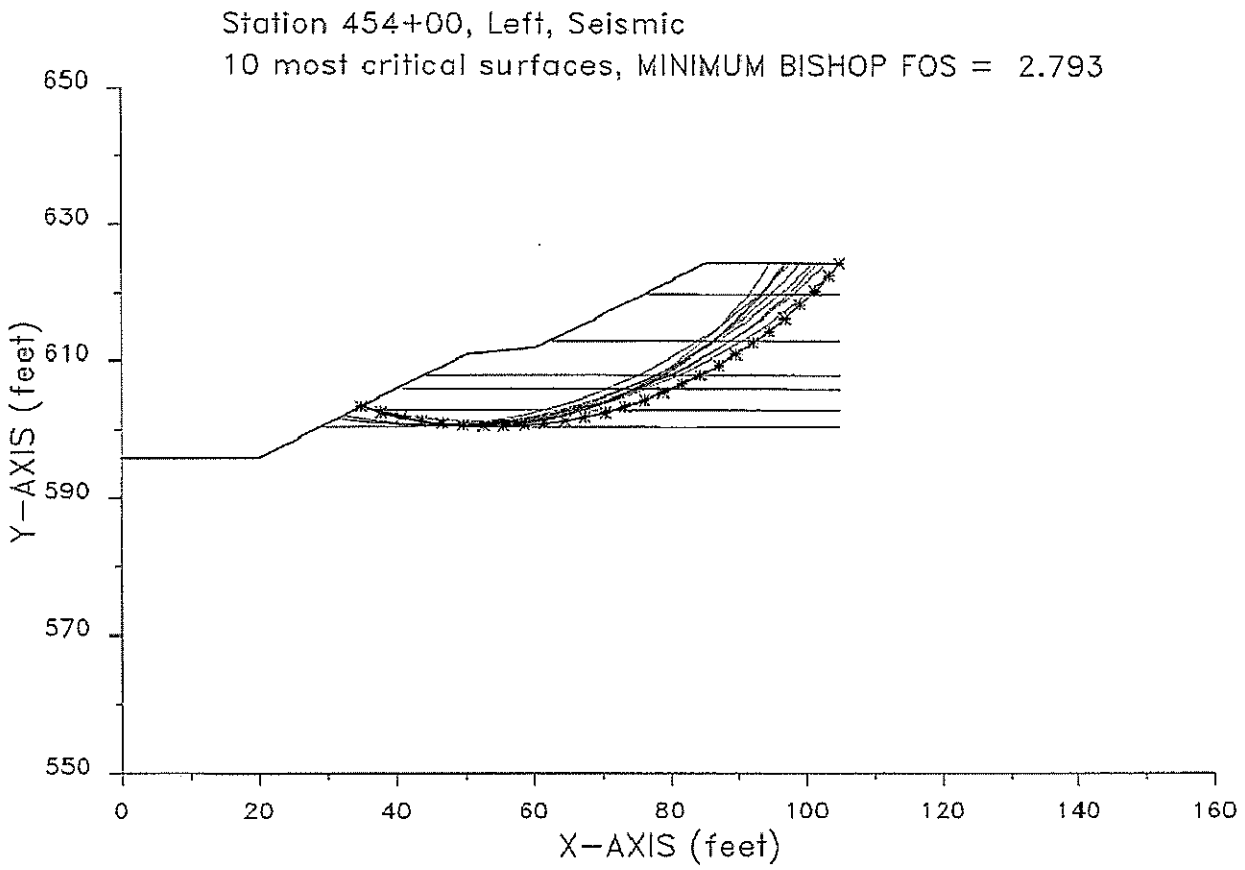

```
PROFIL                                          FILE: 45200R    11-12-**   11:27    ft
Station 452+00, Right
    12        7
      .0       597.5       20.0       597.5    3
    20.0       597.5       29.2       602.1    3
    29.2       602.1       39.2       607.1    2
    39.2       607.1       47.0       611.0    1
    47.0       611.0       57.0       612.0    1
    57.0       612.0       61.0       613.5    1
    61.0       613.5       80.0       613.5    1
    39.2       607.1       80.0       607.1    2
    29.2       602.1       80.0       602.1    3
      .0       597.1       80.0       597.1    4
      .0       595.6       80.0       595.6    5
      .0       594.6       80.0       594.6    6
SOIL
  6
  120.0    125.0    1850.0      .00      .000        .0    0
  120.0    125.0    1350.0      .00      .000        .0    0
  120.0    125.0    1650.0      .00      .000        .0    0
  120.0    125.0    1500.0      .00      .000        .0    0
  120.0    125.0    1500.0      .00      .000        .0    1
  120.0    125.0    4500.0      .00      .000        .0    1
WATER
  1       62.40
     2
          .0       595.6
        80.0       595.6
CIRCL2
    25       50
     15.0        33.0        62.0        80.0
    593.1          .0          .0          .0
```



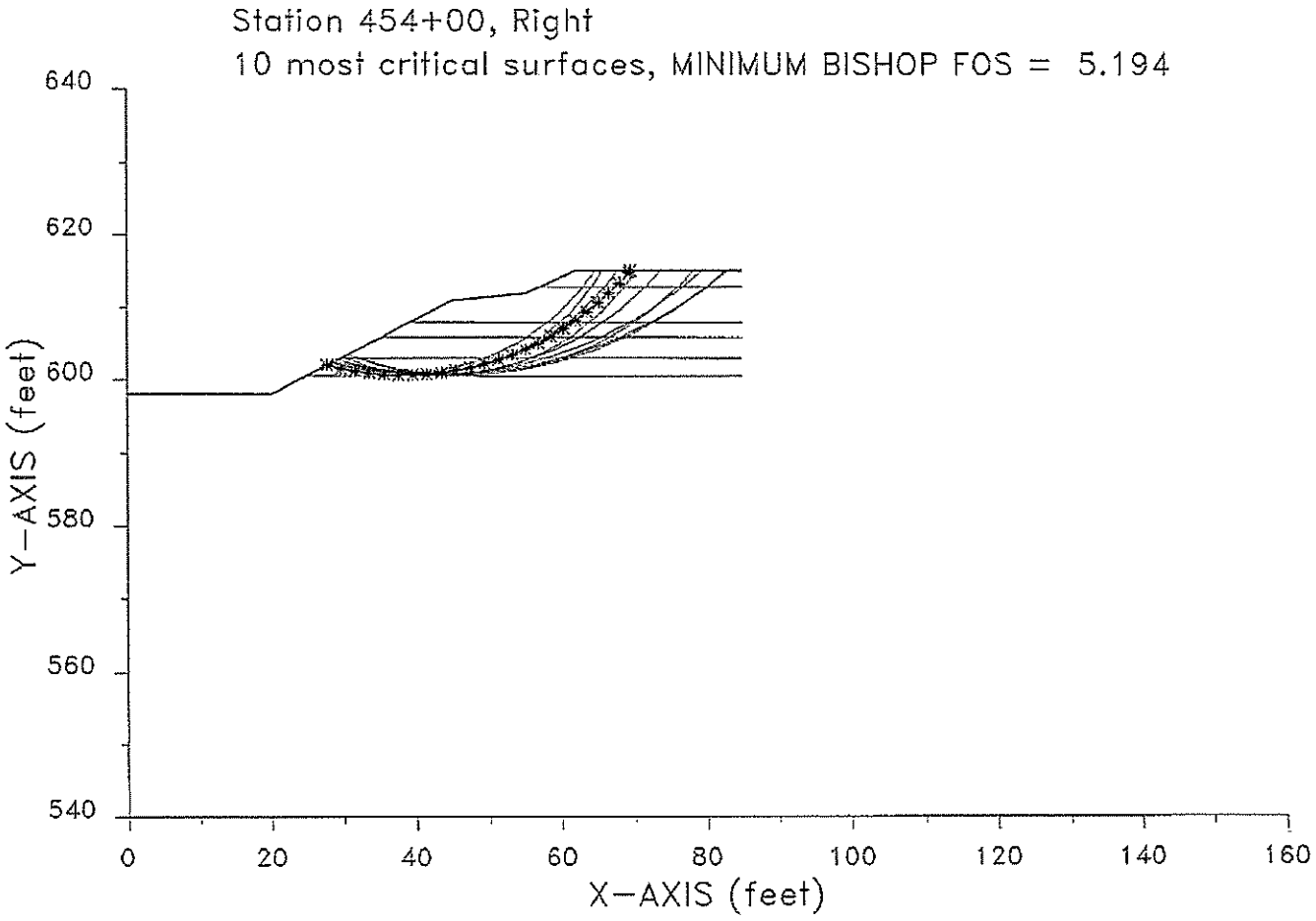

```
PROFIL                                        FILE: 45200RE   11-12-**   11:28    ft
Station 452+00, Right, Seismic
    12        7
      .0      597.5       20.0      597.5   3
    20.0      597.5       29.2      602.1   3
    29.2      602.1       39.2      607.1   2
    39.2      607.1       47.0      611.0   1
    47.0      611.0       57.0      612.0   1
    57.0      612.0       61.0      613.5   1
    61.0      613.5       80.0      613.5   1
    39.2      607.1       80.0      607.1   2
    29.2      602.1       80.0      602.1   3
      .0      597.1       80.0      597.1   4
      .0      595.6       80.0      595.6   5
      .0      594.6       80.0      594.6   6
SOIL
  6
  120.0    125.0    1850.0      .00      .000        .0    0
  120.0    125.0    1350.0      .00      .000        .0    0
  120.0    125.0    1650.0      .00      .000        .0    0
  120.0    125.0    1500.0      .00      .000        .0    0
  120.0    125.0    1500.0      .00      .000        .0    1
  120.0    125.0    4500.0      .00      .000        .0    1
WATER
  1       62.40
     2
          .0        595.6
        80.0        595.6
EQUAKE
    .085      .000
CIRCL2
     25       50
     15.0       33.0       62.0       80.0
    593.1         .0         .0         .0
```



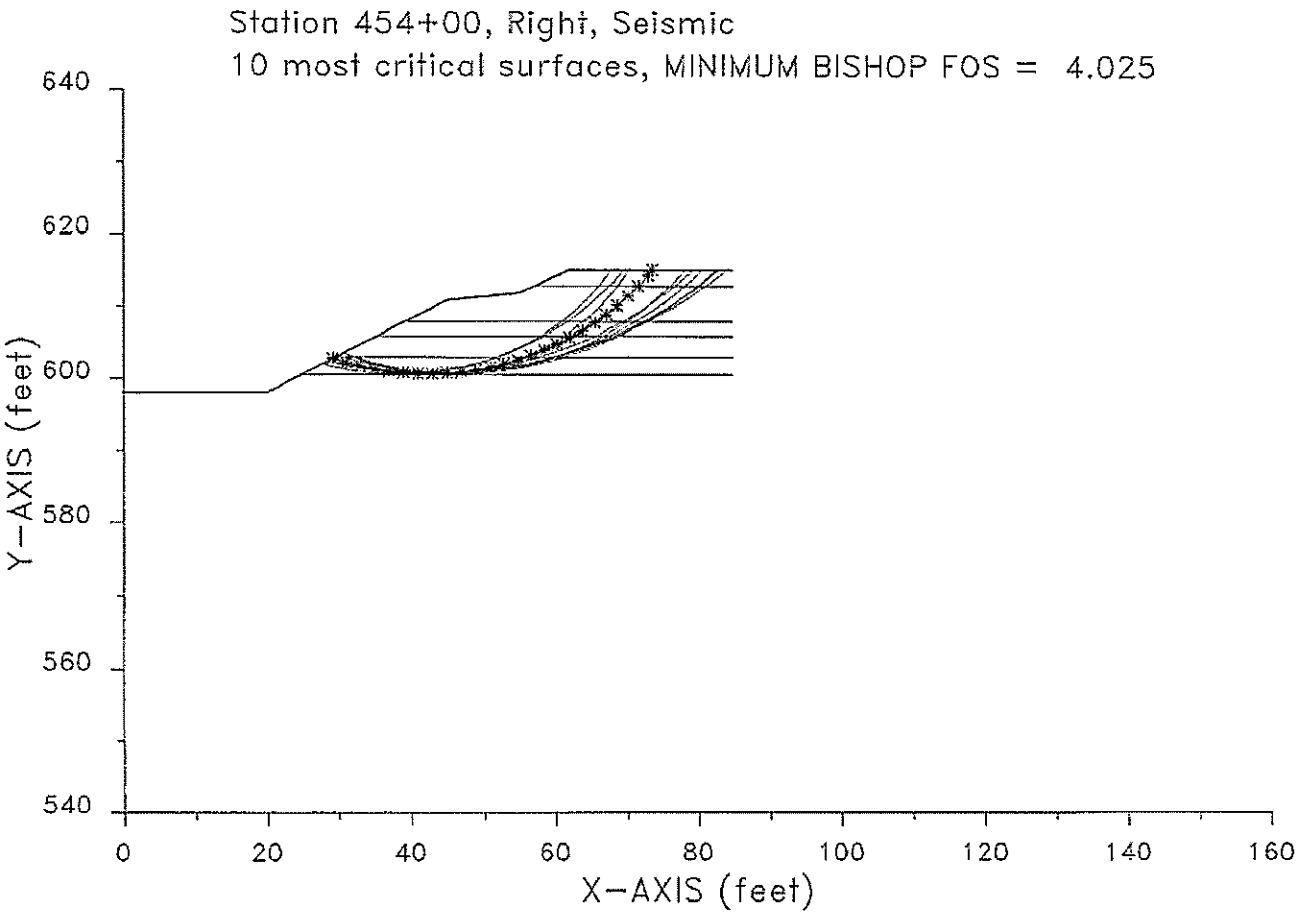

```
PROFIL                                        FILE: 45400L    11-12-**   13:24    ft
Station 454+00, Left
    17      11
      .0      596.0       20.0      596.0   7
     20.0     596.0       29.0      600.5   7
     29.0     600.5       34.0      603.0   6
     34.0     603.0       40.0      606.0   5
     40.0     606.0       44.0      608.0   4
     44.0     608.0       50.4      611.0   3
     50.4     611.0       60.4      612.0   3
     60.4     612.0       62.4      613.0   3
     62.4     613.0       76.4      620.0   2
     76.4     620.0       85.4      624.5   1
     85.4     624.5      105.0      624.5   1
     76.4     620.0      105.0      620.0   2
     62.4     613.0      105.0      613.0   3
     44.0     608.0      105.0      608.0   4
     40.0     606.0      105.0      606.0   5
     34.0     603.0      105.0      603.0   6
     29.0     600.5      105.0      600.5   7
SOIL
  7
  120.0    125.0    1000.0       .00      .000        .0    0
  120.0    125.0    1700.0       .00      .000        .0    0
  120.0    125.0    1800.0       .00      .000        .0    0
  120.0    125.0    2600.0       .00      .000        .0    0
  120.0    125.0     700.0       .00      .000        .0    0
  120.0    125.0        .0     29.00      .000        .0    0
  120.0    125.0    3925.0       .00      .000        .0    0
CIRCL2
    25      50
     15.0        35.0        86.0       105.0
    591.5          .0          .0          .0
```



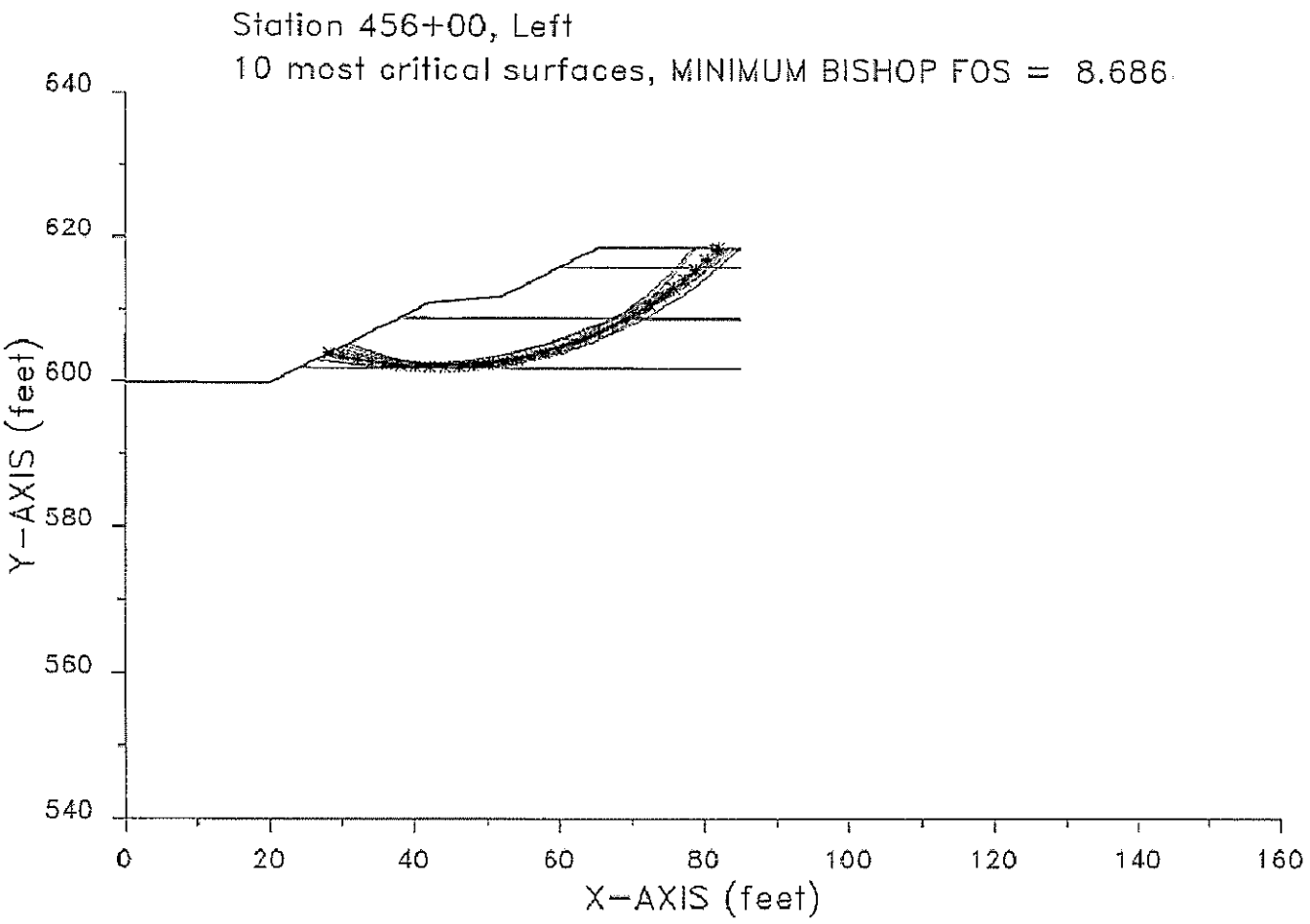

```
PROFIL                                        FILE: 45400LE   11-12-**   13:25    ft
Station 454+00, Left, Seismic
    17       11
      .0      596.0       20.0      596.0   7
    20.0      596.0       29.0      600.5   7
    29.0      600.5       34.0      603.0   6
    34.0      603.0       40.0      606.0   5
    40.0      606.0       44.0      608.0   4
    44.0      608.0       50.4      611.0   3
    50.4      611.0       60.4      612.0   3
    60.4      612.0       62.4      613.0   3
    62.4      613.0       76.4      620.0   2
    76.4      620.0       85.4      624.5   1
    85.4      624.5      105.0      624.5   1
    76.4      620.0      105.0      620.0   2
    62.4      613.0      105.0      613.0   3
    44.0      608.0      105.0      608.0   4
    40.0      606.0      105.0      606.0   5
    34.0      603.0      105.0      603.0   6
    29.0      600.5      105.0      600.5   7
SOIL
  7
  120.0    125.0    1000.0      .00      .000        .0    0
  120.0    125.0    1700.0      .00      .000        .0    0
  120.0    125.0    1800.0      .00      .000        .0    0
  120.0    125.0    2600.0      .00      .000        .0    0
  120.0    125.0     700.0      .00      .000        .0    0
  120.0    125.0        .0    29.00      .000        .0    0
  120.0    125.0    3925.0      .00      .000        .0    0
EQUAKE
   .085     .000
CIRCL2
    25       50
     15.0       35.0       86.0      105.0
    591.5         .0         .0         .0
```



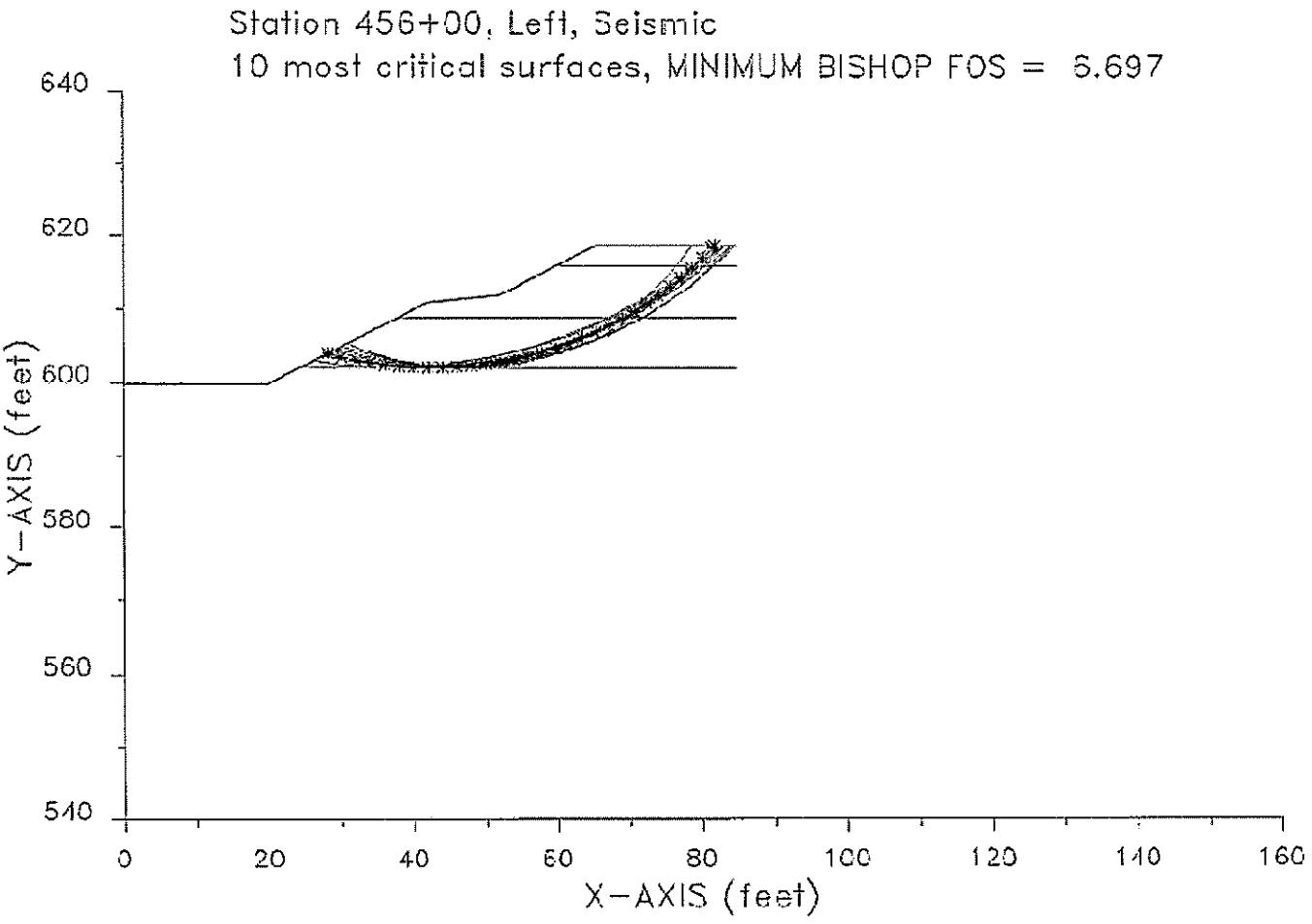

```
PROFIL                                          FILE: 45400R    11-12-**   11:32    ft
Station 454+00, Right
    15       10
      .0       598.0        20.0       598.0   6
     20.0      598.0        24.8       600.5   6
     24.8      600.5        29.6       603.0   5
     29.6      603.0        35.4       606.0   4
     35.4      606.0        39.2       608.0   3
     39.2      608.0        45.0       611.0   2
     45.0      611.0        55.0       612.0   2
     55.0      612.0        57.2       613.0   2
     57.2      613.0        62.0       615.2   1
     62.0      615.2        85.0       615.2   1
     57.2      613.0        85.0       613.0   2
     39.2      608.0        85.0       608.0   3
     35.4      606.0        85.0       606.0   4
     29.6      603.0        85.0       603.0   5
     24.8      600.5        85.0       600.5   6
SOIL
  6
  120.0    125.0    1700.0       .00      .000        .0    0
  120.0    125.0    1800.0       .00      .000        .0    0
  120.0    125.0    2600.0       .00      .000        .0    0
  120.0    125.0     700.0       .00      .000        .0    0
  120.0    125.0        .0     29.00      .000        .0    0
  120.0    125.0    3925.0       .00      .000        .0    0
CIRCL2
    25       50
     15.0        33.0        63.0        85.0
    591.5          .0          .0          .0
```



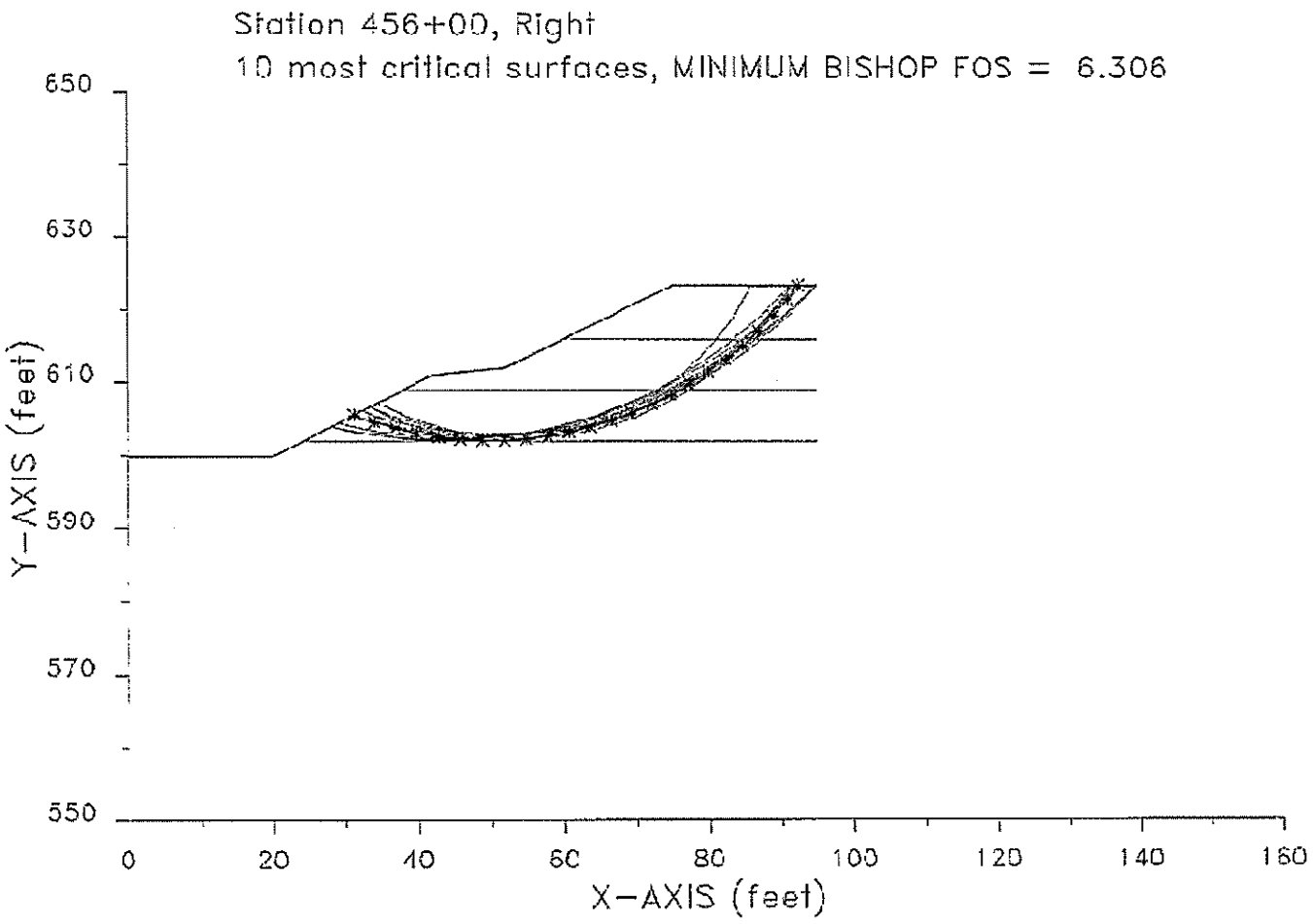

```
PROFIL                                          FILE: 45400RE   11-12-**   11:32     ft
Station 454+00, Right, Seismic
    15       10
      .0       598.0        20.0       598.0    6
     20.0      598.0        24.8       600.5    6
     24.8      600.5        29.6       603.0    5
     29.6      603.0        35.4       606.0    4
     35.4      606.0        39.2       608.0    3
     39.2      608.0        45.0       611.0    2
     45.0      611.0        55.0       612.0    2
     55.0      612.0        57.2       613.0    2
     57.2      613.0        62.0       615.2    1
     62.0      615.2        85.0       615.2    1
     57.2      613.0        85.0       613.0    2
     39.2      608.0        85.0       608.0    3
     35.4      606.0        85.0       606.0    4
     29.6      603.0        85.0       603.0    5
     24.8      600.5        85.0       600.5    6
SOIL
  6
  120.0    125.0    1700.0      .00      .000        .0    0
  120.0    125.0    1800.0      .00      .000        .0    0
  120.0    125.0    2600.0      .00      .000        .0    0
  120.0    125.0     700.0      .00      .000        .0    0
  120.0    125.0        .0    29.00      .000        .0    0
  120.0    125.0    3925.0      .00      .000        .0    0
EQUAKE
   .085     .000
CIRCL2
    25       50
     15.0        33.0        63.0        85.0
    591.5          .0          .0          .0
```



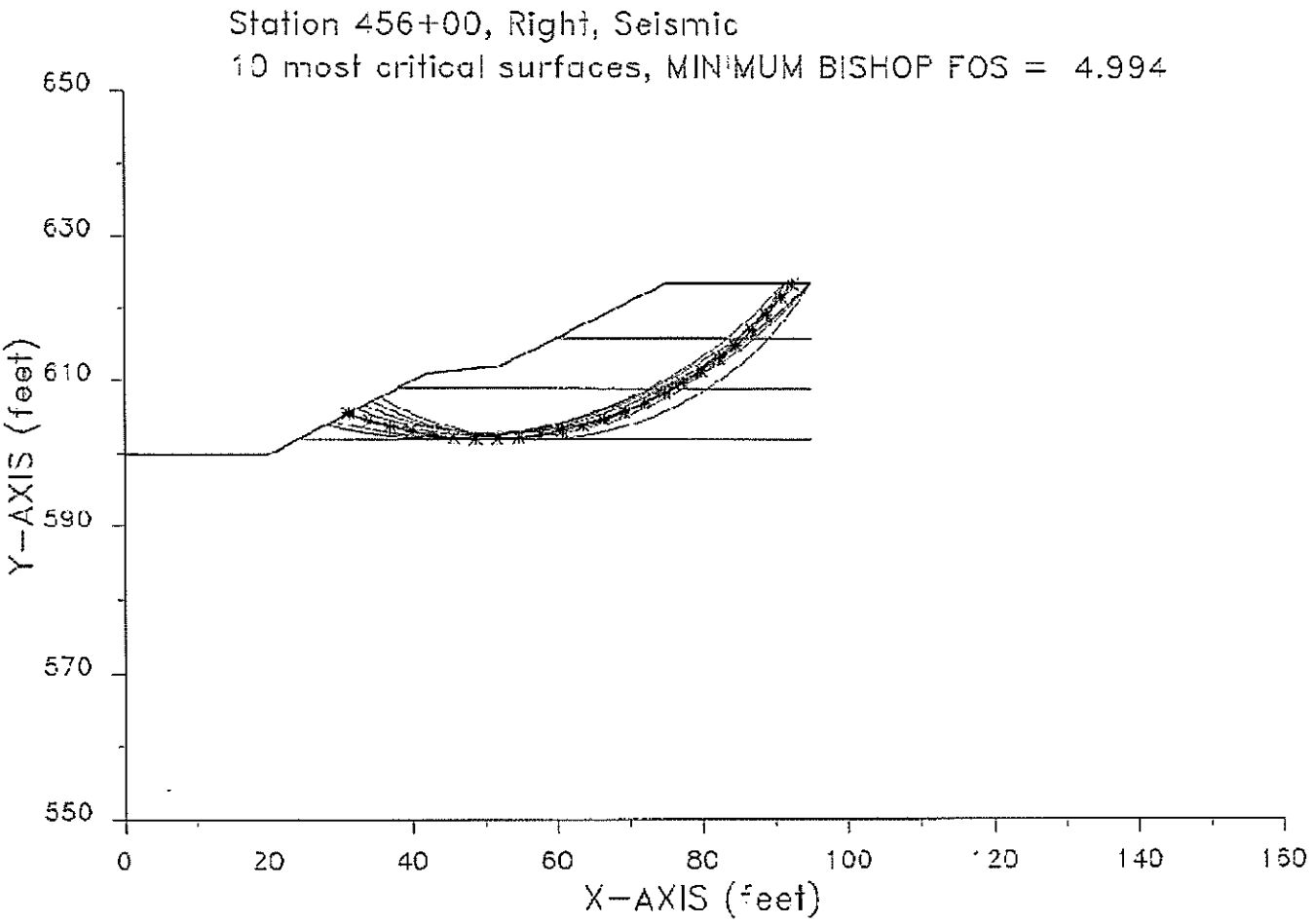

```
PROFIL                                        FILE: 45600L    11-12-**   13:27    ft
Station 456+00, Left
    11       8
      .0      599.8       20.0      599.8   4
    20.0      599.8       24.3      602.0   4
    24.3      602.0       38.1      609.0   3
    38.1      609.0       42.0      611.0   2
    42.0      611.0       52.0      612.0   2
    52.0      612.0       60.0      616.0   2
    60.0      616.0       65.4      618.7   1
    65.4      618.7       85.0      618.7   1
    60.0      616.0       85.0      616.0   2
    38.1      609.0       85.0      609.0   3
    24.3      602.0       85.0      602.0   4
SOIL
  4
  120.0    125.0    1000.0       .00      .000        .0    0
  120.0    125.0    1250.0       .00      .000        .0    0
  120.0    125.0    2033.0       .00      .000        .0    0
  120.0    125.0    4500.0       .00      .000        .0    0
CIRCL2
    25      50
     15.0       31.0       66.0       85.0
    595.0         .0         .0         .0
```



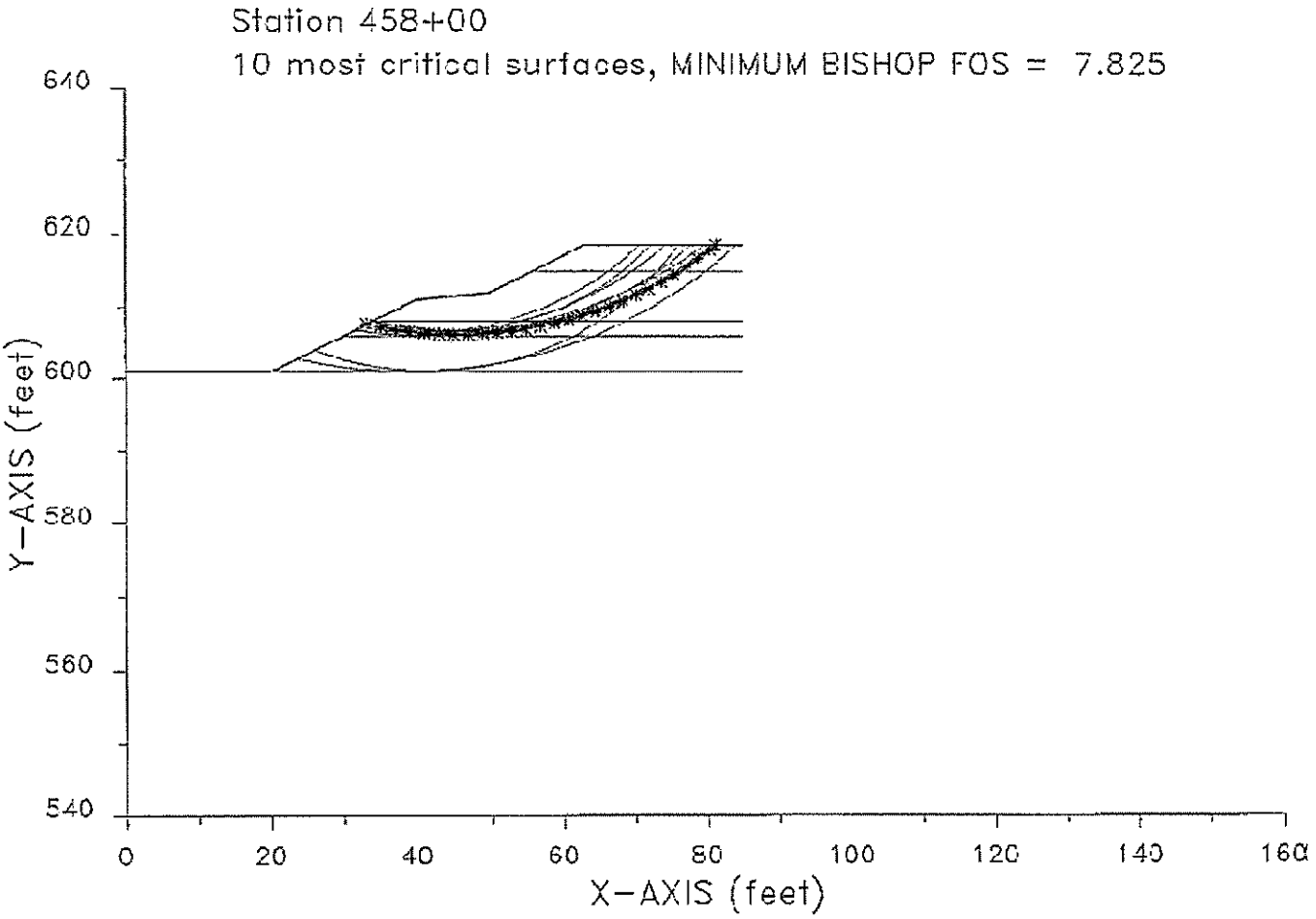

```
PROFIL                                        FILE: 45600LE   11-12-**   13:28    ft
Station 456+00, Left, Seismic
    11        8
      .0      599.8       20.0      599.8    4
    20.0      599.8       24.3      602.0    4
    24.3      602.0       38.1      609.0    3
    38.1      609.0       42.0      611.0    2
    42.0      611.0       52.0      612.0    2
    52.0      612.0       60.0      616.0    2
    60.0      616.0       65.4      618.7    1
    65.4      618.7       85.0      618.7    1
    60.0      616.0       85.0      616.0    2
    38.1      609.0       85.0      609.0    3
    24.3      602.0       85.0      602.0    4
SOIL
  4
  120.0    125.0    1000.0      .00      .000        .0    0
  120.0    125.0    1250.0      .00      .000        .0    0
  120.0    125.0    2033.0      .00      .000        .0    0
  120.0    125.0    4500.0      .00      .000        .0    0
EQUAKE
   .085     .000
CIRCL2
    25       50
     15.0       31.0       66.0       85.0
    595.0         .0         .0         .0
```



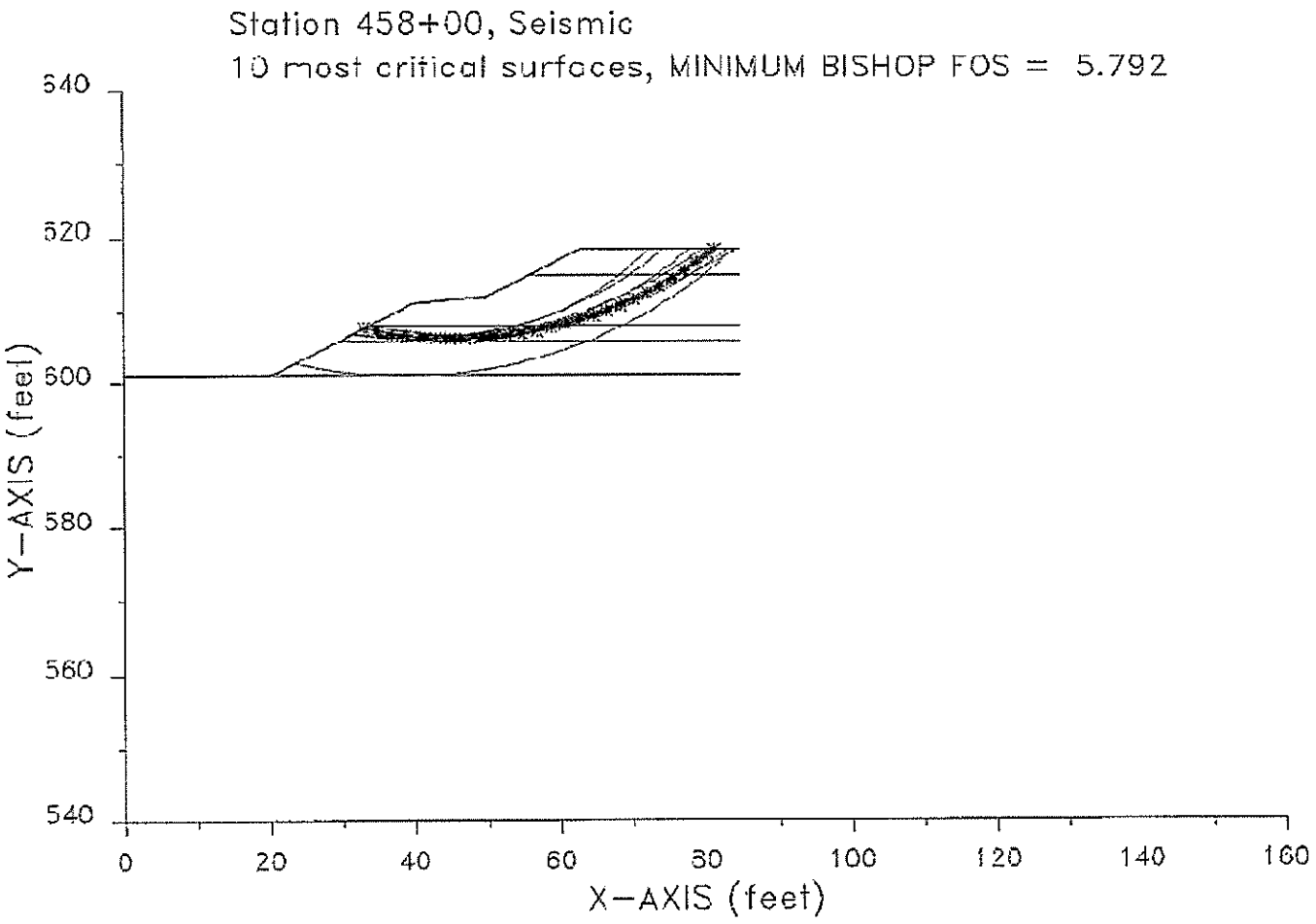

```
PROFIL                                    FILE: 45600R    11-12-**   11:07    ft
Station 456+00, Right
    11        8
     .0       599.8       20.0       599.8   4
   20.0       599.8       24.3       602.0   4
   24.3       602.0       38.1       609.0   3
   38.1       609.0       42.0       611.0   2
   42.0       611.0       52.0       612.0   2
   52.0       612.0       60.0       616.0   2
   60.0       616.0       75.0       623.5   1
   75.0       623.5       95.0       623.5   1
   60.0       616.0       95.0       616.0   2
   38.1       609.0       95.0       609.0   3
   24.3       602.0       95.0       602.0   4
SOIL
  4
  120.0    125.0    1000.0       .00      .000        .0    0
  120.0    125.0    1250.0       .00      .000        .0    0
  120.0    125.0    2033.0       .00      .000        .0    0
  120.0    125.0    4500.0       .00      .000        .0    0
CIRCL2
    25       50
     15.0        41.0        76.0        95.0
    595.0          .0          .0          .0
```




```
PROFIL                                    FILE: 45600RE   11-12-**   11:08    ft
Station 456+00, Right, Seismic
    11        8
      .0      599.8       20.0      599.8   4
    20.0      599.8       24.3      602.0   4
    24.3      602.0       38.1      609.0   3
    38.1      609.0       42.0      611.0   2
    42.0      611.0       52.0      612.0   2
    52.0      612.0       60.0      616.0   2
    60.0      616.0       75.0      623.5   1
    75.0      623.5       95.0      623.5   1
    60.0      616.0       95.0      616.0   2
    38.1      609.0       95.0      609.0   3
    24.3      602.0       95.0      602.0   4
SOIL
  4
  120.0    125.0    1000.0      .00      .000        .0    0
  120.0    125.0    1250.0      .00      .000        .0    0
  120.0    125.0    2033.0      .00      .000        .0    0
  120.0    125.0    4500.0      .00      .000        .0    0
EQUAKE
   .085     .000
CIRCL2
    25       50
     15.0       41.0       76.0       95.0
    595.0         .0         .0         .0
```



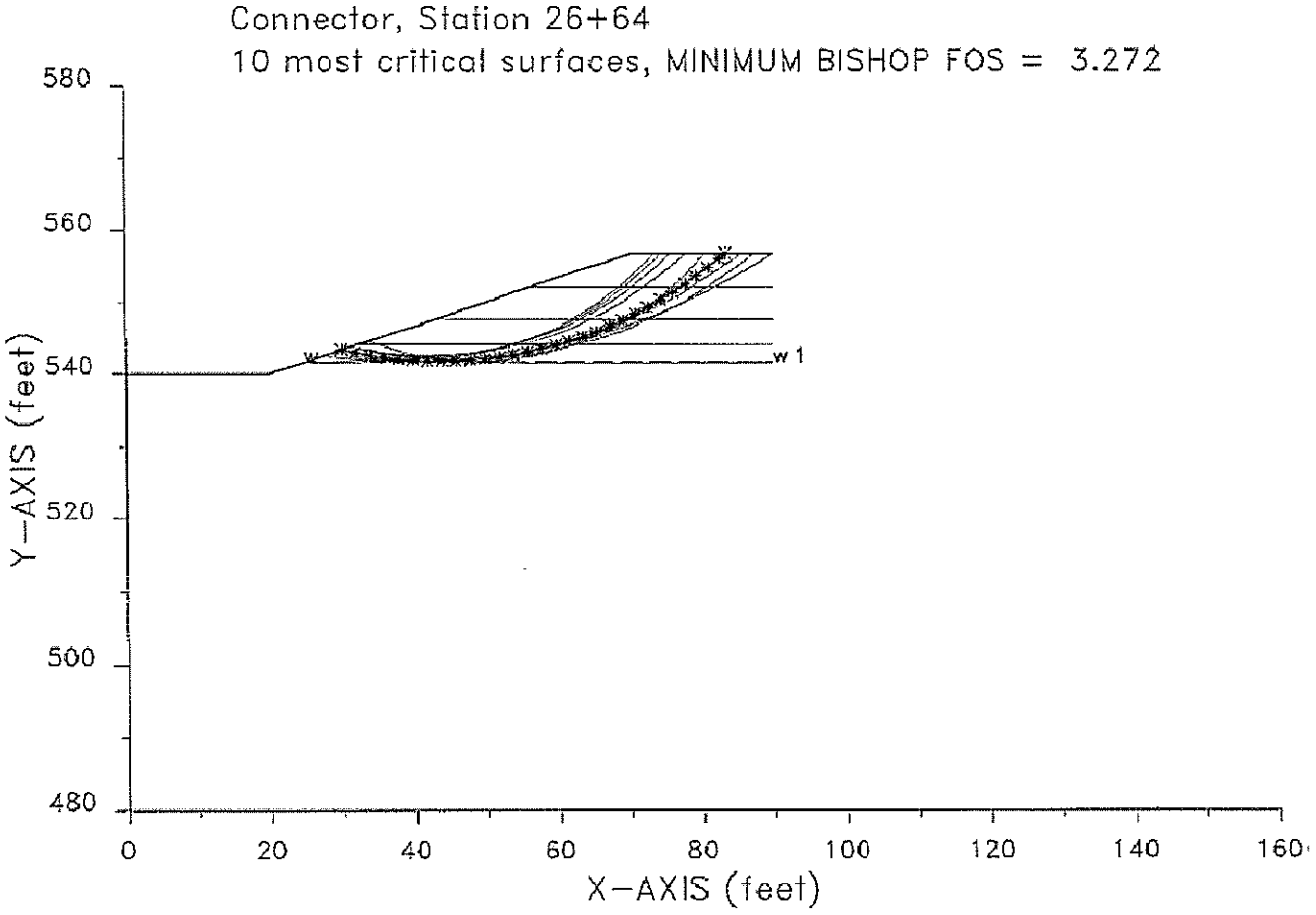

```
PROFIL                                          FILE: 45800     11-12-**   11:09     ft
Station 458+00
    13        9
      .0       603.9        20.0       600.9    5
    20.0       603.9        20.2       601.0    6
    20.2       601.0        30.1       605.0    4
    30.1       605.0        34.0       608.0    3
    34.0       608.0        40.0       611.0    2
    40.0       611.0        50.0       612.0    2
    50.0       612.0        56.0       615.0    2
    56.0       615.0        63.0       618.5    1
    63.0       618.5        85.0       618.5    1
    56.0       615.0        85.0       615.0    2
    34.0       608.0        85.0       608.0    3
    30.1       605.0        85.0       605.0    4
    20.2       601.0        85.0       601.0    5
SOIL
  5
  120.0    125.0    1000.0       .00      .000        .0    0
  120.0    125.0    1900.0       .00      .000        .0    0
  120.0    125.0     600.0       .00      .000        .0    0
  120.0    125.0    2200.0       .00      .000        .0    0
  120.0    125.0    4050.0       .00      .000        .0    0
CIRCL2
    25       50
     15.0        34.0        64.0        85.0
    596.5          .0          .0          .0
```



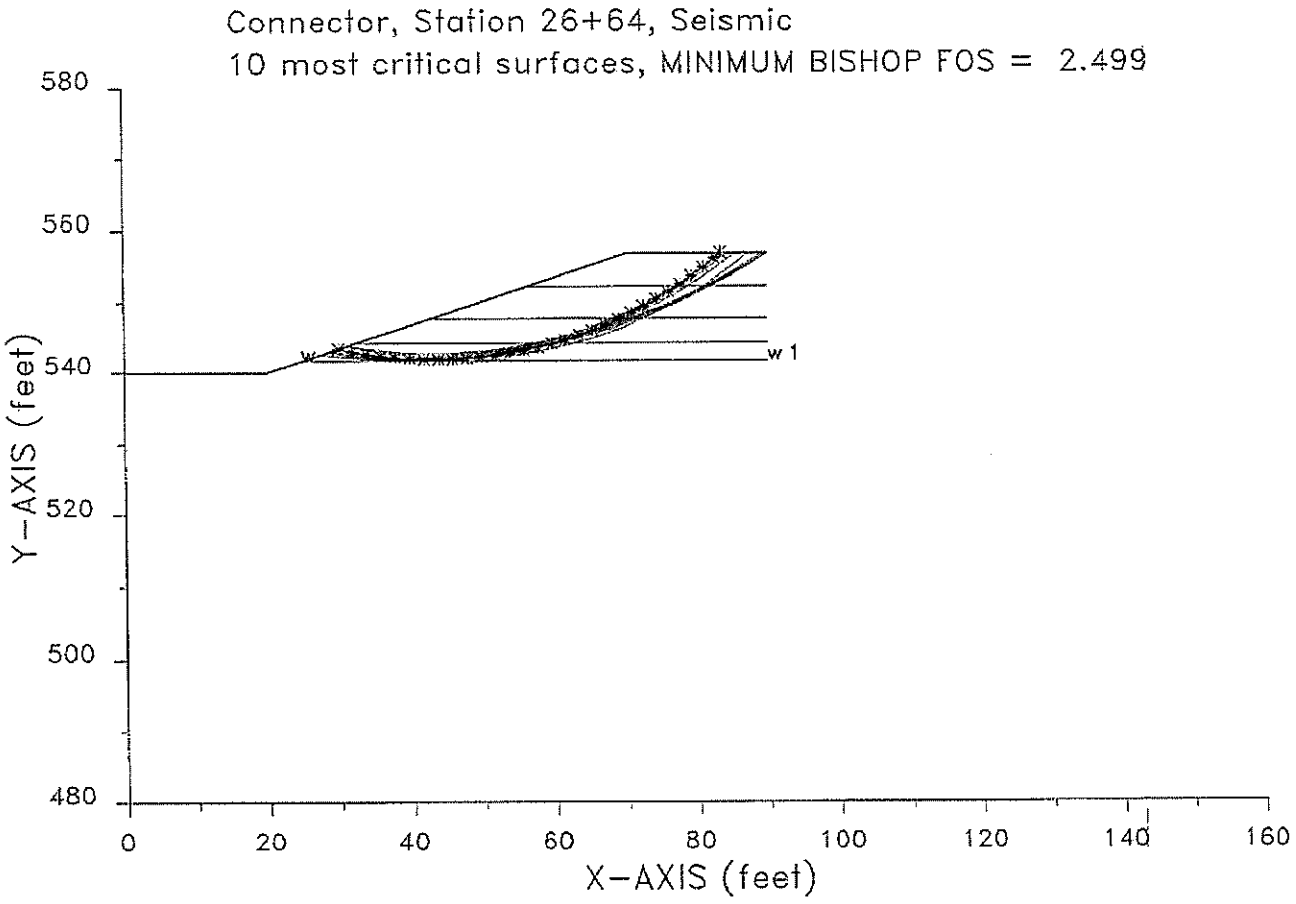

```
PROFIL                                        FILE: 45800E    11-12-**   11:09    ft
Station 458+00, Seismic
    13        9
      .0       600.9        20.0       600.9    5
    20.0       600.9        20.2       601.0    5
    20.2       601.0        30.1       606.0    4
    30.1       606.0        34.0       608.0    3
    34.0       608.0        40.0       611.0    2
    40.0       611.0        50.0       612.0    2
    50.0       612.0        56.0       615.0    2
    56.0       615.0        63.0       618.5    1
    63.0       618.5        85.0       618.5    1
    56.0       615.0        85.0       615.0    2
    34.0       608.0        85.0       608.0    3
    30.1       606.0        85.0       606.0    4
    20.2       601.0        85.0       601.0    5
SOIL
   5
  120.0     125.0     1000.0        .00      .000          .0     0
  120.0     125.0     1900.0        .00      .000          .0     0
  120.0     125.0      600.0        .00      .000          .0     0
  120.0     125.0     2200.0        .00      .000          .0     0
  120.0     125.0     4050.0        .00      .000          .0     0
EQUAKE
    .085      .000
CIRCL2
    25        50
     15.0        34.0        64.0        85.0
    596.5          .0          .0          .0
```

Slope Stability Analyses

US 67 Connector




```
PROFIL                                        FILE: 2664      11-13-**   13:23     ft
Connector, Station 26+64
    11        7
      .0       540.0        20.0       540.0    5
    20.0       540.0        24.8       541.6    5
    24.8       541.6        32.3       544.1    4
    32.3       544.1        42.8       547.6    3
    42.8       547.6        56.3       552.1    2
    56.3       552.1        70.3       556.8    1
    70.3       556.8        90.0       556.8    1
    56.3       552.1        90.0       552.1    2
    42.8       547.6        90.0       547.6    3
    32.3       544.1        90.0       544.1    4
    24.8       541.6        90.0       541.6    5
SOIL
  5
  120.0     125.0     1000.0       .00      .000         .0     0
  120.0     125.0      250.0       .00      .000         .0     0
  120.0     125.0      800.0       .00      .000         .0     0
  120.0     125.0         .0     34.00      .000         .0     0
  120.0     125.0     5300.0       .00      .000         .0     1
WATER
  1        62.40
     2
        24.8        541.6
        90.0        541.6
CIRCL2
    25       50
     15.0        45.0        71.0        90.0
    536.1          .0          .0          .0
```




```
PROFIL                                        FILE: 2664E     11-13-**   13:24     ft
Connector, Station 26+64, Seismic
    11        7
      .0       540.0        20.0       540.0    5
     20.0      540.0        24.8       541.6    5
     24.8      541.6        32.3       544.1    4
     32.3      544.1        42.8       547.6    3
     42.8      547.6        56.3       552.1    2
     56.3      552.1        70.3       556.8    1
     70.3      556.8        90.0       556.8    1
     56.3      552.1        90.0       552.1    2
     42.8      547.6        90.0       547.6    3
     32.3      544.1        90.0       544.1    4
     24.8      541.6        90.0       541.6    5
SOIL
   5
   120.0    125.0    1000.0      .00      .000        .0    0
   120.0    125.0     250.0      .00      .000        .0    0
   120.0    125.0     800.0      .00      .000        .0    0
   120.0    125.0        .0    34.00      .000        .0    0
   120.0    125.0    5300.0      .00      .000        .0    1
WATER
   1       62.40
      2
         24.8        541.6
         90.0        541.6
EQUAKE
    .085      .000
CIRCL2
     25       50
      15.0        45.0        71.0        90.0
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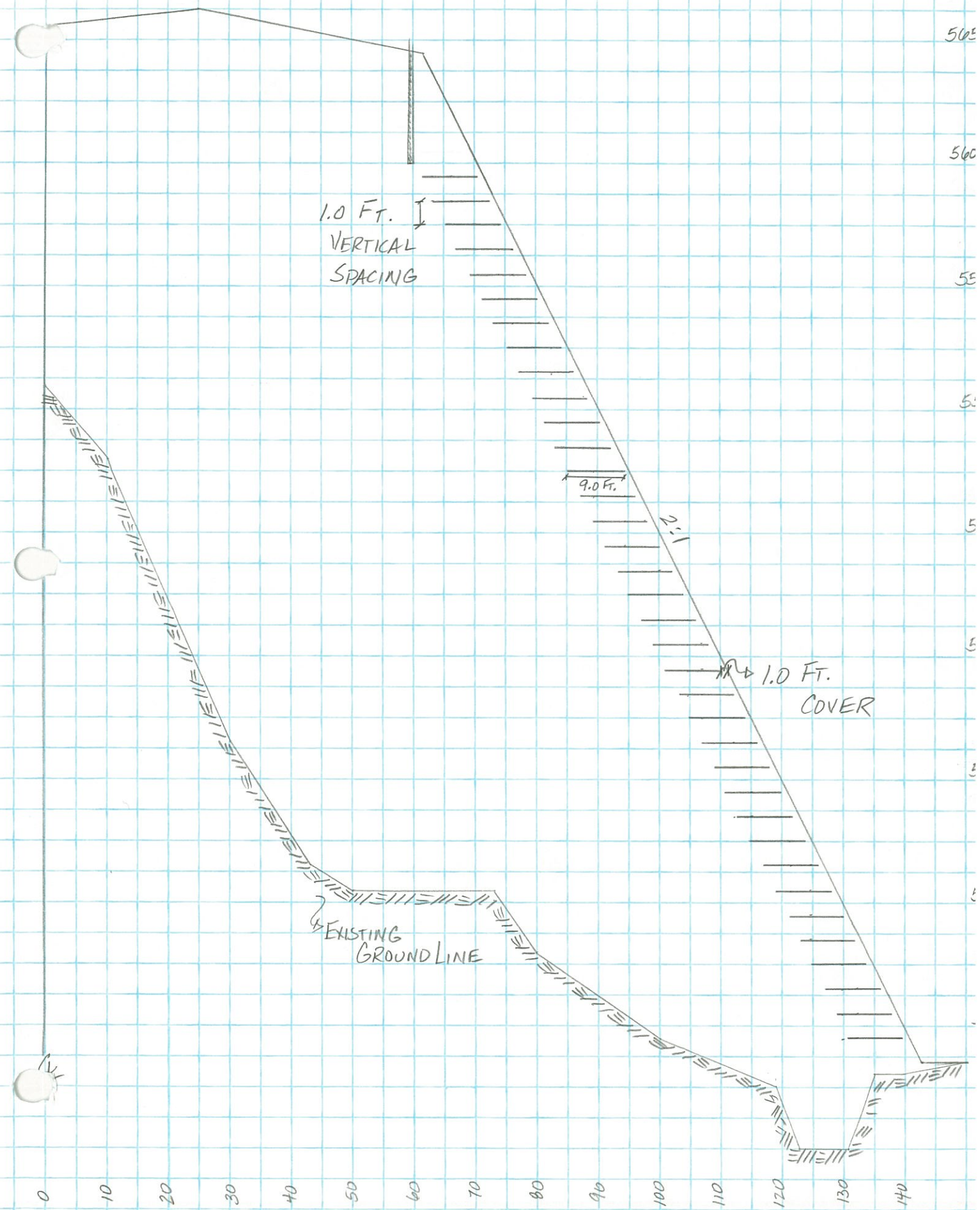
Appendix F

Grid Reinforced Slope

Grid Reinforced Embankment Profile Sta. 351+00 Rt.

Sec. 42-2

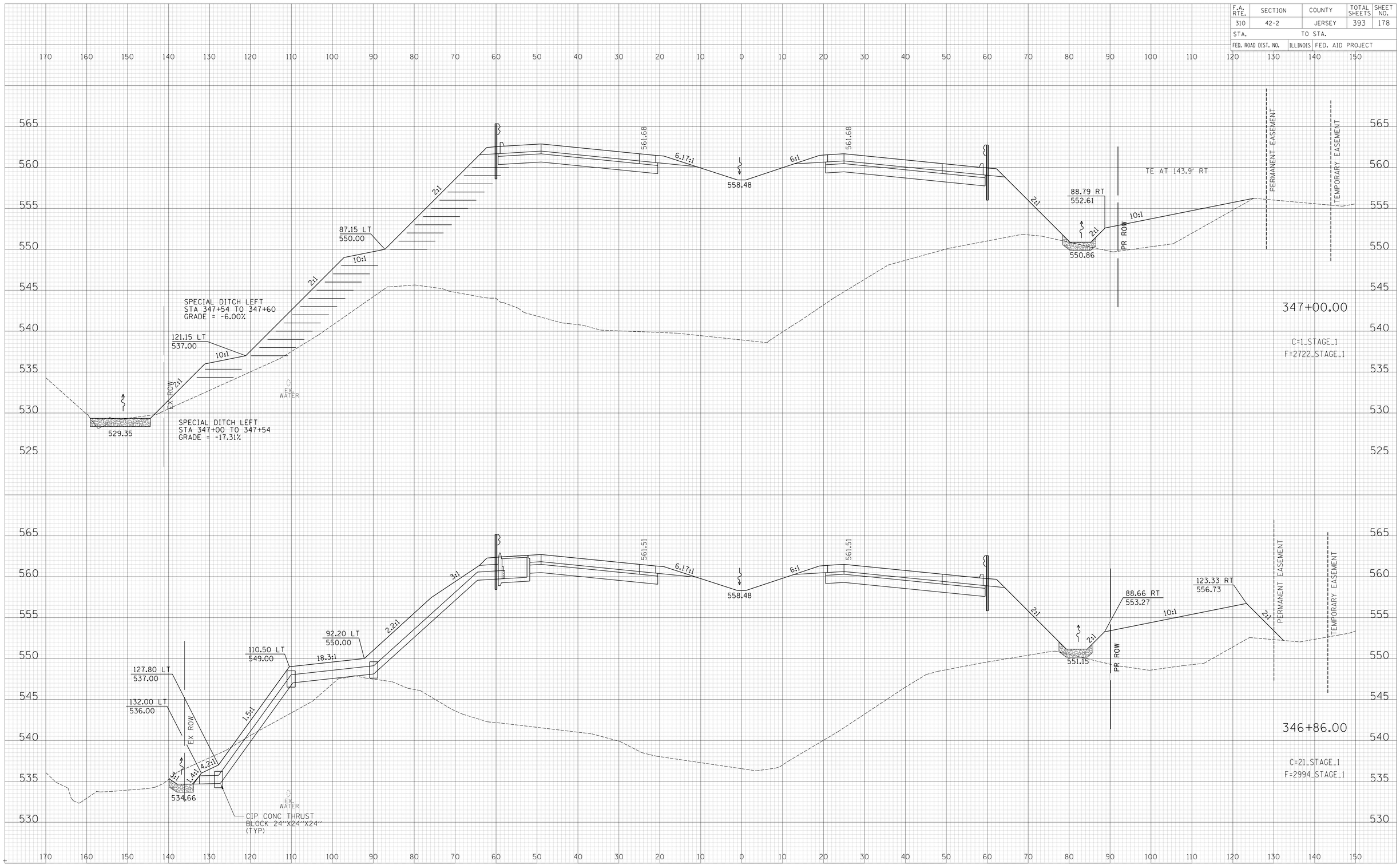


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	42-2	JERSEY	393	178
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

HOMER L. CHASTAIN & ASSOCIATES, LLP
50 LOCUST STREET, SUITE 5
DECATUR (217) 422-8544
CHICAGO (773) 714-0060
ROCKFORD (815) 489-0060
184-001397

FINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
DRAWN		
AREAS		
AREAS CHECKED		

BY	DATE



ORIGINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
DRAWN		
AREAS		
AREAS CHECKED		

BY	DATE

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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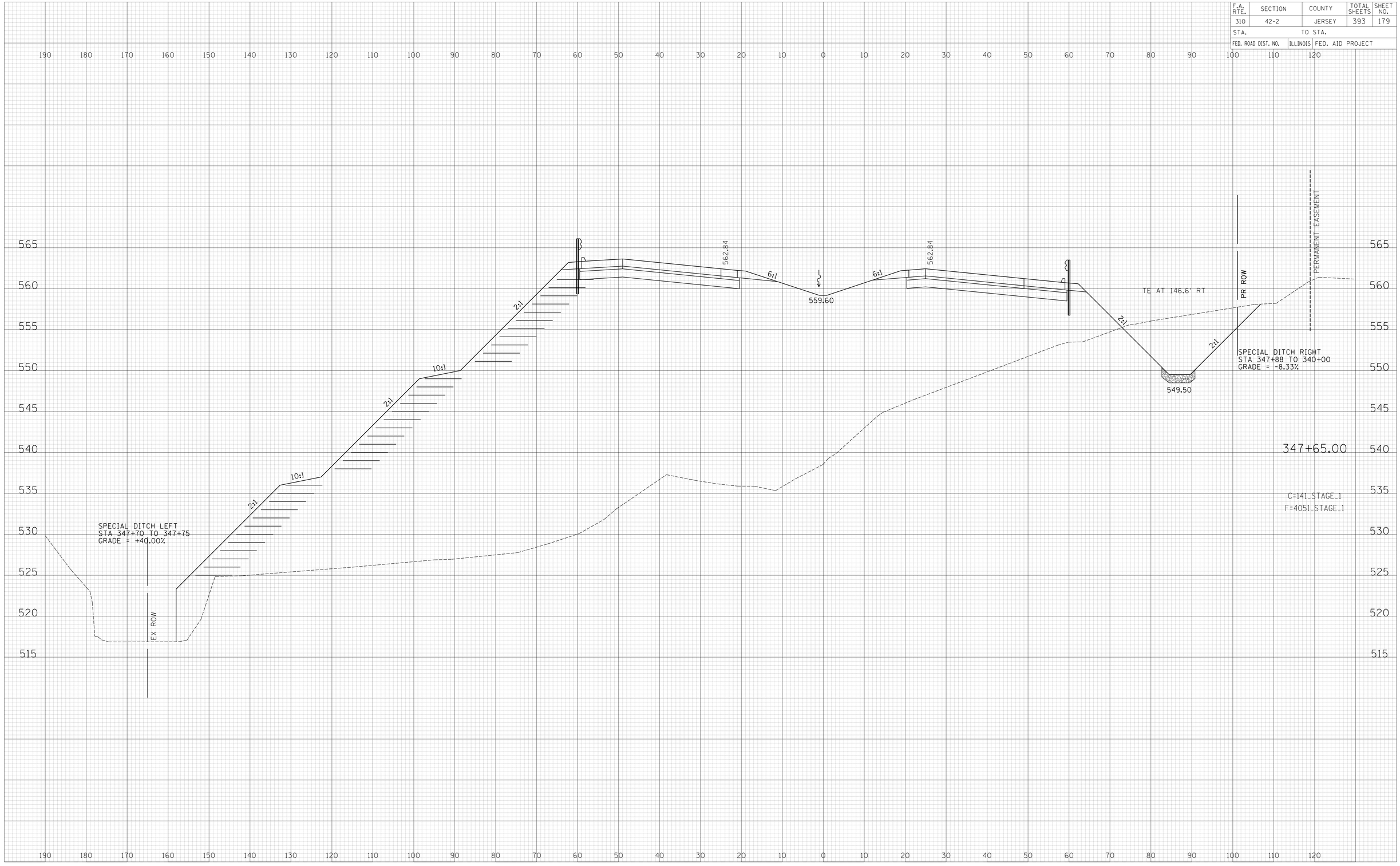
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — DRAWN — AREAS — AREAS CHECKED — BY — DATE

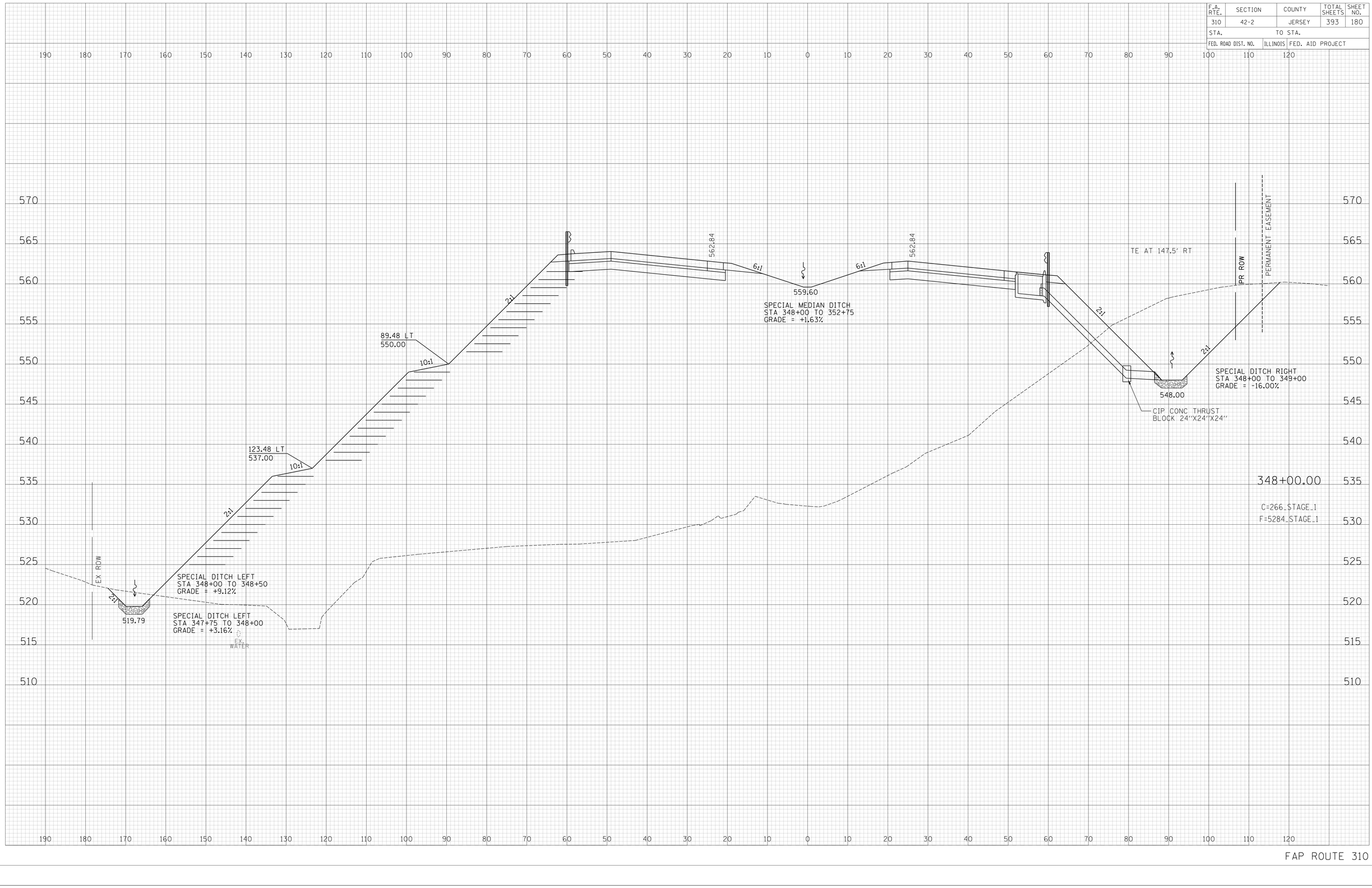
ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — DRAWN — AREAS — AREAS CHECKED — BY — DATE

HOMER L. CHASTAIN & ASSOCIATES, LLP
50 SOUTH STEPHEN STREET
DECATUR (217) 422-8544
CHICAGO (773) 714-0060
ROCKFORD (815) 489-0060
184-001397

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	42-2	JERSEY	393	180
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
DRAWN		
TRACED		
NOTE BOOK	AREAS CHECKED	
NO.		

HOMER L. CHASTAIN & ASSOCIATES, LLP
50 SOUTH STEPHENSON AVENUE
DECATUR (217) 422-8544
CHICAGO (773) 714-0060
ROCKFORD (815) 489-0600
184-001397



ORIGINAL SURVEY	BY	DATE
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PLOTTED		
DRAWN		
TRACED		
NOTE BOOK	AREAS CHECKED	
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	42-2	JERSEY	393	181
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TRACED
AREAS
AREAS CHECKED
BY
DATE

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NOTE BOOK
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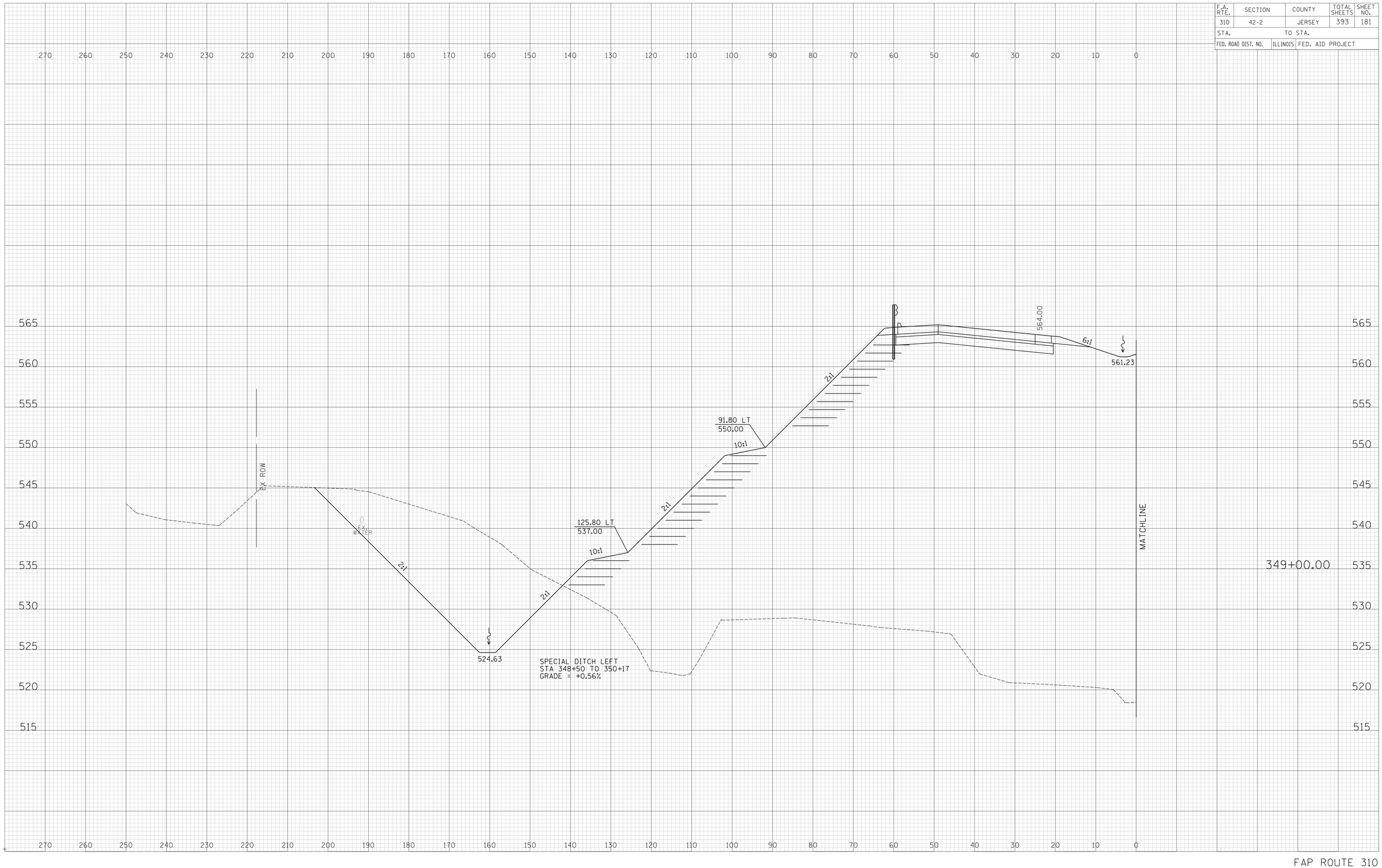
SURVEYED
PLOTTED
TRACED
AREAS
AREAS CHECKED
BY
DATE



FAP ROUTE 310

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	42-2	JERSEY	393	182
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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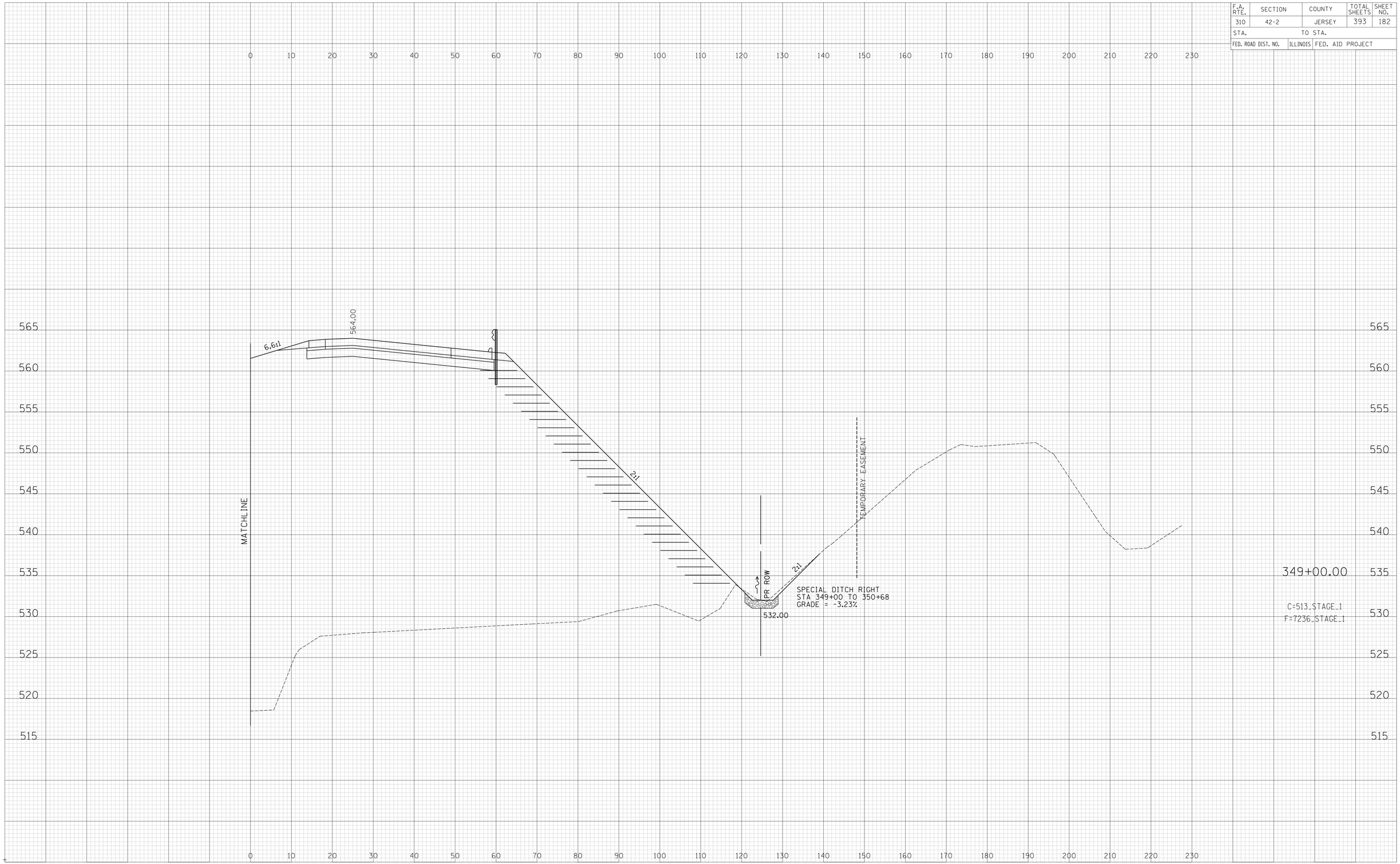
ROCKFORD (815) 489-0060
IR#-001397

FINAL SURVEY
NOTE BOOK NO.
SURVEYED
PLOTTED
TRACED
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK NO.
SURVEYED
PLOTTED
TRACED
AREAS
AREAS CHECKED
BY
DATE



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK	HANDLE	
NO.	AREAS	
	AREAS CHECKED	

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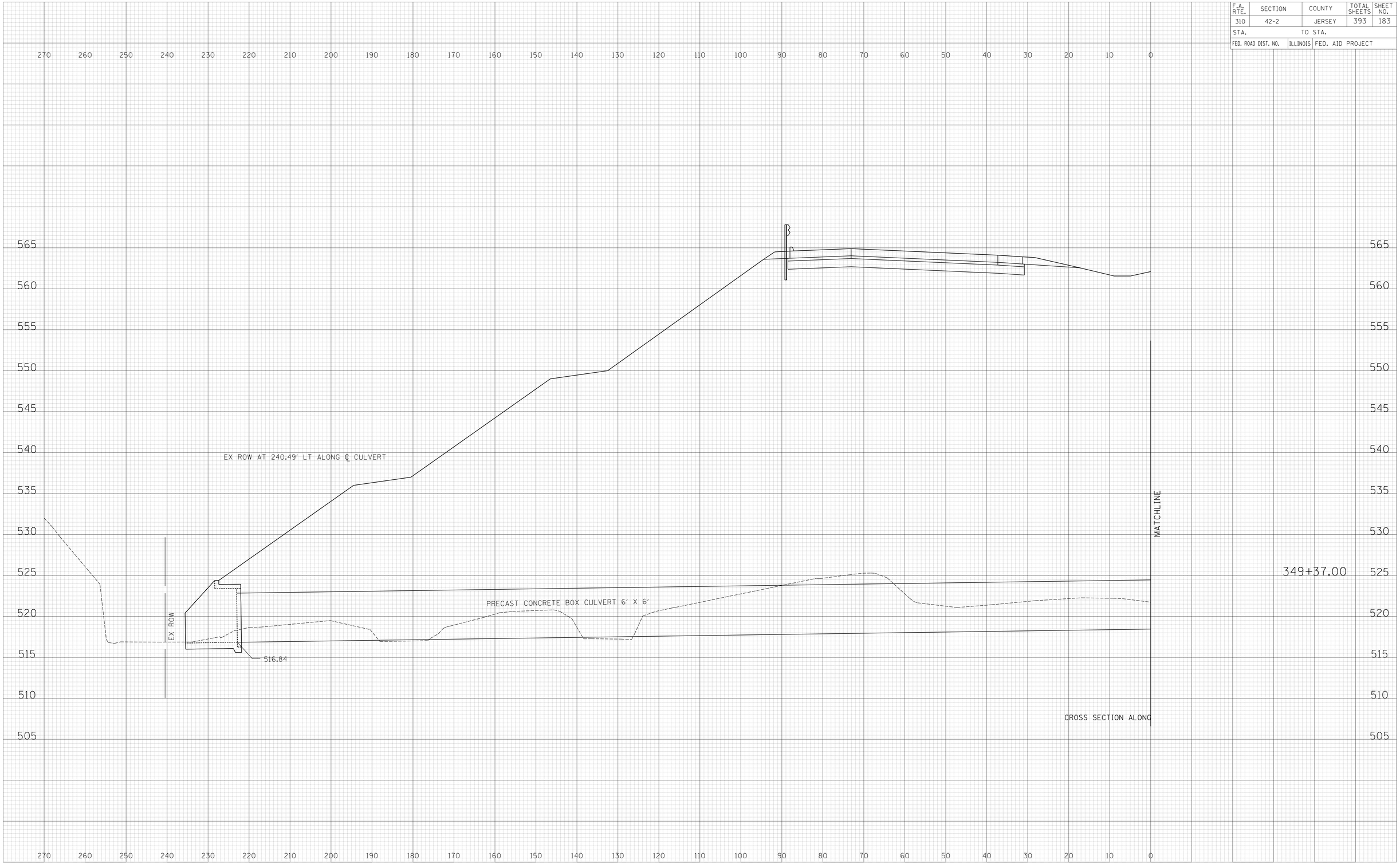
ROCKFORD (815) 489-0060
184-001397

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK	HANDLE	
NO.	AREAS	
	AREAS CHECKED	



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

HOMER L. CHASTAIN & ASSOCIATES, LLP
CONSULTING ENGINEERS
DECATUR (217) 422-8544
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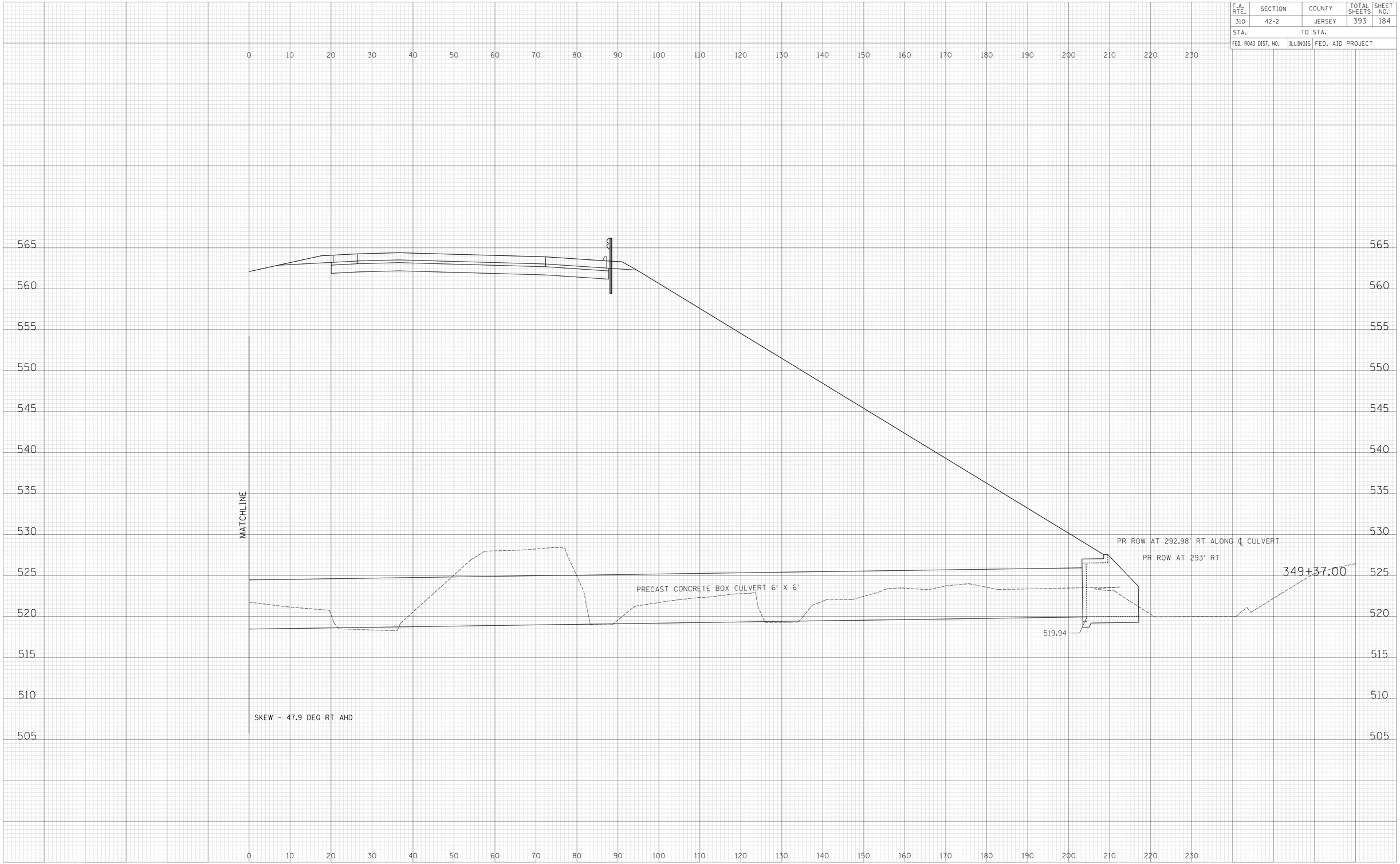
ROCKFORD (815) 489-0060
184-001397

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK	TRACE	
NO.	AREAS	
	AREAS CHECKED	

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK	TRACE	
NO.	AREAS	
	AREAS CHECKED	



FAP ROUTE 310

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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CONSULTING ENGINEERS
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ROCKFORD (815) 489-0060
184-001397

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK	TRACE	
NO.	AREAS	
	AREAS CHECKED	

FINAL SURVEY	BY	DATE
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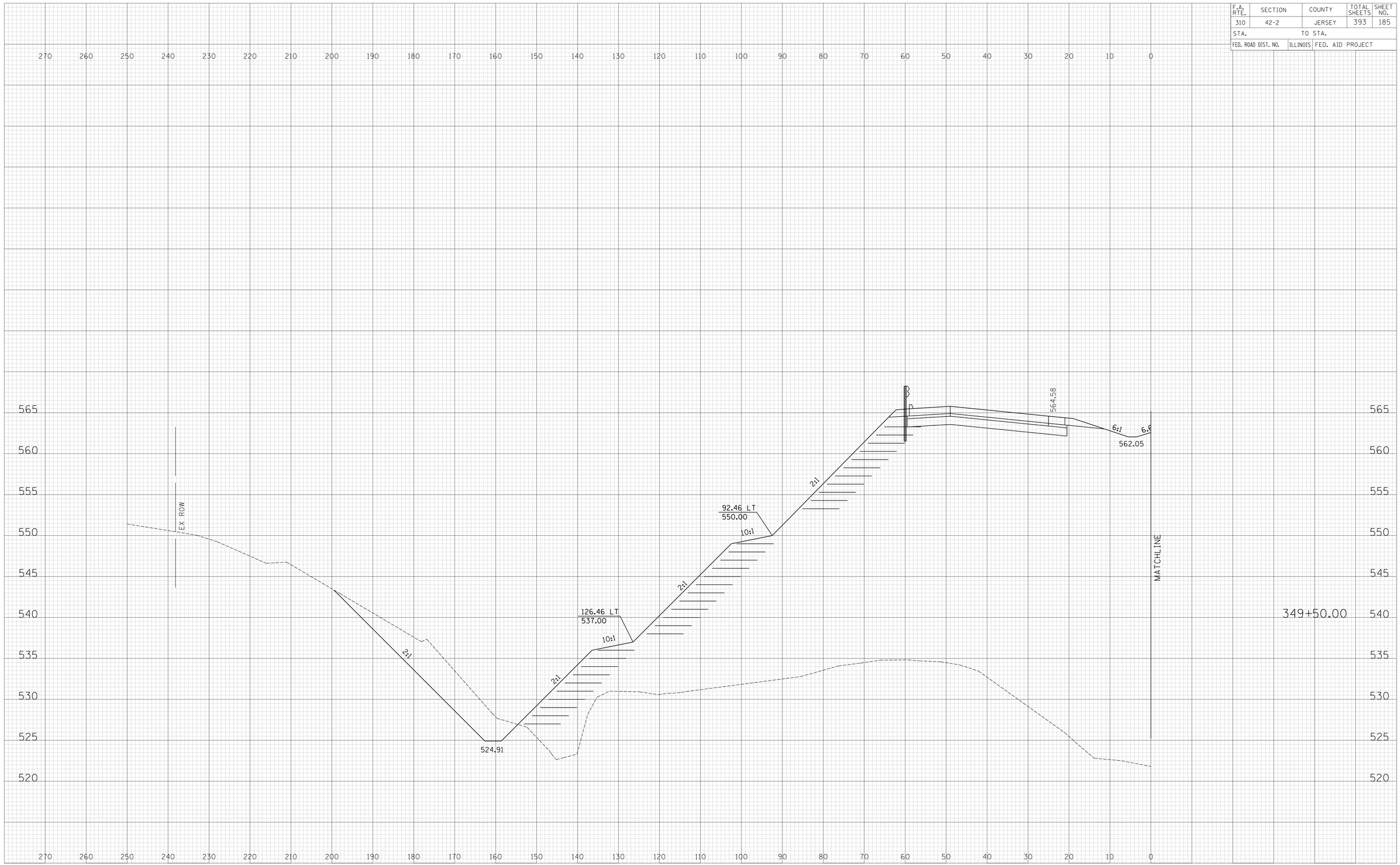
PLOTTED		
NOTE BOOK	TRACE	
NO.	AREAS	
	AREAS CHECKED	



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	42-2	JERSEY	393	186
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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CHICAGO (773) 714-0060
ROCKFORD (815) 489-0060
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FINAL SURVEY — NOTE BOOK — NO. — BY — DATE
SURVEYED — PLOTTED — DRAWN — AREAS — AREAS CHECKED

ORIGINAL SURVEY — NOTE BOOK — NO. — BY — DATE
SURVEYED — PLOTTED — DRAWN — AREAS — AREAS CHECKED

FAP ROUTE 310

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	42-2	JERSEY	393	187
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TRIANGLE — AREAS — AREAS CHECKED — BY — DATE

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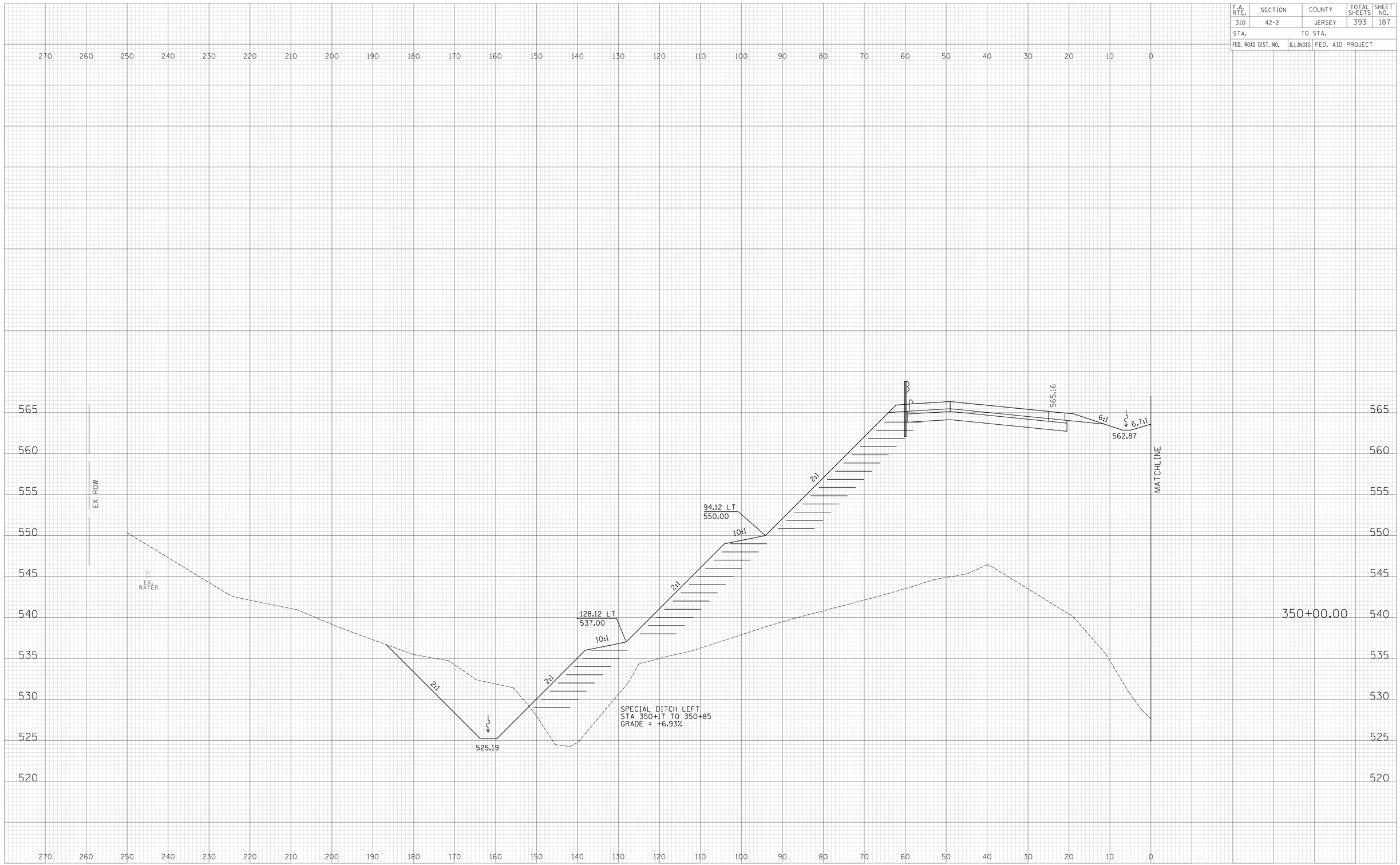

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310	42-2	JERSEY	393	188
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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184-001397

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK	DRAWN	
NO.	AREAS	
	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK	DRAWN	
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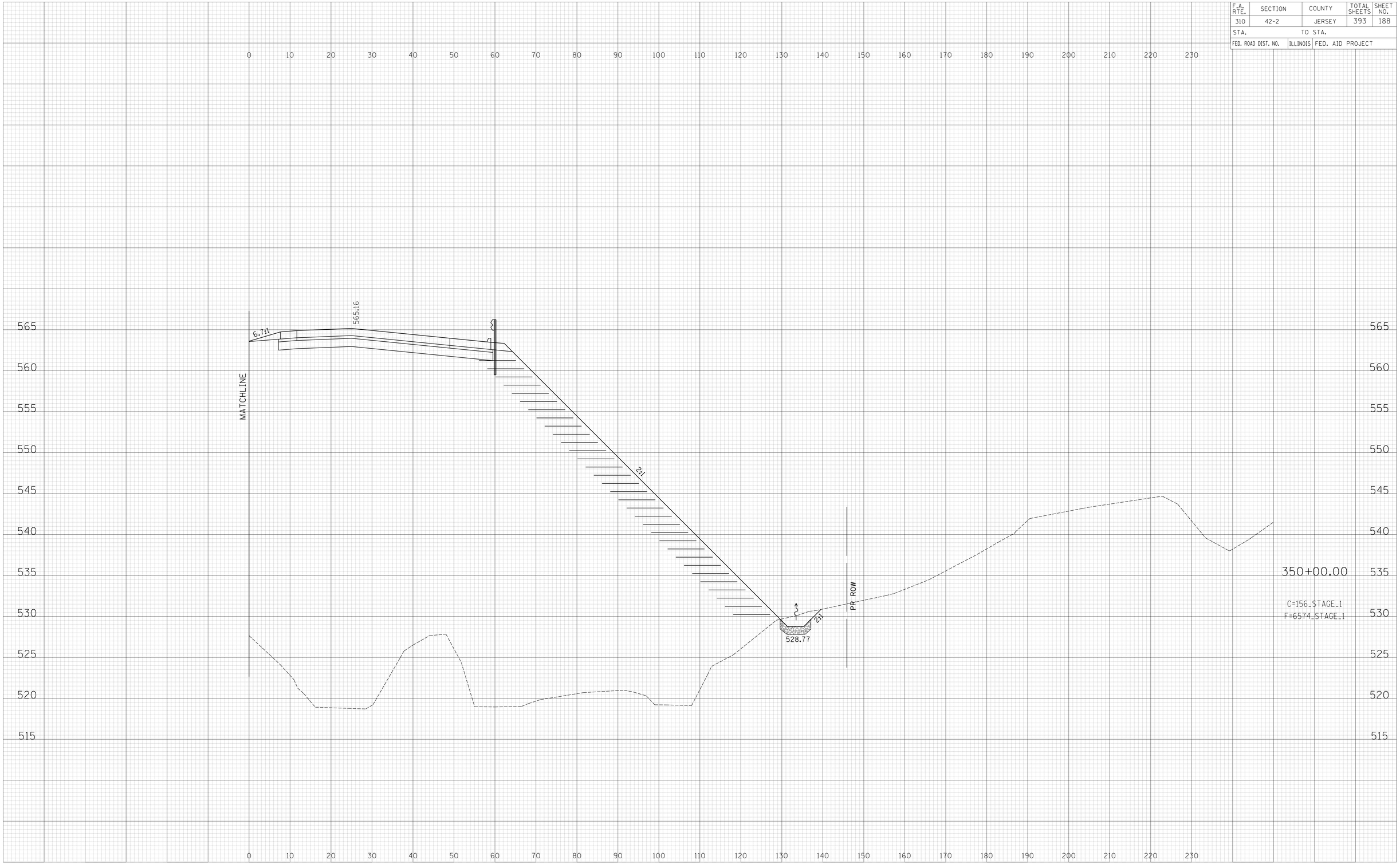

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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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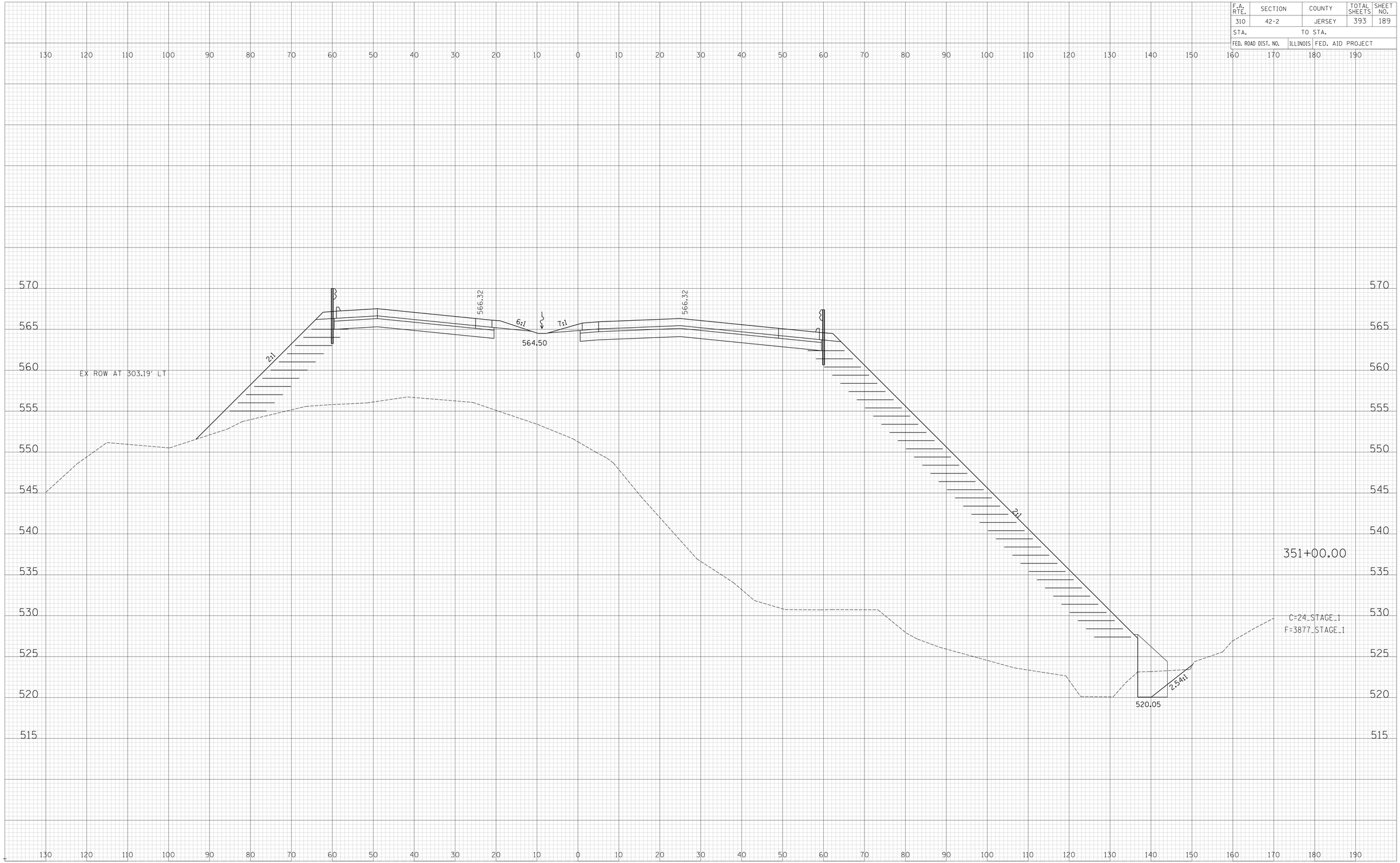
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FINAL SURVEY — NOTE BOOK — NO.
SURVEYED — PLOTTED — CHECKED — AREAS — AREAS CHECKED
BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO.
SURVEYED — PLOTTED — CHECKED — AREAS — AREAS CHECKED
BY — DATE

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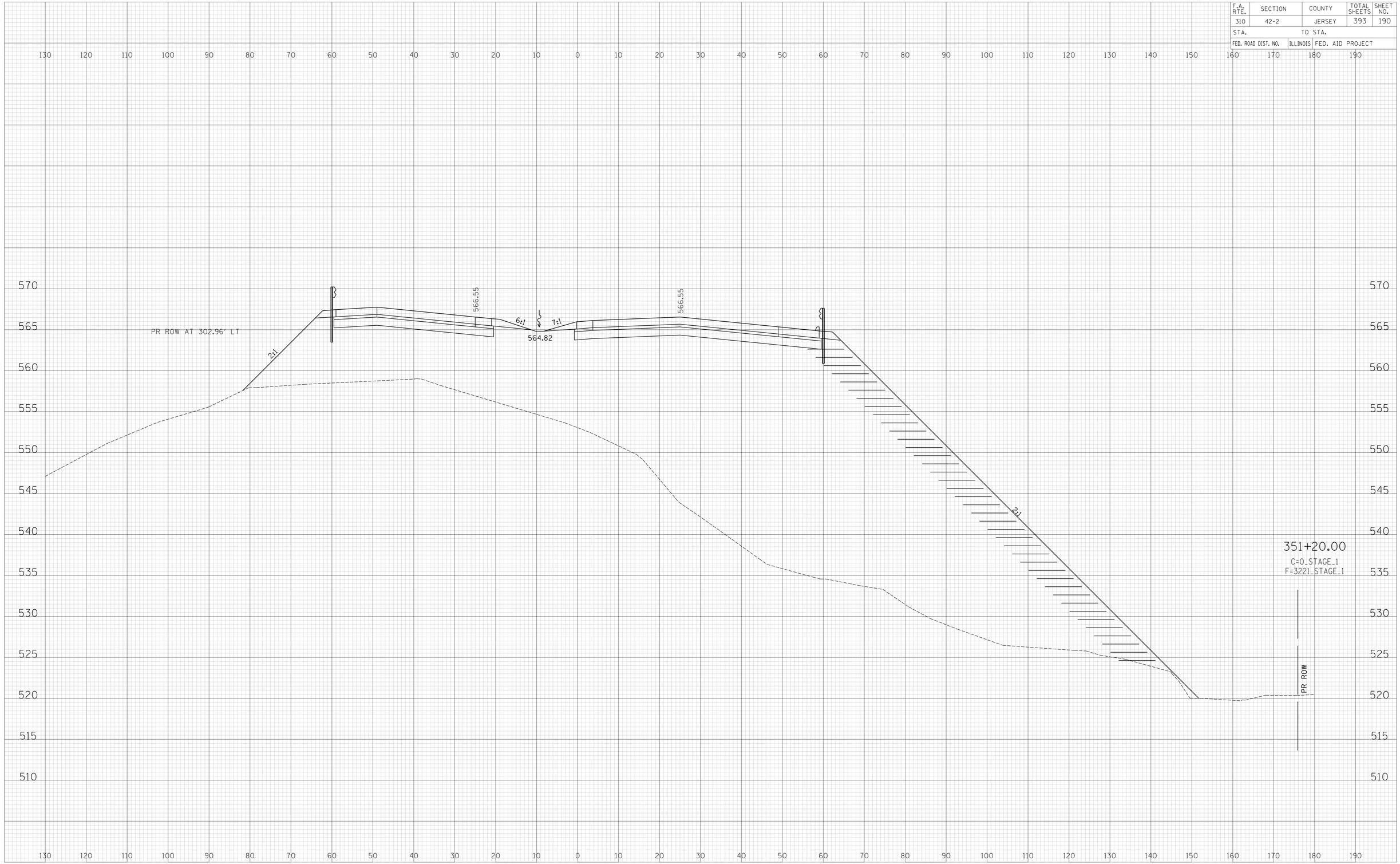
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	42-2	JERSEY	393	190
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FAP ROUTE 310

HOMER L. CHASTAIN & ASSOCIATES, LLP
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CHICAGO (773) 714-0060
ROCKFORD (815) 489-0060
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FINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
CHECKED		
AREAS		
AREAS CHECKED		

ORIGINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
CHECKED		
AREAS		
AREAS CHECKED		

BY	DATE

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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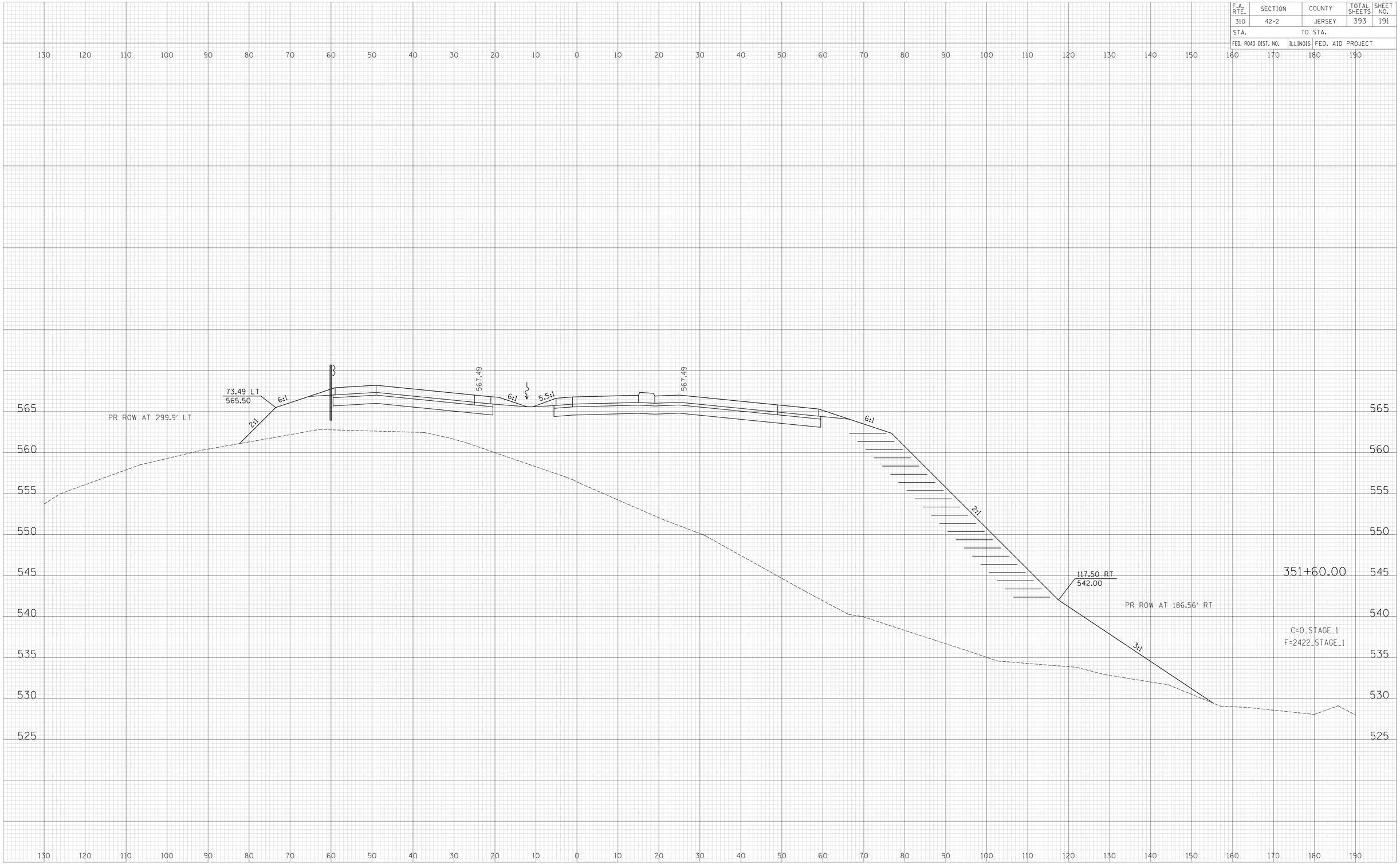

FAP ROUTE 310

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ROCKFORD (815) 489-0060
184-001397

FINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
TRACED		
AREAS		
AREAS CHECKED		

BY	DATE

ORIGINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
TRACED		
AREAS		
AREAS CHECKED		

BY	DATE

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED — BY — DATE

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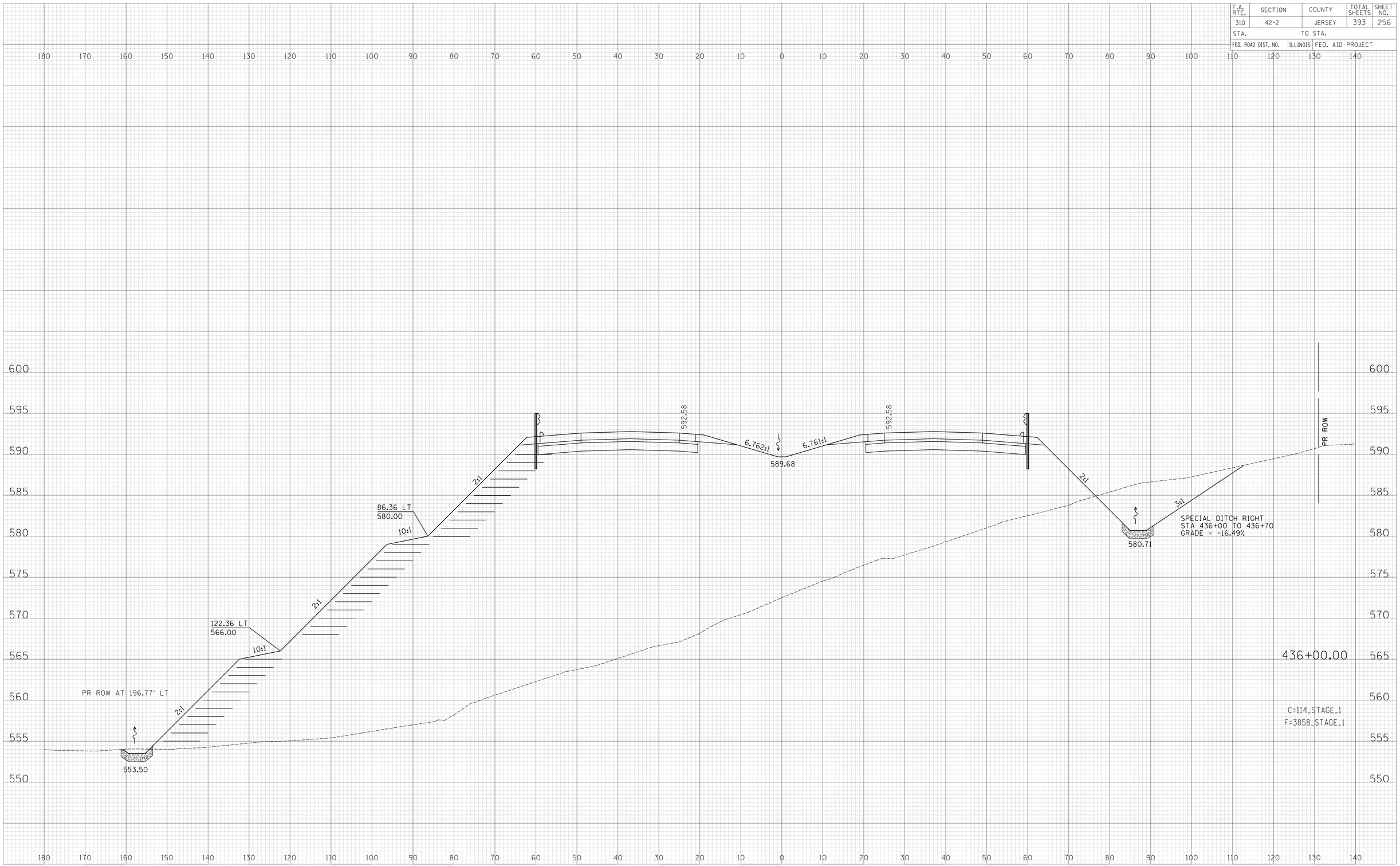

FAP ROUTE 310

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

HOMER L. CHASTAIN & ASSOCIATES, LLP
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CHICAGO (773) 714-0060
ROCKFORD (815) 489-0060
IR#-001397

FINAL SURVEY — NOTE BOOK — NO.
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BY — DATE

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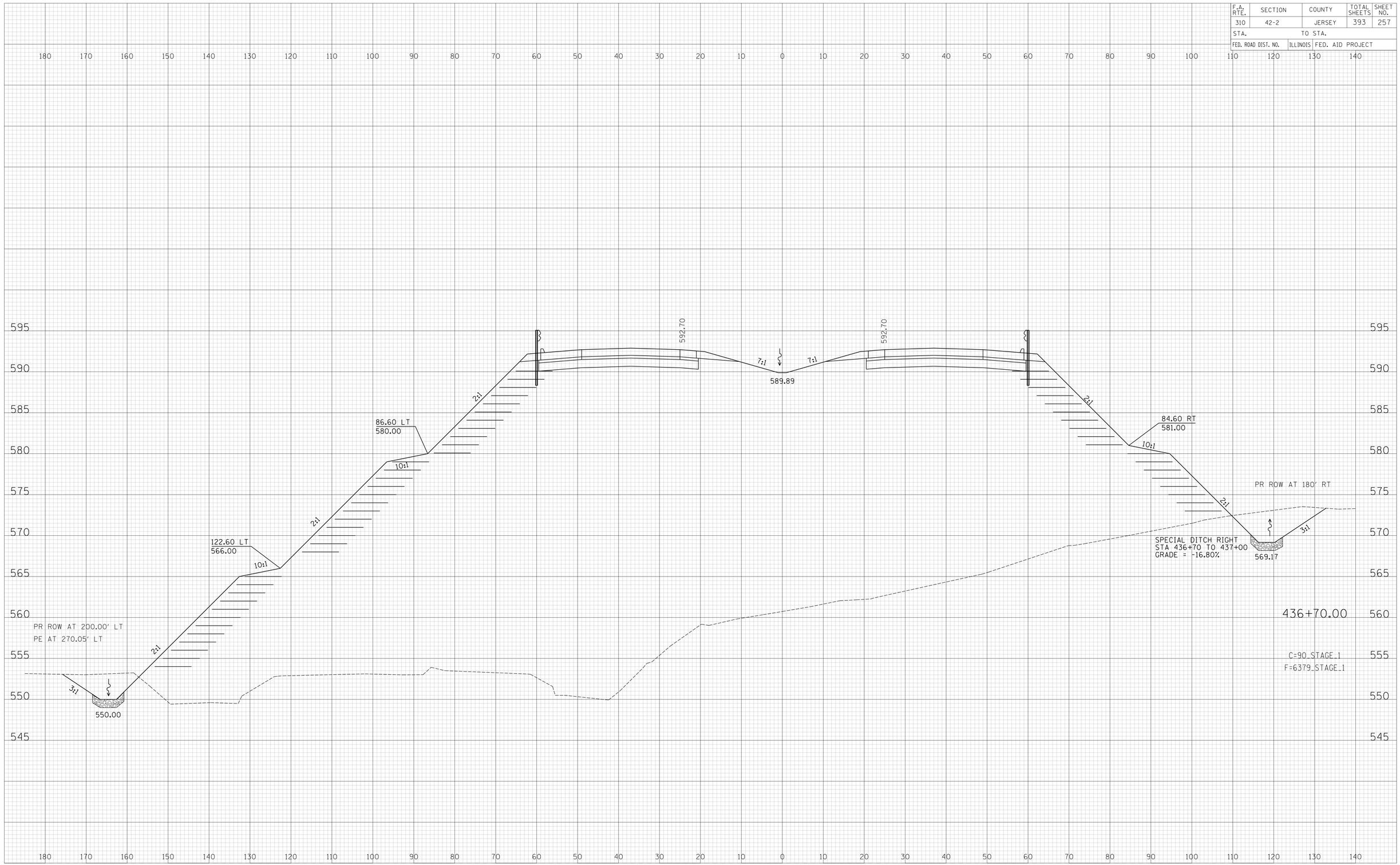
BY — DATE



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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ROCKFORD (815) 489-0060
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FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
NO.	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
SURVEYED		
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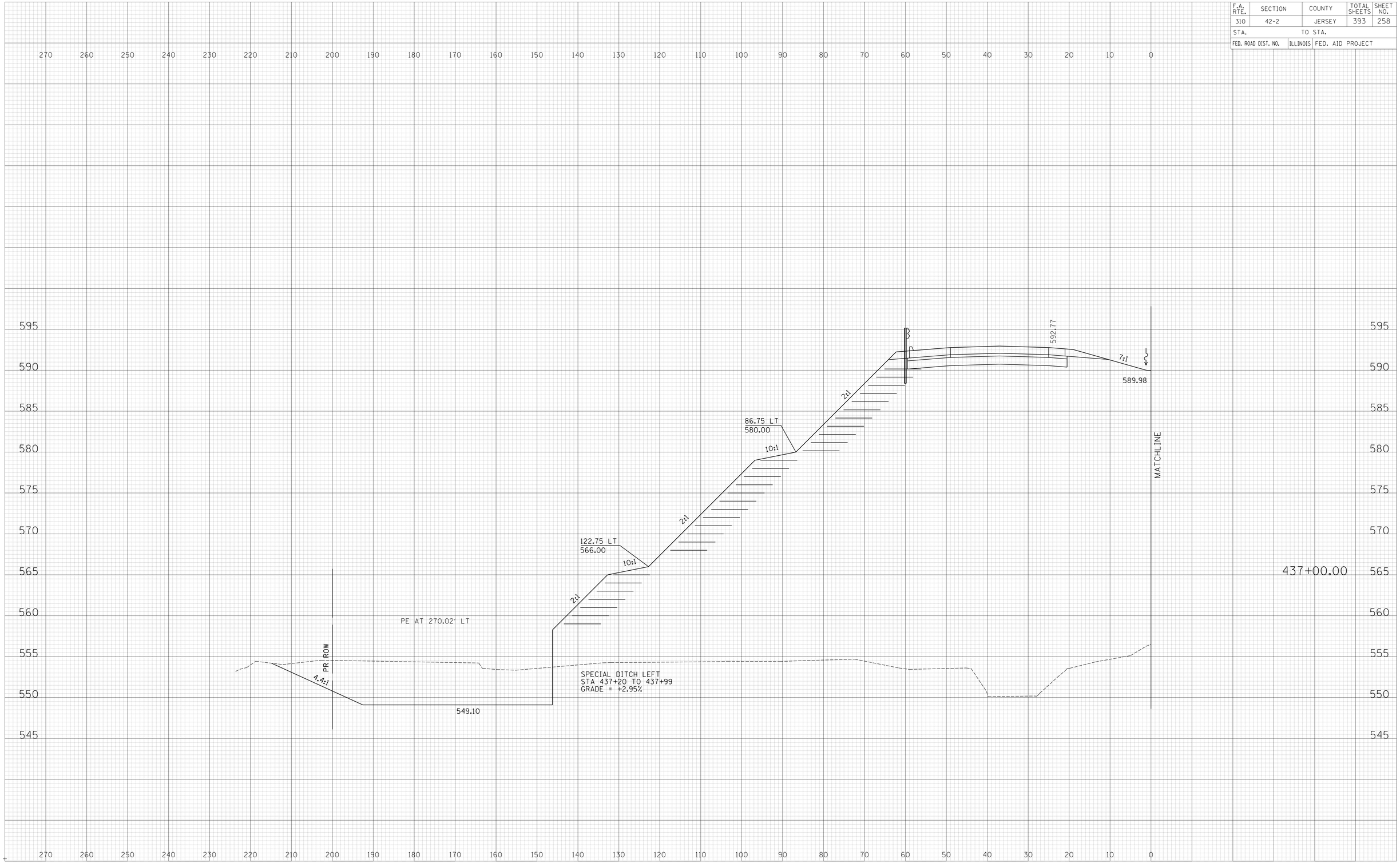
NOTE BOOK		
NO.	AREAS CHECKED	



FAP ROUTE 310

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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CONSULTING ENGINEERS
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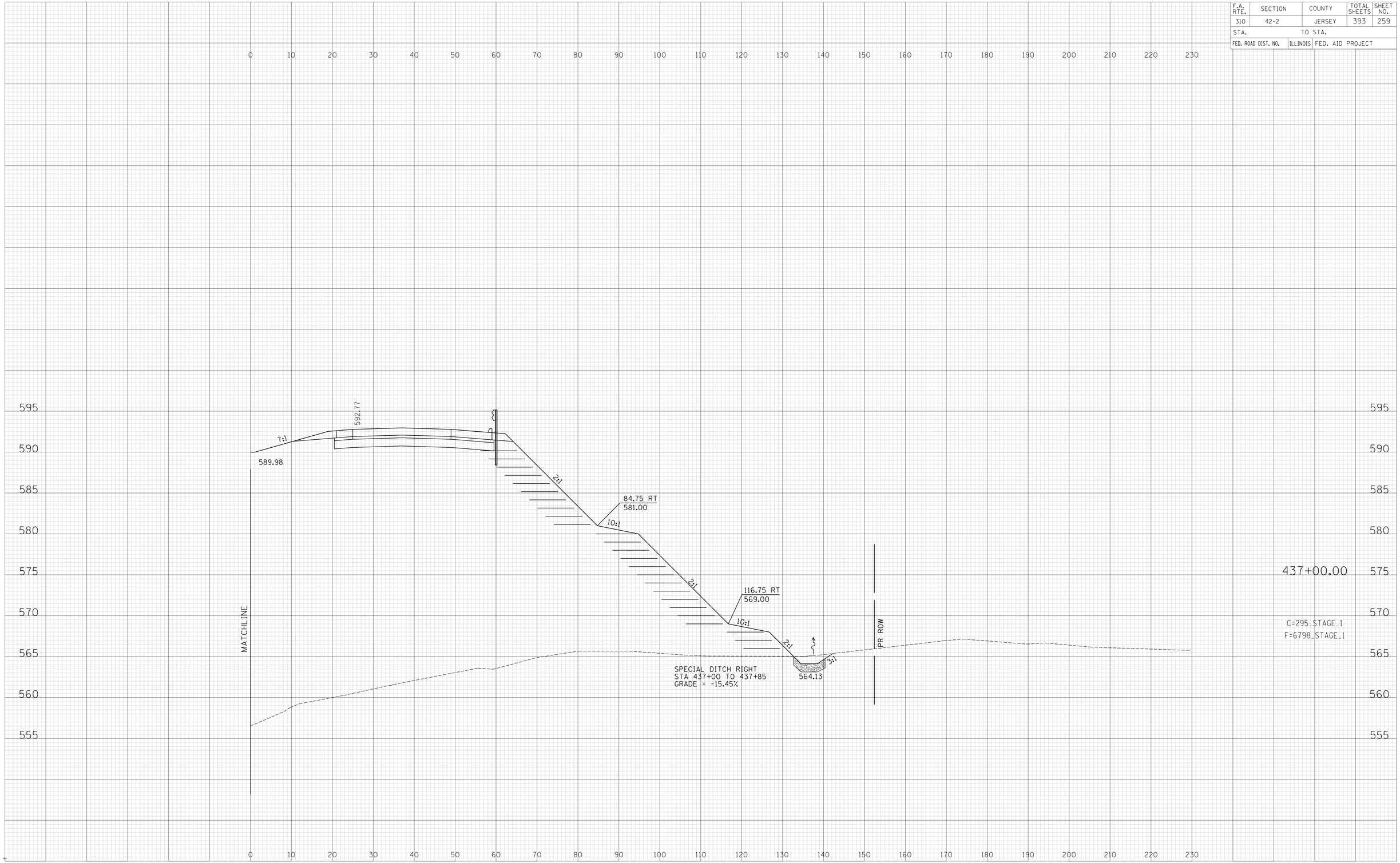
CHICAGO (773) 714-0060
ROCKFORD (815) 489-0050
184-001397

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
NO.	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
NO.	AREAS CHECKED	



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	42-2	JERSEY	393	260
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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ROCKFORD (815) 489-0050
184-001397

FINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
TYPE SIZE		
AREAS		
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ORIGINAL SURVEY	NOTE BOOK	NO.
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TYPE SIZE		
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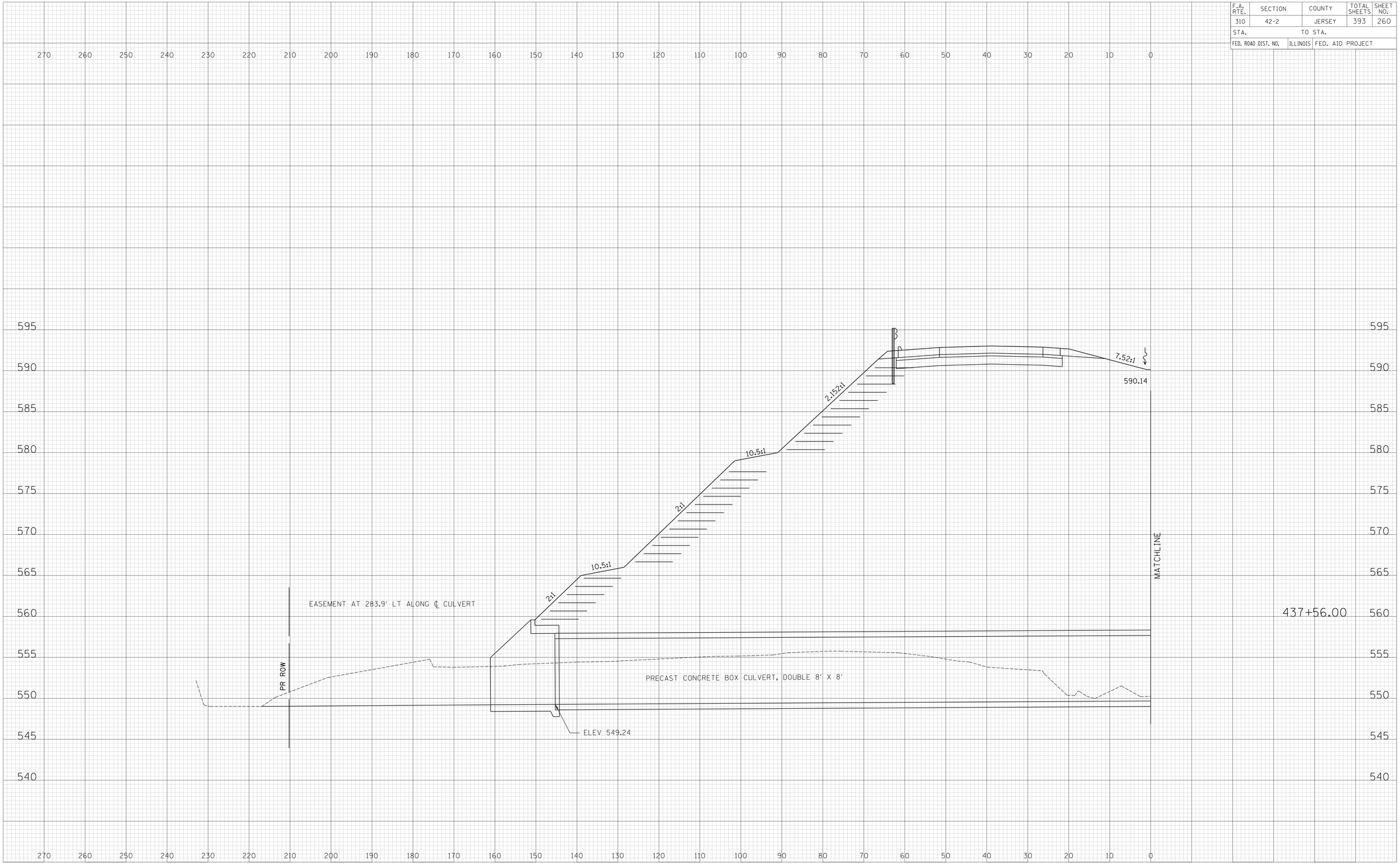
BY	DATE



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	42-2	JERSEY	393	261
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
NO.	AREAS CHECKED	

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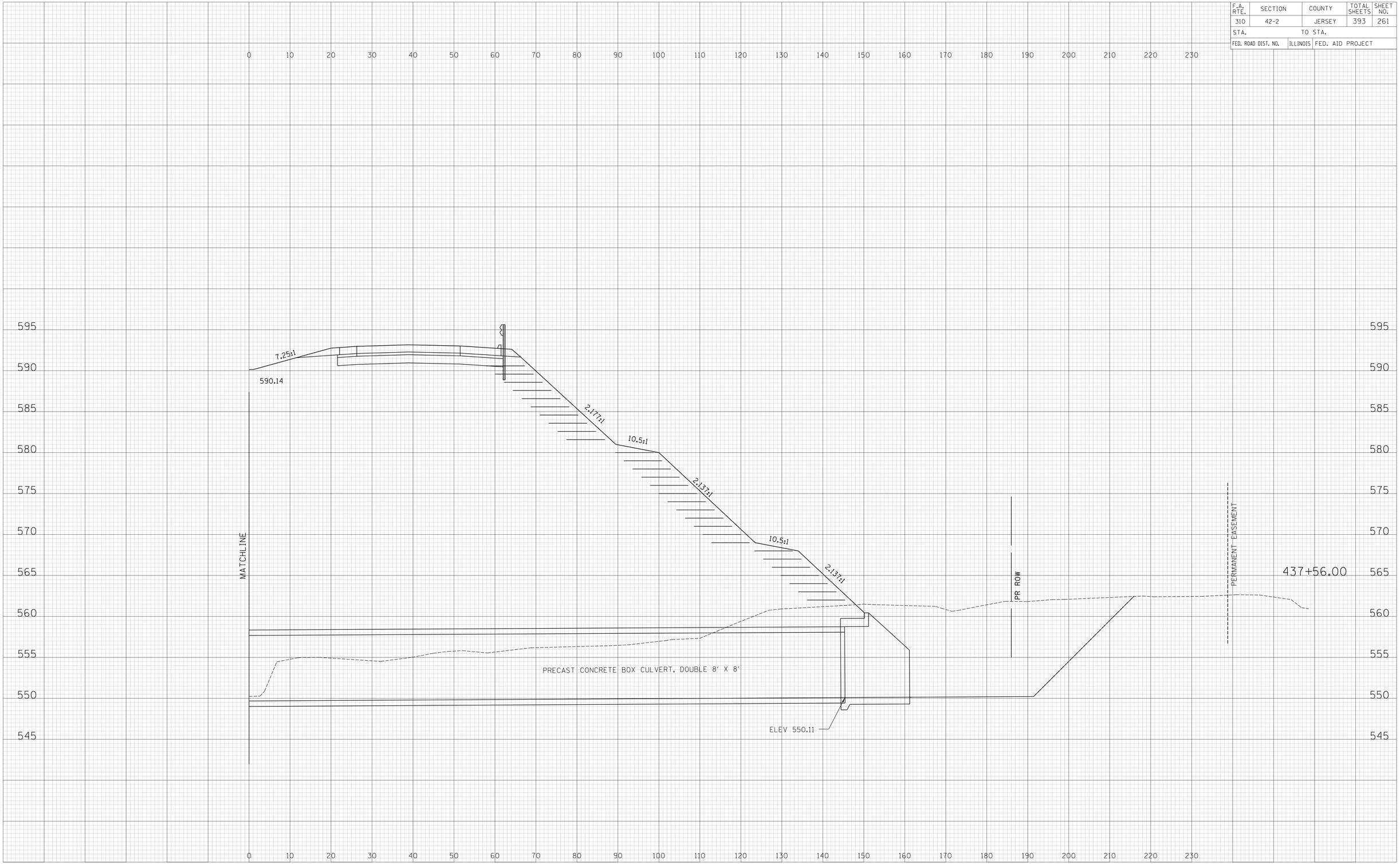
CONSULTING ENGINEERS
DECATUR (217) 422-8544
CHICAGO (773) 714-0060
ROCKFORD (815) 489-0050
184-001397



ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
NO.	AREAS CHECKED	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	42-2	JERSEY	393	262
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED — BY — DATE

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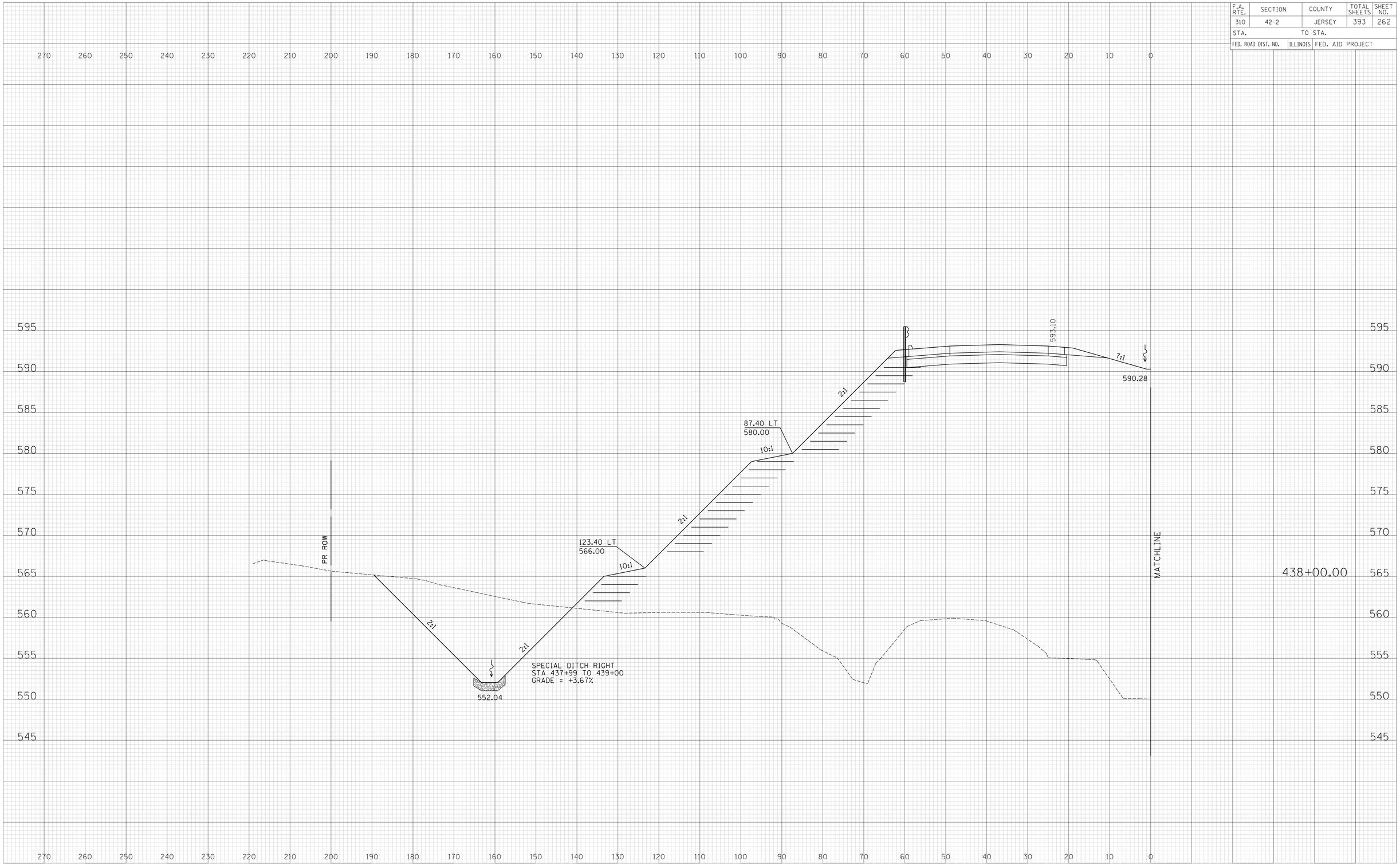

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	42-2	JERSEY	393	263
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

HOMER L. CHASTAIN & ASSOCIATES, LTD
CONSULTING ENGINEERS
DECATUR (217) 422-8544
CHICAGO (773) 714-0060
ROCKFORD (815) 489-0050
184-001397

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TRACED
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TRACED
AREAS
AREAS CHECKED
BY
DATE

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	42-2	JERSEY	393	264
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

HOMER L. CHASTAIN & ASSOCIATES, LLC
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184-001397

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
CHECKED
AREAS
AREAS CHECKED
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DATE

ORIGINAL SURVEY
NOTE BOOK
NO.
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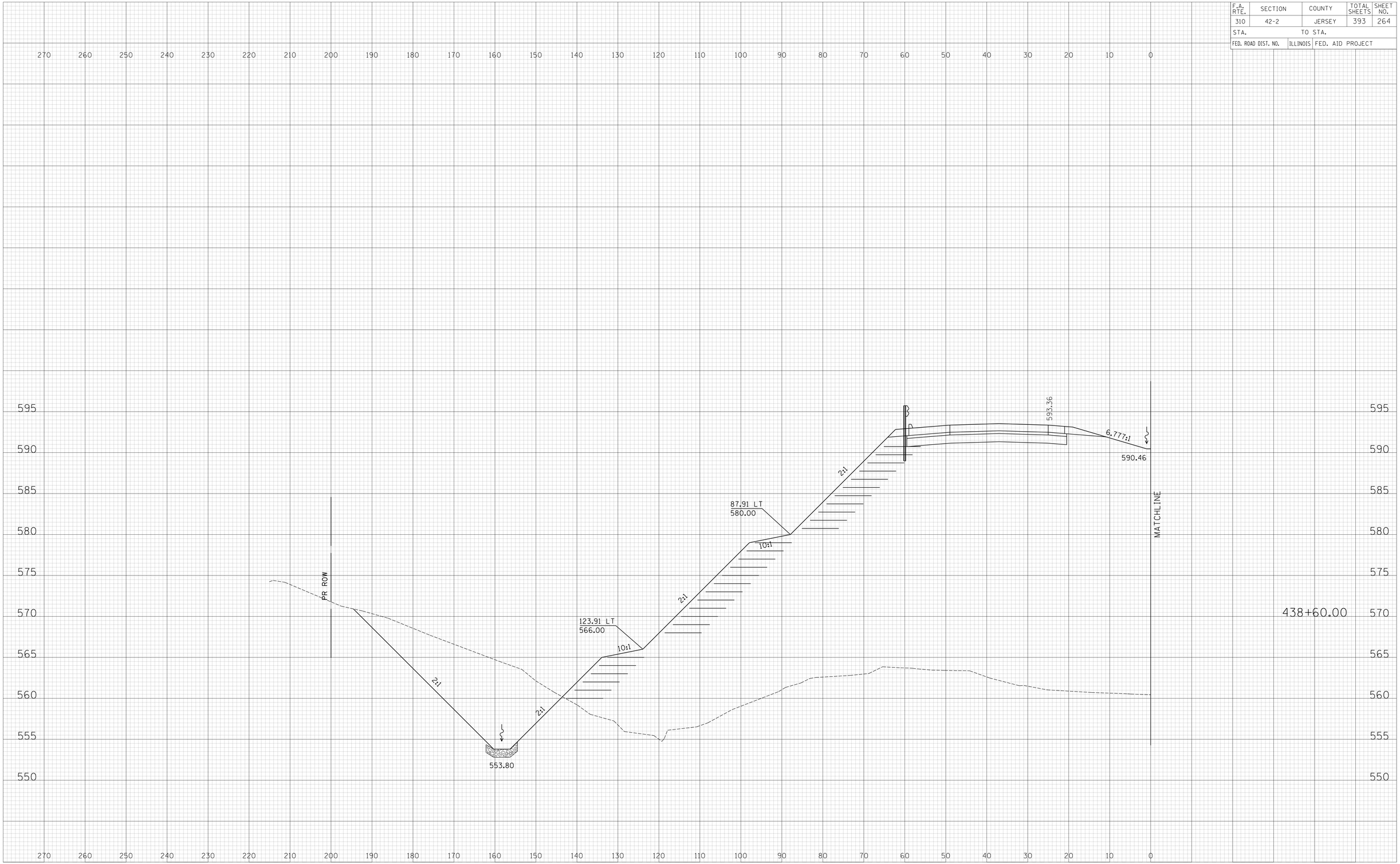
AREAS CHECKED
BY
DATE



FAP ROUTE 310

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	42-2	JERSEY	393	265
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TRACED
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TRACED
AREAS
AREAS CHECKED
BY
DATE

HOMER L. CHASTAIN & ASSOCIATES, LLC
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ROCKFORD (815) 489-0050
184-001397

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	42-2	JERSEY	393	266
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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CONSULTING ENGINEERS
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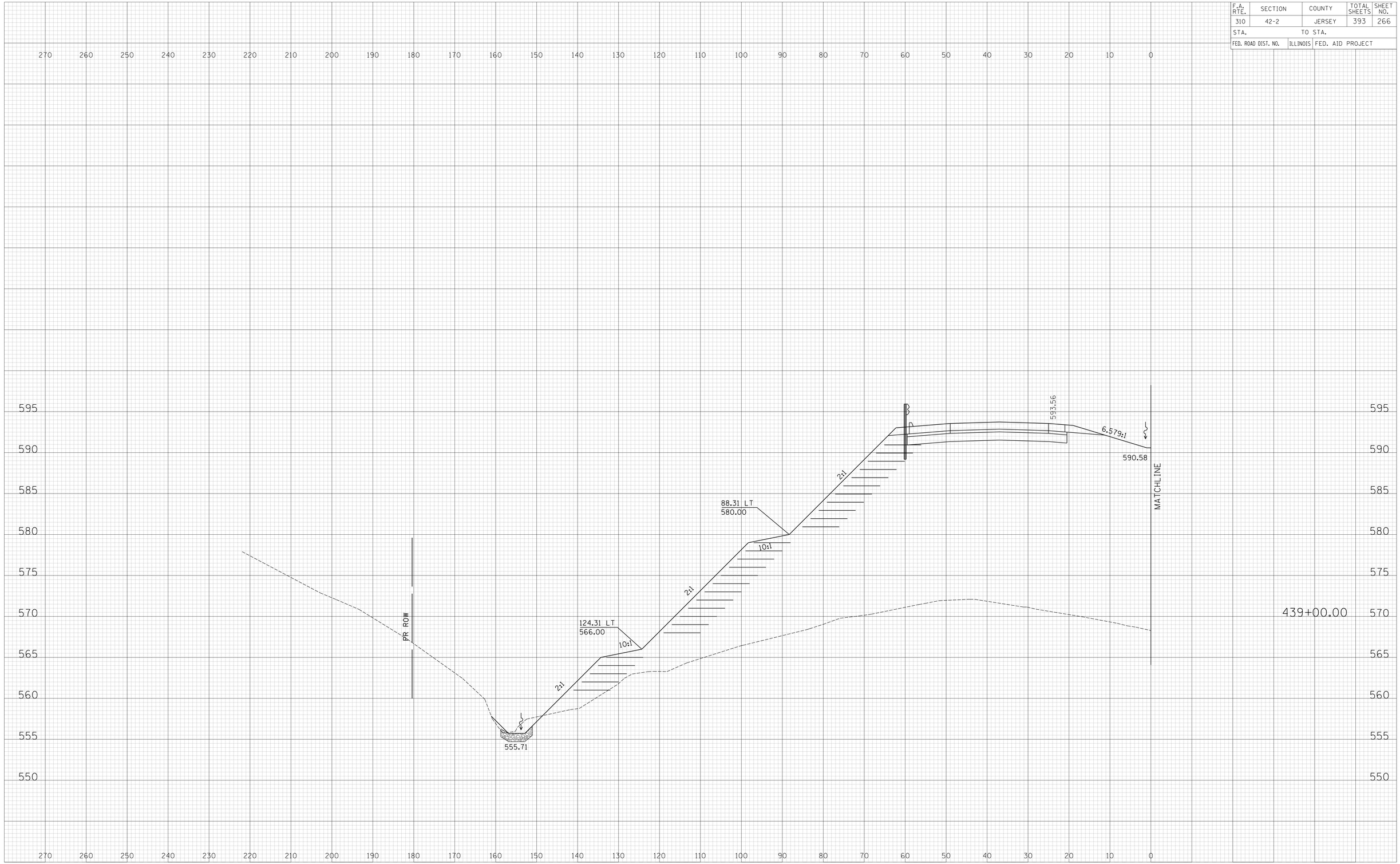
CHICAGO (773) 714-0060
ROCKFORD (815) 489-0050
184-001397

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
NO.	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
NO.	AREAS CHECKED	



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	42-2	JERSEY	393	267
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
CHECKED
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
CHECKED
AREAS
AREAS CHECKED
BY
DATE

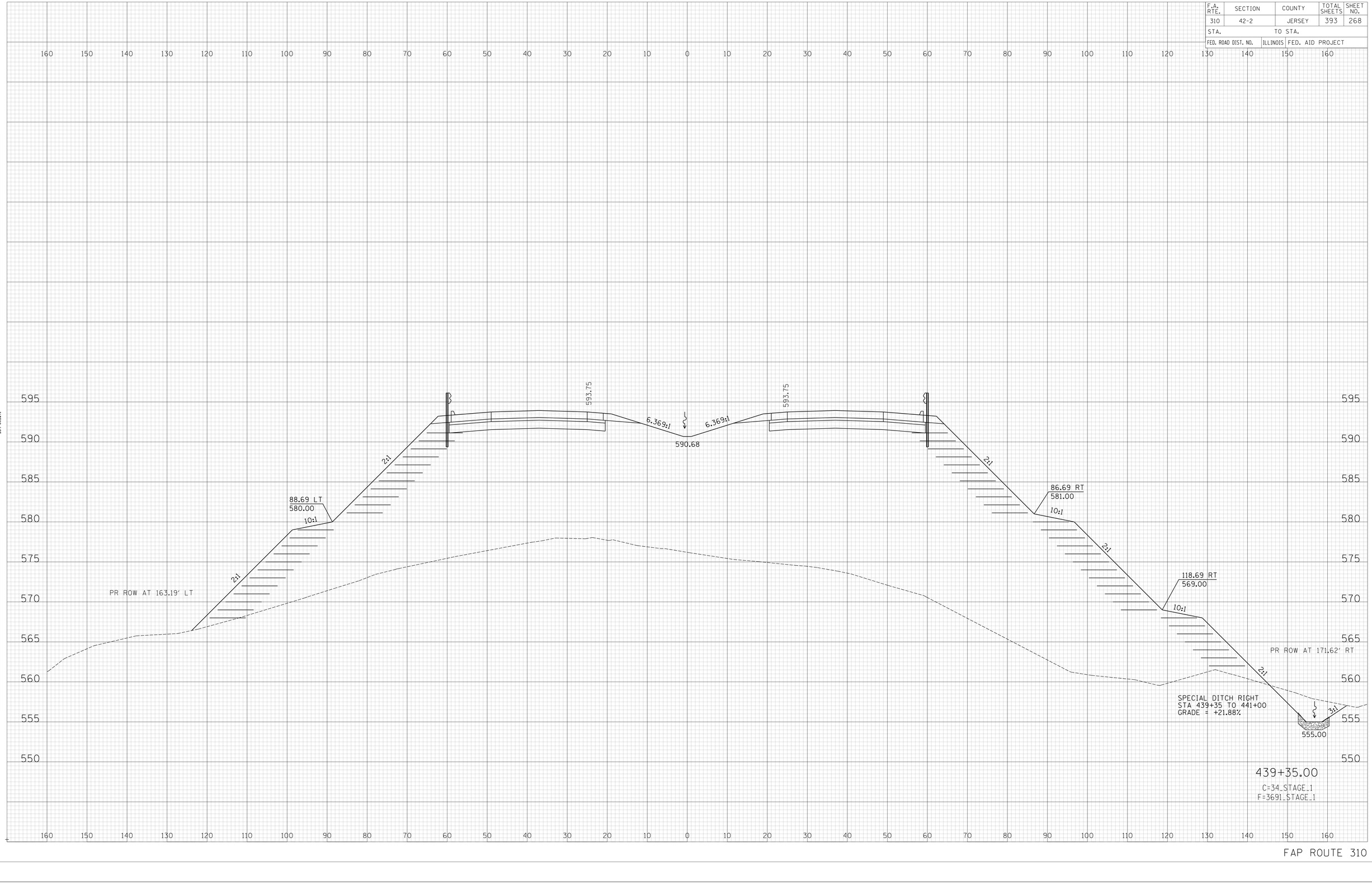
HOMER L. CHASTAIN & ASSOCIATES, LLC
CONSULTING ENGINEERS
DECATUR (217) 422-8544
CHICAGO (773) 714-0060
ROCKFORD (815) 489-0050
IR#-001397

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	42-2	JERSEY	393	268
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

HOMER L. CHASTAIN & ASSOCIATES, LTD
CONSULTING ENGINEERS
DECATUR (217) 422-8544
CHICAGO (773) 714-0060
ROCKFORD (815) 489-0060
184-001397

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
NO.	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
NO.	AREAS CHECKED	



439+35.00

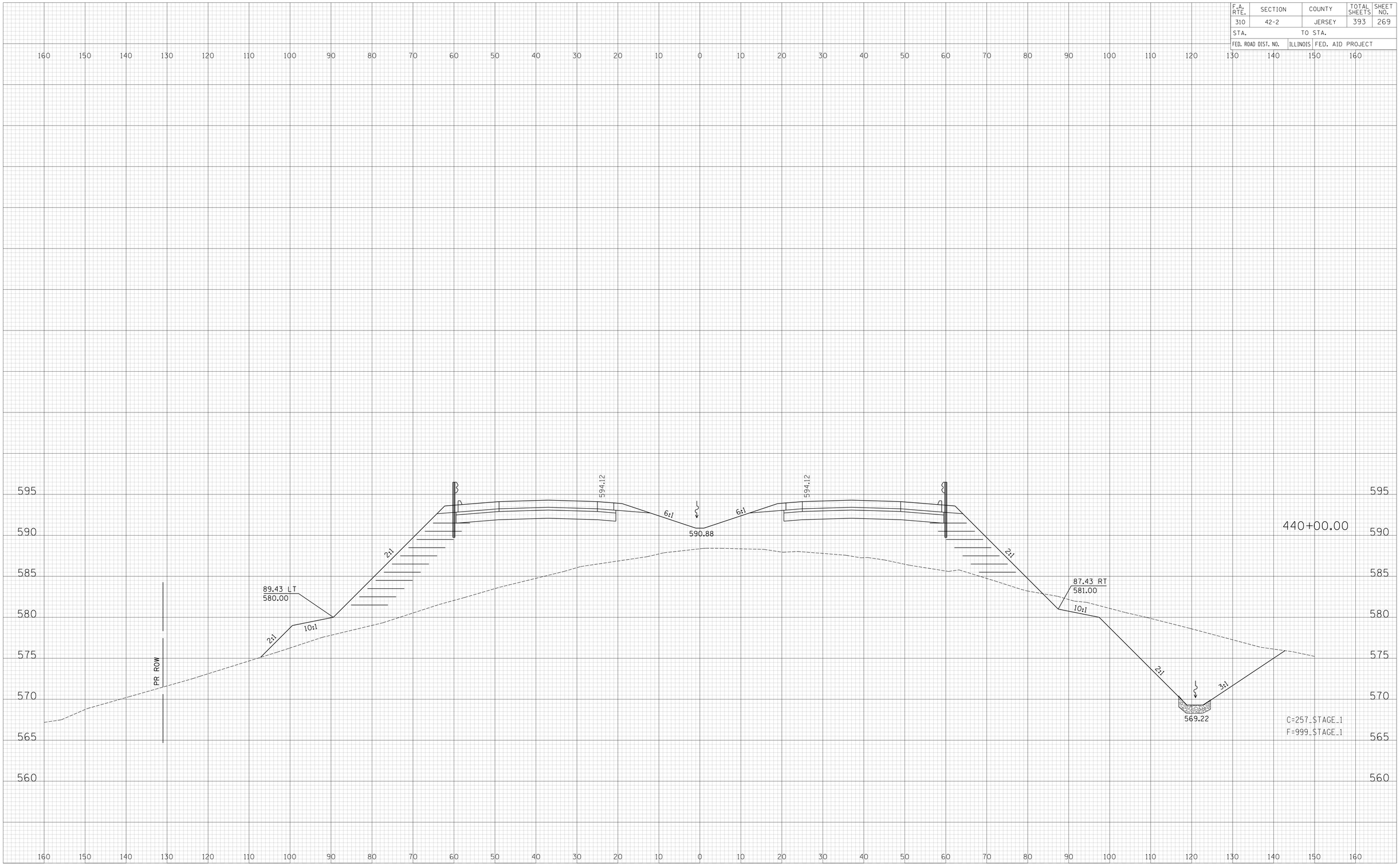
C=34_STAGE_1
F=3691_STAGE_1

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	42-2	JERSEY	393	269
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

HOMER L. CHASTAIN & ASSOCIATES, LLD
CONSULTING ENGINEERS & LAND SURVEYORS
DECATUR (217) 422-8544
SPRINGFIELD (773) 714-0060
CHICAGO (815) 489-0050
ROCKFORD
184-001397

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TYPED		
NOTE BOOK	AREAS	
NO.	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TYPED		
NOTE BOOK	AREAS	
NO.	AREAS CHECKED	



FAP ROUTE 310

FAP 310
Sec. 42-2

GRID REINFORCED EMBANKMENT

LEFT SIDE	DIST.	WIDTH FT.	AREA SQ.FT.	QUANTITY (1' vertical Spacing)	TOTAL SQ. FT.	RIGHT SIDE	DIST.	WIDTH FT.	AREA SQ.FT.	QUANTITY (1' vertical Spacing)	TOTAL SQ. FT.
346+90				16		346+90				0	
	10	9	90		1440		10	9	90		0
347+00				16		347+00				0	
	100	9	900		22950		100	9	900		0
348+00				35		348+00				0	
	100	9	900		27450		100	9	900		10800
349+00				26		349+00				24	
	100	9	900		25650		100	9	900		23850
350+00				31		350+00				29	
	100	9	900		0		100	9	900		29250
351+00				0		351+00				36	
	25	9	225		0		25	9	225		8100
351+25				0		351+25				36	
435+90				31		435+90				0	
	10	9	90		2790		10	9	90		0
436+00				31		436+00				0	
	100	9	900		27450		100	9	900		9000
437+00				30		437+00				20	
	100	9	900		24750		100	9	900		20250
438+00				25		438+00				25	
	100	9	900		21600		100	9	900		25200
439+00				23		439+00				31	
	100	9	900		14400		100	9	900		13950
440+00				9		440+00				0	
	10	9	90		810		10	9	90		0
440+10				9		440+10				0	
					169290						140400
TOTAL (SQ. FT.):					309690 FT^2						
TOTAL (SQ. YD.):					**34410 YD^2**						

Appendix G

Settlement Analyses

t_{90} Calculations

ASSUMPTIONS

T = 0.848
Single Drainage
C_{VF} from Holtz & Kovacs, Page 404, Figure 9.10
LL = Moisture Content

FORMULAS

$t_{90} = (T * H_{DR}^2) / C_{VF}$ *For a single layer*
$t_{90} = [\sum (t_{90} * \text{settlement})] / \sum \text{settlement}$ *For the entire soil column*

Location	Station	Layer	Layer Height (ft)	C_{VF} (ft^2/d)	t_{90} (days)	Settlement (ft)
Mainline	347+50	1	1.8	0.9300	2.95	0.0050
		2	1.8	0.9300	2.95	0.0033
		3	1.8	0.9300	2.95	0.0033
		4	2.0	0.9300	3.65	0.0167
		5	2.0	0.6975	4.86	0.1250
		6	2.2	0.7905	5.19	0.0000
		7	2.2	0.9300	4.41	0.0000
		8	2.2	0.9300	4.41	0.0100
		Total			4.58	0.1633
Mainline	423+20	1	2.6	0.8370	6.85	0.0558
		2	2.6	0.5115	11.21	0.2575
		3	2.6	0.9300	6.16	0.0167
		4	1.0	0.9300	0.91	0.0000
		Total			10.22	0.3300
Mainline	423+67	1	3.8	0.6975	17.56	0.0533
		2	2.5	0.6975	7.60	0.0283
		3	3.5	0.9300	11.17	0.0150
		4	1.5	0.9300	2.05	0.0000
		5	3.0	0.9300	8.21	0.0000
		6	2.3	0.9300	4.82	0.0000
		7	2.3	0.9300	4.82	0.0000
		8	2.3	0.9300	4.82	0.0000
		9	2.3	0.9300	4.82	0.0000
		10	2.3	0.9300	4.82	0.0000
		11	2.3	0.9300	4.82	0.0000
		Total			13.65	0.0967
US 67 Connector	26+65	1	2.4	0.6231	7.84	0.2525
		2	1.8	0.8835	3.11	0.0167
		3	1.8	0.9300	2.95	0.0150
		4	2.5	0.9300	5.70	0.0000
		5	1.8	0.9300	2.95	0.0000
		6	1.8	0.9300	2.95	0.0000
		7	1.8	0.9300	2.95	0.0000
		Total			7.30	0.2842

Settlement Analyses

Station 333+19.67 to Station 463+50

SETTLEMENT ANALYSIS

I.D.O.T. BBS FOUNDATIONS AND GEOTECHNICAL UNIT — Modified on 1/31/05

TRIC OR ENGLISH ========== 1 (1=ENGLISH, 2=METRIC)
E OF SURCHARGE ========== 2 (1=bridge cone, 2=continuous embankment, 3=rectangular)
DEPTH TO WATER TABLE (below surf. of exist. embank. or exist. rectang. surch.) ========== FT.

NEW EMBANKMENT:
- NEW EMBANKMENT FILL UNIT WEIGHT ========== 120 PCF.
- NEW EMBANKMENT FILL HEIGHT ========== 20.38 FT.
- PROPOSED WIDTH AT TOP ========== 124 FT.
- PROPOSED WIDTH AT BOTTOM ========== 244 FT. WHICH WOULD BE A 2.9:1 SIDE SLOPE
- PROPOSED LENGTH OF EMBANK. OR SURCHARGE (RECTANGULAR ONLY) 0 FT.

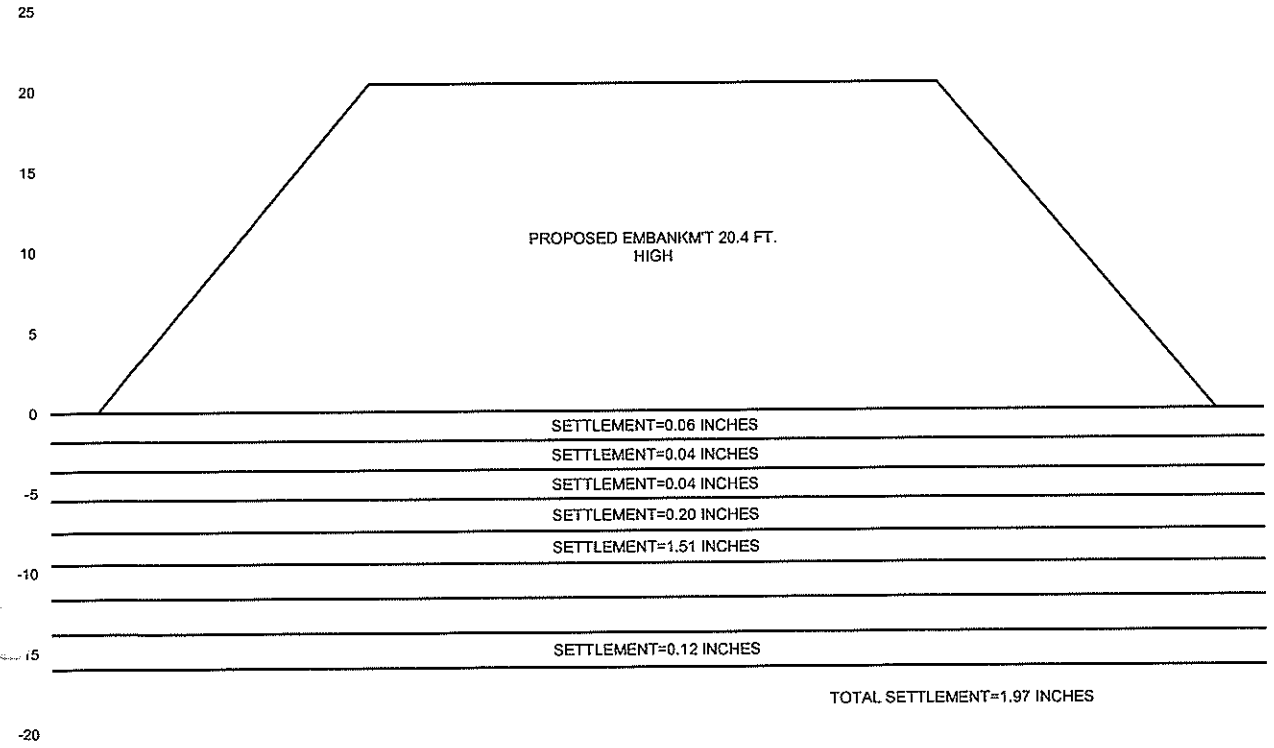
EXISTING EMBANKMENT (IF ANY):
- EXIST. EMBANKMENT UNIT WEIGHT ========== PCF.
- EXIST. EMBANKMENT HEIGHT ========== FT.
- WIDTH AT TOP ========== FT.
- WIDTH AT BASE ========== FT. WHICH WOULD BE A 0.0:1 SIDE SLOPE
- EXISTING LENGTH OF EMBANK. OR SURCHARGE (RECTANGULAR ONLY) ========== FT.

LAYER THICK (FT.)	*TOTAL UNIT WT. (PCF.)*	*UNCONFINED COMP. STR. (TSF.)*	*MOIST. CONTENT (%)*	*OVERBURDEN PRESSURE (KSF.)*	*PRESSURE INCREASE (KSF.)*	*INITIAL VOID RATIO*	*COMPRESSION INDEX, Cc*	*LAYER SETTLEMENT (IN.)*
1.8	120	0.60	11	0.053	2.446	0.297	0.002	**0.06**
1.8	120	0.60	11	0.158	2.446	0.297	0.002	**0.04**
1.8	120	0.60	11	0.264	2.445	0.297	0.002	**0.04**
2.0	120	0.80	17	0.374	2.445	0.459	0.014	**0.20**
2.0	120	0.38	25	0.489	2.445	0.675	0.135	**1.51**
2.2	120	4.00	23	0.609	2.444	0.621	0.000	**0.00**
2.2	120	2.40	20	0.734	2.442	0.540	0.000	**0.00**
2.2	120	1.50	19	0.859	2.440	0.513	0.012	**0.12**

TOTAL SETTLEMENT UNDER CENTER OF CONTINUOUS SURCHARGE = *1.97 IN*

ASSUMPTIONS:
SOIL IS NORMALLY CONSOLIDATED
SOIL IS SATURATED
Eo=2.7*(MOIST CONT.%)/100
Cc=0.009*(LL-10)
LL=MOIST CONT.%
SOIL HAS A LOW SENSITIVITY

EMBANKMENT AND SOIL PROFILE



SETTLEMENT ANALYSIS

I.D.O.T. BBS FOUNDATIONS AND GEOTECHNICAL UNIT — Modified on 1/31/05

TRIC OR ENGLISH ========== 1 (1=ENGLISH, 2=METRIC)
E OF SURCHARGE ========== 2 (1=bridge cone, 2=continuous embankment, 3=rectangular)
DEPTH TO WATER TABLE (below surf. of exist. embank. or exist. rectang. surch.) == N/A FT.

NEW EMBANKMENT:
NEW EMBANKMENT FILL UNIT WEIGHT ========== 120 PCF.
NEW EMBANKMENT FILL HEIGHT ========== 16.5 FT.
PROPOSED WIDTH AT TOP ========== 118 FT.
PROPOSED WIDTH AT BOTTOM ========== 250 FT. WHICH WOULD BE A 4.0:1 SIDE SLOPE
PROPOSED LENGTH OF EMBANK. OR SURCHARGE (RECTANGULAR ONLY) 0 FT.

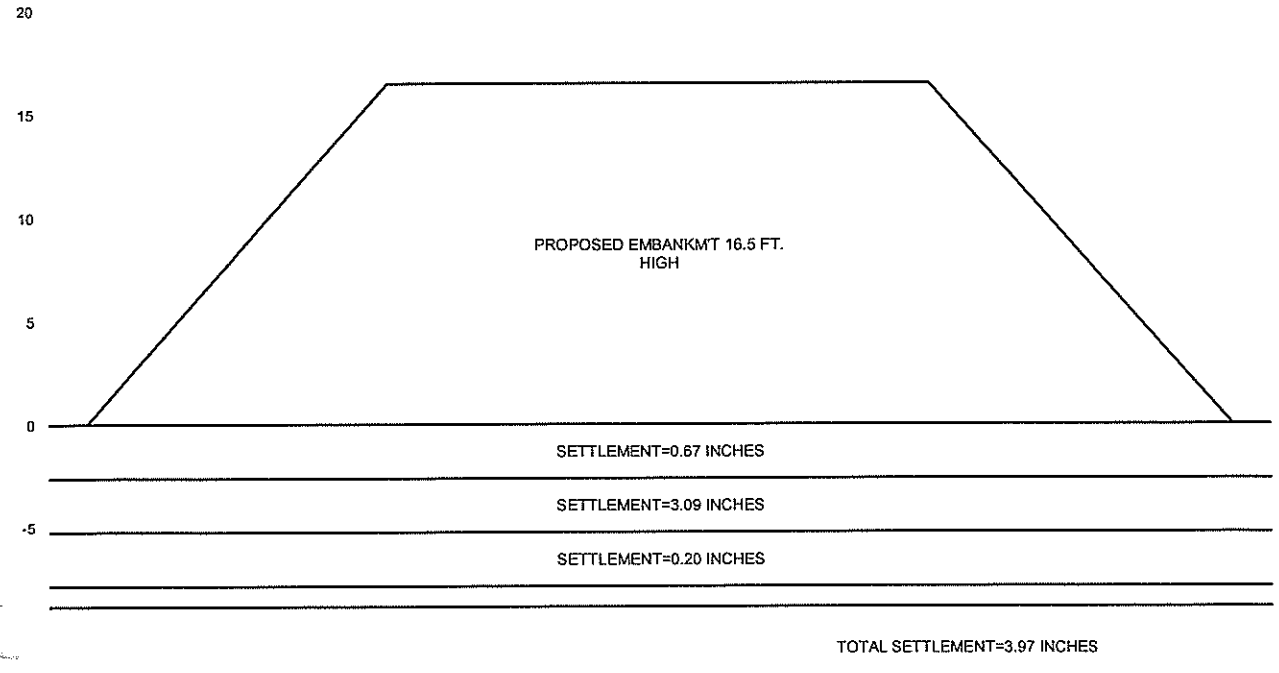
EXISTING EMBANKMENT (IF ANY):
EXIST. EMBANKMENT UNIT WEIGHT ========== PCF.
EXIST. EMBANKMENT HEIGHT ========== FT.
WIDTH AT TOP ========== FT.
WIDTH AT BASE ========== FT. WHICH WOULD BE A 0.0:1 SIDE SLOPE
EXISTING LENGTH OF EMBANK. OR SURCHARGE (RECTANGULAR ONLY) ========== FT.

LAYER THICK (FT.)	*TOTAL UNIT WT. (PCF.)*	*UNCONFINED COMP. STR. (TSF.)*	*MOIST. CONTENT (%)*	*OVERBURDEN PRESSURE (KSF.)*	*PRESSURE INCREASE (KSF.)*	*INITIAL VOID RATIO*	*COMPRESSION INDEX, Cc*	*LAYER SETTLEMENT (IN.)*
2.6	120	0.80	22	0.075	1.980	0.594	0.024	**0.67**
2.6	120	0.30	30	0.226	1.980	0.810	0.180	**3.09**
2.6	120	1.60	20	0.377	1.980	0.540	0.013	**0.20**
1.0	120	0.00	0	0.481	1.979	0.000	0.000	**0.00**

TOTAL SETTLEMENT UNDER CENTER OF CONTINUOUS SURCHARGE = *3.97 IN*

ASSUMPTIONS:
SOIL IS NORMALLY CONSOLIDATED
SOIL IS SATURATED
Eo=2.7*(MOIST CONT.%)/100
Cc=0.009*(LL-10)
LL=MOIST CONT.%
SOIL HAS A LOW SENSITIVITY

EMBANKMENT AND SOIL PROFILE



SETTLEMENT ANALYSIS

I.D.O.T. BBS FOUNDATIONS AND GEOTECHNICAL UNIT — Modified on 1/31/05

TRIC OR ENGLISH	1	(1=ENGLISH, 2=METRIC)
E OF SURCHARGE	2	(1=bridge cone, 2=continuous embankment, 3=rectangular)
DEPTH TO WATER TABLE (below surf. of exist. embank. or exist. rectang. surch.)	12.80	FT.

NEW EMBANKMENT:

NEW EMBANKMENT FILL UNIT WEIGHT	120	PCF.	
NEW EMBANKMENT FILL HEIGHT	16	FT.	
PROPOSED WIDTH AT TOP	118	FT.	
PROPOSED WIDTH AT BOTTOM	248	FT.	WHICH WOULD BE A 4.1:1 SIDE SLOPE
PROPOSED LENGTH OF EMBANK. OR SURCHARGE (RECTANGULAR ONLY)	0	FT.	

EXISTING EMBANKMENT (IF ANY):

EXIST. EMBANKMENT UNIT WEIGHT		PCF.	
EXIST. EMBANKMENT HEIGHT		FT.	
WIDTH AT TOP		FT.	
WIDTH AT BASE		FT.	WHICH WOULD BE A 0.0:1 SIDE SLOPE
EXISTING LENGTH OF EMBANK. OR SURCHARGE (RECTANGULAR ONLY)		FT.	

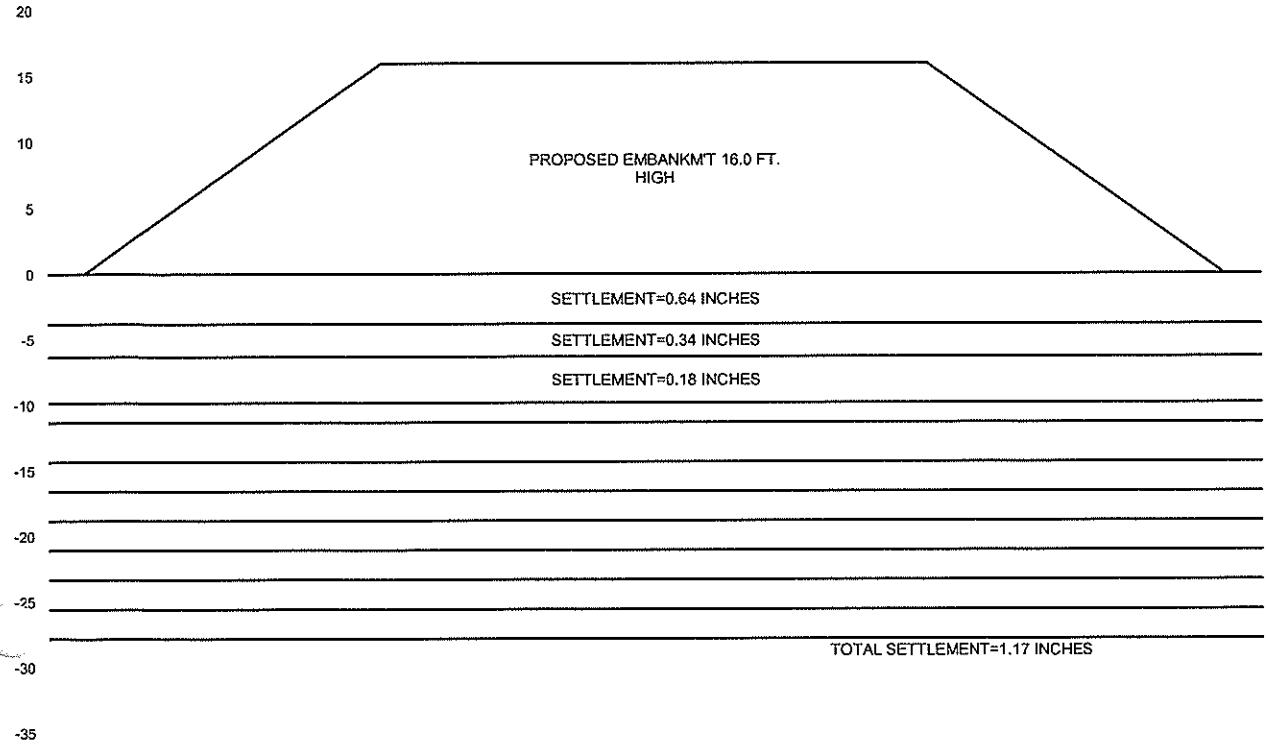
LAYER THICK (FT.)	*TOTAL UNIT WT. (PCF.)*	*UNCONFINED COMP. STR. (TSF.)*	*MOIST. CONTENT (%)*	*OVERBURDEN PRESSURE (KSF.)*	*PRESSURE INCREASE (KSF.)*	*INITIAL VOID RATIO*	*COMPRESSION INDEX, Cc*	*LAYER SETTLEMENT (IN.)*
3.8	120	1.20	25	0.228	1.920	0.675	0.024	**0.64**
2.5	120	0.70	25	0.605	1.920	0.675	0.031	**0.34**
3.5	120	1.30	19	0.965	1.919	0.513	0.014	**0.18**
1.5	120	0.00	0	1.265	1.918	0.000	0.000	**0.00**
3.0	120	0.00	0	1.535	1.917	0.000	0.000	**0.00**
2.3	120	6.80	14	1.687	1.915	0.378	0.000	**0.00**
2.3	120	4.90	17	1.816	1.913	0.459	0.000	**0.00**
2.3	120	5.20	16	1.946	1.910	0.432	0.000	**0.00**
2.3	120	5.90	14	2.075	1.906	0.378	0.000	**0.00**
2.3	120	4.20	16	2.205	1.902	0.432	0.000	**0.00**
2.3	120	2.90	20	2.335	1.897	0.540	0.000	**0.00**

ASSUMPTIONS:

SOIL IS NORMALLY CONSOLIDATED
SOIL IS SATURATED
Eo=2.7*(MOIST CONT.%)/100
Cc=0.009*(LL-10)
LL=MOIST CONT.%
SOIL HAS A LOW SENSITIVITY

TOTAL SETTLEMENT UNDER CENTER OF CONTINUOUS SURCHARGE = *1.17 IN*

EMBANKMENT AND SOIL PROFILE



Settlement Analyses

US 67 Connector

SETTLEMENT ANALYSIS

I.D.O.T. BBS FOUNDATIONS AND GEOTECHNICAL UNIT — Modified on 1/31/05

TRIC OR ENGLISH ========== 1 (1=ENGLISH, 2=METRIC)
E OF SURCHARGE ========== 2 (1=bridge cone, 2=continuous embankment, 3=rectangular)
DEPTH TO WATER TABLE (below surf. of exist. embank. or exist. rectang. surch.) == 8.43 FT.

NEW EMBANKMENT:
- NEW EMBANKMENT FILL UNIT WEIGHT ========== 120 PCF.
- NEW EMBANKMENT FILL HEIGHT ========== 17 FT.
- PROPOSED WIDTH AT TOP ========== 32 FT.
- PROPOSED WIDTH AT BOTTOM ========== 133 FT. WHICH WOULD BE A 3.0:1 SIDE SLOPE
- PROPOSED LENGTH OF EMBANK. OR SURCHARGE (RECTANGULAR ONLY) ========== FT.

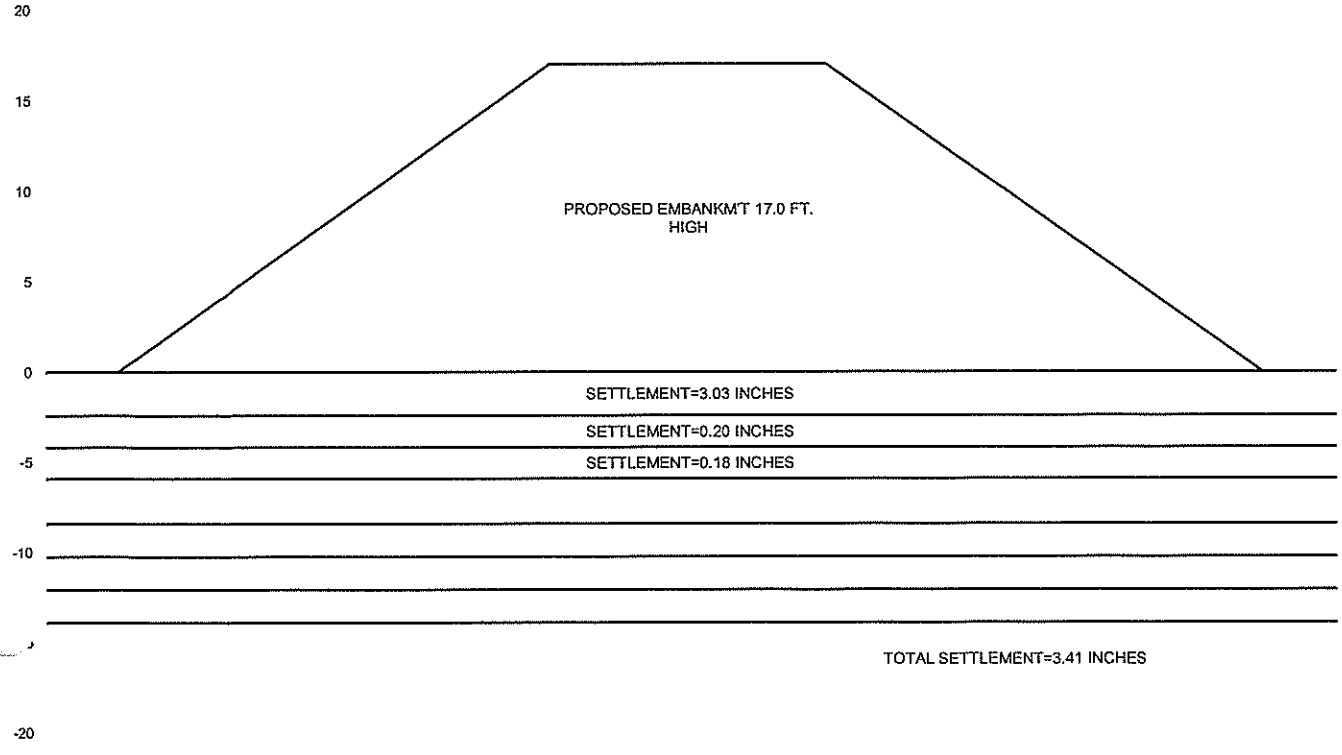
EXISTING EMBANKMENT (IF ANY):
- EXIST. EMBANKMENT UNIT WEIGHT ========== PCF.
- EXIST. EMBANKMENT HEIGHT ========== FT.
- WIDTH AT TOP ========== FT.
- WIDTH AT BASE ========== FT. WHICH WOULD BE A 0.0:1 SIDE SLOPE
- EXISTING LENGTH OF EMBANK. OR SURCHARGE (RECTANGULAR ONLY) ========== FT.

LAYER THICK (FT.)	*TOTAL UNIT WT. (PCF.)*	*UNCONFINED COMP. STR. (TSF.)*	*MOIST. CONTENT (%)*	*OVERBURDEN PRESSURE (KSF.)*	*PRESSURE INCREASE (KSF.)*	*INITIAL VOID RATIO*	*COMPRESSION INDEX, Cc*	*LAYER SETTLEMENT (IN.)*
2.4	120	0.00	27	0.146	2.040	0.729	0.153	**3.03**
1.8	120	1.10	21	0.397	2.039	0.567	0.019	**0.20**
1.8	120	0.50	19	0.607	2.036	0.513	0.020	**0.18**
2.5	120	0.00	0	0.862	2.030	0.000	0.000	**0.00**
1.8	120	4.00	12	1.064	2.019	0.324	0.000	**0.00**
1.8	120	7.50	12	1.170	2.006	0.324	0.000	**0.00**
1.8	120	4.50	12	1.275	1.991	0.324	0.000	**0.00**

TOTAL SETTLEMENT UNDER CENTER OF CONTINUOUS SURCHARGE = *3.41 IN*

ASSUMPTIONS:
SOIL IS NORMALLY CONSOLIDATED
SOIL IS SATURATED
Eo=2.7*(MOIST CONT.%)/100
Cc=0.009*(LL-10)
LL=MOIST CONT.%
SOIL HAS A LOW SENSITIVITY

EMBANKMENT AND SOIL PROFILE



SETTLEMENT ANALYSIS

I.D.O.T. BBS FOUNDATIONS AND GEOTECHNICAL UNIT — Modified on 1/31/05

TRIC OR ENGLISH ========== 1 (1=ENGLISH, 2=METRIC)
E OF SURCHARGE ========== 2 (1=bridge cone, 2=continuous embankment, 3=rectangular)
DEPTH TO WATER TABLE (below surf. of exist. embank. or exist. rectang. surch.) == 8.43 FT.

NEW EMBANKMENT:
- NEW EMBANKMENT FILL UNIT WEIGHT ========== 120 PCF.
- NEW EMBANKMENT FILL HEIGHT ========== 17 FT.
- PROPOSED WIDTH AT TOP ========== 32 FT.
- PROPOSED WIDTH AT BOTTOM ========== 133 FT. WHICH WOULD BE A 3.0:1 SIDE SLOPE
- PROPOSED LENGTH OF EMBANK. OR SURCHARGE (RECTANGULAR ONLY) ========== FT.

EXISTING EMBANKMENT (IF ANY):
- EXIST. EMBANKMENT UNIT WEIGHT ========== PCF.
- EXIST. EMBANKMENT HEIGHT ========== FT.
- WIDTH AT TOP ========== FT.
- WIDTH AT BASE ========== FT. WHICH WOULD BE A 0.0:1 SIDE SLOPE
- EXISTING LENGTH OF EMBANK. OR SURCHARGE (RECTANGULAR ONLY) ========== FT.

LAYER THICK (FT.)	*TOTAL UNIT WT. (PCF.)*	*UNCONFINED COMP. STR. (TSF.)*	*MOIST. CONTENT (%)*	*OVERBURDEN PRESSURE (KSF.)*	*PRESSURE INCREASE (KSF.)*	*INITIAL VOID RATIO*	*COMPRESSION INDEX, Cc*	*LAYER SETTLEMENT (IN.)*
2.4	120	0.00	0	0.146	2.040	0.000	0.000	**0.00**
1.8	120	1.10	21	0.397	2.039	0.567	0.019	**0.20**
1.8	120	0.50	19	0.607	2.036	0.513	0.020	**0.18**
2.5	120	0.00	0	0.862	2.030	0.000	0.000	**0.00**
1.8	120	4.00	12	1.064	2.019	0.324	0.000	**0.00**
1.8	120	7.50	12	1.170	2.006	0.324	0.000	**0.00**
1.8	120	4.50	12	1.275	1.991	0.324	0.000	**0.00**

ASSUMPTIONS:
SOIL IS NORMALLY CONSOLIDATED
SOIL IS SATURATED
Eo=2.7*(MOIST CONT.%)/100
Cc=0.009*(LL-10)
LL=MOIST CONT.%
SOIL HAS A LOW SENSITIVITY

TOTAL SETTLEMENT UNDER CENTER OF CONTINUOUS SURCHARGE = *0.38 IN*

EMBANKMENT AND SOIL PROFILE