Date: 9/18/2025

Local Agency: Lake County DOT

Request No.: 4 Final:

Project Name: Winchester Rd at IL83 Intersection

Contractor: Campanella & Sons, Inc.

Section No.: 16-00170-13-CH

Address: PO Box 32, Illinois 60083

Contract Amount: $3,266,544.26

I recommend that this addition be made to the above contract.

P/O No.:

MFT Funds Included:

The estimated quantities are shown below and the contractor agrees to furnish the materials and do the work at the unit prices.

	Item #	Item Description	Unit	Changed Quantity	Unit Price	Addition(A) or Deduction(D)	Total Addition	Total Deduction
507	00000507	ARMORPACT RAMMED AGGREGATE PIER SOIL REINFORCEMENT, ADDED	Lump Sum	1.00	746269.65	A	$746,269.65	$0.00
143	X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	3450	130.00	A	$448,500.00	$0.00
702	00000702	FUND FOR QUANTITY ADJUSTMENTS	DOLLAR	100000	1.00	A	$100,000.00	$0.00
							$1,294,769.65	**($0.00)**

Request No.: 3

Total Net Change: $1,294,769.65
Amount of Original Contract: $3,266,544.26
Amount of Previous Change Orders: $279,596.36
Amount of adjusted/final contract: $4,840,910.27

Total net addition to date $1,574,366.01 which is 48.197% of the contract price.

State fully the nature and reason for the change:

#143: Additional quantity to build working platform for added pier work
#507: Added piers based on field observation of poor soils and subsequent soil borings taken
#702: Funds for quantity changes, other unexpected added work

When the net increase or decrease in the cost of the contract is $10,000.00 or more, or the time of completion is increased or decreased by 30 days or more, one of the following statements must be checked:
(for LCDOT, please check a box at all times)

X

The undersigned has determined that the circumstances which necessitate this change were not reasonably foreseeable at the time the contract was signed.

The undersigned has determined that the change is germane to the original contract as signed.

The undersigned has determined that this change is in the best interest of the Local Agency and is authorized by law.

Prepared By: _____ Date: _____

Print Name & Title: _____

Checked By: _____ Date: _____

Accounting: _____ Date: _____

Approval Recommended: _____ Date: _____

SECTION NO.: 16-00170-13-CH
PROJECT: Winchester Road at Rt. 83 Intersection

CHANGE ORDER SCHEDULE

APPROPRIATED AMOUNT: $3,972,000.00
AWARDED AMOUNT: $3,266,544.26
FUND(S): ST

CHANGE ORDER NO.	DESCRIPTION	DATE SUBMITTED	DATE APPROVED	COST (+/_-)	ACCUMULATIVE COST	%
1	Extend Field Office Duration	2/4/2025	2/11/2025	$ 21,000.00	$ 21,000.00	0.643%
2	Traffic Signal Pay Item Changes per IDOT Comments	6/2/2025	6/30/2025	$ (150.70)	$ 20,849.30	0.638%
3	Geotech Fabric for Road, Extra Detour Signs, Layer II Switch, EMB Days	9/18/2025		$ 258,747.06	$ 279,596.36	8.559%
4	Added Geopiers, Excavation for Working Platform	9/18/2025		$ 1,294,769.65	$ 1,574,366.01	48.197%

CAMPANELLA
AND SONS, INC

P.O. Box 32
39207 N. Magnetics Blvd
Wadsworth, Illinois 60083
P 847.336.9698 | F 847.336.4818

September 2, 2025

Matthew Mitchell
Lake County Department of Transportation
600 W Winchester Road
Libertyville, IL 60048

Project: Winchester Road at IL Route 83

Subject: Added Ground Improvement Areas

Dear Mr. Mitchell,

On August 6, SEECO Consultants Inc. recommended additional ground improvements in three areas, totaling approximately 15,470 SF. This additional work will have significant impacts on both project costs and schedule.

Foundation Service Corp. (FSC) has submitted a proposal for the added Geopier Foundation System in the amount of **$703,000.00**. Please see the attached FSC proposal for all clarifications. Of note, FSC has included a waiver of liability for any damage that may occur to the Mundelein water main.

Additionally, FSC has provided the following preliminary design specifications:

- In accordance with our design from the previous phase of this project, we are taking a similar approach (i.e. geotechnical and Geopier design parameters) to the next phase of this project to support the recommended sections of proposed roadway and embankment. We are considering the same settlement specifications for the undercut, which are required for our design.
- Our preliminary quantity to support the next phase of this project is 348 total Armorpact elements, spaced approximately 7.5 feet (center to center). Approximately 87 will be 15 ft in length, with the remaining 261 10 feet in length.
- Provided the previous phase had two successful modulus load tests, and construction is in similar soil conditions, we are not proposing any additional load tests.
- As with the previous phase, we recommend the undercut of unsuitable organic soils to an elevation of 826 ft and backfill with properly compacted CA-6 material.
- In the area of the 20-inch watermain, for full culvert and embankment support along the watermain alignment, we recommend a minimum 3.5 ft (edge to edge) offset of Geopier elements from the watermain. Greater spacings would result in potentially unsupported areas of the culvert and embankment, and any undesired performance would be at the risk of the project Owner.

The construction of the CA-6 working platform, from the design elevation of 826 feet to subgrade, will consist of two pay items: **Removal and Disposal of Unsuitable Material** and **Porous Granular Embankment (Special)**. The estimated quantities are **3,900 CY** and **3,450 CY**, respectively. This work is anticipated to take approximately **two weeks** to complete.

Following LCDOT acceptance of the Geopier Foundation System price, FSC will begin the two-week design phase of the system. Upon design approval, **Armorpact shells** will require approximately **four weeks** for production and delivery. FSC then anticipates an additional **four weeks** to construct the piers, after which roadway construction can resume.

To expedite the project schedule, certain steps may be advanced prior to final design approval:

- Construction of the CA-6 working platform.
- Procurement of Armorpact shells.

Shell production can begin as early as **September 16, 2025**, at a cost of **$107,780.84**.

A breakdown of anticipated added costs is provided below. Please note that several miscellaneous items will also need to be tracked on a force-account basis, including:

- Installation of a new dewatering system.
- Foreman with GPS rover for pier layout.
- Remobilization of equipment for roadway construction.

We look forward to your review and direction on how you would like to proceed.

AFSO7

AUP for Added Piers	1	LS	$746,269.65		$ 746,269.65
Remove and Dispose Unsuitable Material	3950	CY	$ 30.00		$ 118,500.00
Porous Granular Embankment (Special)	3450	CY	$ 130.00		$ 448,500.00
Estimated Dewatering Costs	1	EA	$ 30,000.00		$ 30,000.00
Estimated Foreman Layout Costs	1	EA	$ 8,000.00		$ 8,000.00
Estimated Remobilization Costs	1	EA	$ 10,000.00		$ 10,000.00
Estimated Traffic Control Adjustment	1	EA	$ 9,000.00		$ 9,000.00
			Estimated Total.....		***$ 1,370,269.65***

Sincerely
CAMPANELLA & SONS, INC.

Matthew Wente

CAMPANELLA
AND SONS, INC

P.O. Box 32
39207 N. Magnetics Blvd
Wadsworth, Illinois 60083
P 847.336.9698 | F 847.336.4818

September 3, 2025

Matthew Mitchell
Lake County Division of Transportation
600 W Winchester Road
Libertyville, IL 60048

Re: Winchester Rd at Route 83

Dear Matt,

Below, please find the proposed pricing for the added Geopier Foundation System on the above-mentioned project:

Description	***Unit***	***Price***
Additional Geopier Foundation System	LS	$746,269.65

Foundation Service Corp. Proposal	$	703,000.00
5% Markup	$	35,150.00
Subtotal	$	738,150.00
1% Bond	$	7,381.50
10% of Bond	$	738.15
Total Cost of Added Piers	**$**	**746,269.65**

If you have any questions, please contact me.

Sincerely
CAMPANELLA & SONS, INC.

Matthew Wente
Project Manager

Construction Monitoring & Observations

Construction Materials Testing

Tunnels and Underground Openings

Geotechnical Engineering & Evaluation

SEECO Consultants Inc.
CONSULTING ENGINEERS

Subsurface Explorations

Foundation Analysis & Design

Structural Rehabilitation Condition Surveys

Dams and Drainage Studies

August 6, 2025

Lake County Division of Transportation
600 West Winchester Road
Libertyville, IL 60048
Atten: Mr. Glen Petko, P.E., Engineer of Construction
Mr. Matthew Mitchell, P.E., Resident Engineer

RE: Revision #3 Roadway Foundation Recommendation on Route 83 and Winchester Road Intersection
Project Section 16-00170-13-CH

Gentlemen,

On the basis of the visual observation of our project field geotechnical engineer Mr. Patrick Gray on July 18, 2025 of the site where Campanella & Sons, Inc. had removed the Bituminous Concrete Pavement with some base course and then excavated the 5 to 8 feet of compacted silty clay fill which supported Illinois Route 83 for over 80 years of service, the soft compressible peat material was found and when the heavy equipment dozers, backhoes and dump trucks drove over this area the ground shakes like a bowl of jelly (see attached photos).

SEECO Consultants, Inc. then consulted with you people about doing borings to determine the thickness and lateral extent of north and south limits of the peat material on either side of the to be Armor Pact geopiers supported box culvert.

On July 21 and 22, 2025, SEECO Consultants, Inc. All Terrain CME-750 with a 2-person drill crew drilled and sampled 9 soil borings in the R.O.W. both north and south of the new R/C precast concrete Box Culvert location to discern the thickness and width and length along the roadway of the highly compressible, unstable peat material.

On Tuesday, July 29, 2026, I emailed the final Geotech laboratory tested soil boring logs with the boring location plan and told you to give a copy to Mr. Glen Petko, P.E., which you said you would.

The engineering report recommends what to do to stabilize the new roadway where this peat material was not anticipated.

The soil boring logs after testing and plotting yield the following results:

Boring Number	Station Offset	Approximate Thickness of Peat Strata ft	Peat Water Content %
B-1	72 + 88, 10' RT	5.0	74.74 143.71
B-2	73 + 21, 15' RT	6.0	123.46 270.86
B-3	73 + 61, 16' RT	7.5	69.5 158.8

Boring Number	Station Offset	Approximate Thickness of Peat Strata ft	Peat Water Content %
B-4	74 + 30, 15' RT	7.0	101.02 193.59 228.39
B-5	74 + 65, 7' RT	7.0	239.62 203.68 93.09
B-6	75 + 00, 1' LT	3.5	160.99
B-7	72 + 50, 13' RT	No Peat	
B-8	75 + 50, 14' RT	No Peat	
B-9	72 + 00, 7' RT	No Peat	

See Exhibit A

Based on these borings, the approximate limits of the peat material in the roadway are as follows:

Need 10 foot offset for lateral confinement for both excavated refill and geopiers methods

North Side of Box Culvert (Stations 73 + 91)
Stations 74 + 00 to Stations 75 + 50 = 150 LF
Approximately 40 ft wide + 10 ft = 50 ft

South Side of Box Culvert
Stations 73 + 82 to Stations 72 + 55 = 127 LF
Approximately 40 ft wide + 10 ft = 50 ft

South Side of Box Culvert – South of Culvert Geopiers Eastside
Stations 73 + 59 to Stations 73 + 05 = 54 LF
Approximately 30 ft wide

When one computes the undercut in these areas with the average depth of the peat being used, an engineer gets approximately 3,485 CY of undercut excavation with corresponding 3,485 CY of porous granular embankment (PGE) compacted for refill.

These areas for the geopier alternative will be:

South Side of Box Culvert
South of Culvert Geopiers, Eastside
54' x 30' = 1620 SF

North Side of Box Culvert
150' x 50' = 7500 SF

South Side of Box Culvert
127' x 50' = 6350 SF

Total Square Footage = 15,470 SF

The geopier depths to 3000 psf net allowable bearing will be as follows:

Boring Number	Depth to Bearing (ft)	Approximate Armor Pact Geopier minimum bottom elevation (MSL)
B-1	10'	822.67
B-2	11'	820.80
B-3	15'	816.60
B-4	18'	814.51
B-5	20'	813.22
B-6	16'	817.98

If the roadway is constructed without any remedial means taken in the peat area listed above with just geogrid and stone subbase with no soil improvement (geopiers) and/or excavate peat completely and refill with compacted PGE or CA-1 (3" stone) then after 6 months to one year time after the roadway is completed since the precast concrete box culvert won't settle the roadway on each side may settle as much as 6 to 8 inches with a hump over the box culvert making the new Illinois Route 83 impassible. So, it is imperative that the peat material is ground improved or excavated out and refilled with compacted PGE or CA-1 (3" stone) before paving the new roadway.

Both the primary consolidation settlement and long-term secondary consolidation settlement will occur if the highly compressible peat material is not stabilized before constructing the road with the 12-inch Aggregate Subgrade and Bituminous Concrete.

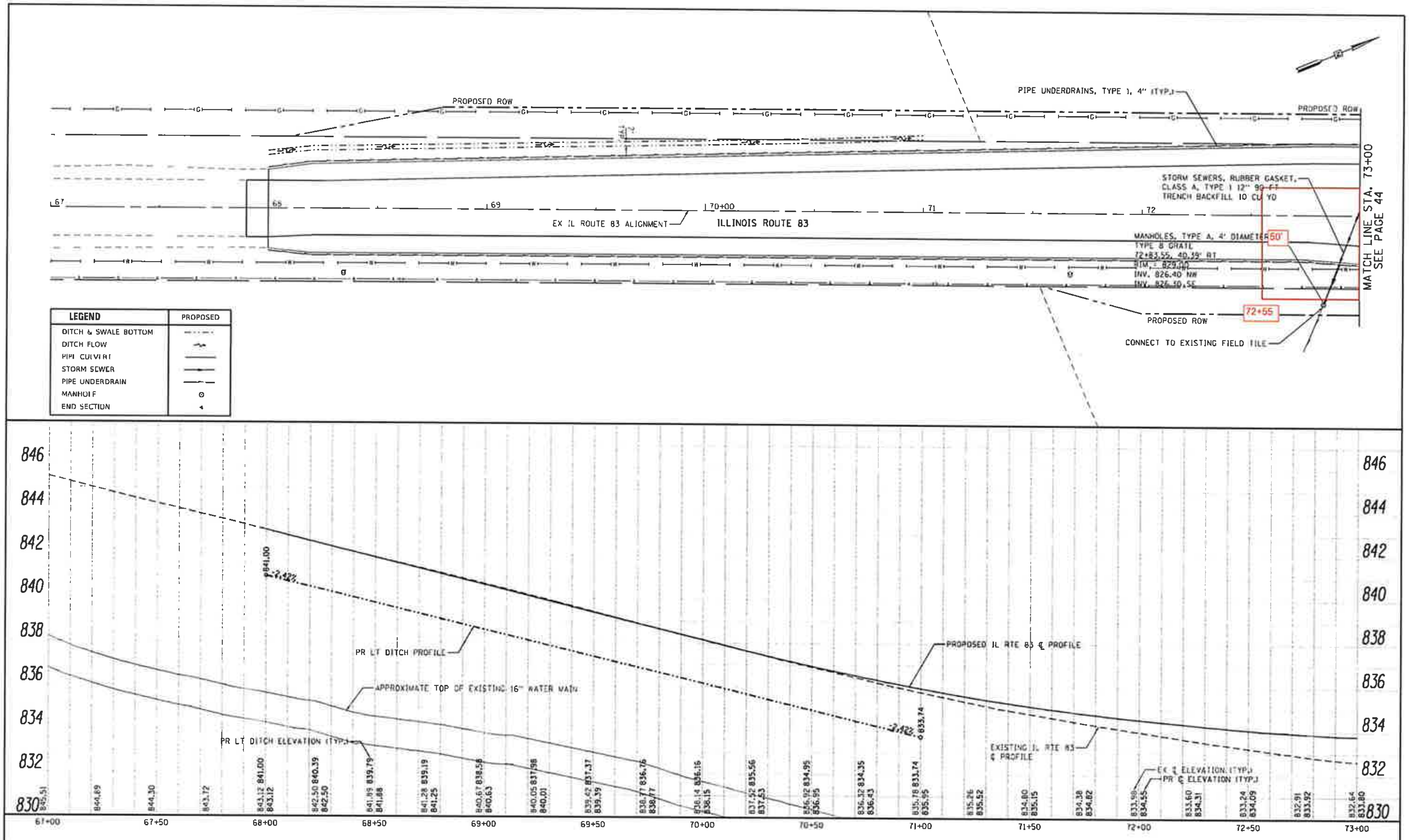
After you have a chance to digest this report, please feel free to call me at 1-708-429-1666.

Sincerely,
SEECO Consultants Inc

Collin W. Gray S.E., P.E., President

CWG:eb
Via email: gpetko@lakecountyil.gov; mmitchell2@lakecountyil.gov

Exhibit A


PROPOSED ROW
PIPE UNDERDRAINS, TYPE 1, 4" (TYP.)
PROPOSED ROW
EX IL ROUTE 83 ALIGNMENT
ILLINOIS ROUTE 83
70+00
STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 1 12" 90 FT
TRENCH BACKFILL 10 CU YD
MANHOLES, TYPE A, 4' DIAMETER
TYPE 8 GRATE
72+83.55, 40.39' RT
INV. 826.40 NW
INV. 826.30 SE
50'
72+55
PROPOSED ROW
CONNECT TO EXISTING FIELD TILE
MATCH LINE STA. 73+00
SEE PAGE 44
LEGEND
PROPOSED
DITCH & SWALE BOTTOM
DITCH FLOW
PIPE CULVERT
STORM SEWER
PIPE UNDERDRAIN
MANHOLE
END SECTION
846
844
842
840
838
836
834
832
830
PR LT DITCH PROFILE
APPROXIMATE TOP OF EXISTING 16" WATER MAIN
PR LT DITCH ELEVATION (TYP.)
PROPOSED IL RTE 83 ℄ PROFILE
EXISTING IL RTE 83 ℄ PROFILE
EX ℄ ELEVATION (TYP.)
PR ℄ ELEVATION (TYP.)
841.00
-2.42%
833.74
67+00
67+50
68+00
68+50
69+00
69+50
70+00
70+50
71+00
71+50
72+00
72+50
73+00

REVISIONS / REMARKS				
NO.	DESCRIPTION	DATE	BY	SURVEYOR: / DSGNR/LIAISON: / PLOTTED BY:

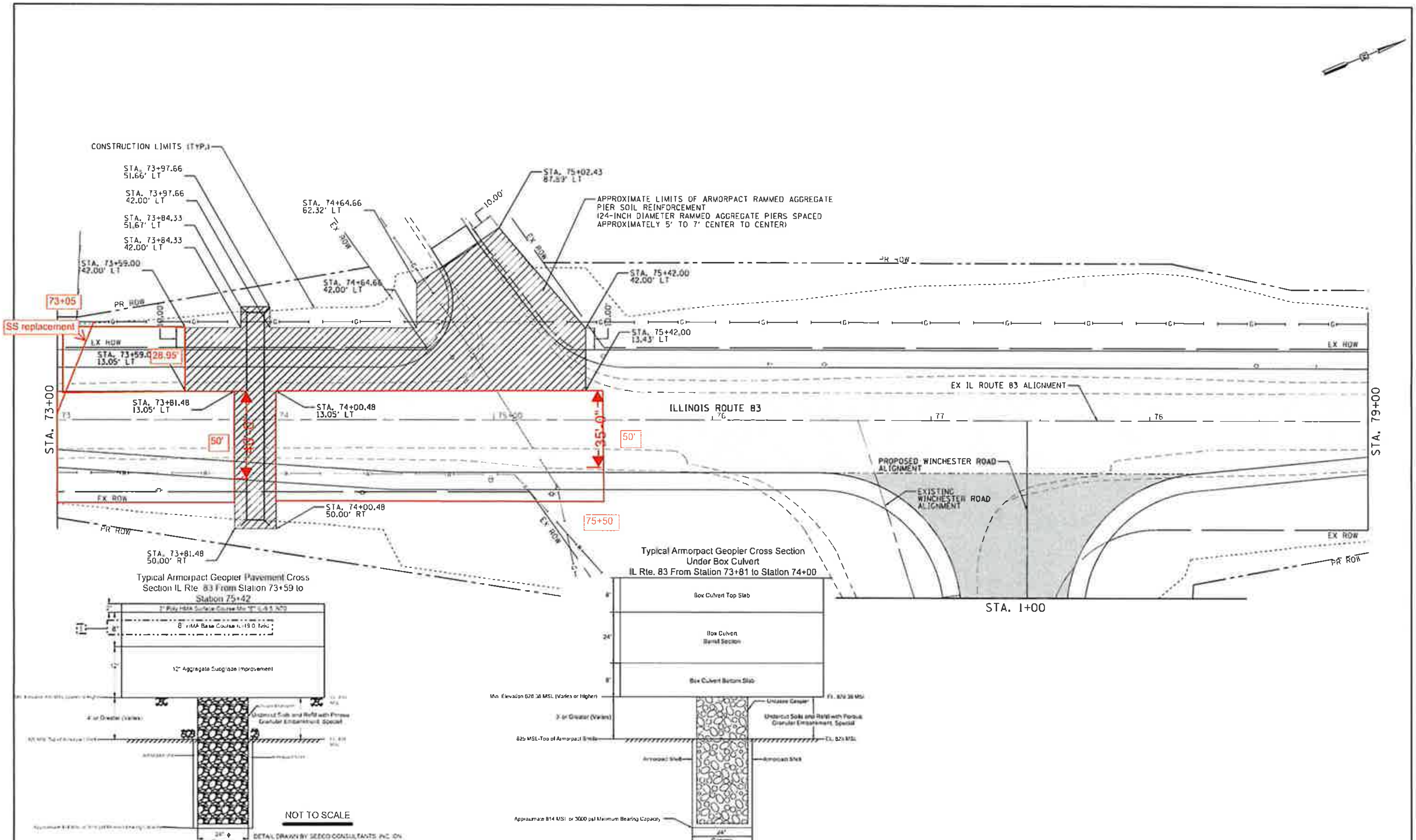
FILE NAME: #FILE#

SCALES: HORIZ. 0 21 42

LakeCounty
Division of Transportation

WINCHESTER ROAD AT ILLINOIS ROUTE 83
DRAINAGE PLAN AND PROFILE

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
CH69	170	16-00170-13-CH	43	136


CONSTRUCTION LIMITS (TYP.)
STA. 73+97.66 51.66' LT
STA. 73+97.66 42.00' LT
STA. 73+84.33 51.67' LT
STA. 73+84.33 42.00' LT
STA. 73+59.00 42.00' LT
73+05
SS replacement
PR ROW
EX ROW
STA. 73+59.0 13.05' LT
28.95'
STA. 74+64.66 62.32' LT
STA. 74+64.66 42.00' LT
10.00'
STA. 75+02.43 87.89' LT
APPROXIMATE LIMITS OF ARMORPACT RAMMED AGGREGATE PIER SOIL REINFORCEMENT (24-INCH DIAMETER RAMMED AGGREGATE PIERS SPACED APPROXIMATELY 5' TO 7' CENTER TO CENTER)
STA. 75+42.00 42.00' LT
STA. 75+42.00 13.43' LT
STA. 73+00
STA. 73+81.48 13.05' LT
STA. 74+00.48 13.05' LT
50'
35'-0"
EX IL ROUTE 83 ALIGNMENT
ILLINOIS ROUTE 83
STA. 79+00
PROPOSED WINCHESTER ROAD ALIGNMENT
EXISTING WINCHESTER ROAD ALIGNMENT
STA. 74+00.48 50.00' RT
75+50
STA. 73+81.48 50.00' RT
STA. 1+00
Typical Armorpact Geopier Pavement Cross Section IL Rte 83 From Station 73+59 to Station 75+42
12" Aggregate Subgrade Improvement
4' or Greater (Varies)
Undercut Soils and Refill with Porous Granular Embankment Special
NOT TO SCALE
DETAIL DRAWN BY SEECO CONSULTANTS INC. ON
Typical Armorpact Geopier Cross Section Under Box Culvert IL Rte. 83 From Station 73+81 to Station 74+00
Box Culvert Top Slab
Box Culvert Barrel Section
Box Culvert Bottom Slab
3' or Greater (Varies)
Armorpact Shell
24" Geopier

REVISIONS / REMARKS				
NO.	DESCRIPTION	DATE	BY	
1	CR #1	7/19/24		

SCALES HORIZ.

STRAND

LakeCounty Division of Transportation

WINCHESTER ROAD AT ILLINOIS ROUTE 83

SUBGRADE IMPROVEMENT PLAN

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
CH69	170	16-00170-13-CH	57	136