

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1HB,HBK)I	KANKAKEE	9	1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PROPOSED
HIGHWAY PLANS**

FAI ROUTE 57 (I-57)
SECTION (46-1HB,HBK)I

KANKAKEE COUNTY
C-93-028-07
BRIDGE REPAIR

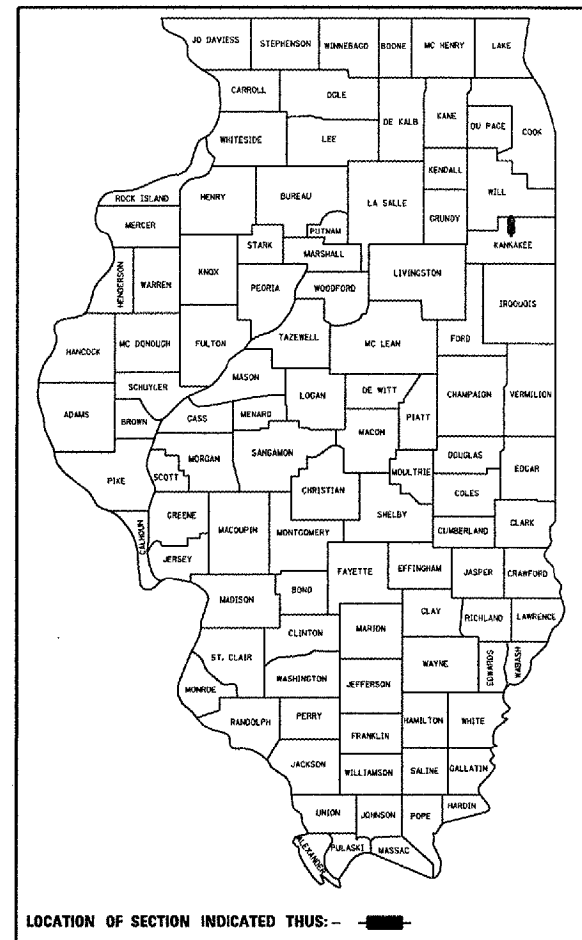
STANDARDS

1. COVER SHEET
2. GENERAL NOTES
3. SUMMARY OF QUANTITIES
4. TYPICAL SECTIONS
5. SLOPEWALL DETAILS
6. PLAN AND ELEVATION - SN 046-0058
7. REPAIR AREAS - SN 046-0058
8. PLAN AND ELEVATION - SN 046-0086
9. REPAIR AREAS - SN 046-0086

STANDARDS

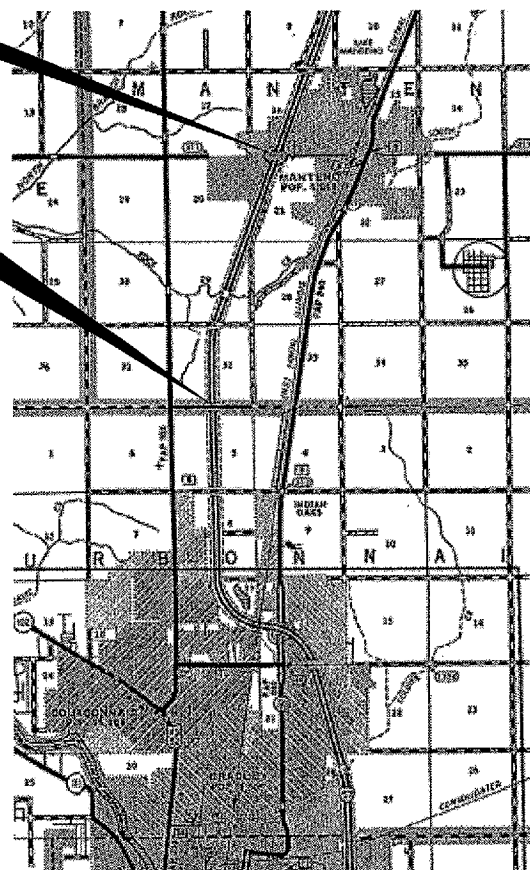
- 000001-04 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-01 AREAS OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 701101-01 OFF-ROAD OPERATIONS MULTILANE, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
- 701106-01 OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 4.5 m (15') AWAY
- 701400-02 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701401-03 LANE CLOSURE, FREEWAY/EXPRESSWAY
- 702001-06 TRAFFIC CONTROL DEVICES

D-93-002-07



LOCATION #1
MANTENO INTERCHANGE (CH 9)
S.N. 046-0058

LOCATION #2
E. 6000N ROAD (TR 37)
S.N. 046-0086



LOCATION MAP NOT TO SCALE
POINT LOCATIONS

FUNCTIONAL CLASSIFICATION

URBAN: INTERSTATE

FAI ROUTE 57

2005 ADT = 29500

P.V. = 75.8 % M.U. = 18.8 % S.U. = 5.4 %

MICROFILMED _____
REEL NUMBER _____
AWARDED _____
RESIDENT ENGINEER _____
AS BUILT CHANGES WERE MADE
ON THE FOLLOWING SHEETS _____

JULIE 1-800-892-0123

DISTRICT 3 NO. (815) 434-6131

PROJECT ENGINEER: JOE KANNEL

UNIT CHIEF: RON WOODSHANK

TOWNSHIP: MANTENO, BOURBONNAIS

CONTRACT NO. 66699

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED April 2, 2007
George Ryan
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 11, 2007
Eric E. Horn
ENGINEER OF DESIGN AND ENVIRONMENT

May 11, 2007
Milton R. Sees
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1HB & HBK)I	KANKAKEE	9	2

GENERAL NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING ROADWAY OR STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND TO MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT BID FOR THE WORK.

FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE "JULIE" NUMBER IS 1-800-892-0123. A MINIMUM OF FORTY-EIGHT (48) HOURS ADVANCE NOTICE IS REQUIRED.

THE COST OF ANY SAW CUTS MADE TO COMPLETE THE WORK AS DESCRIBED IN PLAN DETAILS, UNLESS OTHERWISE NOTED SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED WITH THE VARIOUS PAY REMOVAL PAY ITEMS INVOLVED.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR REESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED ON THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.

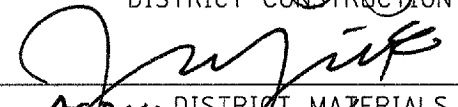
EXISTING REINFORCEMENT BARS EXTENDING INTO REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION. ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING CONCRETE REMOVAL SHALL BE REPLACED WITH AN APPROVED BAR SPLICER OR ANCHORAGE SYSTEM. COST INCLUDED WITH CONCRETE REMOVAL.

THE TRAFFIC CONTROL SHOWN ON THE PLANS REPRESENTS THE MINIMUM REQUIRED COMBINATION OF TRAFFIC CONTROL DEVICES NEEDED FOR THE CONSTRUCTION OPERATIONS AS SHOWN ON PLAN DETAILS. CONDITIONS CREATED BY THE CONTRACTOR'S OPERATION WHICH ARE NOT COVERED BY THE PLANS SHALL BE DELINEATED BY DEVICES AS DIRECTED BY THE ENGINEER AT NO COST TO THE DEPARTMENT. REVISIONS OR MODIFICATIONS OF THE TRAFFIC CONTROL SHALL HAVE THE ENGINEER'S WRITTEN APPROVAL. EXCEPT AS NOTED, RELOCATION OF ANY TRAFFIC CONTROL DEVICES DUE TO STAGE CONSTRUCTION SHALL BE NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE TRAFFIC CONTROL AND PROTECTION STANDARD INCLUDED ELSEWHERE IN THE PLANS.

PREPARED BY: 
DISTRICT STUDIES & PLANS ENGINEER

DATE: 4.2.07

EXAMINED BY: 
DISTRICT CONSTRUCTION ENGINEER


DISTRICT MATERIALS ENGINEER


DISTRICT OPERATIONS ENGINEER

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL NOTES
F.A.I. ROUTE 57 (I-57)
SECTION: (46-1HB,HBK)I
KANKAKEE COUNTY
S.N. 046-0058 & S.N. 046-0086

DATE: 3/7/2007
c:/projects/cm316/det/qls.dgn

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1HB,HBK)I	KANKAKEE	9	3

SUMMARY OF QUANTITIES

CONSTRUCTION CODE TYPE: SFTY-2A

100% STATE

URBAN

RURAL

SN 046-0058

SN 046-0086

46-1 HBK

46-1HB

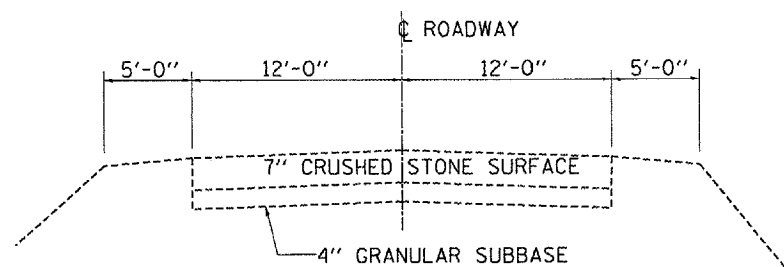
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	URBAN SN 046-0058 46-1 HBK	RURAL SN 046-0086 46-1HB
67100100	MOBILIZATION	L SUM	1	0.5	0.5
70100205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	EACH	2	1	1
59000200	EPOXY CRACK INJECTION	FOOT	26	26	
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	0.3	0.3	
X0325303	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	37	27	10
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	90	55	35
X0325748	ACRYLIC COATING	SQ YD	558	309	249
X0325749	FIBER WRAP	SQ FT	2700	2096	604

DATE: 3/7/2007
c:/projects/cmain07/cm316/details.dgn

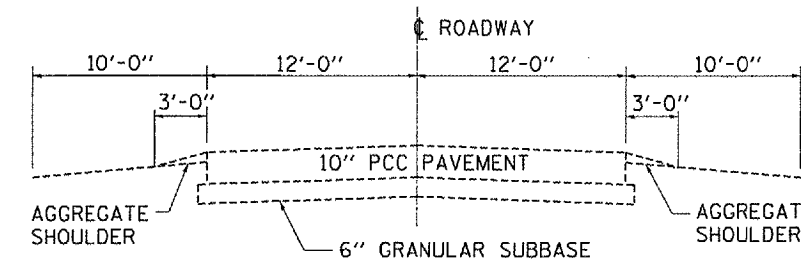
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
 F.A.I. ROUTE 57 (I-57)
 SECTION: (46-1HB,HBK)I
 KANKAKEE COUNTY
 S.N. 046-0058 & S.N. 046-0086

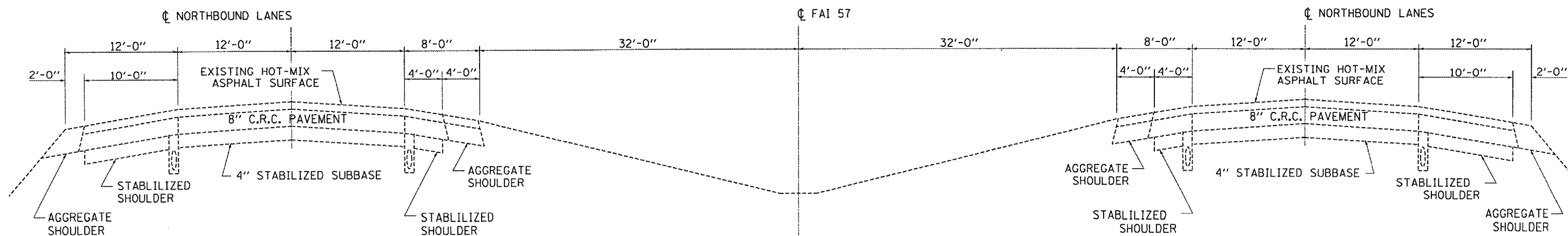
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1HB,HBK)I	KANKAKEE	9	4



TYPICAL SECTION
TR 37
(SN 046-0086)



TYPICAL SECTION
MANTENO ROAD
(SN 046-0058)



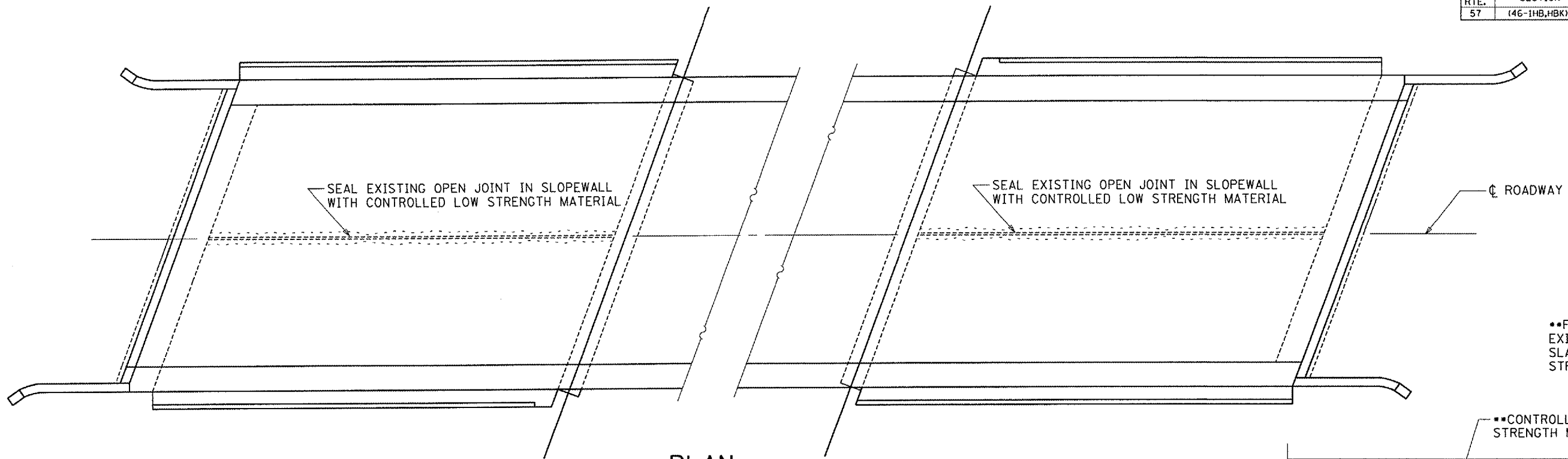
TYPICAL SECTION
FAI 57

REVISIONS	
NAME	DATE

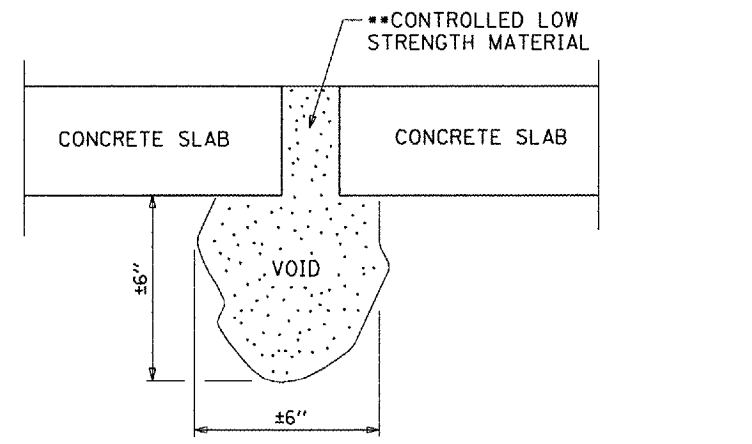
ILLINOIS DEPARTMENT OF TRANSPORTATION
TYPICAL SECTIONS
 F.A.I. ROUTE 57 (I-57)
 SECTION: (46-1HB,HBK)I
 KANKAKEE COUNTY
 S.N. 046-0058 & S.N. 046-0086

DATE: 3/7/2007
 c:/projects/cm316/details.dgn

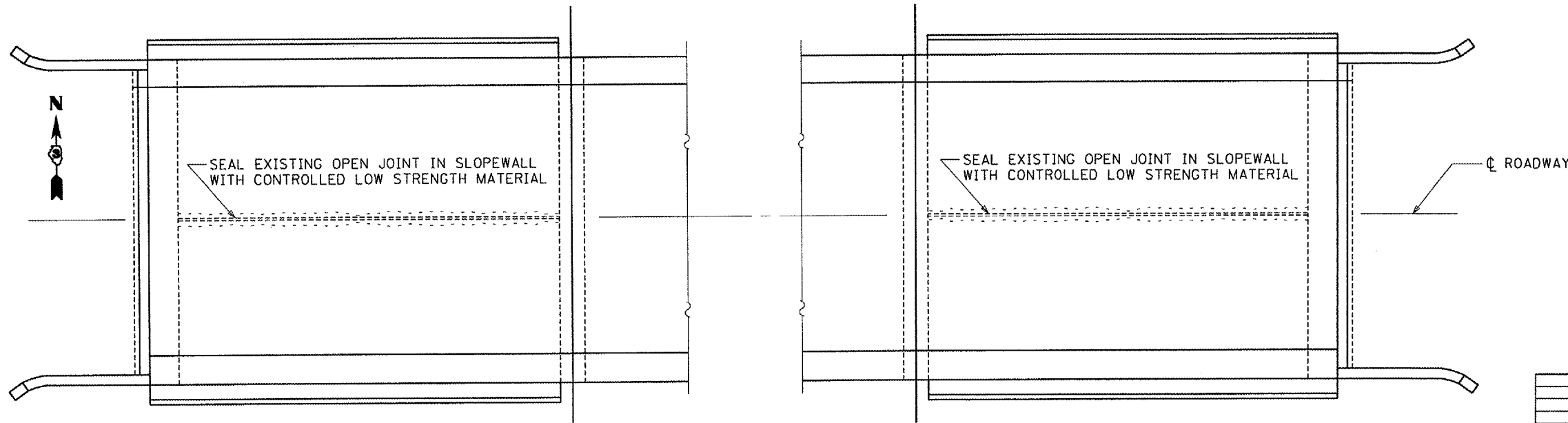
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1HB,HBK)I	KANKAKEE	9	5



PLAN
S.N. 046-0058



JOINT DETAIL



PLAN
S.N. 046-0086

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		SLOPE WALL DETAILS F.A.I. ROUTE 57 (I-57) SECTION: (46-1HB,HBK)I KANKAKEE COUNTY S.N. 046-0058 & S.N. 046-0086

DATE: 3/7/2007
c:/projects/cmain07/cm316/details.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-IHB, HBK)	Kankakee	9	6
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

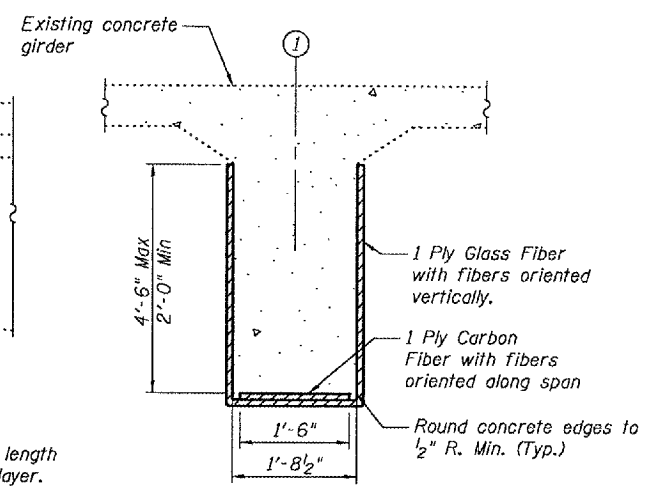
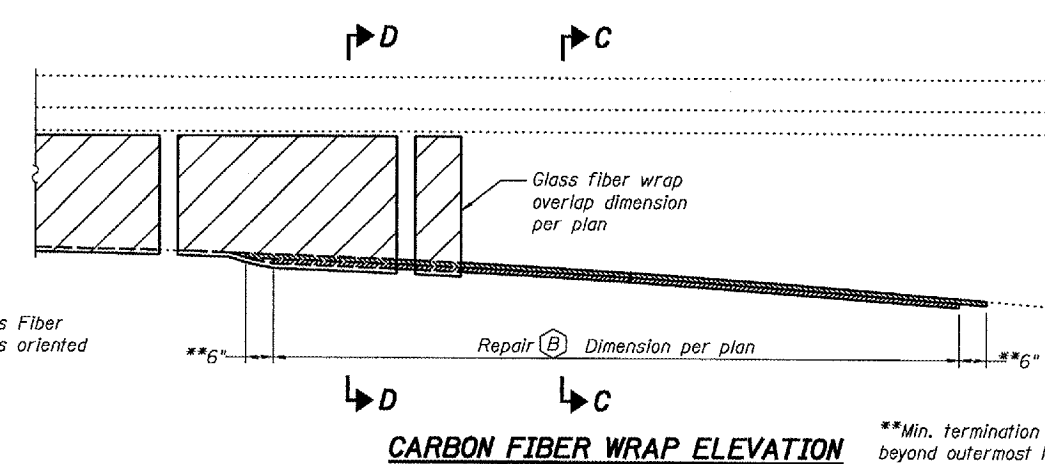
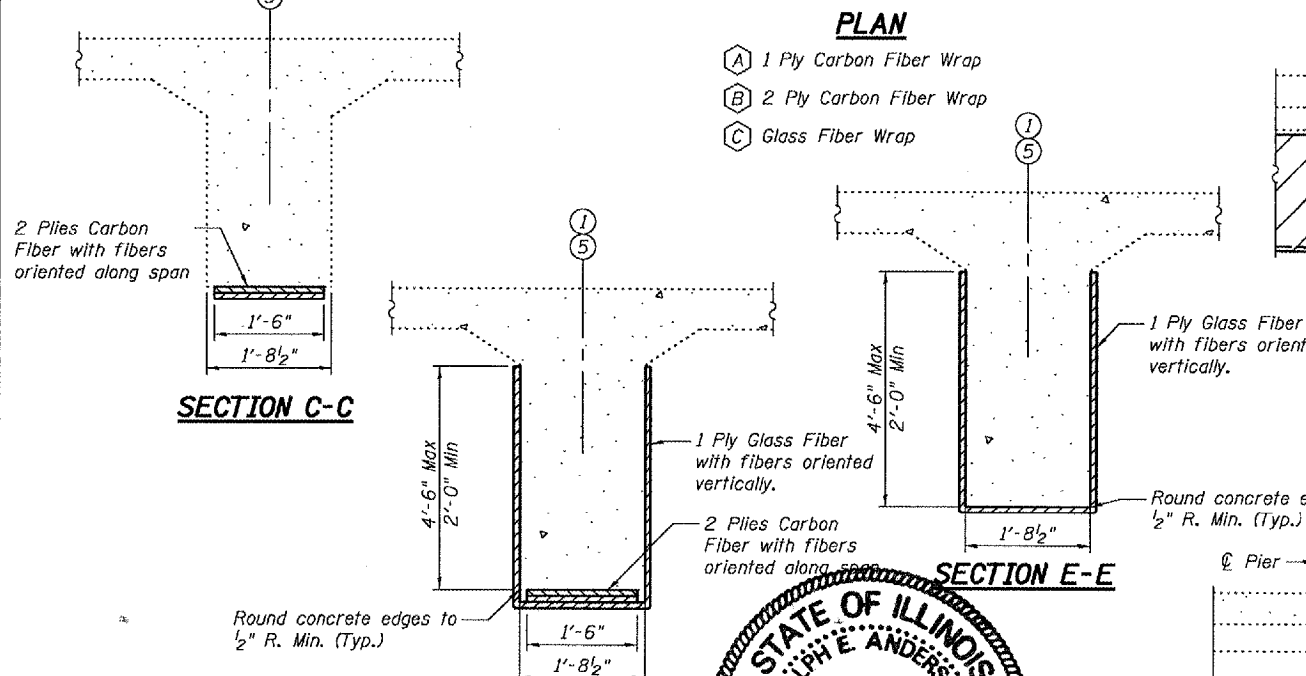
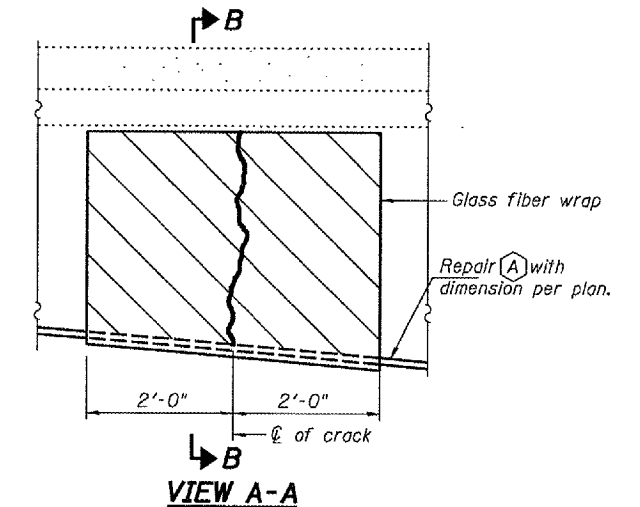
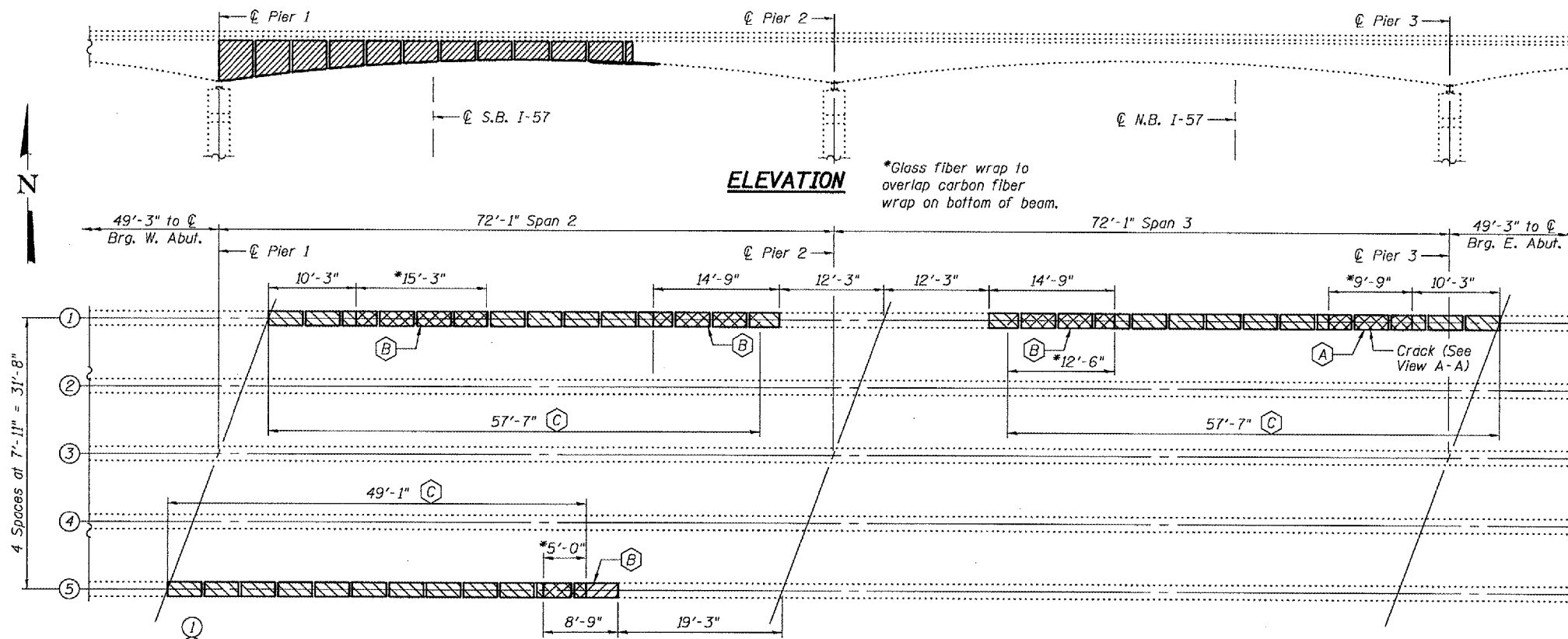
SHEET NO. 1
2 SHEETS

Contract Number: 66699

GENERAL NOTES

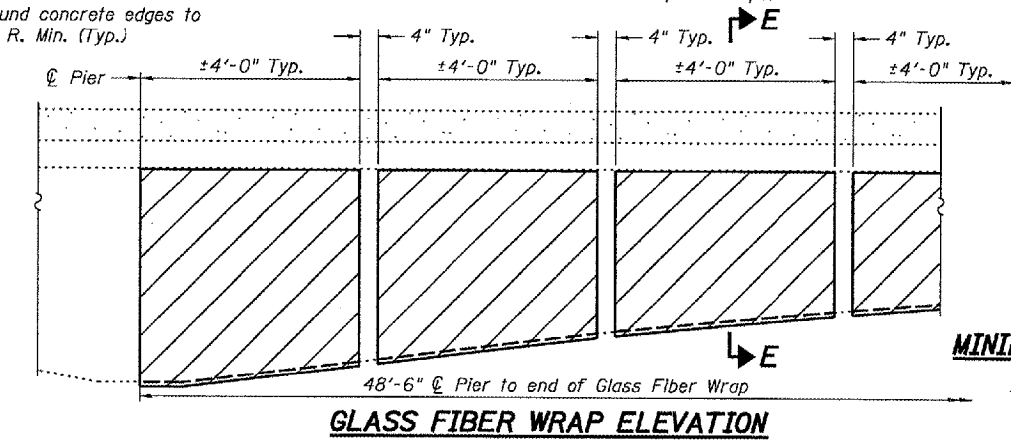
Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.

Acrylic coating shall be applied to all surfaces of the fiber wrap. In those areas of the fascia beams where fiber wrap is not applied, acrylic coating shall also be applied to the concrete on the exterior vertical surface and bottom surface.



TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Fiber Wrap	Sq. Ft.	2096
Acrylic Coating	Sq. Yd.	309.4
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	55
Structural Repair of Concrete (Depth Greater Than 5")	Sq. Ft.	27
Epoxy Crack Injection	Foot	26
Controlled Low-Strength Material	Cu. Yd.	0.3



MINIMUM CURED LAMINATE PROPERTIES

CARBON FIBER	GLASS FIBER
$f_{fu} = 100,000$ psi	$f_{fu} = 77,000$ psi
$E_f = 9,400,000$ psi	$E_f = 3,400,000$ psi
Ply thickness = 0.04"	Ply thickness = 0.04"

PLAN AND ELEVATION
F.A.I. RT. 57
KANKAKEE COUNTY
SN 046-0058

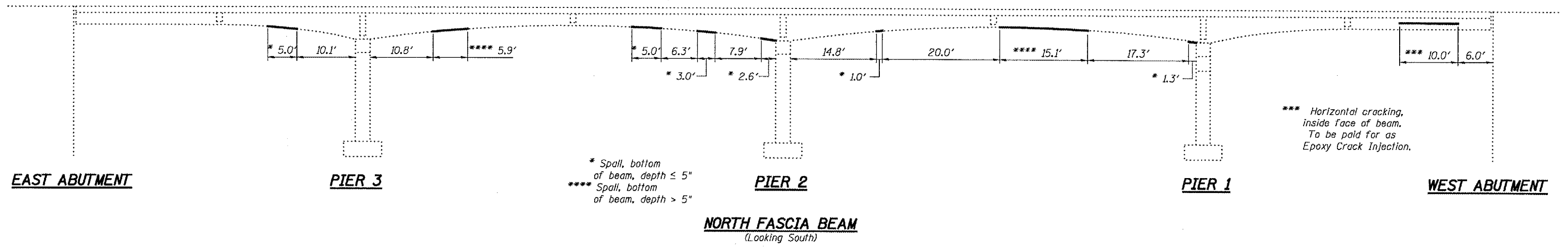


DESIGNED: *Ralph E. Anderson*
CHECKED: *Adrian McLaughlin*
DRAWN: *S.J.B.*
EXAMINED: *Ralph E. Anderson*
PASSED: *Ralph E. Anderson*
May 9, 2007
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

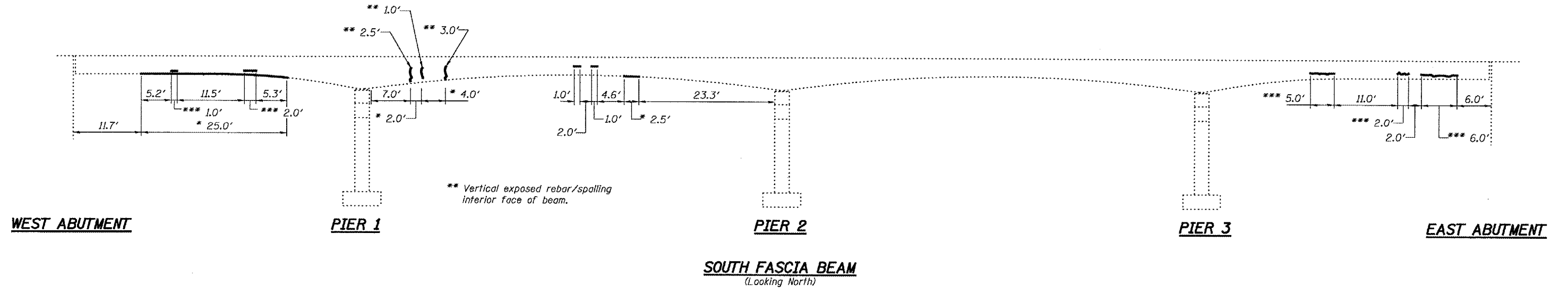
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1HB, HBK1)	Kankakee	9	7
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 2
2 SHEETS
Contract Number: 66699



*** Horizontal cracking, inside face of beam. To be paid for as Epoxy Crack Injection.

Note:
Controlled Low-Strength Material shall be used to fill void between slab and sloped wall at the East abutment.



BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	55
Structural Repair of Concrete (Depth Greater Than 5")	Sq. Ft.	27
Epoxy Crack Injection	Foot	26
Controlled Low-Strength Material	Cu. Yd.	0.3

DESIGNED S.J.B.
 CHECKED A.T.H.
 DRAWN Drew Christopher
 CHECKED S.J.B. A.T.H.

May 9, 2007
 EXAMINED *[Signature]*
 PASSED *[Signature]*
 ENGINEER OF BRIDGES AND STRUCTURES

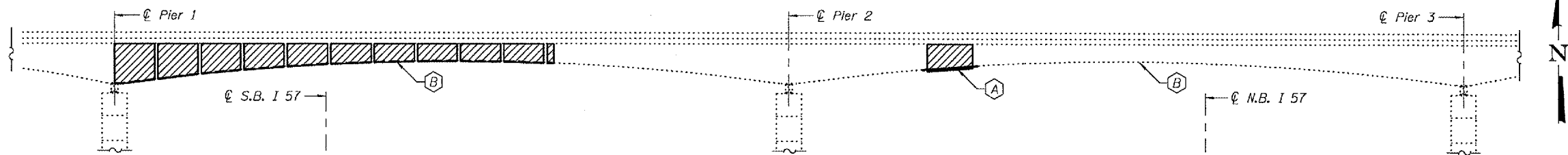
REPAIR AREAS
F.A.I. RT. 57
KANKAKEE COUNTY
SN 046-0058

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

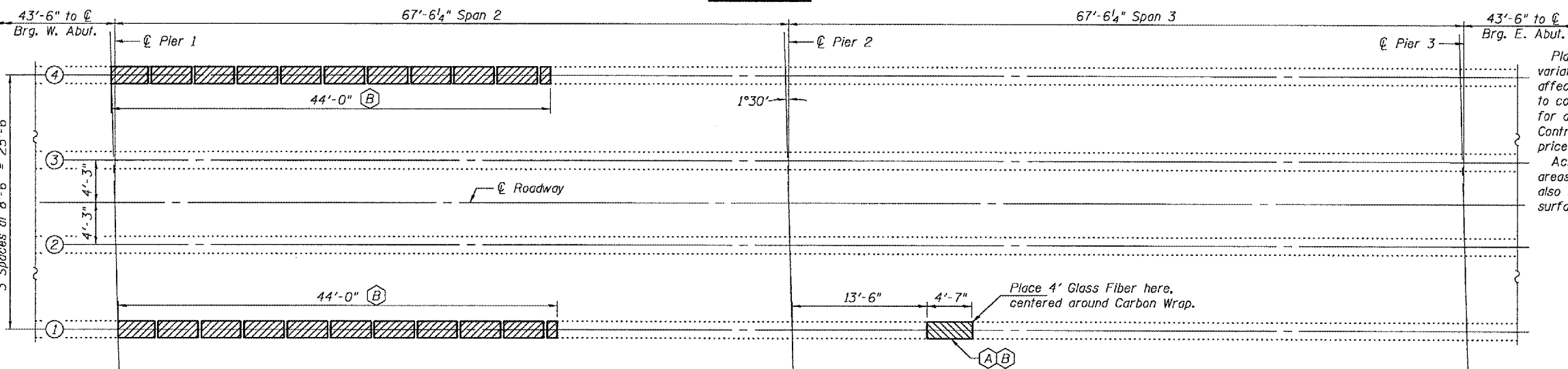
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	46-IH/HRKJI	Kankakee	9	8
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
2 SHEETS

Contract Number: 66699

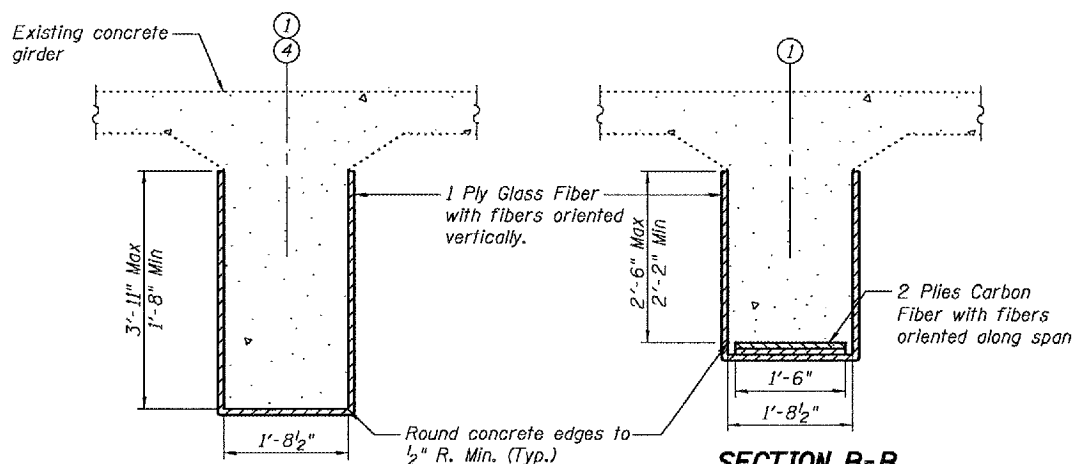


ELEVATION



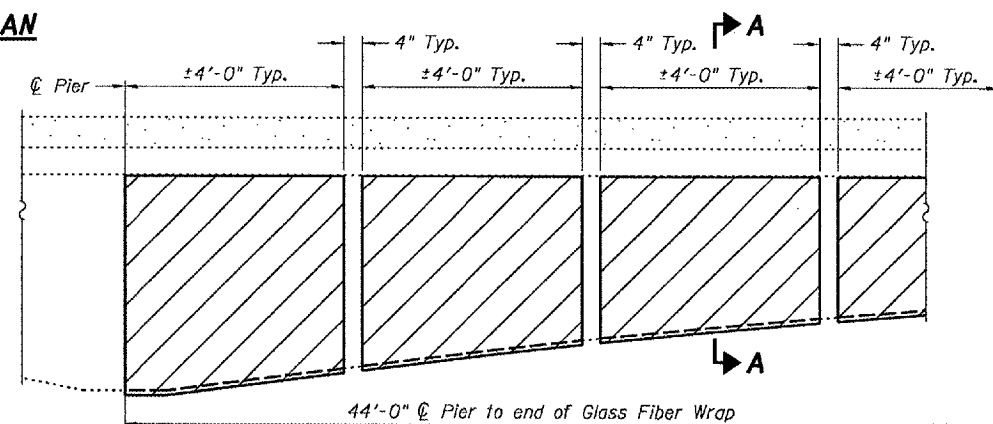
PLAN

- (A) 2 Ply Carbon Fiber Wrap
- (B) Glass Fiber Wrap

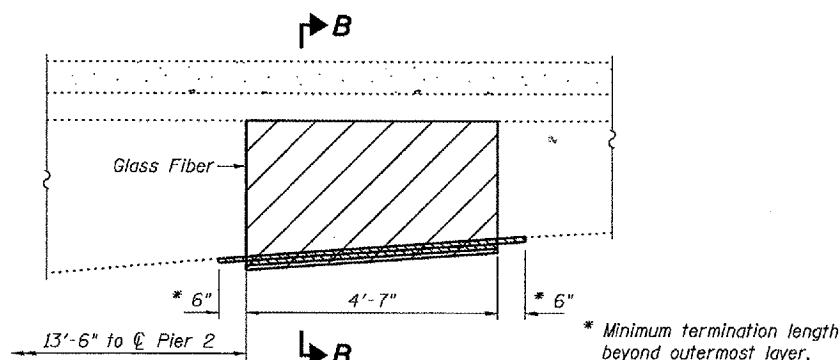


SECTION A-A

SECTION B-B



GLASS FIBER WRAP ELEVATION



CARBON FIBER WRAP ELEVATION

(±17 Sq. Ft. required)

* Minimum termination length beyond outermost layer.

GENERAL NOTES

Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.

Acrylic coating shall be applied to all surfaces of the fiber wrap. In those areas of the fascia beams where fiber wrap is not applied, acrylic coating shall also be applied to the concrete on the exterior vertical surface and bottom surface.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Fiber Wrap	Sq. Ft.	604
Acrylic Coating	Sq. Yd.	249
Structural Repair of Concrete (Depth Equal to or Less Than 5')	Sq. Ft.	35
Structural Repair of Concrete (Depth Greater Than 5')	Sq. Ft.	10

MINIMUM CURED LAMINATE PROPERTIES

CARBON FIBER	GLASS FIBER
$T_{fu} = 100,000$ psi	$T_{fu} = 77,000$ psi
$E_f = 9,400,000$ psi	$E_f = 3,400,000$ psi
Ply thickness = 0.04"	Ply thickness = 0.04"

DESIGNED	<i>John Shatter</i>
CHECKED	<i>Adrian Holloway</i>
DRAWN	<i>[Signature]</i>
CHECKED	<i>S.S.B.</i>

EXAMINED	<i>Carl Kinner</i>	May 9, 2007
PASSED	<i>Ralph E. Anderson</i>	REPAIR PLANS ONLY, CHIEF



Expires: November 30, 2008

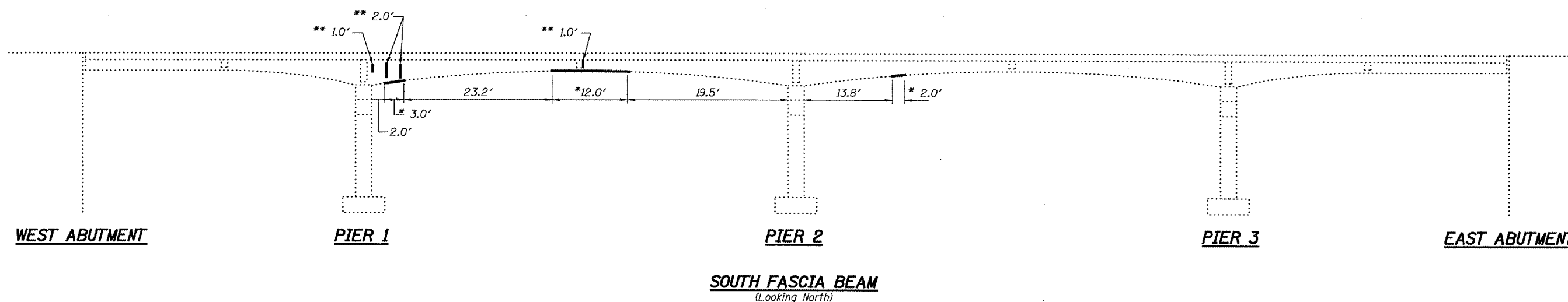
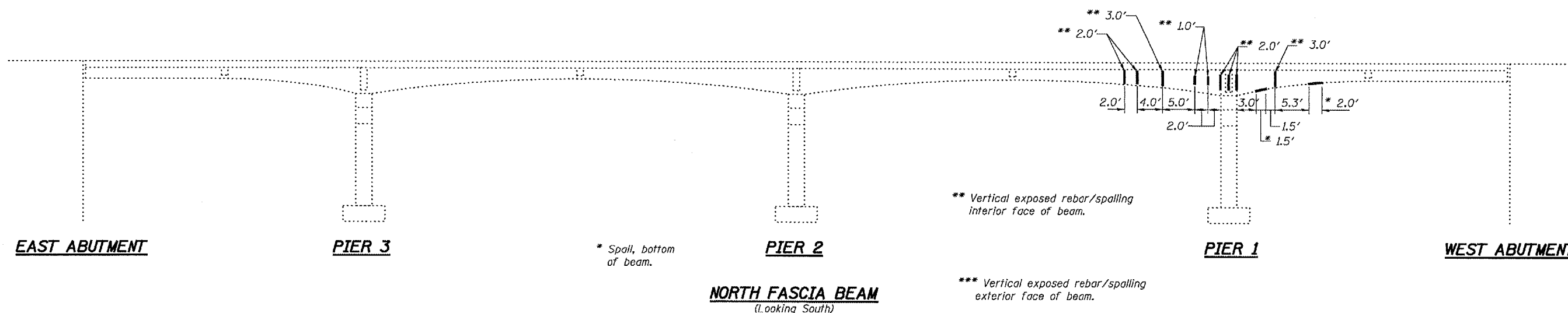
PLAN, ELEVATION
AND DETAILS
F.A.I. RT.57
KANKAKEE COUNTY
SN 046-0086

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET
57	46-1HB, HBK1	Kankakee	9	9
FED. ROAD DIST. NO. 7		FED. ROAD PROJECT		

SHEET NO. 2
2 SHEETS

Contract Number: 66699



BILL OF MATERIAL

Item	Unit	Quantity
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	35
Structural Repair of Concrete (Depth Greater Than 5")	Sq. Ft.	10

REPAIR AREAS
F.A.I. RT.57
KANKAKEE COUNTY
SN 046-0086

DESIGNED	S.J.B.
CHECKED	A.T.H.
DRAWN	Drew Christopher
CHECKED	S.J.B. A.T.H.

May 9, 2007
EXAMINED *A. Carl Perry*
REPAIR PLANS UNIT CHIEF
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES