

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
296	(G,F,I)	GRUNDY	11	1
FED. ROAD DIST. NO.	ILLINOIS		CONTRACT NO. 66742	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAS ROUTE 296 (US 6)
SECTION (G,F,I)

GRUNDY COUNTY

C-93-024-08

BOX CULVERT REPAIR

INDEX OF SHEETS

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7. EXISTING PLAN AND ELEVATION
8. CONCRETE REMOVAL DETAILS
9. CONCRETE BOX CULVERT DETAILS
10. SHEET WATERPROOFING MEMBRANE DETAILS
11. BORING LOGS

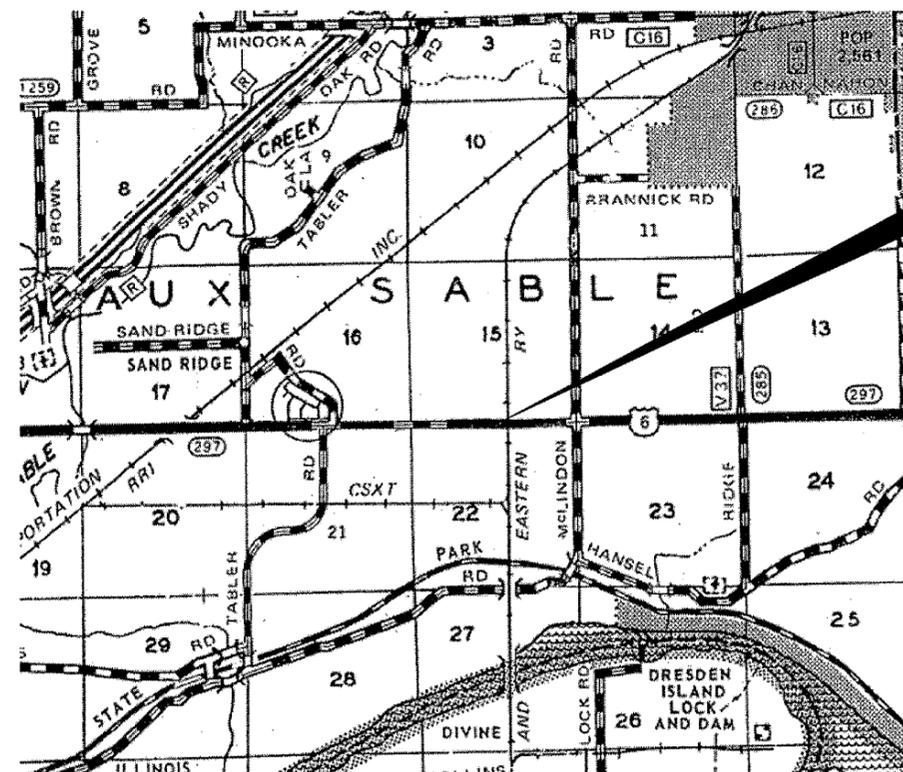
STANDARDS

- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-01 AREAS OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 701001-01 OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 4.5 m (15') AWAY
- 701006-02 OFF-ROAD OPERATIONS 2L, 2W, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
- 701201-02 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS \geq 45 MPH
- 701301-02 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701901 TRAFFIC CONTROL DEVICES

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

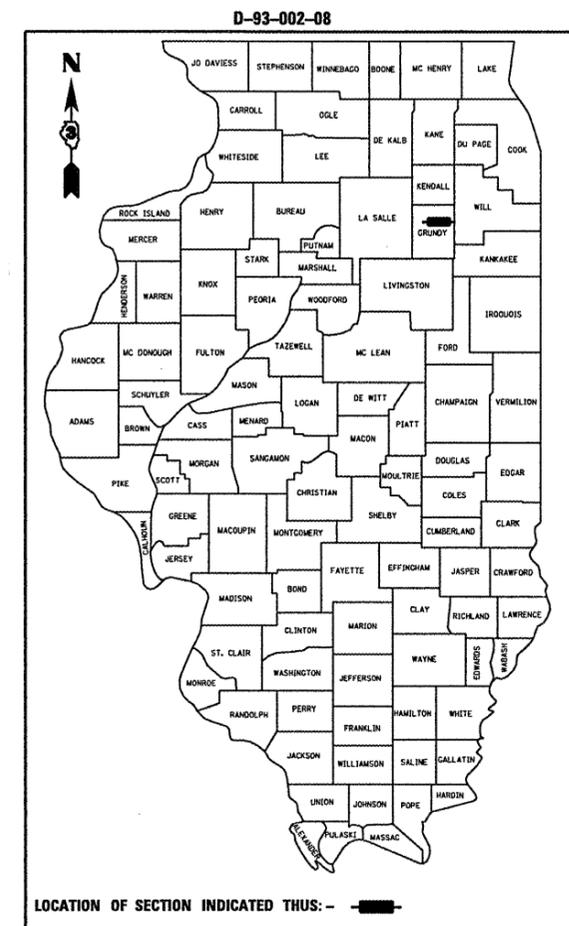
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123

DISTRICT 3 NO. (815) 434-6131
PROJECT ENGINEER: JOE KANNEL
UNIT CHIEF: RON WOODSHANK
TOWNSHIP: AUX SABLE
CONTRACT NO. 66742



PROJECT LOCATION
SN 032-2540
8' X 6' BOX CULVERT
7.3 MI. EAST OF IL ROUTE 47

LOCATION MAP
NOT TO SCALE
POINT LOCATION



LOCATION OF SECTION INDICATED THIS: -

FUNCTIONAL CLASSIFICATION
RURAL - MINOR ARTERIAL
F.A. 296 ROUTE 332 (US 6)
2005 ADT = 6800

P.V = 82.0% M.U. = 6.3% S.U. = 11.8%

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 3/25 20 08

George F. Reed
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
May 9, 20 08

Eric E. Harnett
Interim ENGINEER OF DESIGN AND ENVIRONMENT
May 9, 20 08

Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

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 THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY FURNISHED BASED UPON THE UNIT BID PRICE 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.

ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

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.

THE EXISTING SHOULDERS ARE LOW. IN THE EVENT THAT CONSTRUCTION OPERATIONS RESULT IN A DROP OFF GREATER THAN 3" BETWEEN THE EDGE OF PAVEMENT OR EDGE OF SHOULDER WITHIN 3' OF THE EDGE OF PAVEMENT AND THE EARTH OR AGGREGATE SHOULDERS, THEN THE DROP OFF SHALL BE PROTECTED ACCORDING TO ARTICLE 701.04(B)(1) OF THE STANDARD SPECIFICATIONS. THIS WORK WILL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICES FOR TRAFFIC CONTROL.

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR 60 (IL MODIFIED). SEE SPECIAL PROVISIONS.

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

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.

SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.

THE FINISHED EARTHWORK SHALL HAVE A VEGETATION SUSTAINING SOIL COVERING THE TOP FOUR INCHES IN AREAS TO BE SEEDED OR SODDED. THE VEGETATION SUSTAINING SOIL REQUIRED WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF "FURNISHED EXCAVATION".

ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.

DATE: 3-25-08

PREPARED BY: *R. Paul M.*
DISTRICT STUDIES & PLANS ENGINEER

EXAMINED BY: *Herbert K. Jag*
DISTRICT CONSTRUCTION ENGINEER

J. J. [Signature]
DISTRICT MATERIALS ENGINEER

Bruce [Signature]
DISTRICT OPERATIONS ENGINEER

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		DRAWN - R..WOODSHANK	REVISED - ----
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	PLOT DATE = Mar 06, 2008 - 11:47:07 AM	DATE - ----	REVISED - ----

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

SCALE: _____ SHEET NO. 2 OF 6 SHEETS STA. _____ TO STA. _____

F.A.S. RTE. 296	SECTION (G.F.)	COUNTY GRUNDY	TOTAL SHEETS #1	SHEET NO. 2
FED. ROAD DIST. NO. - ILLINOIS			CONTRACT NO. 66742	

SUMMARY OF QUANTITIES

CONSTRUCTION CODE TYPE: Y007

RURAL
100% STATE
TOTAL
QUANTITY

CODE NO.	ITEM	UNIT	RURAL 100% STATE TOTAL QUANTITY
20200100	EARTH EXCAVATION	CU YD	64
20400800	FURNISHED EXCAVATION	CU YD	164
25101005	HEAVY DUTY EXCELSIOR BLANKET	SQ YD	50
50102400	CONCRETE REMOVAL	CU YD	3.4
50200100	STRUCTURE EXCAVATION	CU YD	100
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	360
54003000	CONCRETE BOX CULVERTS	CU YD	3.4
67100100	MOBILIZATION	L SUM	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1
X0322121	SHEET WATERPROOFING MEMBRANE SYSTEM	SQ YD	46

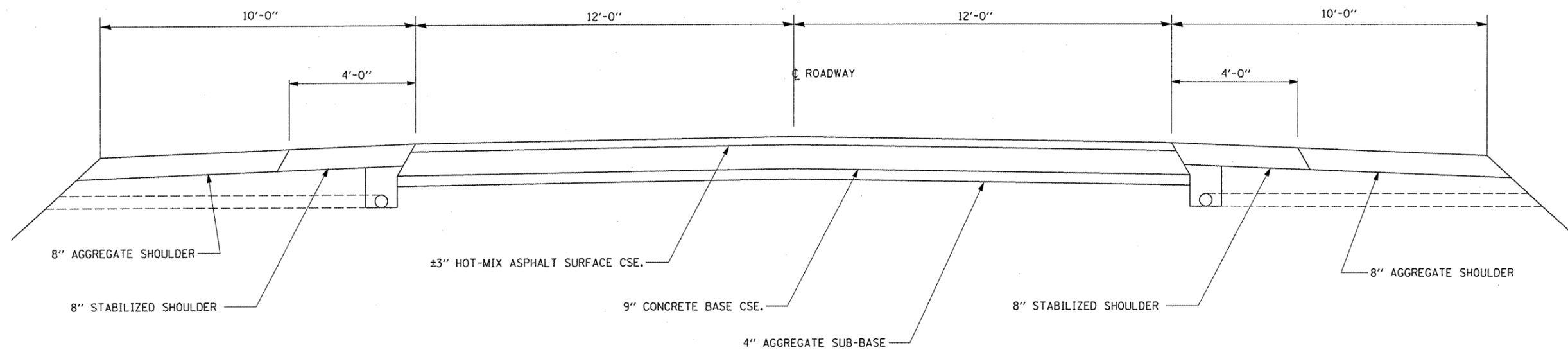
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: _____ SHEET NO. 3 OF 6 SHEETS STA. _____ TO STA. _____

F.A.S. RTE. 296	SECTION (G,F)	COUNTY GRUNDY	TOTAL SHEETS 11	SHEET NO. 3
FED. ROAD DIST. NO. - ILLINOIS			CONTRACT NO. 66742	



TYPICAL ROADWAY SECTION
US ROUTE 6

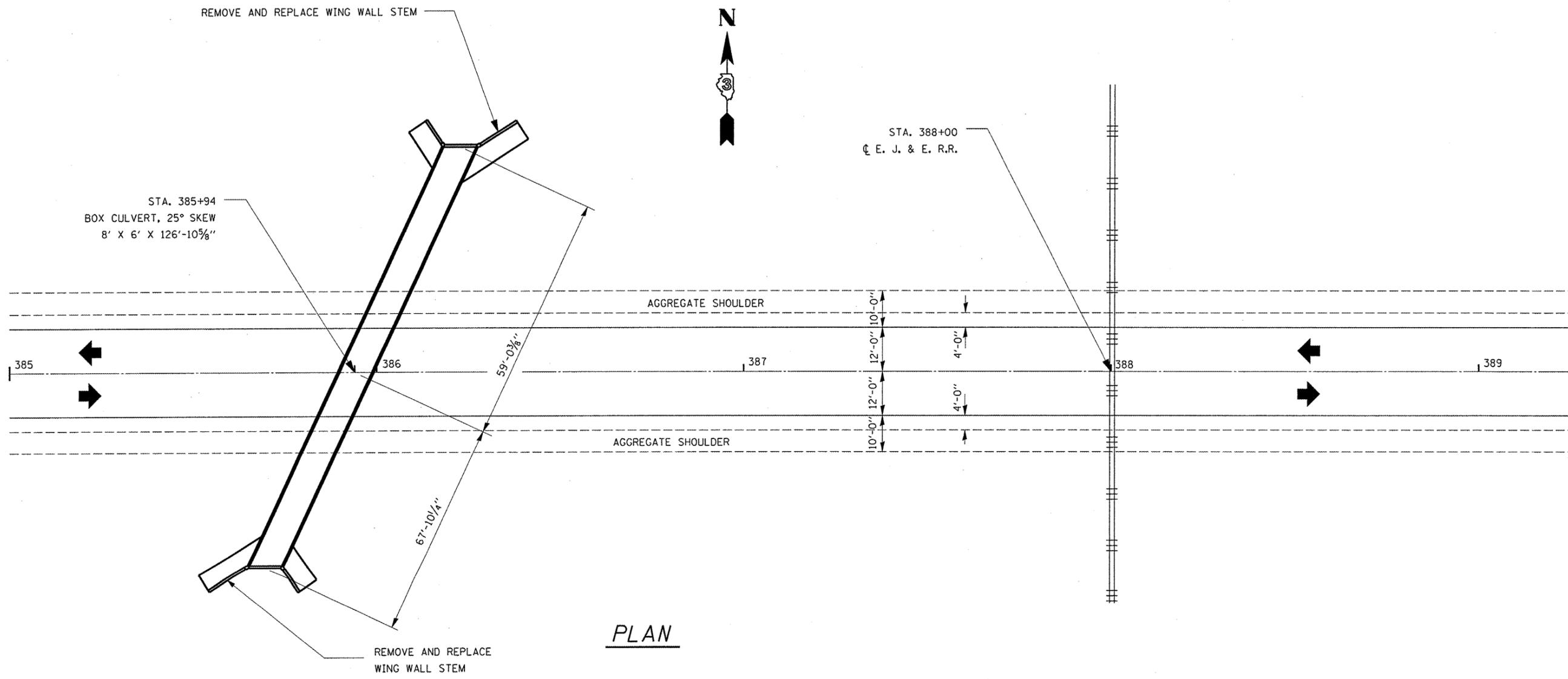
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		CHECKED - ---	REVISED - ---
		DATE - ---	REVISED - ---

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION

SCALE: _____ SHEET NO. 4 OF 6 SHEETS STA. _____ TO STA. _____

F.A.S. RTE. 296	SECTION (G.F.)	COUNTY GRUNDY	TOTAL SHEETS 11	SHEET NO. 4
FED. ROAD DIST. NO. - ILLINOIS			CONTRACT NO. 66742	



PLAN

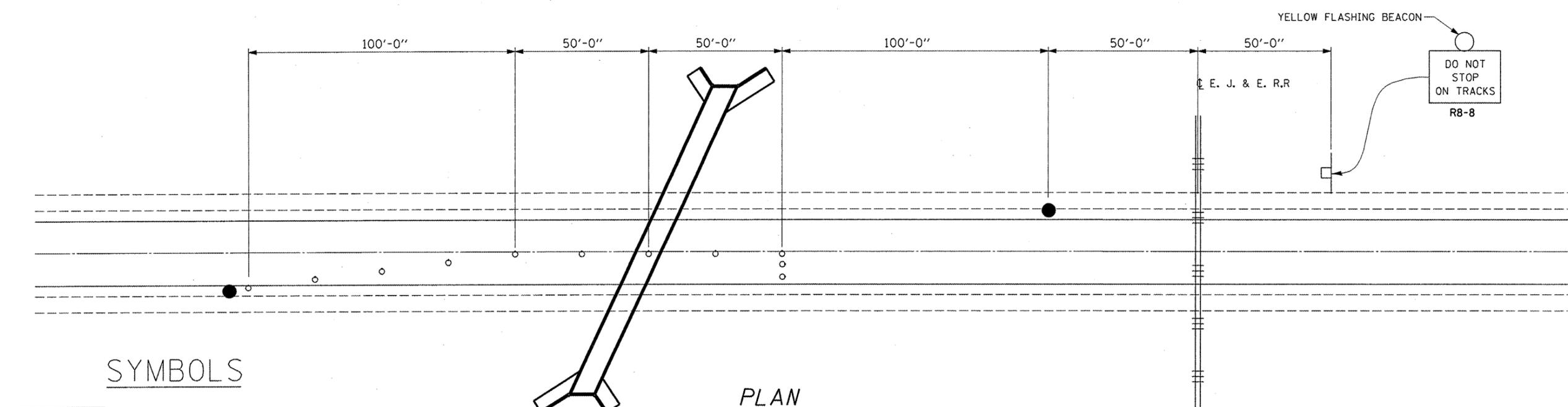
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

GENERAL PLAN

SCALE: _____ SHEET NO. 5 OF 6 SHEETS STA. _____ TO STA. _____

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
296	(G,F)I	GRUNDY	11	5
FED. ROAD DIST. NO. (ILLINOIS)			CONTRACT NO. 66742	



SYMBOLS

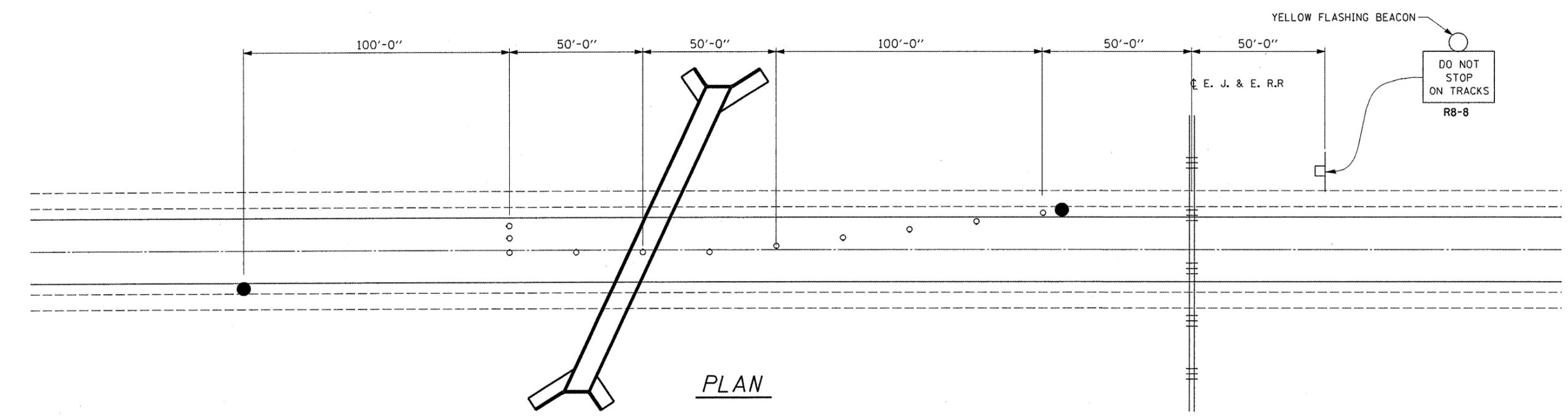
-  WORK AREA
-  SIGN
-  DRUMS AT 25' CTS.
-  FLAGGER WITH TRAFFIC CONTROL SIGN

PLAN

NOTES:

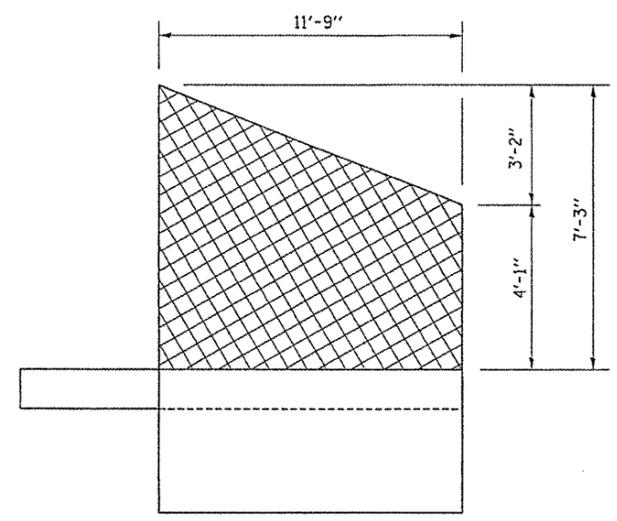
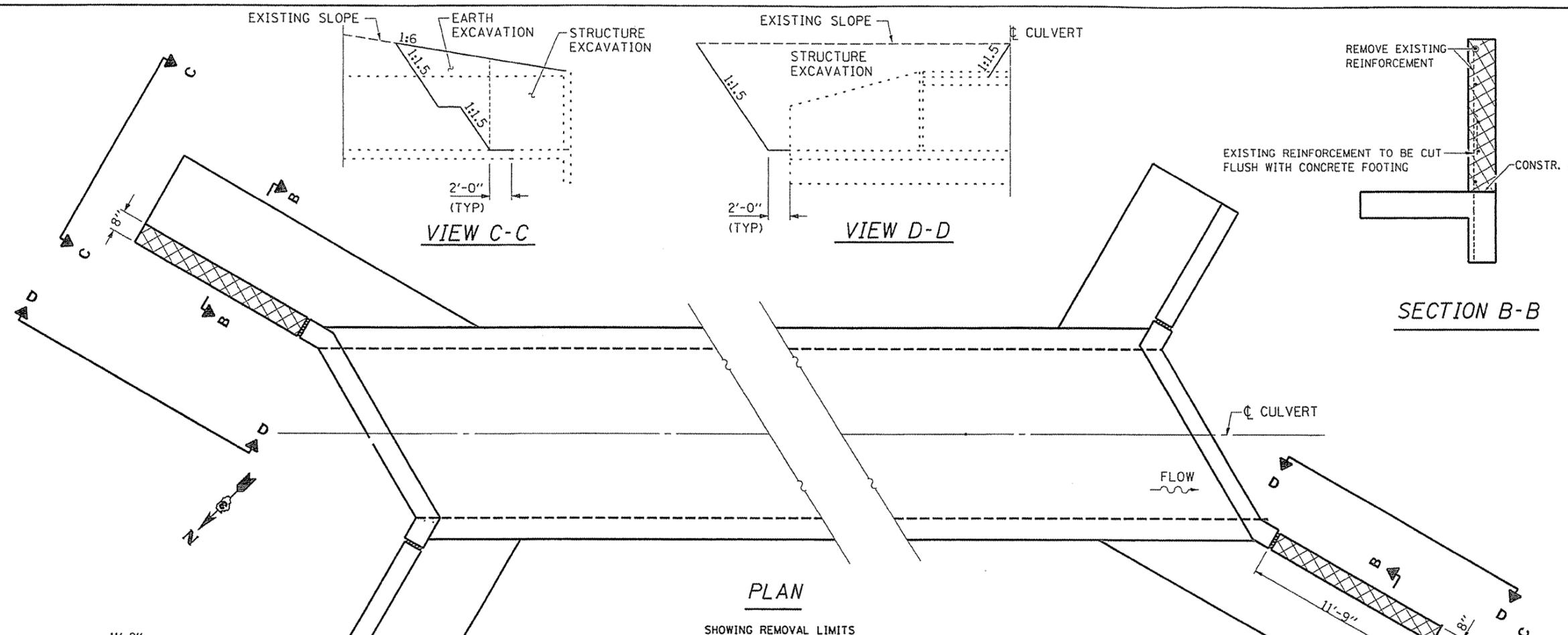
THIS DETAIL SHALL BE USED IN CONJUNCTION WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701201 FOR DAY TIME CLOSURES.

DURING NON-WORKING HOURS, THE TRAFFIC CONTROL DRUMS SHALL BE PLACED ON THE SHOULDER ADJACENT TO THE E.O.P. AT 25' CTS.



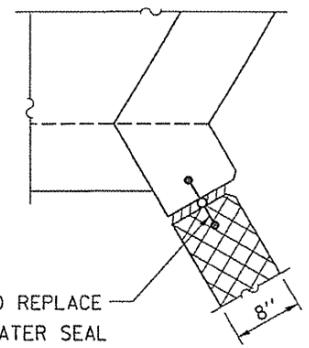
PLAN

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		DATE -	REVISED -								



ELEVATION
(TYPICAL)

REMOVE AND REPLACE
EXISTING WATER SEAL
AND JOINT FILLER



CORNER DETAIL
SEE DETAIL ON SHEET 9 OF 10

**BILL OF MATERIAL
NE WING**

CONCRETE REMOVAL	CU. YD.	1.7
STRUCTURE EXCAVATION	CU. YD.	50
EARTH EXCAVATION	CU. YD.	32
FURNISHED EXCAVATION	CU. YD.	82

**BILL OF MATERIAL
SW WING**

CONCRETE REMOVAL	CU. YD.	1.7
STRUCTURE EXCAVATION	CU. YD.	50
EARTH EXCAVATION	CU. YD.	32
FURNISHED EXCAVATION	CU. YD.	82

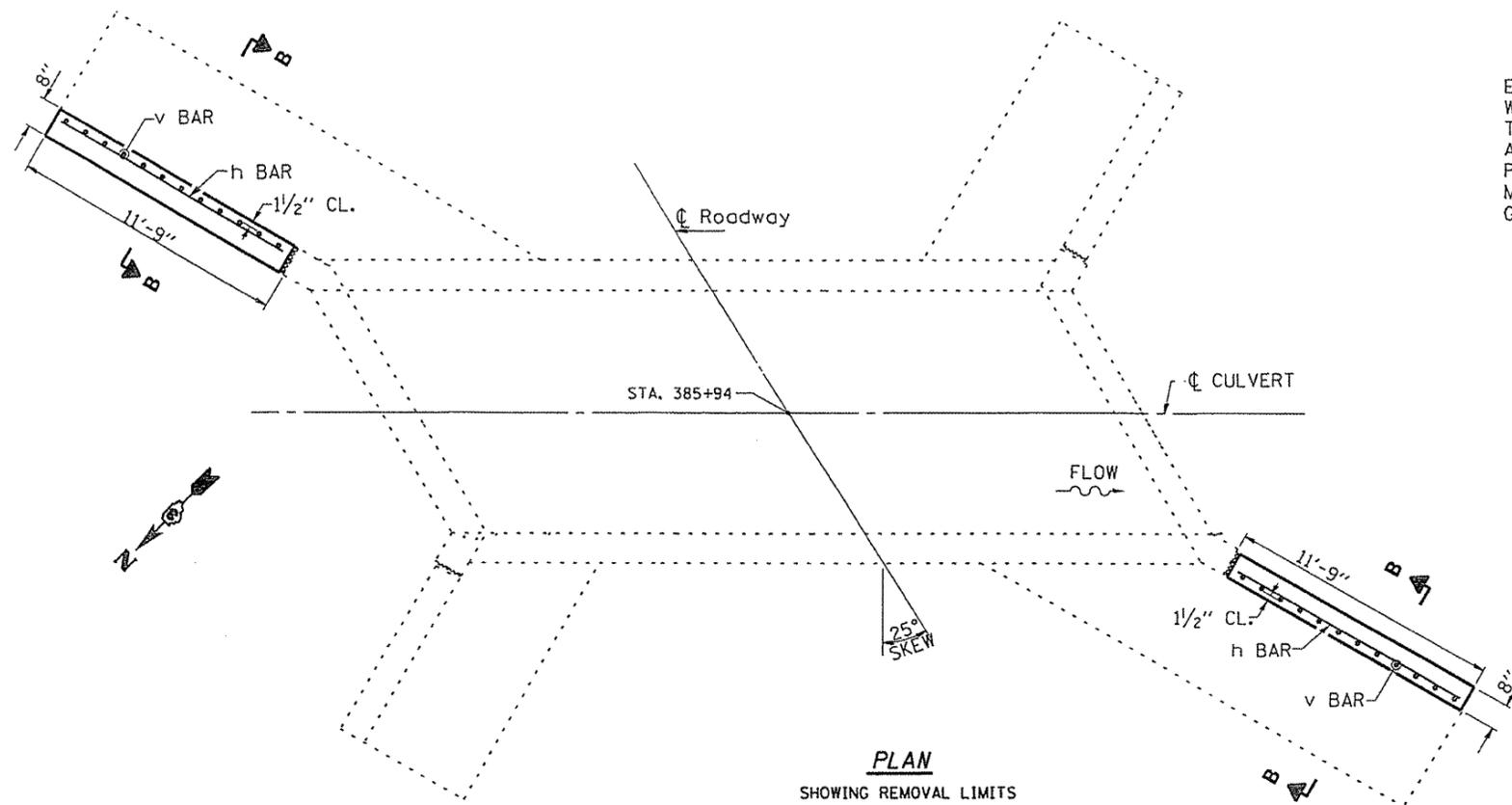
STA. 385+94
25° SKEW
8'-0" X 6'-0"
BOX CULVERT

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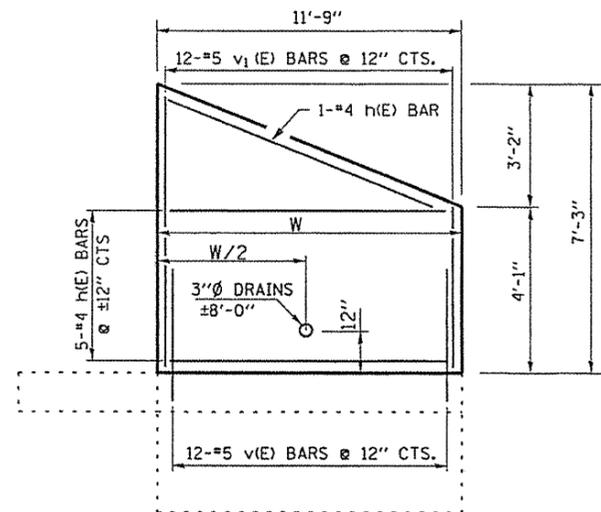
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE REMOVAL DETAILS
SCALE: SHEET NO. 2 OF 4 SHEETS STA. TO STA.

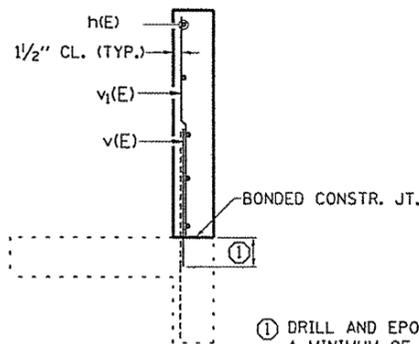
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
296	(G.F.I)	GRUNDY	11	8
FED. ROAD DIST. NO. - ILLINOIS			CONTRACT NO. 66742	



PLAN
SHOWING REMOVAL LIMITS



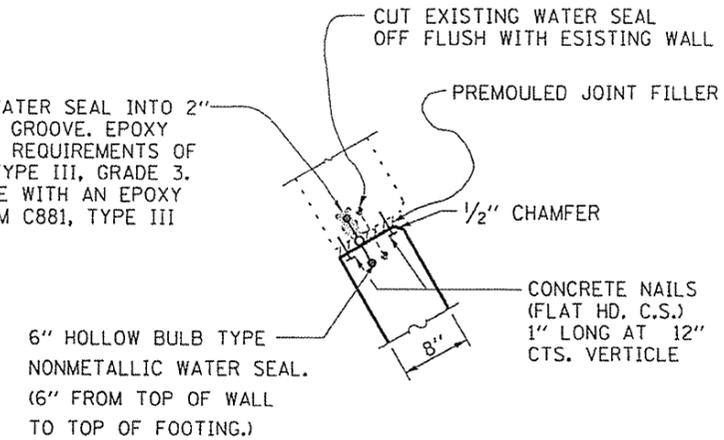
ELEVATION
(TYP)



SECTION B-B

① DRILL AND EPOXY GROUT v BAR A MINIMUM OF 9" INTO EXISTING FOOTING.
EPOXY GROUTING ACCORDING TO ARTICLE 584 OF THE STANDARD SPECIFICATIONS. COST SHALL BE INCLUDED WITH "REINFORCEMENT BARS, EPOXY COATED".

EPOXY NEW WATER SEAL INTO 2" WIDE SAWCUT GROOVE. EPOXY TO MEET THE REQUIREMENTS OF ASTM C881, TYPE III, GRADE 3. PRIME GROOVE WITH AN EPOXY MEETING ASTM C881, TYPE III GRADE 1.



CORNER DETAIL
COST INCLUDED WITH "CONCRETE BOX CULVERTS"

BILL OF MATERIAL
NE WING

Bar	No.	Size	Length	Shape	
h(E)	5	#4	11'-6"	—	
h1(E)	1	#4	11'-11"	—	
v(E)	12	#5	3'-6"	—	
v1(E)	12	#5	7'-0"	—	
CONCRETE BOX CULVERTS				Cu. Yd.	1.7
REINFORCEMENT BARS				Pound	180
EPOXY COATED					

ORDER v1 BARS FULL LENGTH AND CUT TO FIT IN FIELD

BILL OF MATERIAL
SW WING

Bar	No.	Size	Length	Shape	
h(E)	5	#4	11'-6"	—	
h1(E)	1	#4	11'-11"	—	
v(E)	12	#5	3'-6"	—	
v1(E)	12	#5	7'-0"	—	
CONCRETE BOX CULVERTS				Cu. Yd.	1.7
REINFORCEMENT BARS				Pound	180
EPOXY COATED					

ORDER v1 BARS FULL LENGTH AND CUT TO FIT IN FIELD

STA. 385+94
25° SKEW
8'-0" X 6'-0"
BOX CULVERT

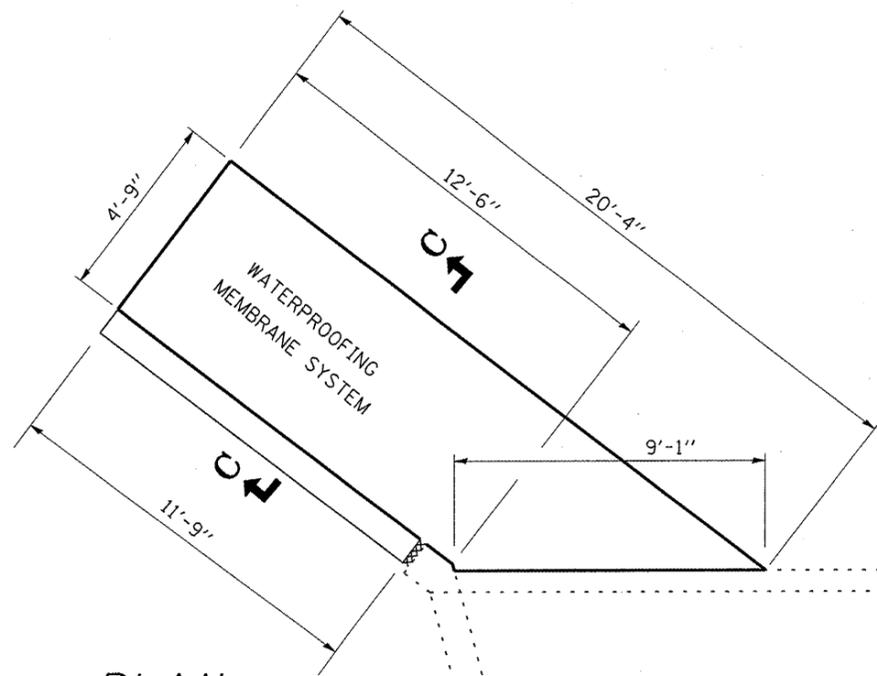
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

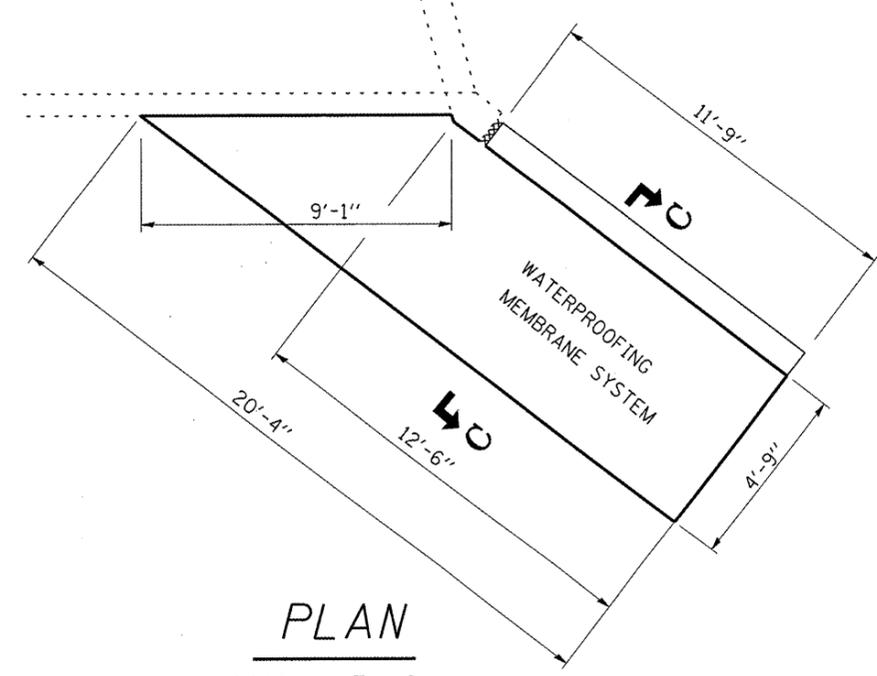
CONCRETE BOX CULVERT DETAILS

SCALE: SHEET NO. 3 OF 4 SHEETS STA. TO STA.

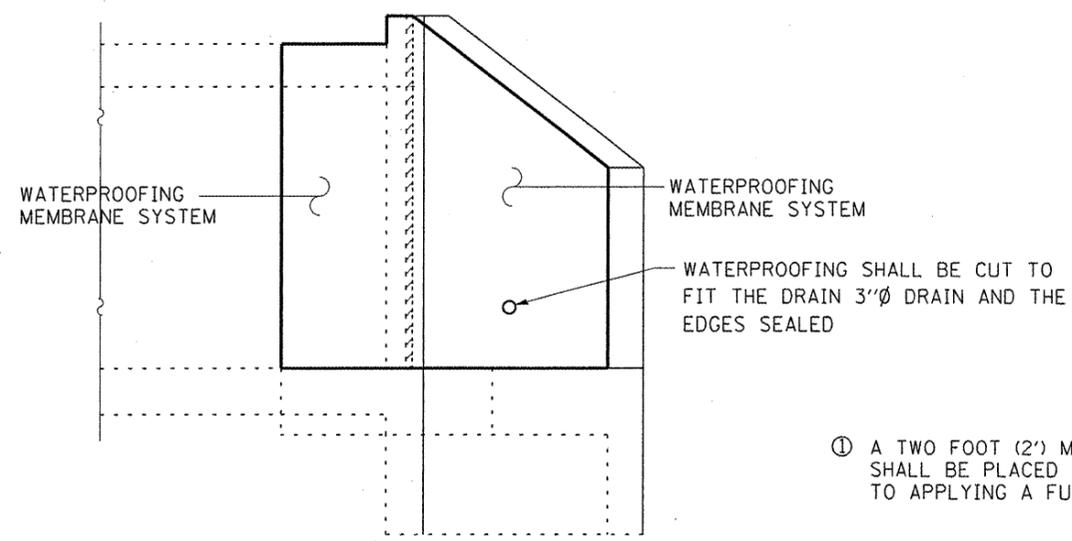
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FED. ROAD DIST. NO. ILLINOIS			CONTRACT NO. 66742	



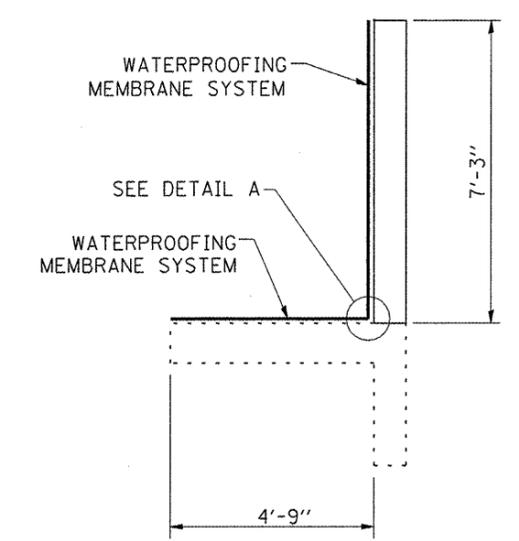
PLAN
NE WING



PLAN
SW WING

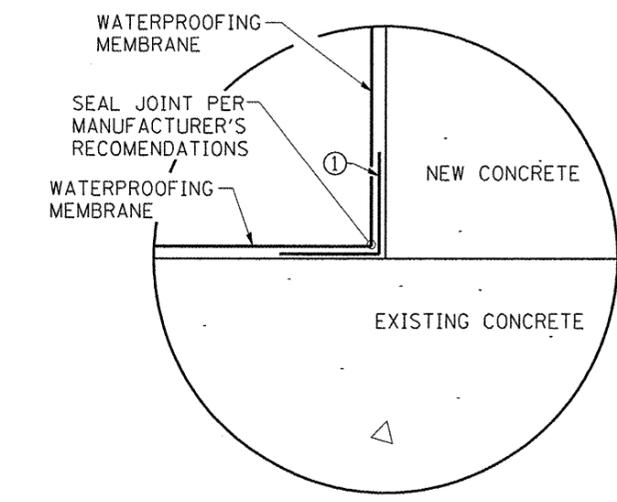


ELEVATION
TYPICAL



SECTION C-C

① A TWO FOOT (2') MIN WIDTH STRIP OF WATERPROOFING MEMBRANE SHALL BE PLACED CENTERED OVER THE CONSTRUCTION JOINT PRIOR TO APPLYING A FULL PROTECTIVE LAYER TO THE CONCRETE SURFACES.



DETAIL A

BILL OF MATERIAL
NE WING

SHEET WATERPROOFING	SO. YD.	23
MEMBRANE SYSTEM		

BILL OF MATERIAL
SW WING

SHEET WATERPROOFING	SO. YD.	23
MEMBRANE SYSTEM		

NOTES:

THE EXPOSED SURFACES AS INDICATED SHALL BE PROTECTED BY THE WATERPROOFING MEMBRANE AS PER THE MANUFACTURER'S RECOMMENDATIONS.

A MANUFACTURER'S REPRESENTATIVE SHALL BE ON SITE DURING THE INSTALLATION OF THE WATERPROOFING MEMBRANE TO PROVIDE TECHNICAL SUPPORT WHEN REQUIRED. ALL COST INCURRED DUE TO THE ON-SITE REPRESENTATIVE SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT COST OF THE WATERPROOFING MEMBRANE WORK.

THE CONTRACTOR SHALL INSTALL THE WATERPROOFING MEMBRANE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, PLAN DETAILS AND AS DIRECTED BY THE ENGINEER.

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PLOT SCALE = 1/8" = 1' / IN.		CHECKED -	REVISED -
PLOT DATE = Mar 06, 2008 - 11:48:02 AM		DATE -	REVISED -

STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	

SHEET WATERPROOFING MEMBRANE DETAILS	
SCALE: _____	SHEET NO. 4 OF 4 SHEETS
STA. _____	TO STA. _____

F.A.S. RTE. 296	SECTION (G,F)I	COUNTY GRUNDY	TOTAL SHEETS 11	SHEET NO. 10
FED. ROAD DIST. NO. - ILLINOIS			CONTRACT NO. 66742	

