

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(60-1,T2)P	MADISON	15	1
		ILLINOIS	CONTRACT NO. 76U87	
*FAI 55/FAP 793				

FOR INDEX OF SHEETS, SEE SHEET NO. 2

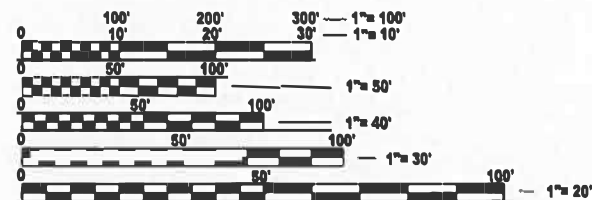
TRAFFIC DATA	
LOCATION #1	IL 140
2026 ADT	8800 (ACTUAL)
2046 ADT	10500 (ESTIMATED)
MU%	12.3
SU%	11.7

TRAFFIC DATA	
LOCATION #2	US 40
2026 ADT	8000 (ACTUAL)
2046 ADT	8800 (ESTIMATED)
MU%	3.8
SU%	2.9

# PROPOSED HIGHWAY PLANS

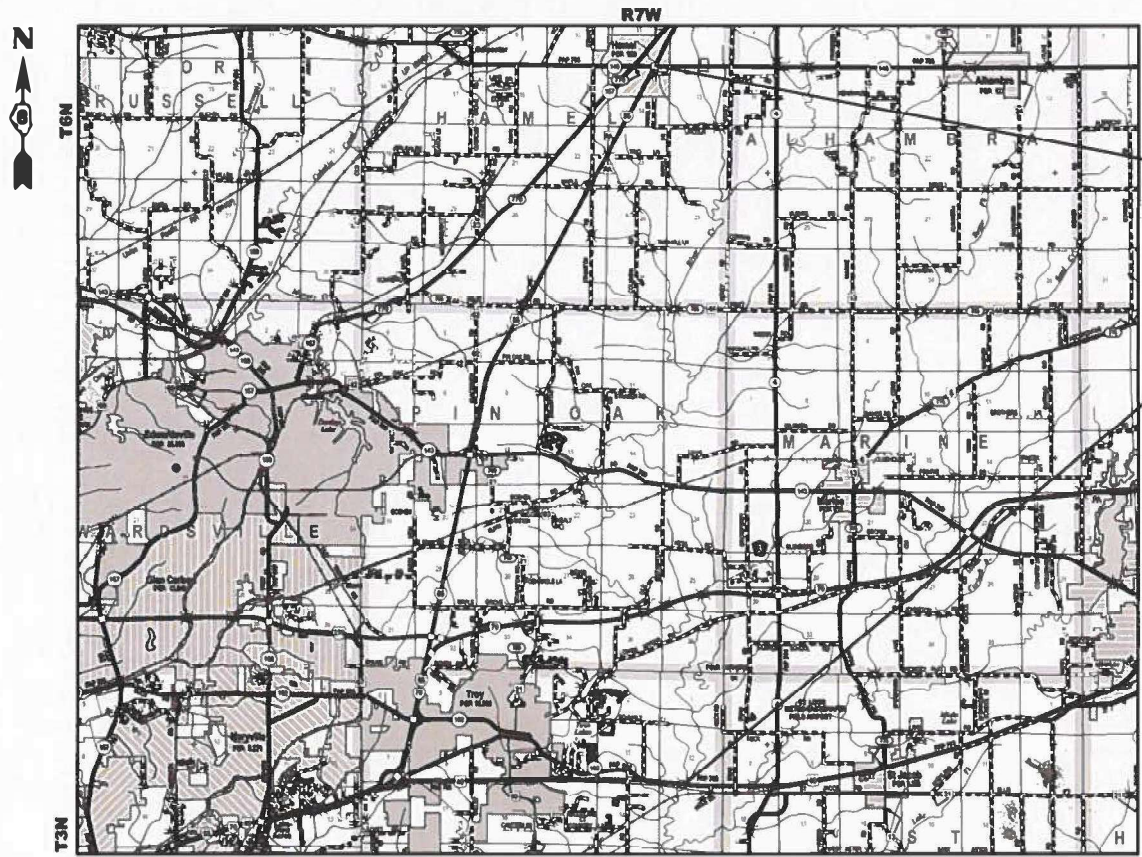
FAI 55, FAP 793 (I-55/US 40)  
SECTION (60-1,T2)P  
PROJECT NHPP-XMA5(488)  
BRIDGE PAINTING  
MADISON COUNTY

C-98-151-25



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811



NOT TO SCALE

GROSS LENGTH = 690 FT. = .13 MILE  
NET LENGTH = 690 FT. = .13 MILE

LOCATION #1  
SN 060-0073  
IL 140 OVER I-55  
LAT: 38.532025  
LONG: 89.501827

LOCATION #2  
SN 060-0077  
US 40 OVER SILVER CREEK  
LAT: 38.532025  
LONG: 89.501827

PROJECT ENGINEER : BILLIE OWEN  
PROJECT MANAGER : MIKE BERG

CONTRACT NO. 76U87

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED Dec 15 2025

REGIONAL ENGINEER

March 20, 2026

ENGINEER OF DESIGN AND ENVIRONMENT

March 20, 2026

DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

## INDEX OF SHEETS

1	COVER SHEET
2	INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES, AND COMMITMENTS
3	SUMMARY OF QUANTITIES
4-	STRUCTURE DETAILS - LOCATION #1 (060-0073) & #2 (060-0077)
5	TRAFFIC CONTROL AND PROTECTION STANDARD 701401 (SPECIAL) DETAIL
6-10	STRUCTURES DETAILS SN 060-0073
11-13	STRUCTURES DETAILS SN 060-0077

## HIGHWAY STANDARDS

000001-09	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24' FROM PAVEMENT EDGE
701316-14	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR
701400-12	APPROACH TO LANE CLOSURE FREEWAY EXPRESSWAY
701401-13	TRAFFIC CONTROL AND PROTECTION, STANDARDS 701401 (SPECIAL)
701428-01	TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY/EXPRESSWAY
701901-11	TRAFFIC CONTROL DEVICES

## GENERAL NOTES

### 1. UTILITIES KNOWN TO HAVE ACTIVITIES WITHIN THE PROJECT AREA:

	AERIAL	BURIED
AMEREN ILLINOIS	X	X
AT&T ILLINOIS	X	X
BOND MADISON WATER COMPANY		X
CLEARWAVE FIBER LLC	X	X
DEPARTMENT OF CENTRAL MANAGEMENT SERVICES	X	X
VILLAGE OF HAMEL		X
CITY OF HIGHLAND	X	X
HOME TELEPHONE COMPANY	X	X
LEVEL 3 COMMUNICATIONS, LLC	X	X
MADISON TELEPHONE COMPANY	X	X
METRO	X	X
ZAYO GROUP LLC	X	X

2. NO SURVEY WAS PERFORMED FOR THIS PROJECT AND THE PLANS WERE CREATED USING MICROFILM AND FIELD MEASUREMENTS.
3. FOUR CHANGEABLE MESSAGE SIGNS SHALL BE REQUIRED FOR THIS PROJECT. THEY SHALL BE PLACED TWO WEEKS PRIOR TO ANY LANE CLOSURE AND SHALL REMAIN UP FOR THE DURATION OF THE PROJECT. LOCATIONS SHALL BE AT THE DIRECTION OF THE RESIDENT ENGINEER.
4. THE RESIDENT ENGINEER SHALL VERIFY THE EXISTENCE OF HIGHWAY LIGHTING, INTELLIGENT TRANSPORTATION SYSTEMS (I.T.S.) UTILITIES, AND/OR ELECTRICAL CABLES ASSOCIATED WITH TRAFFIC SIGNALS WITHIN THE PROJECT LIMITS. IF ANY OF THESE EXIST WITHIN THE PROJECT LIMITS, AND IF THESE ITEMS REQUIRE LOCATING, THE CONTRACTOR SHALL BE DIRECTED TO DO SO ACCORDING TO SECTION 803 OF THE STANDARD SPECIFICATIONS. THIS WORK SHALL BE PAID FOR ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.
5. THE SSPC-QP1 AND SSPC-QP2 CERTIFICATIONS WILL BE REQUIRED FOR THIS PROJECT.
6. FOR LOCATIONS 1 AND 2, A MINIMUM OF TWO AIR MONITORS WILL BE REQUIRED TO MONITOR ABRASIVE BLASTING OPERATIONS. SEE SPECIAL PROVISION FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES."
7. FOR LOCATIONS 1 AND 2, CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISION FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL EXISTING STEEL SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC- SP10. ALL EXISTING STEEL SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1-OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR ALL SURFACES SHALL BE GRAY, MUNSELL NO 5B 7/1.
8. THE DEPARTMENT STRONGLY ENCOURAGES THE PRIME CONTRACTOR AND THEIR APPROVED SUB-CRTRACTORS TO HIRE MINORITY, WOMEN AND DISADVANTAGED INDIVIDUALS FROM ITS FEDERALLY FUNDED HIGHWAY CONSTRUCTION CAREERS TRAINING PROGRAM (HCCTP) TO HELP MEET WORKFORCE AND TRAINEE GOALS. THIS PROGRAM IS TRAINING MINORITIES, WOMEN AND DISADVANTAGED INDIVIDUALS IN HIGHWAY CONSTRUCTION-RELATED SKILLS, E.G., MATH FOR THE TRADES, JOB READINESS, TECHNICAL SKILLS COURSEWORK (CARPENTRY, CONCRETE FLATWORK, BLUEPRINT READING, SITE PLANS, SITE WORK, TOOLS USE, ETC.) AND OSHA 10 HOUR CERTIFICATION, TO PREPARE THEM FOR A CAREER IN THE HIGHWAY CONSTRUCTION TRADES. GRADUATES ARE WELL-TRAINED AND READY TO BECOME PRODUCTIVE ENTRY-LEVEL CONSTRUCTION WORKERS. CONTACT THE DISTRICT 8 EEO OFFICE AT 618-346-3360 AND/OR THE HCCTP COORDINATOR AT 618-874-6528 TO LEARN MORE ABOUT THE PROGRAM AND FOR ASSISTANCE IN MEETING WORKFORCE AND TRAINEE GOALS.
9. ALL TURF DISTURBED BY THE CONTRACTOR SHALL BE SEEDED WITH THE APPROPRIATE EROSION CONTROL, AS DIRECTED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.
10. CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISION FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL EXISTING STEEL SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SPC-SP10. ALL EXISTING STEEL SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1-OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR ALL SURFACES SHALL BE GRAY MUNSELL NO 5B 7/1.

## COMMITMENTS

NONE

REV - MS

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		DRAWN -	REVISIONS -
		CHECKED -	REVISIONS -
PLOT DATE =	11/17/2025	DATE -	REVISIONS -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, GENERAL NOTES  
HIGHWAY STANDARDS, COMMITMENTS

SCALE: NTS SHEET 1 OF 1 SHEETS STA. TO STA.

F A / P RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
055/793	(60-1,72)P	MADISON	15	2
CONTRACT NO. 76U87				
ILLINOIS   FED. AID PROJECT				

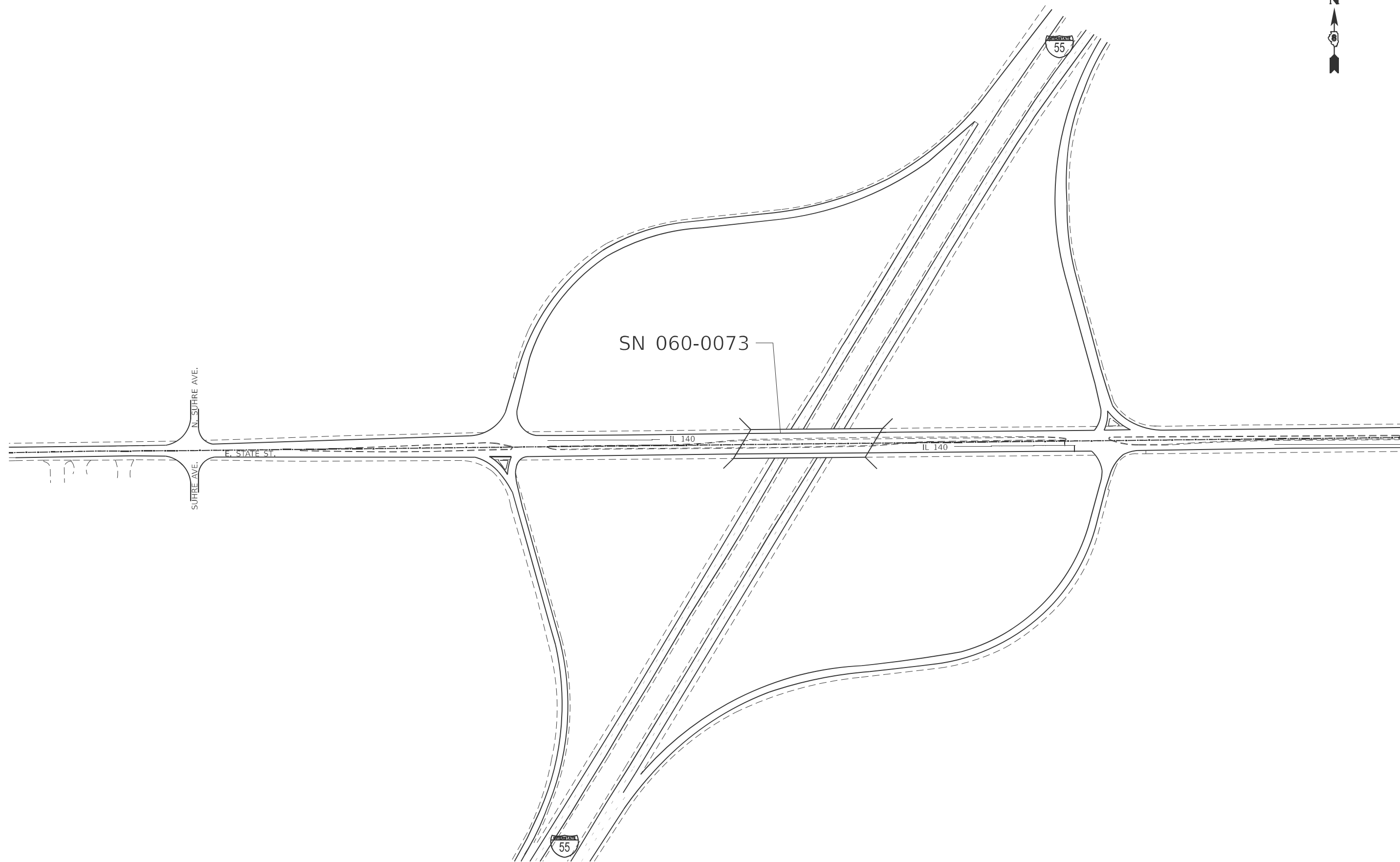
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				STATE/FED 90/10	STATE/FED 80/20
				BRIDGE 0047	BRIDGE 0047
				060-0073	060-0077
67100100	MOBILIZATION	L SUM	1	0.5	0.5
70100100	TRAFFIC CONTROL AND PROTECTION, STANDARD 701316	EACH	1		1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1		1
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	224	112	112
70200100	NIGHTTIME WORK ZONE LIGHTING	L SUM	1		1
X7010001	MOBILE BARRIER TRAILER	L SUM	1		1
X7010206	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401 (SPECIAL)	EACH	1	1	
Z0007101	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1	1	
Z0007102	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 2	L SUM	1		1
Ø Z0076600	TRAINEES	HOUR	500	500	
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1	1	
Ø Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500	500	
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1		1

Ø 0042

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REV - MS

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	DRAWN -	REVISED -					055/793	(60-1,T2)P	MADISON	15	3
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PLOT DATE = 11/21/2025	DATE -	REVISED -		ILLINOIS   FED. AID PROJECT							



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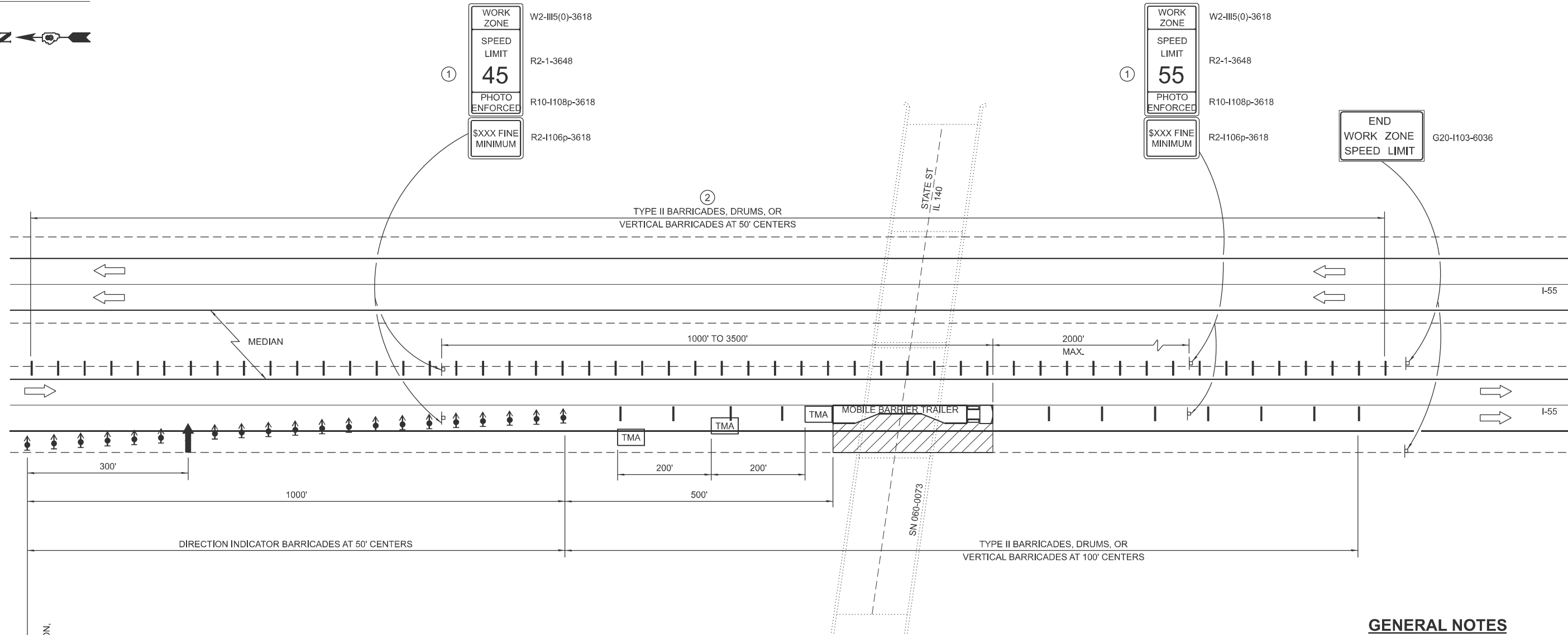
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**LOCATION #1 MAP  
 IL 140 OVER I-55**

SCALE: NTS      SHEET 1      OF 12 SHEETS      STA.      TO STA.

F.A./P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
055/793	(60-1,T2)P	MADISON	15	4
CONTRACT NO. 76U87				
ILLINOIS FED. AID PROJECT				

LOCATION #1



**GENERAL NOTES**

THIS DETAIL IS USED WHERE AT ANY TIME ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES WILL ENCROACH ON THE LANE ADJACENT TO THE SHOULDER, OR ON THE SHOULDER WITHIN 2' OF THE EDGE OF PAVEMENT.

THIS DETAIL MUST BE USED IN COMBINATION WITH STANDARD 701400.

THIS DETAIL ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE LEFT LANE. UNDER THESE CONDITIONS, THE SETUP WOULD BE A MIRROR IMAGE TO WHAT IS SHOWN.

A CHECK BARRICADE SHALL BE PLACED IN THE MIDDLE OF THE CLOSED LANE AND AT THE SHOULDER AT 1000' CENTERS.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

**LEGEND**

- ARROW BOARD
- WORK AREA
- TRUCK/TRAILER MOUNTED ATTENUATOR
- SIGN
- DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE
- MOBILE BARRIER TRAILER

- ① WORK ZONE SPEED LIMIT SIGNS SHALL BE MOVED AS NECESSARY TO MAINTAIN THE REQUIRED SPACING BETWEEN THE SIGNS AND THE WORKERS IN EACH SEPARATE WORK ACTIVITY. WORK ZONE SPEED LIMIT 55 PHOTO ENFORCED SIGN SHALL BE OMITTED WHEN THE WORK AREA DICTATES PLACEMENT OF THE SIGN ARRAY WITHIN 500' OF THE END WORK ZONE SPEED LIMIT SIGN.
- ② TYPE II BARRICADES SHALL BE PLACED WHERE CABLE MEDIAN BARRIER IS TEMPORARILY REMOVED, WHEN ADJACENT LANE HAS BEEN OPENED TO TRAFFIC. PLACEMENT OF DEVICES ARE SUBJECT TO DISCRETION OF RESIDENT ENGINEER.

NOT TO SCALE

**LANE CLOSURE,  
FREEWAY / EXPRESSWAY  
DETAIL**

MODEL: Location 2  
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	CHECKED -	REVISED -
PLOT DATE = 11/21/2025	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION, STANDARD 701401 (SPECIAL)**

SCALE: NTS    SHEET 2 OF 12 SHEETS    STA.    TO STA.

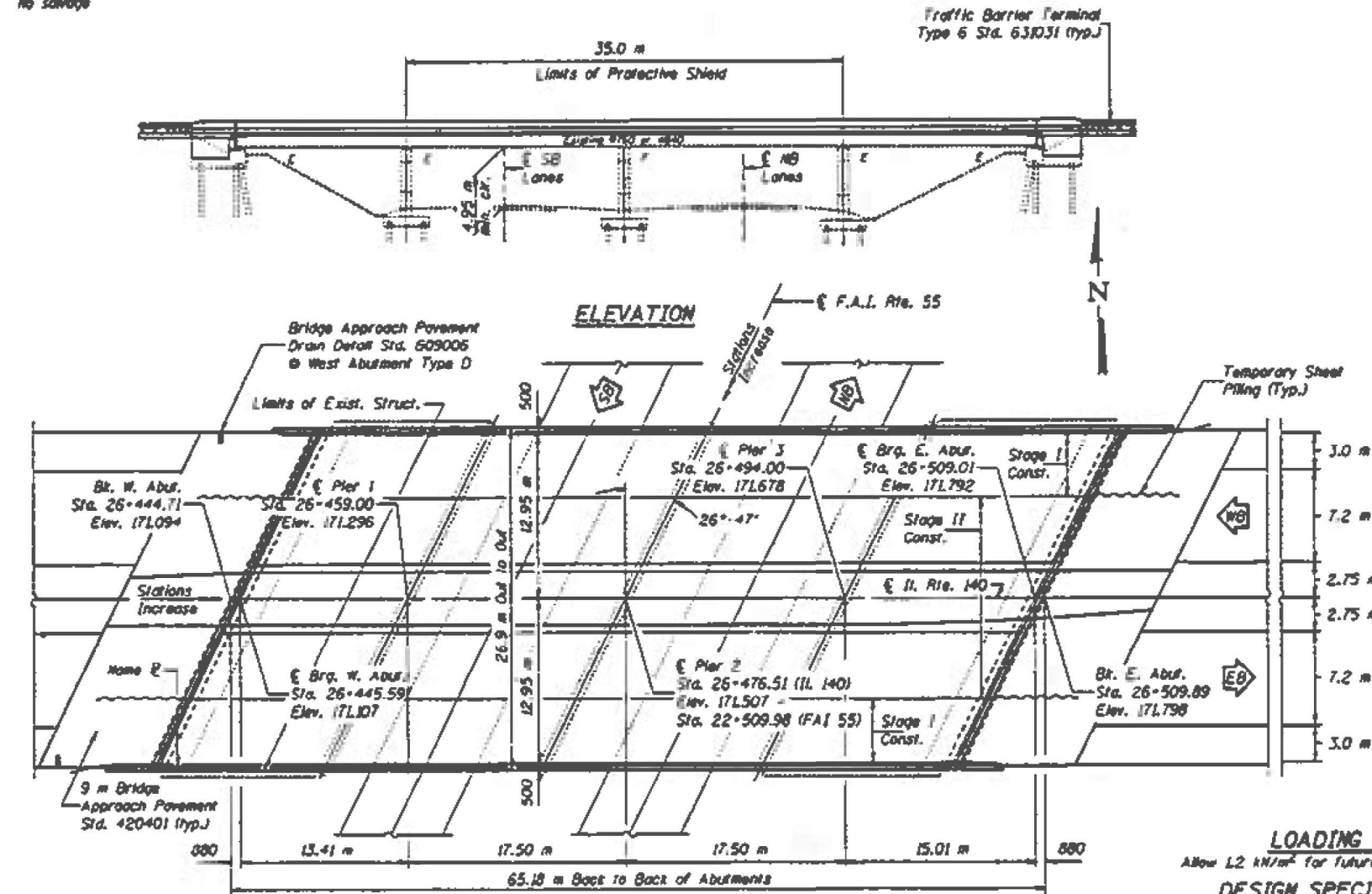
F.A./P.R.T.E. 055/793	SECTION (60-1,72)P	COUNTY MADISON	TOTAL SHEETS 15	SHEET NO. 5
CONTRACT NO. 76U87				
ILLINOIS FED. AID PROJECT				

Bench Mark: New B.M.: Top of centerline of headwall chiseled "square" 14.935 m NW of I-55 outer road and 7.172 m W of centerline of Livingston Ave. Elev. = 178.314.

Existing Structure: S.N. 060-0073 built in 1955 as F.A. 190, Section 520-1-MB-F, widened in 1971 as F.A.I. 55 Section 60-1MBY-5. The existing structure is a 4-span wide flange with a reinforced concrete deck on pile bent abutments and multi-column piers. The existing structure is 65.01 m back to back of abutments and 26.82 m out to out of deck. Existing deck to be removed and replaced.

No salvage

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



STATION 26+476.51  
REBUILT 199 BY  
STATE OF ILLINOIS  
F.A.I. Rte. 85 SEC. 60-1MBY-5  
PROJECT ACIP-85-1(710)33  
LOADING MS18  
STR. NO. 060-0073

NAME PLATE

See Std. 515001

Note: Existing Name Plate to be cleaned and relocated next to new Name Plate. Cost included with "Name Plates."

LOADING MS18  
Allow 12 kN/m<sup>2</sup> for future wearing surface.  
DESIGN SPECIFICATIONS  
1996 AASHTO

Note: Work this sheet with sheet #2 of 25.

PLAN

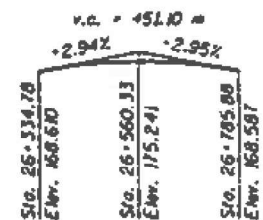
DESIGN STRESSES

NEW CONSTRUCTION  
FIELD UNITS  
 $f_c = 24$  MPa  
 $f_y = 400$  MPa (reinforcement)  
EXISTING SUBSTRUCTURE  
FIELD UNITS  
1955 CONSTRUCTION  
 $f_c = 5.5$  MPa (Sub.)  
 $f_c = 138$  MPa (reinforcement)  
 $f_s = 124$  MPa (structural)  
 $n = 10$   
1970 CONSTRUCTION  
 $f_c = 9.6$  MPa (Sub.)  
 $f_c = 138$  MPa (reinforcement)  
 $f_s = 138$  MPa (structural)  
 $n = 10$

SEISMIC DATA  
Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.085g  
Site Coefficient (S) = 1.0

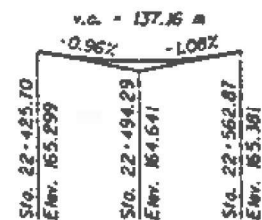
MEDIAN CURVE DATA

$\Delta = 6^\circ-06'-21"$   
 $D = 5^\circ-25'-01"$   
 $R = 371.77$   
 $T = 17.19$   
 $L = 34.36$   
 $E = 1.84$



PROFILE GRADE  
(Median edge of pavement F.A.P. 785)

DESIGNED	J. B. Crane
CHECKED	R. Doty
DRAWN	R. Doty
CHECKED	TTB 305

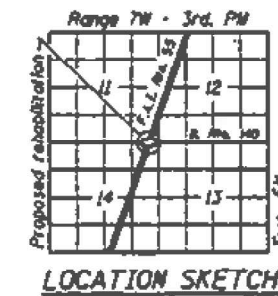


PROFILE GRADE  
(taking crown F.A.I. 55)

DESIGNED	J. B. Crane
CHECKED	R. Doty
DRAWN	R. Doty
CHECKED	TTB 305



EXPIRES 11-30-98



GENERAL PLAN  
ILLINOIS ROUTE 140 OVER  
INTERSTATE 55  
F.A.P. ROUTE 785 - SEC. 60-1MBY-5  
MADISON COUNTY  
STATION 26+476.51  
STRUCTURE NO. 060-0073

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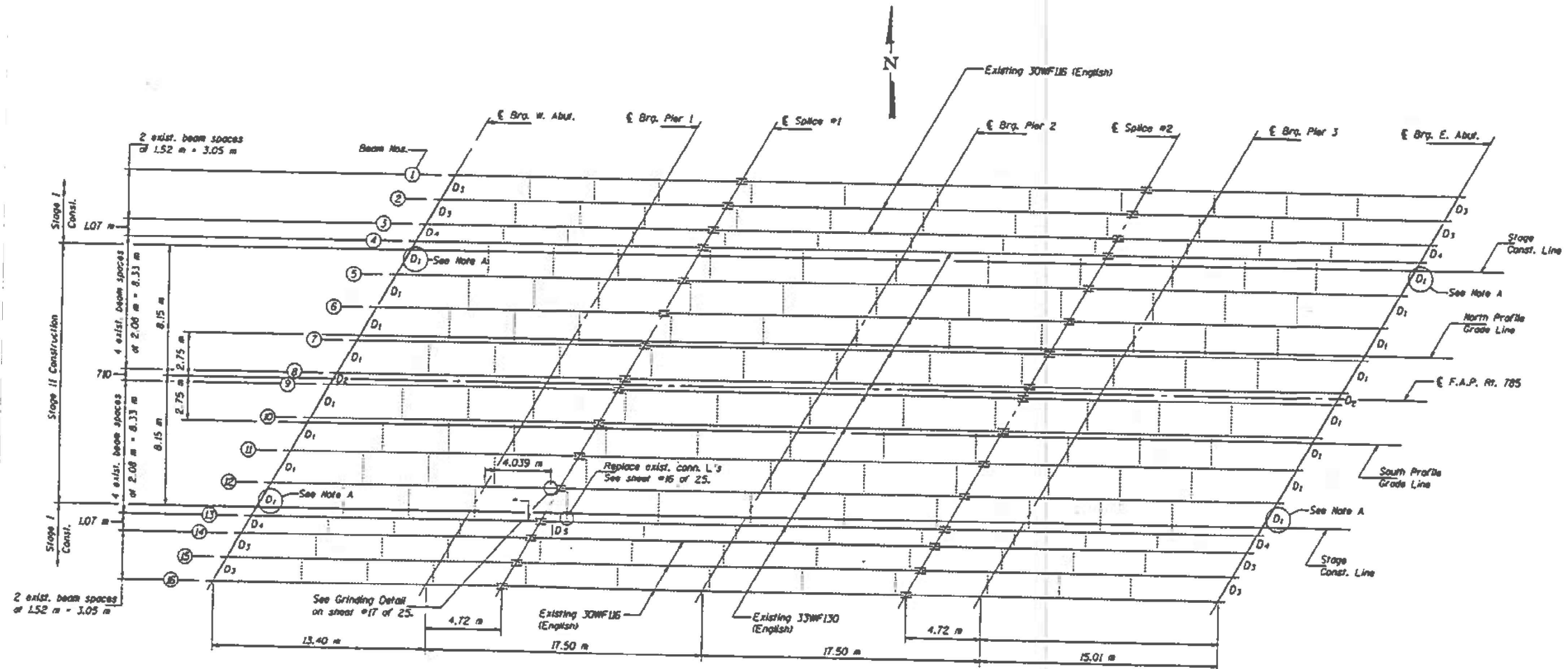
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STRUCTURE DETAIL  
LOCATION #1 SN 060-0073

SCALE: NTS SHEET 3 OF 12 SHEETS STA. TO STA.

F.A.I.P. RTE. 055/793	SECTION (60-1,72)P	COUNTY MADISON	TOTAL SHEETS 15	SHEET NO. 6
			CONTRACT NO. 76U87	
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**FRAMING PLAN**

\* Location of Beam straightening.  
See sheet #17 of 25 for details.

Note: Work this sheet with sheets #15 thru #18 of 25.

Note A: Diaphragms of the stage line shall be placed during Stage I Construction.

**STRUCTURAL STEEL**  
**F.A.P. ROUTE 785 SEC. 60-IHBR-5**  
**MADISON COUNTY**  
**STA. 26+476.51**

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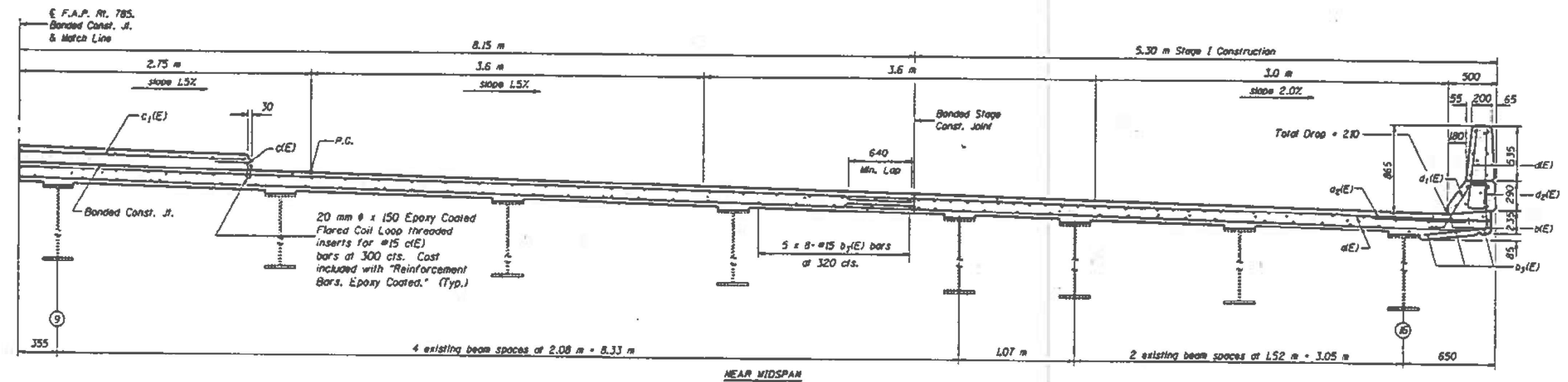
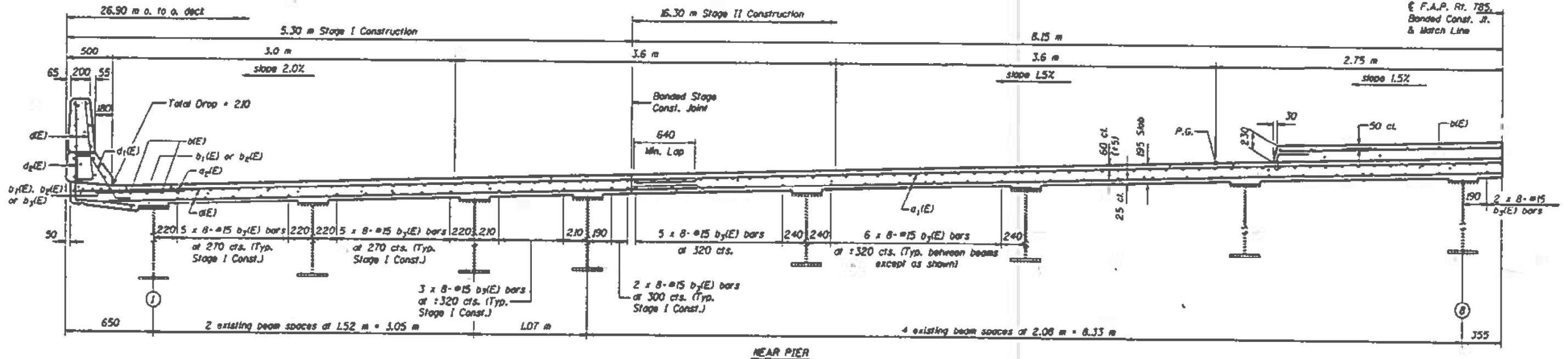
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STRUCTURE DETAIL  
LOCATION #1 SN 060-0073

SCALE: NTS SHEET 4 OF 12 SHEETS STA. TO STA.

F.A.P. RTE. 055/793	SECTION (60-1,72)P	COUNTY MADISON	TOTAL SHEETS 15	SHEET NO. 7
CONTRACT NO. 76U87				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



CROSS SECTION  
(Looking East)

Note: Work this sheet with sheets #9 and #10 of 25.

**SUPERSTRUCTURE**  
**F.A.P. ROUTE 785 SEC. 60-1HBR-5**  
**MADISON COUNTY**  
**STA. 26+476.51**

DESIGNED: *[Signature]* (R. Dory)  
CHECKED: *[Signature]* (SOS)  
DATE: January 23, 1970  
DRAWN: *[Signature]*  
REVISIONS: *[Signature]*

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PLOT DATE = 11/21/2025	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

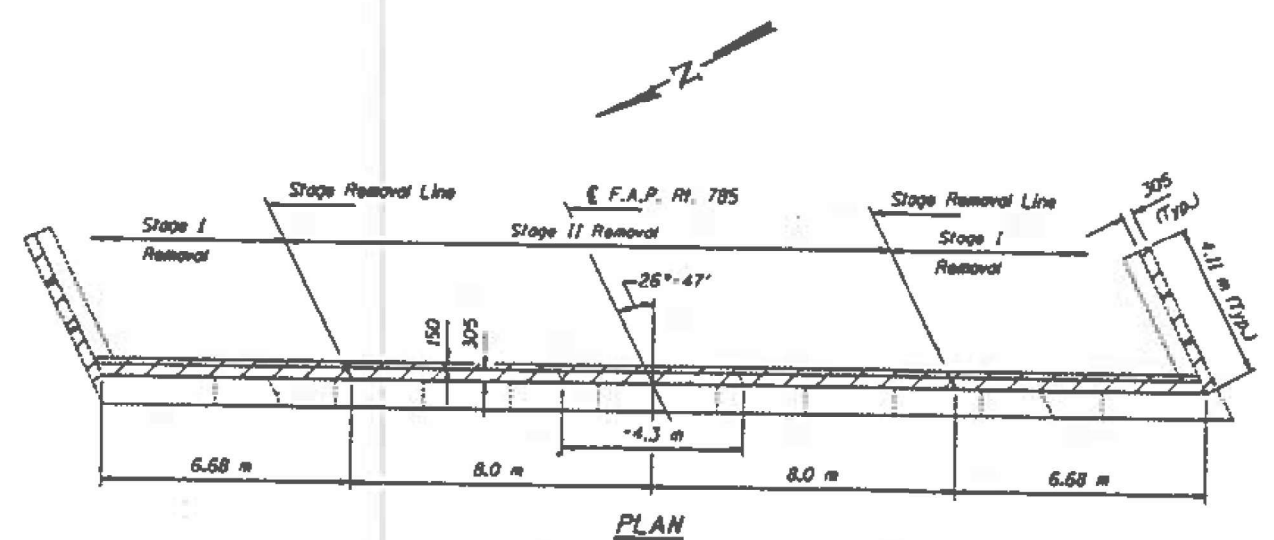
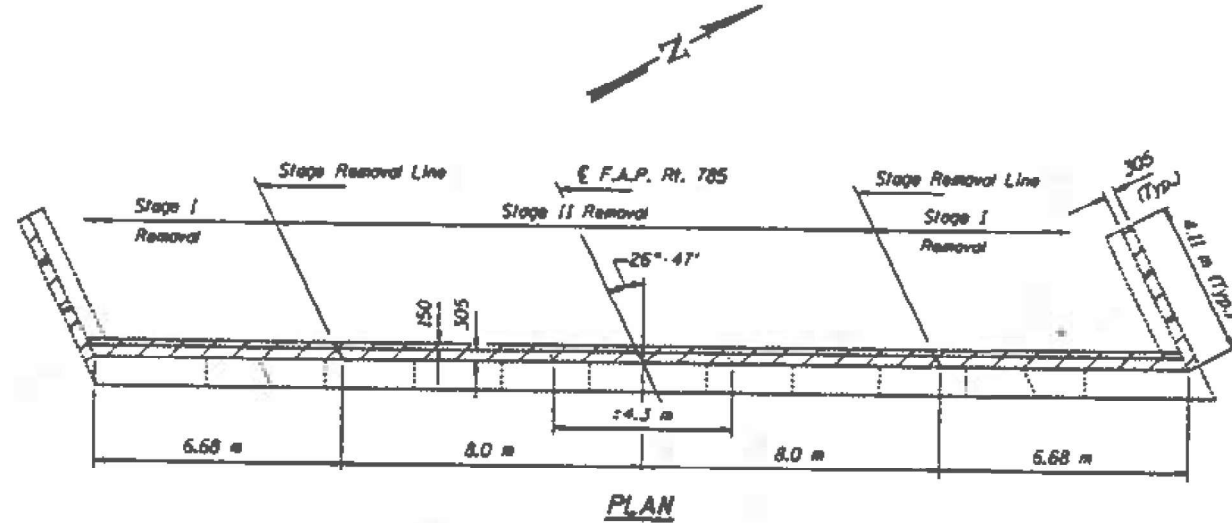
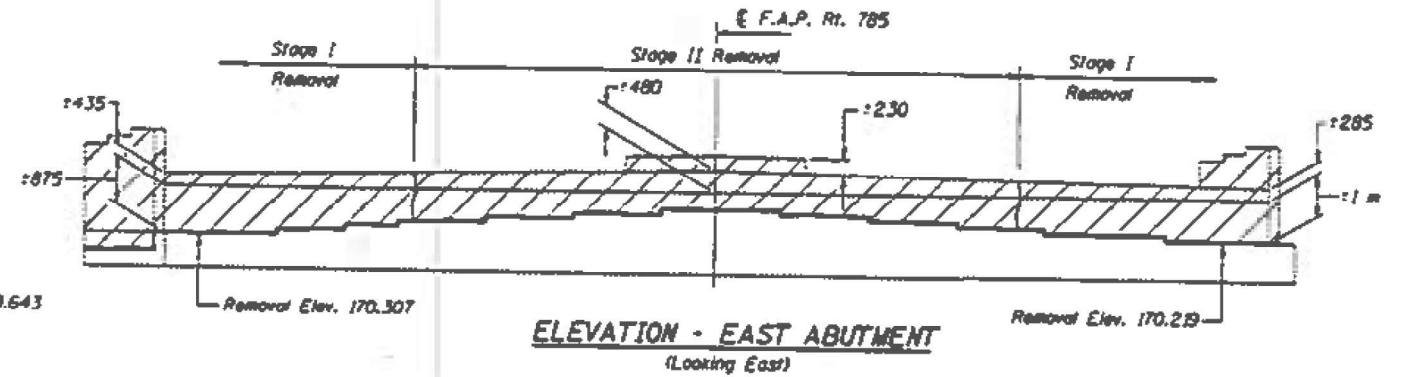
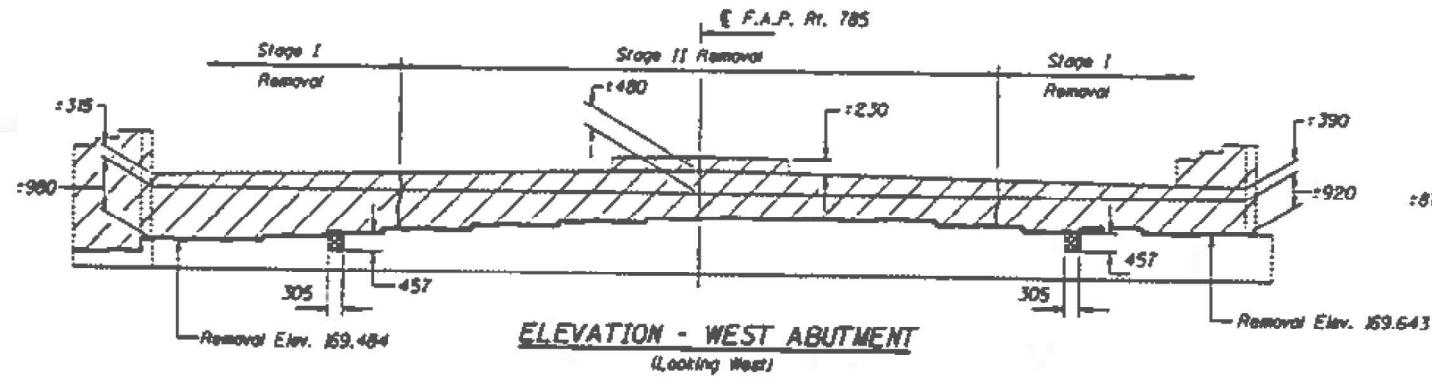
STRUCTURE DETAILS  
LOCATION #1 SN 060-0073

SCALE: NTS SHEET 5 OF 12 SHEETS STA. TO STA.

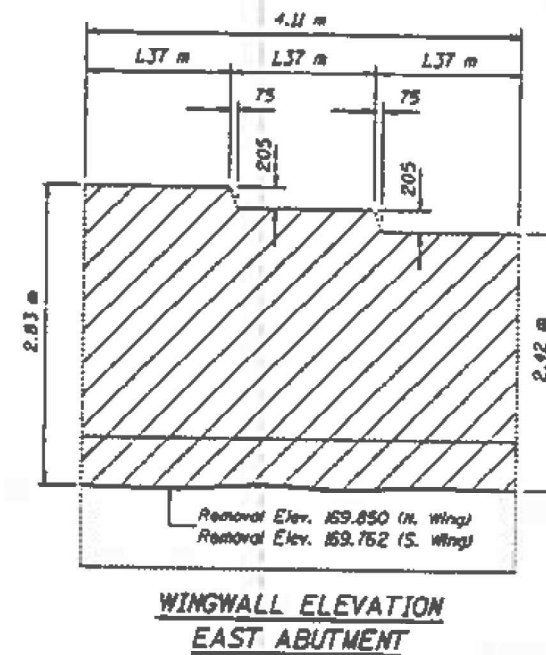
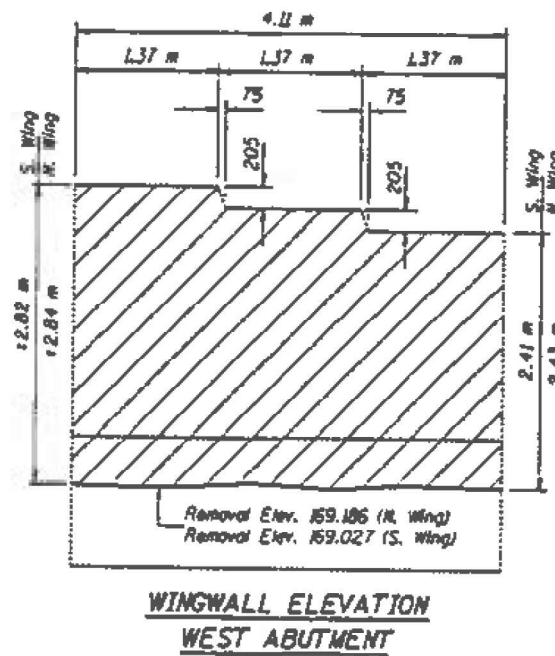
F.A.P. RTE. 055/793	SECTION (60-1,72)P	COUNTY MADISON	TOTAL SHEETS 15	SHEET NO. 8
CONTRACT NO. 76U87				
ILLINOIS FED. AID PROJECT				



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



Notes: Hatched areas indicate "Concrete Removal."  
Existing reinforcement extending into removed area shall be cleaned, straightened and incorporated into the new construction. Cost included with "Concrete Removal."  
Existing reinforcement not extending into the new construction shall be cut off flush and covered with a 50 mm layer of cement grout. Cost included with "Concrete Removal."  
Cross hatched areas indicate "Formed Concrete Repair (Depth Less Than or equal to 125 mm)."



**TWO ABUTMENTS**  
**BILL OF MATERIAL**

Item	Unit	Total
Concrete Removal	m <sup>3</sup>	33.1
Formed Concrete Repair Depth Less Than or Equal to 125 mm	m <sup>2</sup>	0.3

**CONCRETE REMOVAL AND REPAIR**  
**DETAILS AT ABUTMENTS**  
**F.A.P. ROUTE 785 SEC. 60-1HBR-5**  
**MADISON COUNTY**  
**STA. 26+475.51**

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	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 11/21/2025	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STRUCTURE DETAILS  
LOCATION #1 SN 060-0073

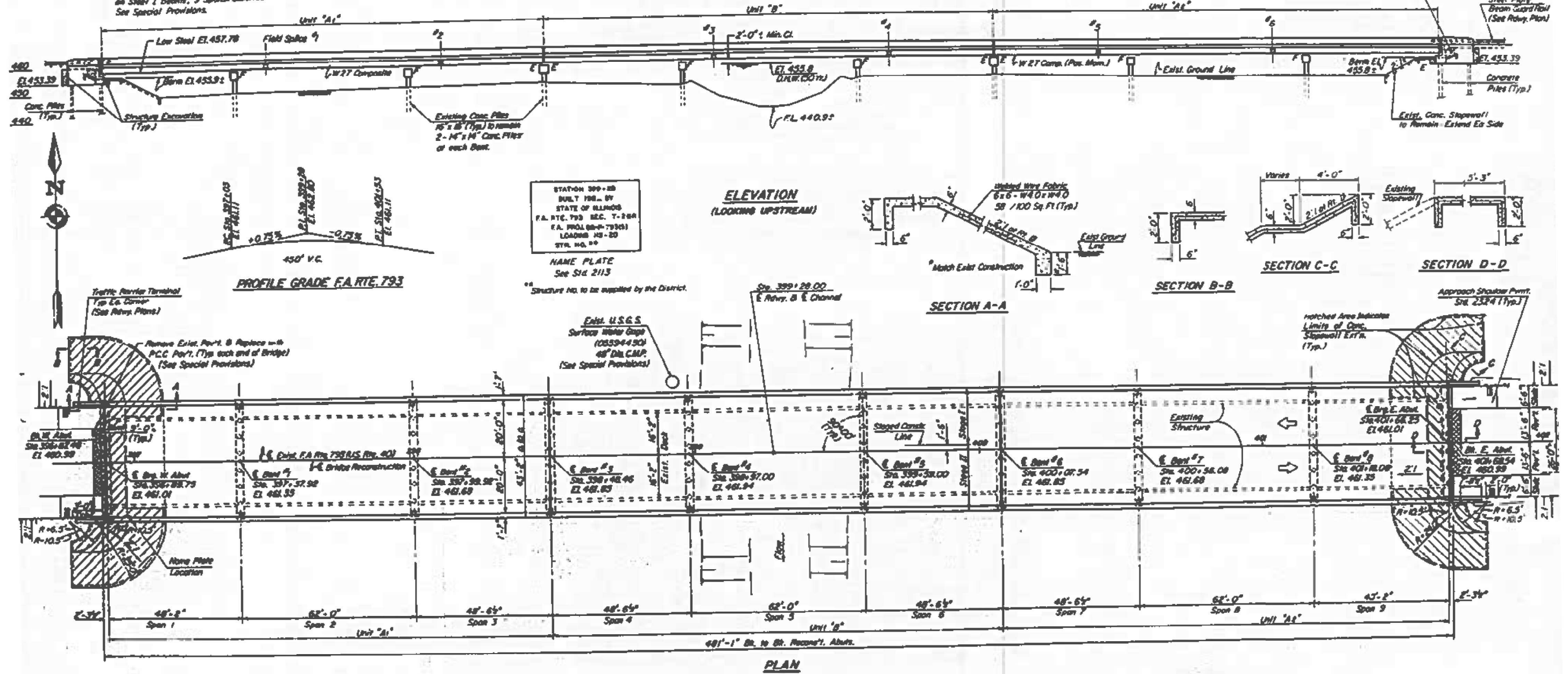
SCALE: NTS SHEET 7 OF 12 SHEETS STA. TO STA.

F.A.P. RTE. 065/793	SECTION (60-1,72)P	COUNTY MADISON	TOTAL SHEETS 15	SHEET NO. 10
			CONTRACT NO. 76U87	
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TBM 101-C Chained to an East end of S. Curve of  
Exst. bridge on Rte. 40 over Silver Creek EL 460.80

TBM 101-D Chained to an S.W. corner of West end of N. Curve of  
Exst. bridge on Rte. 40 over Silver Creek EL 460.83  
Exst. structure built in 1938 on F.A. Rte. 12, Sec. T-2-B  
at Station 399+28. Existing Superstructure is Concrete Slab (47'-1" Br. to Br. Abut., 32'-4" o.a. Deck)  
on Steel I Beams, 9 Spans. Substructure is Reinf. Conc. Pile-Cap Construction. Existing Piling to remain in place.  
See Special Provisions.



STATION 399+28  
BUILT 1938 BY  
STATE OF ILLINOIS  
F.A. RTE. 793 SEC. T-2B  
F.A. PROJ. 06-79301  
LOADING HS-20  
STR. NO. 99

NAME PLATE  
See Sid. 2113

\*\* Structure No. to be supplied by the District.

Exst. U.S.G.S  
Surface Water Gauge  
(10559430)  
48" Dia. C.M.P.  
(See Special Provisions)

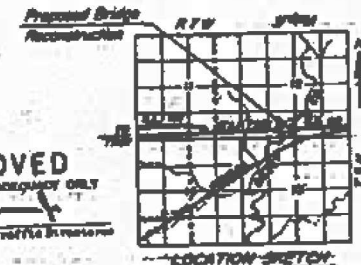
PROFILE GRADE F.A. RTE. 793

**DESIGN STRESSES**

$f_c = 3,500$  p.s.i. (Super)  
 $f_c = 1,400$  p.s.i. (Sub.)  
 $f_y = 60,000$  p.s.i. (Reinf. Steel)  
 $f_y = 50,000$  p.s.i. (AASHTO 50 Struct. Steel)  
 $f_y = 38,000$  p.s.i. (AASHTO 36 Struct. Steel)  
 $f_s = 24,000$  p.s.i. (Reinf. Sub.)  
 $n = 9$  (Composite)  
Allow 25 p.s.i. F.W.S.  
Loading HS-20-44  
Design Spec. 1977 AASHTO & Interim  
1978 & 1979 as Applicable  
LOAD FACTOR DESIGN (Except Substructure)

**WATERWAY INFORMATION**

Flood	Freq. Yr.	C.F.S.	Graded St. Fl.		Max. H.W.L. Elev.	Head - Ft.		Headwater - Ft.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	30	12,170	3.01	3.04	453.8	0.78	0.78	456.58	456.58
Base	100	13,820			456.4	0.95	0.95	457.35	457.35
Overlapping									
Max. Calc.	500	17,542			457.9	1.00	1.00	458.5	458.5



APPROVED  
FOR PROFESSIONAL ACCEPTANCE ONLY  
Gregory B. Poler  
DATE: OCT. 1, 1983  
97-3372

GENERAL PLAN & ELEVATION  
F.A. RTE. 793 (U.S. RTE. 40)  
OVER SILVER CREEK  
SECTION T-2B  
MADISON COUNTY  
STATION 399+28

DESIGNED	EFV
CHECKED	DVK
DRAWN	J.T.
CREATED	G.E.P.

USER NAME	= rahshun.miller	DESIGNED	-	REVISED	-
		DRAWN	-	REVISED	-
		CHECKED	-	REVISED	-
PLOT DATE	= 11/21/2025	DATE	-	REVISED	-

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

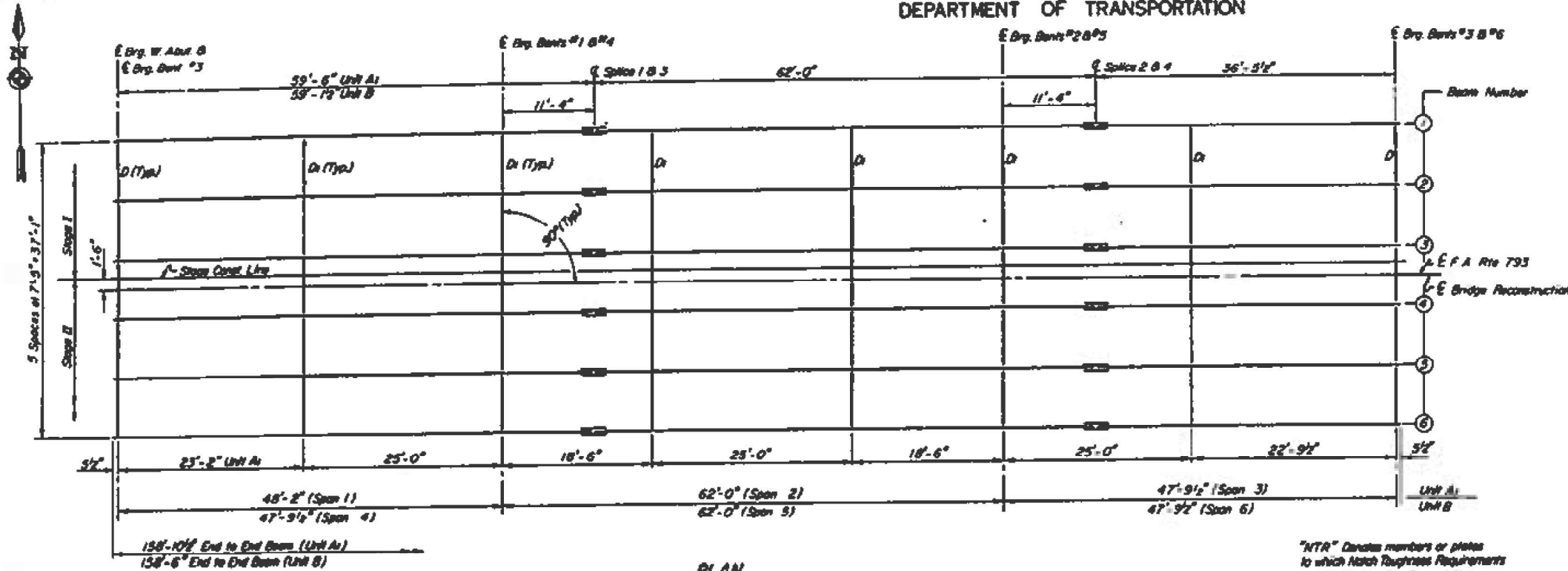
STRUCTURE DETAILS  
LOCATION #2 060-0077

SCALE: NTS SHEET 8 OF 12 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
055/793	(60-1,72)P	MADISON	15	11
CONTRACT NO. 76U87				
ILLINOIS FED. AID PROJECT				

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**PLAN**  
(UNITS A & B SHOWN, SEE SHY. 10 FOR UNIT Aa)

"NTR" Denotes numbers or plates to which Match Toughness Requirements are applicable. See General Notes.

**ELEVATIONS - TOP OF W BEAMS**

Location	Beam #1 or #6	Beam #2 or #5	Beam #3 or #4
E. Drg. W. Abut.	460.02	460.17	460.29
E. Drg. Bent 1	460.32	460.47	460.59
E. Splice 1	460.39	460.54	460.66
E. Drg. Bent 2	460.64	460.79	460.91
E. Splice 2	460.69	460.84	460.96
E. Drg. Bent 3	460.86	461.01	461.13
E. Drg. Bent 3	460.86	461.01	461.13
E. Drg. Bent 4	460.91	461.06	461.18
E. Splice 3	460.92	461.07	461.19
E. Drg. Bent 5	460.90	461.05	461.17
E. Splice 4	460.89	461.04	461.16
E. Drg. Bent 6	460.86	461.01	461.13
E. Drg. Bent 6	460.86	461.01	461.13
E. Splice 5	460.69	460.84	460.96
E. Drg. Bent 7	460.64	460.79	460.91
E. Splice 6	460.39	460.54	460.66
E. Drg. Bent 8	460.32	460.47	460.59
E. Drg. E. Abut.	460.02	460.17	460.29

† For Fabrication Only

**INTERIOR BEAM MOMENT TABLE**

	0.4 % of End Span	Beam	0.3 % of Interior Span
$I_y$ (in <sup>4</sup> )	3270	3270	3270
$I_z$ (in <sup>4</sup> )	9132	---	9132
$S_x$ (in <sup>3</sup> )	243	243	243
$S_z$ (in <sup>3</sup> )	360	---	360
$r_x$ (in)	0.888	1.171	0.818
$r_z$ (in)	184.3	421.5	182.9
$Q$ (in <sup>2</sup> )	0.811	20.81	0.903
$S_x$ (in <sup>3</sup> )	0.303	---	0.303
$M_x$ (ft)	78.9	---	97.6
$M_z$ (ft)	741.4	420.7	895.8
$M_{max}$ (ft)	214.3	116.8	239.6
$T_{total}$ (ft)	1028.6	537.5	1233.0
$I_{x, comp}$ (in <sup>4</sup> )	34.29	26.54	41.10
$V_{max}$ (k)	42.4	47.35	50
$V_R$ (k)	53.0	---	47.3

## See Note 4

**INTERIOR BEAM REACTION TABLE**

	Abut.	Pier
$R_R$ (k)	20.3	68.5
$R_L$ (k)	42.7	49.9
$\sum R$ (k)	12.3	13.9
$R$ Total (k)	75.3	132.2

Note 1:  $I_y$  and  $S_x$  are the moment of inertia and section modulus of the steel section.

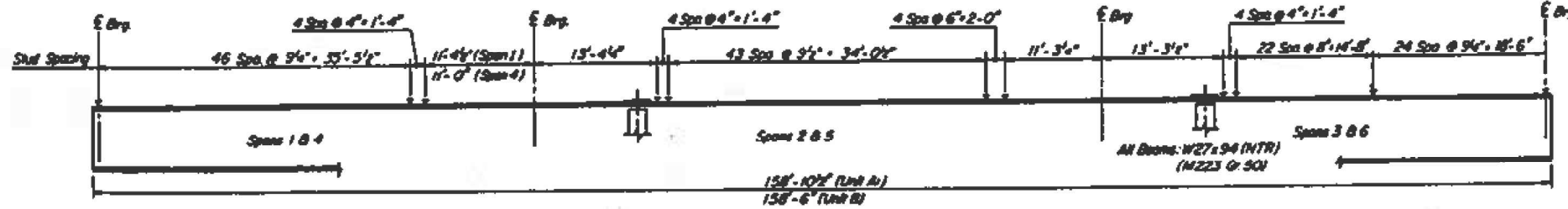
$I_z$  and  $S_z$  are the moment of inertia and section modulus of the composite section used in computing  $V_{Total}$ .

$V_R$  is the maximum  $V$ ; inspect shear range in span.

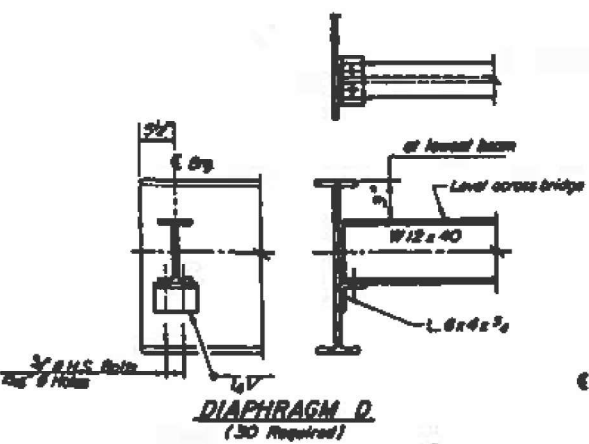
The load factor (1.3)  $[0.75 (k + Imp)]$  is included for computing moments and stresses.

## Computed by conventional elastic beam formula.

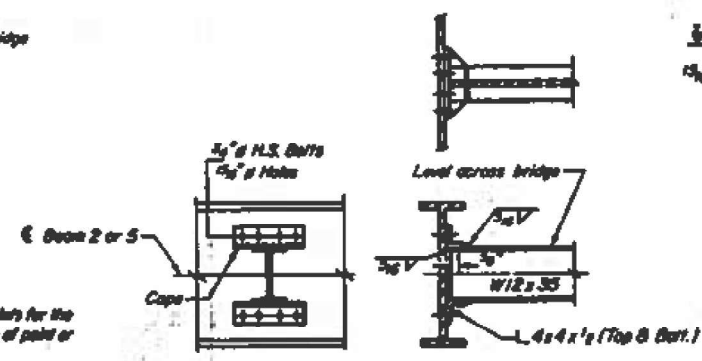
## Computed using plastic theory - section is compact for positive moment.



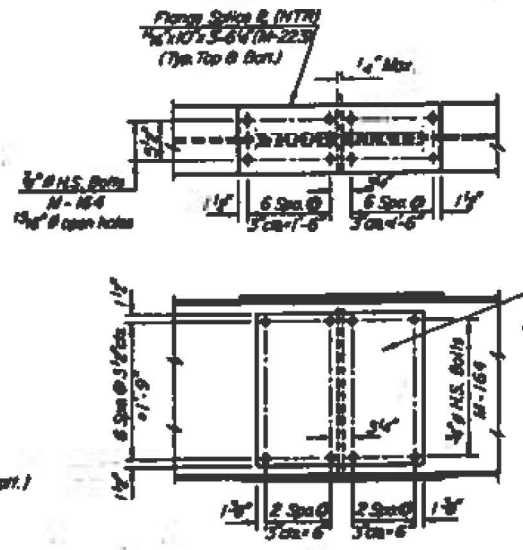
**ELEVATION**  
(SHOWING SHEAR CONNECTORS)  
(UNITS A & B SHOWN, SEE SHY. 10 FOR UNIT Aa)



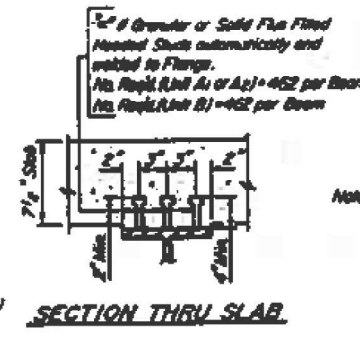
**DIAPHRAGM D**  
(90 Required)



**DIAPHRAGM D1**  
(90 Required)



**DETAIL OF SPLICE**



**SECTION THRU SLAB**

Note: All Beams & Splice Plates shall be M-22.3, G-50. All other Structural Steel Items including Bearing Assemblies, Diaphragms, and other miscellaneous items shall be M-183.

**STRUCTURAL STEEL DETAILS**  
**E.A. RTE. 793 (U.S. RTE. 40)**  
**OVER SILVER CREEK**  
**SECTION T-2BR**  
**MADISON COUNTY**  
**STATION 392+28**

DESIGNED	E.F.V.
DRAWN	D.V.K.
CHECKED	J.T./L.J.
APPROVED	G.P.P.

Notes: All contact surfaces of joints for the diaphragms shall be free of paint or rust.  
Hardened washers shall be required over 1/4" H.S. bolts in angles. (One in. end of bolt) bolts on Diaphragms between Bm. 3 & Bm. 4 shall be left loose until after the Stage II deck is in place.

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		DRAWN	-	REVISED	-
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PLOT DATE	= 11/21/2025	DATE	-	REVISED	-

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

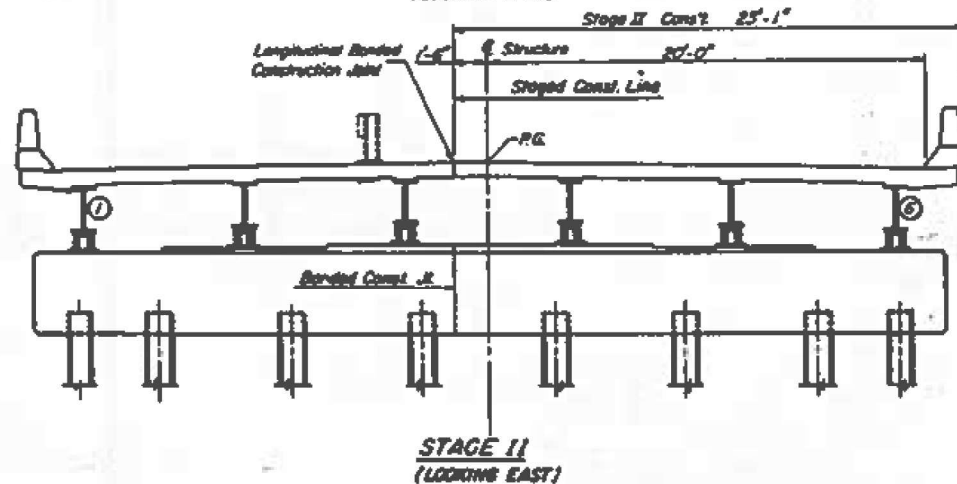
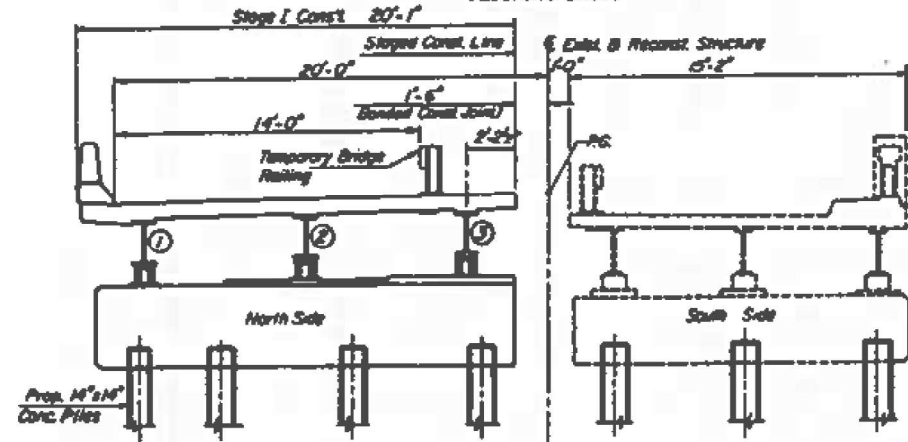
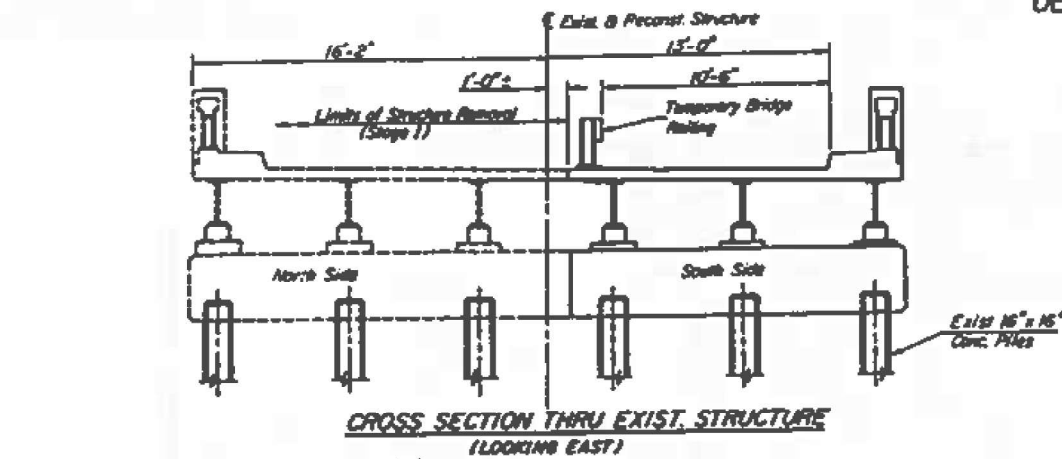
STRUCTURE DETAILS  
LOCATION #2 SN 060-0077

SCALE: NTS SHEET 9 OF 12 SHEETS STA. TO STA.

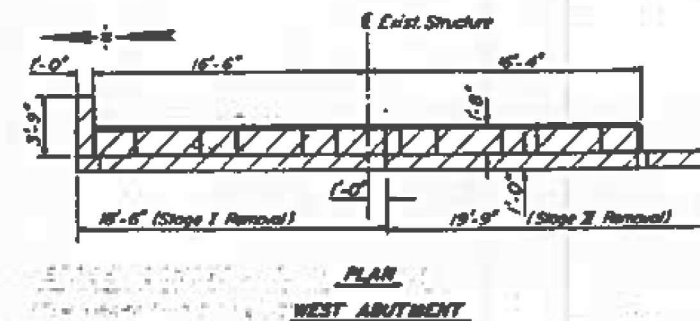
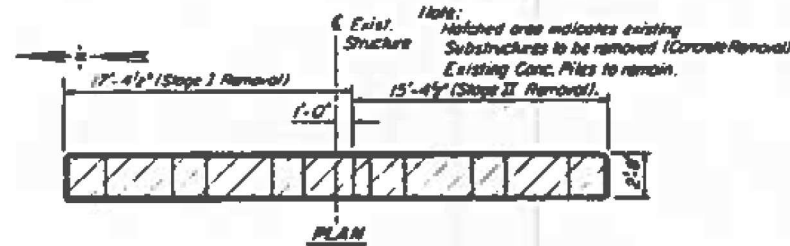
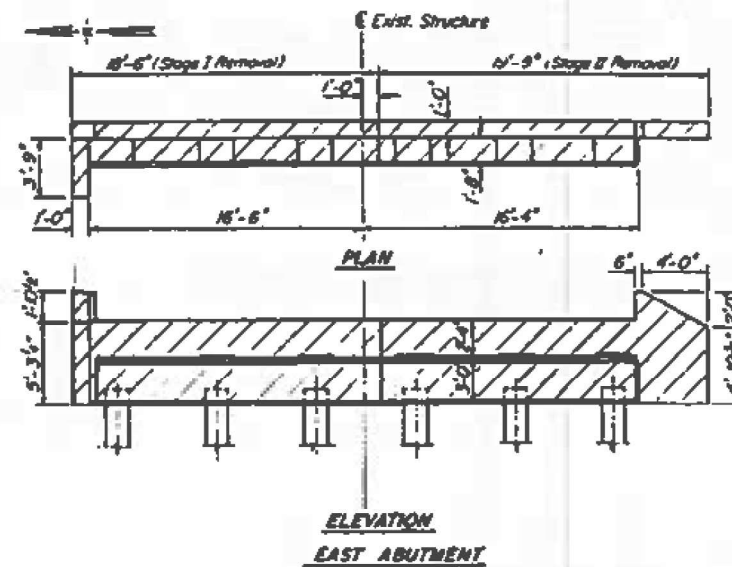
F.A.I.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
055/793	(60-1,72)P	MADISON	15	12
CONTRACT NO. 76U87			ILLINOIS FED. AID PROJECT	



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



STAGE CONSTRUCTION DETAILS  
(TEMPORARY BRIDGE RAIL DETAILS ON SHEET 63)



CONCRETE REMOVAL - SUBSTRUCTURES

GENERAL NOTES

Calculated weight of Structural Steel = 61,815 lbs (M-103)  
+ 200,380 lbs (M-223 Grade 50)  
Fasteners shall be high strength bolts. Bolts 3/4\"/>  
The basic load splice chrome plate system shall be used for shop and field painting of Structural Steel.  
Field welding of construction accessories will not be permitted to the bottom flange of beams nor to the top flange for a distance equal to one-fourth the span length each way from the bent supports. Field welding in other areas will be permitted only when approved by the Engineer.  
Anchor bolts shall be set before bolting diaphragms over supports.  
Plan dimensions and details relative to existing 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 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 price bid for the work.  
Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 1/8\"/>  
The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Match Toughness Zone 2. These components are all splice plate material and the wide flange beams.  
Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-53 Grade 60.  
Slope wall shall be reinforced with welded wire fabric, 6\"/>

Layout of the Slope wall may be varied in the field to suit ground conditions as directed by the Engineer.

The Contractor shall drive 4 Precast Concrete Test Piles in permanent locations as directed by the Engineer before ordering the remainder of piles. One Test Pile at each of the following locations: West Abut, Bent #3, Bent #5, and Bent #8.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu Yds		111	111
Class X Concrete	Cu Yds	398.0	185.5	793.5
Structural Steel	L.S.	1		1
Reinforcement Bars	Lbs.	68,070	18,720	86,790
Reinforcement Bars (Epoxy Coated)	Lbs.	101,370		101,370
Precast Conc. Piles 14"	Lin Ft.		678	678
Test Piles Precast Conc.	Each		4	4
Floor Drains	Each	96		96
Removal of Existing Superstructures	Each			1
Protective Coat	Sq Yds	2530		2530
Steel Shear Connectors	Each	8318		8318
Concrete Removal	Cu Yds		104.6	104.6
Slope Wall Removal	Sq Yds		217	217
Prefabricated Joint Seal (2'x7')	Lin Ft.	86		86
Prefabricated Joint Seal (4')	Lin Ft.	86		86
Name Plates	Each	1		1
Slope Wall (6')	Sq Yds		526	526
Temporary Bridge Rail	Lin Ft.	481		481

See Special Provisions  
#10 Precast Concrete /  
STAGE CONSTRUCTION, CONC. REMOVAL,  
GENERAL NOTES & TOTAL BILL OF MATERIAL  
F.A. RTE. 793 (U.S. RTE. 40)  
OVER SILVER CREEK  
SECTION T-20R  
MADISON COUNTY  
STATION 322+28

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

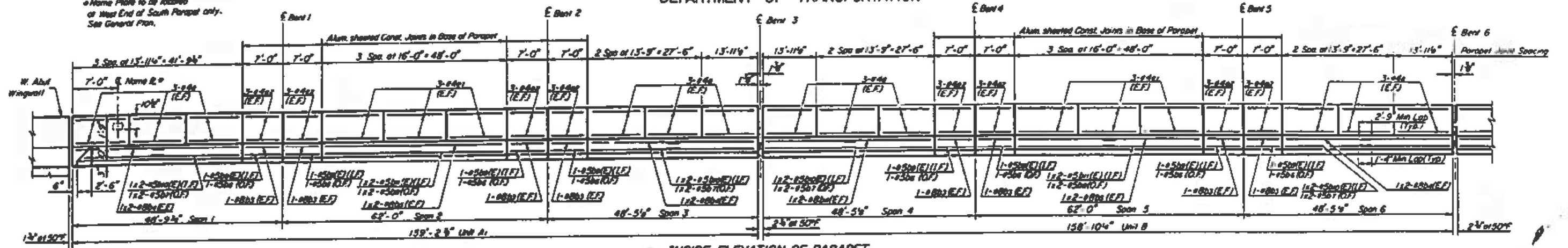
STRUCTURE DETAILS  
LOCATION #2 SN 060-0077

SCALE: NTS SHEET 11 OF 12 SHEETS STA. TO STA.

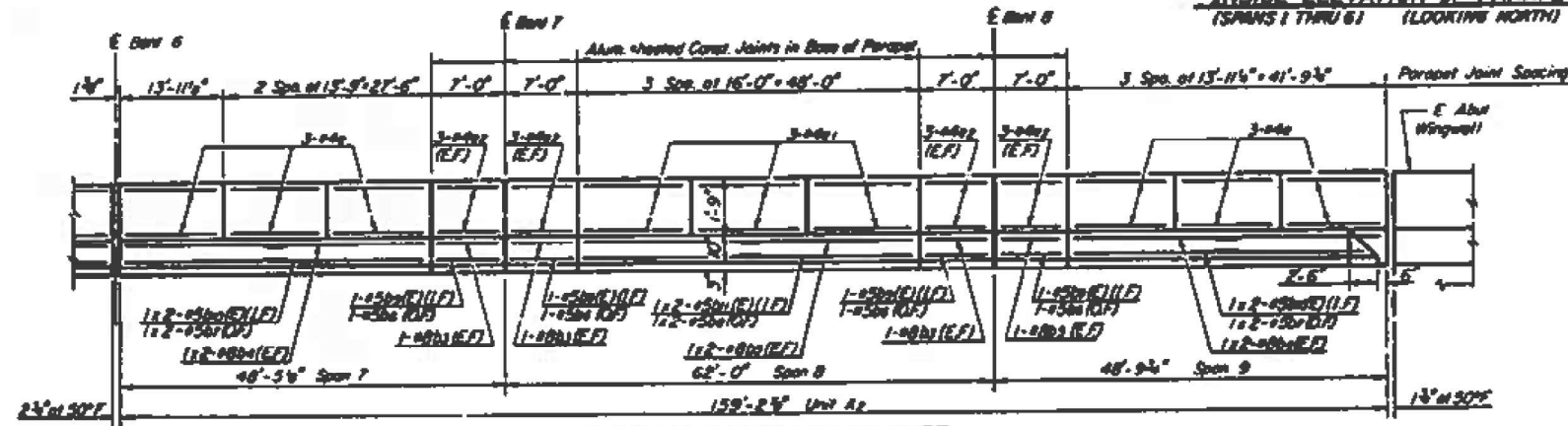
F.A./P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
055/793	(60-1,72)P	MADISON	15	14
CONTRACT NO. 76U87				
ILLINOIS / FED. AID PROJECT				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

\*Name Plate to be located at West End of South Parapet only. See General Plan.



INSIDE ELEVATION OF PARAPET  
(SPANS 1 THRU 6) (LOOKING NORTH)



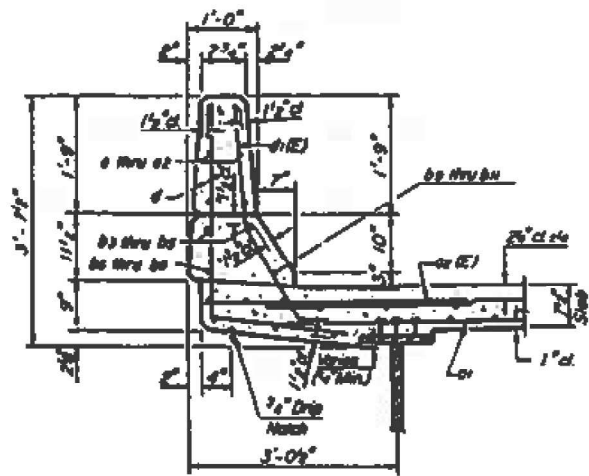
INSIDE ELEVATION OF PARAPET  
(SPANS 7 THRU 9) (LOOKING NORTH)

SUPERSTRUCTURE  
BILL OF MATERIAL (13 UNITS)

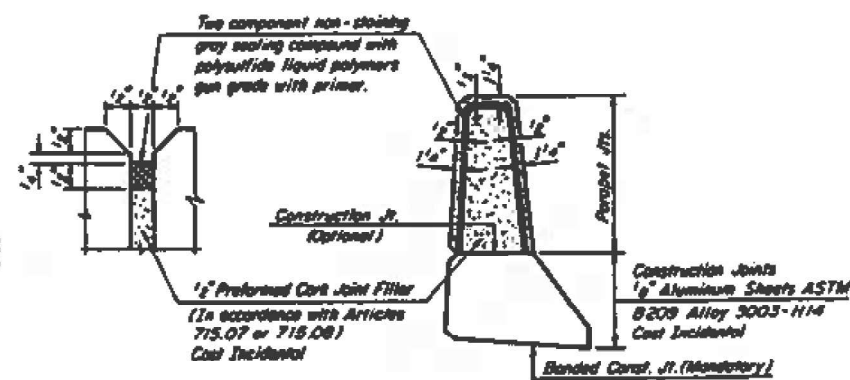
Bar No.	Size	Length	Shape
a(E)	2202	05	21'-9"
a1	1434	05	22'-0"
a2(E)	1146	06	4'-0"
b(E)	020	05	27'-0"
b1(E)	250	06	34'-0"
b2	061	05	24'-1"
b3	40	00	6'-0"
b4	40	00	22'-1"
b5	24	00	25'-2"
b6	24	05	6'-0"
b7	24	05	21'-4"
b8	12	05	24'-5"
b9(E)	24	05	6'-0"
b10(E)	24	05	21'-4"
b11(E)	12	05	24'-5"
c	054	04	5'-3"
c1(E)	1032	03	3'-1"
c2(E)	12	03	0'-2"
d	216	04	15'-6"
d1	100	04	15'-8"
d2	100	04	6'-0"
Reinforcement Bars	Lbs.	68,010	
Reinf. Bars (Epoxy Coated)	Lbs.	101,370	
Preformed Joint Spacer (2")	Lin. Ft.	06	
Preformed Joint Spacer (4")	Lin. Ft.	06	
Class X Concrete	Cu. Yds.	5580	

Reinforcement bars designated (E) shall be epoxy coated. See Special Provisions.

SUPERSTRUCTURE DETAILS  
FA RTE. 793 (U.S. RTE. 40)  
OVER SILVER CREEK  
SECTION T-20R  
MADISON COUNTY  
STATION 399+28.00

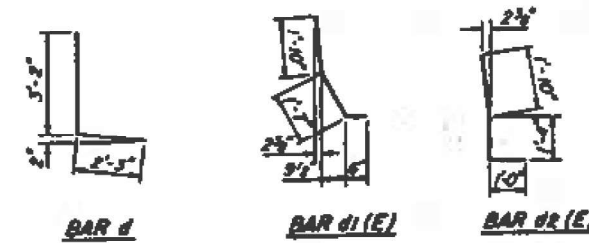


SECTION THRU PARAPET



PARAPET JOINT DETAILS

Note: Bars indicated than 1x2-#5 etc. indicates 1 line of bars with 2 lengths per line.



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PLOT DATE = 11/21/2025	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STRUCTURE DETAILS  
LOCATION #2 SN 060-0077

SCALE: NTS SHEET 12 OF 12 SHEETS STA. TO STA.

F.A.I.P. RTE. 055/793	SECTION (60-1.72)P	COUNTY MADISON	TOTAL SHEETS 15	SHEET NO. 15
CONTRACT NO. 76U87			ILLINOIS FED. AID PROJECT	