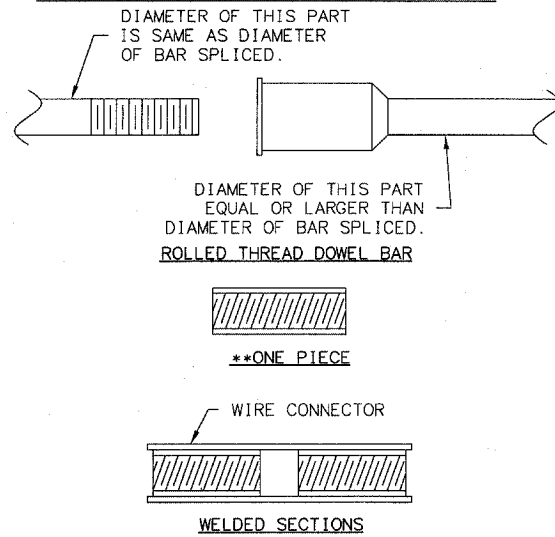


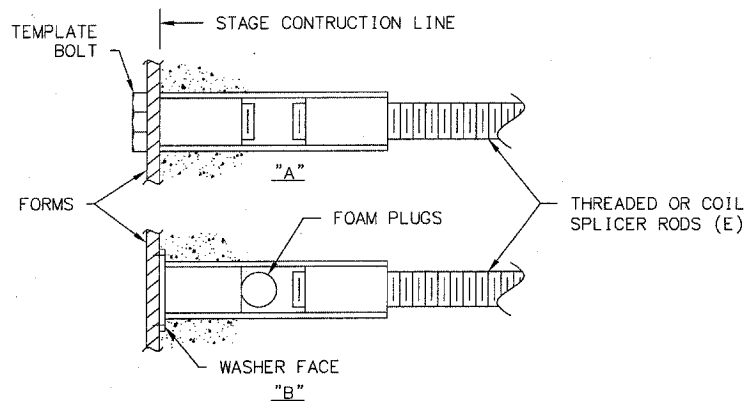
SECTION NO.	COUNTY HIGHWAY	COUNTY	SHEET OF SHEETS
00-00196-08-BR.	47	ST. CLAIR	3 OF 18
FHWA REG. NO. 7	ILLINOIS	FEDERAL AID PROJECT	
CONTRACT 97257			

BAR SPLICER ASSEMBLY DETAILS



BAR SPLICER ASSEMBLY ALTERNATIVES

** HEAVY HEX NUTS CONFORMING TO ASTM A 563, GRADE C, D OR DH MAY BE USED.

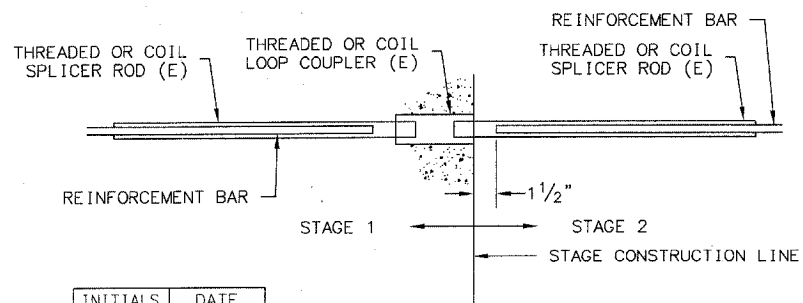


INSTALLATION AND SETTING METHODS

"A" : SET BAR SPLICER ASSEMBLY BY MEANS OF A TEMPLATE BOLT.

"B" : SET BAR SPLICER ASSEMBLY BY NAILING TO WOOD FORMS OR CEMENTING TO STEEL FORMS.

(E) : INDICATES EPOXY COATING.

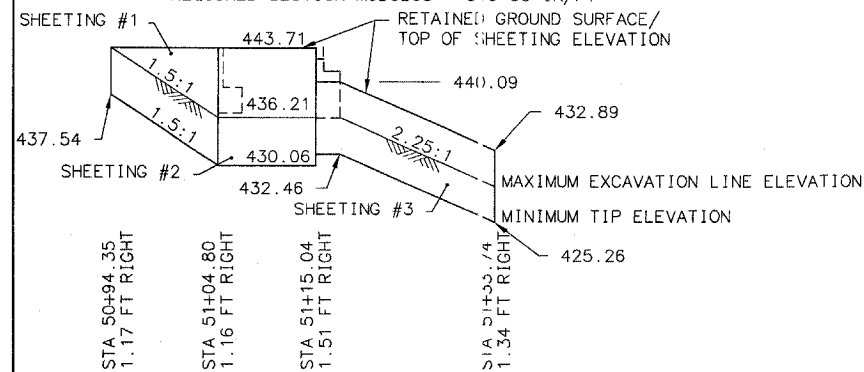


	INITIALS	DATE
DESIGNED	JLH	2/05
CHECKED	-	-
DRAWN	JLH	2/05
CHECKED	-	-
PREPARED BY ST. CLAIR COUNTY		
CADD DRAWING FILE: DETAILS		

TEMPORARY SHEET PILING DETAIL

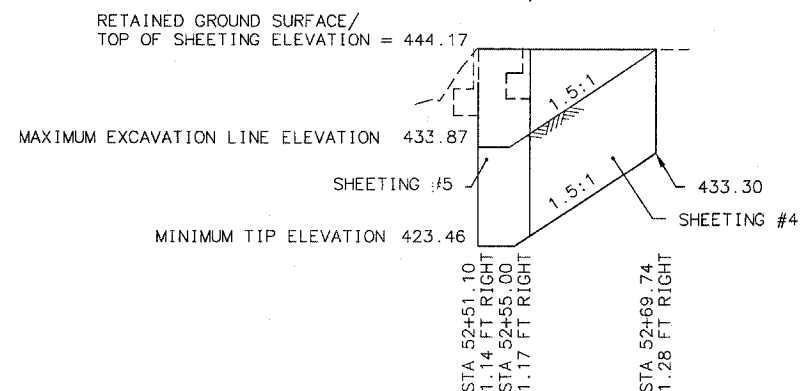
WEST PILING

AREA = 394 SQ FT
REQUIRED SECTION MODULUS = 3.3 CU IN/FT



EAST PILING

AREA = 312 SQ FT
REQUIRED SECTION MODULUS = 8.57 CU IN/FT



NOTES:

IF THE CONTRACTOR CHOOSES TO ALTER THE TEMPORARY CANTILEVER SHEET PILING DESIGN REQUIREMENTS SHOWN ON THE PLANS, A DESIGN SUBMITTAL INCLUDING PLAN DETAILS AND CALCULATIONS WILL BE REQUIRED FOR REVIEW AND ACCEPTANCE BY THE ENGINEER.

SHEET PILING SHALL BE UTILIZED IN SECTIONS TO COINCIDE WITH STAGE CONSTRUCTION.

NOTES:

BAR SPLICER ASSEMBLIES SHALL BE OF AN APPROVED TYPE AND DEVELOPE IN TENSION AT LEAST 125 PERCENT OF THE YIELD STRENGTH OF THE LAPPED REINFORCEMENT BARS. SPLICER RODS SHALL BE OF MINIMUM 60 ksi YIELD STRENGTH, THREADED OR COILED FULL LENGTH. ALL REINFORCEMENT BARS SHALL BE LAPPED AND TIED TO THE SPLICER RODS OR DOWEL BARS. BAR SPLICER ASSEMBLIES SHALL BE EPOXY COATED ACCORDING TO THE REQUIREMENTS FOR REINFORCEMENT BARS.

OTHER SYSTEMS OF SIMILAR DESIGN MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL. APPROVAL SHALL BE BASED ON CERTIFIED TEST RESULTS FROM AN APPROVED TESTING LABORATORY THAT THE PROPOSED BAR SPLICER ASSEMBLY SATISFIES THE FOLLOWING REQUIREMENTS:

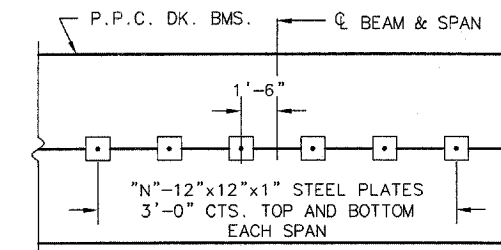
1. MINIMUM CAPACITY (TENSION IN KIPS) = $1.25 \times f_y \times A_1$
2. MINIMUM *PULL-OUT STRENGTH (TENSION IN KIPS) = $1.25 \times f_s \text{ allow} \times A_1$

WHERE f_y = ALLOWABLE TENSILE STRESS IN LAPPED REINFORCEMENT BARS IN ksi.
 $f_s \text{ allow}$ = ALLOWABLE TENSILE STRESS IN LAPPED REINFORCEMENT BARS IN ksi (SERVICE LOAD)
 A_1 = TENSILE STRESS AREA OF LAPPED REINFORCEMENT BARS.
* = 28 DAY CONCRETE

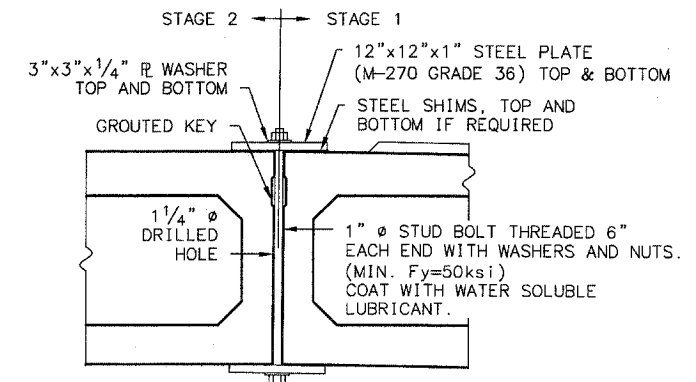
BAR SPLICER ASSEMBLY			
BAR SIZE TO BE SPLICED	SPLICER ROD OR DOWEL BAR LENGTH	STRENGTH REQUIREMENTS	
		MIN CAPACITY kips-TENSION	MIN PULL-OUT STRENGTH kips-TENSION
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#7	3'-5"	45.1	18.0

BAR SPLICER ASSEMBLIES SHALL BE ACCORDING TO SECTION 508 OF THE STANDARD SPECIFICATIONS, EXCEPT AS NOTED.

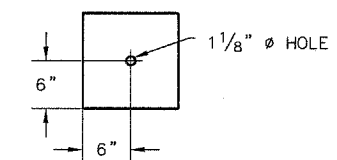
SHEAR KEY CLAMPING DETAIL AT STAGE CONSTRUCTION JOINT



PLAN



SECTION



CLAMPING PLATE

NOTES:

1. SEE SPECIAL PROVISIONS FOR STAGE CONSTRUCTION OF PRECAST PRESTRESSED CONCRETE DECK BEAMS.
2. SEE SHEETS 5 & 6 FOR STAGE CONSTRUCTION DETAILS.
3. COST OF SHEAR KEY CLAMPS ARE INCLUDED IN PRECAST PRESTRESSED CONCRETE DECK BEAMS.

N=6 FOR SPANS UP TO 48 FT.
N=8 FOR SPANS UP TO 64 FT.