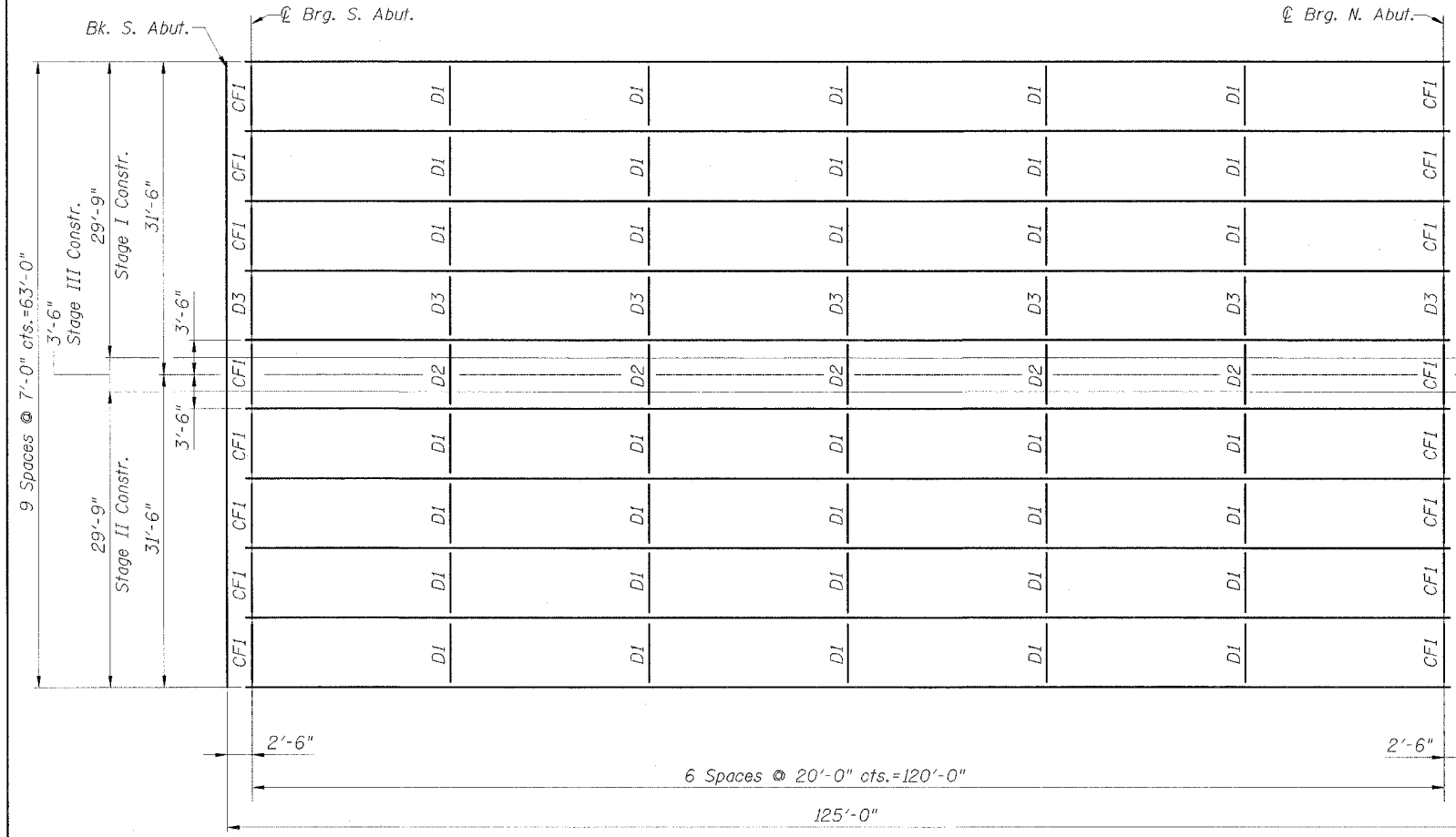
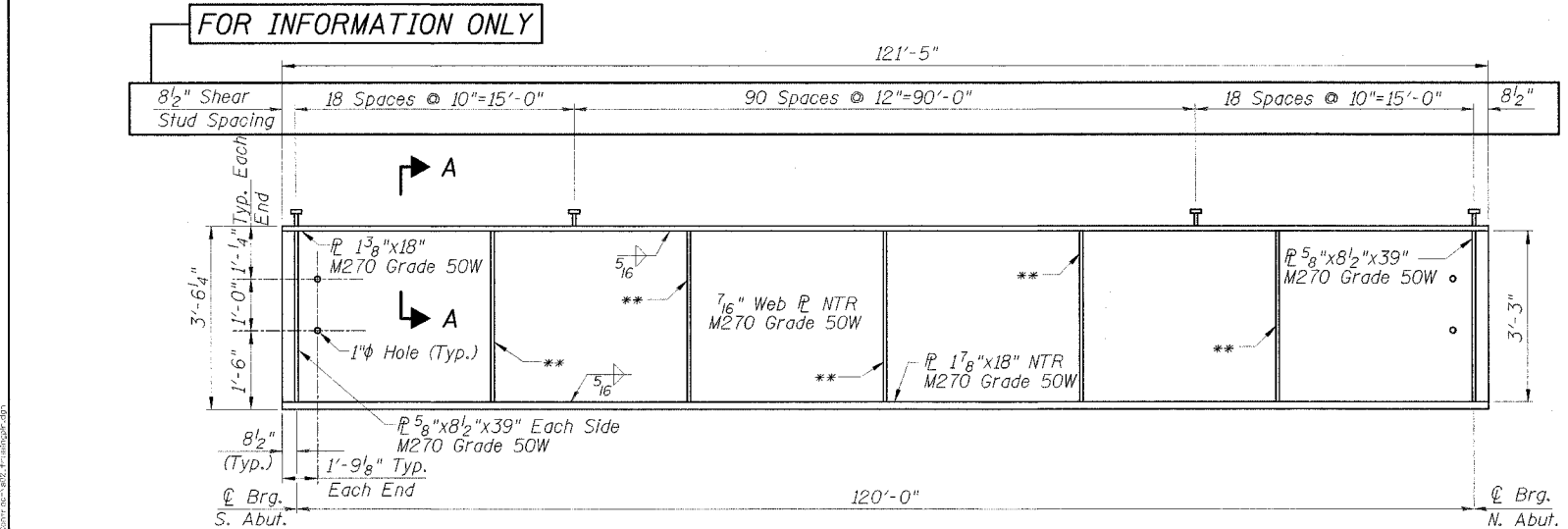


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	57B-3F	COOK	12	4
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

CONTRACT NO. 60887



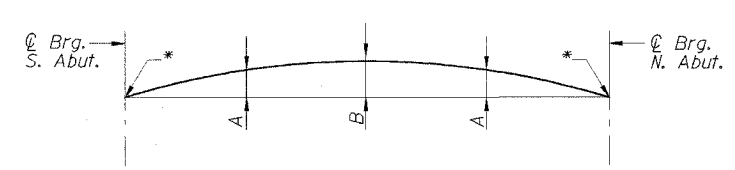
PLAN



GIRDER ELEVATION

"NTR" denotes plates to which notch toughness requirements are applicable.

** \bar{P} 5/8" x 5 1/2" x 38" M270 Grade 50W West face of Web Girder 5, East face of Web Girder 4 Only. See Section at Diaphragm D3



CAMBER DIAGRAM

* Final top of web elevations to be used in computing the bearing's seat elevation.

Girder	A	B
2-4, 7-9	4 3/8"	6 1/4"
5 & 6	3 3/4"	5 1/4"
1 & 10	4"	5 5/8"

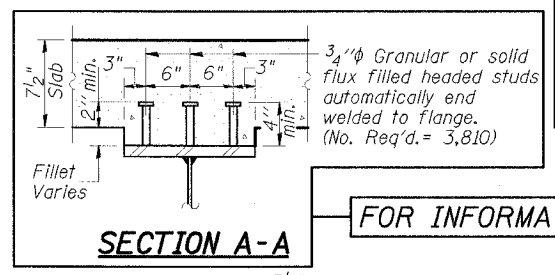
Girder	℄ Brg. S. Abut.	℄ Brg. N. Abut.
1	605.297	605.893
2	605.437	606.033
3	605.577	606.173
4	605.717	606.313
5	605.857	606.453
6	605.857	606.453
7	605.717	606.313
8	605.577	606.173
9	605.437	606.033
10	605.297	605.893

		0.5 Sp. 1
I_s	(in ⁴)	25,882
I_c (n)	(in ⁴)	52,467
I_c (3n)	(in ⁴)	38,757
S_s	(in ³)	1,372
S_c (n)	(in ³)	1,657
S_c (3n)	(in ³)	1,545
I_p	(k/')	0.977
$M\bar{P}$	(k)	1,758
$s\bar{P}$	(k/')	0.825
$M_s\bar{P}$	(k)	1,485
$M\bar{L}$	(k)	1,196
M (Imp)	(k)	244
$S_3[M\bar{L} + M(\text{Imp})]$	(k)	2,400
M_a	(k)	7,337
M_u	(k)	7,457
$f_s\bar{P}$ non-comp	(ksi)	15
$f_s\bar{P}$ (comp)	(ksi)	12
$f_s S_3[M\bar{L} + M(\text{Imp})]$	(ksi)	17
f_s (Overload)	(ksi)	44
f_s (Total)	(ksi)	
V_R	(k)	57

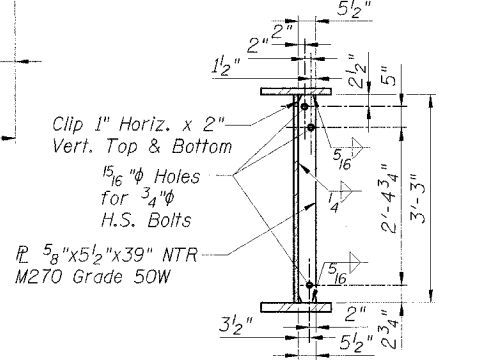
	N. Abut.	S. Abut.
$R\bar{P}$	(k)	94.1
$R_s\bar{P}$	(k)	49.5
$R\bar{L}$	(k)	47.0
Imp.	(k)	9.6
R (Total)	(k)	200.2

* Includes additional superimposed dead load due to utilities.

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total & Overload).
 I_c (n) and S_c (n) are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.
 I_c (3n) and S_c (3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads.
 V_R is the maximum live Load + Impact shear range in span.
 M_a (Applied Moment) = $1.3[M\bar{P} + M_s\bar{P} + S_3(M\bar{L} + I)]$.
 M_u is the Full Plastic Moment Capacity for Compact, Braced section.
 f_s (Overload) is the sum of the stresses due to $M\bar{P} + M_s\bar{P} + S_3(M\bar{L} + I)$.
 f_s (Total) is the sum of the stresses due to $1.3[M\bar{P} + M_s\bar{P} + S_3(M\bar{L} + I)]$.
 $M\bar{P}$ Moment due to dead loads on non-composite section.
 $M_s\bar{P}$ Moment due to dead loads on composite section.
 $M\bar{L}$ Moment due to live load on non-composite or composite section.
 $M(\text{Imp})$ Moment due to live load impact on non-composite or composite section.

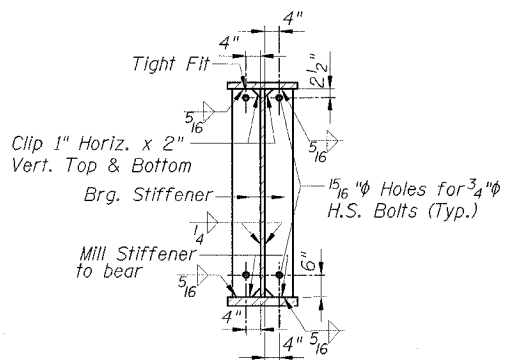


SECTION A-A FOR INFORMATION ONLY



SECTION AT DIAPHRAGM D3

(Girder 4 shown, Girder 5 similar)



SECTION AT ABUTMENT

Notes:
 1. For diaphragm details see Sheet S3.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Furnishing Structural Steel	L. Sum	1

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FRAMING PLAN & DETAILS
 FAP 350 IL ROUTE 50 (CICERO AVE.) OVER
 NORTH BRANCH OF THE CHICAGO RIVER
 COOK COUNTY STATION 23+65.80
 SECTION 57B-3F
 STRUCTURE NO. 016-2782

NAME	DATE

SCALE: NONE
 DATE: 6/29/06
 DRAWN BY: G. Hatlestad
 CHECKED BY: P. Lopez