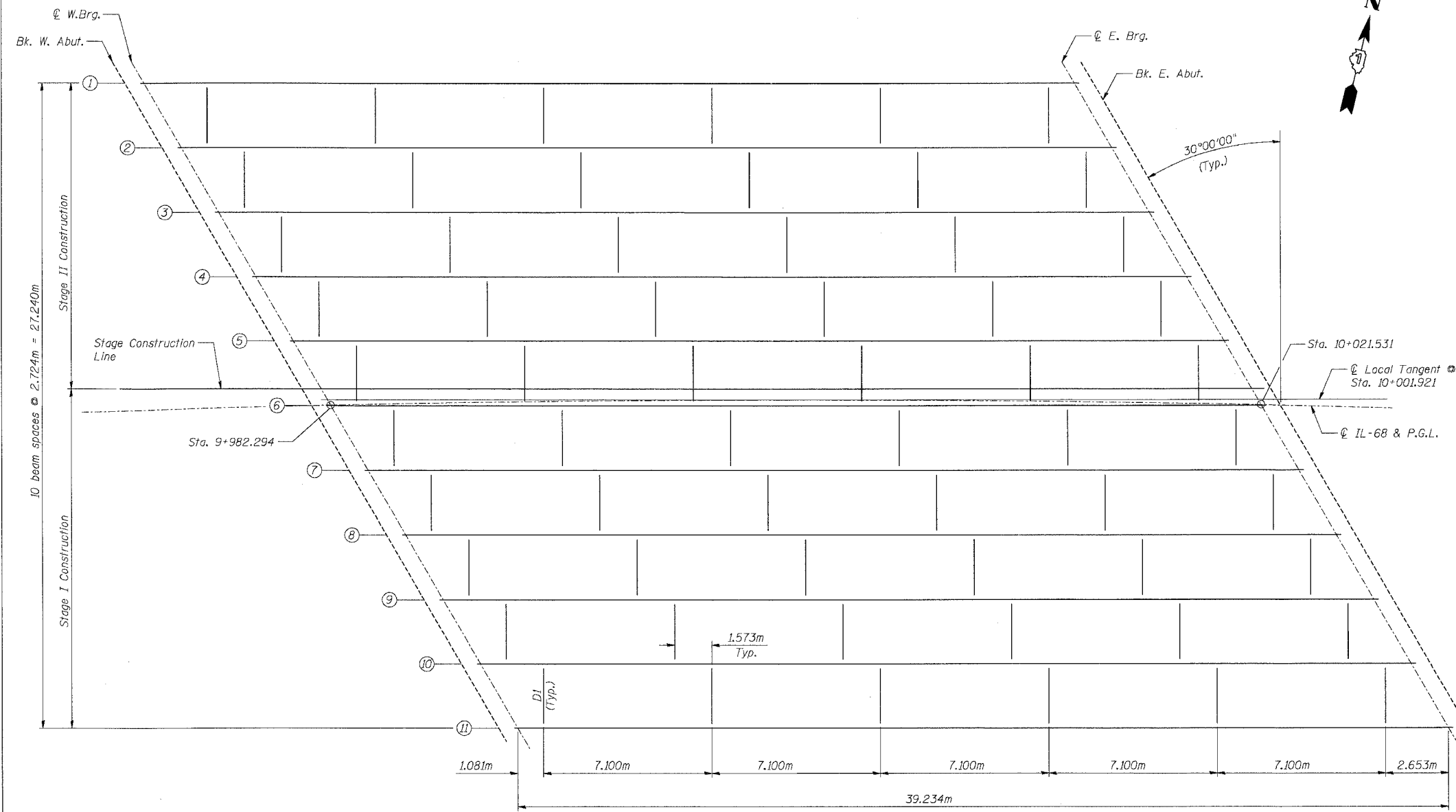


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343		COOK	24	9
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
70HB-F & 70D-Y-B-F CONTRACT NO. 60B70				



FRAMING PLAN

MOMENT AND REACTION TABLES

INTERIOR GIRDER MOMENT TABLE		
		0.5 Span
I_s	(10^8 mm^4)	11171
$I_c (n)$	(10^8 mm^4)	30779
$I_c (3n)$	(10^8 mm^4)	20799
S_s	(10^3 mm^3)	28749
$S_c (n)$	(10^3 mm^3)	37944
$S_c (3n)$	(10^3 mm^3)	34861
Z	(10^3 mm^3)	-
DL	(kN/m)	16.60
M_{dl}	(kN*m)	3194
s DL	(kN/m)	7.48
M_{sDL}	(kN*m)	1439
MLL	(kN*m)	2245
$M (Imp)$	(kN*m)	442
$5/3[MLL + M(Imp)]$	(kN*m)	4478
M_u	(kN*m)	11844
M_u	(kN*m)	13603
$f_s \text{ DL non-comp}$	(MPa)	111
$f_s \text{ DL (comp)}$	(MPa)	41
$f_s \text{ } 5/3[MLL + M(Imp)]$	(MPa)	118
$f_s \text{ (Overload)}$	(MPa)	270
$f_s \text{ (total)}$	(MPa)	
VR	(kN)	291

INTERIOR GIRDER REACTION TABLE		
		Abut.
RDL	(kN)	472
RLL	(kN)	243
Imp.	(kN)	48
R (Total)	(kN)	763

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_{cn} and S_{cn} are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.
 I_{c3n} and S_{c3n} are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)
 VR is the maximum Live Load + Impact shear range in span.
 Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.
 M_u (Applied Moment) = $1.3[M_{DL} + M_{sDL} + 5_3(M_{LL} + M_{Imp})]$.
 The Plastic Moment capacity (M_u) is computed according to AASHTO 10.48.1 and 10.50.1.1.
 f_s (Overload) is the sum of the stresses due to $M_{DL} + M_{sDL} + 5_3(M_{LL} + M_{Imp})$.
 f_s (Total) (Non-compact section) is the sum of the stresses due to $1.3[M_{DL} + M_{sDL} + 5_3(M_{LL} + M_{Imp})]$.

NOTE:
 For Girder elevation, diaphragm details, and top of girder elevations see Sht. S-10 of S-24.

REVISIONS	
NAME	DATE

SHT. S-09 OF S-24
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 68 OVER US-14 & UPRR
 F.A.P. ROUTE 343 SECTION 70HB-F & 70D-Y-B-F
 COOK COUNTY
 STRUCTURE NO. 016-2861 & 016-2732
 FRAMING PLAN & MOMENT TABLE - SN 016-2861
 DESIGNED: BTO DRAWN: BTO
 DATE: 6/06 CHECKED: JAN CHECKED: JAN