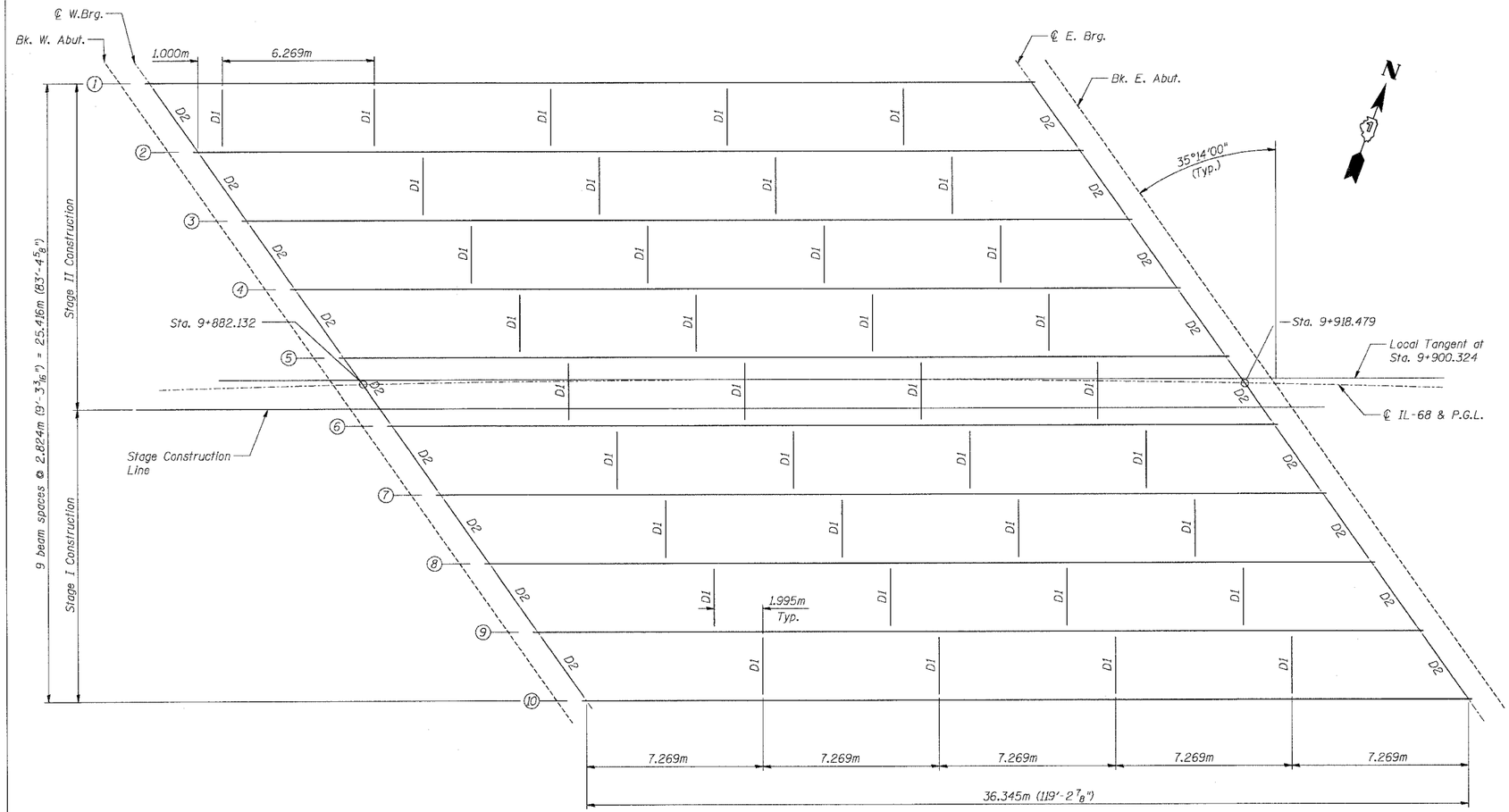
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	172
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62897



FRAMING PLAN

MOMENT AND REACTION TABLES

INTERIOR GIRDER MOMENT TABLE		
		0.5 Span
Is	(10^6 mm^4)	10137
Ic (n)	(10^6 mm^4)	28629
Ic (3n)	(10^6 mm^4)	19316
Ss	(10^3 mm^3)	26763
Sc (n)	(10^3 mm^3)	35632
Sc (3n)	(10^3 mm^3)	32729
Z	(10^3 mm^3)	-
DL	(kN/m)	17.03
Mdl	(kN*m)	2813
s DL	(kN/m)	9.05
MsDL	(kN*m)	1494
MLL	(kN*m)	2134
M (Imp)	(kN*m)	437
5/3[MLL + M(Imp)]	(kN*m)	4285
Ma	(kN*m)	11169
Mu	(kN*m)	12806
fs DL non-comp	(MPa)	105.1
fs DL (comp)	(MPa)	46
fs 5/3[MLL + M(Imp)]	(MPa)	120
fs (Overload)	(MPa)	271
fs (total)	(MPa)	
VR	(kN)	300

INTERIOR GIRDER REACTION TABLE		
		Abut.
RDL	(kN)	474
RLL	(kN)	249
Imp.	(kN)	51
R (Total)	(kN)	774

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

Ic(3n) and Sc(3n) 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.

Ma (Applied Moment)=1.3[M_D + M_{SD} + 5_3(M_L + M(Imp))].

The Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.

fs (Overload) is the sum of the stresses due to M_D + M_{SD} + 5_3(M_L + M(Imp)).

fs (Total) (Non-compact section) is the sum of the stresses due to 1.3[M_D + M_{SD} + 5_3(M_L + M(Imp))].

NOTE:
For Girder elevation, diaphragm details, and top of girder elevations see Sht. S-19 of S-34.

SHT. S-18 OF S-34

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 68 OVER UPRR
F.A.P. ROUTE 343 SECTION 70D-Y-B-R
COOK COUNTY STATION 9+900.324
STRUCTURE NO. 016-2732

FRAMING PLAN & MOMENT TABLE

DESIGNED: BTO DRAWN: BTO
DATE: 10/06 CHECKED: JAN CHECKED: JAN

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