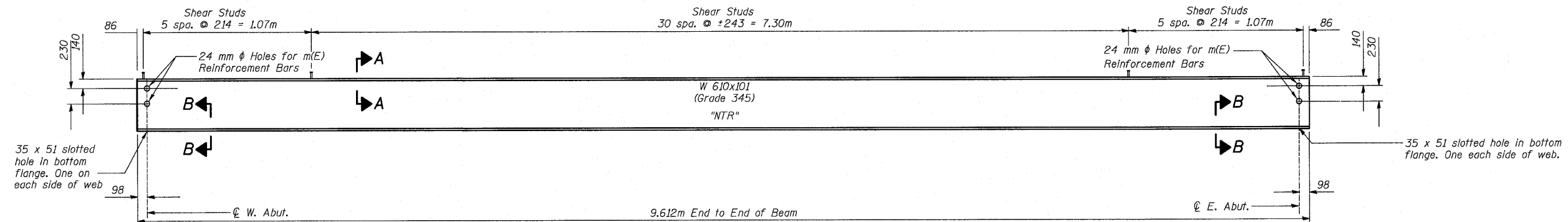


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

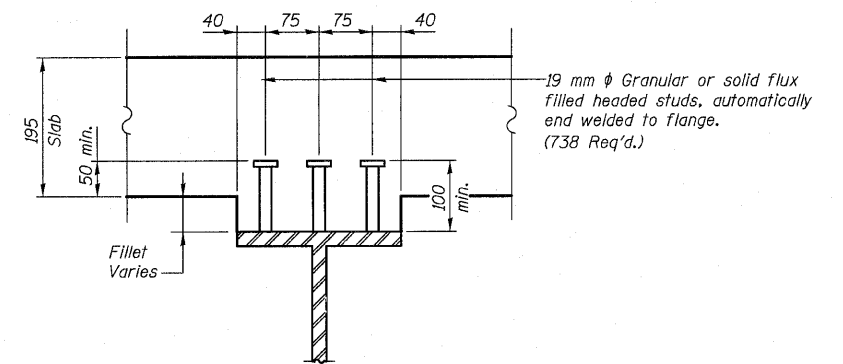
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 303 IL 173	134(B&B-2)R-1	LAKE	137	75
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 12
17 SHEETS



GIRDER ELEVATION
(Looking North)

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.



	0.5 Sp. 1
I_s (10^6 mm^4)	764
I_c (n) (10^6 mm^4)	2876
I_c (3n) (10^6 mm^4)	2205
S_s (10^3 mm^3)	2534
S_c (n) (10^3 mm^3)	4487
S_c (3n) (10^3 mm^3)	4029
\bar{D} (kN/m)	12.4
$M\bar{D}$ (kN·m)	134
$s\bar{D}$ (kN/m)	7.23
$Ms\bar{D}$ (kN·m)	86
$M\bar{L}$ (kN·m)	365
M (Imp) (kN·m)	110
$S_3[M\bar{L} + M(\text{Imp})]$ (kN·m)	837
Ma (kN·m)	1374
Mu (kN·m)	1821
$fs\bar{D}$ (non-comp) (MPa)	57.6
$fs\bar{D}$ (comp) (MPa)	21.3
$fs\bar{S}_3$ (L + Imp) (MPa)	188
fs (Overload) (MPa)	263
VR (kN)	235

	Abuts.
$R\bar{D}$ (kN)	95.6
$R\bar{L}$ (kN)	180.8
Imp. (kN)	54.2
R (Total) (kN)	330.6

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.
 VR is the maximum Live Load + Impact shear range in span.
 Ma (Applied Moment) = $1.3[M\bar{D} + Ms\bar{D} + S_3(M\bar{L} + M(\text{Imp}))]$.
 The Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.
 f_s (Overload) is the sum of the stresses due to $M\bar{D} + Ms\bar{D} + S_3(M\bar{L} + M(\text{Imp}))$.

TOP OF GIRDER ELEVATIONS
(FOR FABRICATION ONLY)

Location	℄ W. Abut.	℄ E. Abut.
Girder 1	227.772	227.697
Girder 2	227.969	227.895
Girder 3	228.166	228.092
Girder 4	228.363	228.289
Girder 5	228.560	228.486
Girder 6	228.757	228.683

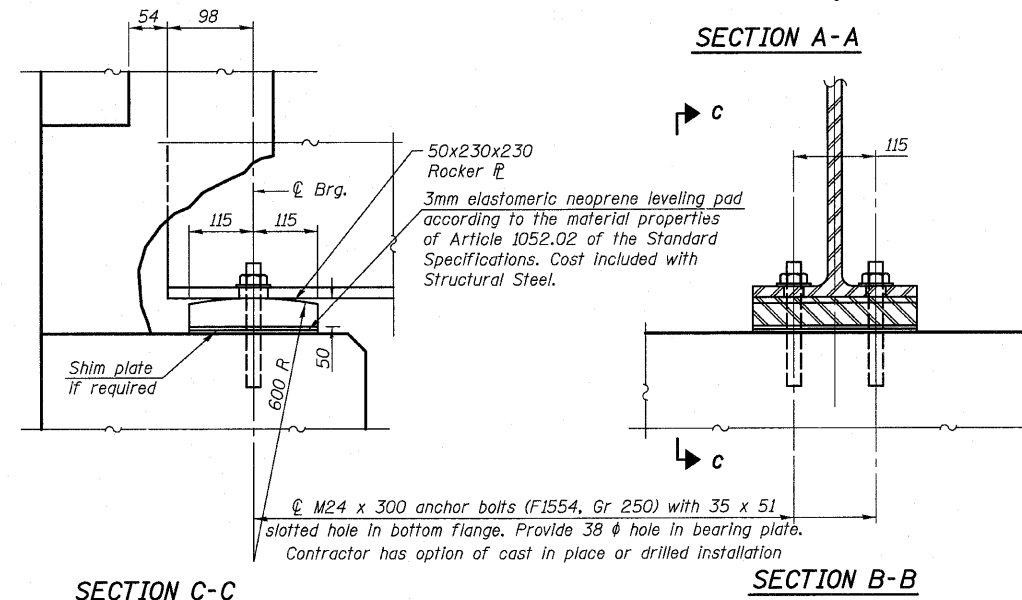
NOTES

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 250 ($F_y=250\text{MPa}$). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Bearings and Structural Steel are Furnished in a separate contract. Cost for erecting these items is included in this contract as "Erecting Structural Steel"



FIXED BEARING

DESIGNED	PAT2
CHECKED	RCJ/JRF
DRAWN	RDS
CHECKED	PAT2



**FRAMING DETAILS AND
DESIGN DATA TABLES
FAP 303 IL. ROUTE 173
OVER WEST BOAT CHANNEL
SECTION 134(B&B-2)R-1
LAKE COUNTY
STATION 25+098.390
STRUCTURE NO. 049-0055**