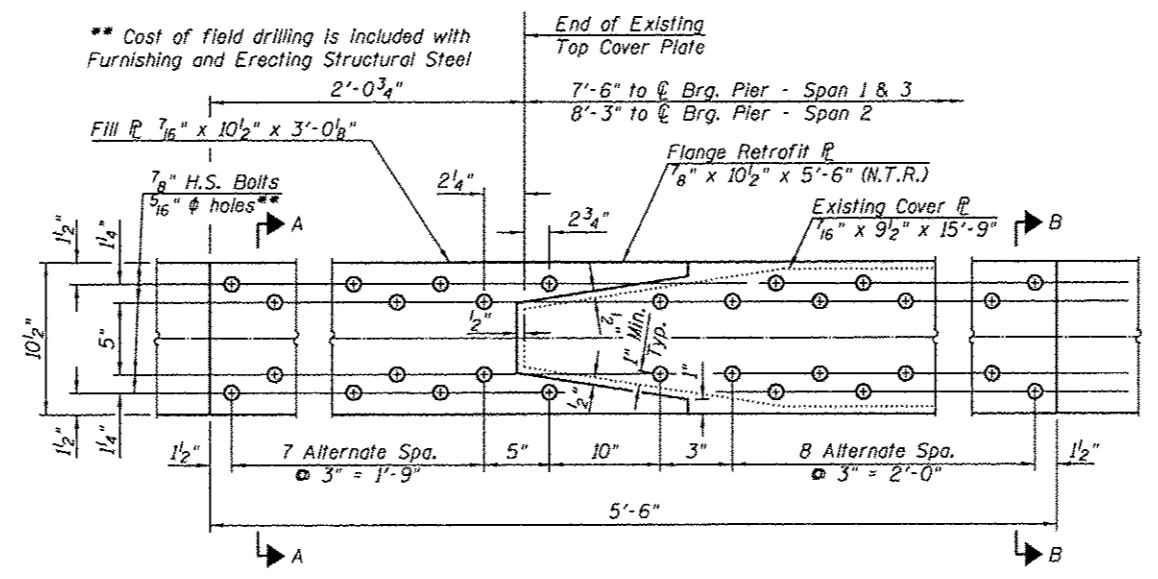


EXTERIOR BEAM MOMENT TABLE			
	0.4 Sp. 1 or 0.6 Sp. 3	Pier	0.5 Sp. 2
I_s	(in ⁴) 4470	6370	4470
$I_c(n)$	(in ⁴) 12865	--	12865
$I_c(3n)$	(in ⁴) 9756	--	9756
S_s	(in ³) 299	415	299
$S_c(n)$	(in ³) 459	--	459
$S_c(3n)$	(in ³) 417	--	417
Z	(in ³) 656	466	656
ρ	(k/')	0.910	0.880
$M\rho$	(k)	441	199
$S\rho$	(k/')	0.030	0.030
$M_s\rho$	(k)	12	9
M_t	(k)	251	418
M_i	(k)	65	105
$M_s [M_t + i]$	(k)	527	872
M_o	(k)	1274	1404
M_u	(k)	1399	1968
$f_s\rho$ non-comp	(ksi)	12.8	8.0
$f_s\rho$ (comp)	(ksi)	0.3	0.3
$f_s^s [M_t + M_i]$	(ksi)	15.2	22.8
f_s (Overload)	(ksi)	28.3	31.1
f_s (Total)	(ksi)	--	--
VR	(k)	--	40.5

EXTERIOR BEAM REACTION TABLE		
	Abut.	Pier
$R\rho$	(k) 20.1	68.7
R_t	(k) 33.3	42.4
R_i	(k) 9.0	11.0
R_{Total}	(k) 62.4	122.1

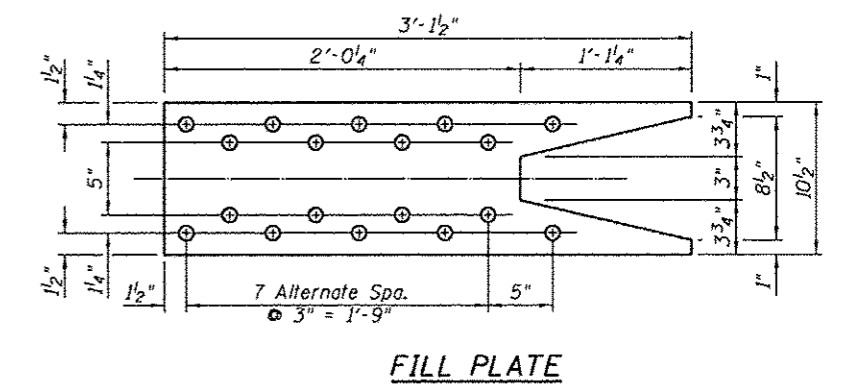
* Compact section

- I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in⁴ and in³).
- $I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in⁴ and in³).
- $I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in⁴ and in³).
- Z : Plastic Section Modulus of the steel section in non-composite areas (in³).
- DL: Un-factored non-composite dead load (kips/ft.).
- M_{DL} : Un-factored moment due to non-composite dead load (kip-ft.).
- s_{DL} : Un-factored long term composite (superimposed) dead load (kips/ft.).
- M_{SDL} : Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
- M_{LL} : Un-factored live load moment (kip-ft.).
- M_i : Un-factored moment due to impact (kip-ft.).
- M_o : Factored design moment (kip-ft.).
- $1.3[M_{DL} + M_{SDL} + 5/3(M_{LL} + M_i)]$
- M_u : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).
- f_s (Overload): Sum of stresses as computed from the moments below (ksi).
 $M_{DL} + M_{SDL} + 5/3(M_{LL} + M_i)$
- f_s (Total): Sum of stresses computed from the moments below on non-compact section (ksi).
 $1.3[M_{DL} + M_{SDL} + 5/3(M_{LL} + M_i)]$
- VR: Maximum LL + Impact shear range within the composite portion of the span for stud shear connector design (kips).



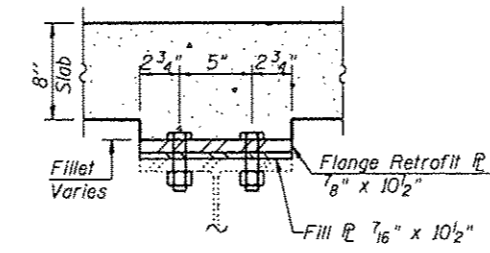
Note: One Fill ρ and one flange Retrofit plate required at each end of each top flange existing cover plate.

COVER PLATE RETROFIT DETAILS

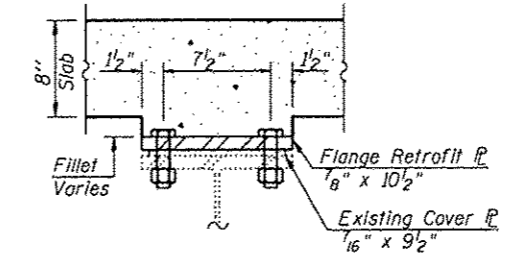


FILL PLATE

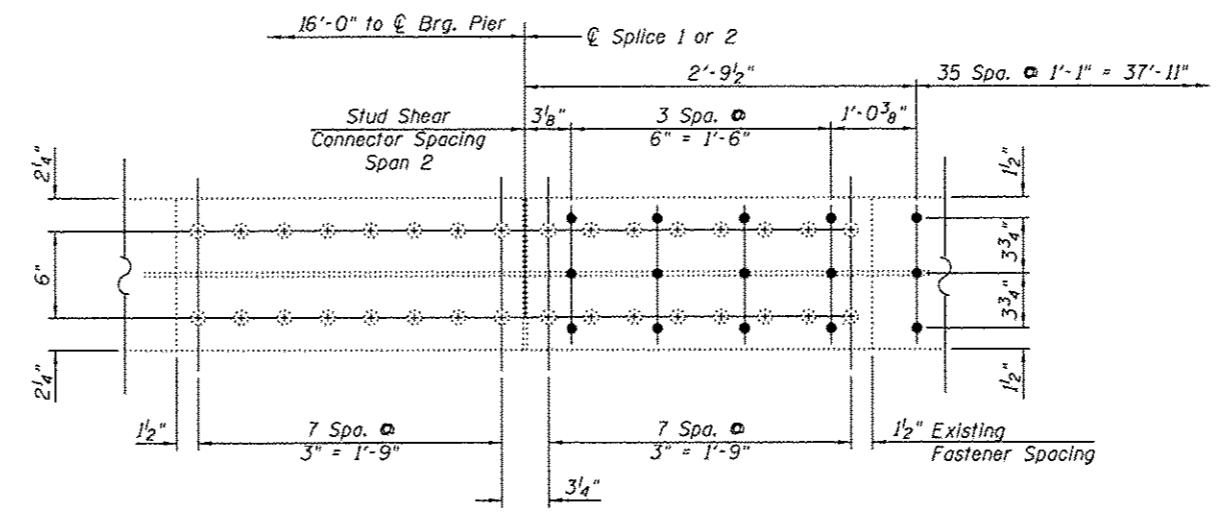
Notes:
Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts $7/8$ inch ϕ , holes $9/16$ inch ϕ , unless otherwise noted.
All structural steel shall be AASHTO M270 Grade 36, except that AASHTO M270 Grade 50 may be used as an alternate.
Load carrying components designated "N.T.R." shall conform to the Impact Testing Requirement, Zone 2.



SECTION A-A



SECTION B-B



VIEW B-B EXISTING FLANGE SPLICE DETAIL

Showing location of new $3/4$ inch ϕ granular or solid Flux filled headed studs on existing top flange splice ρ .