

BELOW 50°F.

@ Bott. Bro

← © Top Brg.

ABOVE 50°F.

(Move bott, brg, away from fixed brg.) (Move bott, brg, toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

 $D=l_8$ " per each 100' of expansion for every 15° temp. change from the normal temp, of 50°F.

Notes:

- 1. See Special Provision for "Jack and Remove Existing Bearings". 2. Jacking and cribbing for beams at Pier 3 shall be performed such that they can remain supported while the specified structural repairs are performed. Cost included with Jack and Remove Existing Bearings. See Substructure Repairs sheet.
- 3. The minimum jack capacity for lifting the beams, at each bearing location, shall be 280 kips at Pier 3 under Dead Load only.
- 4. 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 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- Anchor bolts for Type II bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after bearings are in place. Side retainers shall be placed after bolts are installed.
- 6. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
- 7. Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.
- 8. The 18" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The
- bond agent shall be applied on the full area of the contact surfaces.

 9. Bonding of 'g" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.
- 10. The structural steel plates of the Bearing Assembly and Steel Extension
- shall conform to the requirements of AASHTO M 270 Grade 36.

 11. Two $^{l}_{8}$ " adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
- 12. The anchor bolt size and grades shown constitute a calculated seismic structural fuse. Substitution of higher diameter and/or grade anchor bolts
- will not be allowed.

 13. Field drilling for holes is not anticipated, but if necessary, diaphragm removal and reinstallation may be required to facilitate drilling holes.
- 14. Cost included with Furnishing and Erecting Structural Steel. Prior to ordering any material, the Contractor shall verify in the field all existing bearing heights and required Steel Extension dimensions.

BILL OF MATERIAL

Item	Unit	Total
Jack and Remove Existing Bearings	Each	6
Elastomeric Bearing Assembly, Type II	Each	6
Anchor Bolts, 1 ¹ 2"	Each	12
Furnishing and Erecting Structural Steel	Pound	2,090

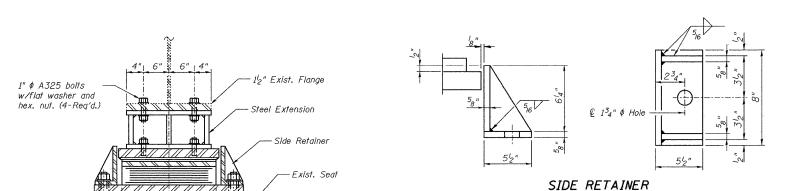
BEARING DETAILS 2 OF 2 STRUCTURE NO. 022-0106

SHEET NO.

alfred benesch & compan

SHEE 19

ET NO. 10	F.A.I. RTE.	SECTION "			COUNTY	TOTAL SHEETS	SHEE NO.	
110. 12	290		2009	-115I		DUPAGE	27	15
SHEETS						CONTRACT	NO. 60)J34
	FED. RO	AD DIST.	NO.	ILLINOIS	FED. A	AID PROJECT		



C $1_2''$ ϕ x 1'-6" Anchor bolts (F1554 Grade 36) with 3" x 3" x 5_6 " P_C washer under nut.

2" & Holes in bottom P.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

ELEVATION AT PIER 3 (Looking North)

-- € Brg.

Exist. 1" \(\phi \) bolts to be removed and exist, holes to be reused.

> Steel Extension (Dimensioned @ @ Brg.)

- Rearina

pad according to the material properties of Article 1052.02(a) of the Standard

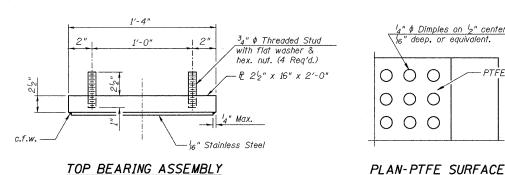
Elastomeric Bearing Assembly, Type II.

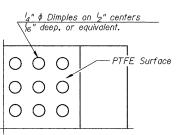
18" elastomeric neoprene leveling

Specifications. Cost included with

Assembly

TYPE II ELASTOMERIC EXP. BRG.





SECTION C-C

typ. req'd) typ.

SECTION D-D

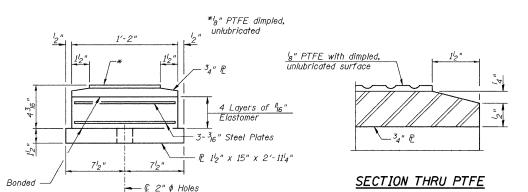
D◀ D **4**

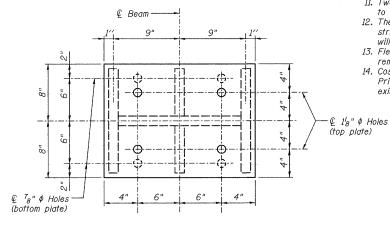
C Beam-

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

ELEVATION STEEL EXTENSION

(Weight included with Furnishing and Erecting Structural Steel.)





PLAN STEEL EXTENSION

BOTTOM BEARING ASSEMBLY

DESIGNED

CHECKED

CHECKED -

DRAWN

KWS

RMG

LOCATION	DEAD	LIVE	IMPACT	TOTAL
	LOAD	LOAD	LOAD	LOAD
Pier 3	139.8	74.5	15.7	230.0

EXISTING BEAM REACTION TABLE						
LOCATION	LOCATION DEAD LOAD		IMPACT LOAD	TOTAL LOAD		
Pier 3	139.8	74.5	15.7	230.0		

Indicates bearing removal -Burn existina anchor bolts flush with existing concrete surface. Grind existing anchor bolt smooth and seal with epoxy.

-Remove existing bolts

EXISTING BEARING REMOVAL AT PIER 3

Cost included with Jack and Remove Existing Bearings.

benesch Engineers - Surveyors - Planners 205 North Michigan Avenue, Suite 2400 Chicago, Illinois 60801 Job No. 10032.13 12-685-0450 Job No. 10032.13