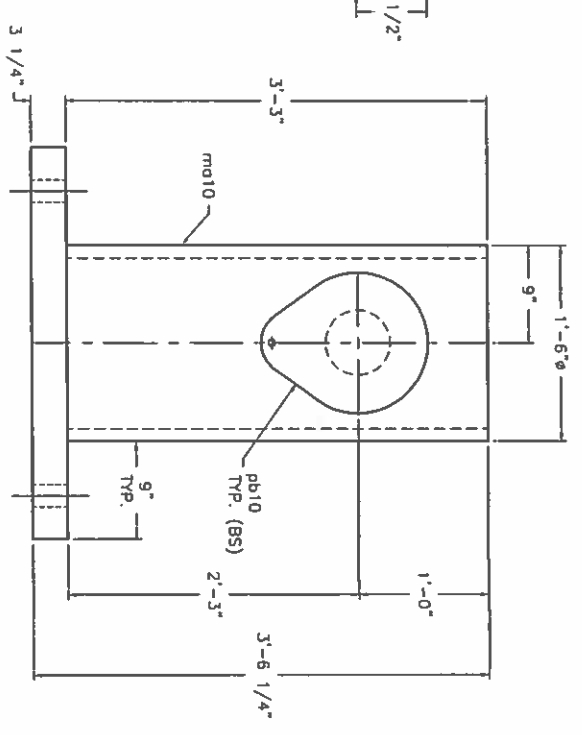
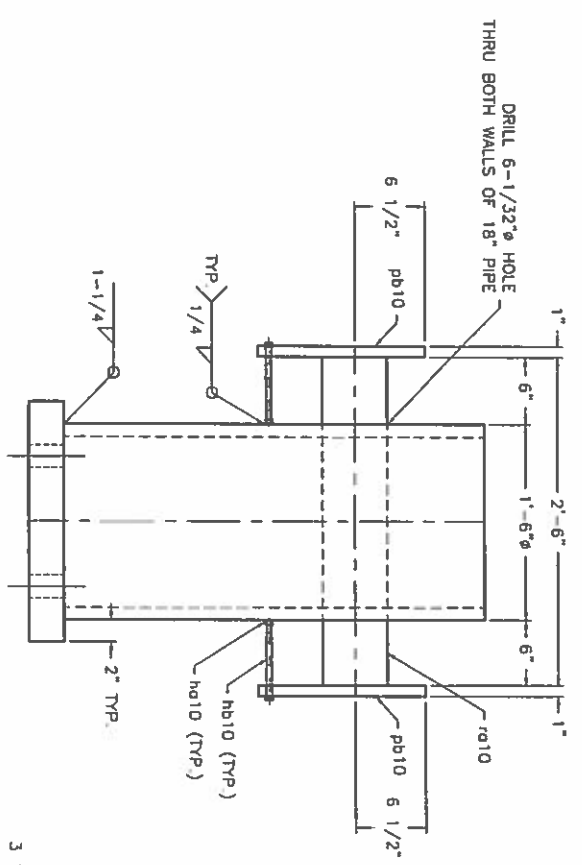
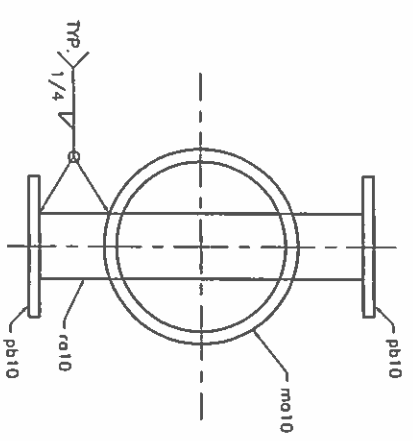


TRUNNION LIFTING ATTACHMENTS SHALL BE CLEARLY AND PERMANENTLY MARKED WITH THE FOLLOWING INFORMATION:

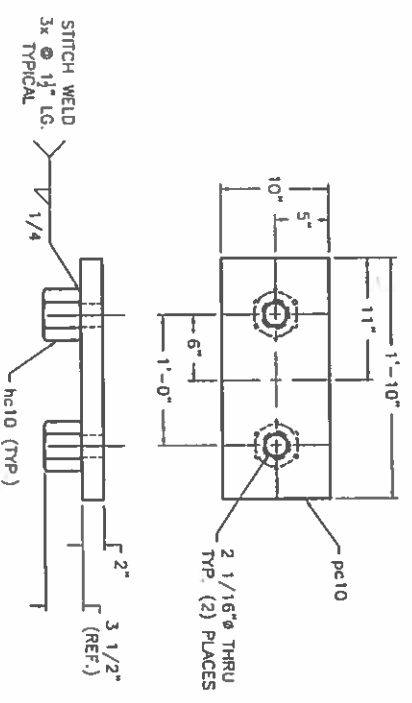
DESIGN PER ASME BTH-1-2011  
 DESIGN CATEGORY: A  
 SERVICE CLASS: 0  
 WEIGHT: 1,720 LB  
 CAPACITY: 367 KIP

\*SUPPLIED BY CUSTOMER

QTY	MARK	SHAPE	LENGTH	REMARKS	ITEMS
1	MK-10A		3'-0"	LIFTING TRUNNION DETAIL	
32	pb10	PL 3/4" x 1'-10"	3'-3"	ASTM A572 - GRADE 50	
32	mo10	PIPE 18" SCH 100	3'-3"	ASTM A106-B	
32	ro10	ROUND BAR 6"	2'-6"	ASTM A572 - GRADE 50	
64	pb10	PL 1" x 1'-1"	1'-3 1/2"	ASTM A572 - GRADE 50	
64	ho10	HEX NUT 1/2"-11UNC	N/A	GRADE 5	
64	bo10	BOLT 1/2"	7"	GRADE 5	
480	MK-10B			BEARING PLATE DETAIL	
480	pe10	PL 7" x 10"	1'-10"	ASTM A572 - GRADE 50	
960	hc10	WILLIAMS HEX NUT 1-3/4"	N/A	R73-14 150KSI, ASTM A29	

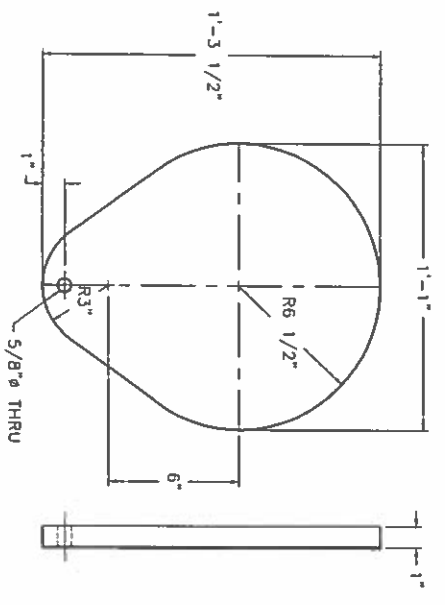


- MATERIAL NOTES:**
- STRUCTURAL SHAPES - PLATES AND BARS TO BE ASTM A572, GR 50
  - HIGH STRENGTH ALL-TREAD RODS AND HARDWARE
  - 2.1 WILLIAMS ROD R71-14 150KSI, ASTM A772
  - 2.2 WILLIAMS HEX NUT R73-14 150KSI, ASTM A29
  - 2.3 WILLIAMS HARDENED WASHER R9F-16-436 150KSI, ASTM F436
  - PIPE TO BE SCH 100, ASTM A106, GR B
  - ALL WELDS TO BE MADE WITH E70XX ELECTRODES (PER AWS D1.1)
  - ALL WELDS TO RECEIVE 100% VT INSPECTION.
  - 100% MT INSPECTION AT BASE PLATES.



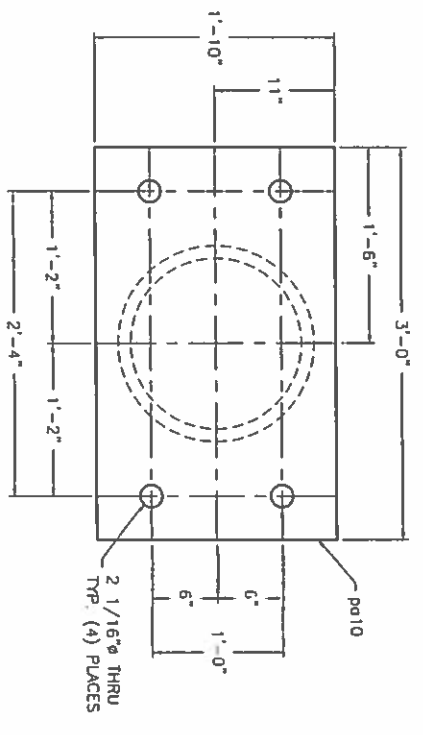
(480) ~ BEARING PLATE DETAIL ~ MK-10B

NO FINISH REQUIRED - SHIP BARE



ITEM "pb10" DETAIL

SEE BOM FOR QTY.  
SCALE: 2X



(THIRTY-TWO) ~ LIFTING TRUNNION DETAIL ~ MK-10A

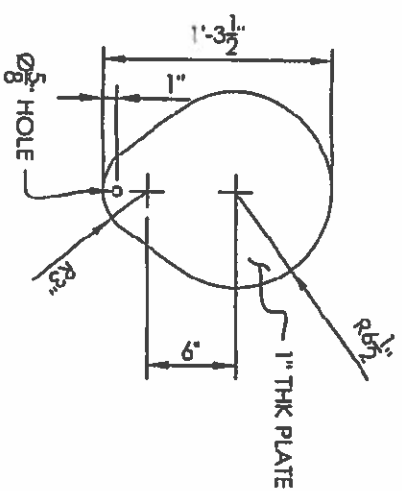
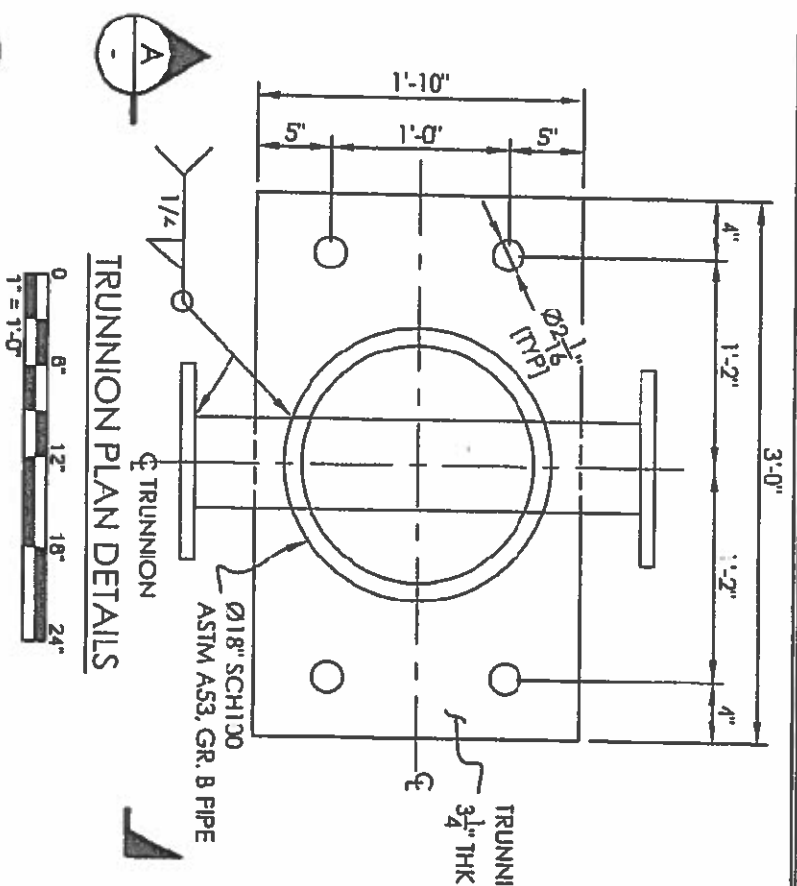
SURFACE PREP: SSPC-SP8  
 FINISH: 1-COAT OF SHERWIN WILLIAMS MACROPOXY 646  
 DRY FILM THICKNESS: 4-6 mils  
 COLOR: YELLOW

QTY	FIELD BOLTS	PRINT RECORD	DATE
			2/27/2014
			2/27/2014

REV.	DATE	DESCRIPTION
A	3/17/14	ADDED CLOUDED RING
B	3/17/14	ISSUED FOR FABRICATION
C	3/17/14	SUBMITTED FOR REVIEW / APPROVAL

**L&M Fabrication & Machine Inc.**  
 A Small Business Business (VBE)  
 6140 Churchill Drive  
 P.O. Box 124 Bala, Pa. 19014  
 Tel. 610 837 1848 Fax 610 837 3442

TITLE: NEW YORK STATE THRUWAY AUTHORITY  
 TAPPAN ZEE HUDSON RIVER CROSSING  
 MISCELLANEOUS STEEL DETAILS  
 DWG NO. DW-10  
 SCALE: 1" = 8"  
 PROJECT #: A1416

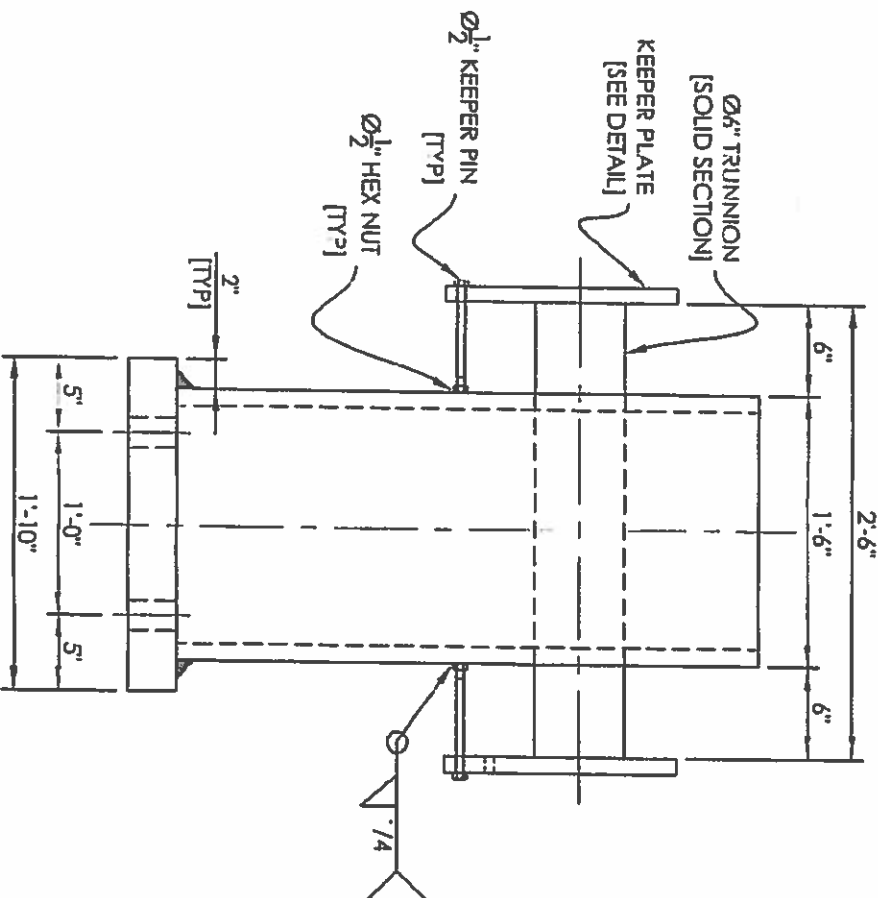
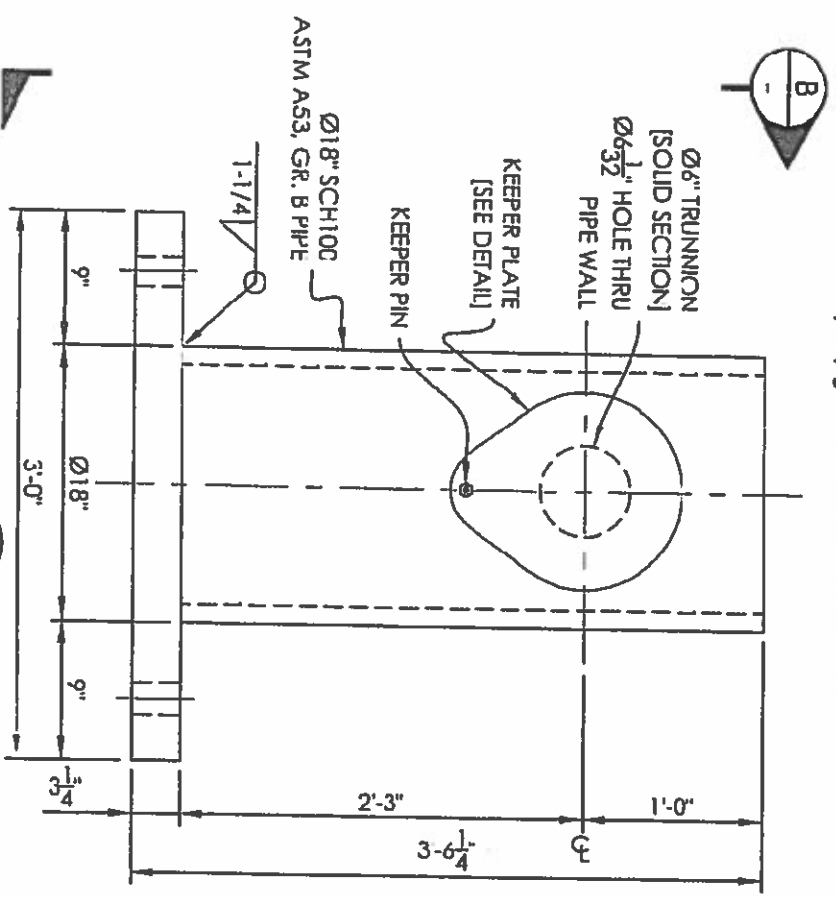


TRUNNION LIFTING ATTACHMENT SHALL BE CLEARLY AND PERMANENTLY MARKED W/ THE FOLLOWING INFORMATION:

DESIGN PER ASME BTH-1-2011  
 DESIGN CATEGORY: A  
 SERVICE CLASS: 0  
 WEIGHT: 1,720 LB  
 CAPACITY: 367 KIP

MATERIAL NOTES:

1. STRUCTURAL SHAPES - PLATES AND BARS TO BE ASTM A572, GR. 50
2. HIGH STRENGTH ALL THREADED RODS & HARDWARE
  - 2.1. WILLIAMS ROD R7-14 150 KSI, ASTM A722
  - 2.2. WILLIAMS HEX NUT R7-3-14 150KSI ASTM A29
  - 2.3. WILLIAMS HARDENED WASHER R9F-16-436 150 KSI, ASTM F436
3. PIPE TO BE SCH100, ASTM A53, GR. B
4. ALL WELDS TO BE MADE WITH E70XX ELECTRODES



SECTION A  
1" = 1'-0"

SECTION B  
1" = 1'-0"

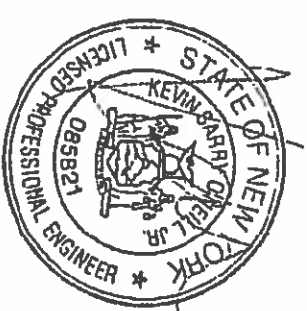
IT IS A VIOLATION OF THE PROFESSIONAL LICENSE LAW FOR ANY PERSON TO ALTER THE DRAWING IN ANY WAY UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER/ARCHITECT AS APPLICABLE. THE ALTERING ENGINEER/ARCHITECT SHALL AFFIX HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF ALTERATION.

CONTRACTOR:  
TAPPAN ZEE CONSTRUCTORS, LLC

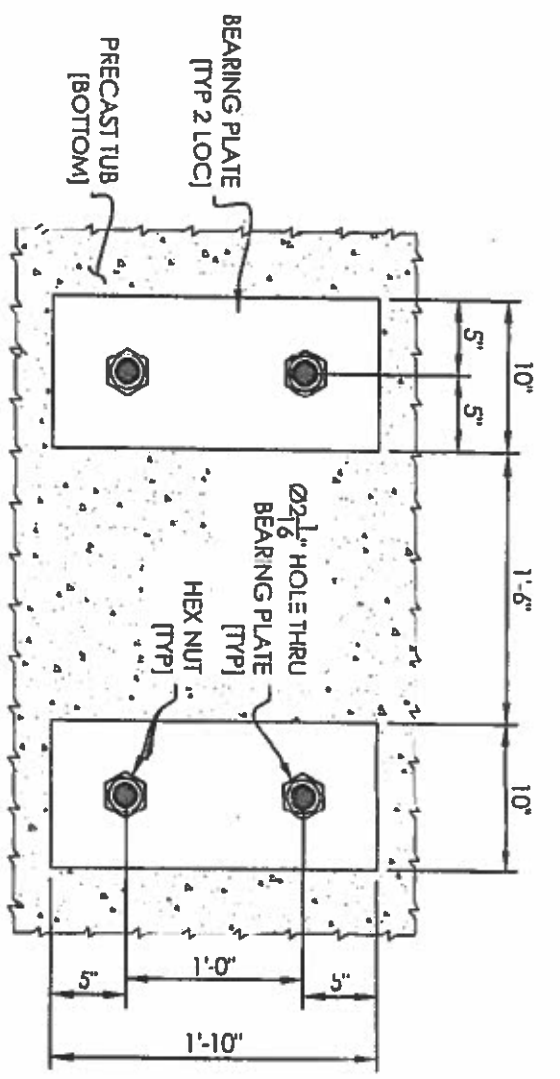
CONSTRUCTION ENGINEER:  
SIEBERT ASSOCIATES, LLC  
180 CHURCH STREET  
NAUGATUCK, CT 06770

DRAWER	AMD	NO.	DATE
CHECKER <td>CJM <td>0 <td>01.24.14</td> </td></td>	CJM <td>0 <td>01.24.14</td> </td>	0 <td>01.24.14</td>	01.24.14
SUPERVISOR <td>CON <td></td> <td></td> </td>	CON <td></td> <td></td>		

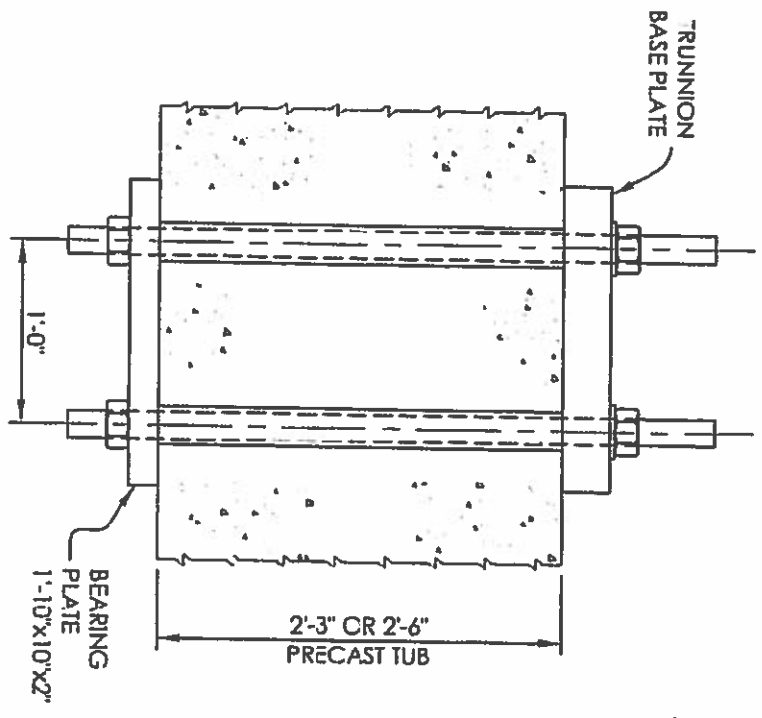
WP-531-08-D-10001-A



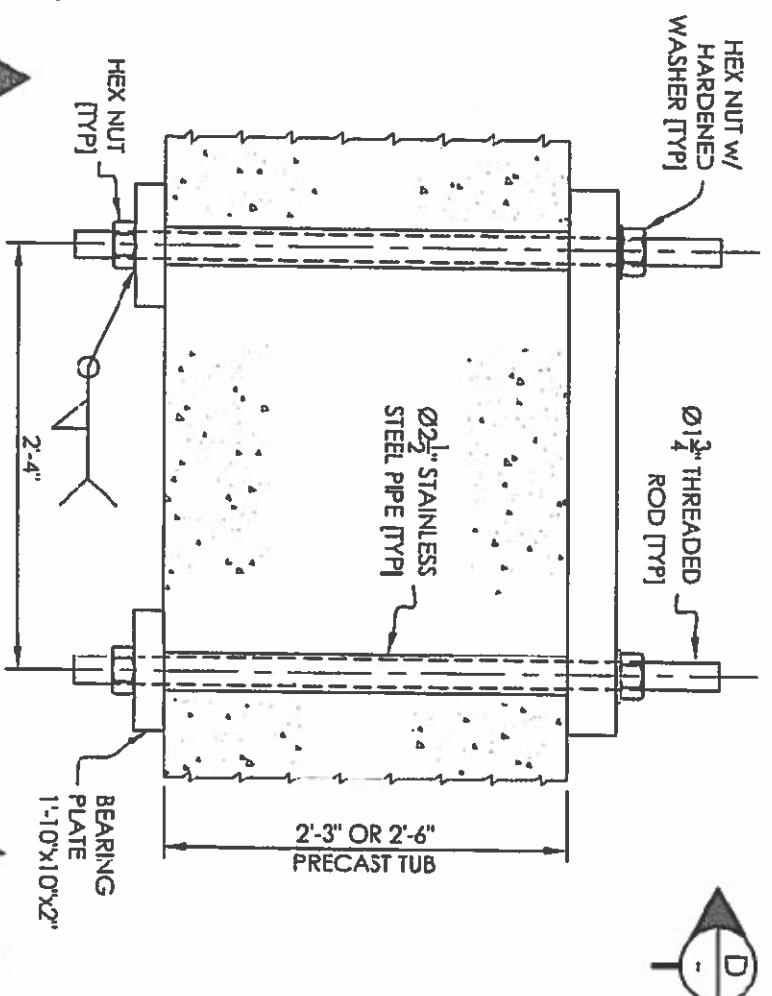
TAPPAN ZEE BRIDGE  
 BRIDGE REPLACEMENT PROJECT  
 HUDSON RIVER CROSSING  
 PRECAST TUB  
 LIFTING TRUNNION DETAILS  
 DWG. NO. 353.28-1



SECTION C  
1" = 1'-0"



SECTION D  
1" = 1'-0"



TRUNNION CONNECTION DETAILS



IT IS A VIOLATION OF THE PROFESSIONAL LICENSE LAW FOR ANY PERSON TO ALTER THE DRAWING IN ANY WAY UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER/ARCHITECT AS APPLICABLE. THE ALTERING ENGINEER/ARCHITECT SHALL AFFIX HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF ALTERATION.

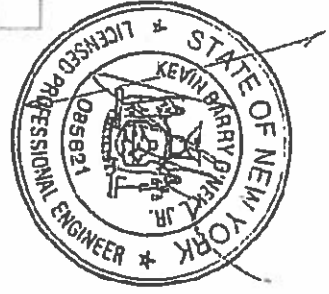
CONTRACTOR:  
TAPPAN ZEE CONSTRUCTORS, LLC

CONSTRUCTION ENGINEER:  
SIEBERT ASSOCIATES, LLC  
180 CHURCH STREET  
NAUGATUCK, CT 06470

DRAFTER	MID	CHECKER	CIN	SUPERVISOR	KON

NO.	DATE
1	
2	
3	
4	

W/P-531-08-D-10002-A



TAPPAN ZEE BRIDGE  
BRIDGE REPLACEMENT PROJECT  
HUDSON RIVER CROSSING  
PRECAST TUB  
LIFTING TRUNNION DETAILS  
DWG. NO. 353.28-2