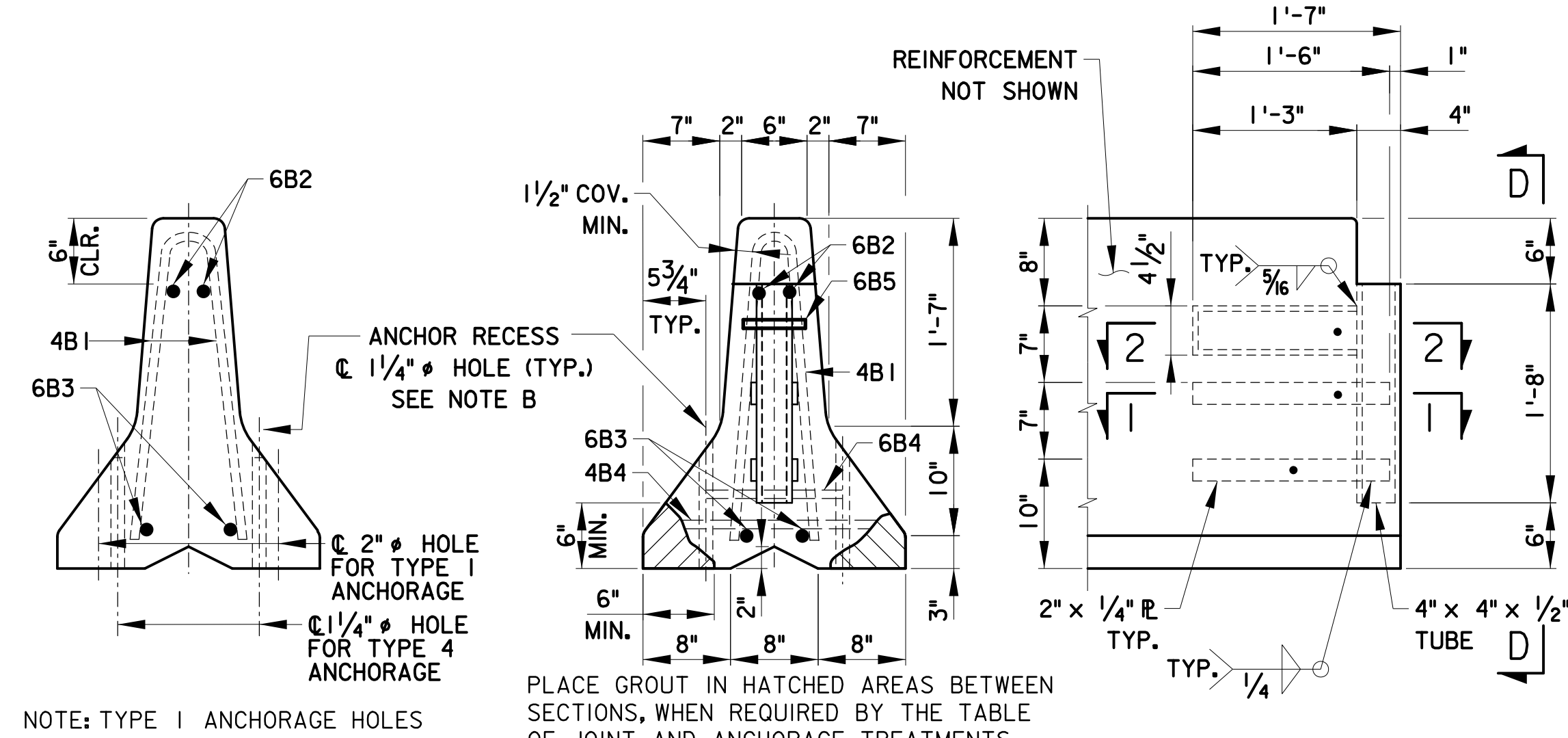
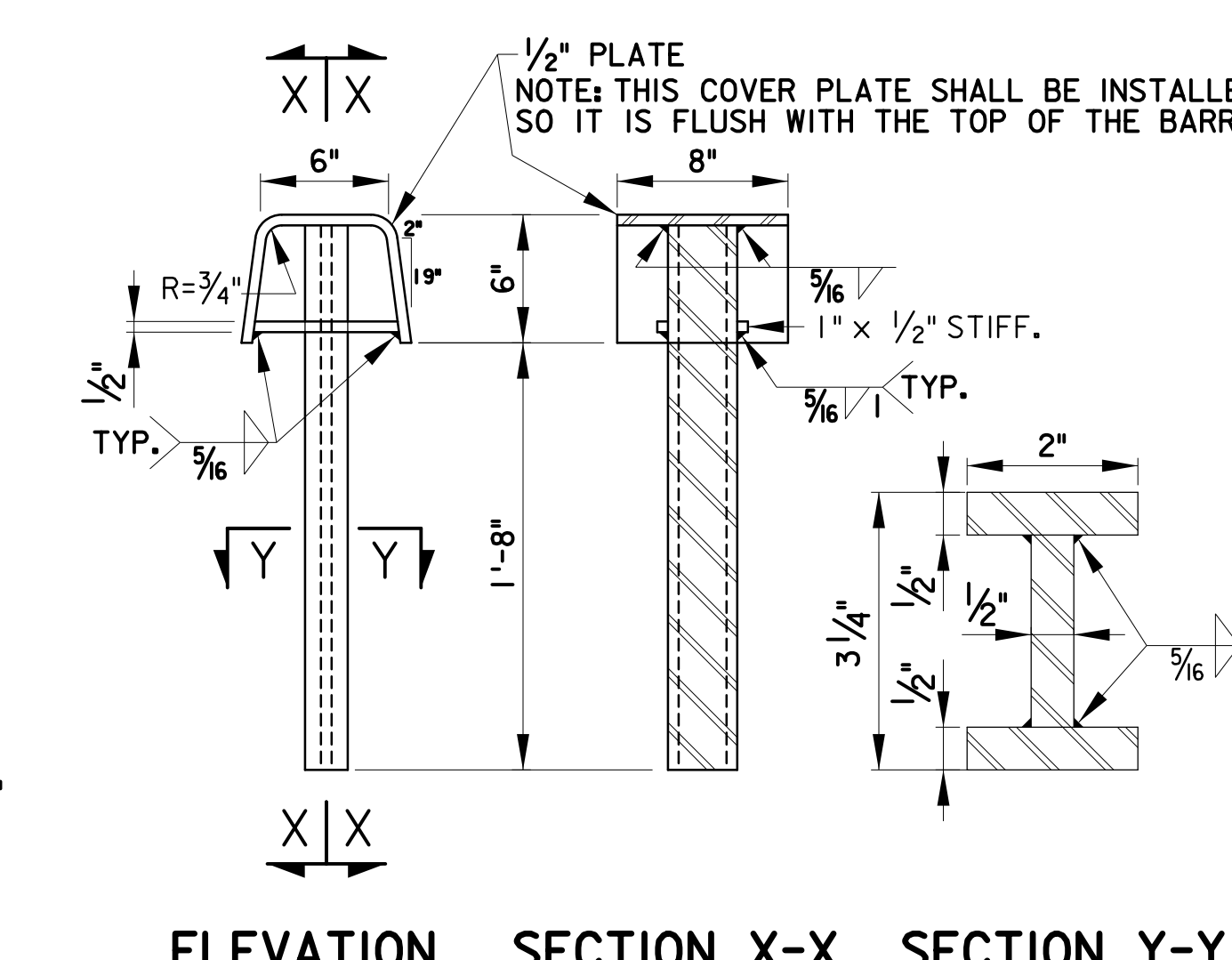


PLAN-ANCHOR RECESS/POCKET
N.T.S.



SECTION A-A N.T.S.
SECTION D-D N.T.S.
ELEVATION N.T.S.

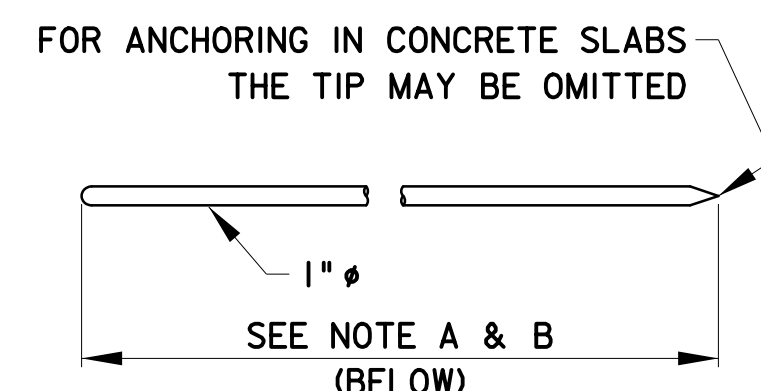
PRECAST CONCRETE CONSTRUCTION BARRIER TYPE 4
N.T.S.



ELEVATION N.T.S.
SECTION X-X N.T.S.
SECTION Y-Y N.T.S.

CONNECTION KEY
N.T.S.

- GENERAL NOTES:**
- STEEL PLATE SHALL BE ASTM A709, GRADE 36, GRADE 50 OR GRADE 50W.
 - REINFORCING BARS SHALL BE ASTM A615, GRADE 60.
 - CONCRETE SHALL BE WHITE OR GREY CLASS A (4500 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS)
 - CONCRETE CLEAR COVER FOR REINFORCING BARS SHALL BE 1/2" MIN.
 - A MINIMUM OF TWO (2) RECESSED LIFTING DEVICES SHALL BE USED ON EACH SECTION. EACH LIFTING DEVICE SHALL HAVE A MINIMUM CAPACITY OF 6 TON.
 - TUBE STEEL SHALL BE ASTM A500, GRADE B OR C.
 - ANCHOR PINS SHALL BE 1" Ø ASTM A36.
 - ANCHOR PINS ARE NOT REQUIRED IN EVERY UNIT. SEE TABLE OF JOINT TREATMENTS.
 - ALL END SECTIONS SHALL BE PINNED UNLESS OTHERWISE NOTED.
 - 2 5/8" X 5 1/2" DRAINAGE POCKETS - TWO (2) REQUIRED IN SECTIONS 12' OR GREATER, ONE (1) REQUIRED IN 8' & 10' SECTIONS.
 - AFTER A BARRIER UNIT HAS BEEN PLACED AND THE CONNECTION KEY INSERTED, REMOVE ANY SLACK IN THE JOINT BY PULLING THE UNIT IN A DIRECTION PARALLEL TO ITS LONGITUDINAL AXIS.
 - THE PRECAST CONCRETE CONSTRUCTION BARRIER SHALL BE CAST IN STEEL FORMS.
 - THE PRECAST CONCRETE CONSTRUCTION BARRIER SHALL BE UNITS OF 20', HOWEVER, OTHER LENGTHS MAY BE USED TO MEET FIELD CONDITIONS. THE NUMBER AND PLACEMENT OF THE 4B4 AND 4B5 BARS WILL VARY WITH THE LENGTH OF THE BARRIER UNIT AS SHOWN ON THE TABLE OF VARIABLE BARS. THE 6B2 AND 6B3 BARS SHALL BE 10 INCHES SHORTER THAN THE NOMINAL LENGTH OF THE BARRIER UNITS.
 - REINFORCING SHOWN IS THE MINIMUM REQUIRED. ADDITIONAL REINFORCING NECESSARY FOR HANDLING SHALL BE THE OPTION AND RESPONSIBILITY OF THE CONTRACTOR.
 - WELDING AND FABRICATION OF STEEL STRUCTURES SHALL BE IN ACCORDANCE WITH SECTIONS 1 THRU 6 OF THE ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE AND SECTION 10 OF THE ANSI/AWS D1.1 STRUCTURAL WELDING CODE. SURFACES TO BE WELDED SHALL BE FREE OF SCALE, SLAG, RUST, MOISTURE, GREASE, OR ANY OTHER MATERIAL THAT WILL PREVENT PROPER WELDING OR PRODUCE OBJECTIONAL FUMES. WELDING SHALL BE SHIELDED METAL ARC WELDING USING PROPERLY DRIED 5/32" Ø E7018 ELECTRODES.
 - ALTERNATE DESIGN A OR B MAY BE USED INTERCHANGEABLY IN ANY LOCATION WHERE TYPE 4 HAS BEEN SPECIFIED, EXCEPT THAT ALTERNATE DESIGN B, JOINT CLASS D, MUST BE USED WHERE NO DEFLECTION OF THE BARRIER CAN BE TOLERATED.
 - SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
 - WORK THIS DRAWING WITH TP-23.



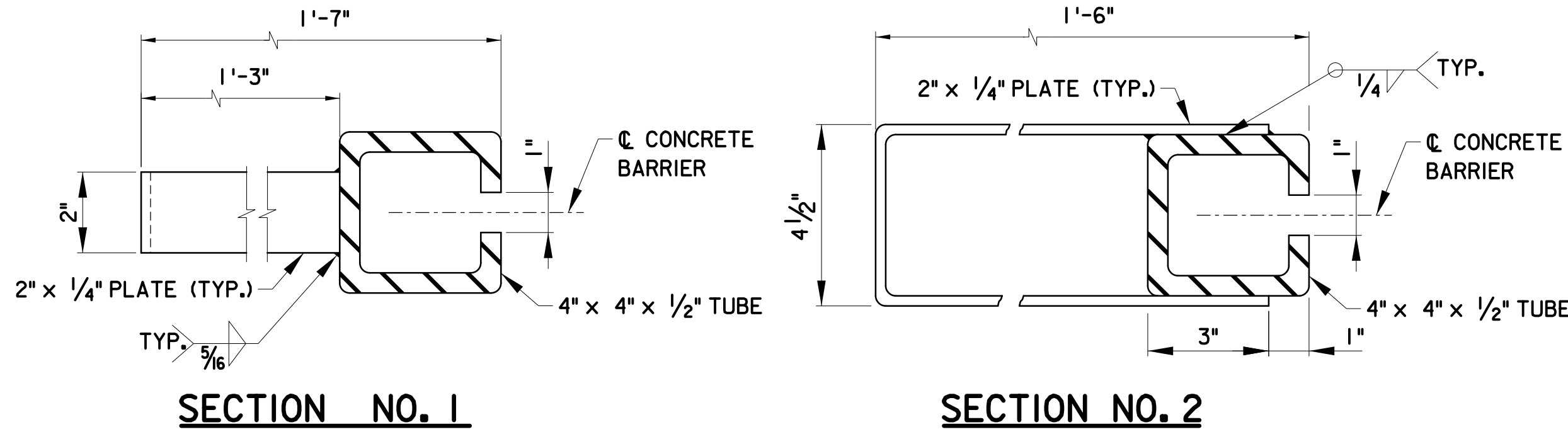
ANCHOR PIN
N.T.S.

NOTE A:
THE LENGTH OF THE ANCHOR PINS SHALL BE SUCH THAT THE FOLLOWING MINIMUM EMBEDMENT LENGTHS ARE OBTAINED:
(a) INTO MIN. 6" THICK PORTLAND CEMENT CONCRETE PAVEMENTS AND BRIDGE DECKS 5 INCHES EMBEDMENT
(b) INTO FLEXIBLE PAVEMENT 1'-6"
(c) INTO UNPAVED AREA 2'-6"

WHEN ANCHOR PINS ARE IN PLACE, THEY SHALL NOT PROJECT ABOVE THE PLANE OF THE CONCRETE SURFACE OF THE BARRIER.

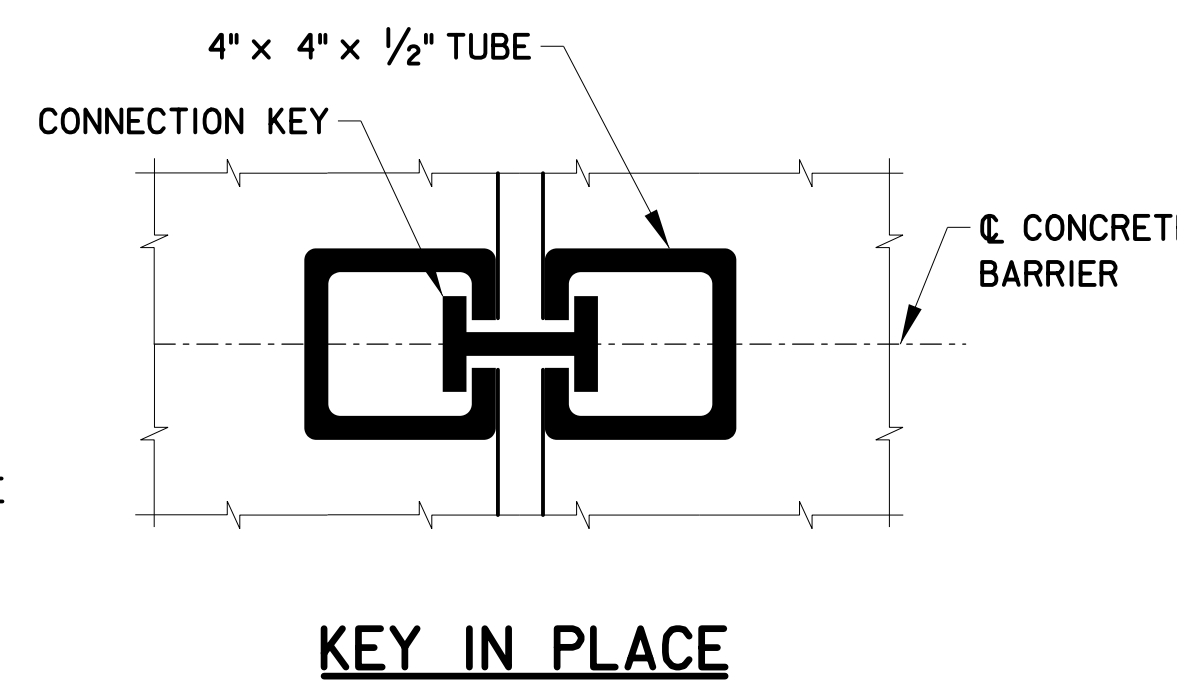
HOLES IN BRIDGE DECKS SHALL BE 1 1/4" Ø MAXIMUM AND MADE WITH A CORE DRILL OR ANY OTHER APPROVED ROTARY DRILLING DEVICE THAT DOES NOT IMPART AN IMPACT FORCE. HOLES SHALL BE BLOWN CLEAN PRIOR TO PLACEMENT OF THE PINS.

NOTE B:
IN UNITS THAT ARE TO BE ANCHORED, PINS SHALL BE REQUIRED IN EVERY ANCHOR PIN RECESS.



SECTION NO. 1

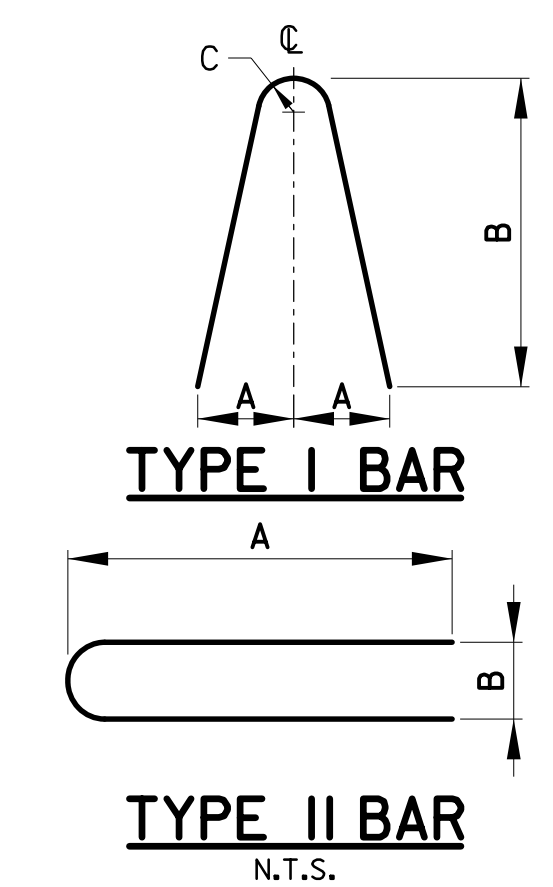
SECTION NO. 2



KEY IN PLACE

PRECAST CONCRETE CONSTRUCTION BARRIER JOINT CONNECTION DETAILS
N.T.S.

BARS LIST (EACH BARRIER SECTION)								
MARK	SIZE	NUMBER IN EACH SECTION	LENGTH	TYPE	A	B	C	LOCATION
4B1	4	6	4'-11"	I	5"	26"	2"	STIRRUPS
4B4	4	SEE NOTE 13	3'-1"	II	15 1/2"	4"		STIRRUPS
4B5	4	SEE NOTE 13	4'-11"	I	5"	26"	2"	STIRRUPS
6B2	6	2	SEE NOTE 13	STR.				LONGITUDINAL (TOP) NORMAL SECTION
6B3	6	2	SEE NOTE 13	STR.				LONGITUDINAL (BOTTOM) NORMAL SECTION
6B4	6	2	1'-2"	STR.				TRANSVERSE (BOTTOM) NORMAL SECTION
6B5	6	2	0'-6"	STR.				TRANSVERSE (TOP) NORMAL SECTION



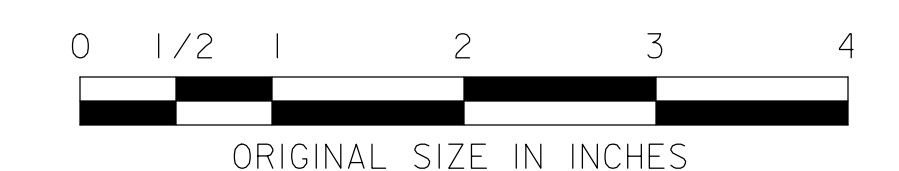
TYPE I BAR

TYPE II BAR
N.T.S.

TABLE OF VARIABLE BARS			
NOMINAL LENGTH OF BARRIER UNIT	MARK	"X"	NO. EACH SECTION
20'	4B4	N.A.	9
20'	4B5	6'-11"	2
18'	4B4	N.A.	8
18'	4B5	6'-5"	2
16'	4B4	N.A.	7
16'	4B5	5'-11"	2
14'	4B4	N.A.	6
14'	4B5	7'-0"	1
12'	4B4	N.A.	5
12'	4B5	6'-0"	1
10'	4B4	N.A.	4
10'	4B5	5'-0"	1
8'	4B4	N.A.	3
8'	4B5	-	0

"X" DISTANCE FROM END OF BARRIER TO 4B5 BAR

TABLE OF JOINT AND ANCHORAGE TREATMENTS		
JOINT CLASS	JOINT TREATMENT	MAXIMUM BARRIER DEFLECTION
A	CONNECTION KEY ONLY	42"
B	CONNECTION KEY & GROUT IN EVERY JOINT	16"
C	CONNECTION KEY & GROUT IN EVERY JOINT & PIN EVERY OTHER UNIT. IN UNITS THAT ARE TO BE ANCHORED, PINS SHALL BE REQUIRED IN EVERY ANCHOR RECESS	11"
D	CONNECTION KEY AND GROUT EVERY JOINT. BOLT EVERY ANCHOR POCKET HOLE IN EVERY UNIT.	0" SEE NOTE 16



NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE GARDEN STATE PARKWAY

STANDARD DRAWINGS

PRECAST CONCRETE CONSTRUCTION BARRIER
TYPE 4 - ALT. A & ALT. B (1 OF 2)

OFFICE OF THE CHIEF ENGINEER
NEW JERSEY TURNPIKE AUTHORITY
WOODBRIIDGE, NEW JERSEY

STANDARD DRAWING

TP-22

REV.	DESCRIPTION	DATE
0	REISSUED DRAWING	12/16