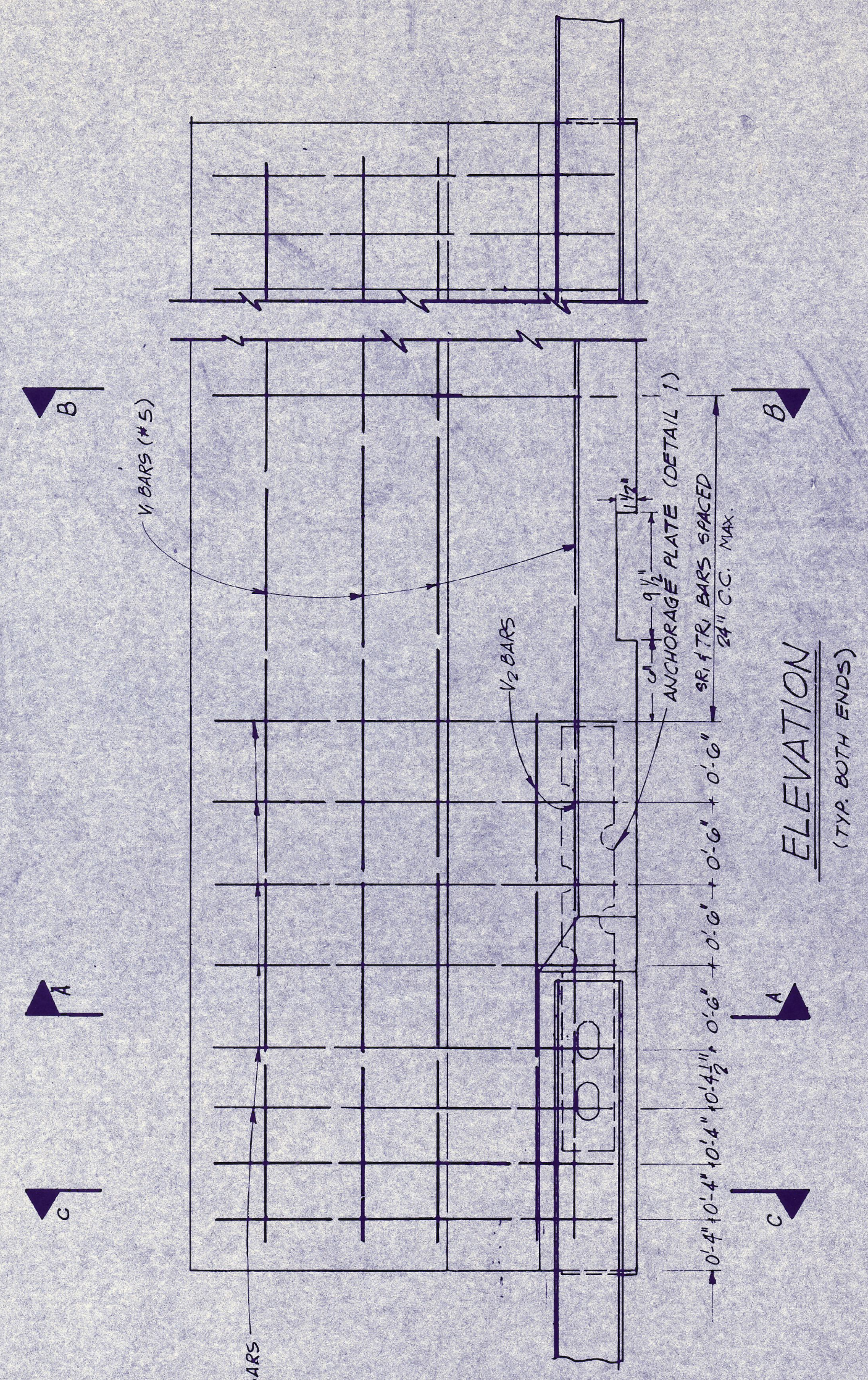
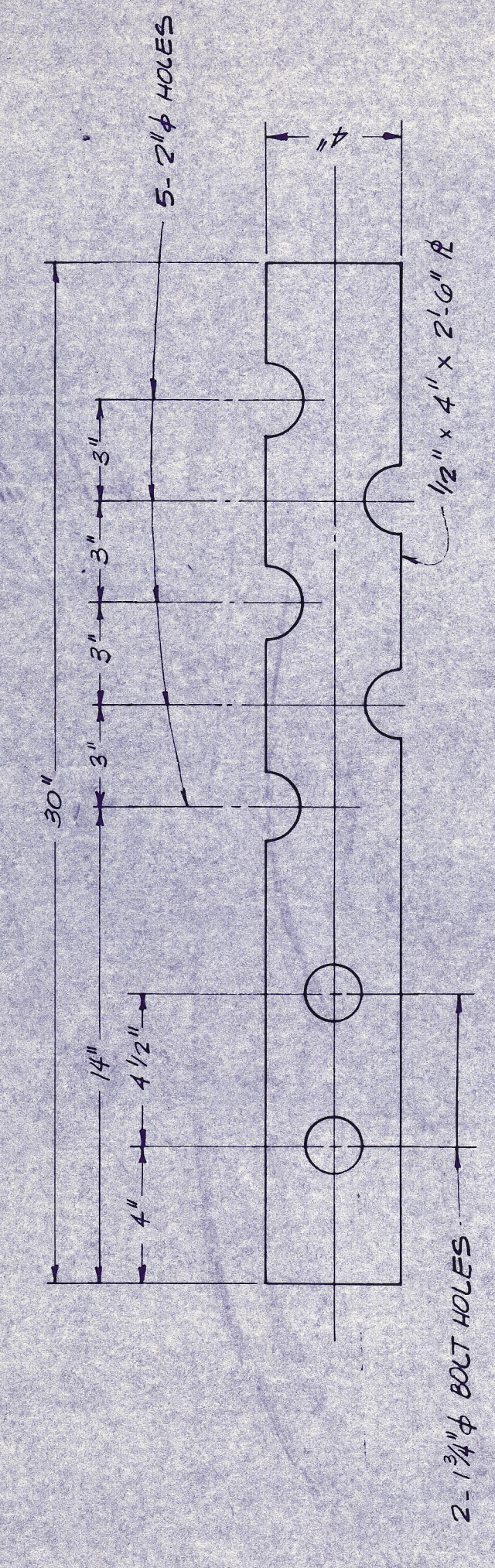


PLAN VIEW
(TYP BOTH ENDS)

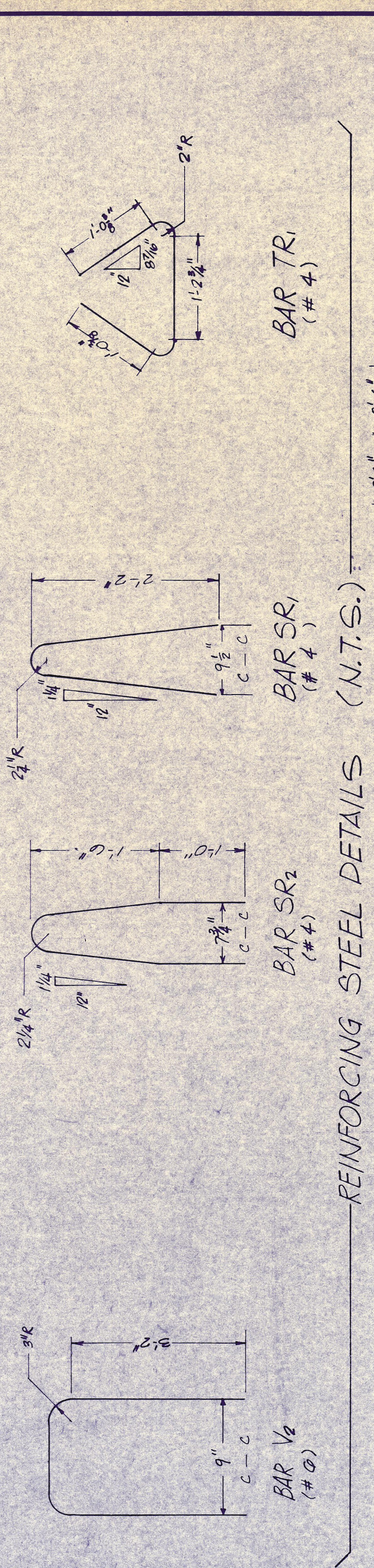


ELEVATION
(TYP BOTH ENDS)



DETAIL 1
SCALE: 1/2"=1'

REPRODUCED FROM
TEXAS STATE DEPARTMENT OF
HIGHWAYS AND PUBLIC TRANSPORTATION
STANDARD DRAWING CBR(P&P)-80

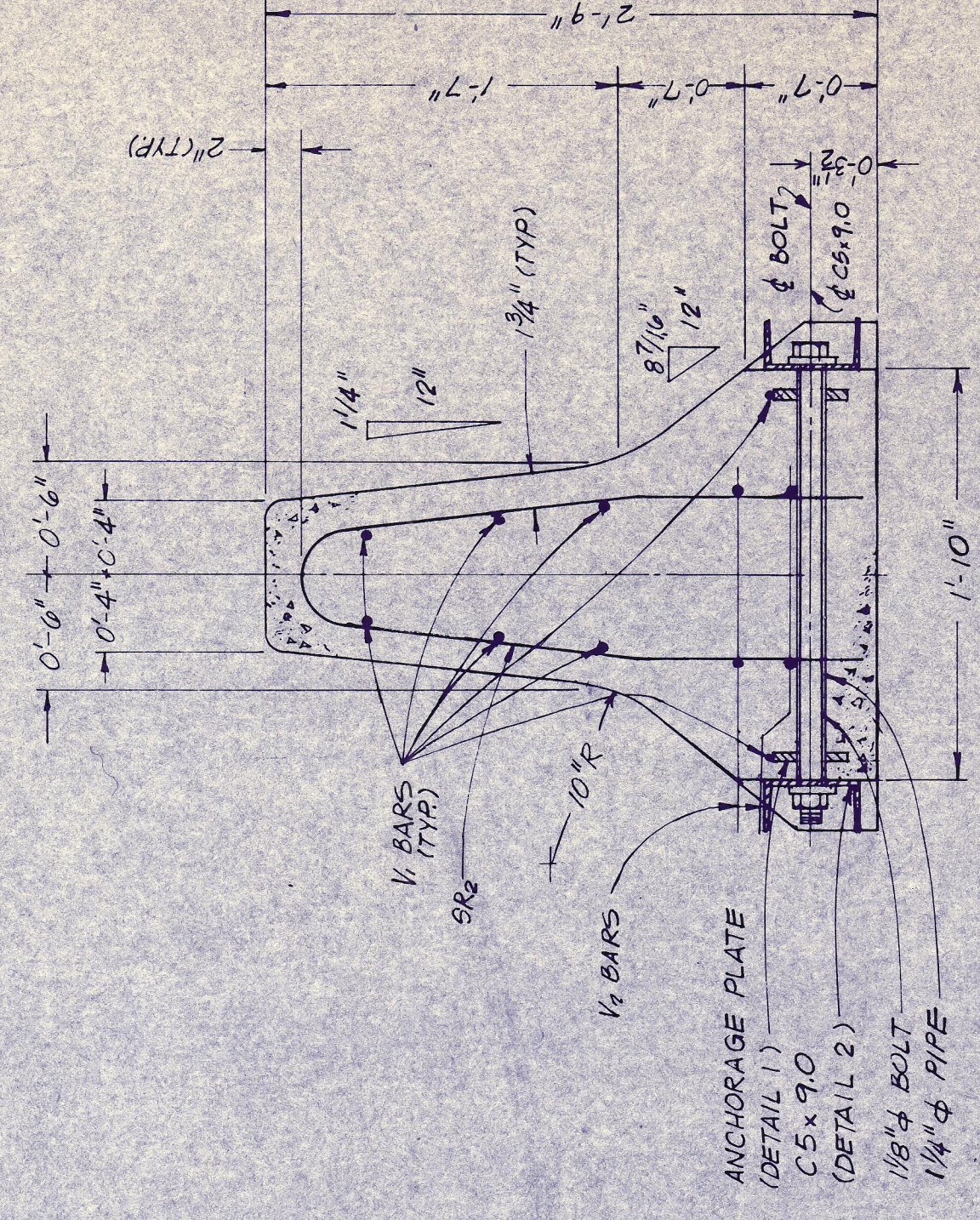


REINFORCING STEEL DETAILS
(N.T.S.)

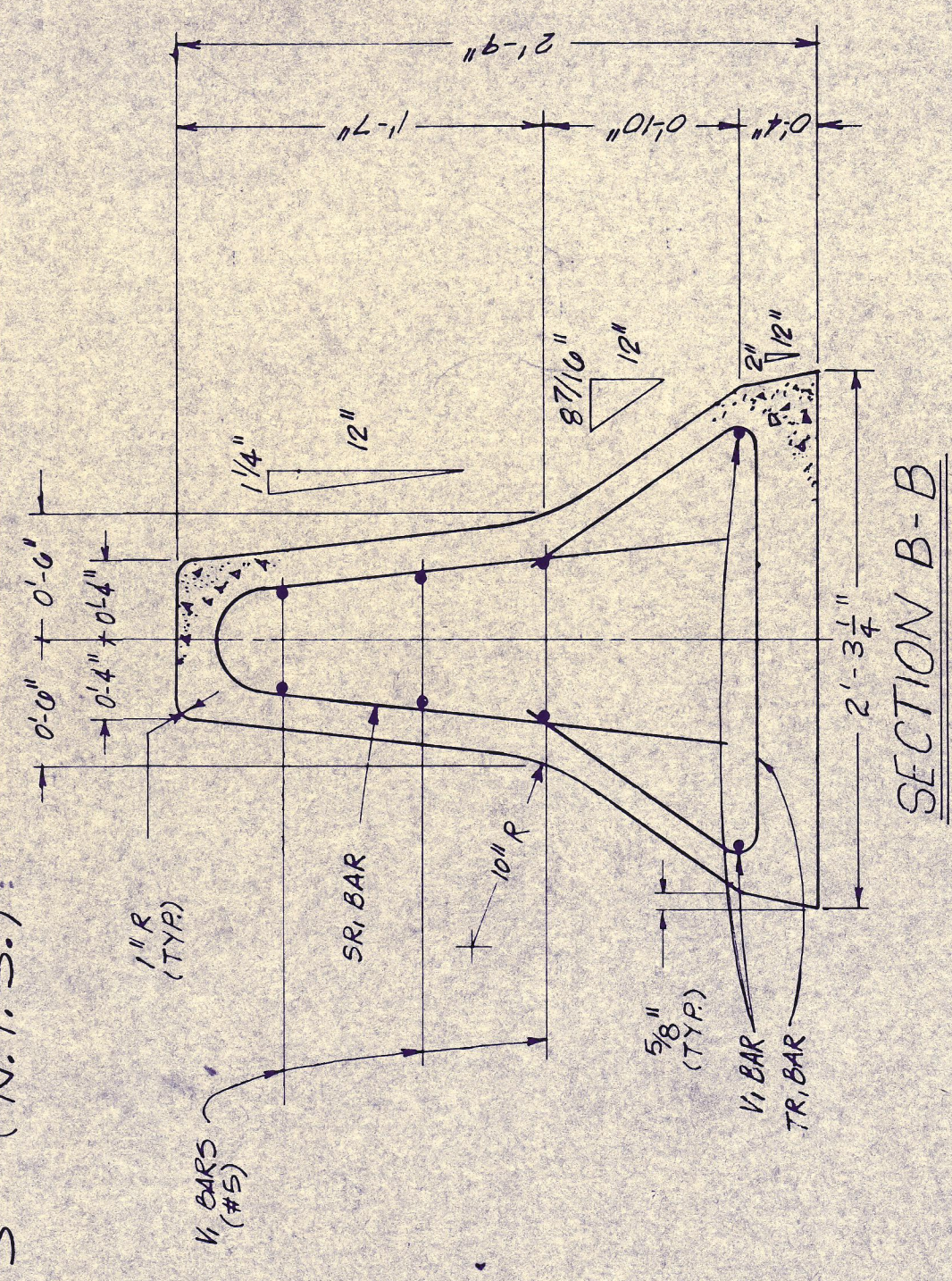
SECTION C-C
SECTION C-C IS IDENTICAL TO SECTION A-A
W/O PIPE, BOLT OR ANCHORAGE PLATE

* APPROXIMATE QUANTITIES FOR A 20 FT. SECTION		
CONCRETE	CY	2.24
REINFORCING STEEL	LBS.	301
APPROX. WEIGHT PER FOOT IS 463 LBS.		

* FOR CONTRACTORS INFORMATION ONLY



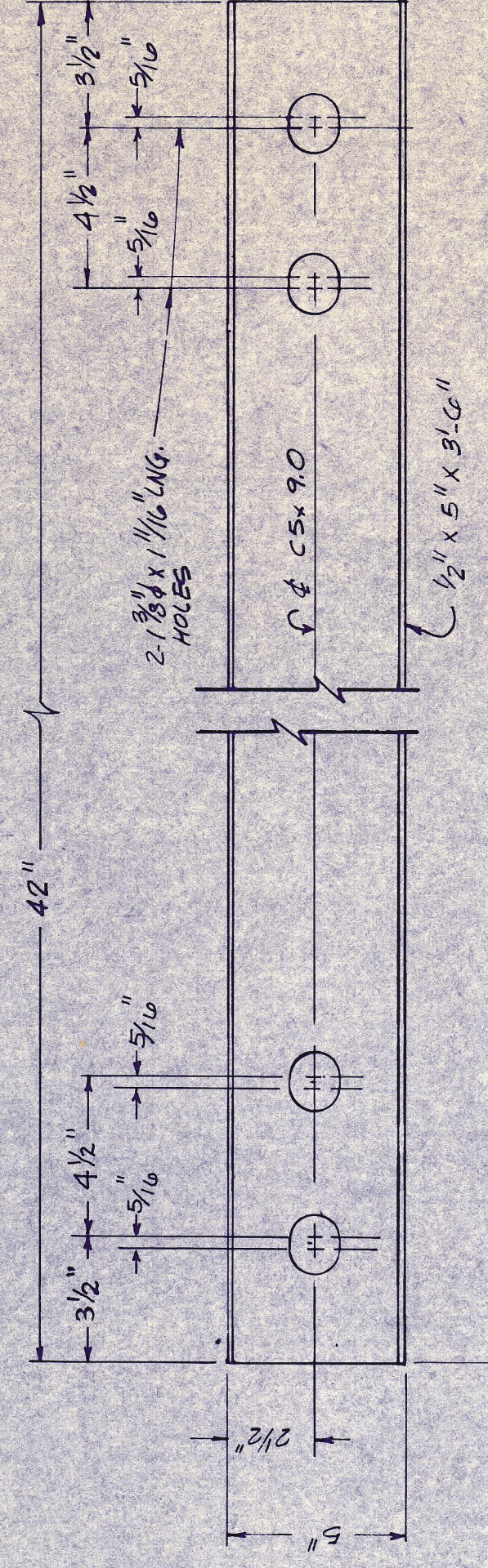
SECTION A-A



SECTION B-B

GENERAL NOTES

1. CHANNEL SECTIONS AND ALL STEEL PLATES SHALL CONFORM TO ASTM DESIGNATION A36.
2. BEARING PADS SHALL BE MADE OF AN ELASTOMERIC MATERIAL WITH A HARDNESS OF 90 DUROMETER AND ARE TO BE EPOXYED TO BARRIER UNIT AFTER CASTING.
3. ALL CONCRETE SHALL BE CLASS "C".
4. ALL LONGITUDINAL REINFORCING STEEL SHALL BE GRADE 60, ALL VERTICAL STEEL SHALL BE GRADE 40.
5. EACH BARRIER SHALL BE DELIVERED WITH 2 SPLICE C5X9.0 CHANNEL SECTIONS AND CONNECTING HARDWARE.
6. WHEN BARRIER IS TO BE PLACED IN A CURVING ALIGNMENT, THE C5X9.0 CHANNEL SECTIONS MAY BE HEATED AT THE MIDPOINT AND PRE-BENT.
7. ALL C5X9.0 CHANNELS SHALL BE HOT-DIP GALVANIZED IN CONFORMANCE TO ASTM DESIGNATION A123. BOLTS, NUTS, AND WASHERS SHALL BE HOT-DIP GALVANIZED TO CONFORM TO ASTM DESIGNATION A153.
8. CHAMFER END AND TOP EDGES 3/4" - INCH.
9. INSERTS FOR LIFTING EYES MAY BE INSTALLED AT THE CONTRACTOR'S OPTION OTHER LIFTING DEVICES OR ATTACHMENTS TO BARRIER SECTIONS SHALL BE APPROVED BY THE ENGINEER.
10. REINFORCING STEEL, BOLTS, NUTS, WASHERS, CHANNEL SECTIONS, AND ANCHORAGE PLATES SHALL BE INCLUDED IN THE PRICE PAID PER LINEAR FOOT FOR CONCRETE BARRIER RAIL (P & P).



DETAIL 2
SCALE: 1/2"=1'

* 3-6-80 Revised approx. quantity of reinforced steel for 20 section
* 5-14-81 Revised Bar V2 Dimensions

Note: Bevel each end of C5x9.0 at 30°

TEXAS TURNPIKE AUTHORITY
DALLAS NORTH TOLLWAY EXTENSION
CONCRETE BARRIER RAIL
(PORTABLE AND PRECAST)

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

SECTION VII

DRAWN: _____ DATE: _____
CHECKED: _____ DATE: _____
SCALE: _____

STANDARD DRAWING NO. 57

CONTRACT NO. DNT-115