

**SUPERSEDED BY EI 81-036
EFFECTIVE 9/10/81**

Director,
Preliminary Plan Review

PRELIMINARY PLAN REVIEW
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MAR 4 1980

ENGINEERING INSTRUCTION

NEW YORK STATE DEPARTMENT OF TRANSPORTATION

SUBJECT: MODIFICATIONS OF BRIDGE RAILING UPGRADING; SHEETS BDD 79-57A, 79-57B, AND 79-57C.

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APPROVED:

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Supersedes:

79-008

Based on a number of recent crash tests on bridge railing, performed by the Engineering Research and Development Bureau of this Department, we have come to the conclusion that further modifications are necessary on our upgraded bridge railing systems. In particular, BDD Sheets 79-57A, 79-57B, and 79-57C titled "Details For Attaching Box Beam Railing To Bridge Railing (Bridge Railing Upgrading)" must be modified.

The Structures Subdivision has decided to make the modifications by supplemental sketch rather than reissuing the BDD Sheets. We recommend the contents of this E.I. be attached to the BDD Sheets.

The modifications will eliminate a potential snag point at the first strong post connection on the structure by removing the seat angle and substituting carriage bolts for the tube to bridge railing post connection. The seat angle, in conjunction with the guiderail flexibility off the structure, due to weak post supports, present a potential snag point.

The modifications are explained below, sheet-by-sheet. Sketches 1 and 2, containing details of the modifications, depict only one type of railing system. The details can and shall be applied to all railing systems to be upgraded:

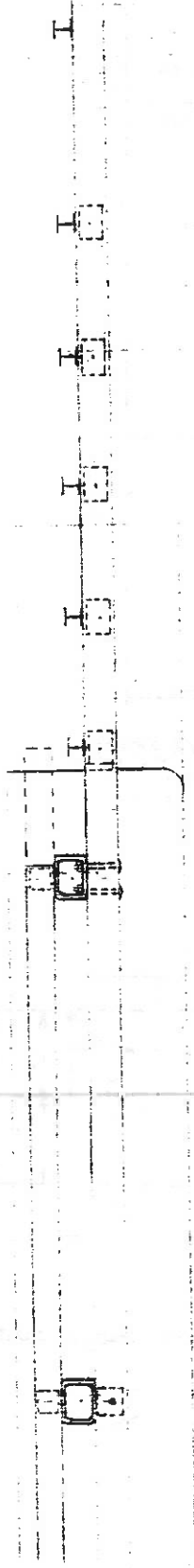
BDD 79-57A - The transition from weak post guiderail to blocked out box beam was not previously detailed on this sheet because it wasn't necessary. Effective immediately, the details on the Numbered 1 and 2 attached sketches, are to be used in conjunction with this sheet. We have removed the seat angle on the end bridge post and added carriage bolts in their place. In addition, the highway seat angle has been added to the first five (5) weak posts adjacent to the end bridge railing post. The remainder of the weak posts shall be spaced as previously detailed on BDD 79-57B and 79-57C.

BDD 79-57B - The seat angle on the end post connection of all trusses must be removed and carriage bolts substituted in that connection as shown in Sketch 3.

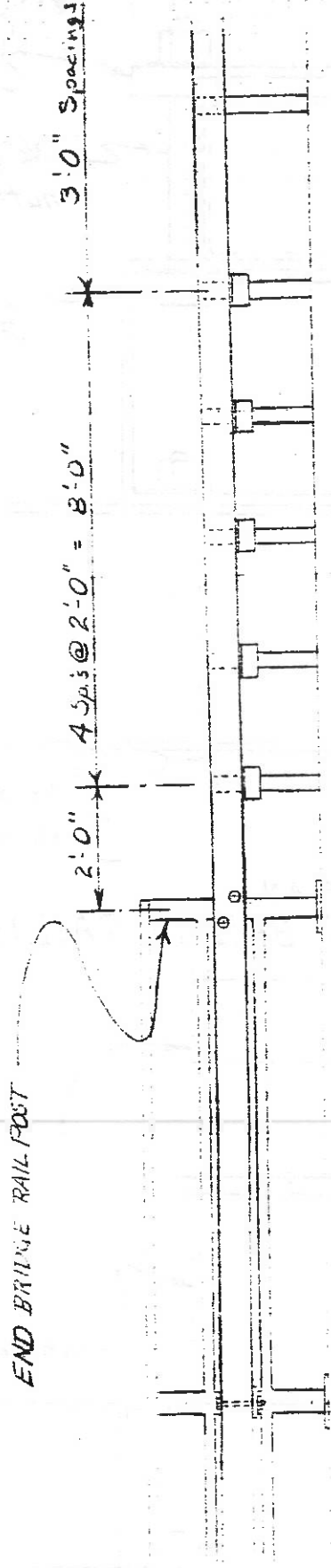
BDD 79-57C - On the connection to all pylons, the seat angle must be removed and carriage bolts substituted in that connection as shown in Sketch 4.

If there are any questions concerning these modifications, contact the Special Design Unit of the Structures Subdivision at 518-457-1105.

These revisions will be incorporated in future issuances of these BDD Sheets.

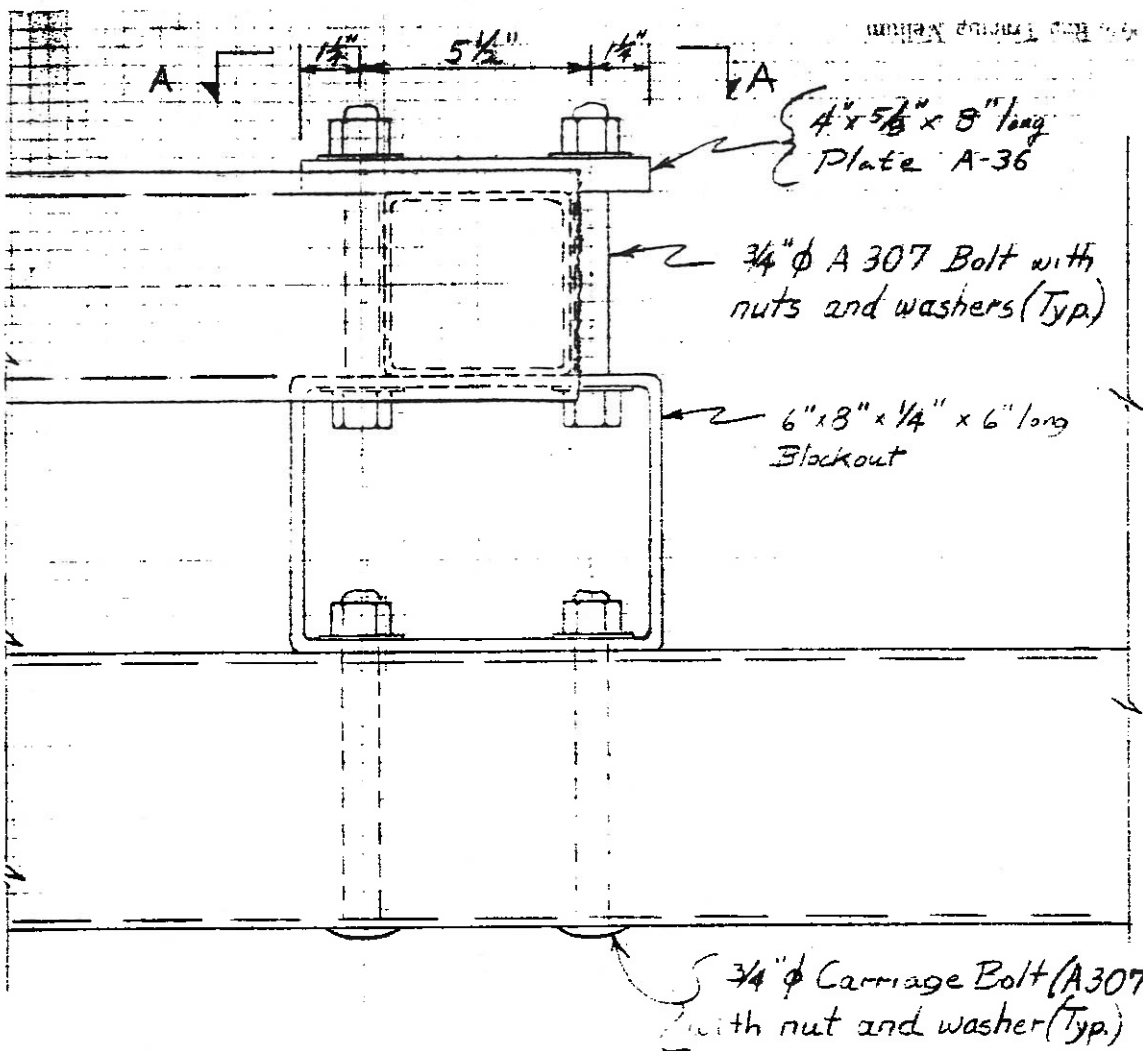


PLAN VIEW



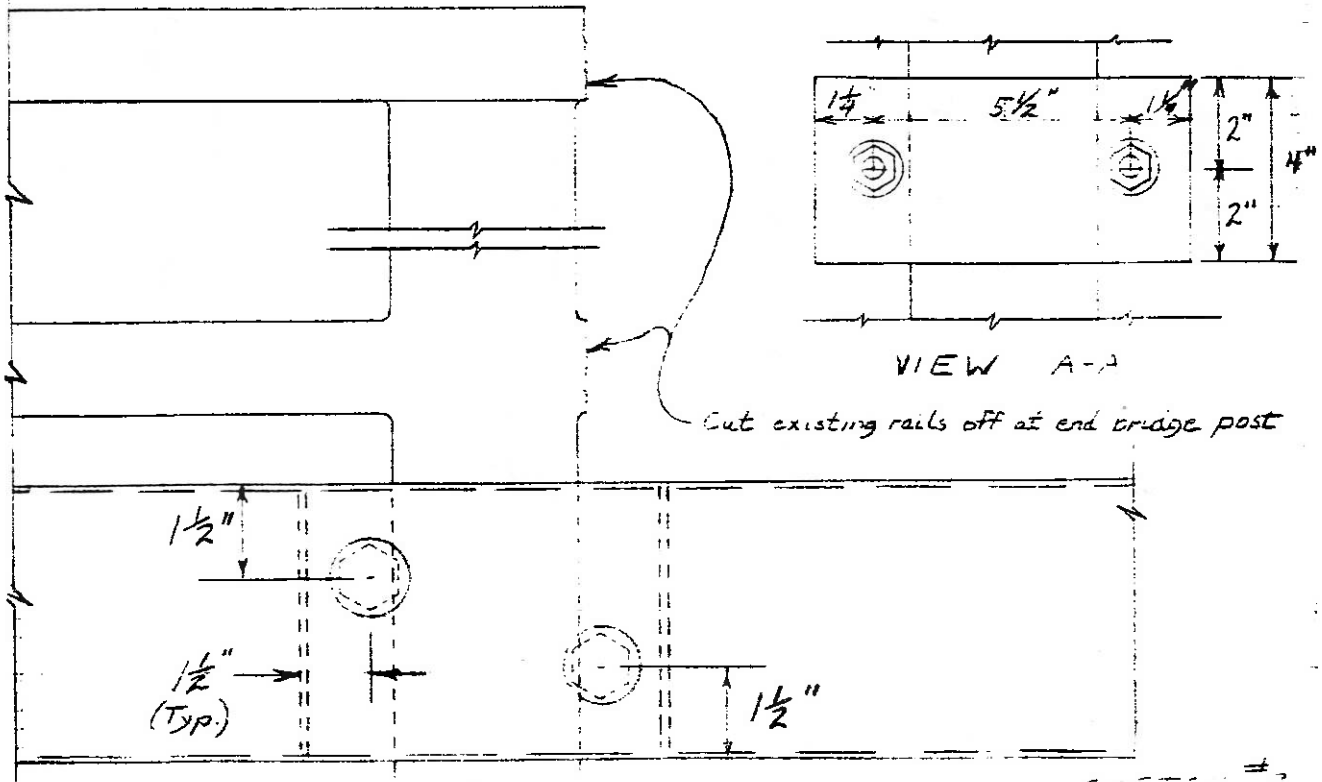
ELEVATION VIEW
BRIDGE RAILING UPGRADING

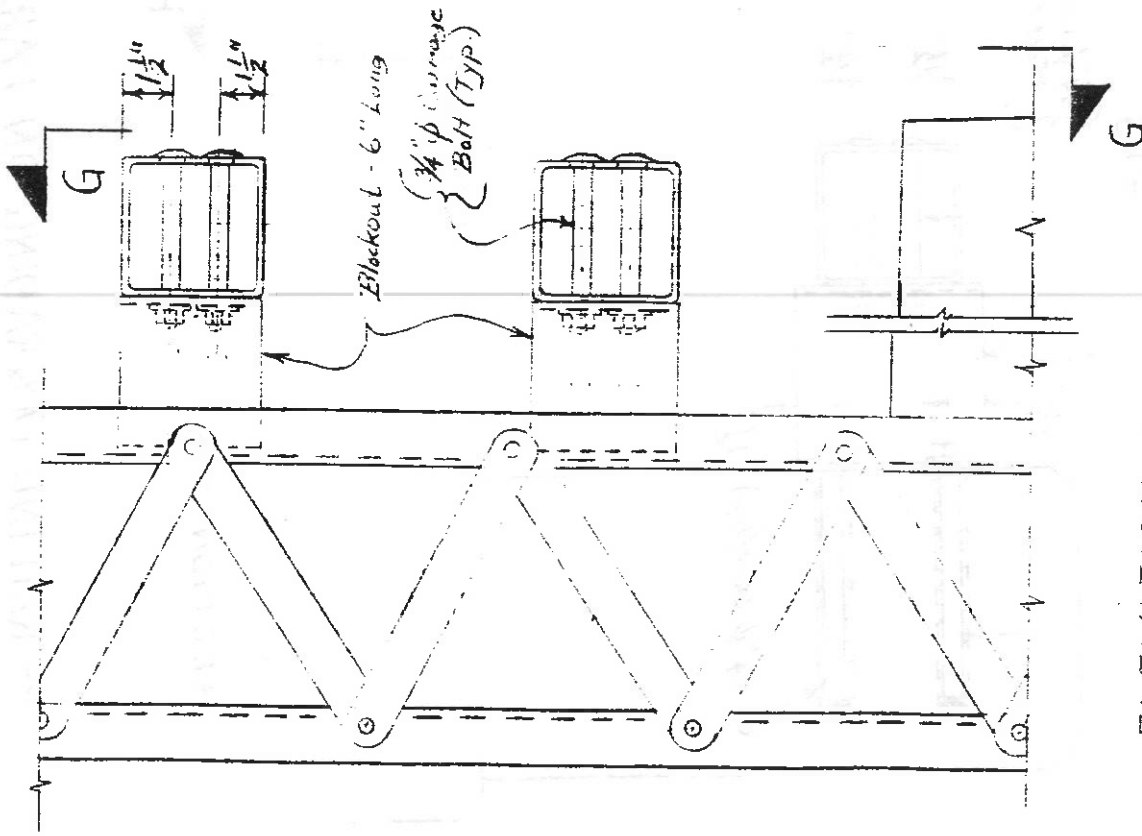
SKETCH #1
For BDD 79-57A



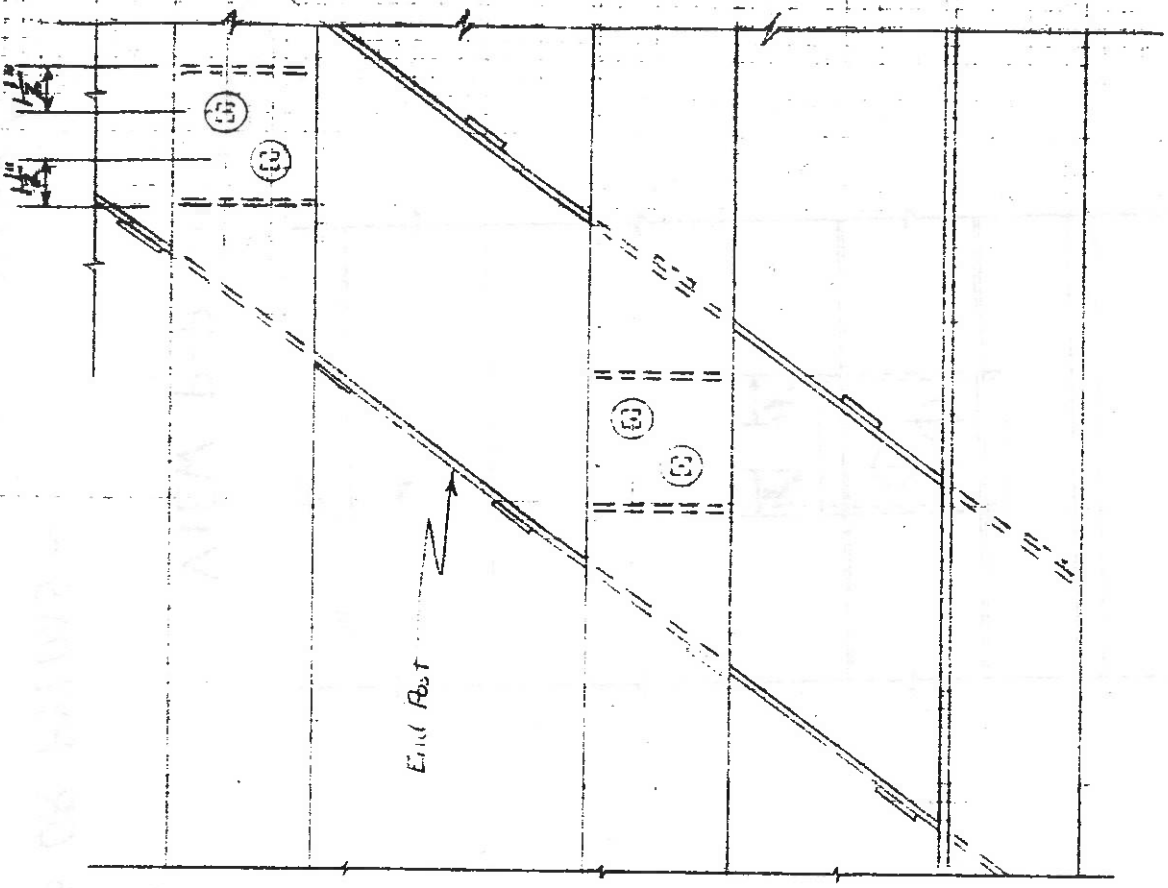
PLAN

DETAILS AT END BRIDGE RAILING POST





ELEVATION



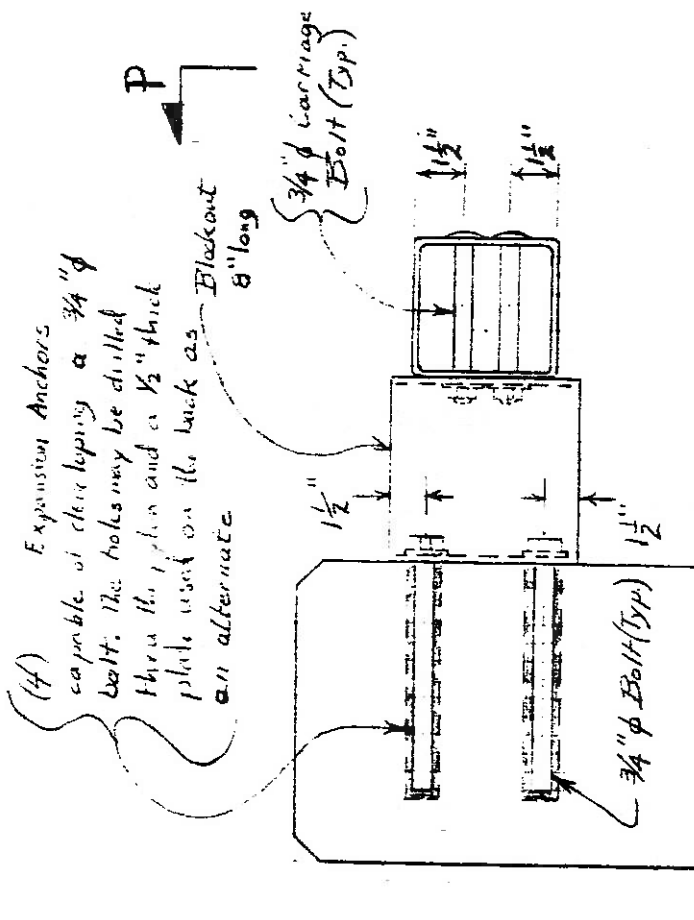
VIEW G-G

RAILING UPGRADING ON TRUSSES

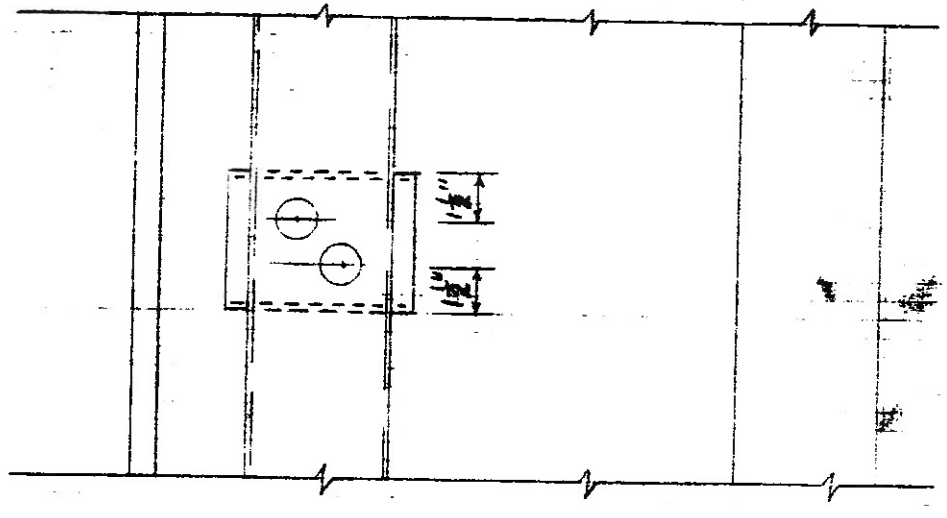
SKETCH #3

For BDD. 79-57B

REVISIONS



SECTION H-H



VIEW P-P

~ RAILING UPGRADING ON PARAPETS OR PYLONS ~

SKETCH #4
 Date: FEB 79-576