



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

MEMORANDUM TO: Project Engineers
Project Design Engineers

FROM: G. R. Perfetti, P. E.
State Bridge Design Engineer

DATE: September 28, 2005

SUBJECT: DESIGN MANUAL FIGURES 6-33, 6-34

Design Manual Figures 6-33 and 6-34 have been revised to eliminate interference between the middle set of "E" bars and the guardrail anchor assembly. The changes are noted as follows:

- The distance to the first "E" bar was reduced from 3"(75mm) to 2 ½"(65mm).
- The distance to the centerline of the concrete inserts was increased from 7 ¼"(185mm) to 7 ⅞"(201mm) to match Standard BMR2(SM).

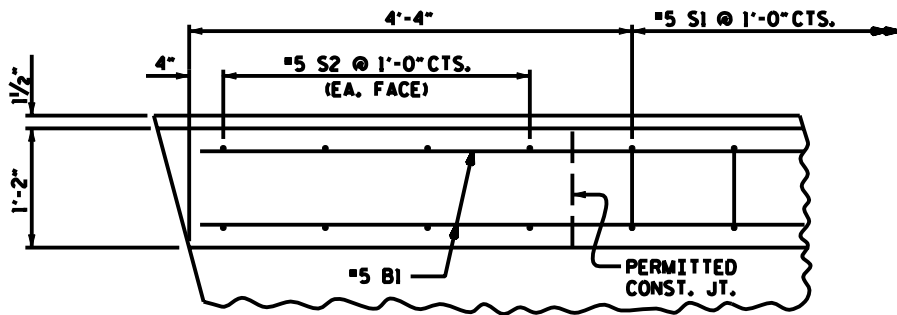
The figures are attached for immediate use. The Design Manual will be updated at a later date.

GRP/DAS/snj

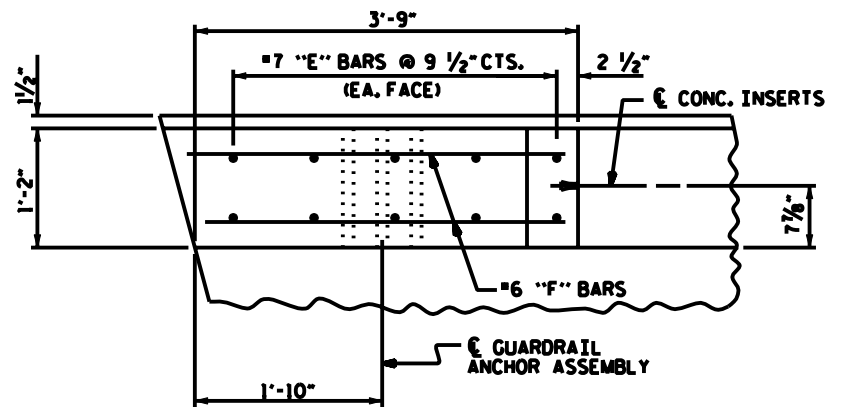
Attachments

[Fig. 6-33 \(English\)](#), [Fig. 6-33 \(Metric\)](#)
[Fig. 6-34 \(English\)](#), [Fig. 6-34 \(Metric\)](#)

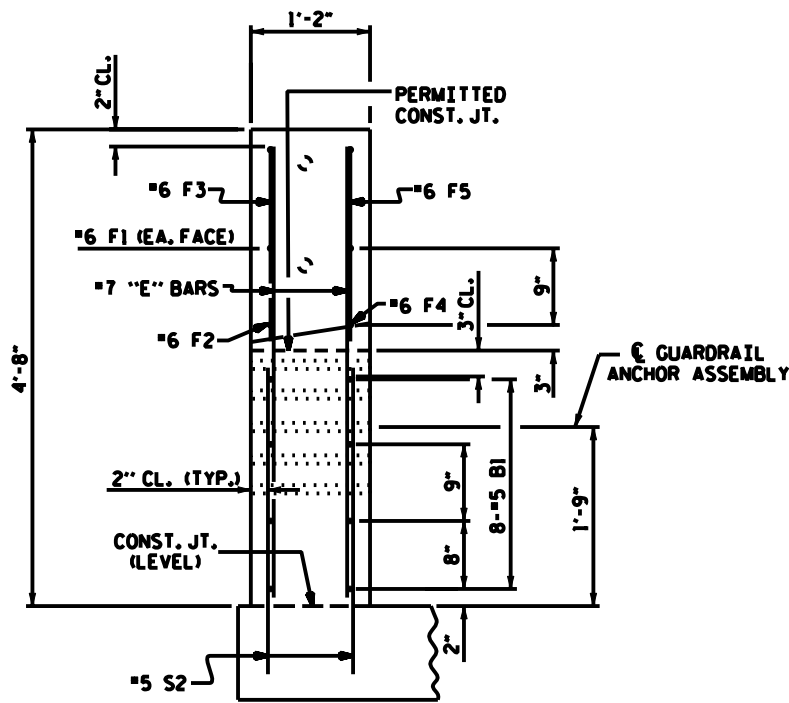
cc: R. V. Keith, P. E., with attachments
R. A. Raynor, Jr., P. E., with attachments
E. C. Powell, Jr., P. E., Attn: R. A. Hancock, P. E., with attachments
J. H. Emerson, P. E., with attachments
T. S. Drda, P. E., FHWA, with attachments
D. R. Henderson, P. E., with attachments
J. A. Bennett, P. E., with attachments



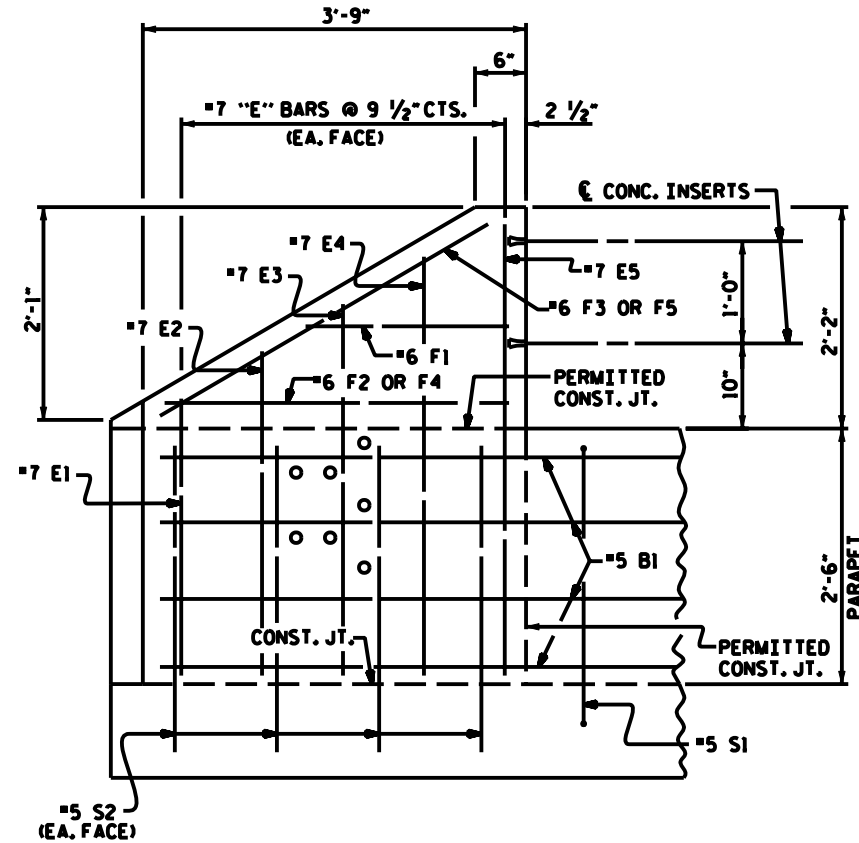
PLAN OF PARAPET



PLAN OF END POST



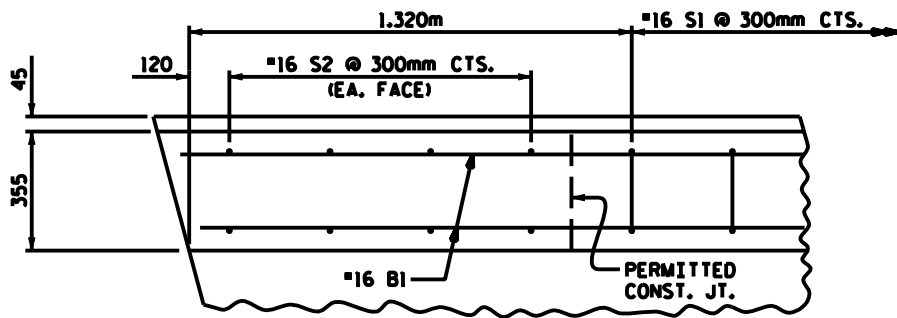
END VIEW



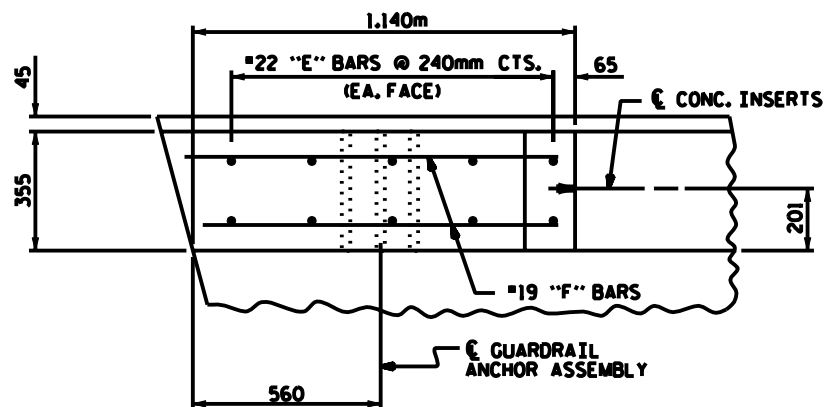
ELEVATION

PARAPET AND END POST FOR TWO BAR RAIL

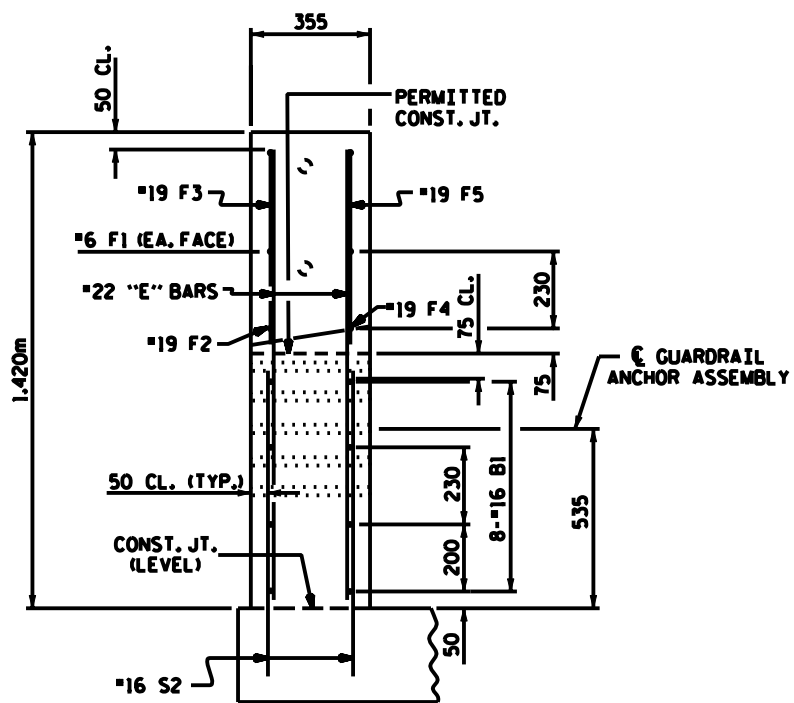
FIGURE 6 - 33



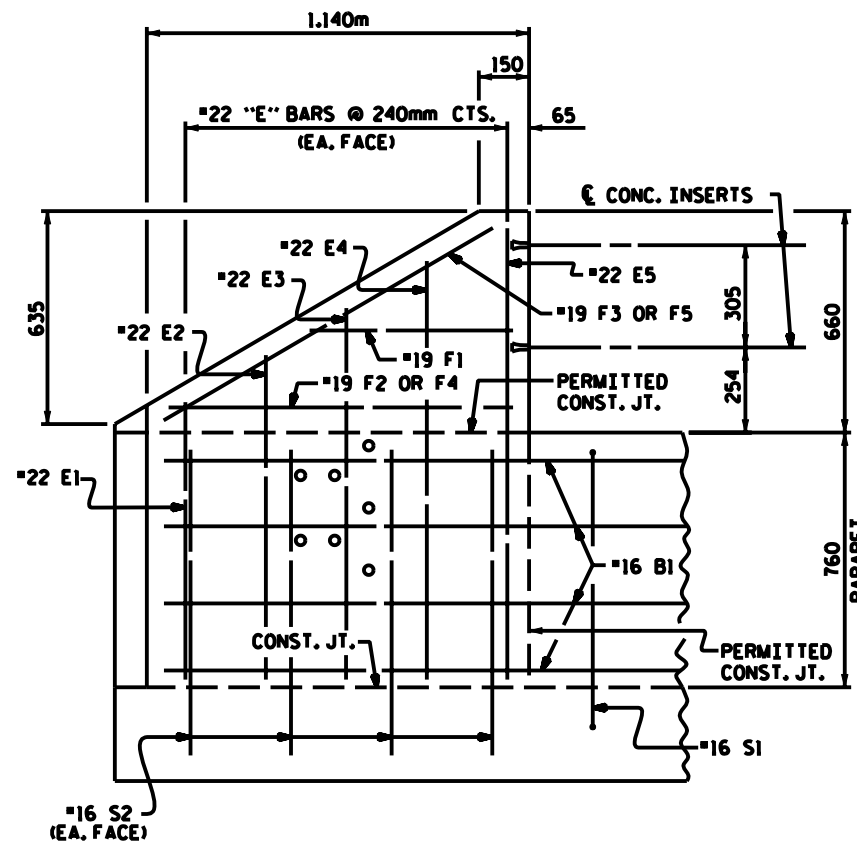
PLAN OF PARAPET



PLAN OF END POST



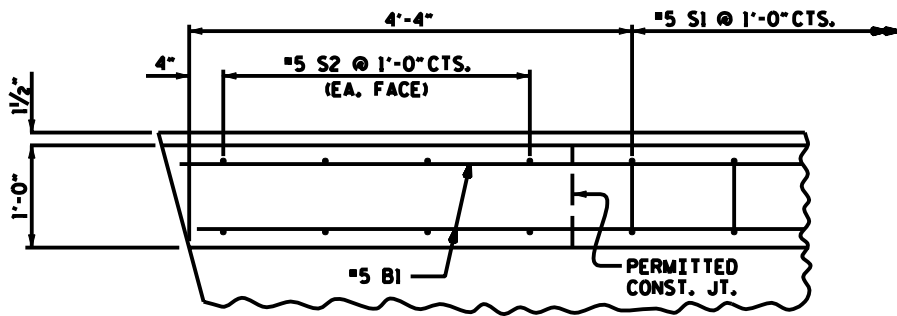
END VIEW



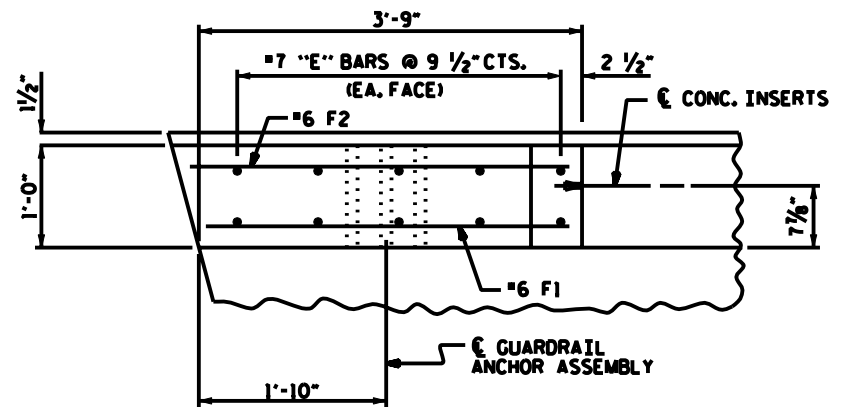
ELEVATION

PARAPET AND END POST FOR TWO BAR RAIL

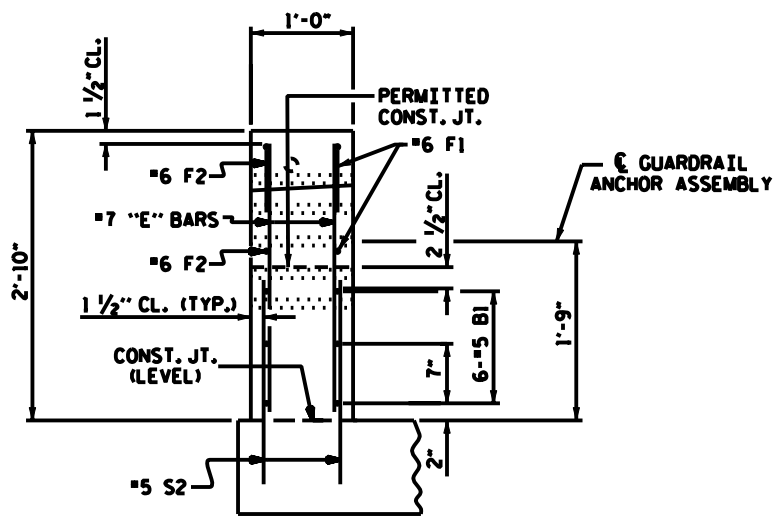
FIGURE 6 - 33



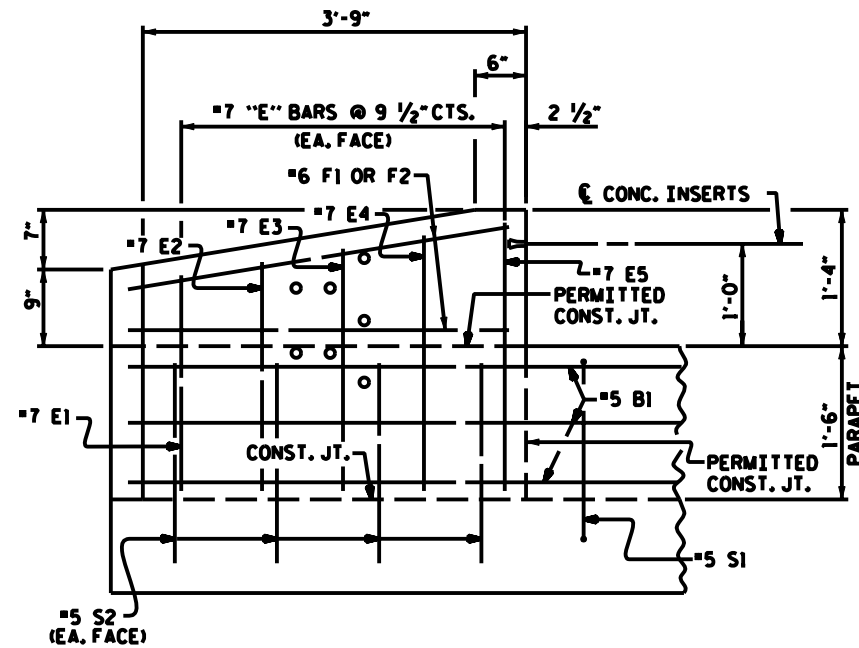
PLAN OF PARAPET



PLAN OF END POST



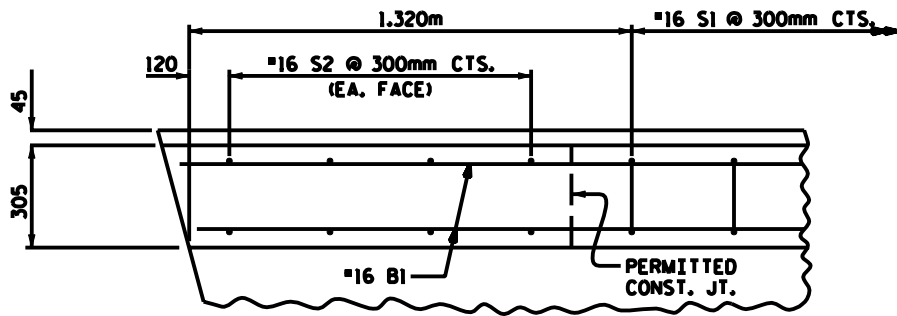
END VIEW



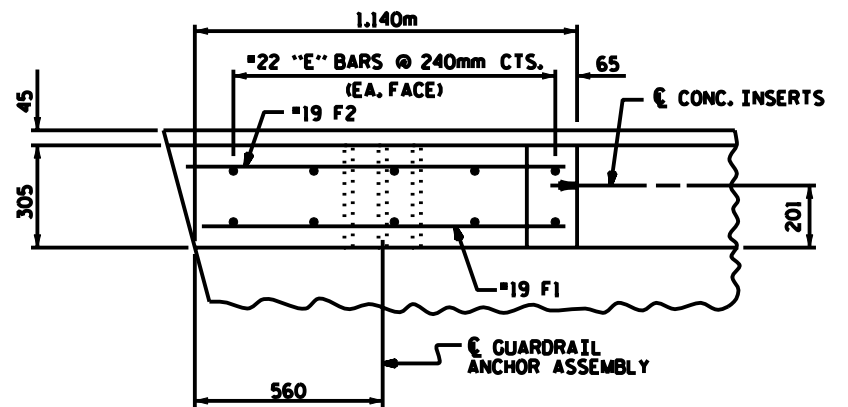
ELEVATION

PARAPET AND END POST FOR ONE BAR RAIL

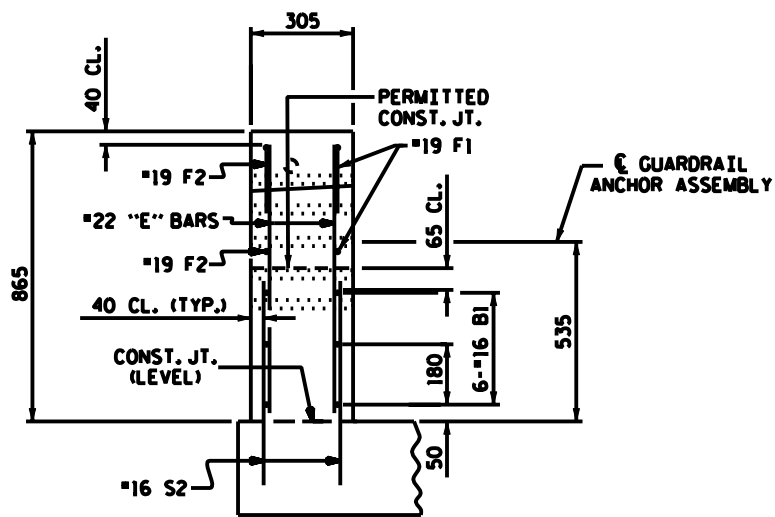
FIGURE 6 - 34



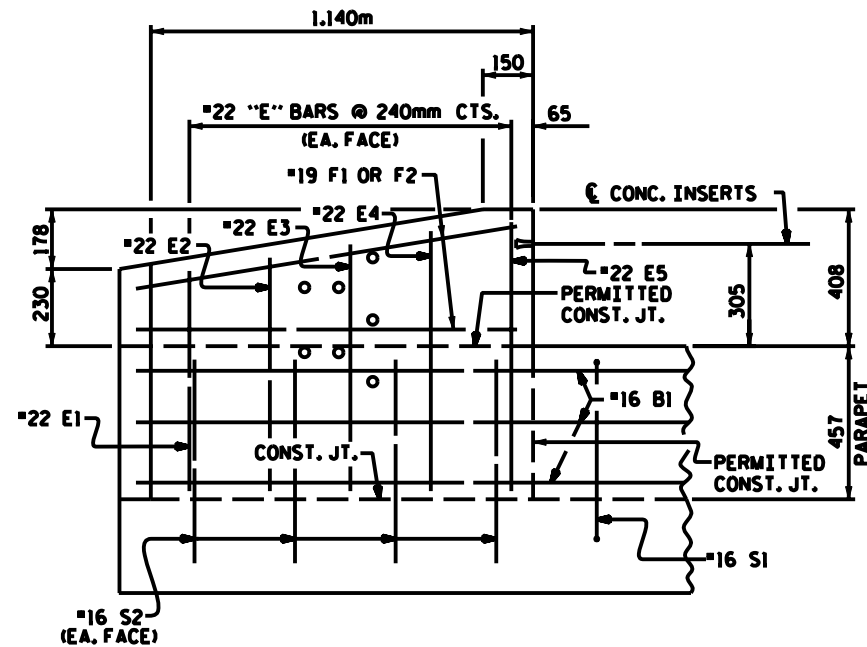
PLAN OF PARAPET



PLAN OF END POST



END VIEW



ELEVATION

PARAPET AND END POST FOR ONE BAR RAIL

FIGURE 6 - 34