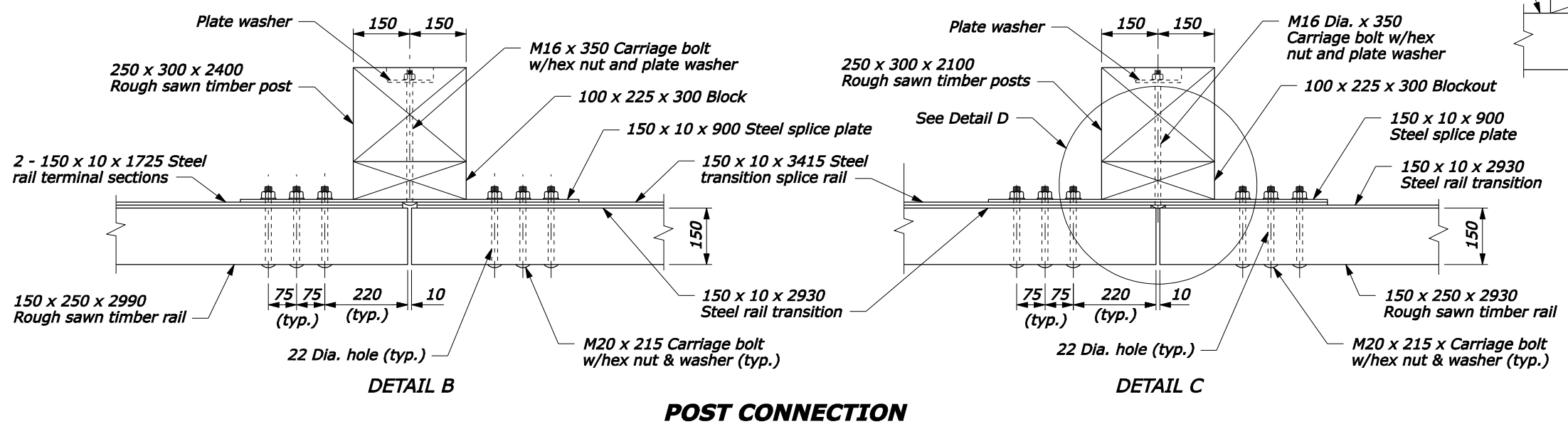
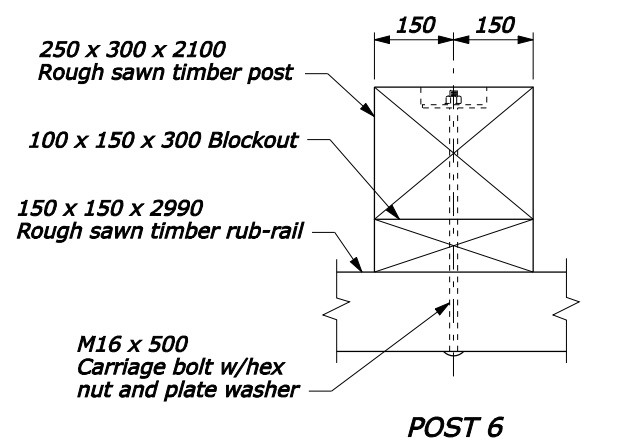
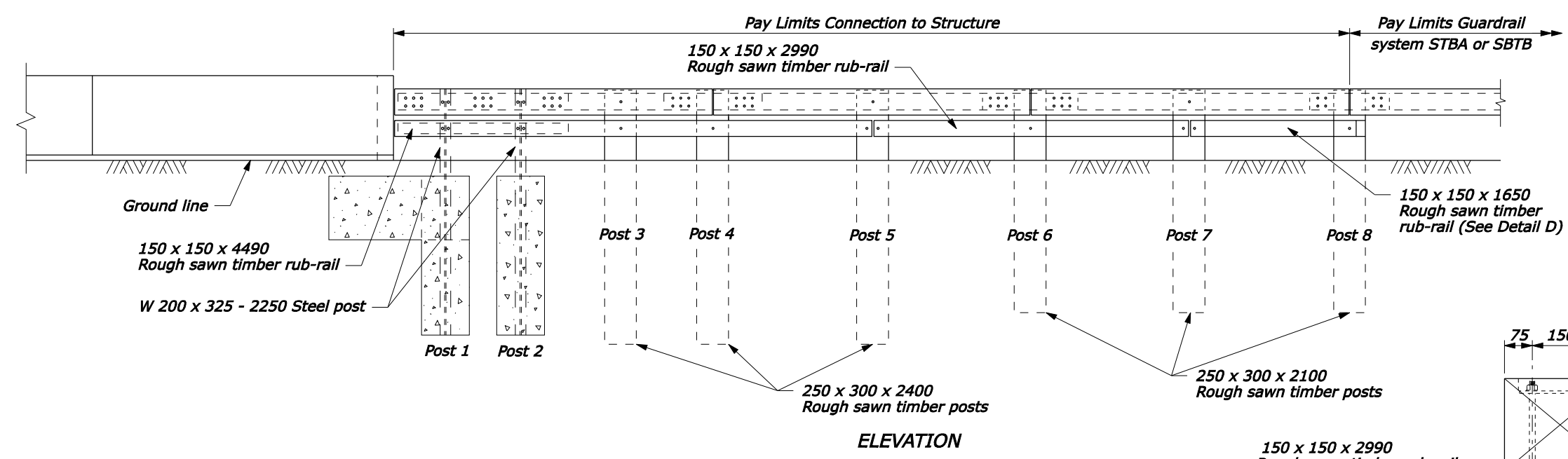


- NOTE:**
1. See the following sheets for Sections A-A through C-C, steel rail layouts, and other details.
  2. Use weathering steel for all structural steel and fastener hardware.
  3. Transition shown for curved end structure. For transition to a straight parapet end, install the timber rail so that the face of the timber rail is offset 25 mm towards the roadway.
  4. Furnish hardware in the metric sizes shown. Equivalent US Customary sizes may be used when metric sizes are not available.
  5. Dimensions without units are millimeters.



NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
FEDERAL LANDS HIGHWAY

METRIC STANDARD

**STEEL-BACKED TIMBER GUARDRAIL  
TL-2 TRANSITION TO STRAIGHT  
OR CURVED-END STRUCTURE**

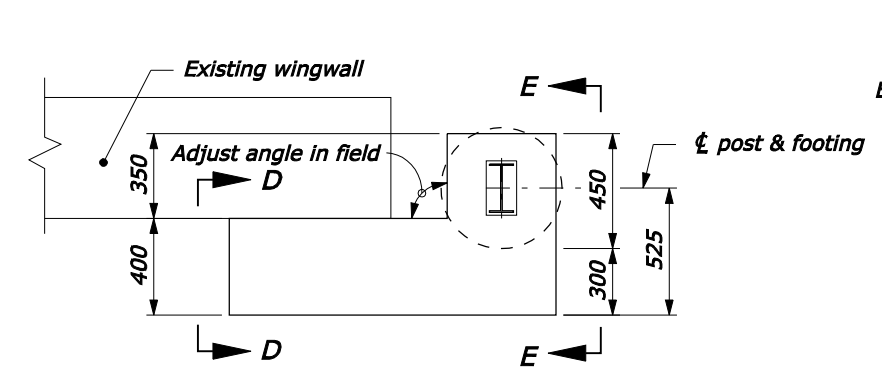
Sheet 1 of 3

STANDARD APPROVED FOR USE --/----

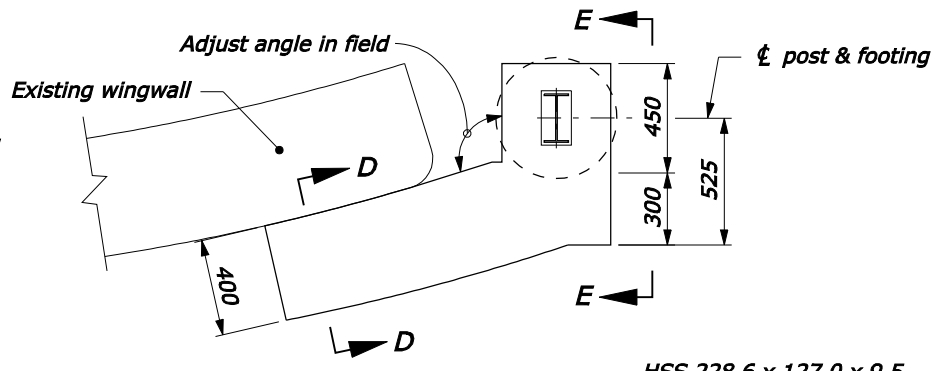
REVIS: 5/2008

STANDARD M617-67

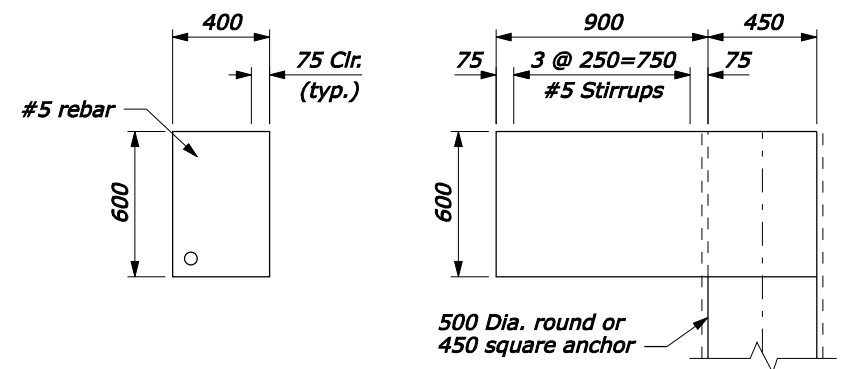
05-May-2008 03:24 PM  
 fpp://196.145.188.2/scd\_plan/m61767.dgn [Metric]



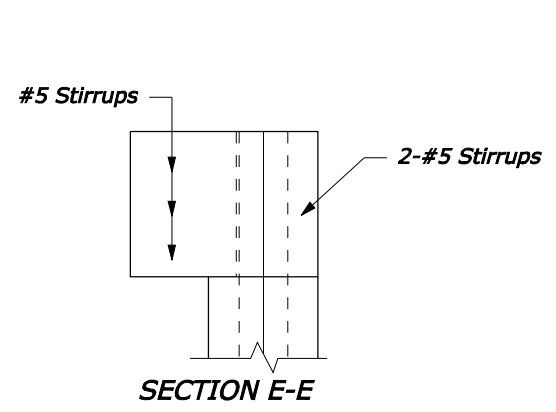
**NON-FLARED WINGWALL**



**FLARED WINGWALL**

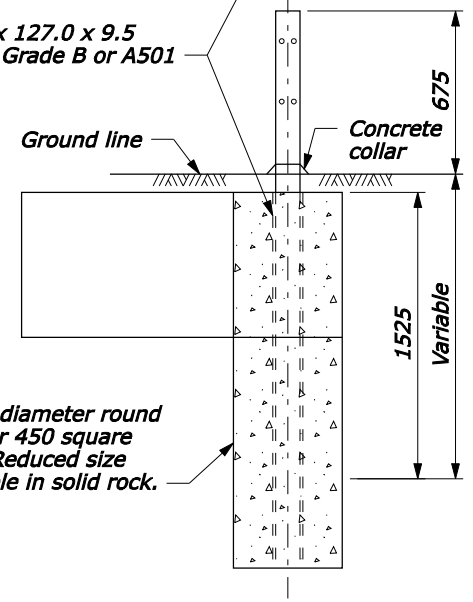


**SECTION D-D**  
**ELEVATION**  
**CONNECTION TO CONCRETE ANCHOR**



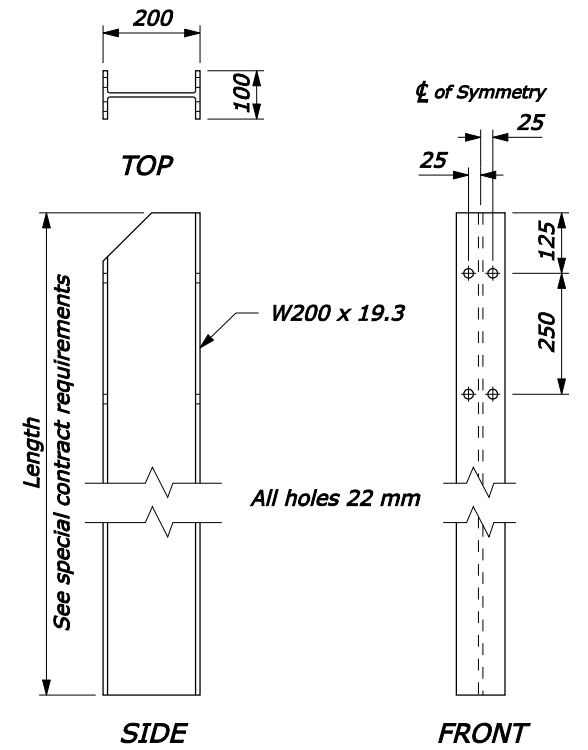
**SECTION E-E**

HSS 228.6 x 127.0 x 9.5  
ASTM A500 Grade B or A501

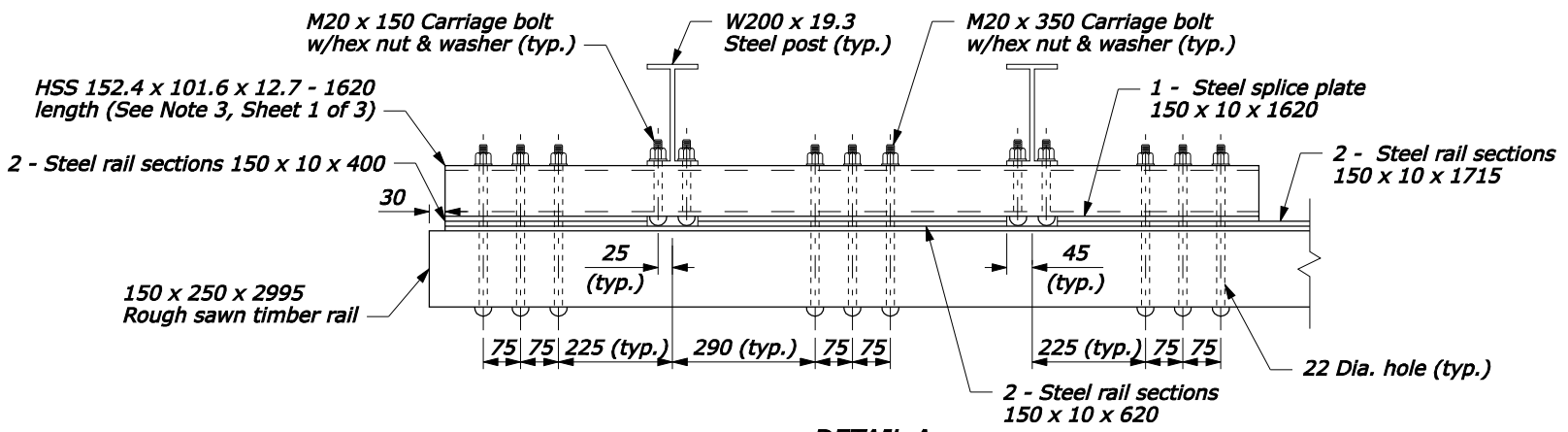


**CONCRETE ANCHOR FOR GUARDRAIL POST**

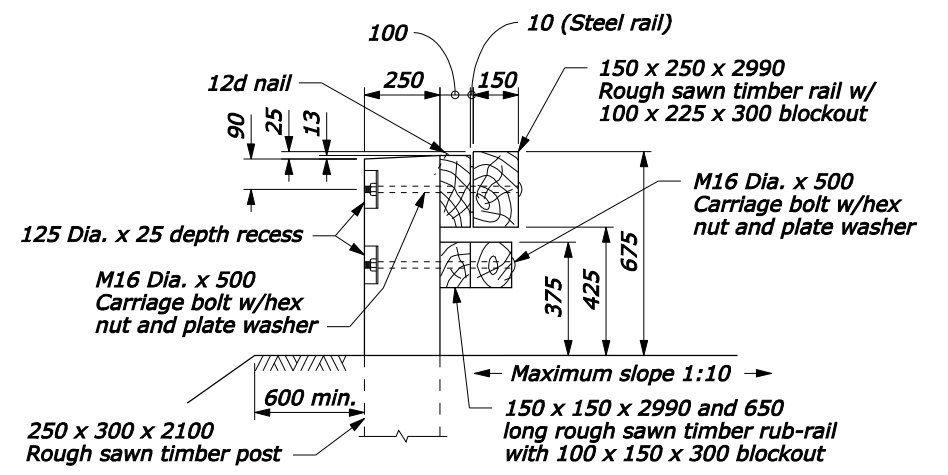
Use 500 diameter round anchor or 450 square anchor. Reduced size acceptable in solid rock.



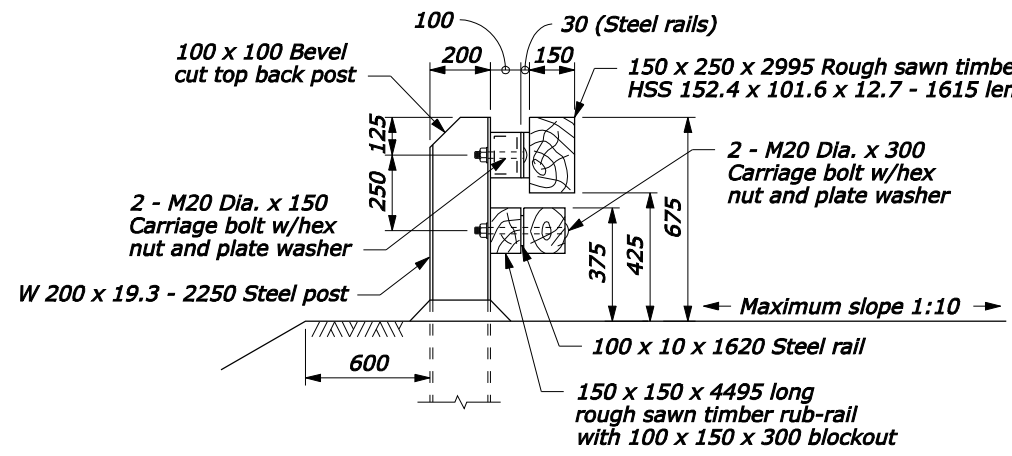
**STEEL POST**



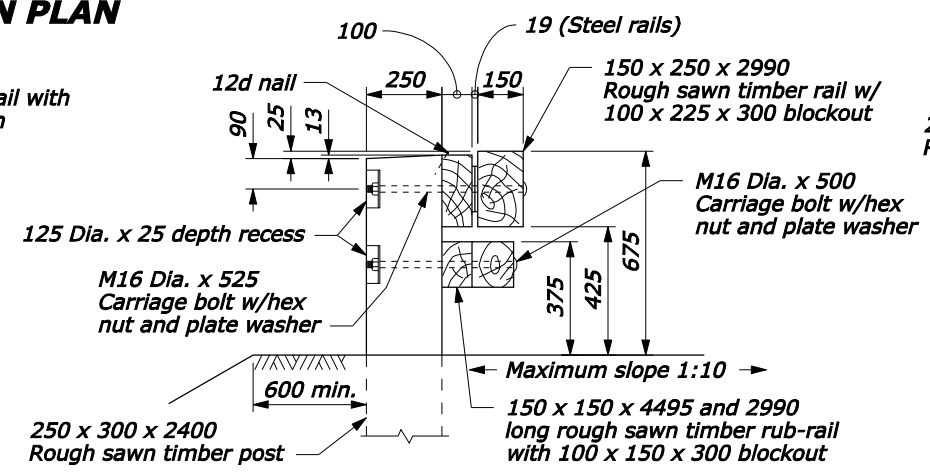
**DETAIL A**  
**POST CONNECTION PLAN**



**SECTION C-C**



**SECTION A-A**



**SECTION B-B**

NO SCALE

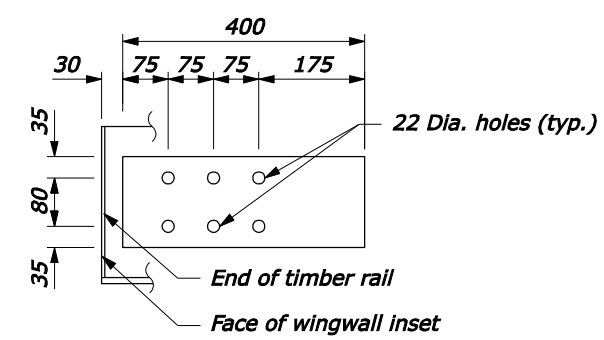
U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
FEDERAL LANDS HIGHWAY

METRIC STANDARD  
**STEEL-BACKED TIMBER GUARDRAIL  
TL-2 TRANSITION TO STRAIGHT  
OR CURVED-END STRUCTURE**  
Sheet 2 of 3

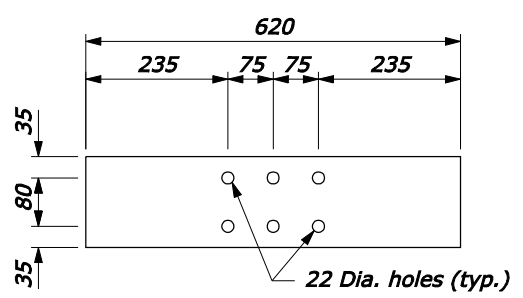
STANDARD APPROVED FOR USE --/--  
REVISED: 3/2008  
DRAFT: 3/2008

STANDARD  
M617-67

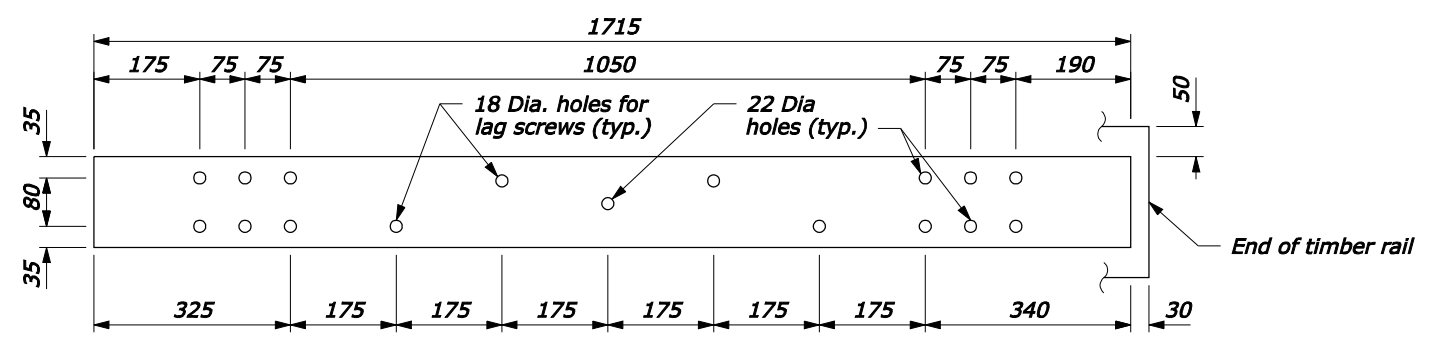
fp://196.145.188.2/scd\_plan/s61767.dgn [Metric] 05-May-2008 03:24 PM



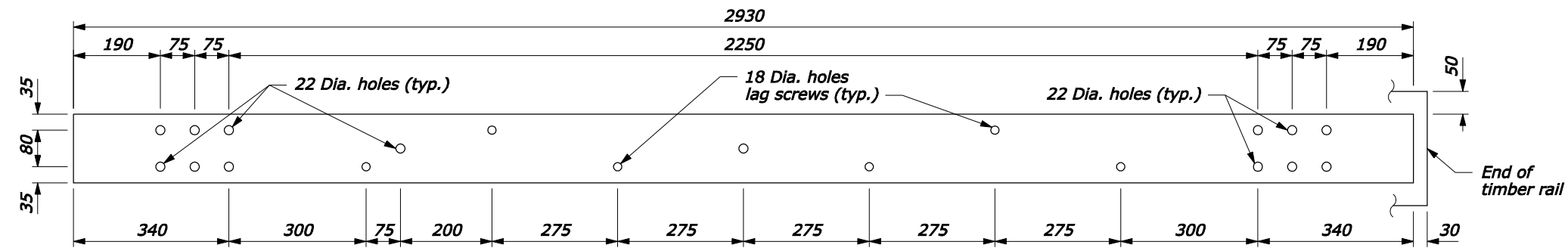
**TERMINAL SECTION**  
150 x 10 x 400



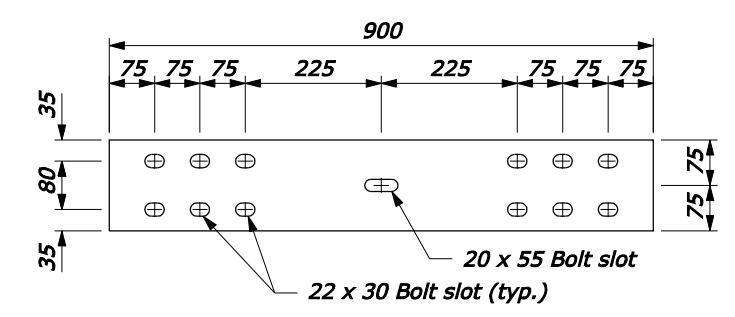
**TERMINAL SECTION**  
150 x 10 x 620



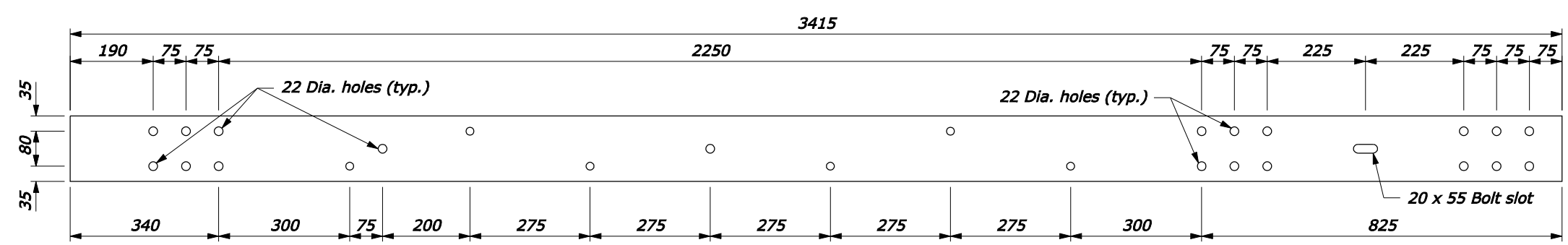
**TERMINAL SECTION**  
150 x 10 x 1715



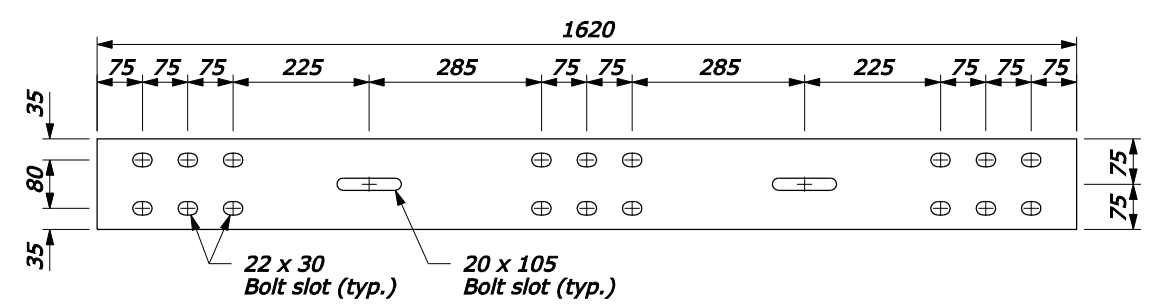
**TRANSITION SECTION**  
150 x 10 x 2930



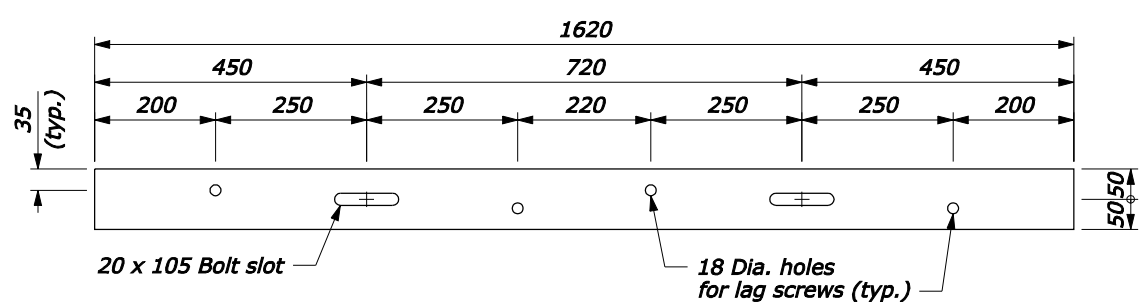
**STEEL SPLICE PLATE**  
150 x 10 x 900



**TRANSITION SECTION**  
150 x 10 x 3415



**STEEL SPLICE PLATE**  
150 x 10 x 1620



**RUB-RAIL TRANSITION SECTION**  
100 x 10 x 1620

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
FEDERAL LANDS HIGHWAY

METRIC STANDARD  
**STEEL-BACKED TIMBER GUARDRAIL  
TL-2 TRANSITION TO STRAIGHT  
OR CURVED-END STRUCTURE**  
Sheet 3 of 3

STANDARD APPROVED FOR USE --/--

REVIS: DRAFT: 3/2008

STANDARD  
M617-67

05-May-2008 03:24 PM  
 fpp://196.145.188.2/scd\_plan/s61767.dgn [Metric]