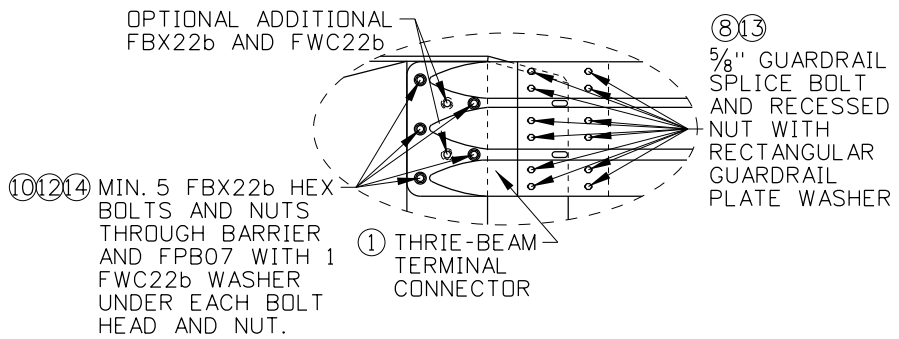
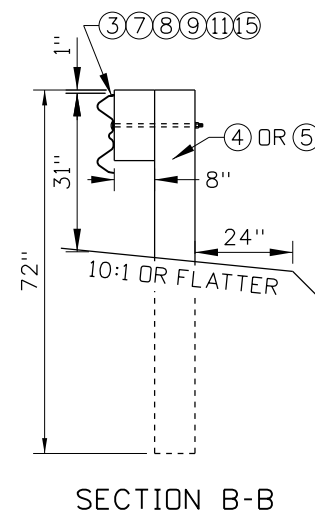
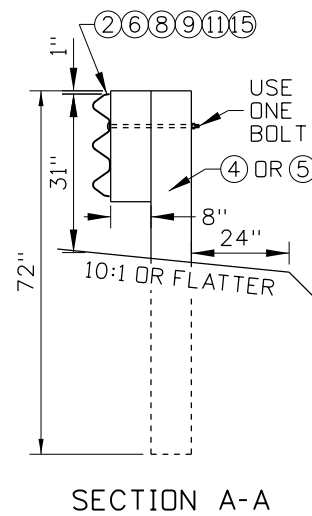
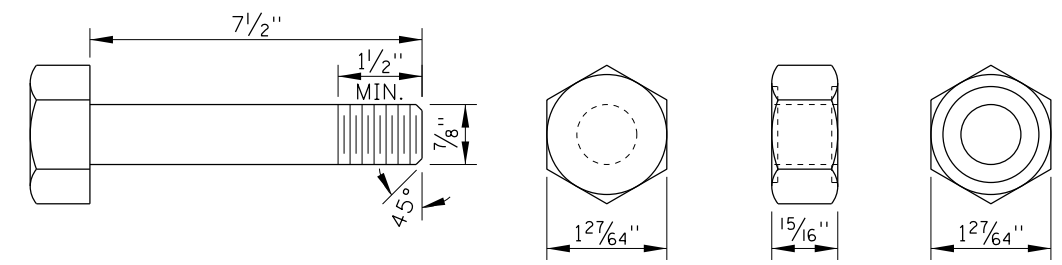


SEE CONNECTOR BOLT DETAIL
BRIDGE PARAPET OR CONCRETE BARRIER CONNECTOR

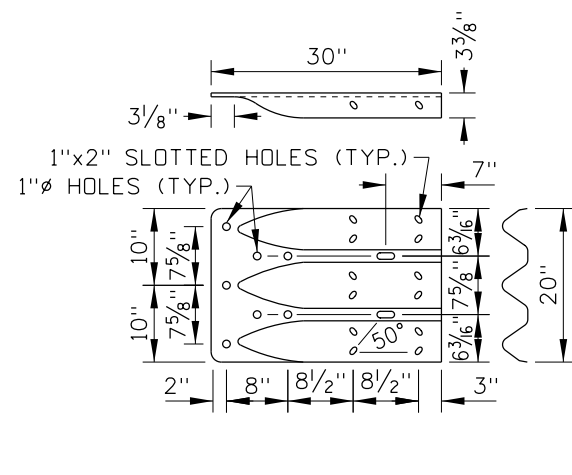
LOW SPEED GUARDRAIL TRANSITION



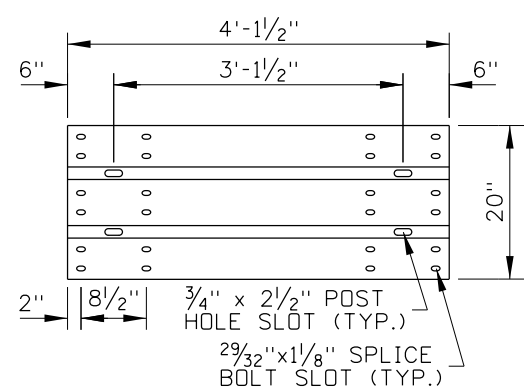
CONNECTOR BOLT DETAIL



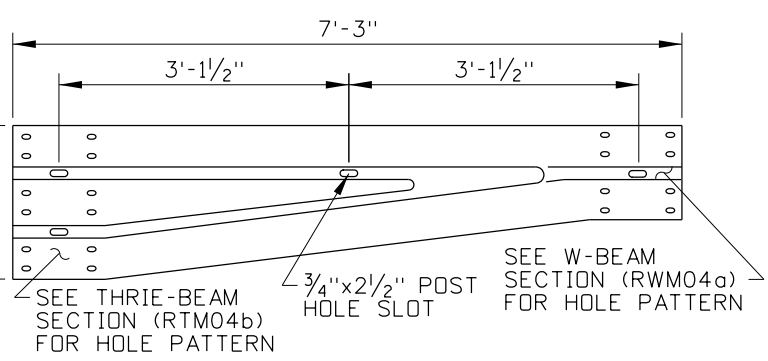
**⑩ STRUCTURAL HEX BOLT AND NUT
FBX22b**



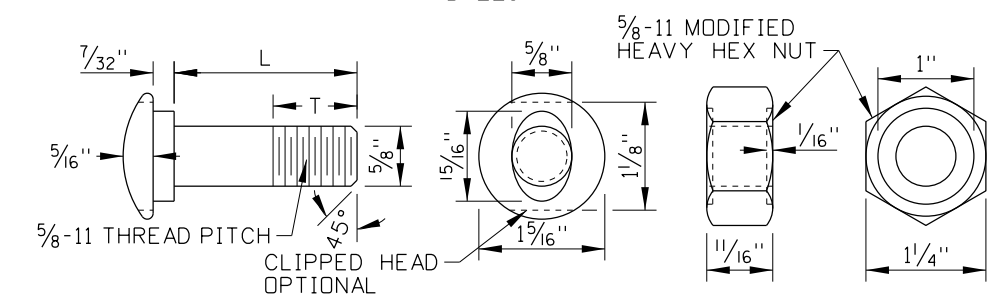
**① THRIE-BEAM TERMINAL CONNECTOR
RTE01b (10 GAUGE)**



**② 4-SPACE THRIE-BEAM GUARDRAIL
RTM04b (10 GAUGE)**



**③ ASYMMETRICAL W-THRIE BEAM TRANSITION SECTION
RWT01b (10 GAUGE)**



**⑧⑨ GUARDRAIL BOLT AND RECESSED NUT
FBB01, FBB03, FBB04**

| BOLT DIMENSION TABLE | | |
|----------------------|--------|--------|
| DESIGNATOR | L | T |
| FBB01 | 1 1/4" | 1 1/8" |
| FBB03 | 10" | 4" |
| FBB04 | 18" | 4" |

| REVISIONS | | | | | | | |
|-----------|-------|-----|-----|------|----|-----|------|
| NO. | DATE | BY | NO. | DATE | BY | NO. | DATE |
| 1 | 08-18 | RDL | | | | | |

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DRAWING DATE: JUNE, 2017

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN
DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING
GUARDRAIL TRANSITION LOW SPEED
REQUIRES SHEET 2 OF 2

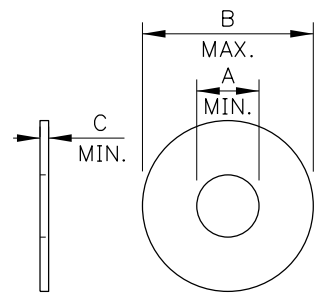
ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

English

STANDARD DRAWING NO.
612-10

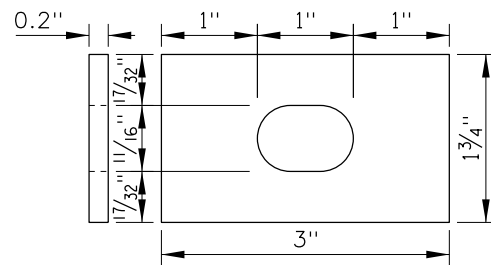
SHEET 1 OF 2

ORIGINAL SIGNED BY:
RYAN D. LANCASTER
DATE ORIGINAL SIGNED:
AUGUST 24, 2018

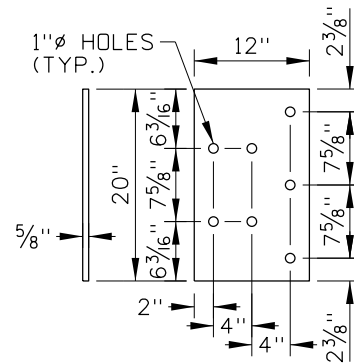


| WASHER DIMENSION TABLE | | | |
|------------------------|--------|--------|--------|
| DESIGNATOR | A | B | C |
| FWC16a | 0.649" | 1.780" | 0.090" |
| FWC22b | 0.938" | 1.780" | 0.136" |

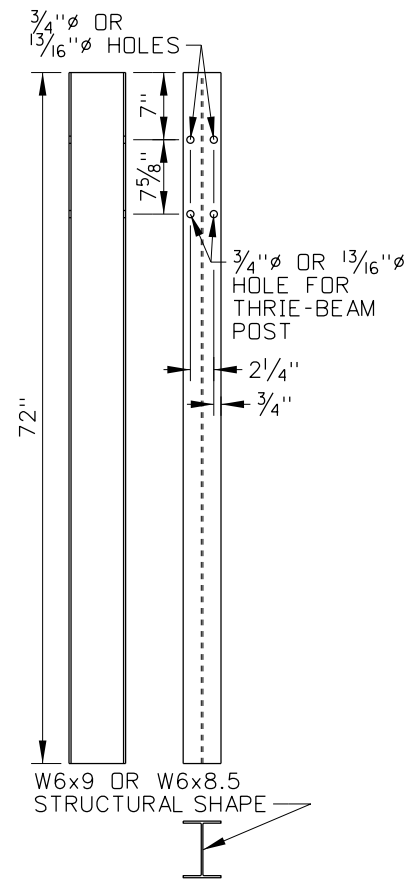
⑪⑫ ROUND WASHERS
FWC16a, FWC22b



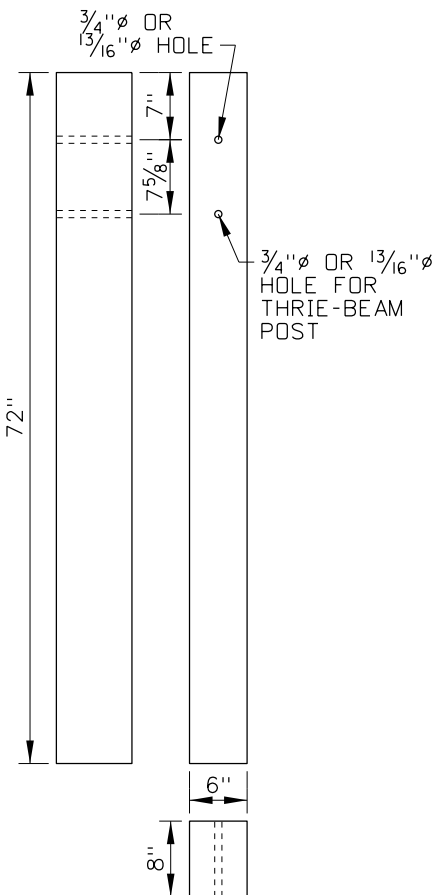
⑬ RECTANGULAR GUARDRAIL PLATE WASHER
FWR03



⑭ THRIE-BEAM TERMINAL CONNECTOR PLATE
FPB07

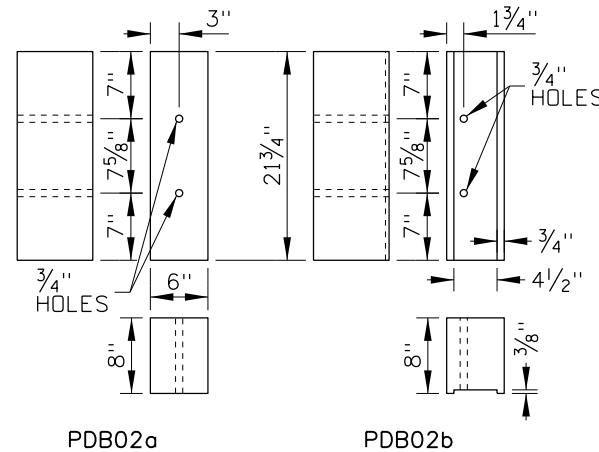


④ WIDE-FLANGE
PWE01

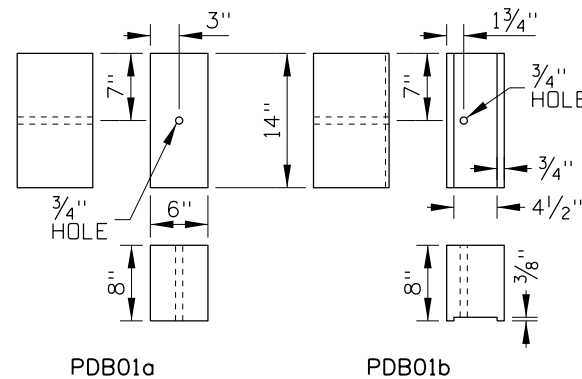


⑤ TIMBER
PDE02

GUARDRAIL POSTS



⑥ THRIE-BEAM TIMBER BLOCKOUTS



⑦ W-BEAM TIMBER BLOCKOUTS

| LOW SPEED GUARDRAIL TRANSITION HARDWARE COMPONENTS TABLE | | | | |
|--|--|------|------------------------|-------------|
| ITEM NO. | COMPONENT DESCRIPTION | QTY. | WIDE-FLANGE POST | TIMBER POST |
| ① | THRIE-BEAM TERMINAL CONNECTOR | 1 | RTE01b | RTE01b |
| ② | 4-SPACE THRIE-BEAM GUARDRAIL | 1 | RTM04b | RTM04b |
| ③ | ASYMMETRICAL W-THRIE BEAM TRANSITION SECTION | 1 | RWT01b | RWT01b |
| ④ | 72" WIDE-FLANGE GUARDRAIL POST | 3 | PWE01 | - |
| ⑤ | 72" TIMBER GUARDRAIL POST | 3 | - | PDE02 |
| ⑥ | THRIE-BEAM BLOCKOUT | 1 | PDB02b OR POLYETHYLENE | PDB02a |
| ⑦ | W-BEAM BLOCKOUT | 2 | PDB01b OR POLYETHYLENE | PDB01a |
| ⑧ | 5/8" GUARDRAIL SPLICE BOLT AND RECESSED NUT | 32 | FBB01 | FBB01 |
| ⑨ | 5/8" GUARDRAIL BOLT AND RECESSED NUT | 3 | FBB03 | FBB04 |
| ⑩ | 7/8" X 7 1/2" STRUCTURAL HEX BOLT & NUT | 5 | FBX22b | FBX22b |
| ⑪ | 5/8" PLAIN ROUND WASHER | 3 | FWC16a | FWC16a |
| ⑫ | 7/8" HARDENED ROUND WASHER | 10 | FWC22b | FWC22b |
| ⑬ | RECTANGULAR GUARDRAIL PLATE WASHER | 12 | FWR03 | FWR03 |
| ⑭ | THRIE-BEAM TERMINAL CONNECTOR PLATE | 1 | FPB07 | FPB07 |
| ⑮ | 16D GALVANIZED NAIL | 6 | - | N/A |

NOTES

1. THE GUARDRAIL TRANSITION SHOWN IS A MASH TEST LEVEL 2 TRANSITION. USE THE TRANSITION ON HIGHWAYS WHERE THE POSTED SPEED LIMIT IS 40 MPH OR LESS AND WHERE A SEMI-RIGID GUARDRAIL, SUCH AS 31" W-BEAM GUARDRAIL, JOINS A RIGID BARRIER, SUCH AS A BRIDGE RAIL, BRIDGE PARAPET OR CONCRETE BARRIER.
2. PROVIDE BARRIER HARDWARE AS SHOWN AND AS SPECIFIED IN THE PUBLICATION "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE." WHERE THE GUIDE AND PLANS CONFLICT, PROVIDE HARDWARE COMPONENTS AS SHOWN ON THE PLANS.
3. WIDE-FLANGE OR TIMBER POSTS MAY BE USED UNLESS OTHERWISE INDICATED. USE THE SAME POST MATERIAL AS IN THE ADJOINING 31" W-BEAM GUARDRAIL.
4. USE TIMBER OR POLYETHYLENE BLOCKOUTS WITH WIDE-FLANGE POSTS. USE TIMBER BLOCKOUTS WITH TIMBER POSTS.
5. NAIL TIMBER BLOCKOUTS TO TIMBER POSTS TO RESTRICT BLOCK ROTATION.
6. WHEN WIDE-FLANGE POSTS ARE USED AND WHEN PRACTICAL, INSTALL THE BOLT (FBB03) ON THE UPSTREAM SIDE OF THE POST IN RELATION TO THE ADJACENT TRAFFIC.
7. OVERLAP SPLICES SO THAT THE EXPOSED W-BEAM EDGE IS DOWNSTREAM OF THE ADJACENT TRAFFIC.
8. PROVIDE A MINIMUM OF 12'-6" OF 31" W-BEAM GUARDRAIL BETWEEN THE GUARDRAIL TRANSITION AND A GUARDRAIL TERMINAL OR ANCHOR.
9. INSTALL RECTANGULAR GUARDRAIL PLATE WASHERS UNDER GUARDRAIL NUTS AT THE SPLICE BETWEEN THE THRIE-BEAM GUARDRAIL AND THRIE-BEAM TERMINAL CONNECTOR.
10. A CONNECTOR PLATE TO KEEP THE THRIE-BEAM TERMINAL CONNECTOR IN A VERTICAL PLANE IS OPTIONAL. SEE THE DETAIL ON THE HIGH SPEED GUARDRAIL TRANSITION STANDARD DRAWING.
11. DELINEATE THE TRANSITION. SEE THE DELINEATOR STANDARD DRAWING.
12. DRAWING NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

ORIGINAL SIGNED BY: RYAN D. LANCASTER DATE ORIGINAL SIGNED: AUGUST 24, 2018

| REVISIONS | | | | | | | | |
|-----------|-------|-----|-----|------|----|-----|------|----|
| NO. | DATE | BY | NO. | DATE | BY | NO. | DATE | BY |
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DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING
GUARDRAIL TRANSITION LOW SPEED
REQUIRES SHEET 1 OF 2

English
STANDARD DRAWING NO. 612-10
SHEET 2 OF 2