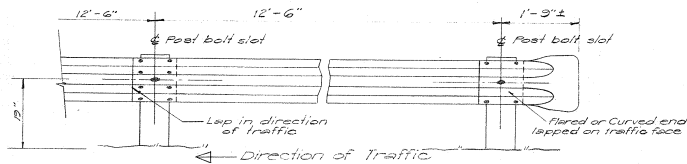
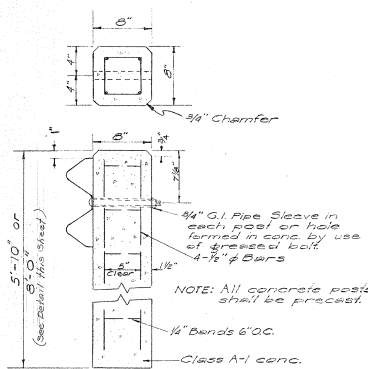


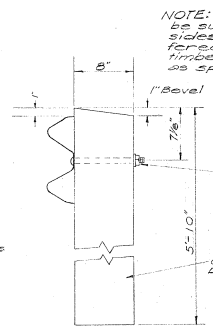
| FED. ROAD DIST. NO. | STATE  | PROJ. NO.   | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|--------|-------------|-------------|-----------|--------------|
| HAWAII              | HAWAII | 2-900-01-60 | 1960        | 8         | 8            |



**METAL GUARDRAIL**  
Scale: 1/4" = 1'-0"



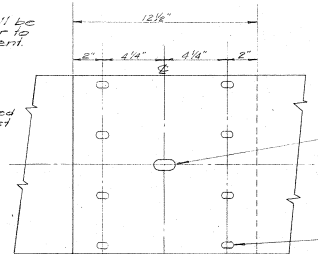
**DETAIL OF CONC. POST**  
Scale: 1/8" = 1"



**DETAIL OF TIMBER POST**  
Scale: 1/8" = 1"

NOTE: Timber post shall be surfaced on four sides (S4S) and cherted. Final color for timber post shall be as specified.

Bolt hole shall be drilled prior to self treatment.

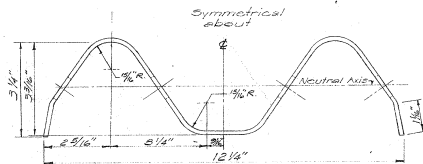


**RAIL SPLICE**  
Scale: 1/4" = 1"

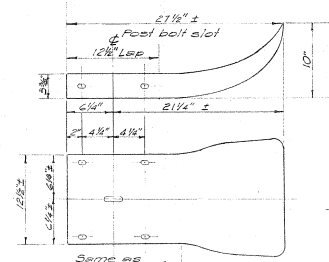
**SPLICE BOLT SLOT FOR ALL ENDS**  
Scale: 1/4"

**POST BOLT SLOT**  
Scale: 1/4"

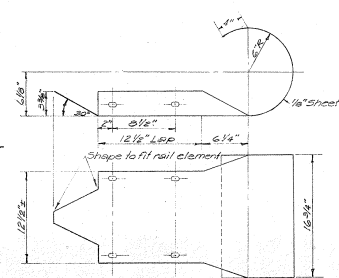
**SPLICE BOLT SLOT**  
Scale: 1/4"



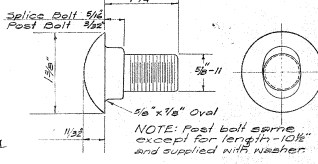
**RAIL ELEMENT SECTION**  
Scale: 1/2" = 1"



**FLARED END**  
Scale: 1/8" = 1"

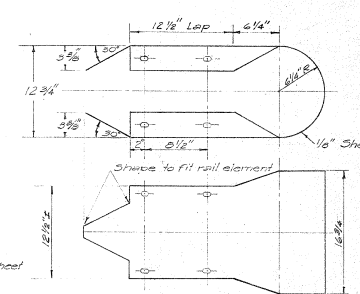


**CURVED END**  
Scale: 1/8" = 1"



**SPLICE BOLT POST BOLT**  
Scale: 1" = 1"

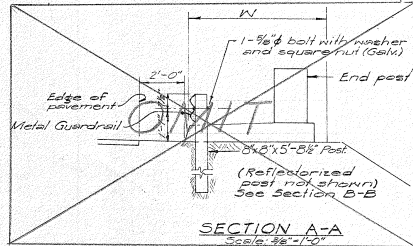
**HEXAGON NUT**  
Scale: 1" = 1"



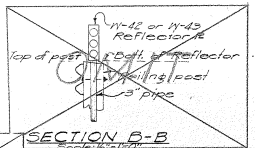
**MEDIAN END**  
Scale: 1/8" = 1"

| GUARDRAIL OFFSET |      |      |      |      |      |      |      |      |      |
|------------------|------|------|------|------|------|------|------|------|------|
| X                | N=3  | N=4  | N=5  | N=6  | N=7  | N=8  | N=9  | N=10 | N=11 |
| 15.0             | 0.12 | 0.16 | 0.14 | 0.12 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| 16.0             | 0.12 | 0.16 | 0.14 | 0.12 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| 17.0             | 0.12 | 0.16 | 0.14 | 0.12 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| 18.0             | 0.12 | 0.16 | 0.14 | 0.12 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| 19.0             | 0.12 | 0.16 | 0.14 | 0.12 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| 20.0             | 0.12 | 0.16 | 0.14 | 0.12 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| 21.0             | 0.12 | 0.16 | 0.14 | 0.12 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| 22.0             | 0.12 | 0.16 | 0.14 | 0.12 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| 23.0             | 0.12 | 0.16 | 0.14 | 0.12 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| 24.0             | 0.12 | 0.16 | 0.14 | 0.12 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| 25.0             | 0.12 | 0.16 | 0.14 | 0.12 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| 26.0             | 0.12 | 0.16 | 0.14 | 0.12 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| 27.0             | 0.12 | 0.16 | 0.14 | 0.12 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| 28.0             | 0.12 | 0.16 | 0.14 | 0.12 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| 29.0             | 0.12 | 0.16 | 0.14 | 0.12 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| 30.0             | 0.12 | 0.16 | 0.14 | 0.12 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |

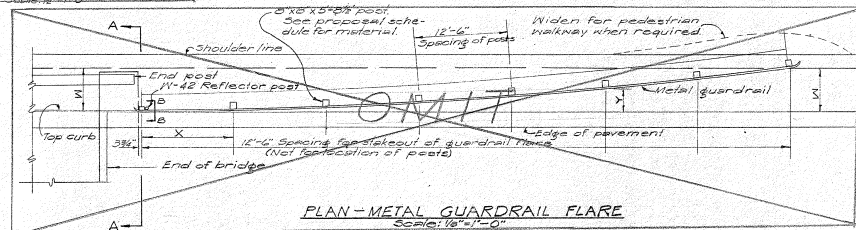
N = Guardrail Flare  
X = Distance from post at bridge to offset points  
Y = Guardrail Flare offset



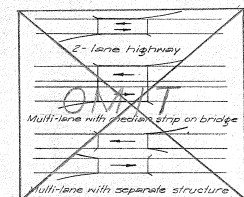
**SECTION A-A**  
Scale: 1/8" = 1'-0"



**SECTION B-B**  
Scale: 1/8" = 1'-0"



**PLAN-METAL GUARDRAIL FLARE**  
Scale: 1/8" = 1'-0"



DEPARTMENT OF TRANSPORTATION  
STATE OF HAWAII  
**STANDARD DETAILS**  
**METAL GUARD RAIL**  
PROJECT No. B-900-01-60  
Scale: As Noted June, 1960