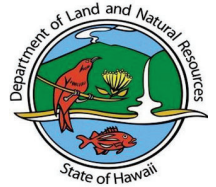


State of Hawaii
Department of Land and Natural Resources (DLNR)

1151 Punchbowl St.
Honolulu, HI 96813



Date: 5/5/26

Scope of Work

To: Bidding Contractors

Copy: Shanel Enos
Bowers + Kubota
2153 North King St., STE 103A
Honolulu, HI 96819

DLNR Job #: 26-SPH-002

Project Name: Rainbow Falls - Install Wooden Guardrails and Cattle Gates

Location: Rainbow Falls
967 Waianuenue Avenue
Hilo, Hawaii 96720

Scope of Work:

Install wooden guardrails and cattle gates.

- Contractor shall follow wooden guardrail reference drawings attached in SOW. Measurements of length may vary. Contractor to verify site conditions.
- Contractor shall submit shop drawings of both cattle gates.

Rainbow Falls - Install Wooden Guardrails and Cattle Gates

DLNR Job #: 26-SPH-002

Site Plan



Rainbow Falls - Install Wooden Guardrails and Cattle Gates

DLNR Job #: 26-SPH-002

Contacts:

Project Coordinator

Shanel Enos , DLNR DPC Hawaii

Cell: 808-302-0408

On-site contact persons during construction:

State Parks Staff

Luisa Castro

Phone: 808-895-1660

Phone:

Rainbow Falls - Install Wooden Guardrails and Cattle Gates

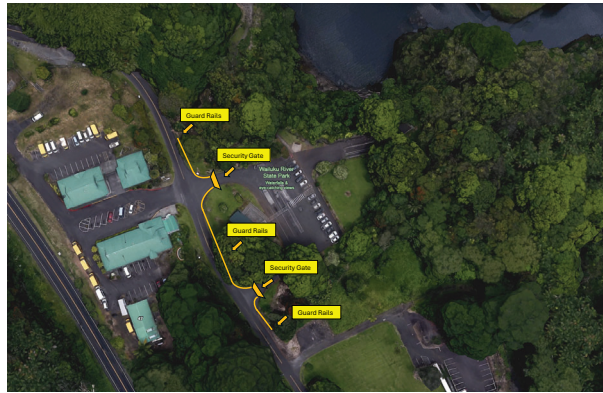
DLNR Job #: 26-SPH-002

Site Pictures

Site Area:

Install wooden guardrails and cattle gates at proposed locations.

Install Cattle Gate.



Install Cattle Gate.

Install Wooden Guardrails.



Rainbow Falls - Install Wooden Guardrails and Cattle Gates

DLNR Job #: 26-SPH-002

Site Pictures

Site Area:

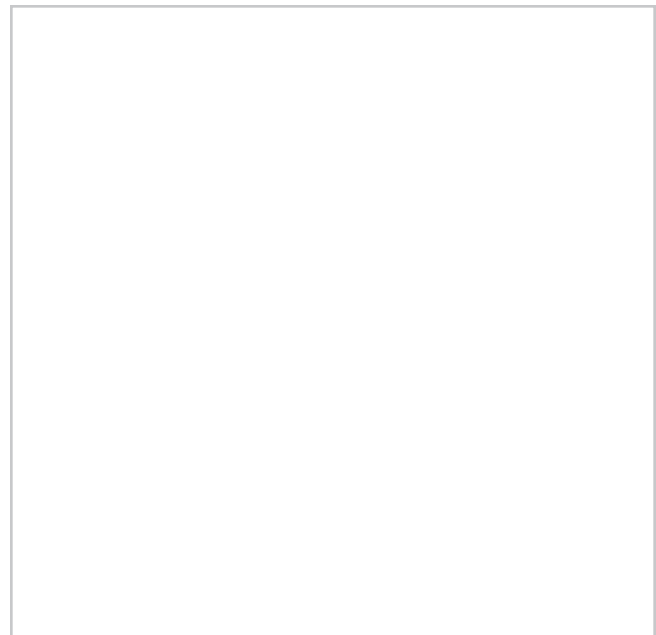
Install Wooden Guardrails.

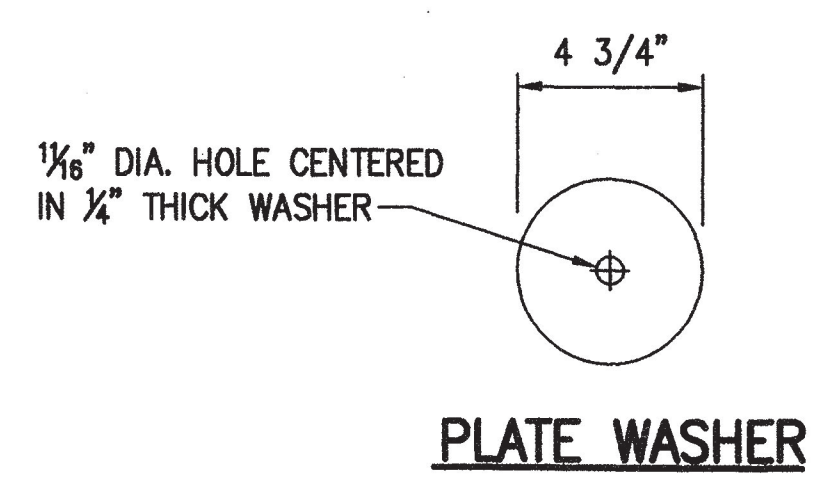
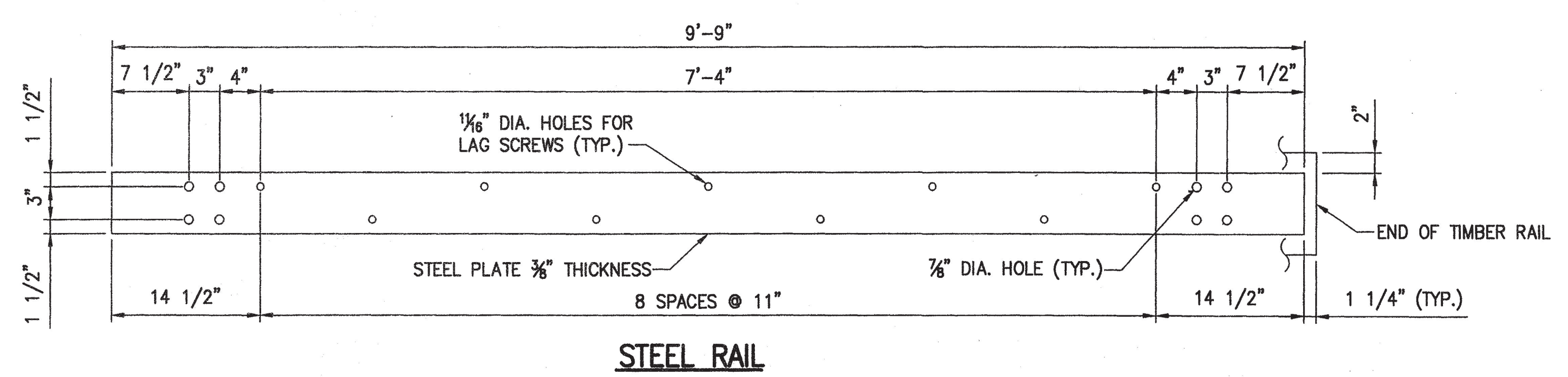


Install Wooden Guardrails.

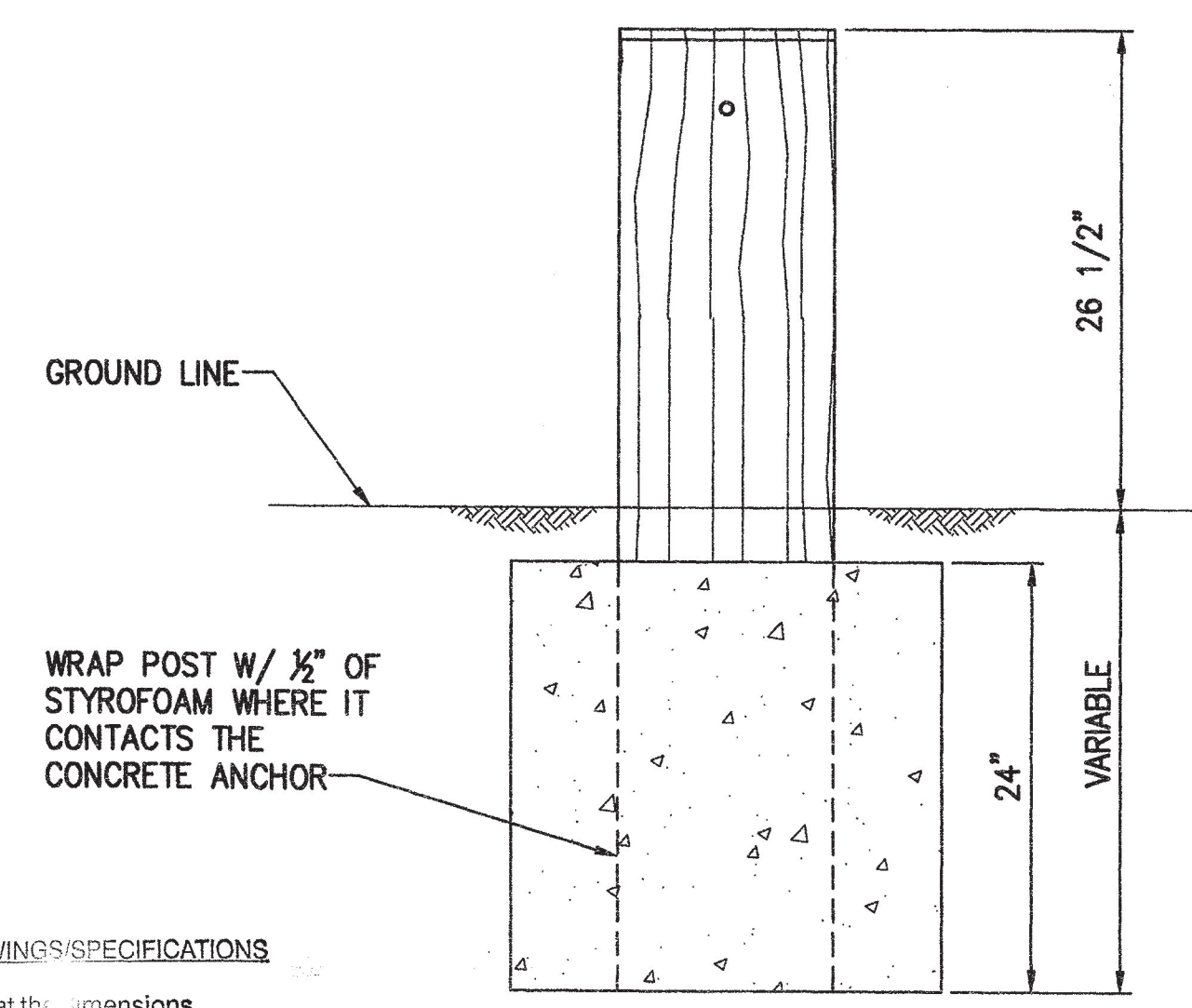
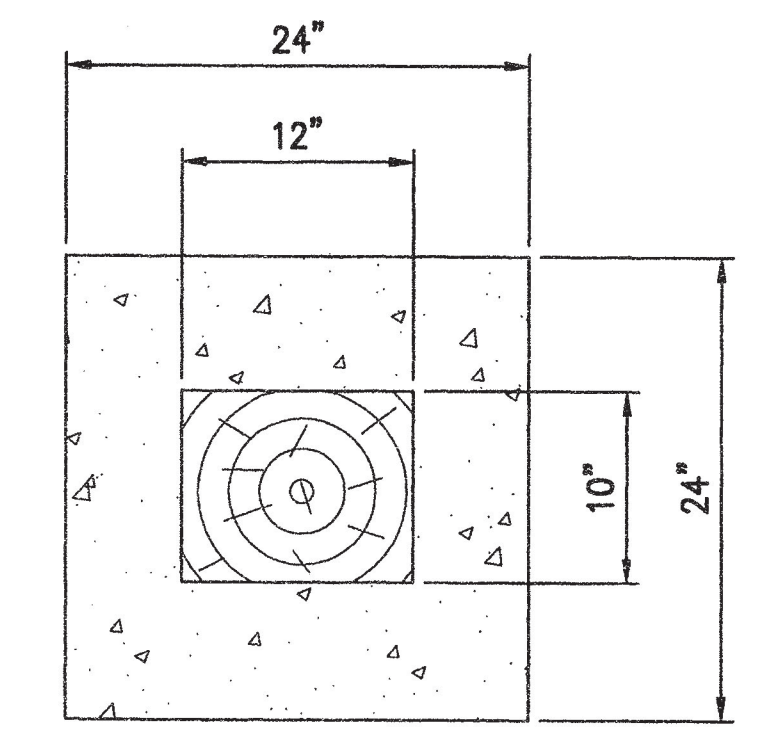
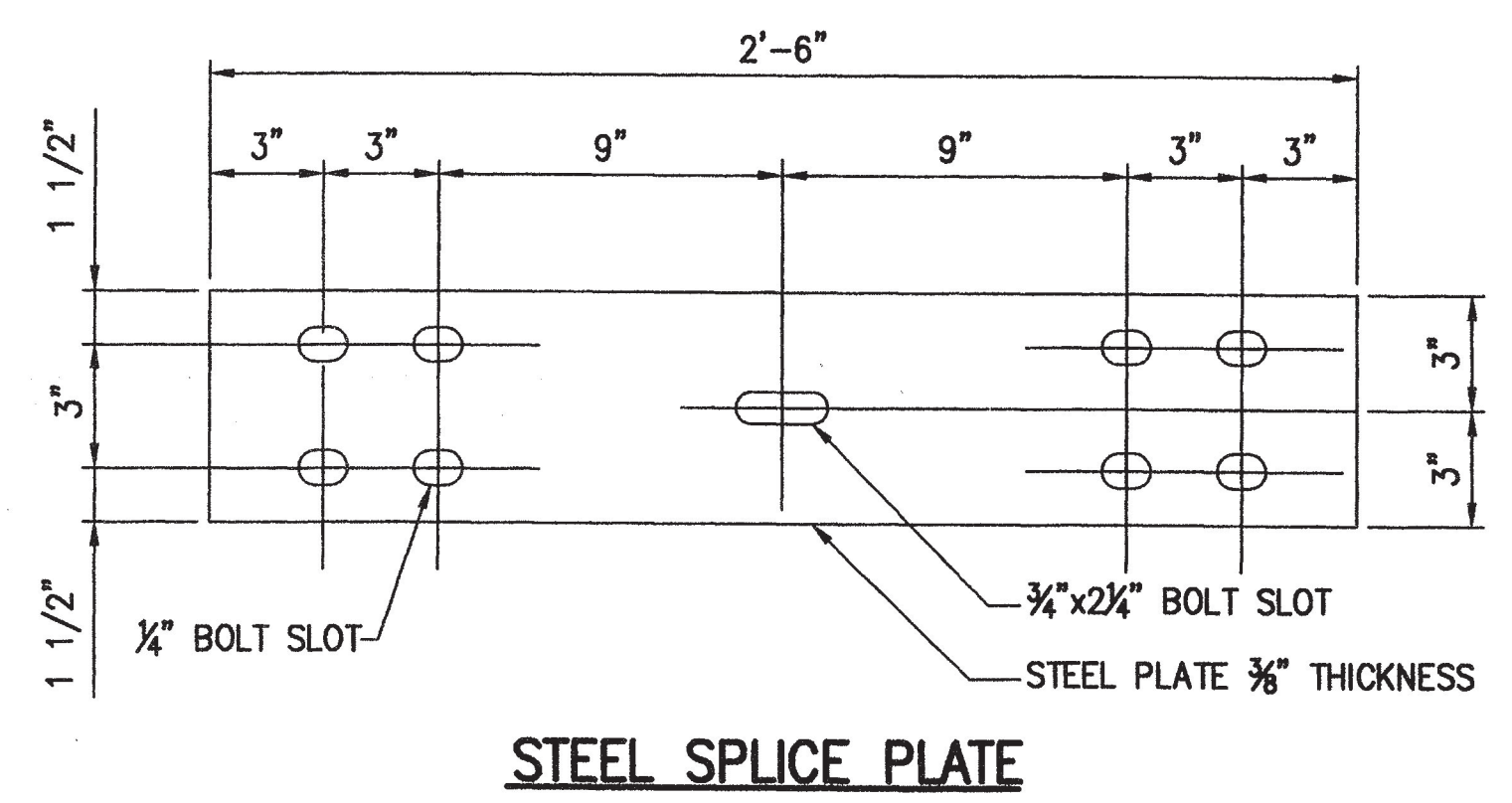
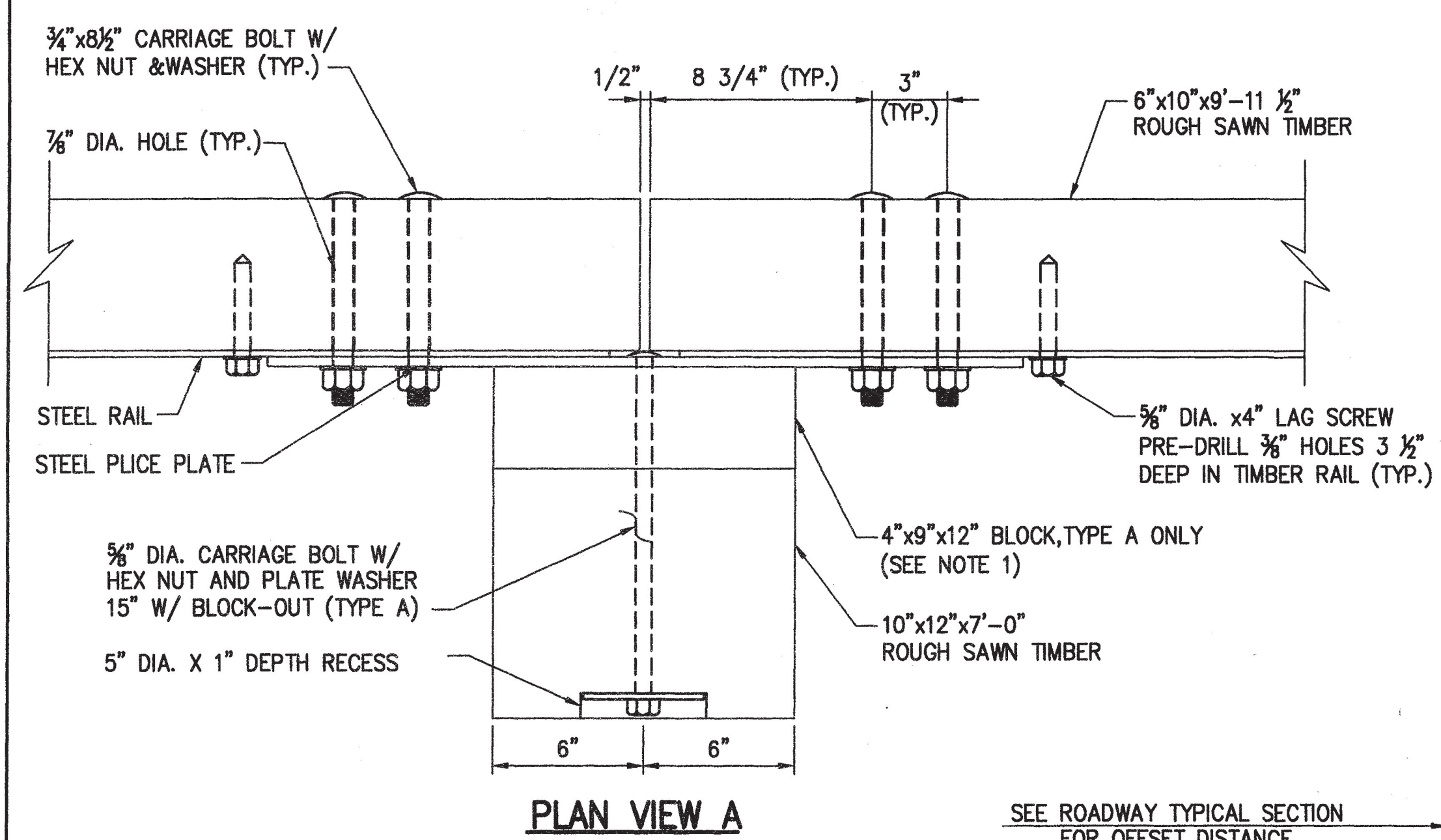


Install Wooden Guardrails.





- NOTE:**
1. USE GALVANIZED STEEL FOR ALL STRUCTURAL STEEL AND FASTENER HARDWARE AS SPECIFIED.
 2. PLACE A TERMINAL SECTION SEE SHEET C8-02 ON BOTH APPROACH AND TRAILING ENDS OF BARRIER INSTALLATIONS.



AS-BUILT DRAWINGS/SPECIFICATIONS

This certifies that the dimensions and details shown on this sheet reflect the dimensions and details, and specifications as constructed in the field.

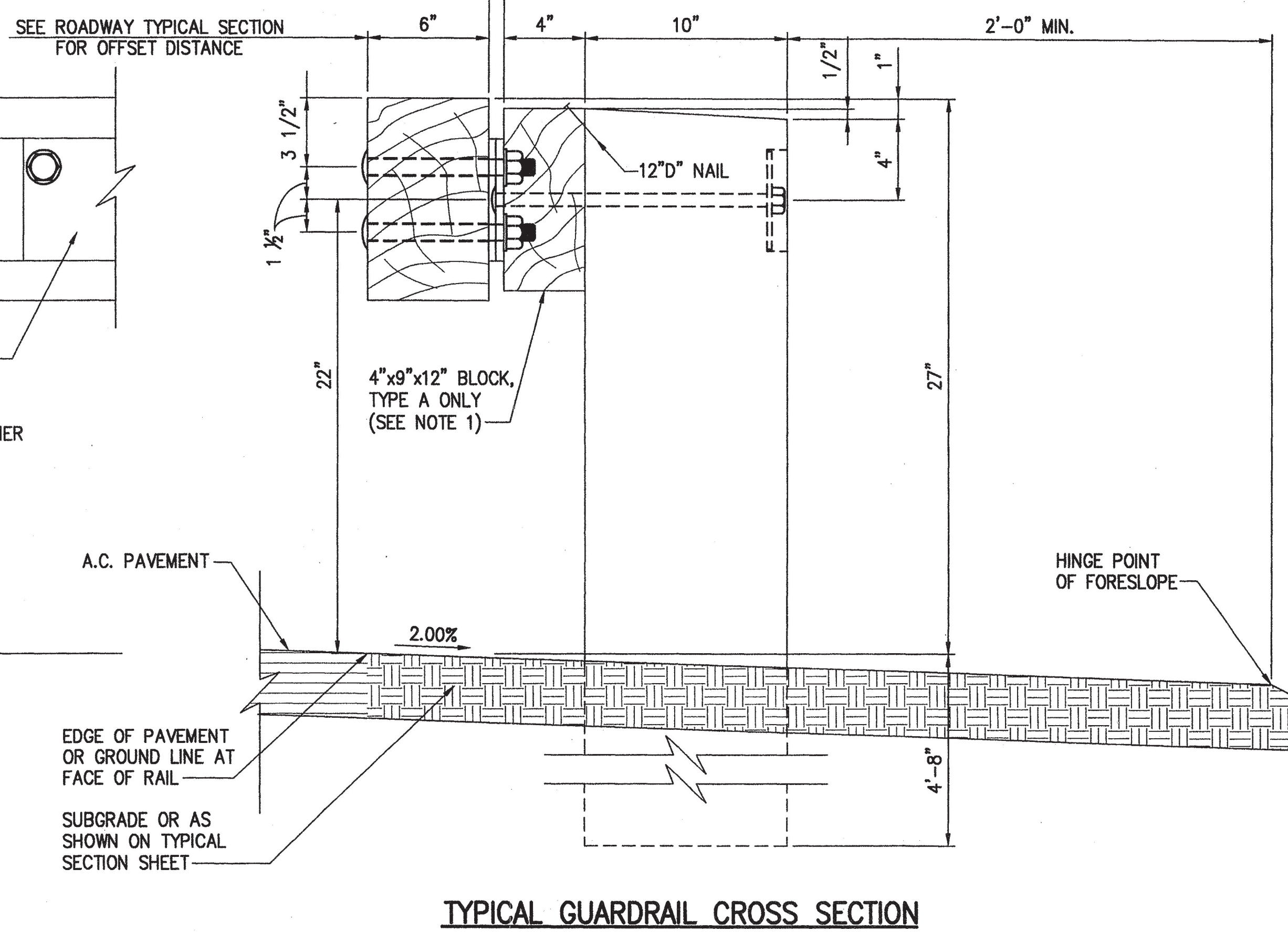
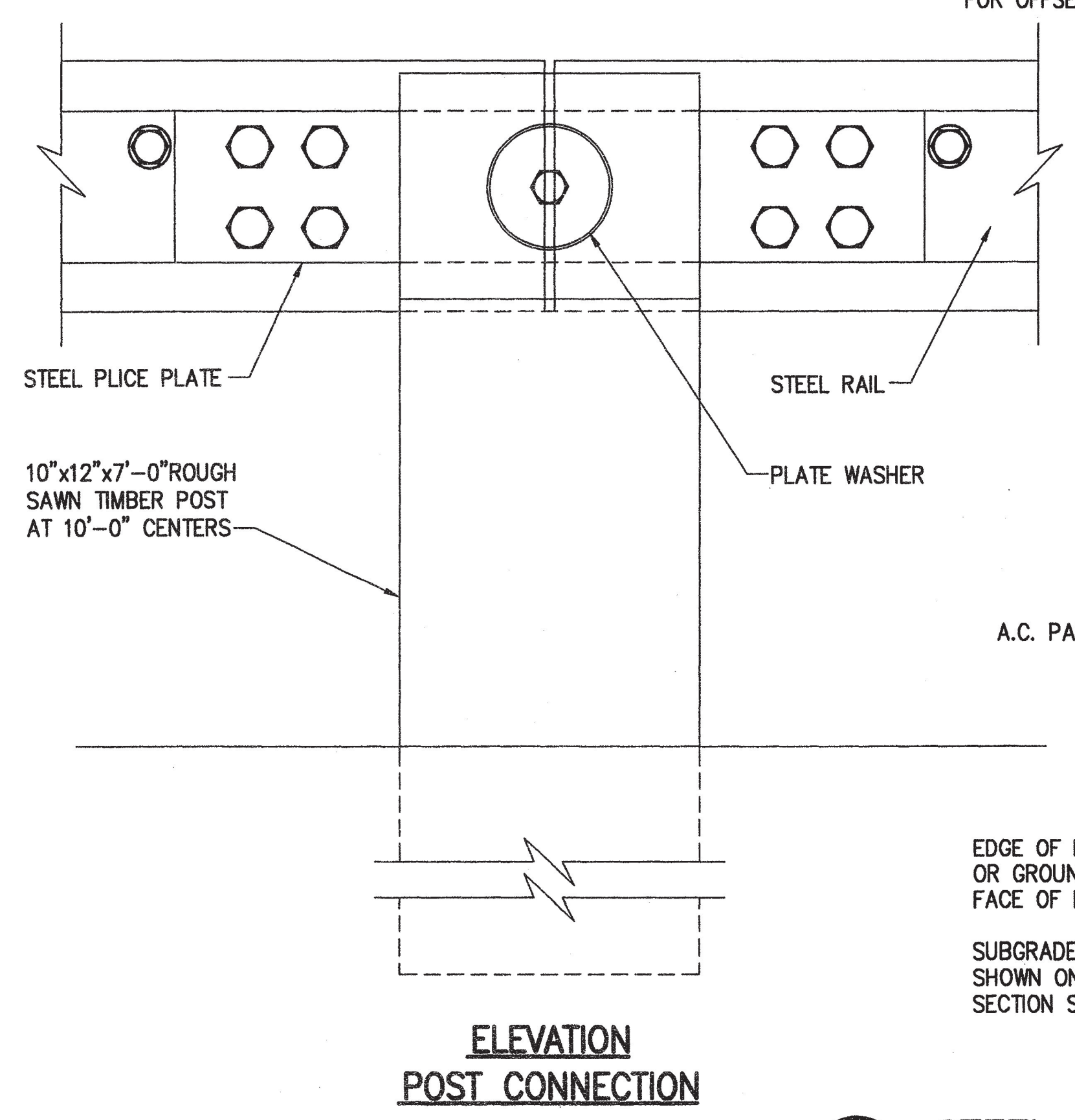
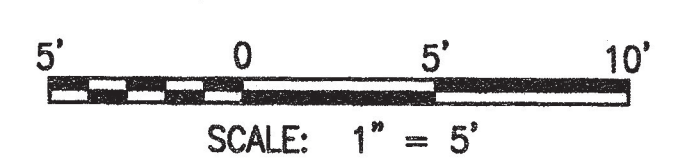
GOODFELLOW BROS., INC.

Signature: *[Signature]* Date: 2-13-11

24" DIA. ROUND ANCHOR IS AN ACCEPTABLE ALTERNATIVE. REDUCED SIZE IS ACCEPTABLE IN SOLID ROCK.

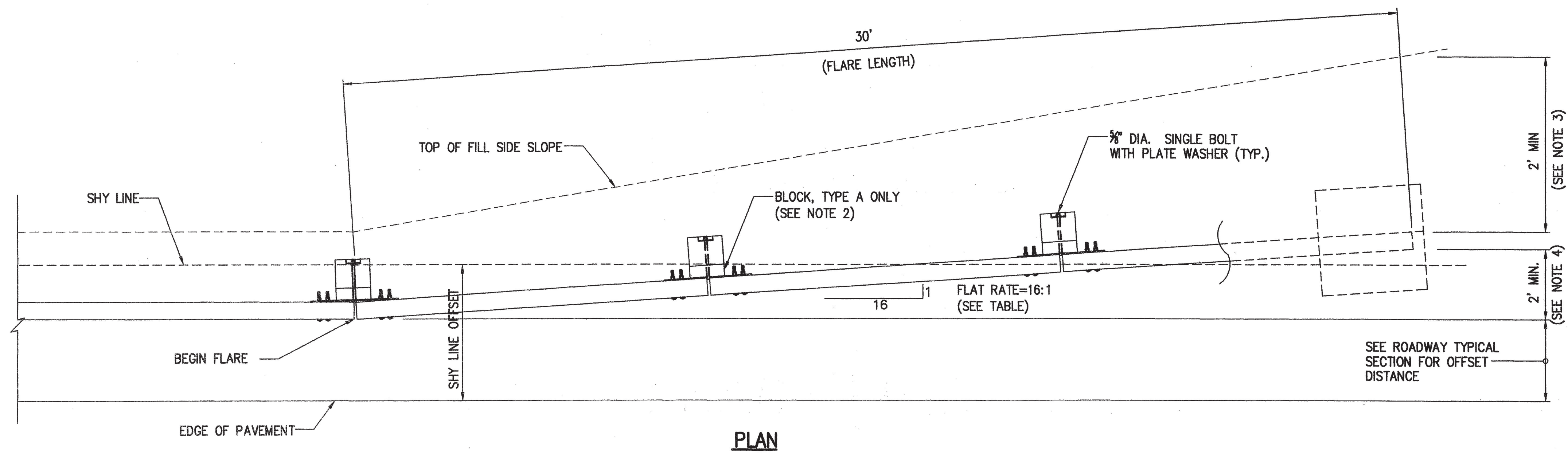
CONCRETE ANCHOR FOR SHORT GUARDRAIL POST

GRAPHICAL SCALE:

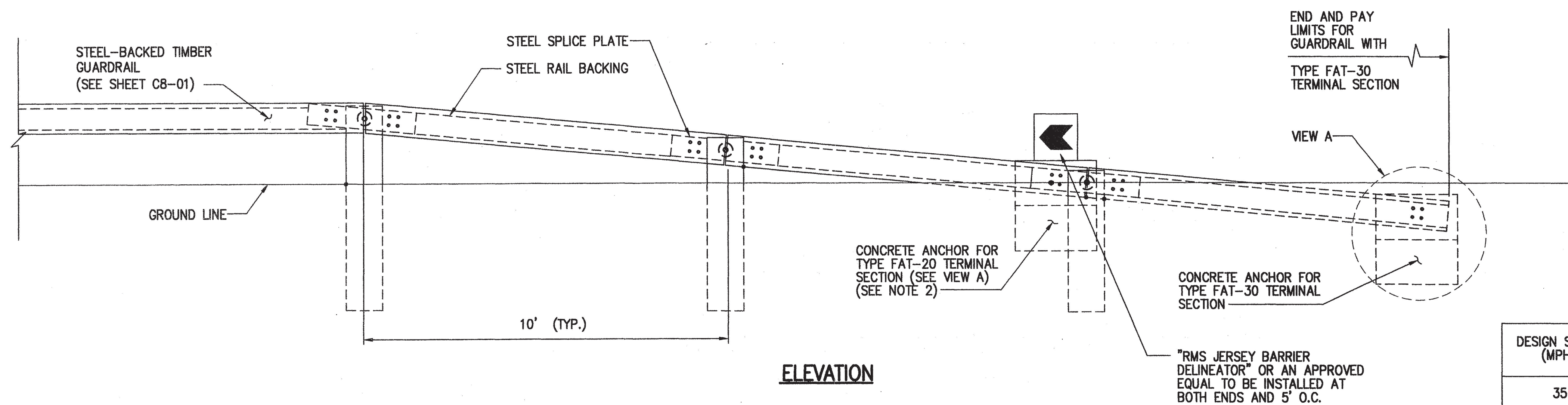


1 STEEL-BACKED TIMBER GUARDRAIL TYPE A & TYPE B
SCALE: 1" = 5'

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
		STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION			
		KOKE'E STATE PARK KOKE'E ROAD WIDENING WAIMEA, KAUAI, HAWAII			
		GUARDRAIL DETAIL - 1			
		DESIGNED: DL		SUBMITTED: <i>[Signature]</i>	
		DRAWN: ERV		DATE: 05/15/08	
		CHECKED: RSB		SCALE: AS SHOWN	
		APPROVED: <i>[Signature]</i> CHIEF ENGINEER		DATE: MAY 15 2008	DRAWING NO. C8-01



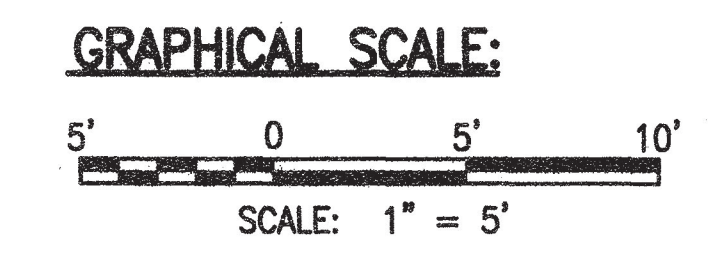
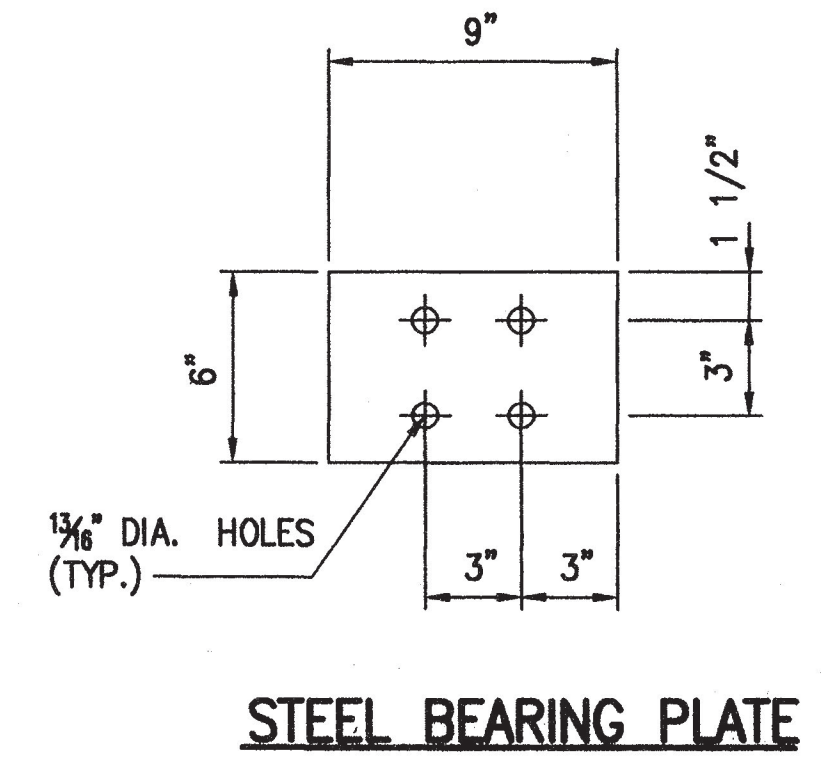
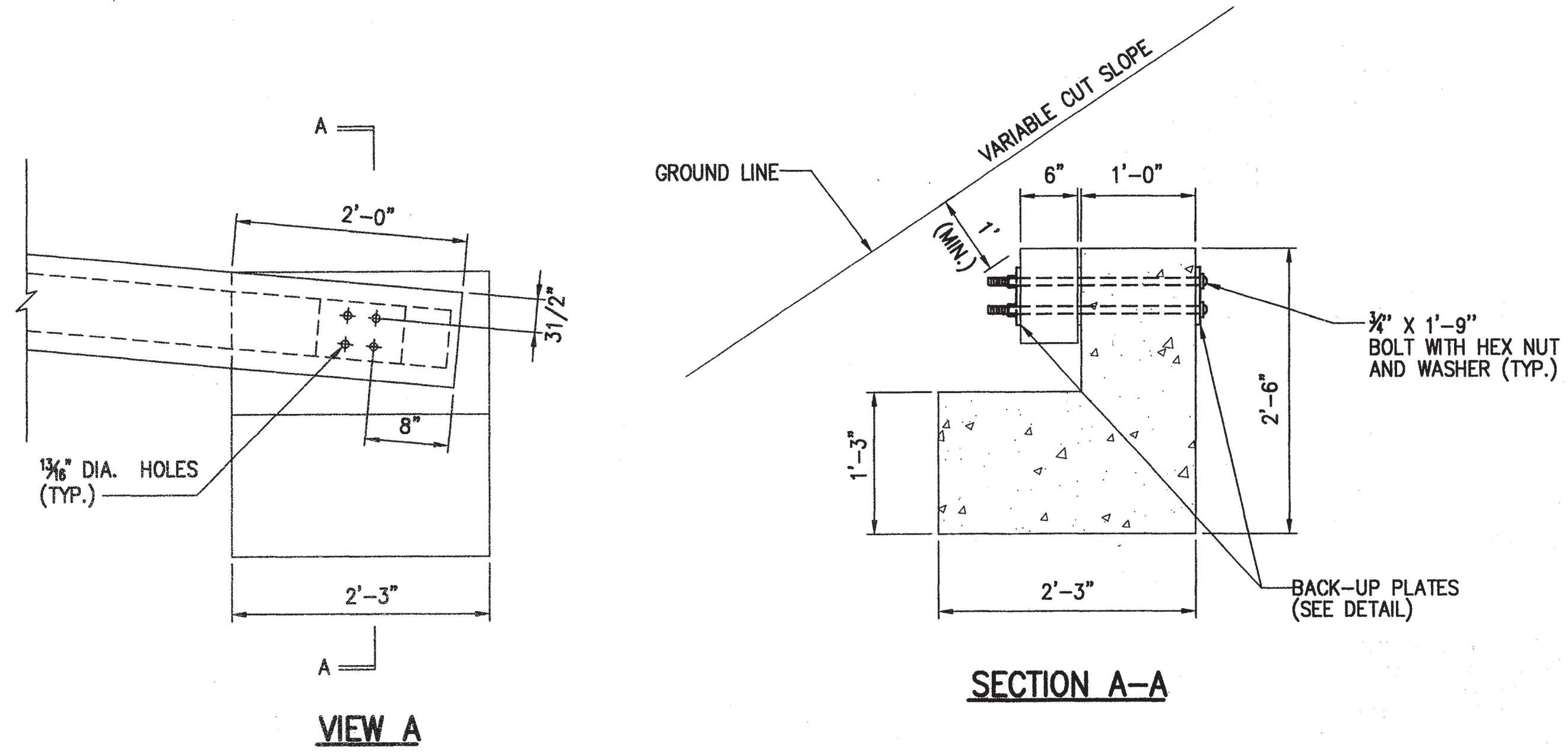
- NOTES:**
1. USE 30-FOOT LONG TYPE FAT-30 (FLARED ANCHORED TERMINAL) TERMINAL SECTION AS SPECIFIED.
 2. EXTEND THE FILL WIDENING A MINIMUM OF 2 FEET BEHIND THE GUARDRAIL, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
 3. THE GUARDRAIL FLARE SHOWN IN THE PLAN VIEW IS THE MINIMUM LENGTH AND RATE REQUIRED, AS DIRECTED BY THE ENGINEER. FLARE THE GUARDRAIL SO THAT THE TERMINAL SECTION IS OUTSIDE THE CLEAR ZONE. IF THE TERMINAL SECTION CANNOT BE LOCATED OUTSIDE THE CLEAR ZONE, IT SHOULD BE LOCATED AS FAR AS PRACTICAL FROM THE ROAD AT THE MAXIMUM RATE INDICATED ON THE GUARDRAIL FLARE RATES TABLE.
 4. SEE SHEET C8-01 FOR TIMBER, STRUCTURAL STEEL, AND HARDWARE DETAILS.
 5. INCLUDE THE BLOCKS IN THE TERMINAL SECTION, EXCEPT ON THE CONCRETE ANCHOR.



AS-BUILT DRAWINGS/SPECIFICATIONS
This certifies that the dimensions and details shown on this sheet reflect the dimensions and details, and specifications as constructed in the field.
GOODFELLOW BROS., INC.
Signature: _____ Date: 2-18-11

GUARDRAIL FLARE RATES

DESIGN SPEED (MPH)	SHY LINE OFFSET (FT)	FLARE RATE INSIDE SHY LINE (A:B)	FLARE RATE OUTSIDE SHY LINE (A:B)
35	2.0	16:1	8:1



1 STEEL-BACKED TIMBER GUARDRAIL TERMINAL SECTION TYPE SBT FAT-30
C8-02 SCALE: 1" = 1'

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION
KOKO'E STATE PARK KOKO'E ROAD WIDENING
WAIMEA, KAUAI, HAWAII
GUARDRAIL DETAIL - 2

DESIGNED: DL SUBMITTED: *[Signature]*
DRAWN: ERV DATE: 05/15/08
CHECKED: RSB SCALE: AS SHOWN
APPROVED: *[Signature]* DATE: MAY 15 2008
C8-02

4/30/10 Exp. Date
DARIN K. M. LEONG
LICENSED PROFESSIONAL ENGINEER
NO. 12356-C
HAWAII USA
This work was prepared by me or under my supervision.