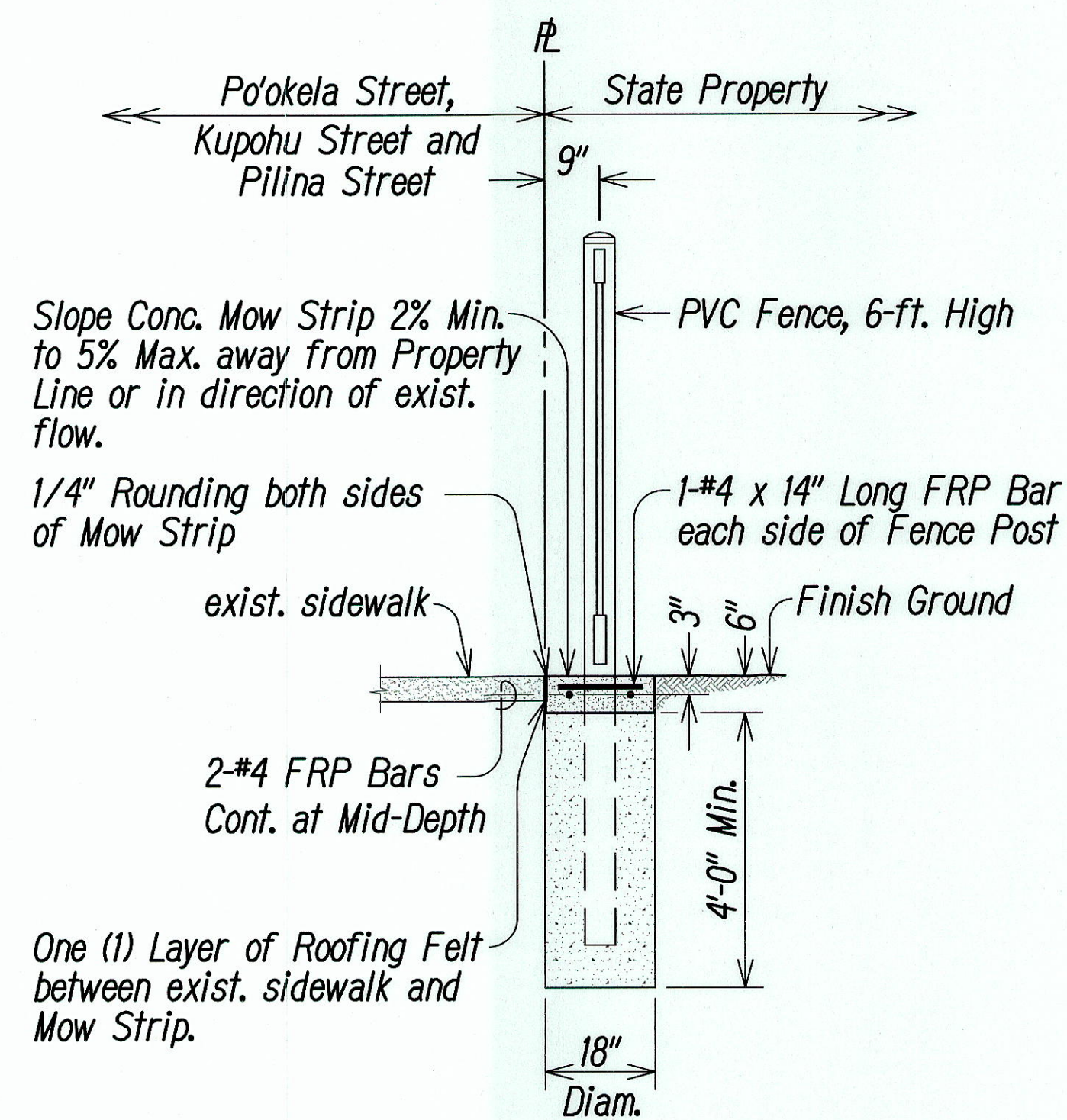


Notes:

- Color shall be tan.
- Post spacing shall be adjusted for installations along curved property lines as follows and as directed by the Engineer.

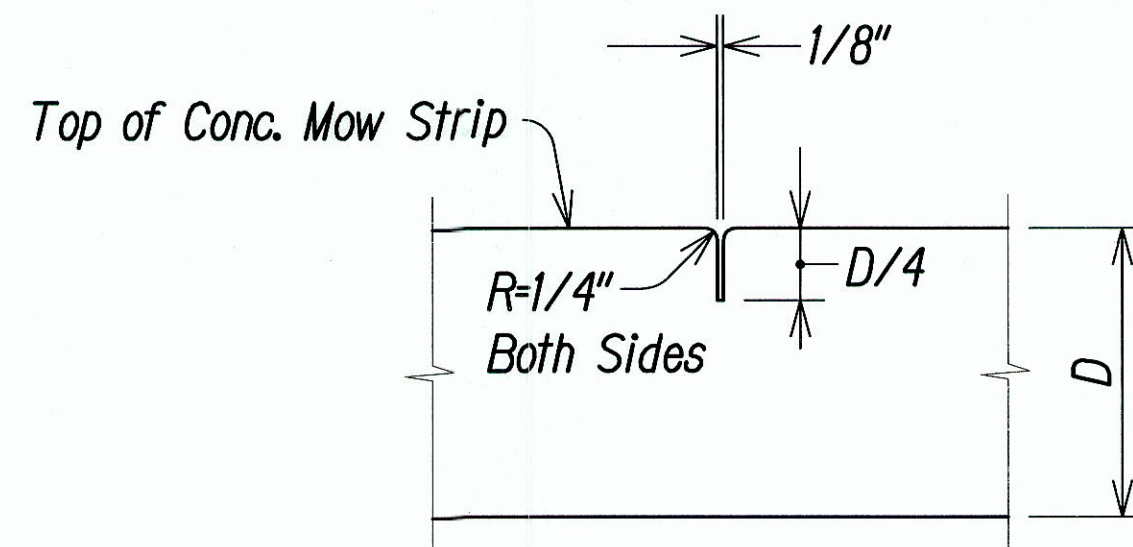
Property line Radius, R, ft.	Max. Post Spacing, in.
20	48
40	72
≥ 100	95

- The gap between the post and exist. walls to remain shall be 3" max.



SECTION
SCALE: 1/2" = 1'-0"

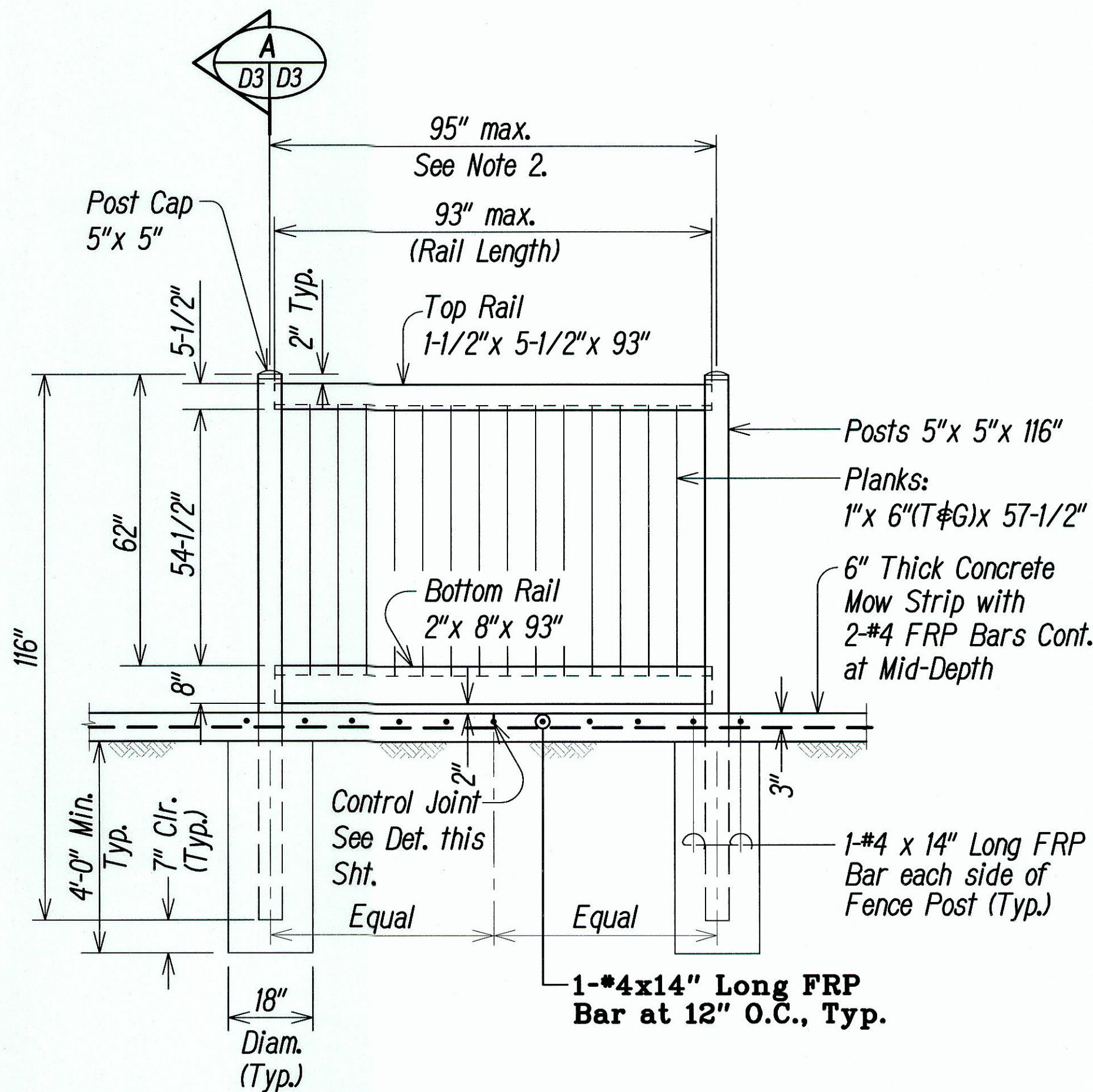
PVC FENCE, 6-FT. HIGH
SCALE: 1/2" = 1'-0"



Notes:

- D = Thickness of Conc. Mow Strip, inches
- FRP Bars not shown.
- Saw cut joints before uncontrolled shrinkage cracking occurs, but only after the concrete has hardened sufficiently to prevent excessive tearing or raveling, or both during the sawing operations.

CONTROL JOINT DETAIL
NOT TO SCALE



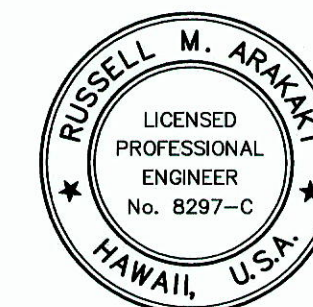
ELEVATION
SCALE: 1/2" = 1'-0"



FIBER REINFORCED POLYMER (FRP) BAR NOTES:

- Fiber Reinforced Polymer (FRP) rebar shall have a minimum tensile strength of 110 ksi for #4 bar and smaller. All others shall have a minimum tensile strength of 95 ksi. The allowable stress is equal to 1/4 of the tensile strength.
- The modulus of elasticity of the FRP bar shall be a minimum of 5,900,000 psi.
- Minimum concrete cover for the FRP bars shall be 3/4" unless otherwise noted.
- Minimum lap splice lengths for the FRP bars shall be 42 bar diameters unless otherwise noted.
- All FRP bars shall be securely tied in place.
- The FRP bars may be cut in the field with a masonry or diamond blade.
- All work including materials and bends shall follow Manufacturer's recommendations.
- The FRP bars will not be paid for separately and shall be considered incidental to the PVC Fence and PVC Gate.

LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Russell M. Araki
P.Eng., Inc.
LIC. EXP. DATE

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
PVC FENCE DETAILS	
CASTLE HILLS ACCESS ROAD Drainage Improvements, Phase 1 FEDERAL-AID PROJECT NO. STP-0300(122)	
Scale: As Shown	Date: December 2010
SHEET No. D3 OF D6 SHEETS	



2/7/11 Revised Sheet.

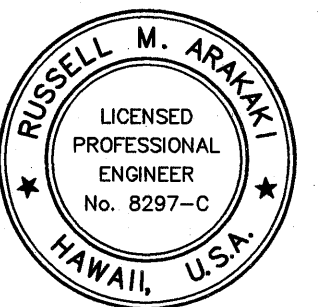
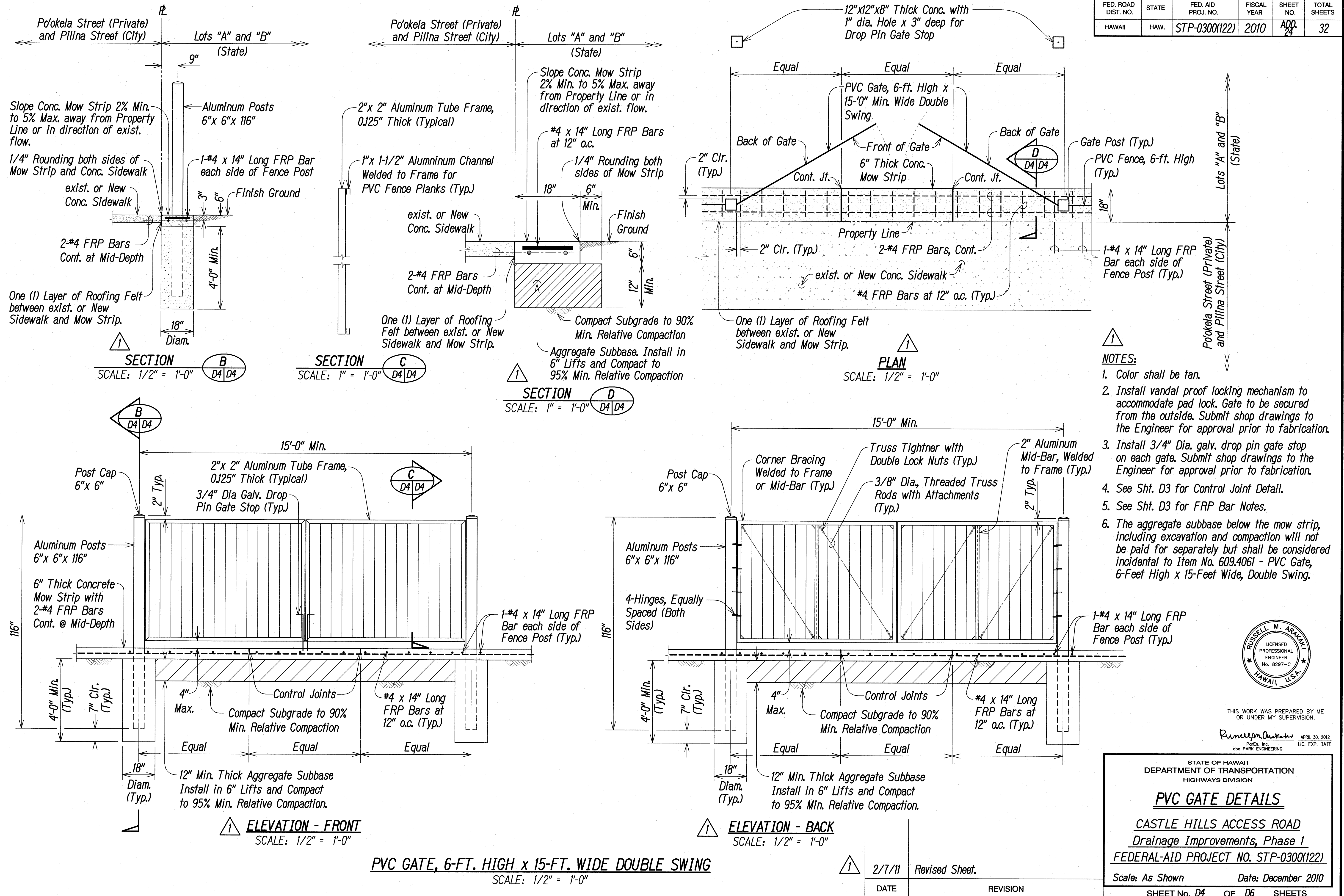
DATE REVISION

"AS-BUILT"

ADD. 23

ORIGINAL PLAN	DATE
NOTE BOOK	DESIGNED BY
	QUANTITIES BY
	CHECKED BY
No.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0300(122)	2010	ADD. 24	32



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Russell M. Arakawa
Professional Engineer
No. 8297-C
HAWAII, U.S.A.
APRIL 30, 2012
LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PVC GATE DETAILS

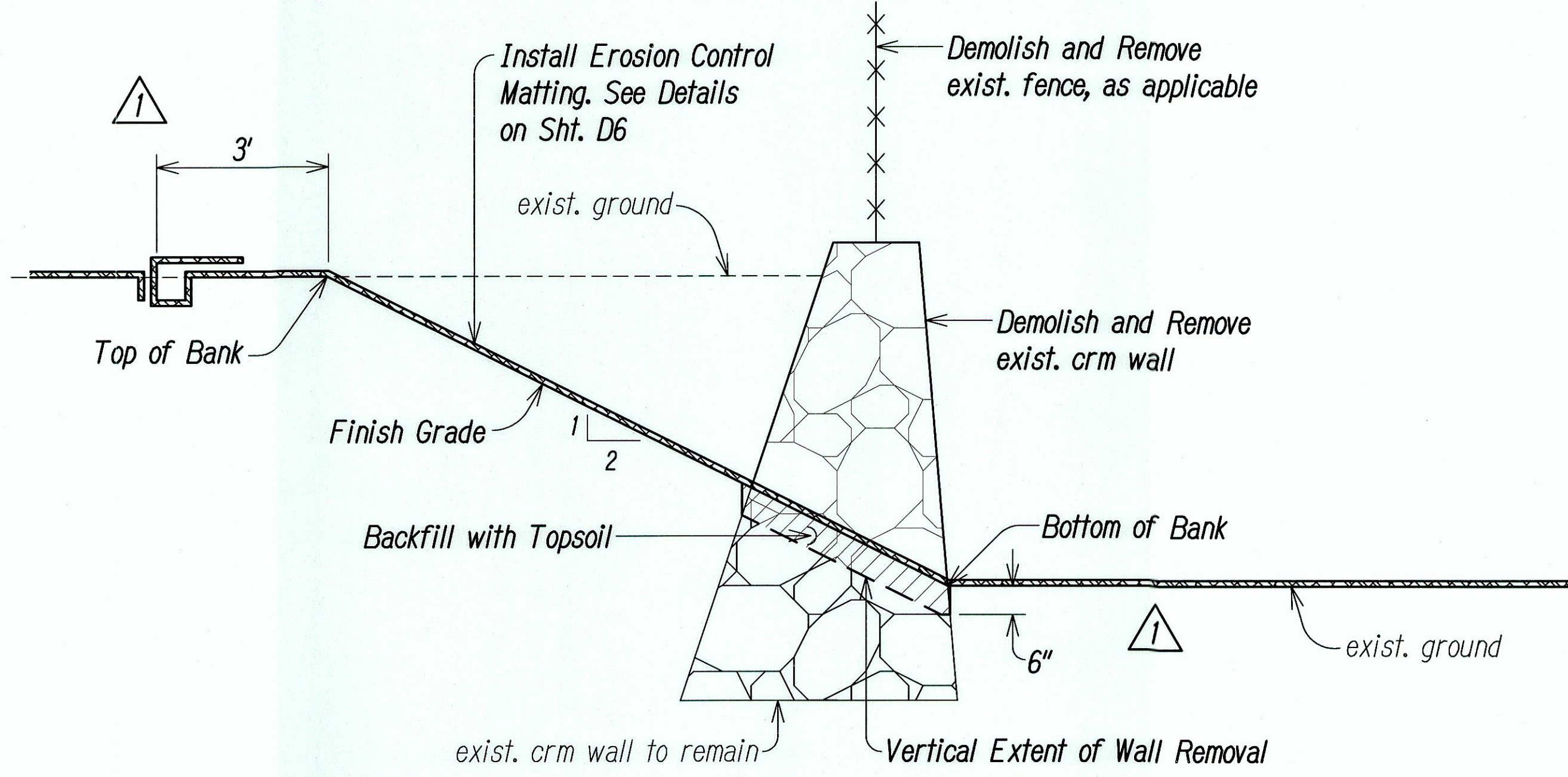
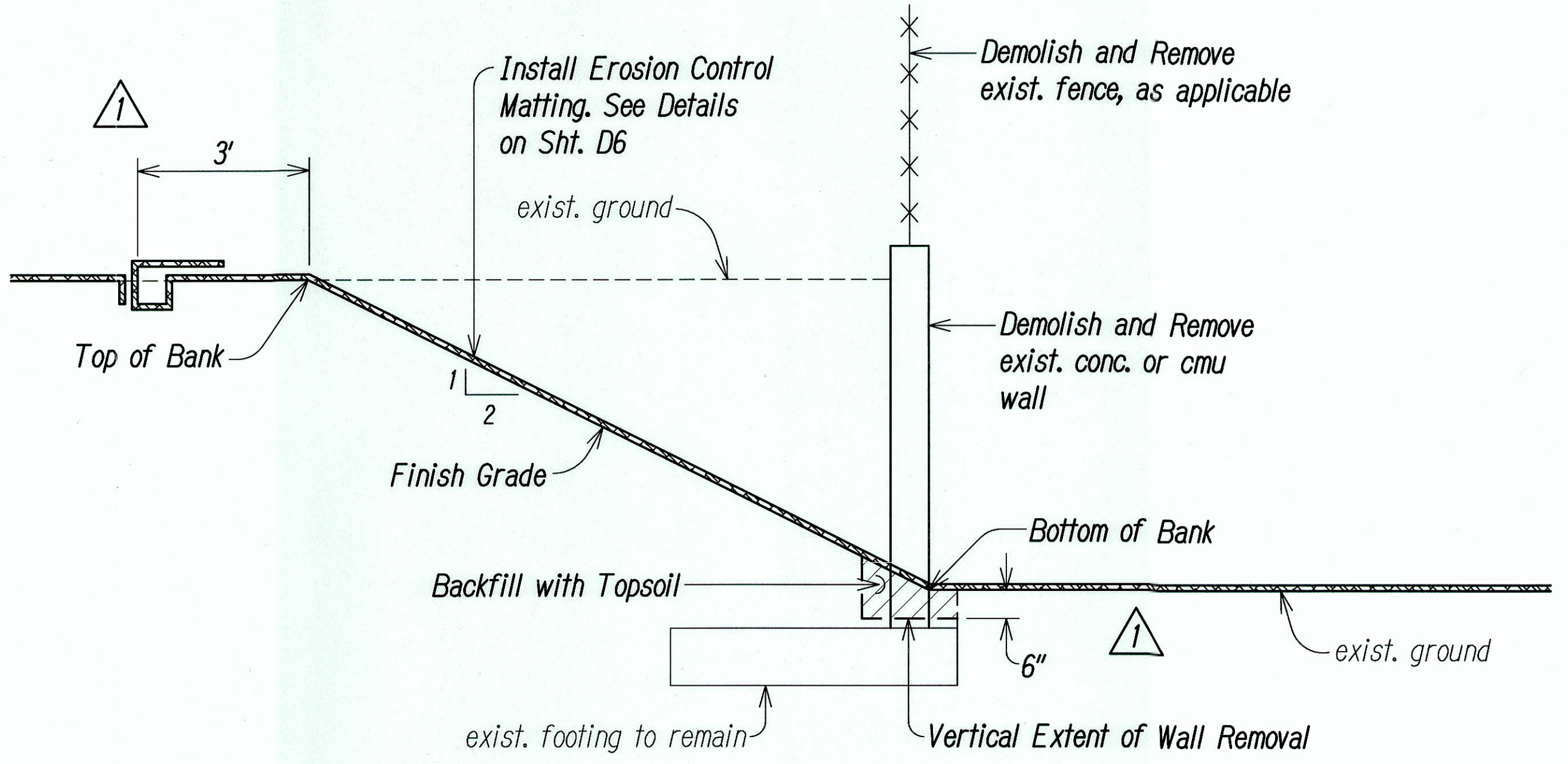
CASTLE HILLS ACCESS ROAD
Drainage Improvements, Phase 1
FEDERAL-AID PROJECT NO. STP-0300(122)

Scale: As Shown Date: December 2010
SHEET No. D4 OF D6 SHEETS

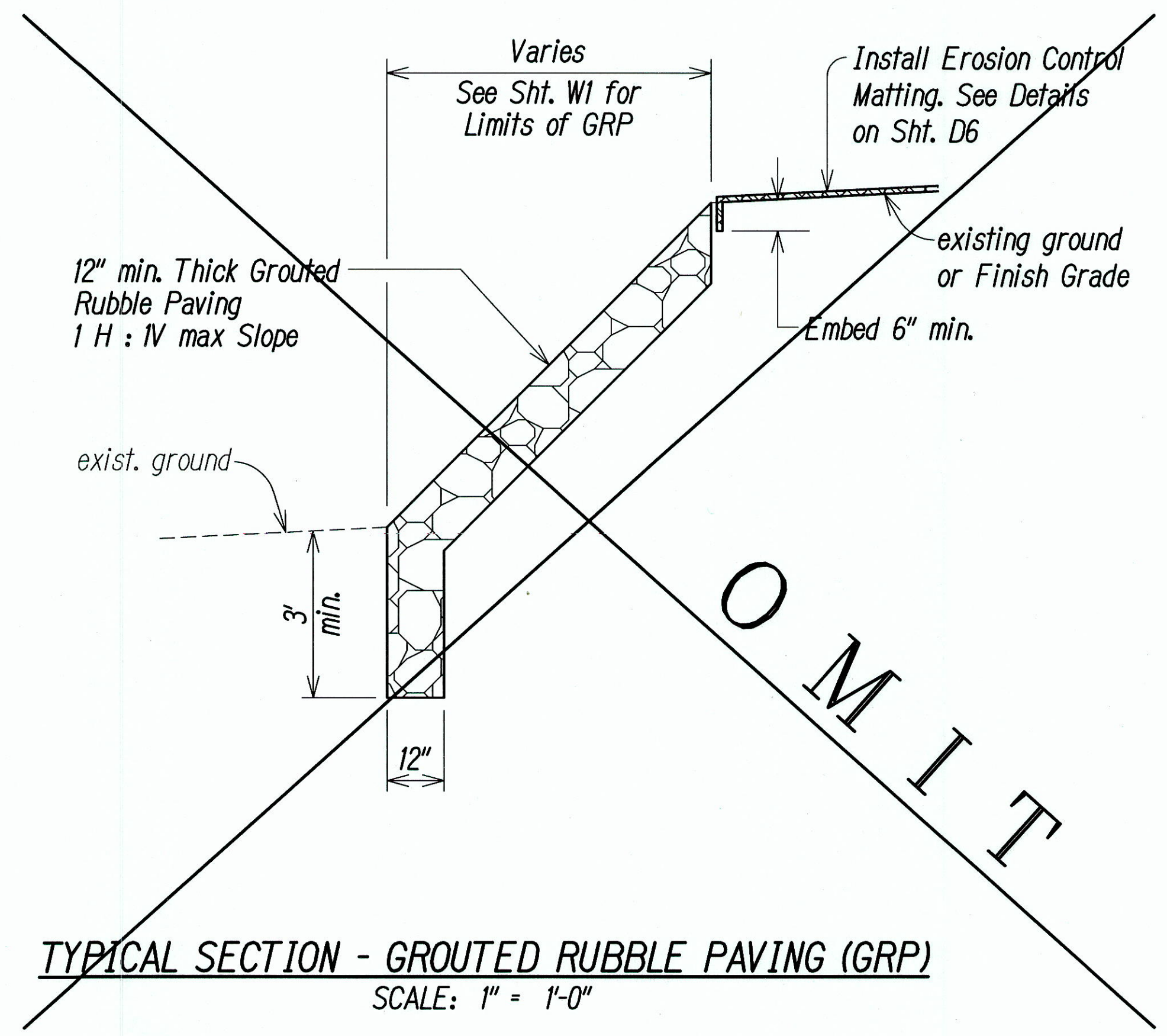
2/7/11 Revised Sheet.

DATE REVISION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0300(122)	2010	ADD. 25	32



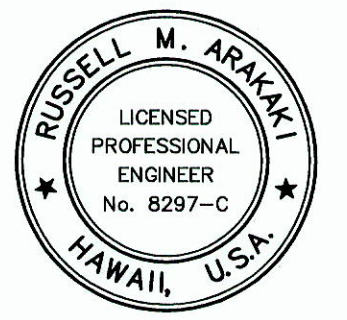
TYPICAL WALL DEMOLITION DETAIL
SCALE: 1/2" = 1'-0"



TYPICAL SECTION - GROUTED RUBBLE PAVING (GRP)
SCALE: 1" = 1'-0"

LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
	Text for as-built posting

	2/7/11	Revised Erosion Control Matting.
DATE		REVISION



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OR UNDER MY SUPERVISION.
Russell M. Araki
ParEn, Inc.
dba PARK ENGINEERING
APRIL 30, 2016
LIC. EXP. DATE

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
DETAILS	
CASTLE HILLS ACCESS ROAD Drainage Improvements, Phase 1 FEDERAL-AID PROJECT NO. STP-0300(122)	
Scale: As Shown	Date: December 2010
SHEET No. D5 OF D6 SHEETS	

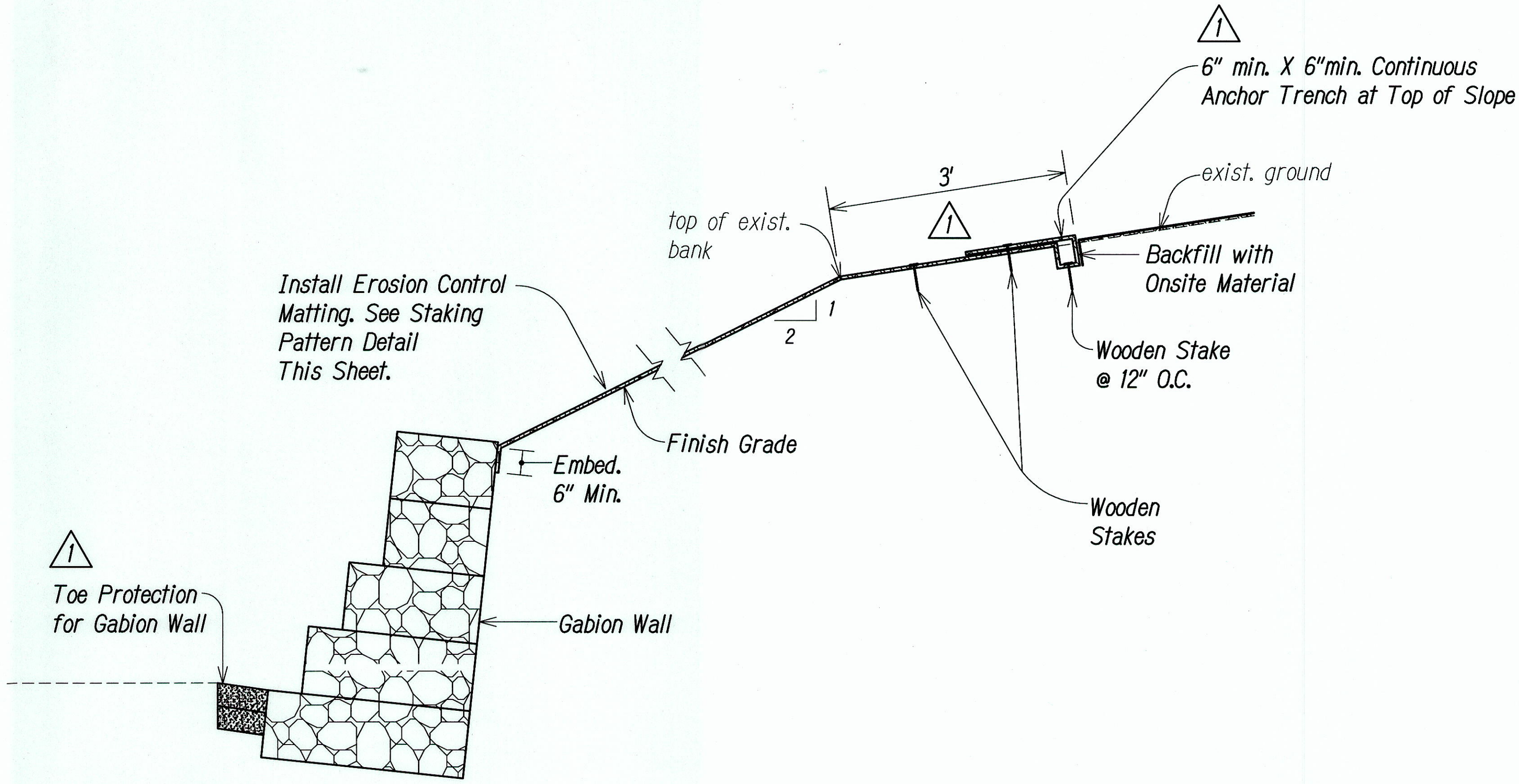
"AS-BUILT"

ADD. 25

Thu, 03 Sep 2015 - 9:25am
D:\Projects\STATE\DOT\CASHILL\DESIGN\PHASE 1\RECORD DWGS\ADD25-Cashills-ph1-Typ. Wall Demo. Details.dwg

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
No.	

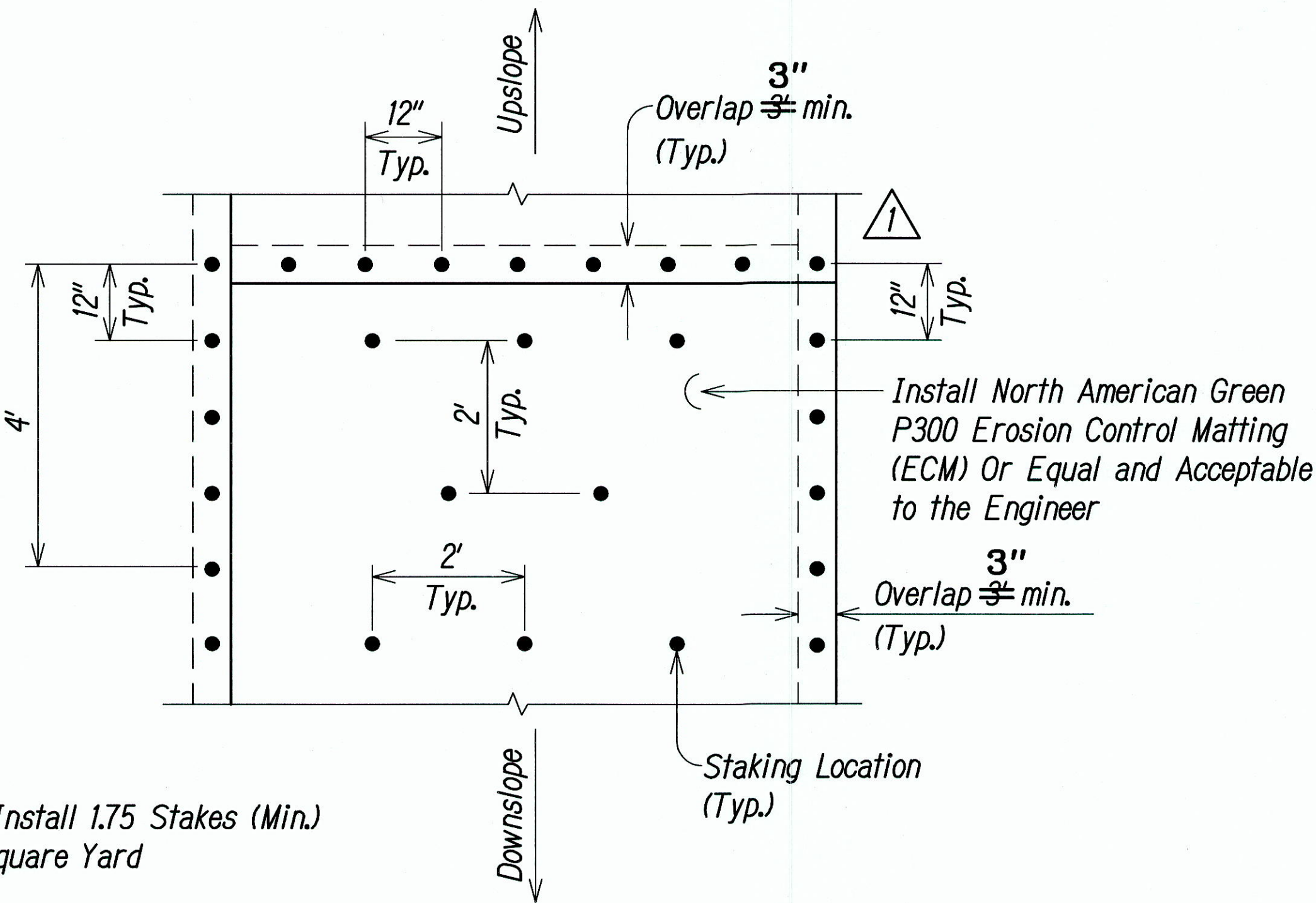
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0300(122)	2010	ADD. 26	32



TYPICAL SECTION
SCALE: 1/2" = 1'-0"

EROSION CONTROL MATTING (ECM) NOTES:

1. Remove Existing Vegetation, Install Topsoil as Required, Fine Grade, Hydromulch and Grass prior to Installing the Erosion Control Matting.
2. The Contractor shall Obtain Acceptance of the Prepared Surface from the Engineer Prior to Installing the Erosion Control Matting.
3. The Erosion Control Matting shall be Installed in Accordance with the Manufacturer's Recommendations Unless Otherwise Indicated on the Plans.
4. Metal (Wire) Staples will not be Permitted. All Stakes shall Be made of Treated Wood to the Length and Shape as Recommended by the Manufacturer of the Erosion Control Matting and Accepted by the Engineer.
5. As Directed by the Engineer, Treated Wood Stakes with Lengths 12-inches or Greater Shall be Used in Loose Soil Conditions to Properly Secure the Erosion Control Matting at no additional cost to the State.



TRM STAKING PATTERN DETAIL
NOT TO SCALE

LEGEND FOR AS-BUILT POSTINGS

Squiggly line for as-built deletion

Double line for as-built deletion

Text for as-built posting



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Russell M. Arai
ParEn, Inc.
dba PARK ENGINEERING
APRIL 30, 2016
LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAILS

CASTLE HILLS ACCESS ROAD
Drainage Improvements, Phase 1
FEDERAL-AID PROJECT NO. STP-0300(122)

Scale: As Shown Date: December 2010

SHEET No. 06 OF 06 SHEETS

1	2/7/11	Revised Sheet.
DATE	REVISION	

"AS-BUILT"

ADD. 26

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
No.	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	