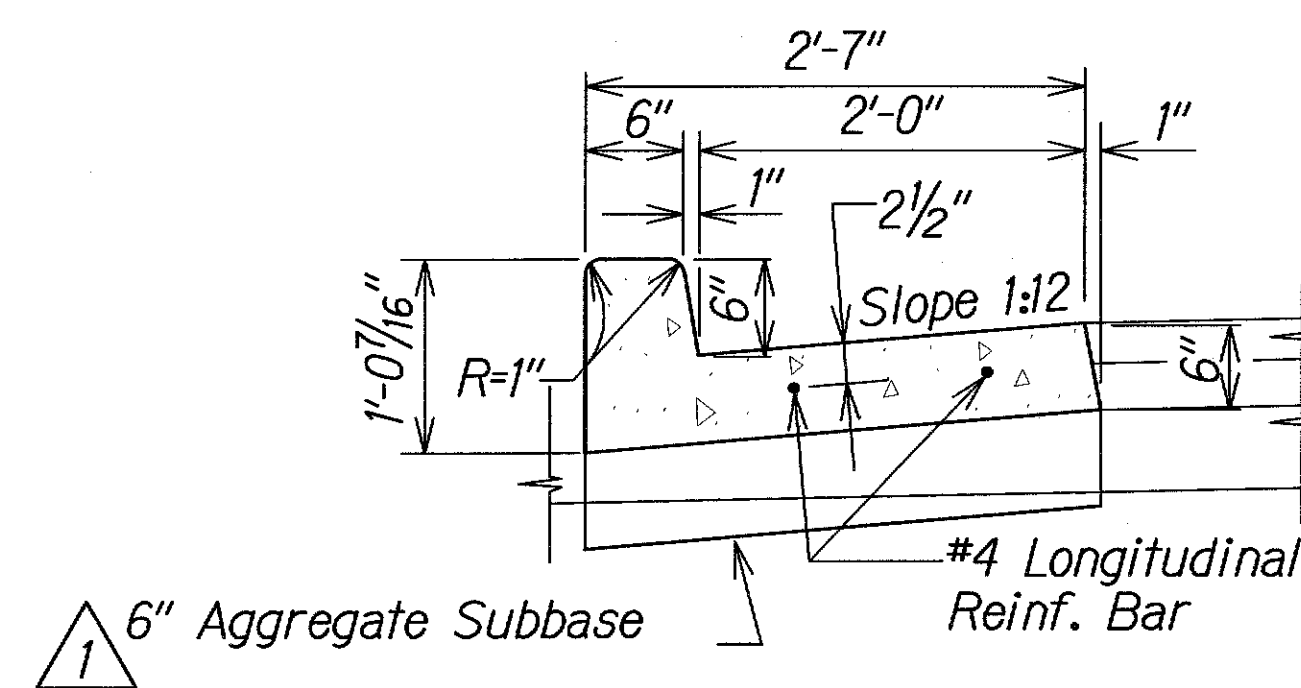


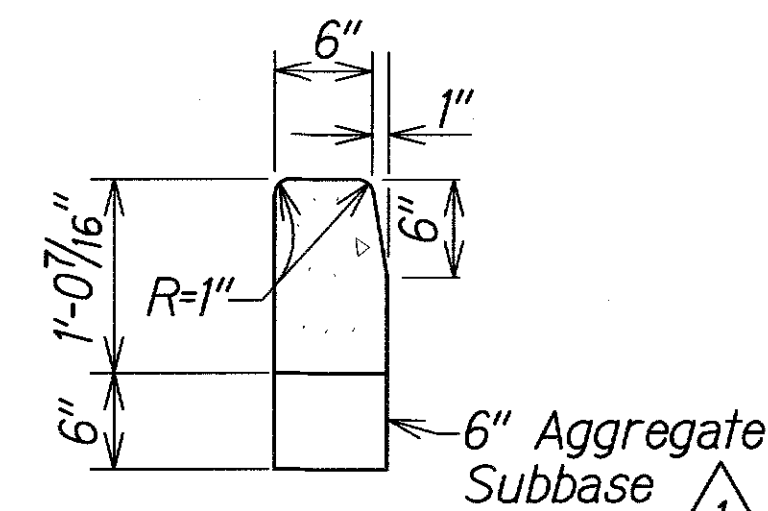
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(22)	2013	ADD37	230



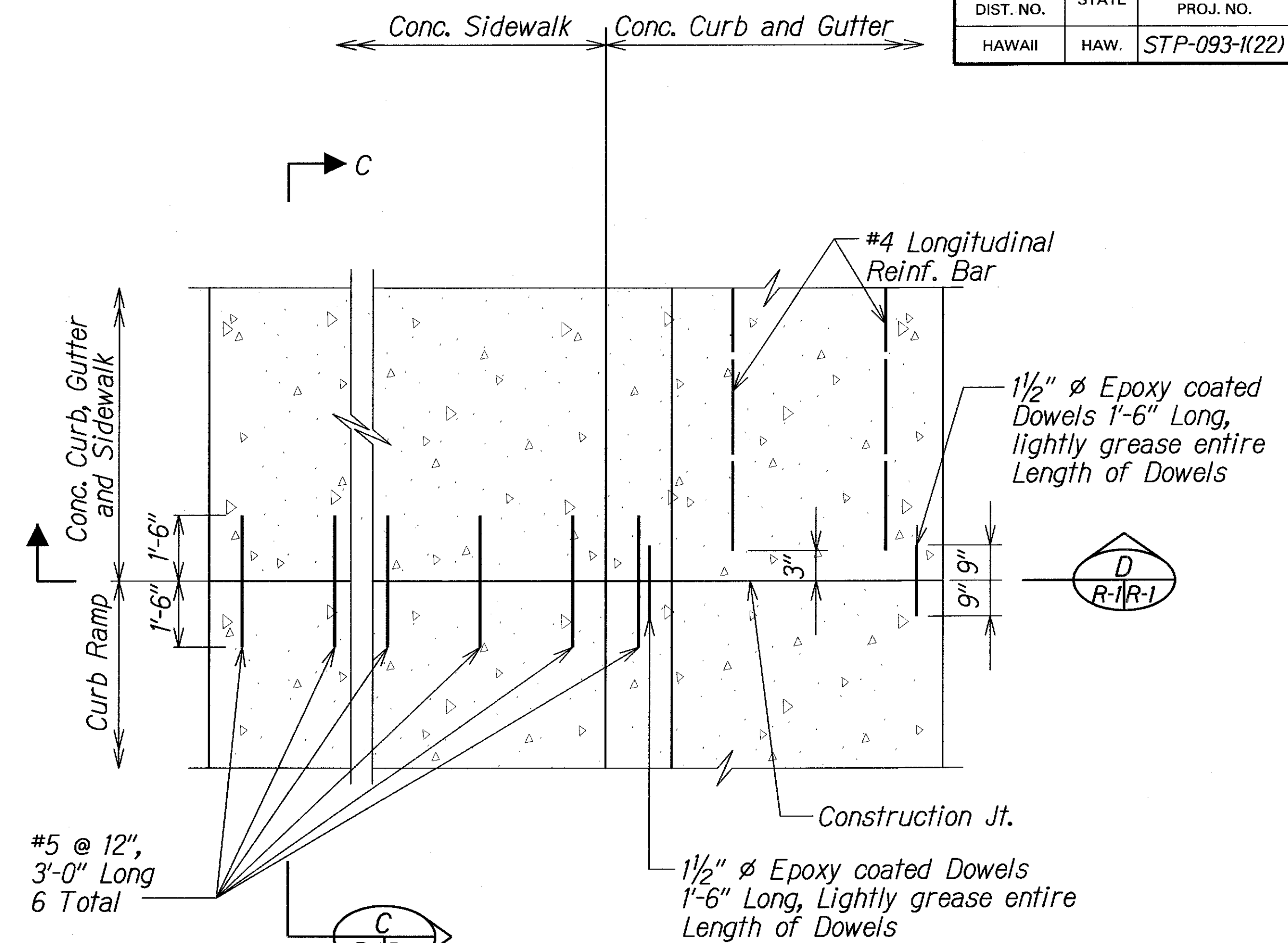
CURB & GUTTER, TYPE 2DG

CAST-IN-PLACE CONCRETE CURBS OR GUTTERS

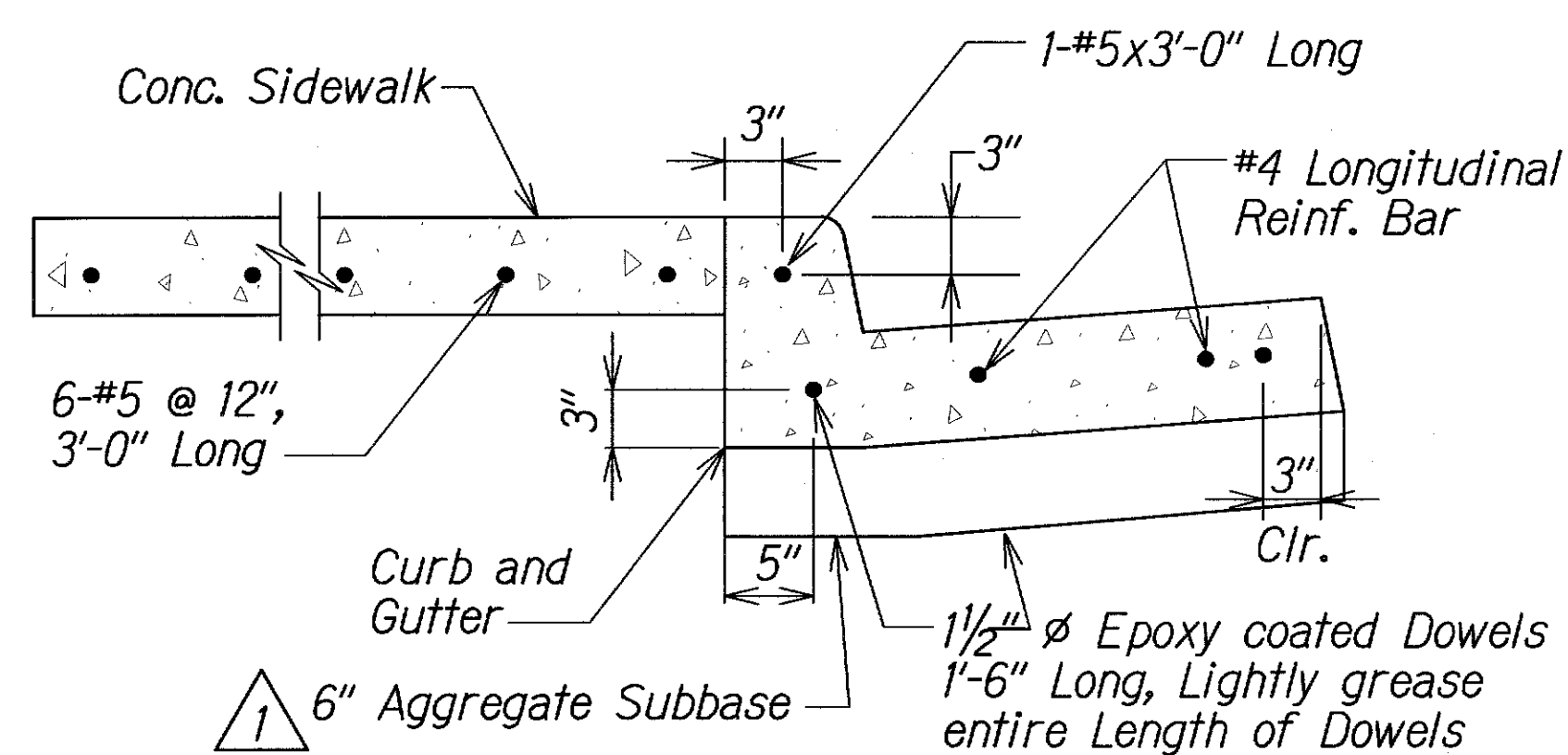
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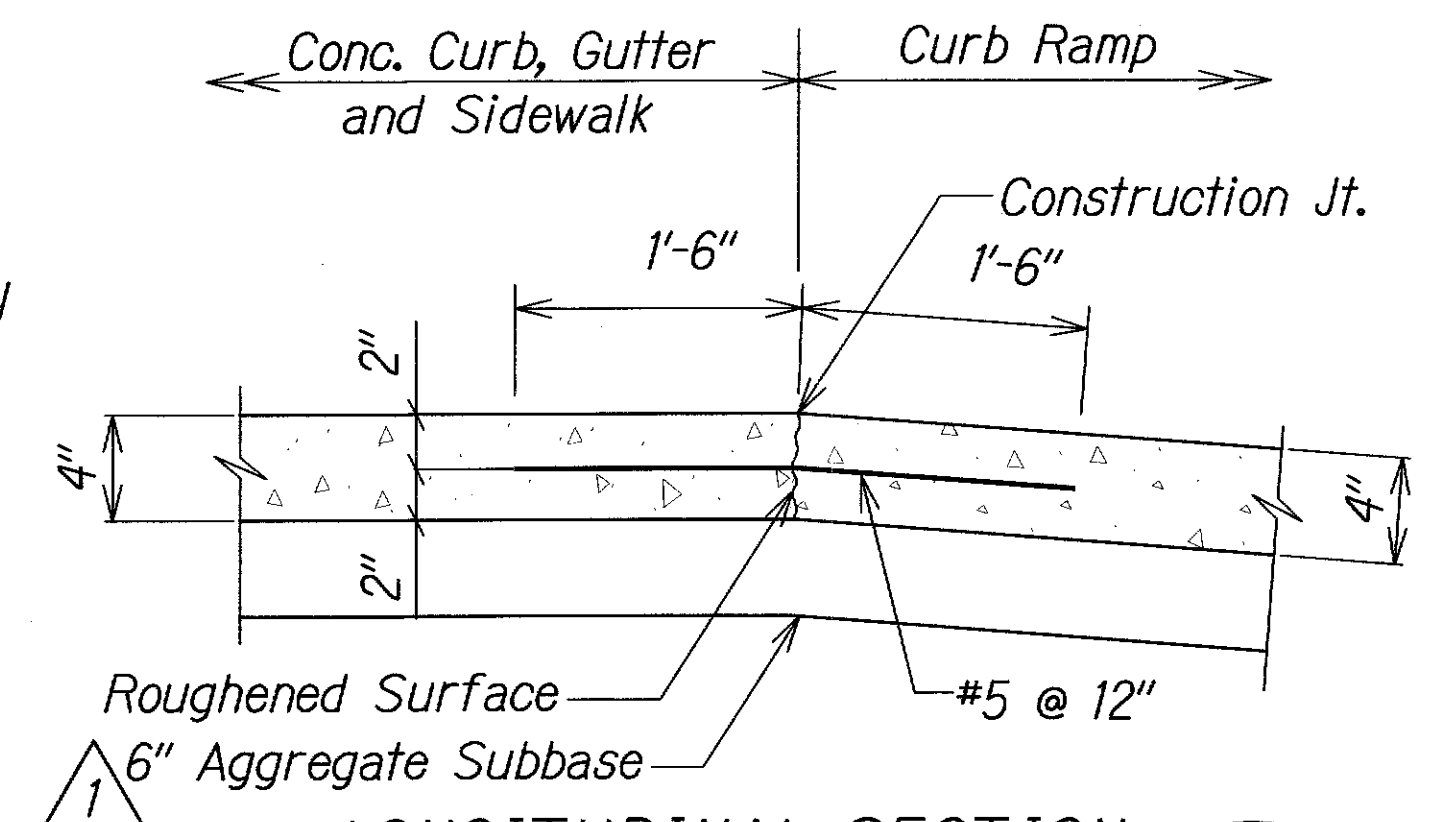
CURB TYPE 2D



PLAN



SECTION

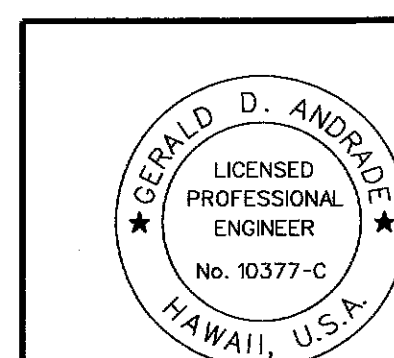


LONGITUDINAL SECTION

CURB RAMP CONNECTION

Scale: NTS

11/06/13	△ Revised Details
Date	Revision



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SIGNATURE: *Gerald D. Andrade*
EXPIRATION DATE OF THE LICENSE: 04/30/14

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ROADWAY CONSTRUCTION
CURB & GUTTER DETAILS
FARRINGTON HIGHWAY INTERSECTION IMPROVEMENTS
AT NAKAKULI AVENUE AND HALEAKALA AVENUE
Federal-Aid Project No. STP-093-1(22)

Scale: NTS Date: April 2013

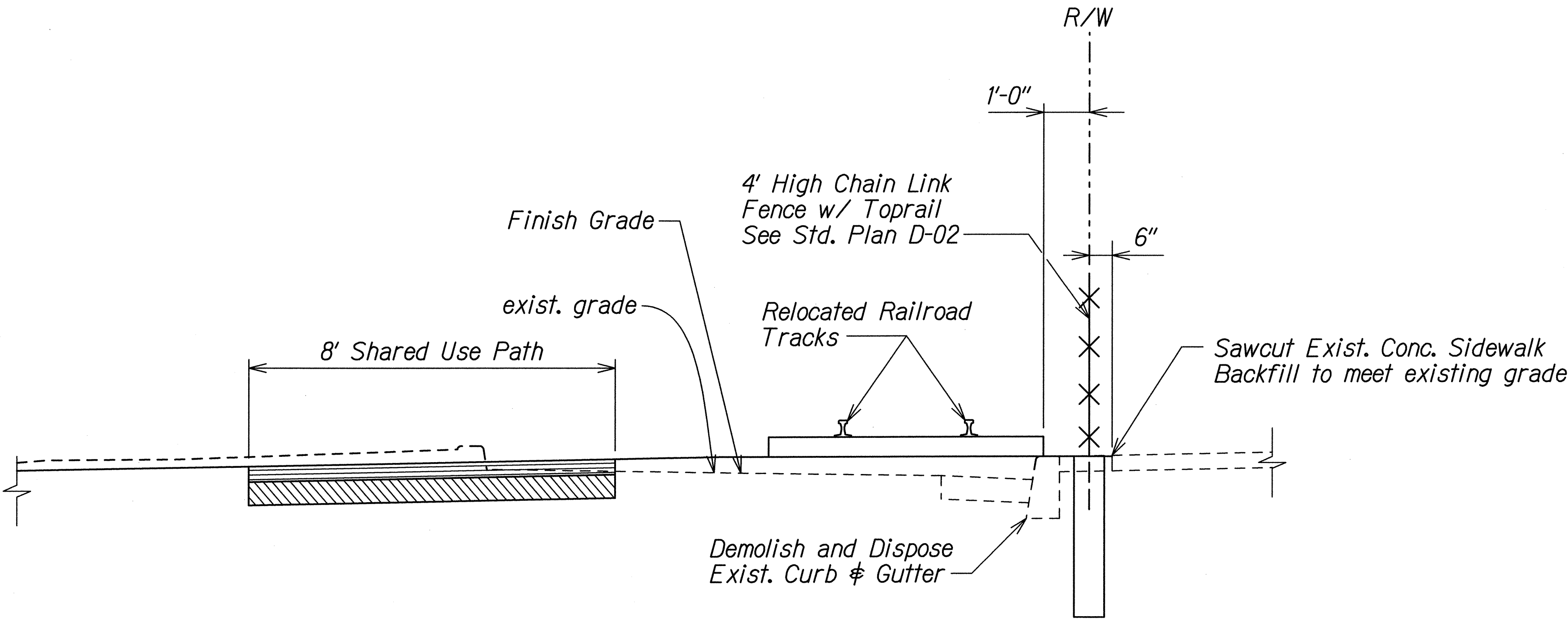
SHEET No. R-1 OF 8 SHEETS

ADD 37

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	

J:\DOT-FARRINGTON HWY INTERSECTIONS\NANAKULI HALEAKALA\CADD\Sheets\Road\curb-dei.dgn

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-K(22)	2013	38	230



FENCE RECONSTRUCTION
Scale: NTS

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	

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Gerald D. Andrade
SIGNATURE

04/30/14
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FENCE RECONSTRUCTION DETAIL

FARRINGTON HIGHWAY INTERSECTION IMPROVEMENTS
AT NANAKULI AVENUE AND HALEAKALA AVENUE
Federal-Aid Project No. STP-093-K(22)

Scale: NTS Date: April 2013

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(22)	2013	39	230

RAILROAD NOTES:

1. The former OR#L railroad that runs along Farrington Highway from approximate baseline station 138+40 to 183+70 is listed on the State and National Register of Historic Places and is protected under Section 4(f) of the Department of Transportation Act (49 USC 303 and 23.) The Contractor shall consult with the Hawaiian Railroad Society and State Historic Preservation Division regarding the design for re-setting of the existing tracks to accommodate the road widening and ancillary facilities including warning devices and associated signing and striping.

2. The construction work will consist of temporarily removing the existing rail tracks to accommodate the highway work and constructing these tracks in accordance with the applicable details schematically shown on sheet R-1.

a. Construction method and materials shall conform to the current edition of the American Railway Engineering Association (A.R.E.A.) manual for Railway Engineering and the State of Hawaii Highways Division "2005 Standard Specifications for Road and Bridge Construction and special provisions".

b. One week prior to the start of construction on the railroad, the Contractor shall contact the Hawaiian Railway Society (HRS) (phone number: 808-681-5461.)

c. The Contractor shall expose the existing wooden ties and rail by hand excavation for field review by the HRS.

1) The existing track rails, splices spikes and cross ties shall be removed and, at the sole discretion of the HRS, be salvaged for re-installation by HRS off site or demolished and removed from the site.

2) All newly constructed track shall be of new like-kind material, so as to preserve the historic look of the tracks.

d. Ballast shall consist of crushed and screened coral that is free of soft or disintegrated pieces, clay, dirt and other deleterious substances. Grading of ballast shall conform the following:

Sieve Size	Percent Passing By Weight
2 Inch	100
1-1/2 Inch	75-100
1 Inch	15-55
3/4 Inch	0-15
3/8 Inch	0-5

e. Wooden cross ties shall be 8"x 6" by 8 feet from railroad baseline Station 0+00 to 1+36 and Railroad Baseline Station 33+75 to 45+25.00 Wooden cross ties shall be 8"x6" by 6 feet from Railroad Baseline Station 1+36 to 33+75. All ties shall be free from any defects that may impair their strength or durability as cross ties, such as decay, large splits, large shakes, large or numerous holes or knots, grain with slant greater than 1:15. Cross ties shall be treated with a Creosote-Coal Tar or approved equal solution conforming to A.R.E.A. manual.

f. Install new rails and splices. Use new bolts, nuts and washers for the splices which shall be the same size as the existing and shall conform to the A.R.E.A. manual. Length of rail between splices shall not exceed 33 feet.

g. Steel cut track spikes shall be 9/16" reinforced throat track spike 5-1/2 inch underhead. There shall be four (4) spikes per tie placed inside and outside of the rail, staggered.

3. Tracks between the edge of the shared pathway or sidewalk and the right-of-way shall be re-constructed.
- | | | |
|------------------|-------------------|------|
| ORIGINAL
PLAN | SURVEY PLOTTED BY | DATE |
| NOTE BOOK | DRAWN BY | |
| No. | DESIGNED BY | |
| | QUANTITIES BY | |
| | CHECKED BY | |
- J:\DOT - FORT BARRETTE ROAD\ROAD\rc-r-r notes.dgn
- GERALD D. ANDRADE

LICENSED
PROFESSIONAL
ENGINEER

No. 10377-C

HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME
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Signature

04/30/14

EXPIRATION DATE
OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RAILROAD NOTES

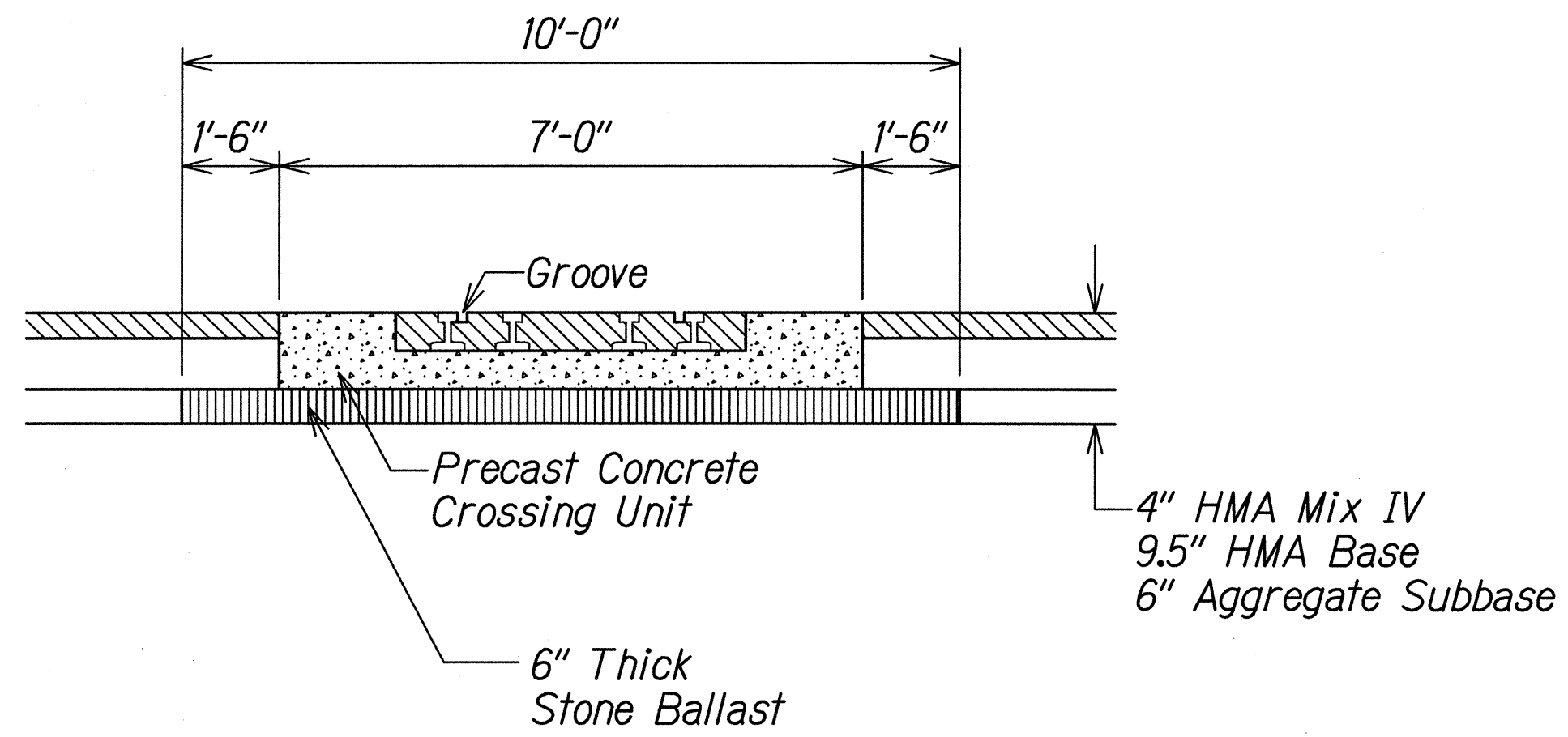
FARRINGTON HIGHWAY INTERSECTION IMPROVEMENTS
AT NANAKULI AVENUE AND HALEAKALA AVENUE
Federal-Aid Project No. STP-093-1(22)

Scale: NoneDate: April 2013

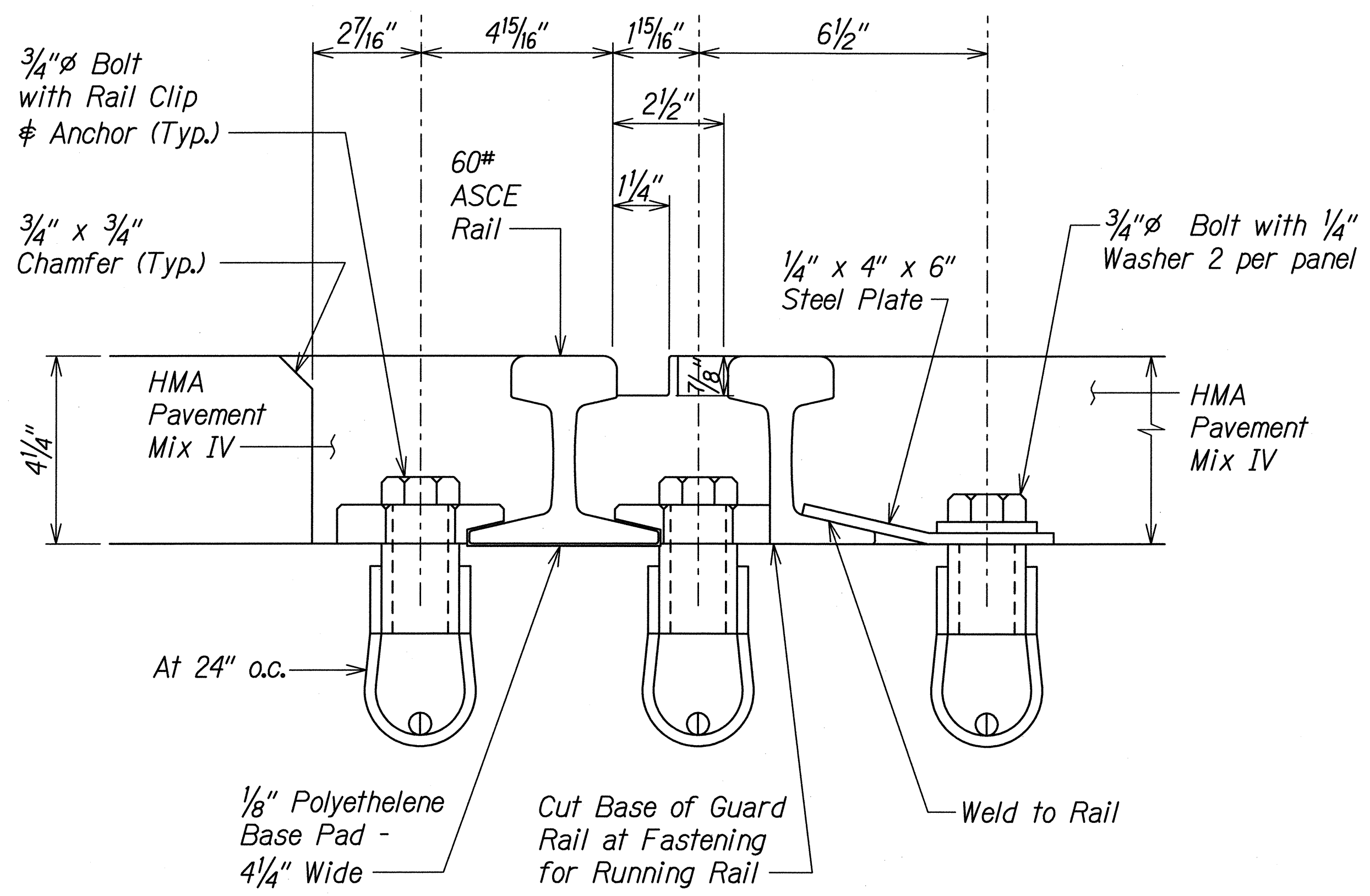
SHEET No. R-3 OF 8 SHEETS

39

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(22)	2013	40	230

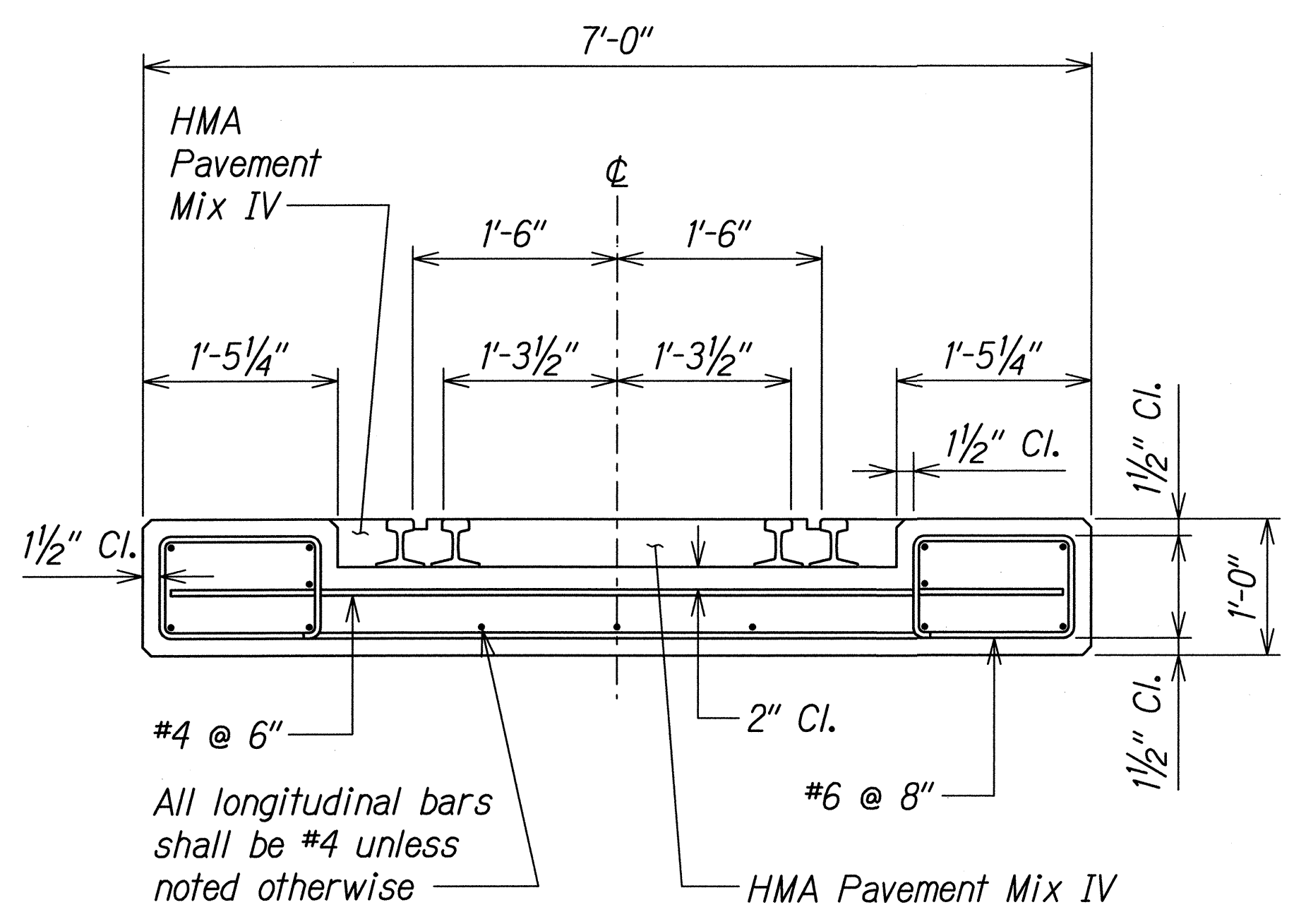


**RAILROAD CROSSING
WITHIN ROADWAY PAVEMENT**
NTS



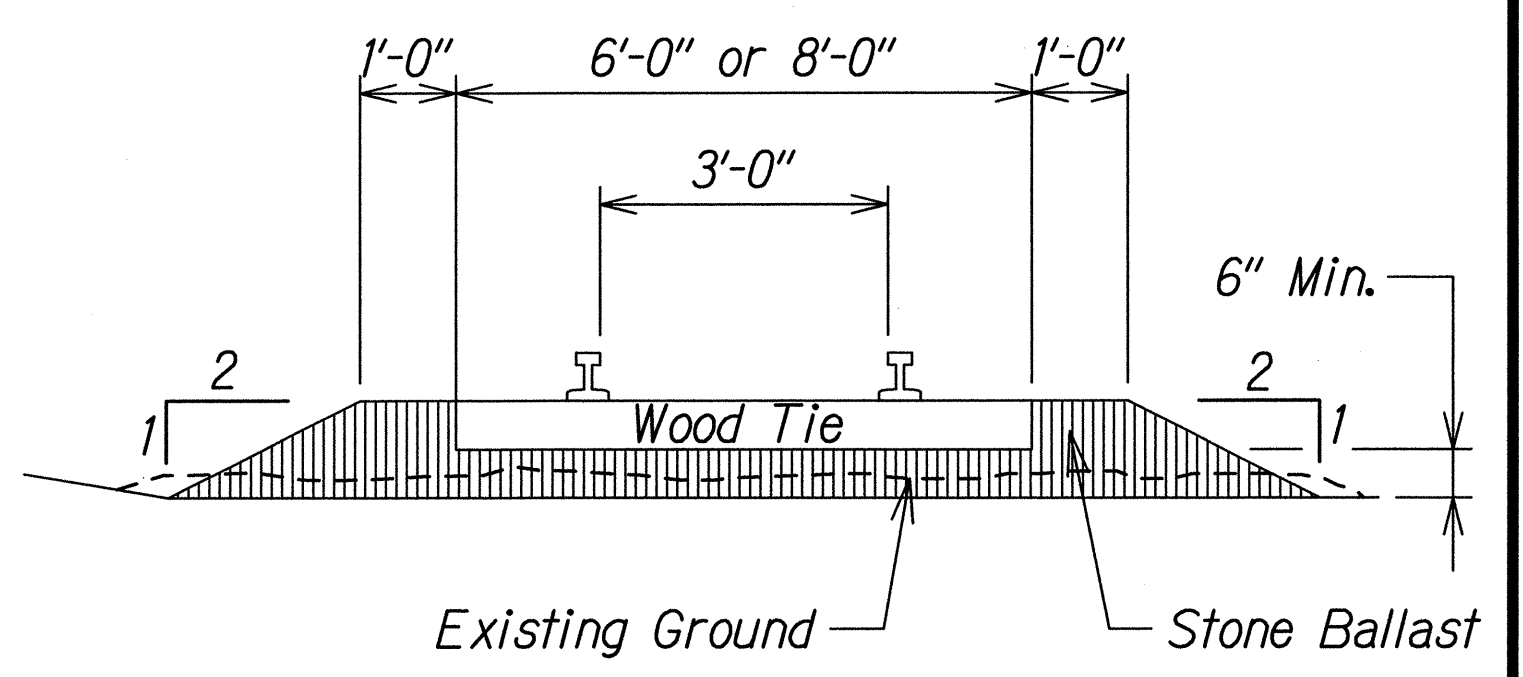
NOTE:
Polyethylene base pads for rail shall conform to ASTM Designation D1248, Type III, Class C, Grade 5 for high density polyethylene plastic with a durometer hardness of 60 to 65D. The hardness shall be stable between plus 140 degrees F and minus 40 degrees F.

DETAIL AT RAIL CLIP
NTS



- NOTE:**
1. All concrete shall be precast
fc' = 5000' p.s.i.
 2. All reinforcing steel shall be grade 60.
 3. Sections shall have a length of 8'-0".

PRECAST CONCRETE CROSSING UNIT
NTS



TRACK RECONSTRUCTION
NTS

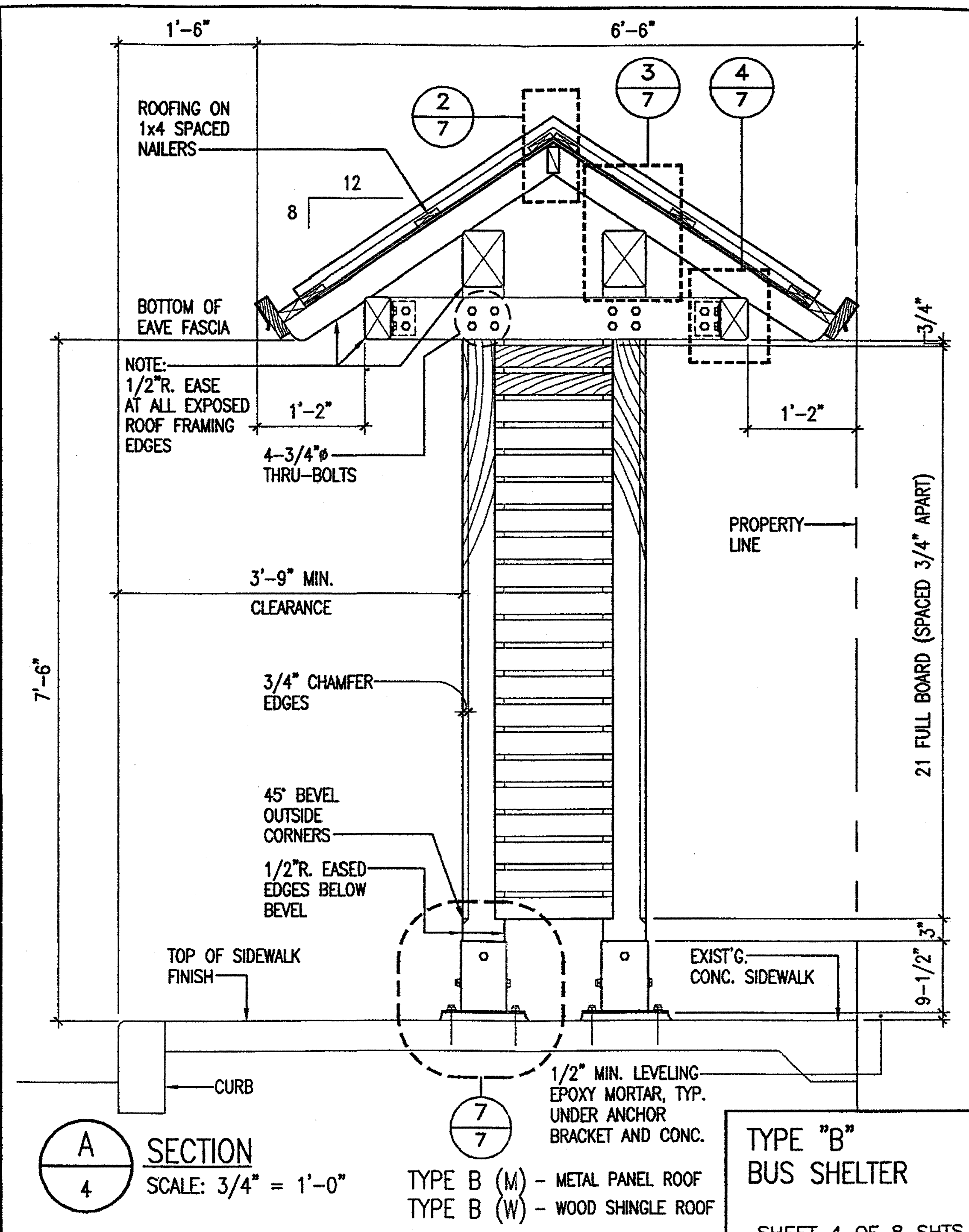
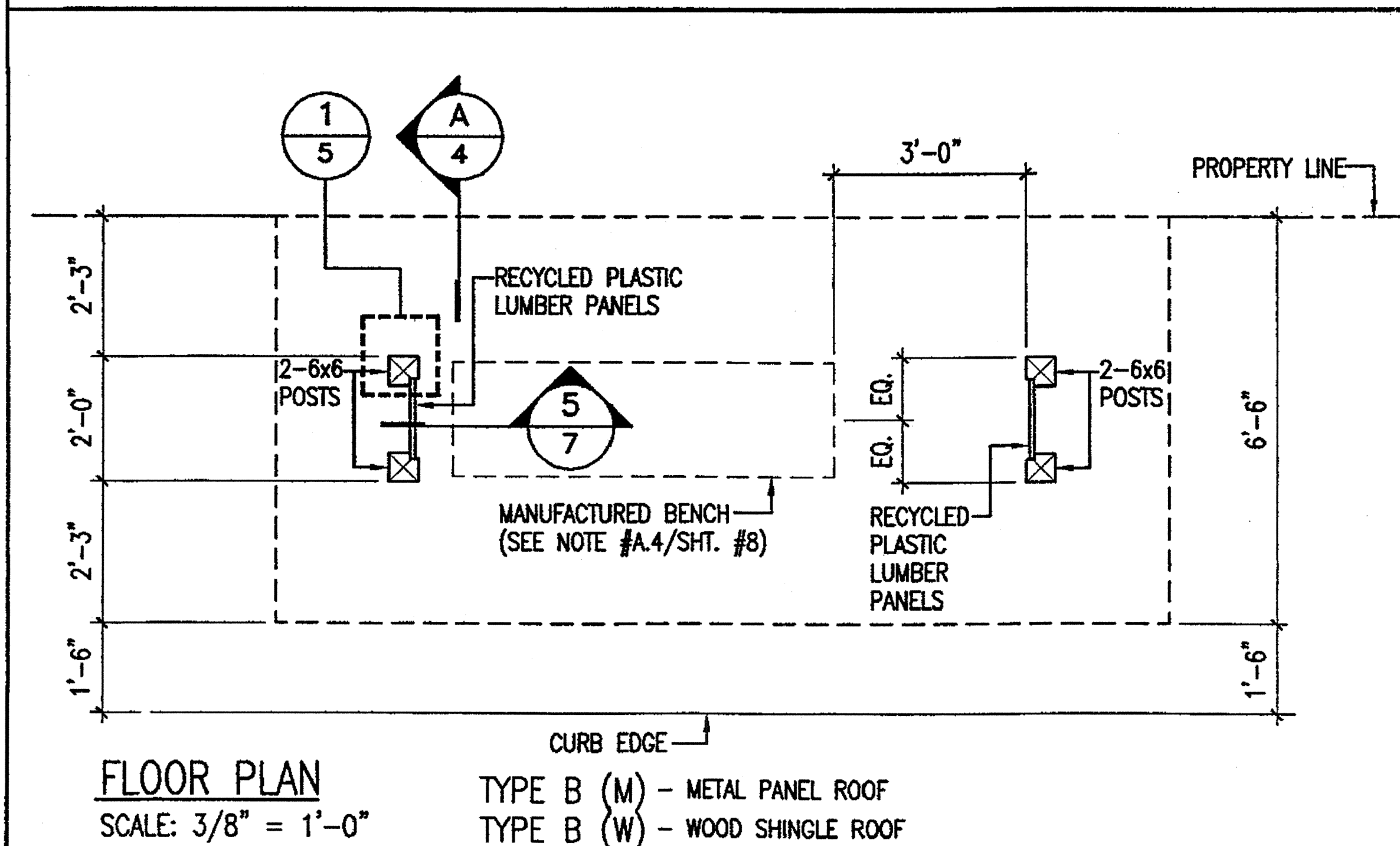
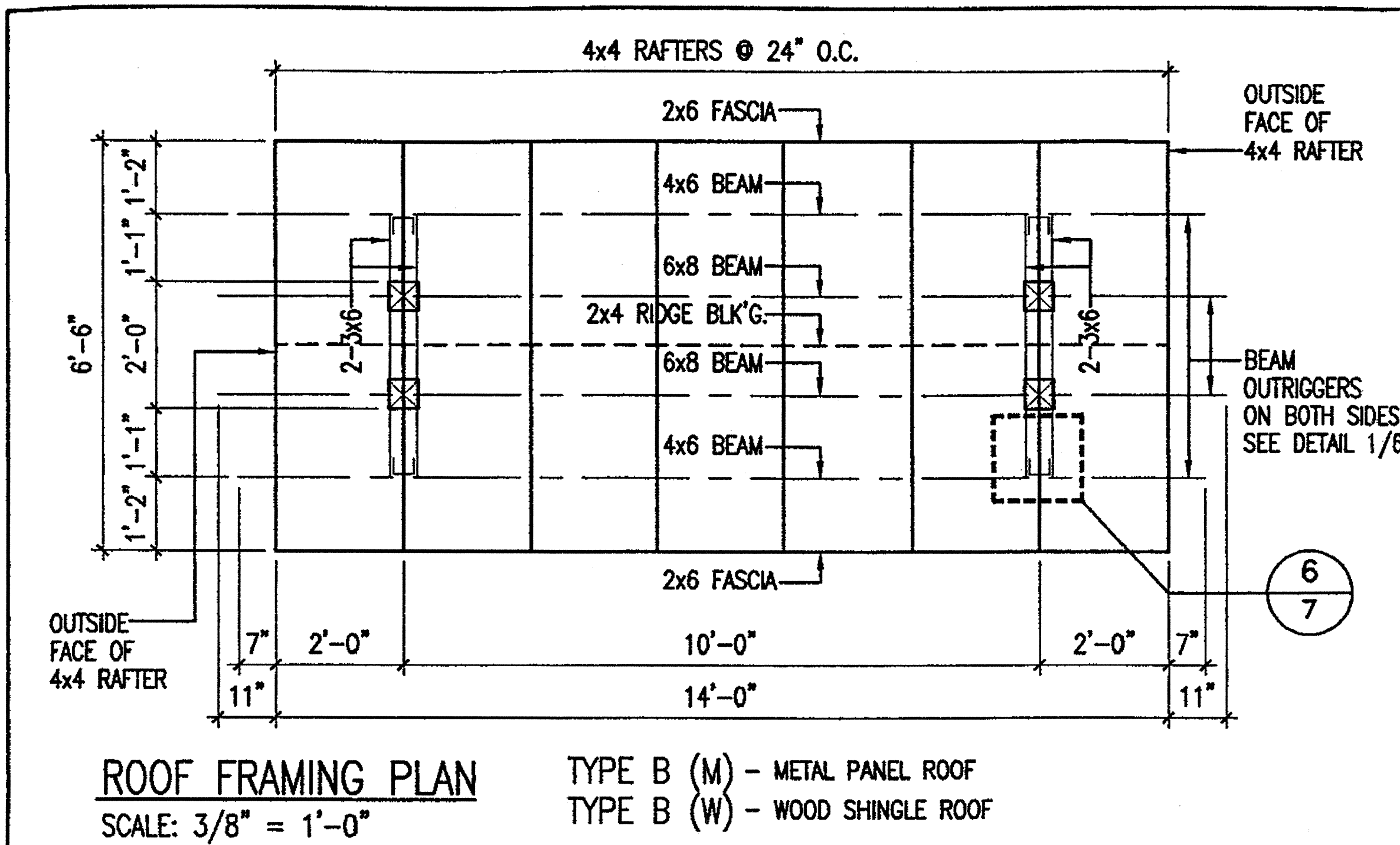
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EXPIRATION DATE OF THE LICENSE: 04/30/14

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RAILROAD CROSSING DETAILS

FARRINGTON HIGHWAY INTERSECTION IMPROVEMENTS
AT NANAKULI AVENUE AND HALEAKALA AVENUE
Federal-Aid Project No. STP-093-1(22)

Scale: NTS Date: April 2013



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

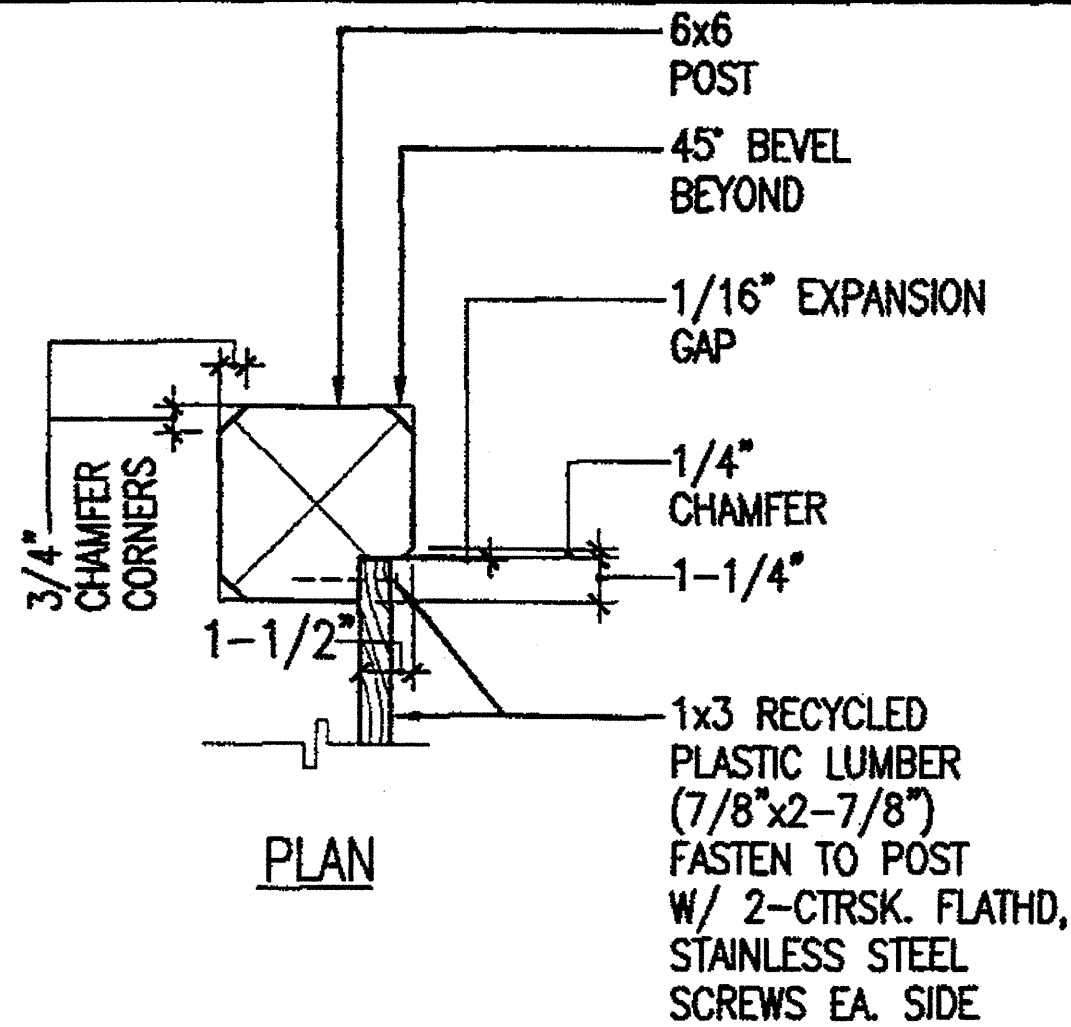
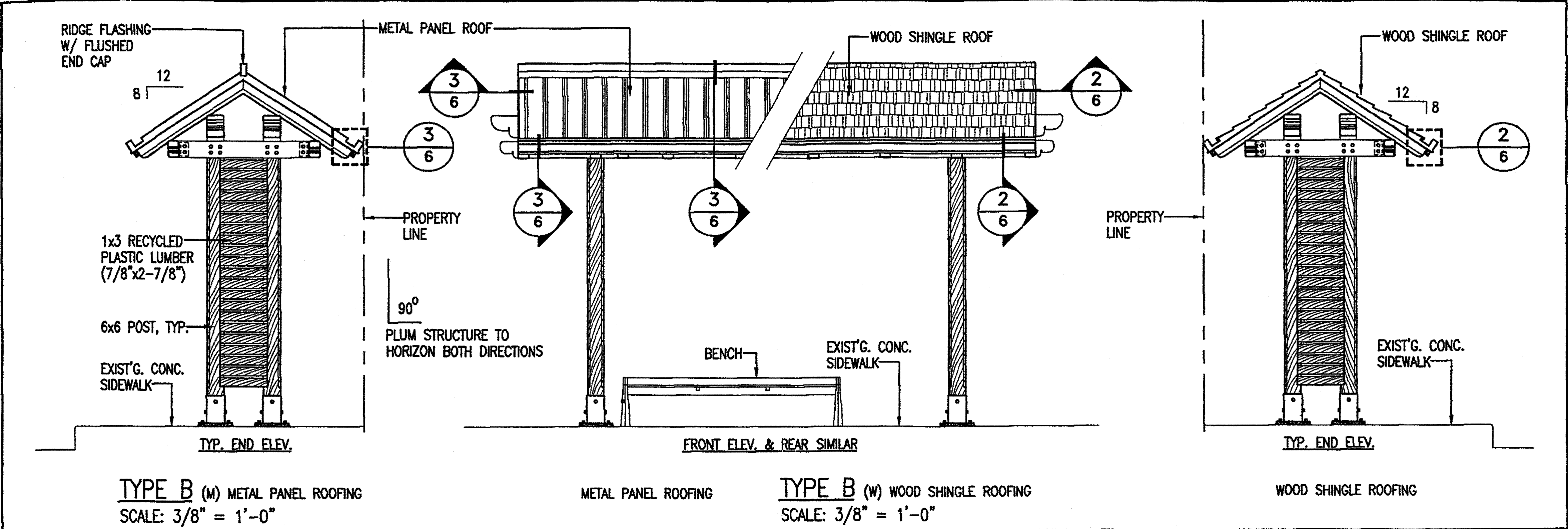
TYPE B BUS SHELTER
DETAILS - 1

FARRINGTON HIGHWAY INTERSECTION IMPROVEMENTS
AT NANAKULI AVENUE AND HALEAKALA AVENUE
Federal-Aid Project No. STP-093-1(22)

Scale: As Noted Date: April 2013

SHEET No. R-5 OF 8 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(22)	2013	42	230



1
5 **SIDE PANEL DETAIL**
SCALE: 1-1/2" = 1'-0" AT TYPE B

TYPE "B"
BUS SHELTER

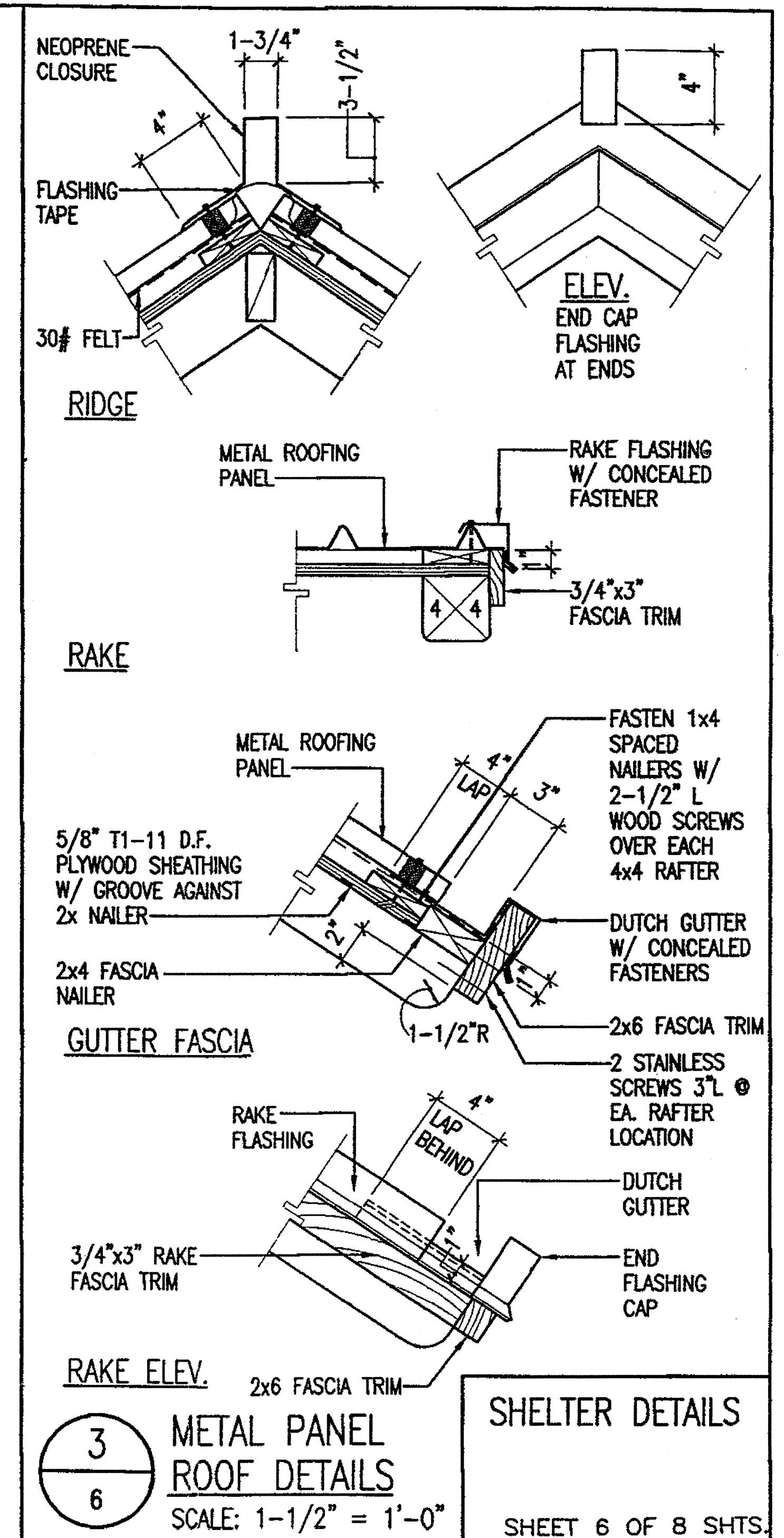
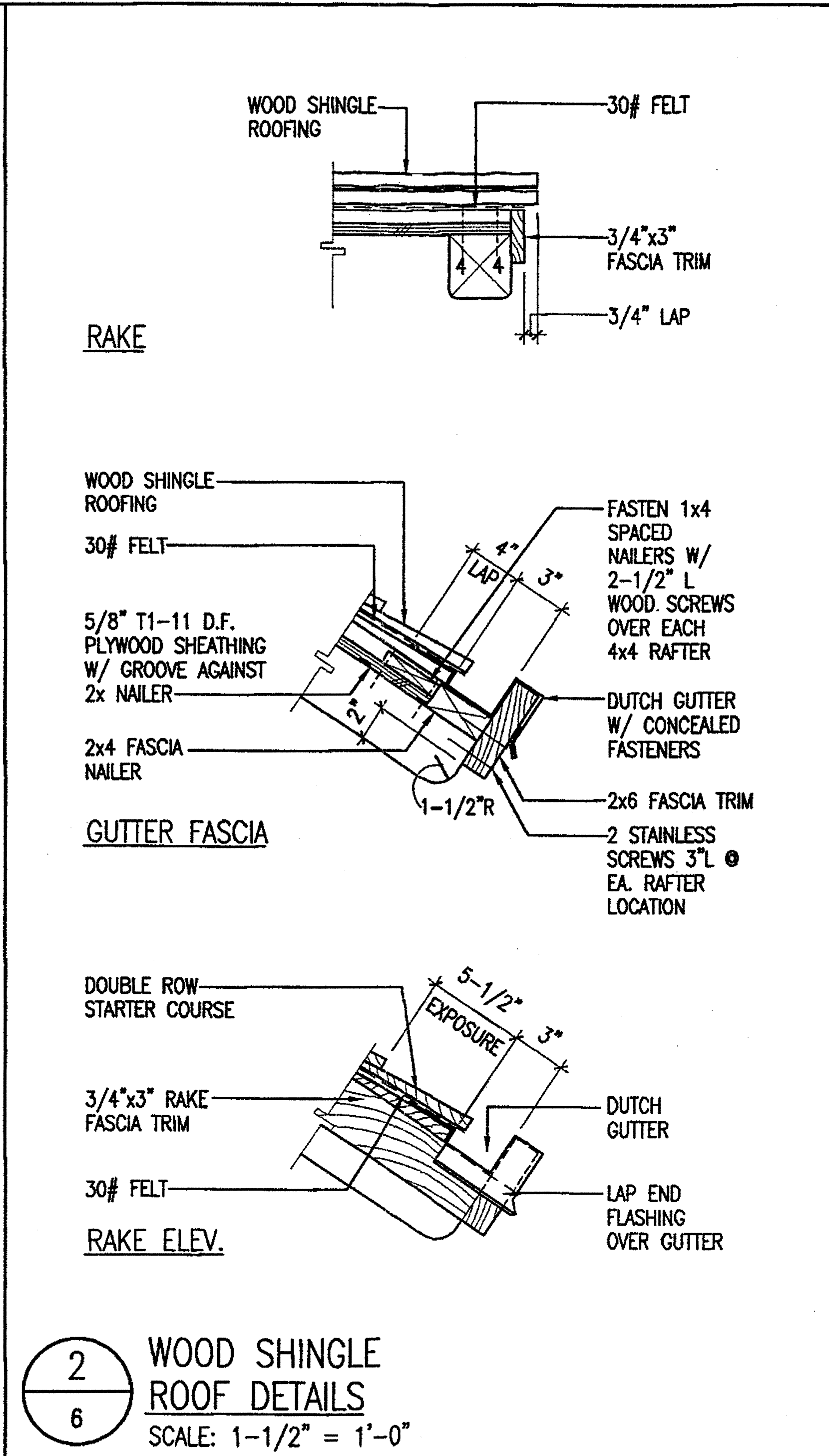
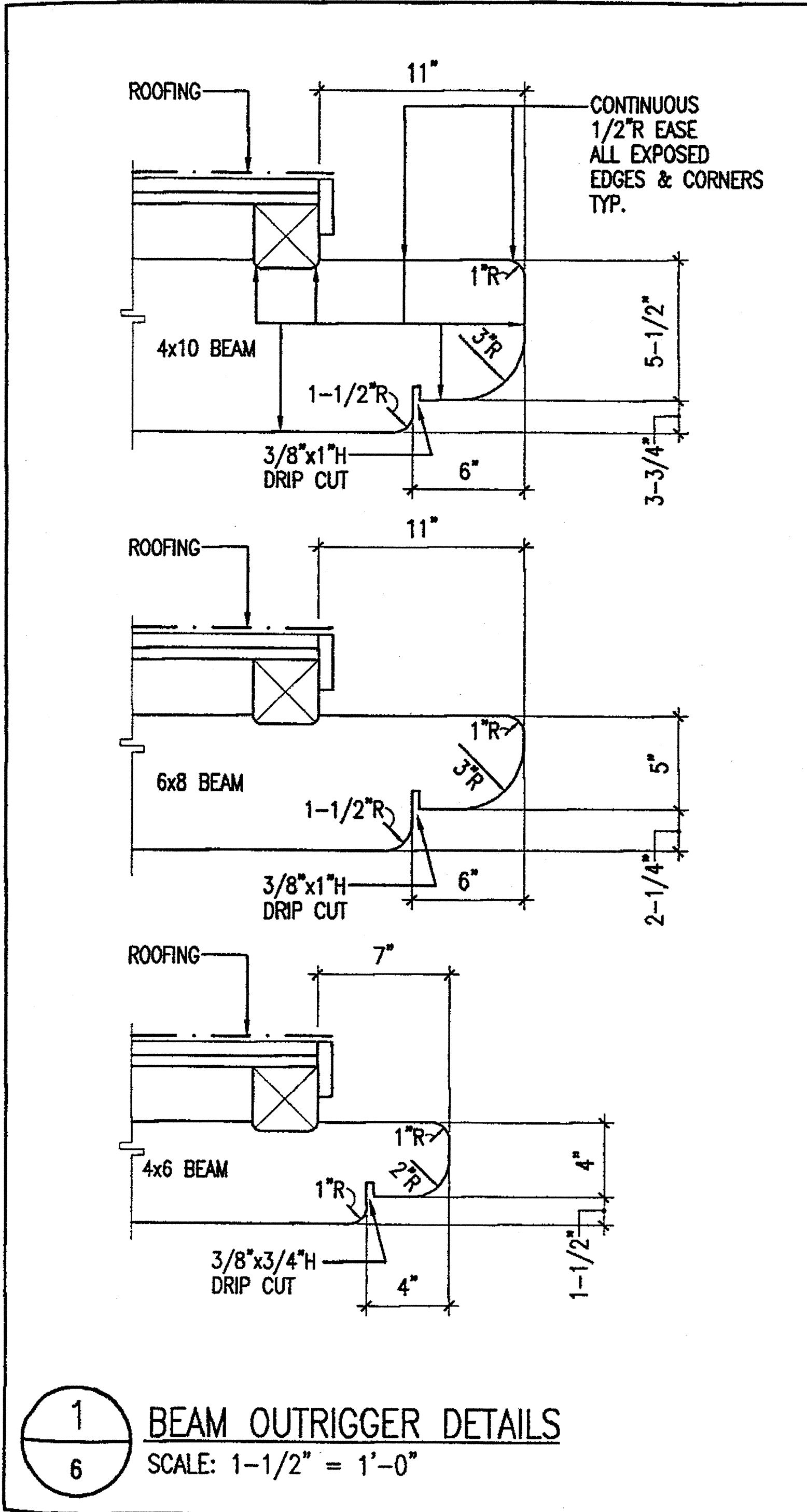
SHEET 5 OF 8 SHTS.

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ORIGINAL PLAN	
NOTE BOOK	
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPE B BUS SHELTER
DETAILS - 2
FARRINGTON HIGHWAY INTERSECTION IMPROVEMENTS
AT NANAKULI AVENUE AND HALEAKALA AVENUE
Federal-Aid Project No. STP-093-1(22)
Scale: As Noted Date: April 2013

SHEET No. R-6 OF 8 SHEETS



SHELTER DETAILS
SHEET 6 OF 8 SHTS.

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DRAWN BY _____
CHECKED BY _____
NOTE BOOK _____
CHECKED BY _____

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**TYPE B BUS SHELTER
DETAILS - 3**
FARRINGTON HIGHWAY INTERSECTION IMPROVEMENTS
AT NANAKULI AVENUE AND HALEAKALA AVENUE
Federal-Aid Project No. STP-093-1(22)
Scale: As Noted Date: April 2013
SHEET No. R-7 OF 8 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(22)	2013	44	230

1
7 RIDGE ANCHORING AT TYPE A
SCALE: 1-1/2" = 1'-0"

2
7 RIDGE ANCHORING AT TYPE B
SCALE: 1-1/2" = 1'-0"

3
7 RAFTER BEAM CONNECTION AT TYPE B
SCALE: 1-1/2" = 1'-0"

4
7 RAFTER/EAVE BEAM CONNECTION
SCALE: 1-1/2" = 1'-0"

5
7 CROSS BEAMS/POST CONNECTION AT TYPE B
SCALE: 1-1/2" = 1'-0"

6
7 CROSS BEAMS/EAVE BEAMS CONNECTION AT TYPE B
SCALE: 1-1/2" = 1'-0"

7
7 POST ANCHOR DETAIL AT TYPE B
SCALE: 1-1/2" = 1'-0"

SHELTER DETAILS

SHEET 7 OF 8 SHTS.

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NOTE BOOK	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPE B BUS SHELTER
DETAILS - 4

FARRINGTON HIGHWAY INTERSECTION IMPROVEMENTS
AT NANAKULI AVENUE AND HALEAKALA AVENUE
Federal-Aid Project No. STP-093-1(22)

Scale: As Noted Date: April 2013

SHEET No. R-8 OF 8 SHEETS