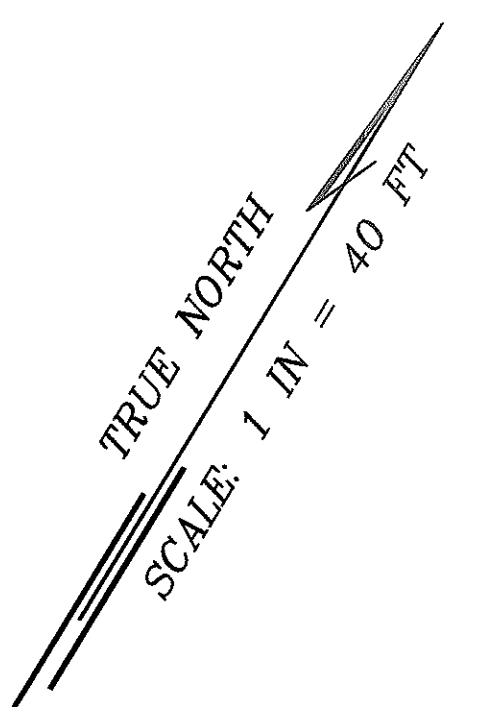
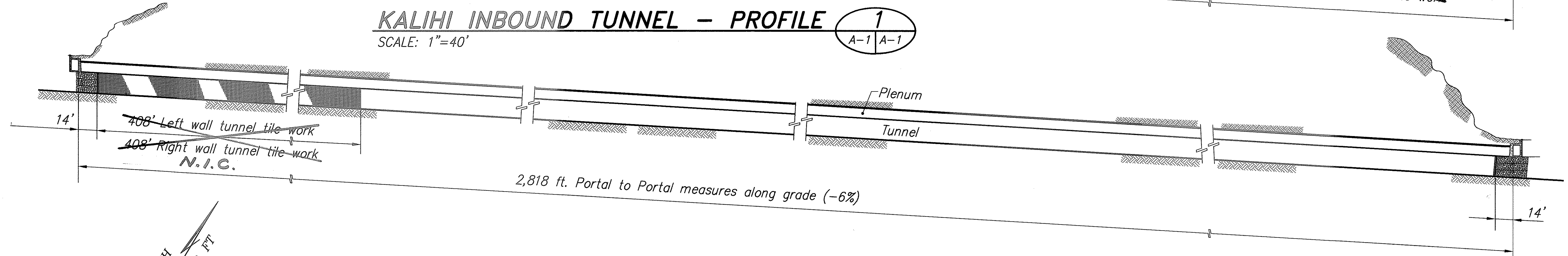
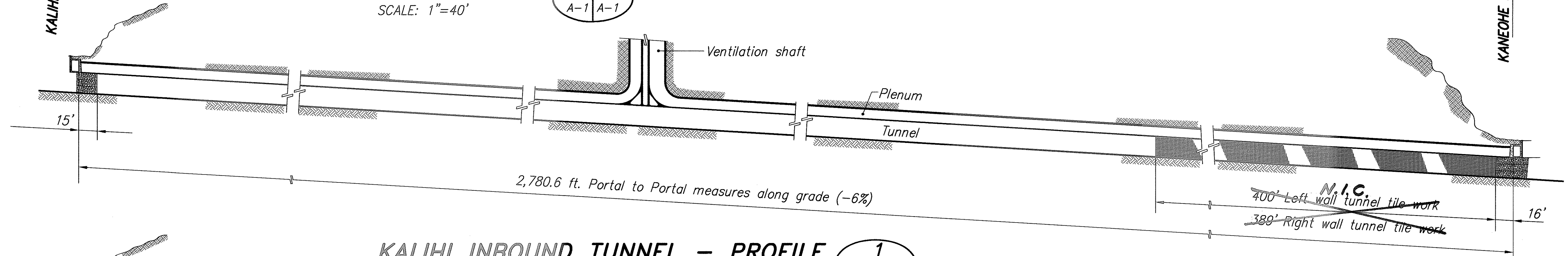
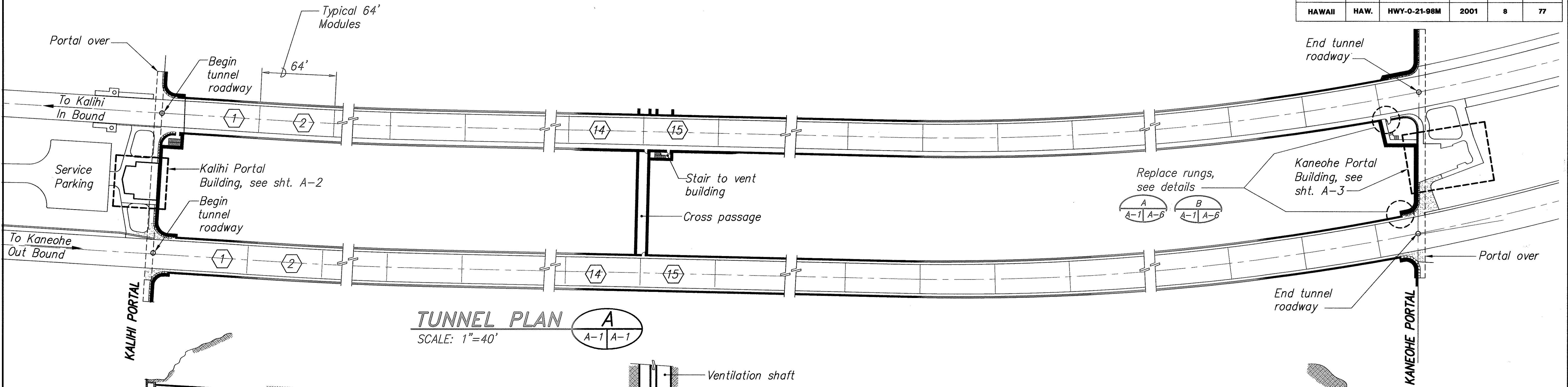
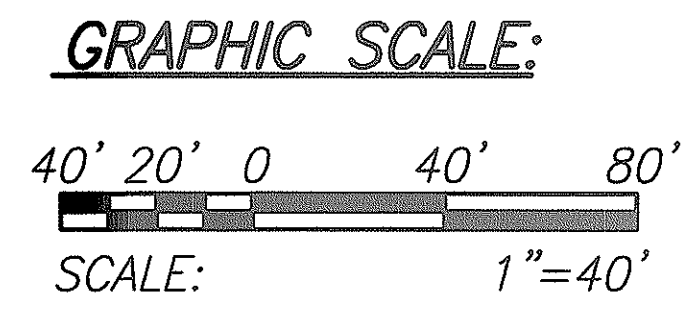


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-21-98M	2001	8	77



Legend:
2 Module number



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**TUNNEL PLAN
AND PROFILE**

WILSON TUNNEL IMPROVEMENTS
SCADA UPGRADE

PROJECT NO. HWY-0-21-98M
Scale: AS NOTED Date: JULY 2000

SHEET No. A-1 OF A-6 SHEETS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Walter Leu

"AS-BUILT"

ORIGINAL PLAN

SURVEY PLOTTED BY: _____ DATE: _____

DRAWN BY: _____

TRACED BY: _____

DESIGNED BY: _____

CHECKED BY: _____

No. _____

A-1.DWG

08/29/00 L:\dwg\6113-01\ARCH

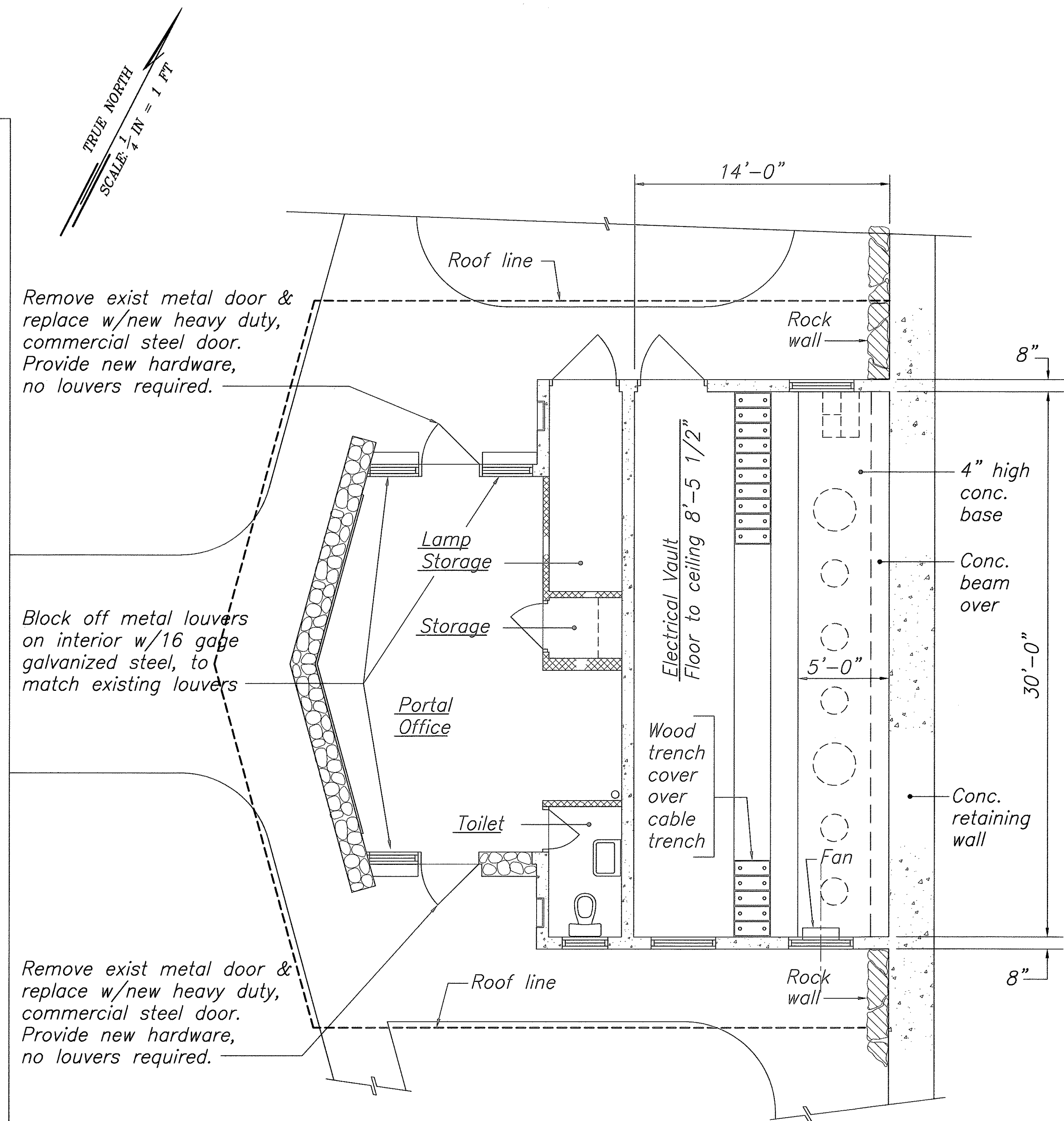
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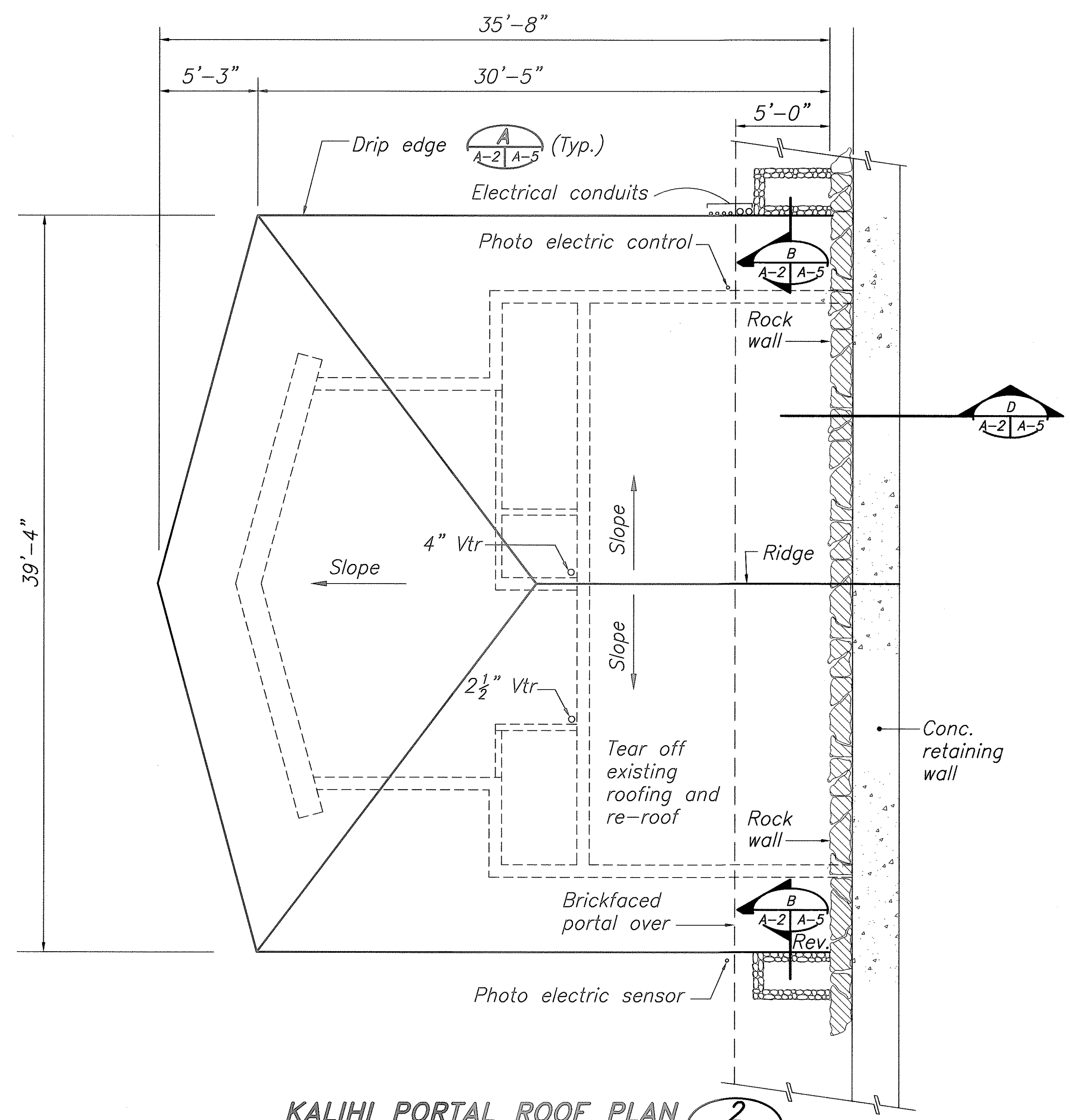
SURVEY PLOTTED BY	DATE
DESIGNED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NO.	

08/29/00 L:\dwa\6113-01\arch 14:54 A-2.DWG

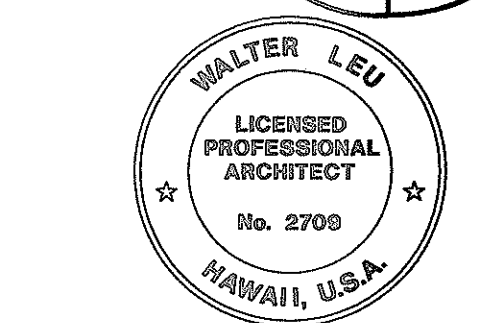
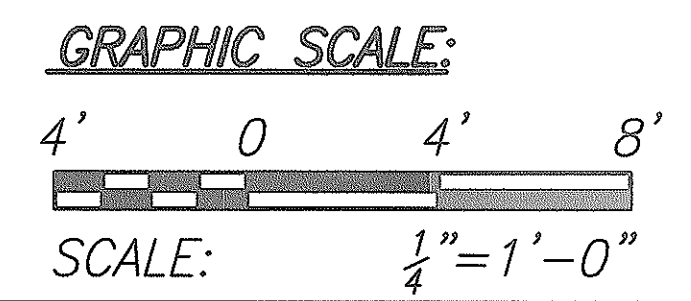
Police and Service Parking Area



KALIHI PORTAL PLAN
SCALE: 1/4"=1'
A-2 A-2



KALIHI PORTAL ROOF PLAN
SCALE: 1/4"=1'
A-2 A-2



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

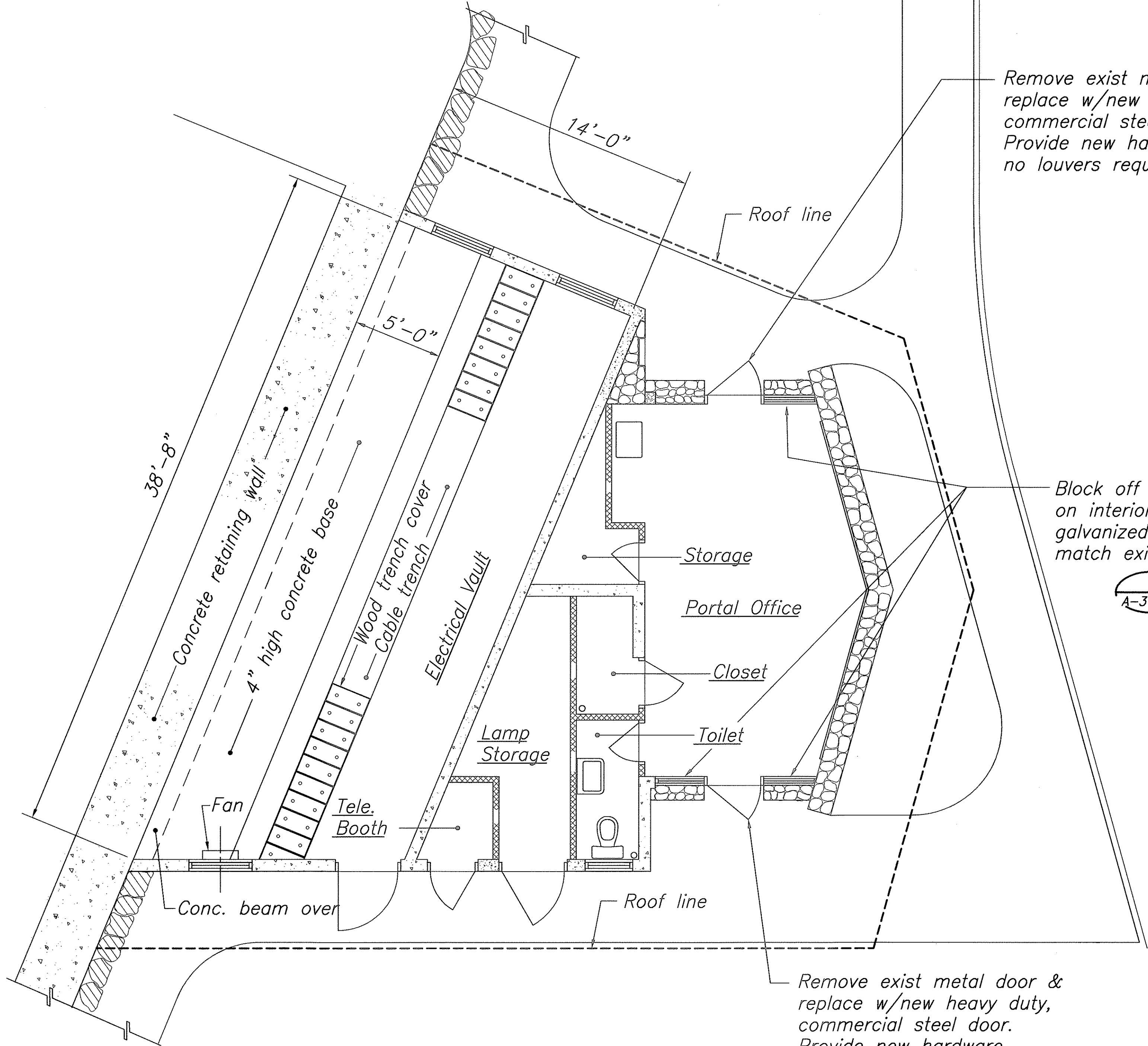
**KALIHI PORTAL PLAN
AND ROOF PLAN**

WILSON TUNNEL IMPROVEMENTS
SCADA UPGRADE

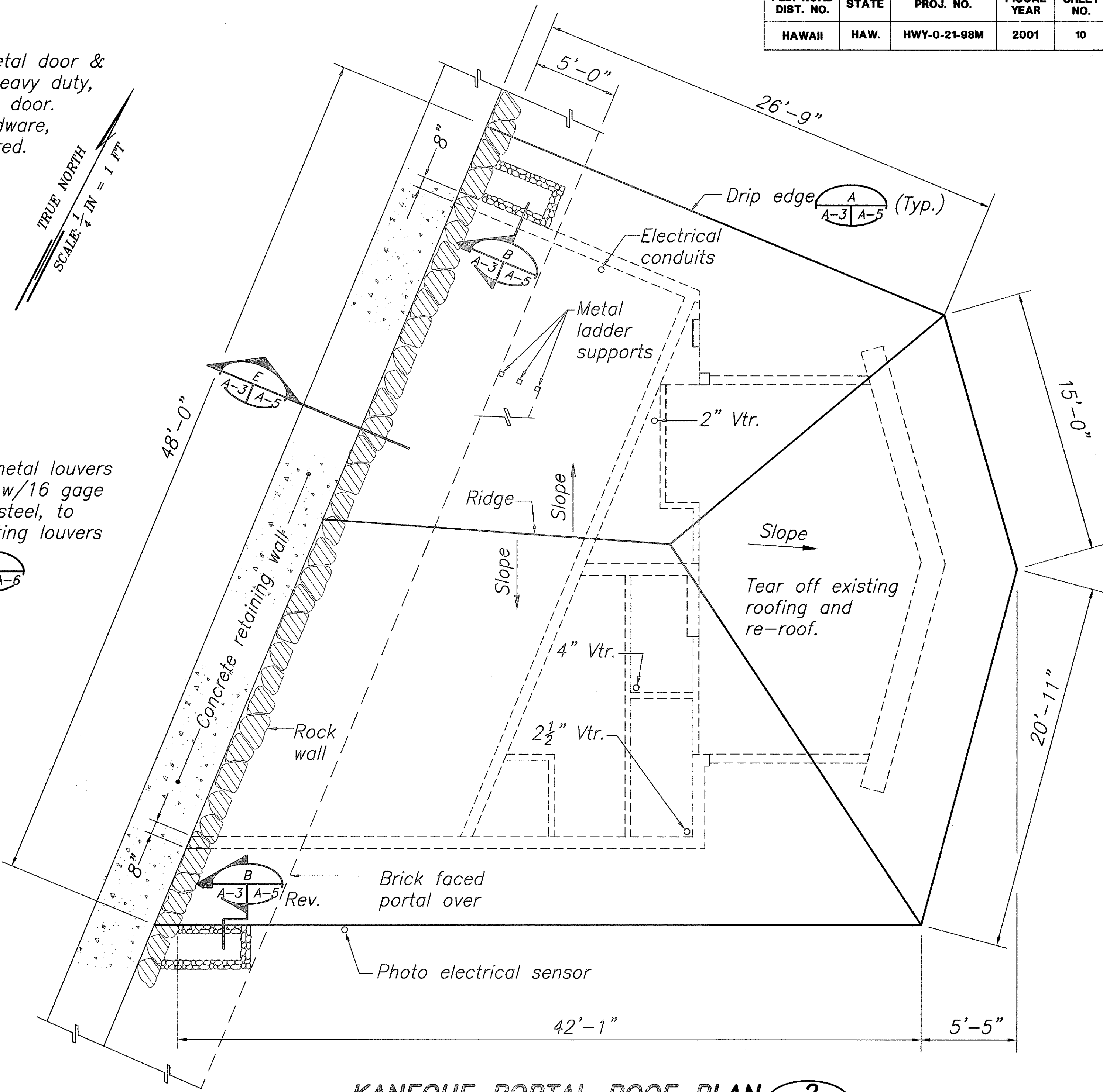
PROJECT NO. HWY-0-21-98M
Scale: AS NOTED Date: JULY 2000

SHEET No. A-2 OF A-6 SHEETS

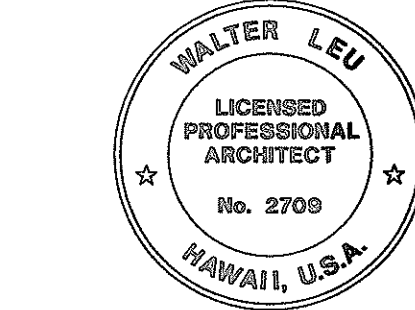
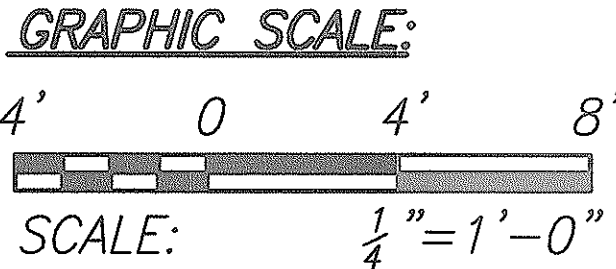
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-21-98M	2001	10	77



KANEOHE PORTAL PLAN 1
SCALE: $\frac{1}{4}"=1'$ A-3 A-3



KANEOHE PORTAL ROOF PLAN 2
SCALE: $\frac{1}{4}"=1'$ A-3 A-3



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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

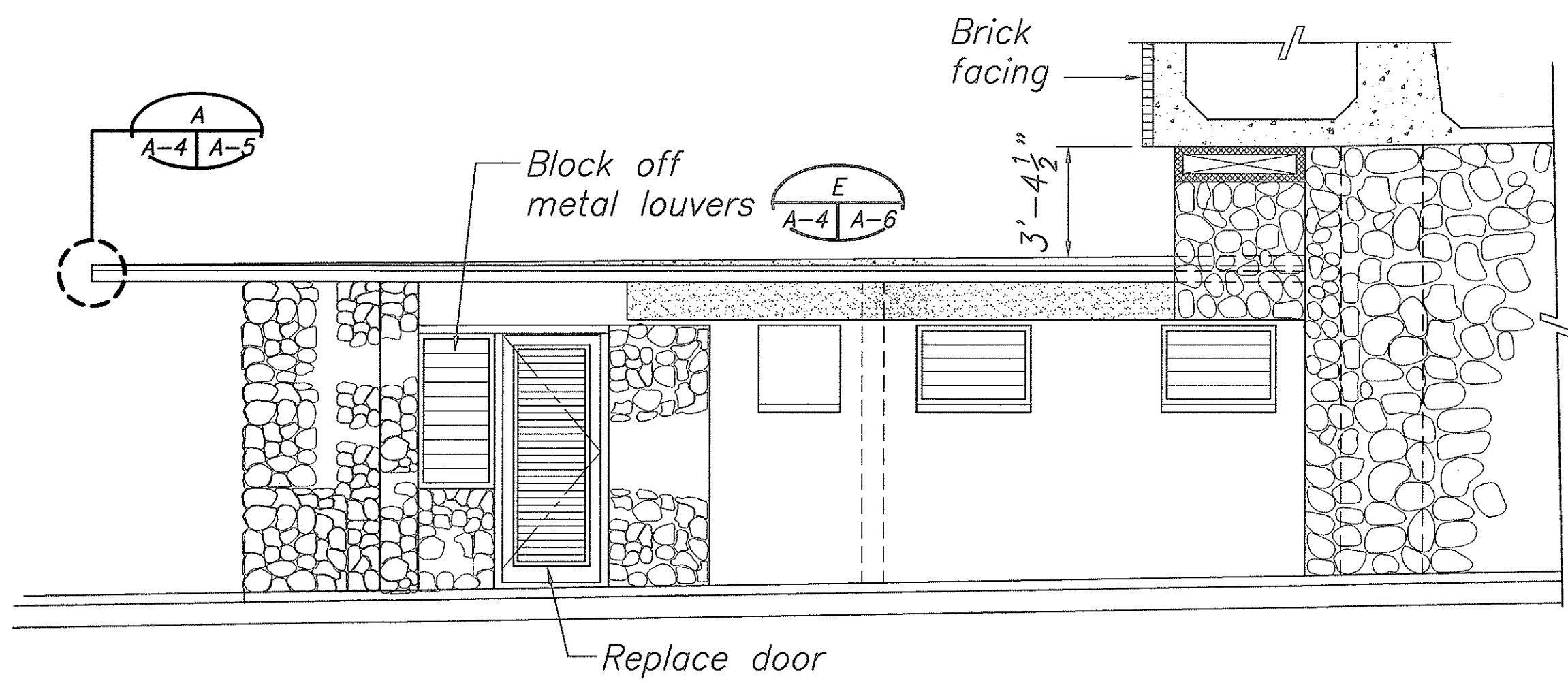
**KANEOHE PORTAL PLAN
AND ROOF PLAN**
WILSON TUNNEL IMPROVEMENTS
SCADA UPGRADE
PROJECT NO. HWY-0-21-98M
Scale: AS NOTED Date: JULY 2000

SHEET No. A-3 OF A-6 SHEETS

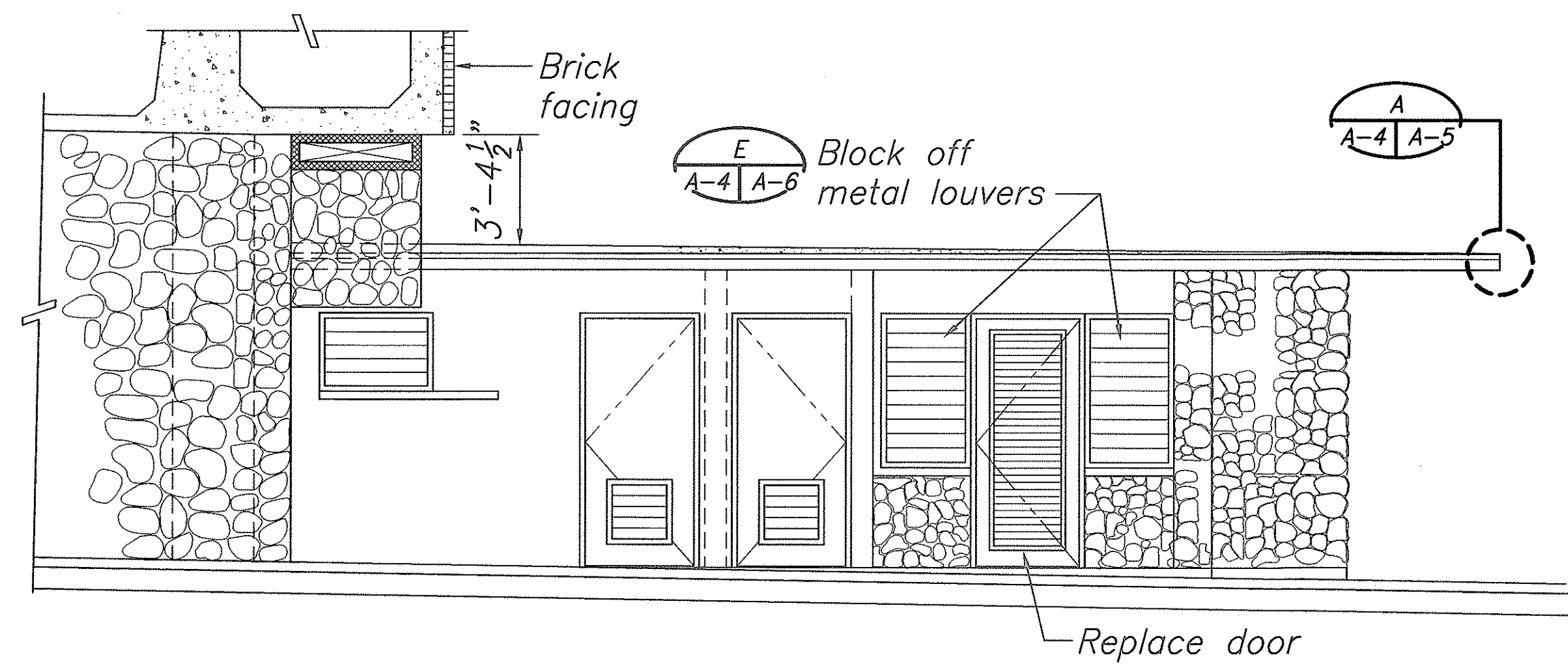
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DRAWN BY	
TRACED BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NO.	

14:57 08/29/00 L:\dwa\6113-01\arch A-3.DWG

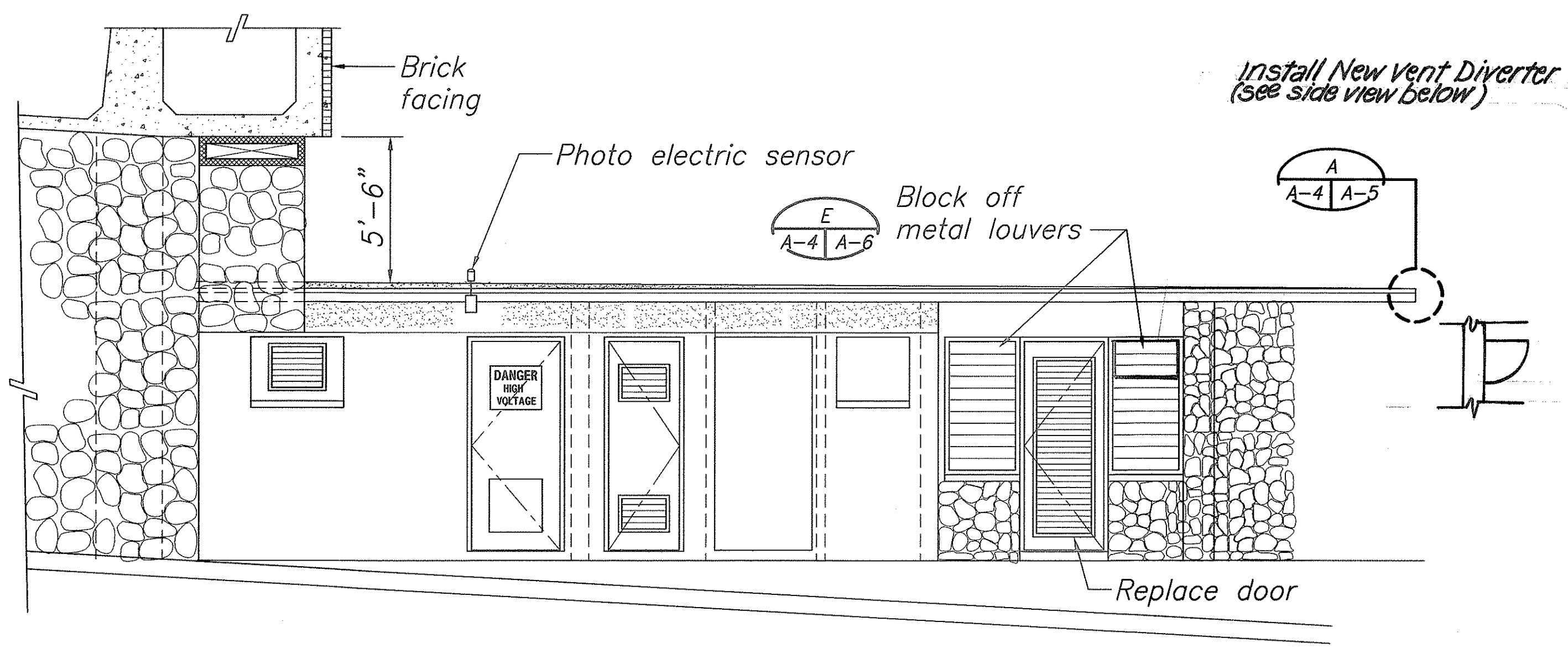
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-21-98M	2001	11	77



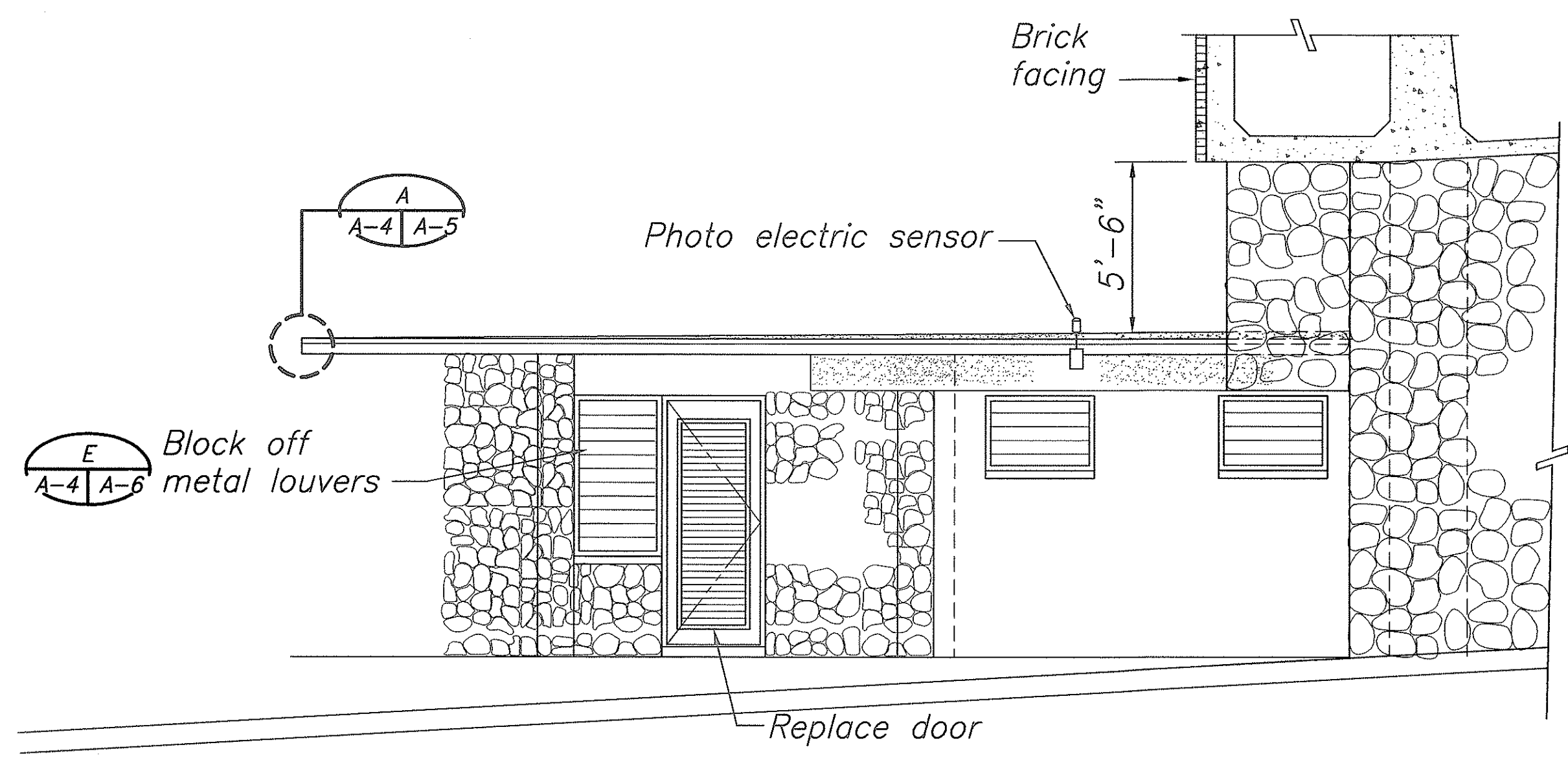
SOUTH ELEVATION KALIHI PORTAL 1
SCALE: $\frac{1}{4}" = 1'-0"$ A-4 A-4



NORTH ELEVATION KALIHI PORTAL 2
SCALE: $\frac{1}{4}" = 1'-0"$ A-4 A-4



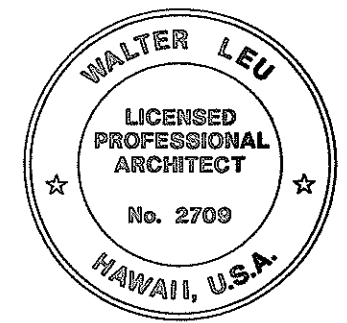
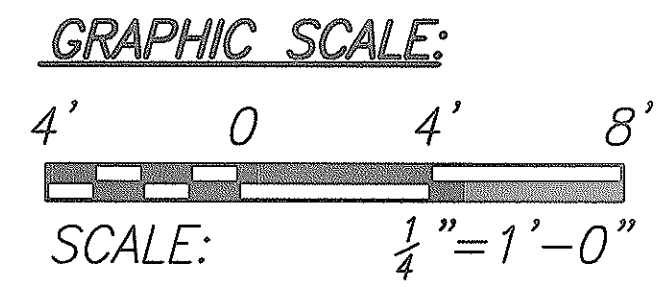
SOUTH ELEVATION KANEOHE PORTAL 3
SCALE: $\frac{1}{4}" = 1'-0"$ A-4 A-4



NORTH ELEVATION KANEOHE PORTAL 4
SCALE: $\frac{1}{4}" = 1'-0"$ A-4 A-4

Painting Notes:

1. paint exposed exterior of building except copper and rock.
2. Paint existing and new doors and frame all around (exterior and interior).
3. Paint new sheet metal blocking or metal louvers all around (exterior and interior side).



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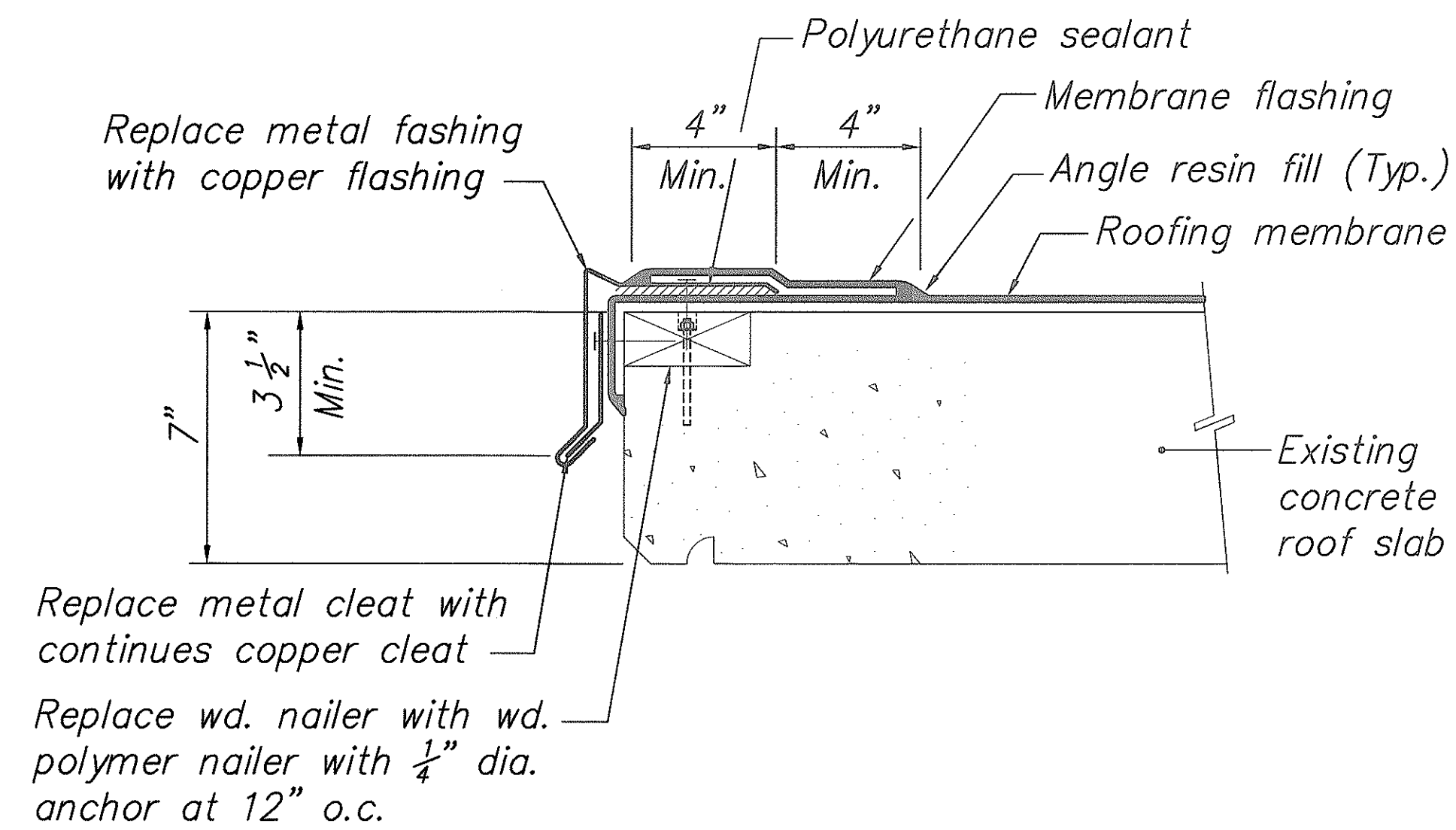
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
KALIHI & KANEOHE
PORTAL ELEVATIONS
WILSON TUNNEL IMPROVEMENTS
SCADA UPGRADE
PROJECT NO. HWY-0-21-98M
Scale: AS NOTED Date: JULY 2000
SHEET No. A-4 OF A-6 SHEETS

"AS-BUILT"

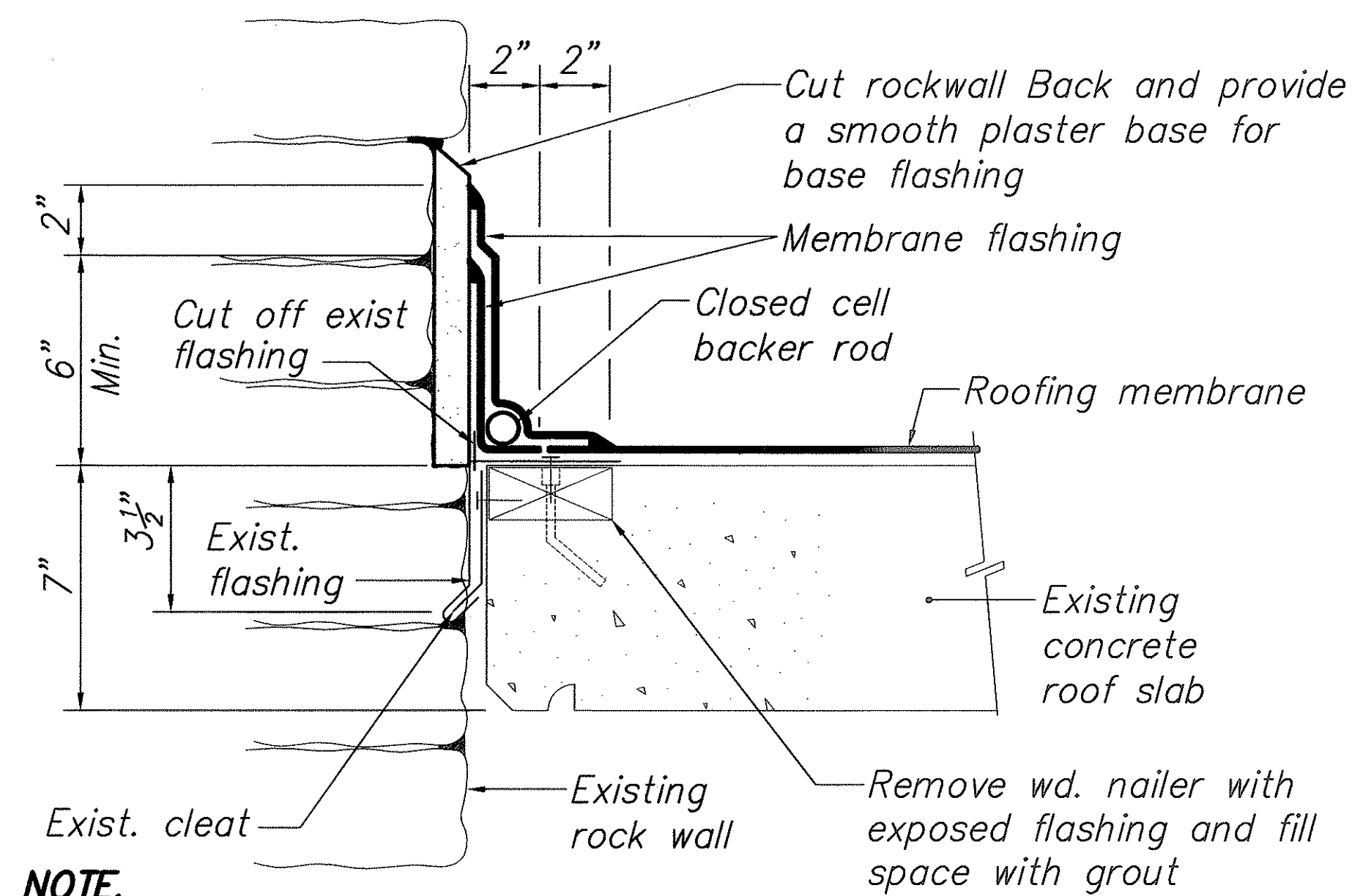
ORIGINAL PLAN
DRAWN BY
DESIGNED BY
NOTED BY
CHECKED BY
DATE
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08/29/00 L:\dwa\6113-01\arch

A-4.DWG

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-21-98M	2001	12	77



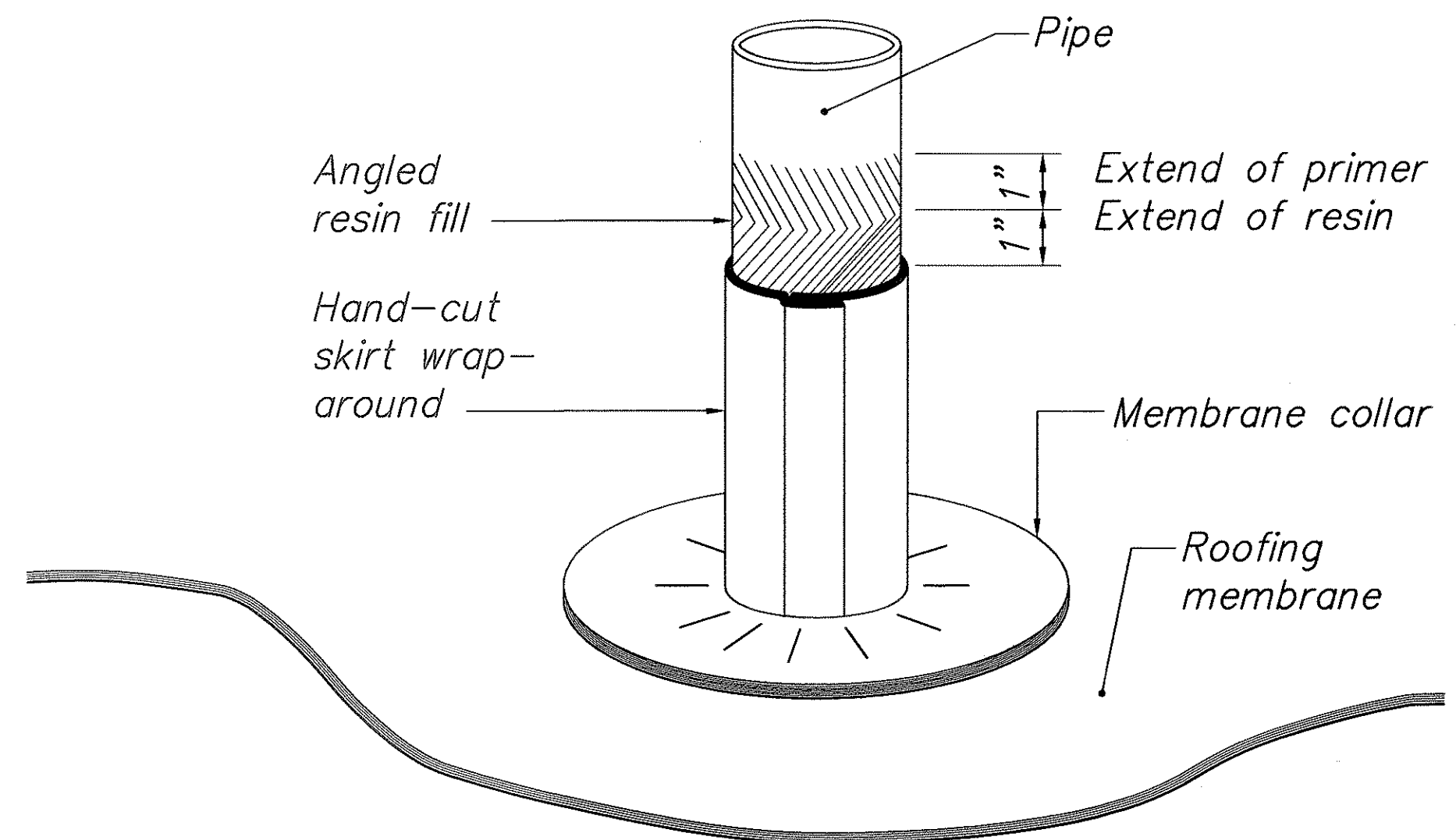
DRIP EDGE FLASHING DETAIL A
SCALE: 3" = 1'-0"



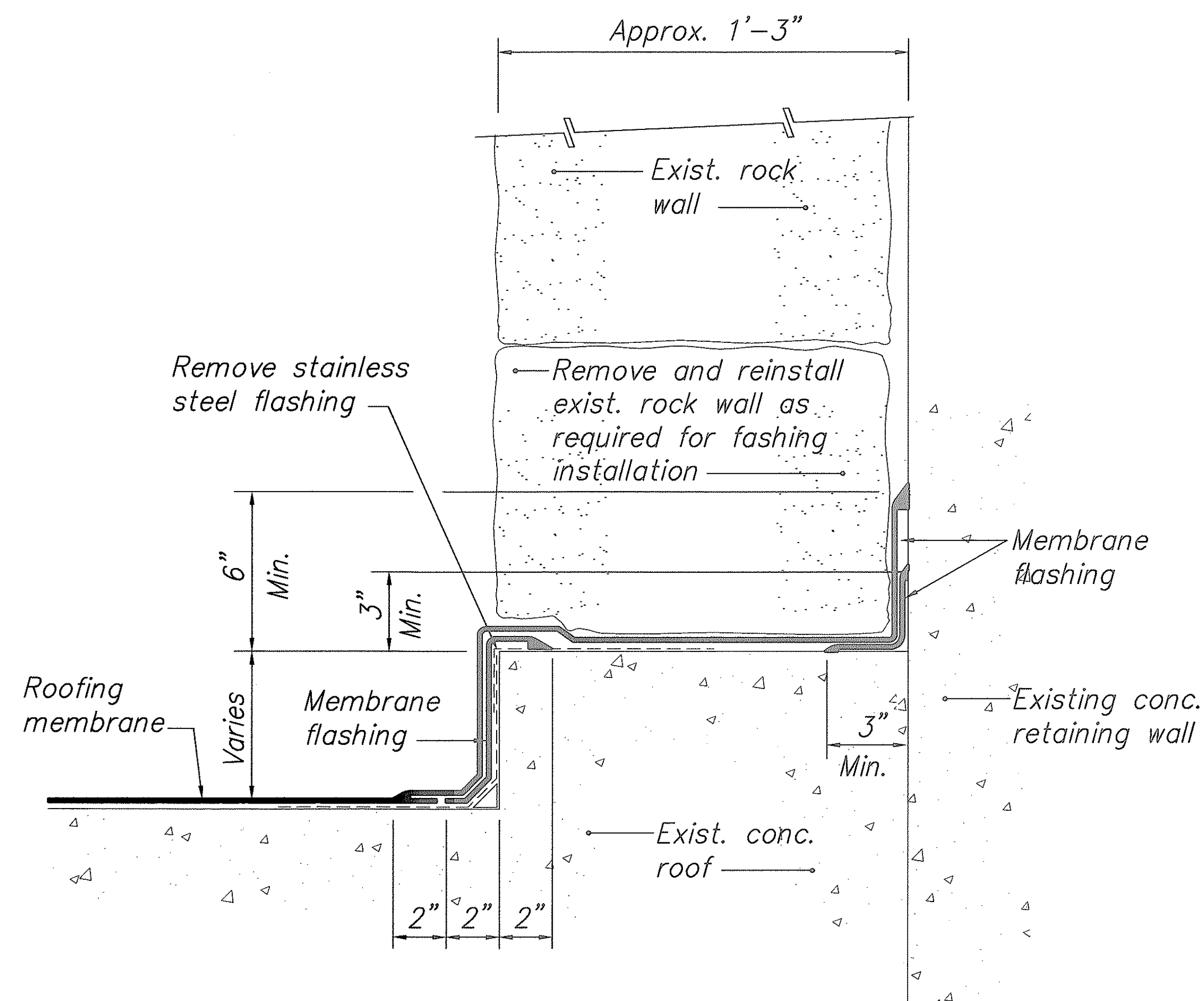
NOTE:

Keep existing remaining metal flashing in place.

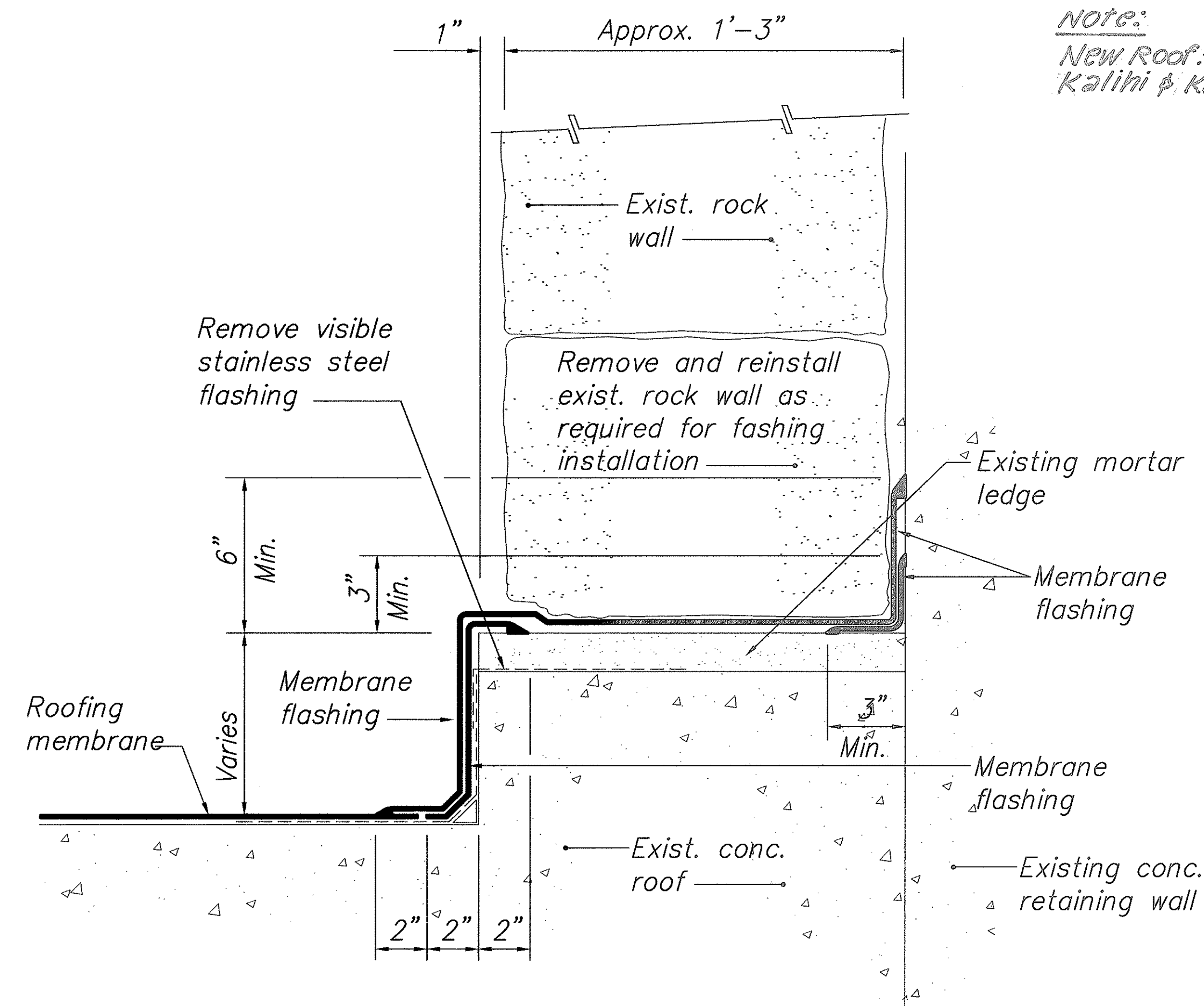
FLASHING DETAIL AT ROCK WALL DUCTS B
SCALE: 3" = 1'-0"



FLASHING AT PIPE PENETRATION DETAIL C
SCALE: Not at scale



COUNTER FLASHING AT KALIHI PORTAL D
SCALE: 3" = 1'-0"

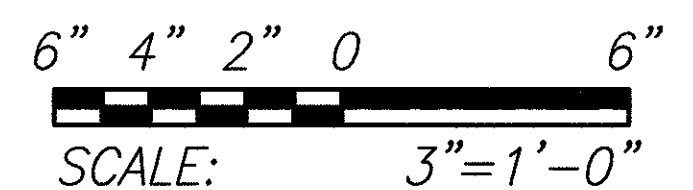


COUNTER FLASHING AT KANEOHE PORTAL E
SCALE: 3" = 1'-0"

NOTE:

New Roof: Flex FB100 ELVALOT for Kalihi & Kaneohe Portal Roof

GRAPHIC SCALE:



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Walter Leu

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ROOF DETAILS

WILSON TUNNEL IMPROVEMENTS
SCADA UPGRADE
PROJECT NO. HWY-0-21-98M
Scale: AS NOTED Date: JULY 2000

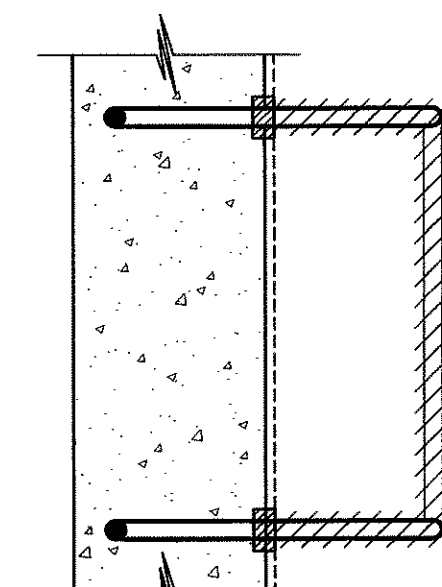
SHEET No. A-5 OF A-6 SHEETS

"AS-BUILT"

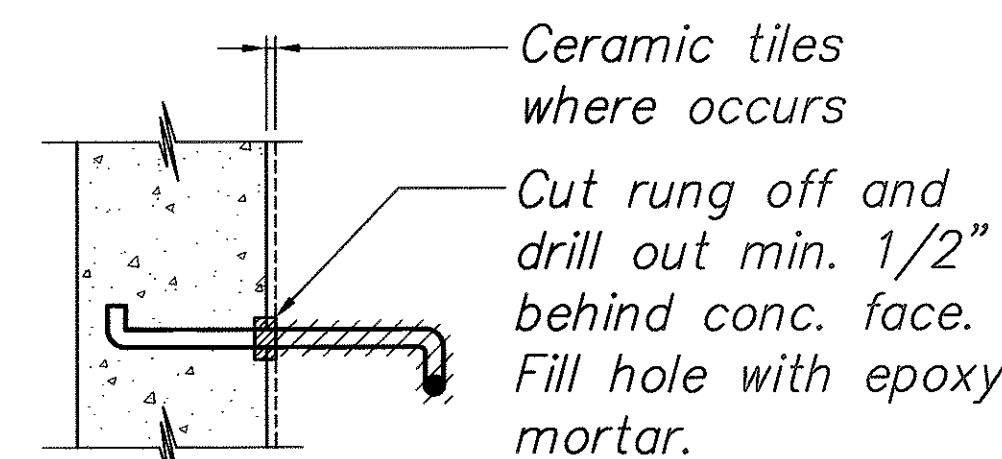
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NO.	

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FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-21-98M	2001	13	77



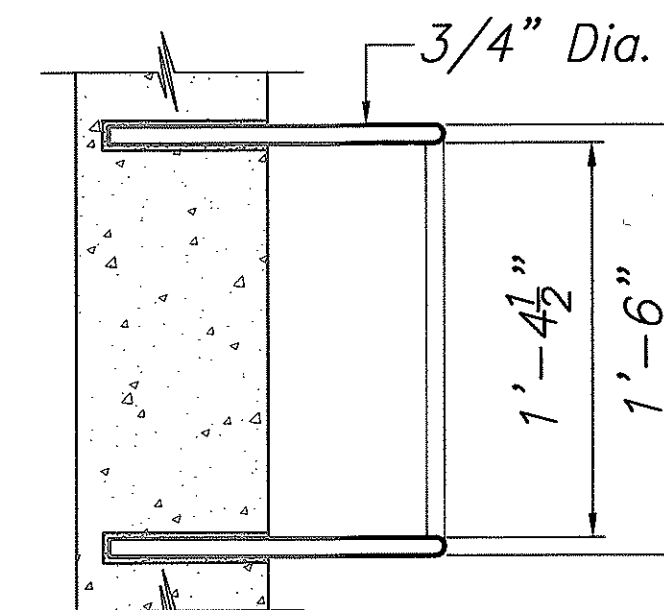
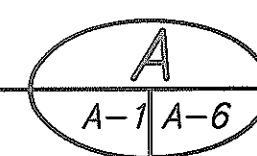
PLAN-DETAIL



CROSS SECTION

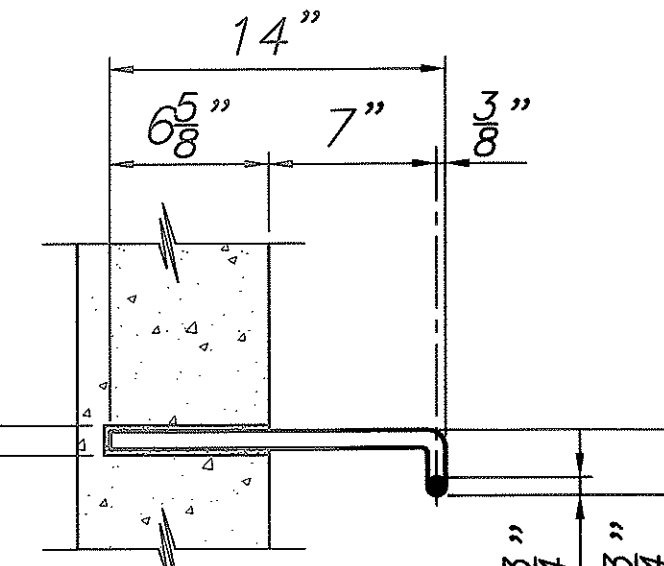
EXISTING RUNGS REMOVAL

Scale: 1 1/2" = 1'-0"



PLAN-DETAIL

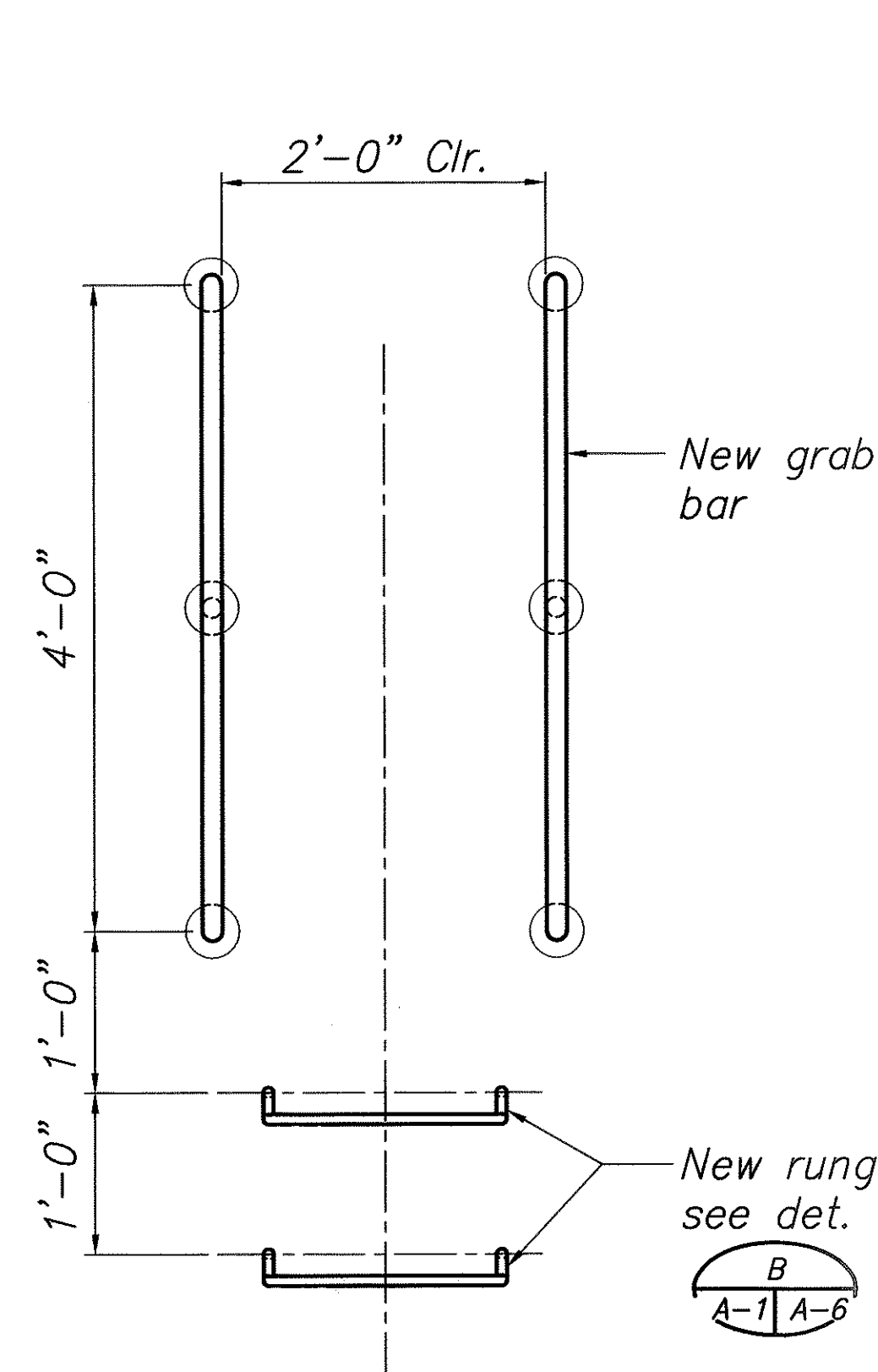
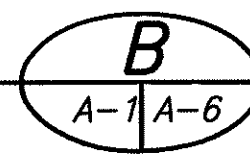
Drill 1 1/4" dia. hole and fill w/ epoxy adhesive grout



CROSS SECTION

NEW RUNGS IN EXIST. CONC. WALL

Scale: 1 1/2" = 1'-0"

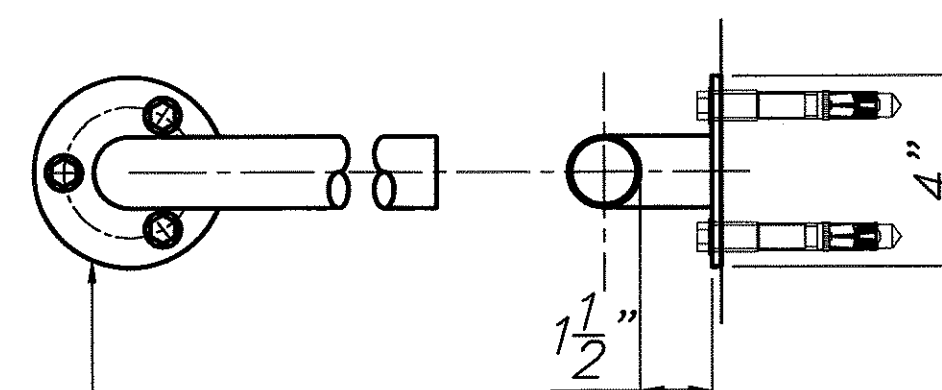
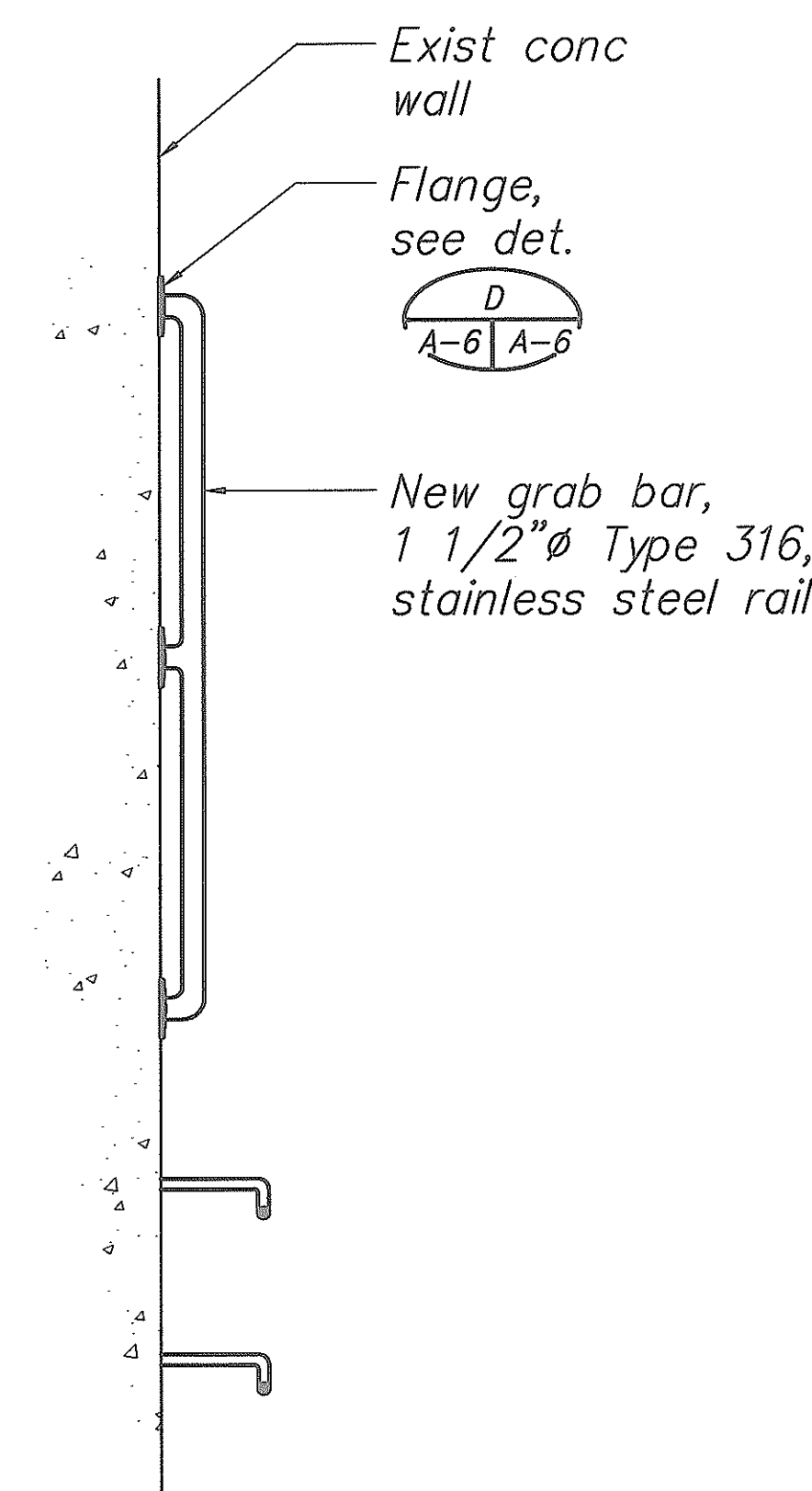
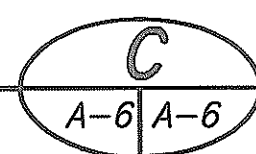


ELEVATION

NEW GRAB BAR IN EXISTING CONCRETE WALL

Scale: 1" = 1'-0"

SECTION



4" x 3/16" thk, Type 316 stainless steel flange w/ 3 stainless steel sleeve 1/2" x 3 3/4" anchor bolts

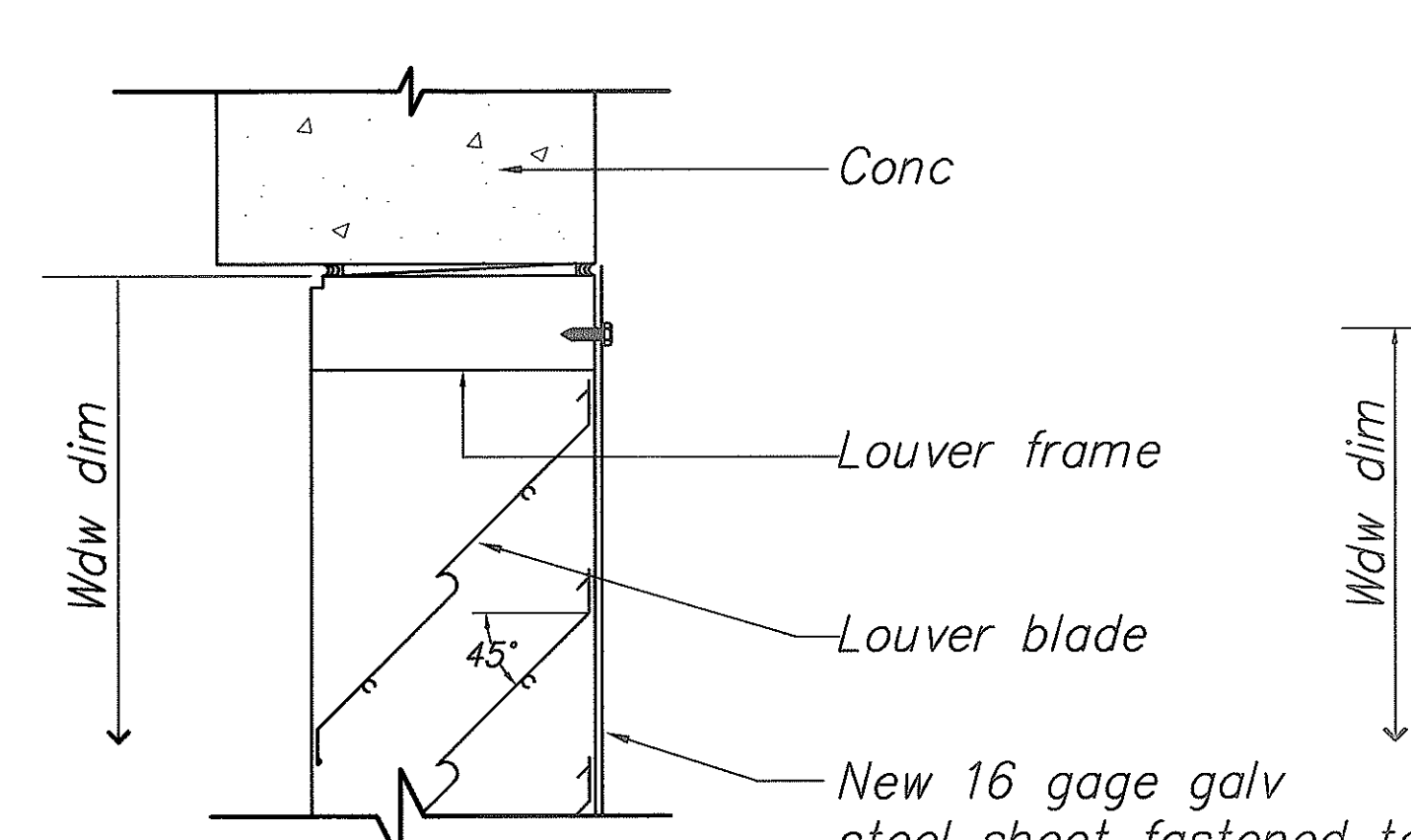
FLANGE DETAIL

Scale: 3" = 1'-0"

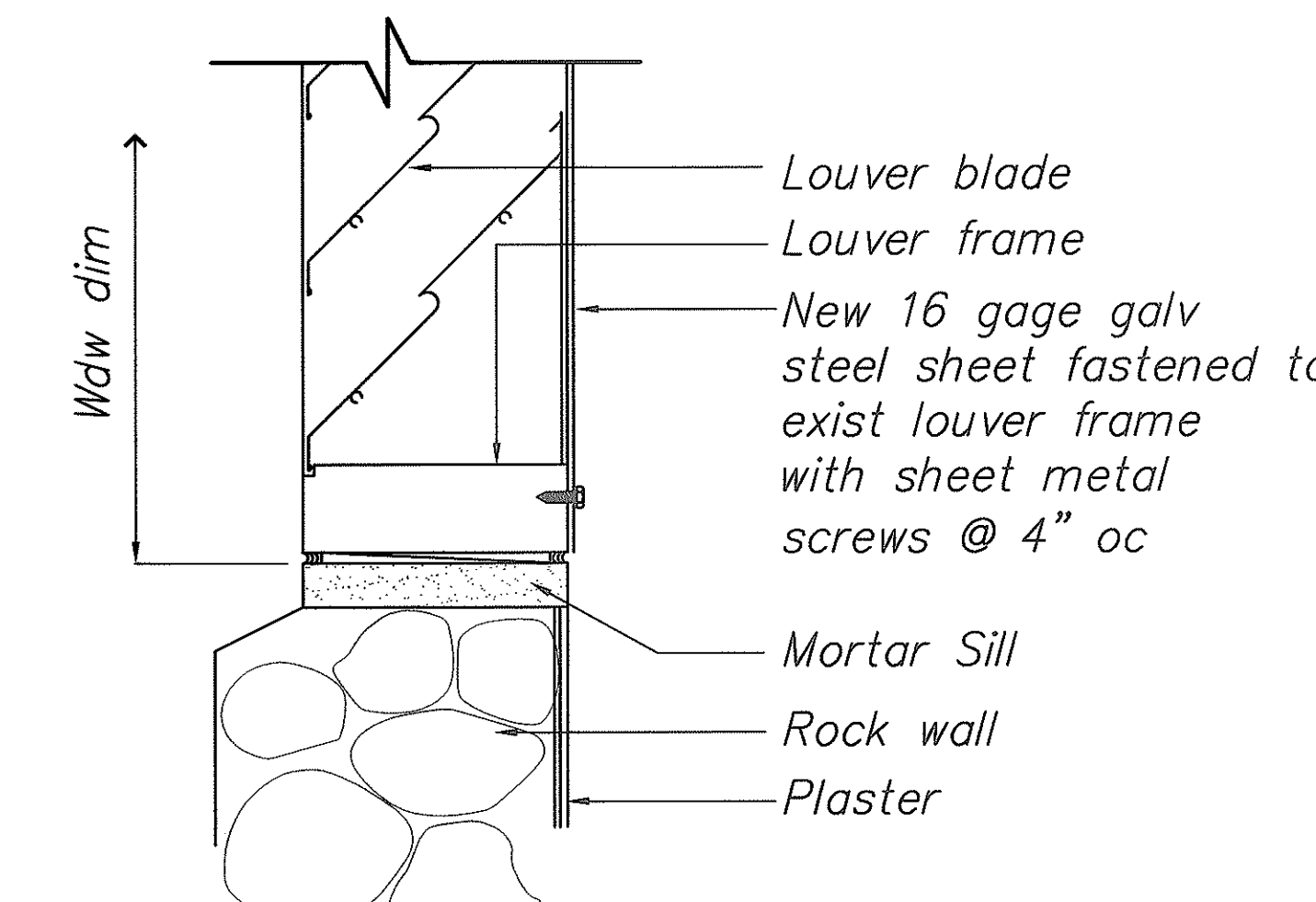


NOTES:

- Form rungs shall be from 3/4" Type 316, stainless steel.
- Install new rungs at 12" o.c.



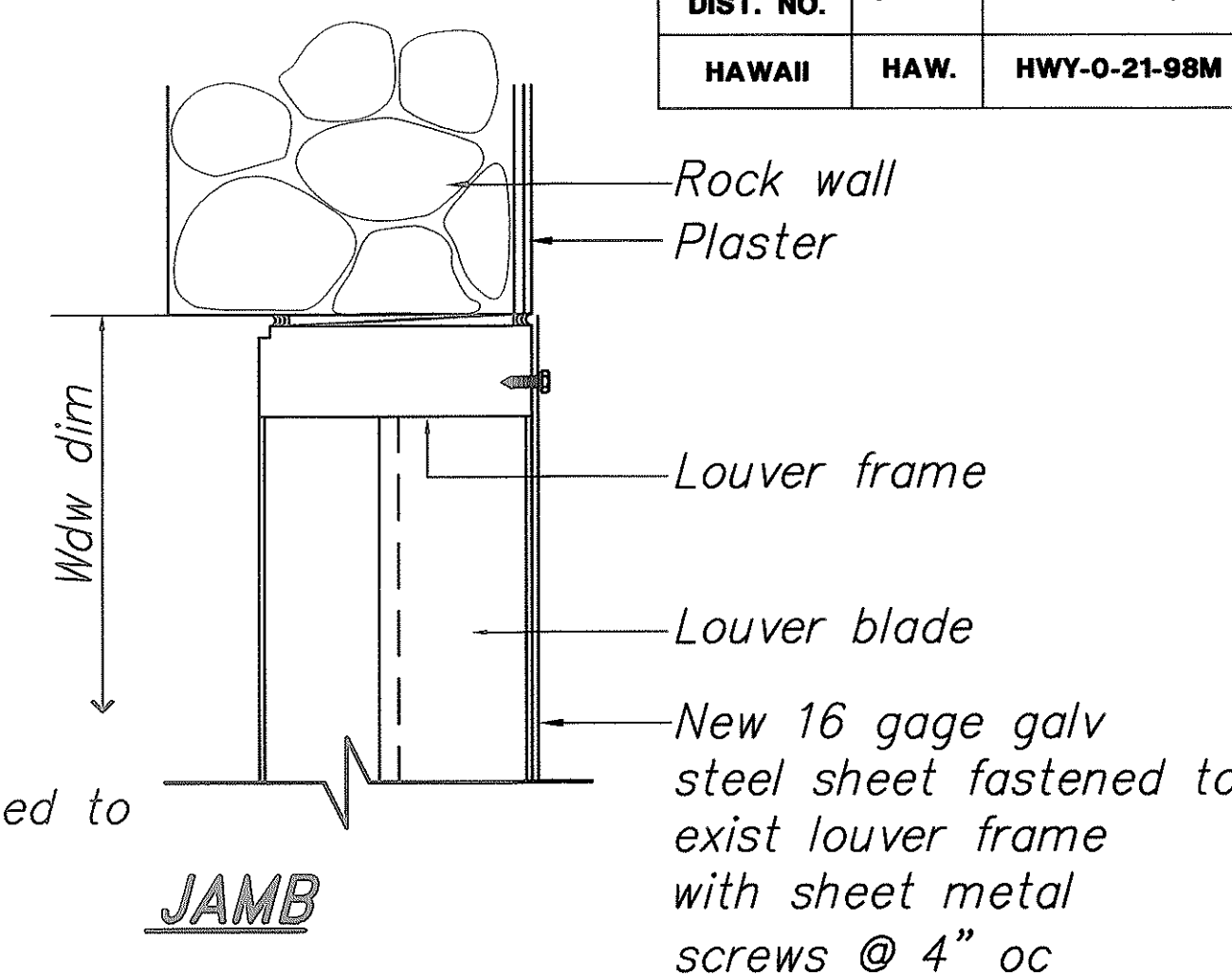
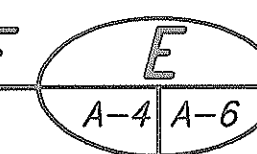
HEAD



SILL

LOUVERS TO BE BLOCKED OFF

Scale: 3" = 1'-0"



JAMB

GRAPHIC SCALES:

1' 6" 0 1' 2"

Scale: 1" = 1'-0"

1' 9" 6" 3" 0 1'

Scale: 1 1/2" = 1'-0"

6" 4" 2" 0 6"

Scale: 3" = 1'-0"



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RUNG AND GRAB BAR DETAILS

WILSON TUNNEL IMPROVEMENTS

SCADA UPGRADE

PROJECT NO. HWY-0-21-98M

Scale: AS NOTED

Date: JULY 2000

SHEET No. A-6 OF A-6 SHEETS