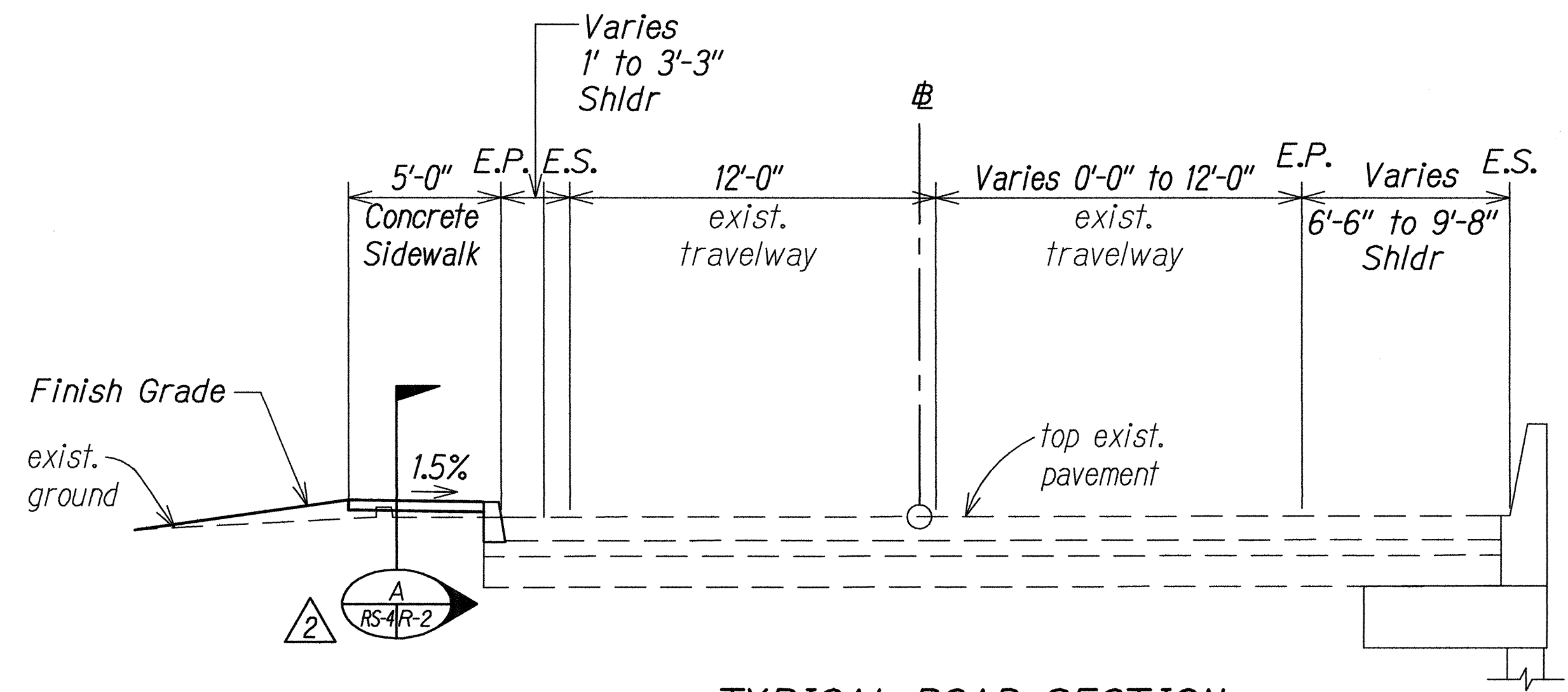
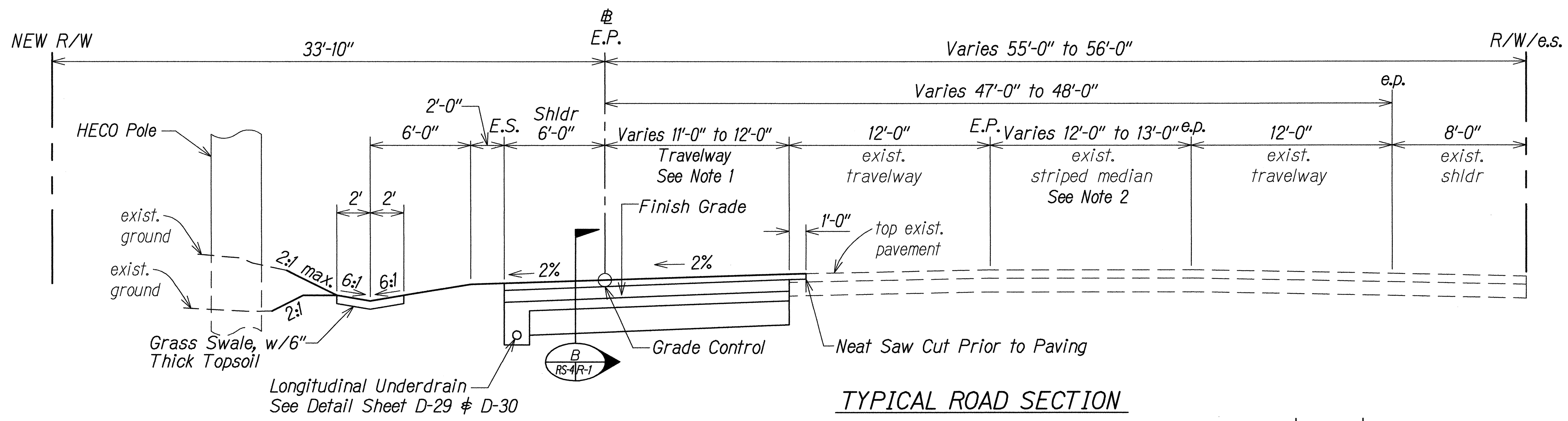


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(261)	2015	ADD. 19	524

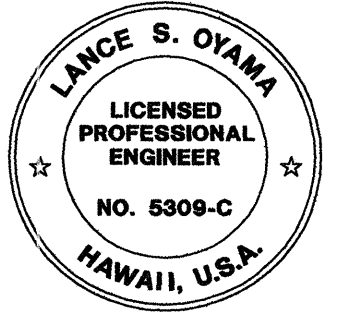


TYPICAL ROAD SECTION
STA. 0+36.14 TO # STA. 1+07.85 - RAMP KB
SCALE: 1/4" = 1'-0"

- Notes:**
- Travelway width varies. 11'-0" lane from Sta. 0+55.20 to Sta. 6+00. 12'-0" lane from Sta. 6+00 to Sta. 13+79.15.
 - Striped median width varies. 13'-0" median from Sta. 0+55.20 to Sta. 6+00. 12'-0" median from Sta. 6+00 to Sta. 13+79.15.



TYPICAL ROAD SECTION
STA. 0+55.20 TO # STA. 13+79.15 - RAMP KA-1
SCALE: 1/4" = 1'-0"



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APRIL 30, 2016
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

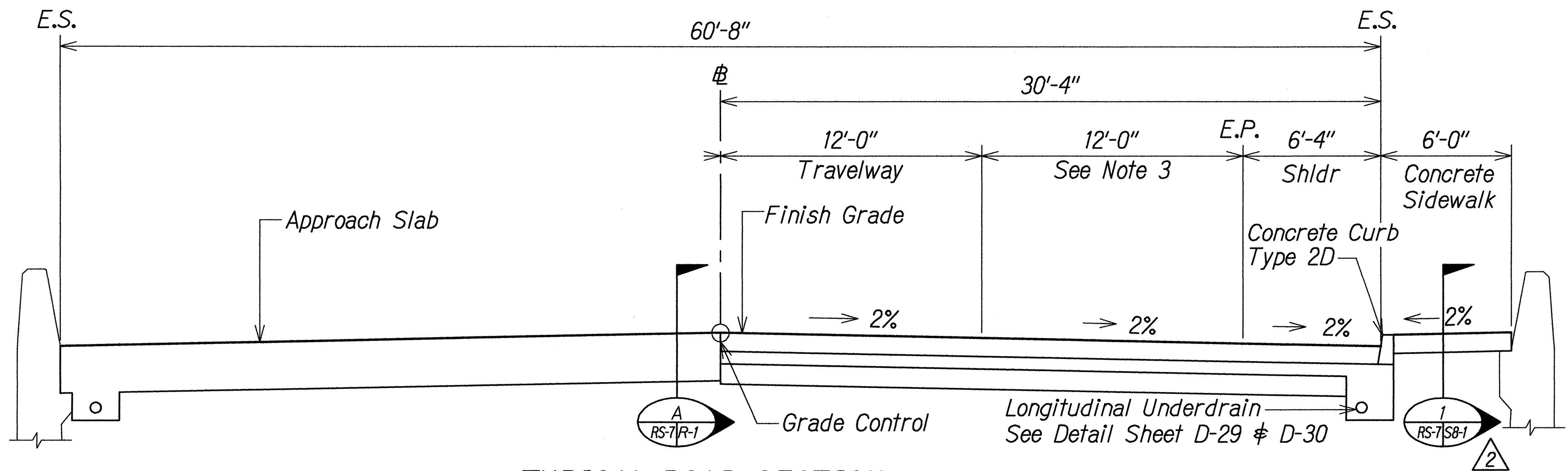
TYPICAL ROAD SECTIONS

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. IM-H1-1 (261)
Scale: 1/4" = 1'-0" Date: January 20, 2015

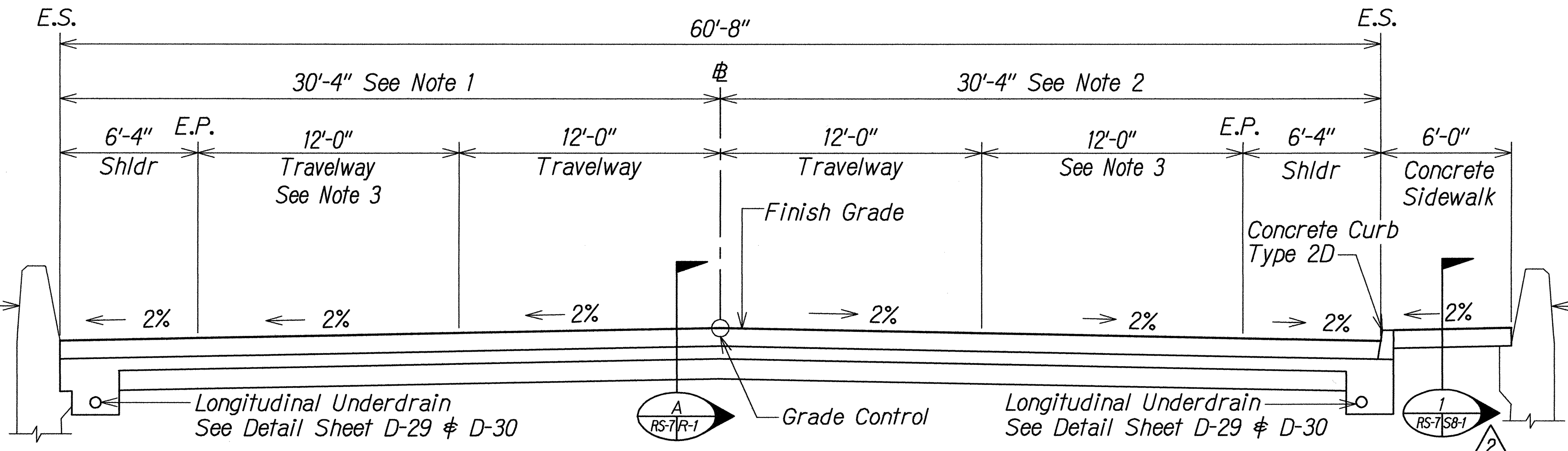
SHEET No. RS-4 OF 9 SHEETS

DATE	REVISION
5/18/15	Revised Callout Reference

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 22	524

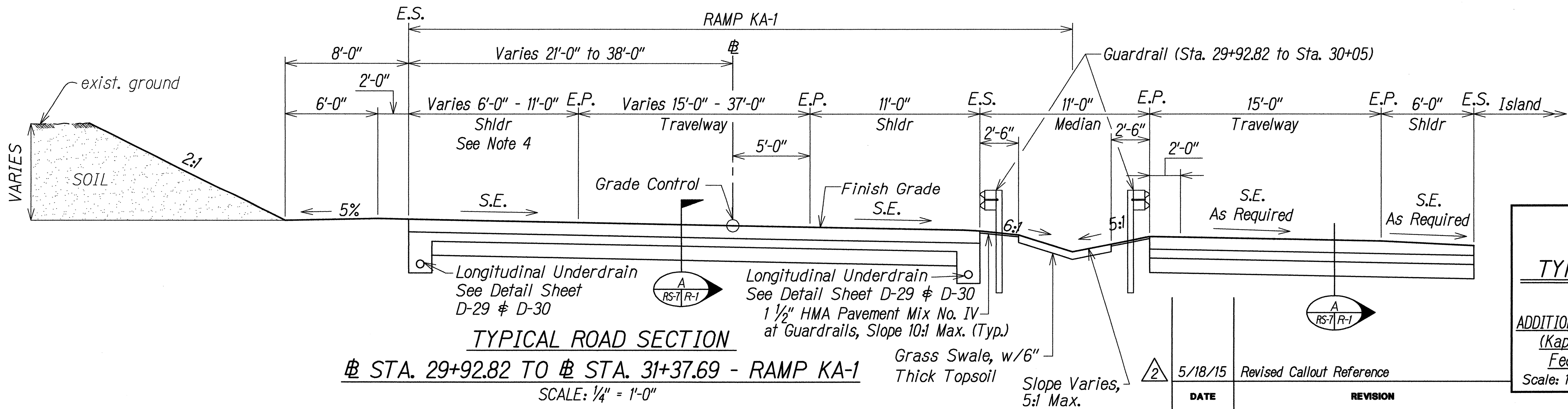


TYPICAL ROAD SECTION
STA. 7+50 TO STA. 7+71.02 - WAKEA STREET
 SCALE: 1/4" = 1'-0"

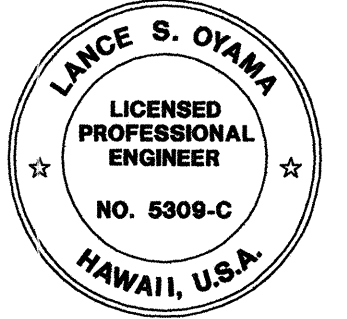


TYPICAL ROAD SECTION
STA. 7+04.07 TO STA. 7+50 - WAKEA STREET
 SCALE: 1/4" = 1'-0"

- Notes:**
- Width transitions 51'-0" to 30'-4" between Sta. 7+07.71 to Sta. 7+34.28.
 - Width varies 36'-8" to 30'-4" between Sta. 7+04.07 to Sta. 7+29.90.
 - See striping on sheet P-4.
 - Width varies from 11'-0" to 6'-0" between Sta. 29+92.82 to Sta. 30+23.88.



TYPICAL ROAD SECTION
STA. 29+92.82 TO STA. 31+37.69 - RAMP KA-1
 SCALE: 1/4" = 1'-0"



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STATE OF HAWAII
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HIGHWAYS DIVISION

TYPICAL ROAD SECTIONS

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)

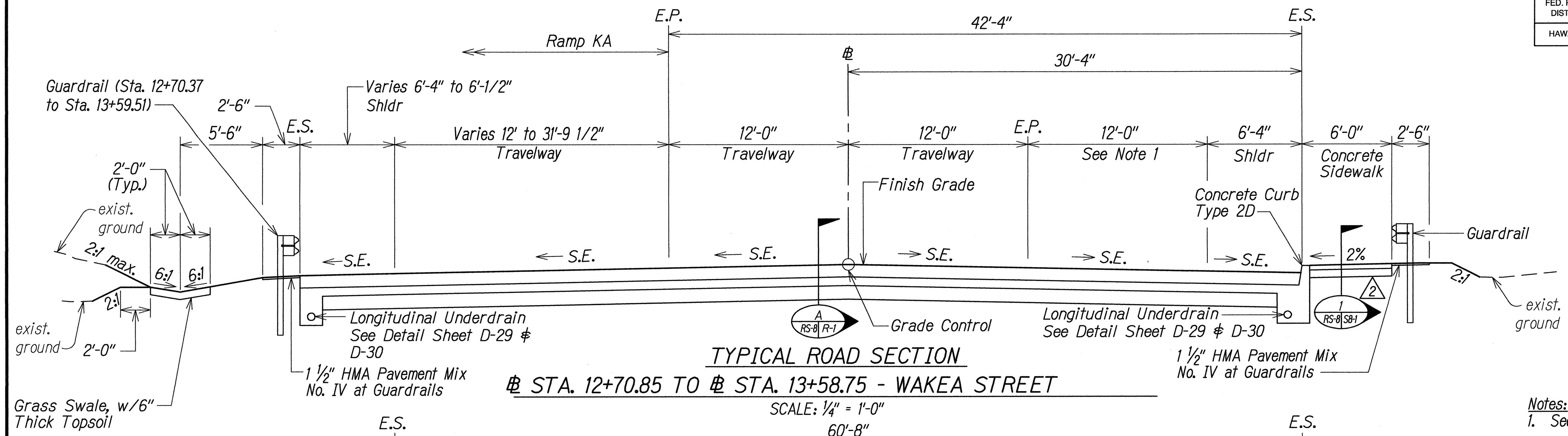
Scale: 1/4" = 1'-0" Date: January 20, 2015

SHEET No. RS-7 OF 9 SHEETS

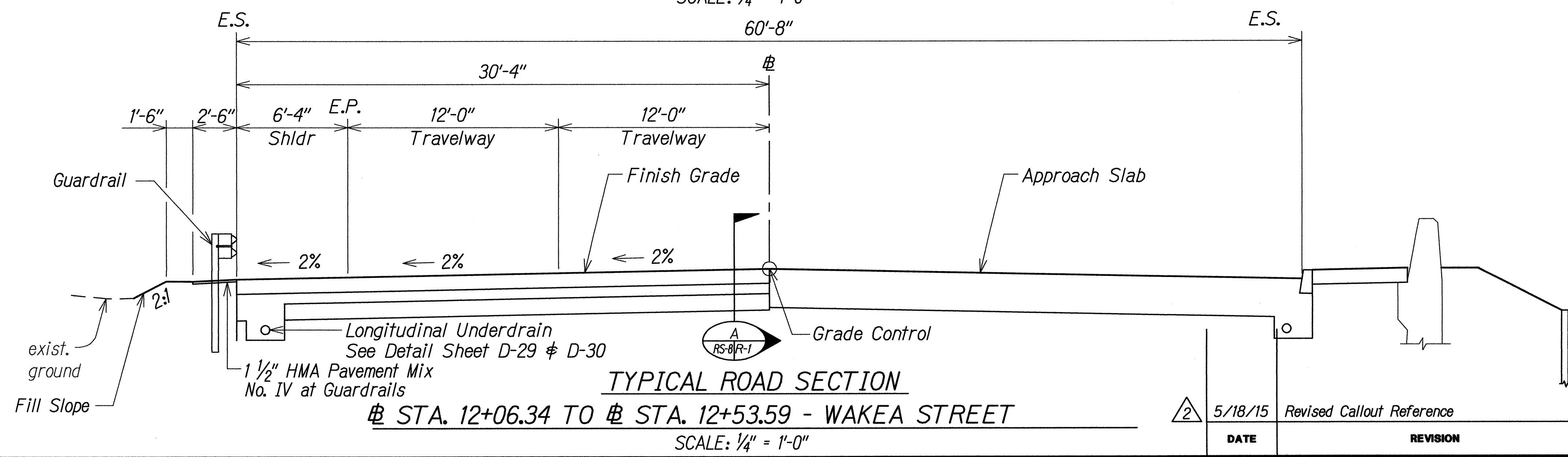
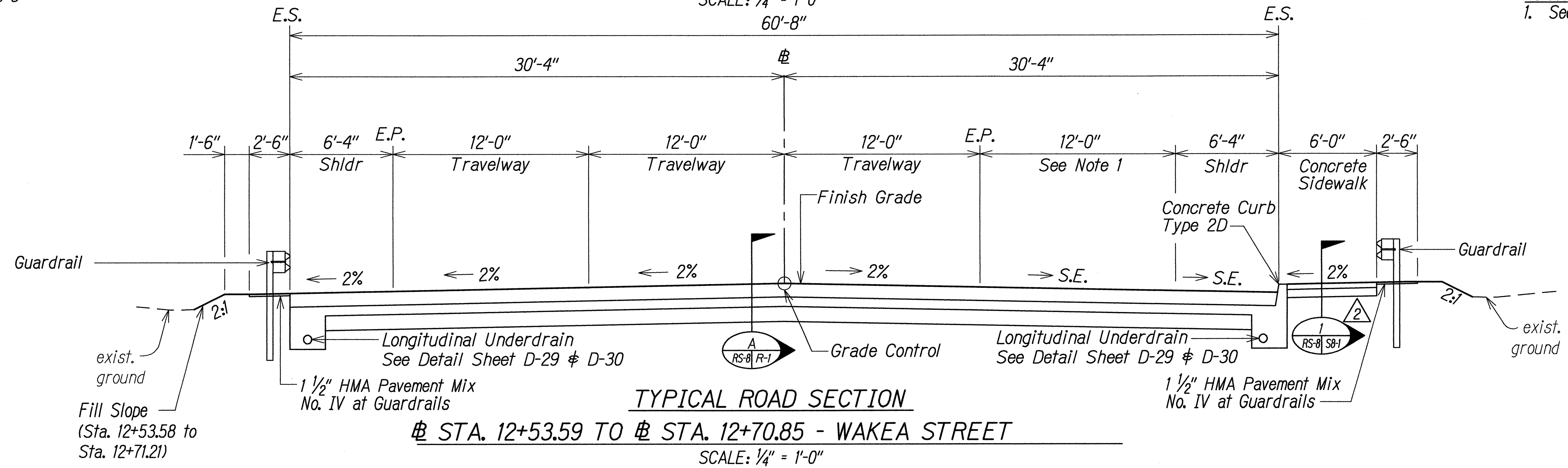
DATE	REVISION
5/18/15	Revised Callout Reference

DATE	DESIGNED BY	CHECKED BY
ORIGINAL PLAN	NOTE BOOK	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-HI-1(261)	2015	ADD. 23	524



Notes:
1. See Striping on Sheet P-5.



DATE	DESIGNED BY	CHECKED BY
ORIGINAL PLAN	NOTE BOOK	



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HIGHWAYS DIVISION

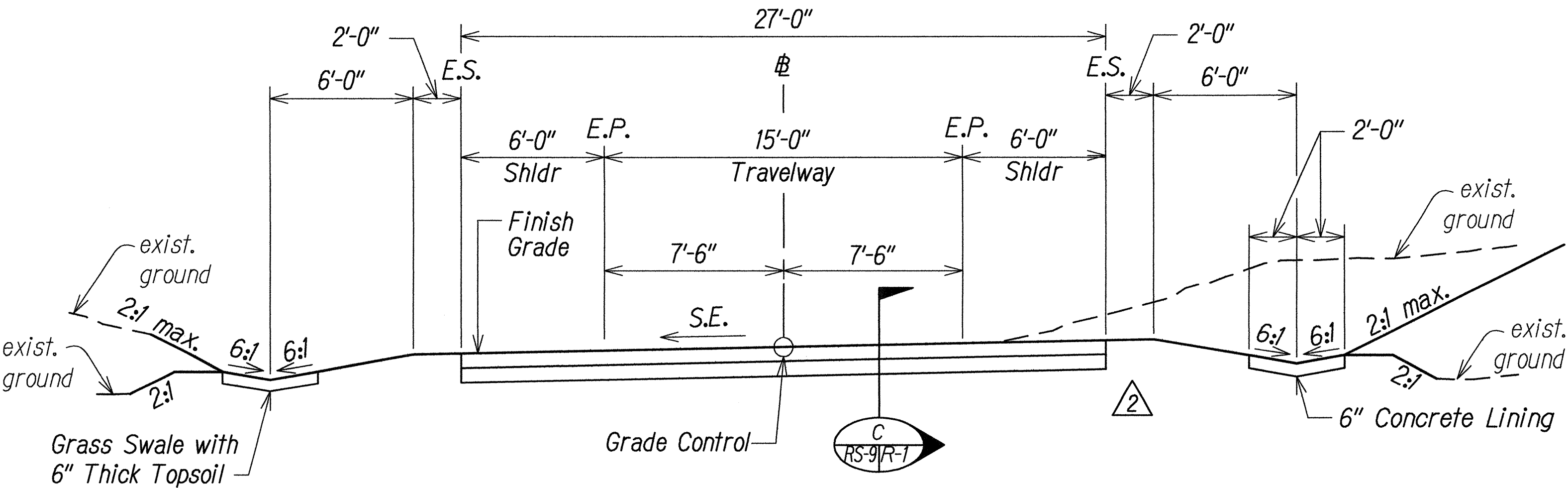
TYPICAL ROAD SECTIONS
INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-HI-1 (261)
Scale: 1/4" = 1'-0" Date: January 20, 2015

DATE: 5/18/15
REVISION: Revised Callout Reference

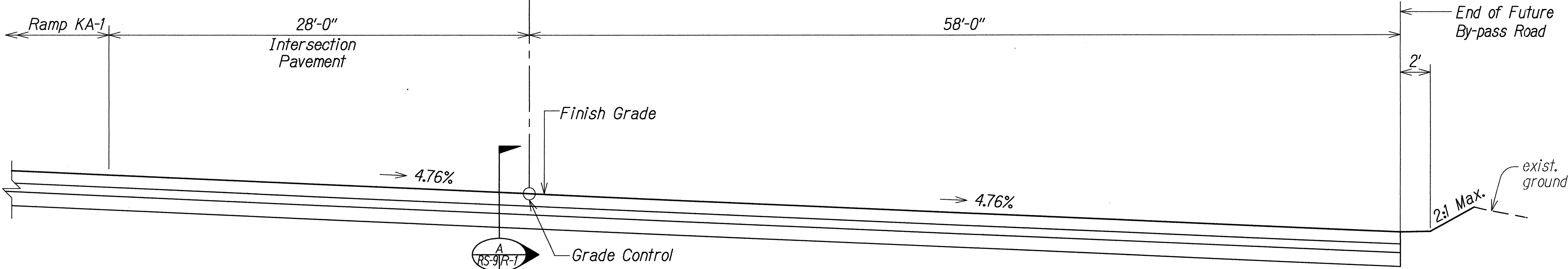
SHEET No. RS-8 OF 9 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-HI-1(261)	2015	ADD. 24	524

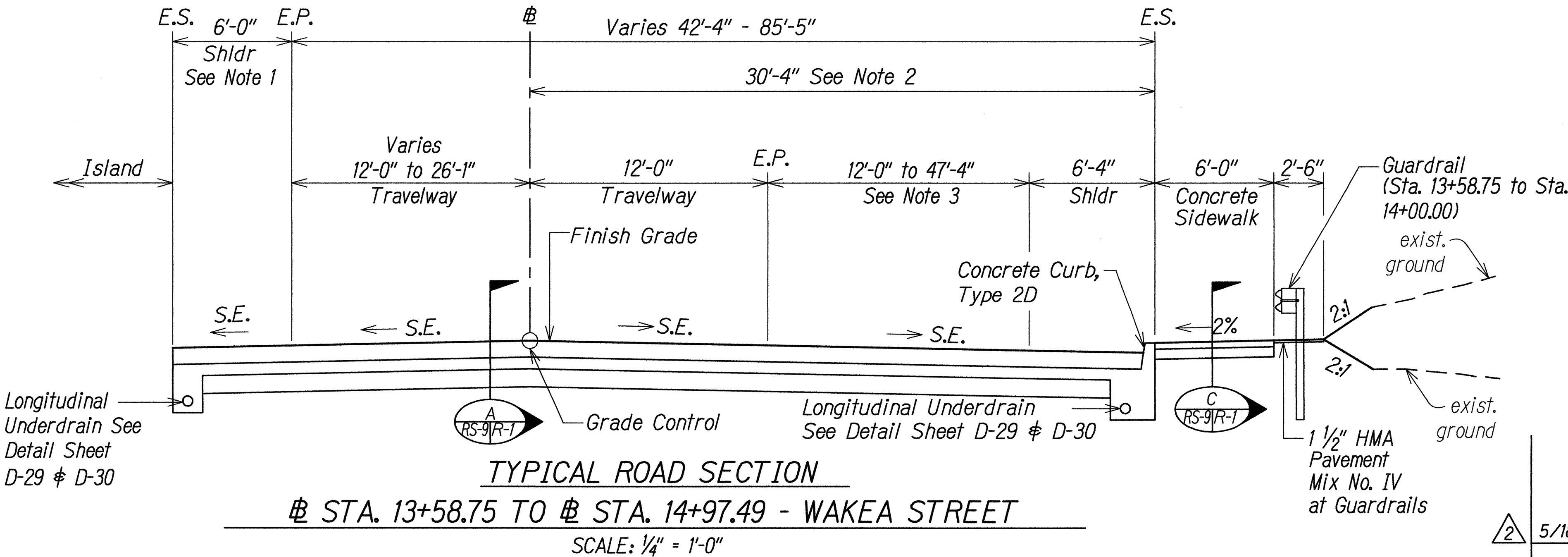
- Notes:
- Shoulder width transition from 0'-0" to 6'-0" between Sta. 13+58.75 to Sta. 13+96.48
 - Width transitions between Sta. 14+46.98 to Sta. 14+93.35 from 30'-4" to 58'-11" and between Sta. 14+93.35 to 15+93.85 from 58'-11" to 59'-4".
 - See Striping on Sheet P-5.



TYPICAL ROAD SECTION
 STA. 0+41 TO STA. 6+43.80 - ACCESS ROAD
 SCALE: 1/4" = 1'-0"

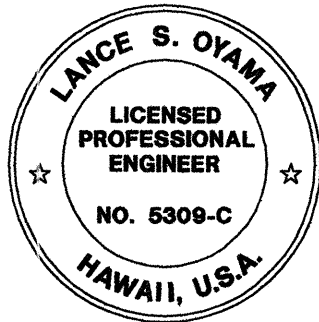


TYPICAL ROAD SECTION
 STA. 14+97.49 TO STA. 15+62.85 - WAKEA STREET
 SCALE: 1/4" = 1'-0"



TYPICAL ROAD SECTION
 STA. 13+58.75 TO STA. 14+97.49 - WAKEA STREET
 SCALE: 1/4" = 1'-0"

DATE	DESIGNED BY	CHECKED BY
NO.	DESIGNED BY	CHECKED BY
NOTE BOOK	DESIGNED BY	CHECKED BY
ORIGINAL PLAN	DESIGNED BY	CHECKED BY



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STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

TYPICAL ROAD SECTIONS

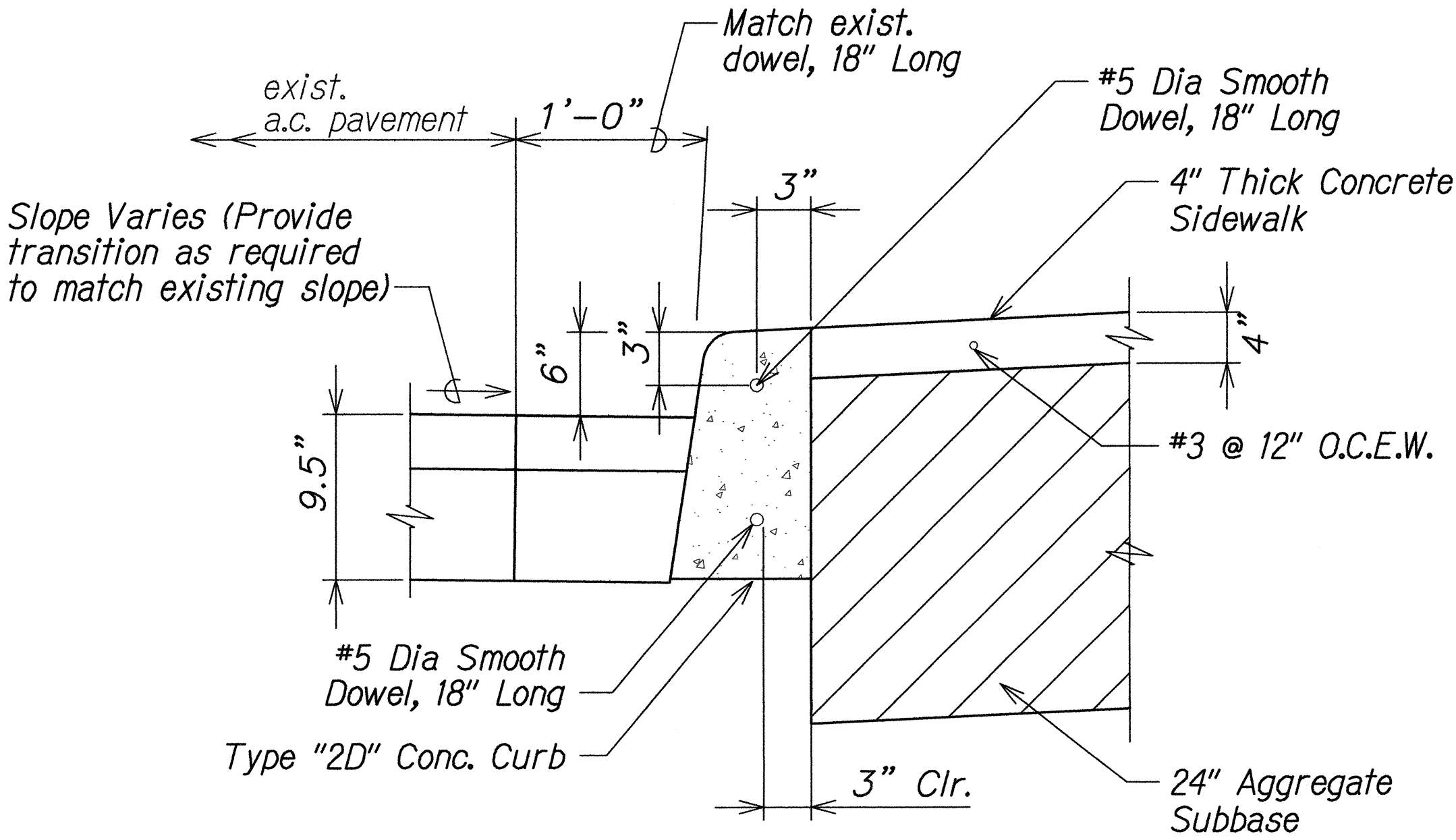
INTERSTATE ROUTE H-1
 ADDITION AND MODIFICATION OF FREEWAY ACCESS
 (Kapolei Interchange Complex), Phase 2
 Federal-Aid Project No. 1M-HI-1 (261)

Scale: 1/4" = 1'-0" Date: January 20, 2015

DATE 5/18/15 REVISION Revised Pavement Section

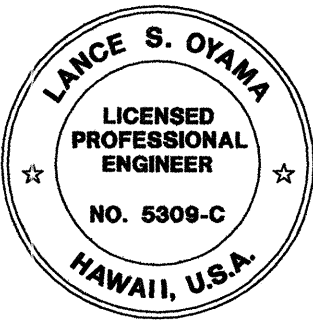
SHEET No. RS-9 OF 9 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 41	524



SIDEWALK DETAIL
Not To Scale

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



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY DETAILS

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)

Scale: Not to Scale Date: January 20, 2015

SHEET No. R-2 OF 23 SHEETS

DATE	REVISION
5/18/15	Revised Callout Reference

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-HI-1(261)	2015	ADD. 54	524

CURB RAMP AND SIDEWALK NOTES:

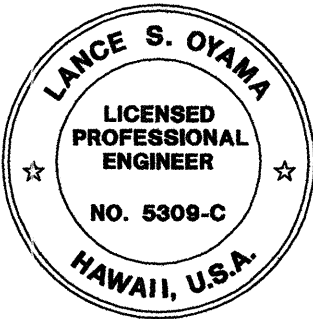
1. These typical details are intended as curb ramp guidelines for design and construction. These guidelines shall not replace site specific curb ramp plans.
2. A 2% maximum cross slope shall be maintained in the direction of pedestrian traffic.
3. Subject to field conditions, the Engineer shall determine the final location of curb ramps.
4. All pullboxes shall be installed away from the curb ramp and within the sidewalk/unpaved area to the maximum extent feasible.
5. Where necessary, existing pullboxes, handholes, manholes, etc. shall be adjusted to match curb ramp grade. Adjustments shall not be paid for separately but shall be considered incidental to the various curb ramp items unless indicated otherwise.
6. Transitions from ramps to gutters and roadways shall be flush.
7. Curb ramps and sidewalks shall be constructed to eliminate ponding to the maximum extent feasible.
8. The pedestrian push button shall meet operational and reach requirements
- of the American with Disabilities Act Accessibility Guidelines (ADAAG):

- a) Forward Reach. The maximum height for forward reach shall be 48".
- b) Side Reach. The maximum height for side reach shall be 48".
- c) Operation. Controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate controls shall be no greater than 5 lbf.

9. The maximum slopes of adjoining gutters or road surface immediately fronting the curb ramp shall not exceed 5% for Type A, D and Combination ramps and 8.33% for Type B, C, and E ramps.
10. There shall be a 30"x48" level ground surface (2% max. cross slope, both directions) for a forward or side approach, as appropriate, to a pedestrian push button.
11. Construction joints are required to join curb ramps with sidewalks.
12. Unless otherwise noted, new gutters are required as shown.
13. All curb ramps shall be reinforced with 6x6 W1.4/W1.4 welded wire fabric.
14. Surface of sidewalks and curb ramps shall be firm, stable, and slip-resistant. This includes the surfaces of pullboxes, valve covers, manhole covers, etc.
15. Subbase material is required for curb ramps and sidewalks. $\triangle$ 2
16. All sidewalks shall provide a minimum clear width of 3'-0" (excluding curb) for pedestrian circulation. If this cannot be met, a minimum 32-inch clear width is allowed for a distance of 24-inches.

17. Passing spaces along new sidewalks with 5' clear width or less shall be provided at maximum 200' intervals as required by ADA guidelines. The passing area shall be a minimum 5' wide by 5' long as feasible.
18. If possible, install utility poles, fire hydrants, light poles, sign posts, pullboxes, etc. off of sidewalk but within the right-of-way.
19. Objects protruding from utility poles and walls adjacent to the sidewalks (i.e. wall mounted fire hydrants, telephones, meters on poles, etc.) shall be mounted to meet the current American with Disabilities Act Accessibility Guidelines (ADAAG) and will be subject to Engineer's approval.
20. If a curb ramp is not constructed according to the plans, the Contractor shall reconstruct the curb ramp at no cost to the State. Construction tolerance for Portland Cement Concrete shall be based on, inch per 10 ft. ($\pm$ 0.2%). Remedial measures will not be accepted.

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

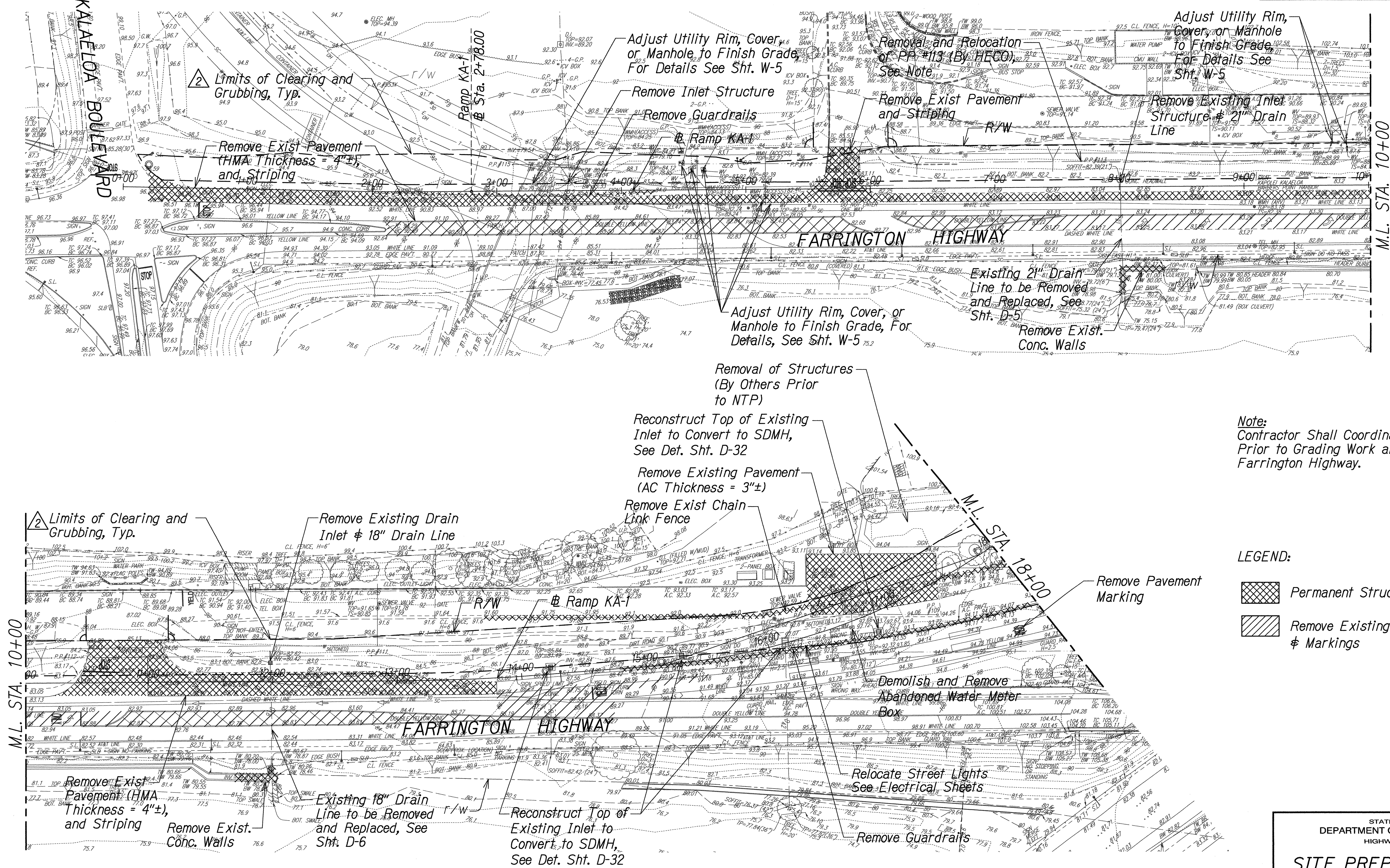


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APRIL 30, 2016
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
CURB RAMP AND SIDEWALK NOTES	
INTERSTATE ROUTE H-1	
ADDITION AND MODIFICATION OF FREEWAY ACCESS	
(Kapolei Interchange Complex), Phase 2	
Federal-Aid Project No. 1M-HI-1 (261)	
Scale: Not to Scale	Date: January 20, 2015
SHEET No. R-15 OF 9 SHEETS	

$\triangle$ 2	5/18/15	Revised Callout Reference
DATE		REVISION

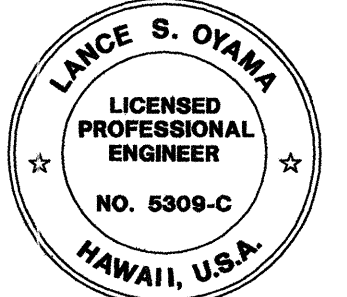
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 66	524



True North
Scale: 1"=40'

Note:
Contractor Shall Coordinate with HECO Prior to Grading Work along Farrington Highway.

- LEGEND:**
- Permanent Structure Removal Areas
 - Remove Existing Pavement Stripings & Markings



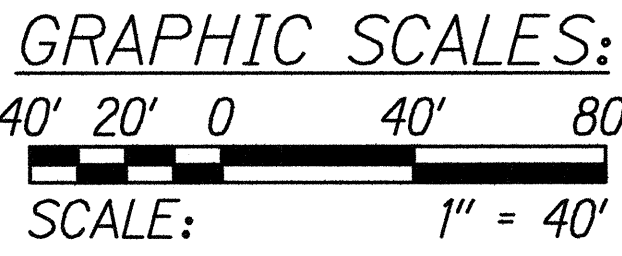
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Lance S. Ojima
WILSON OKAMOTO CORPORATION APRIL 30, 2016 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE PREPARATION PLAN

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)
Scale: 1" = 40' Date: January 20, 2015

SHEET No. SP-1 OF 7 SHEETS



DATE	REVISION
5/18/15	Displayed Existing Contours/Elevations and Site Descriptions

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

DATE	REVISION
5/18/15	Displayed Existing Contours/Elevations and Site Descriptions

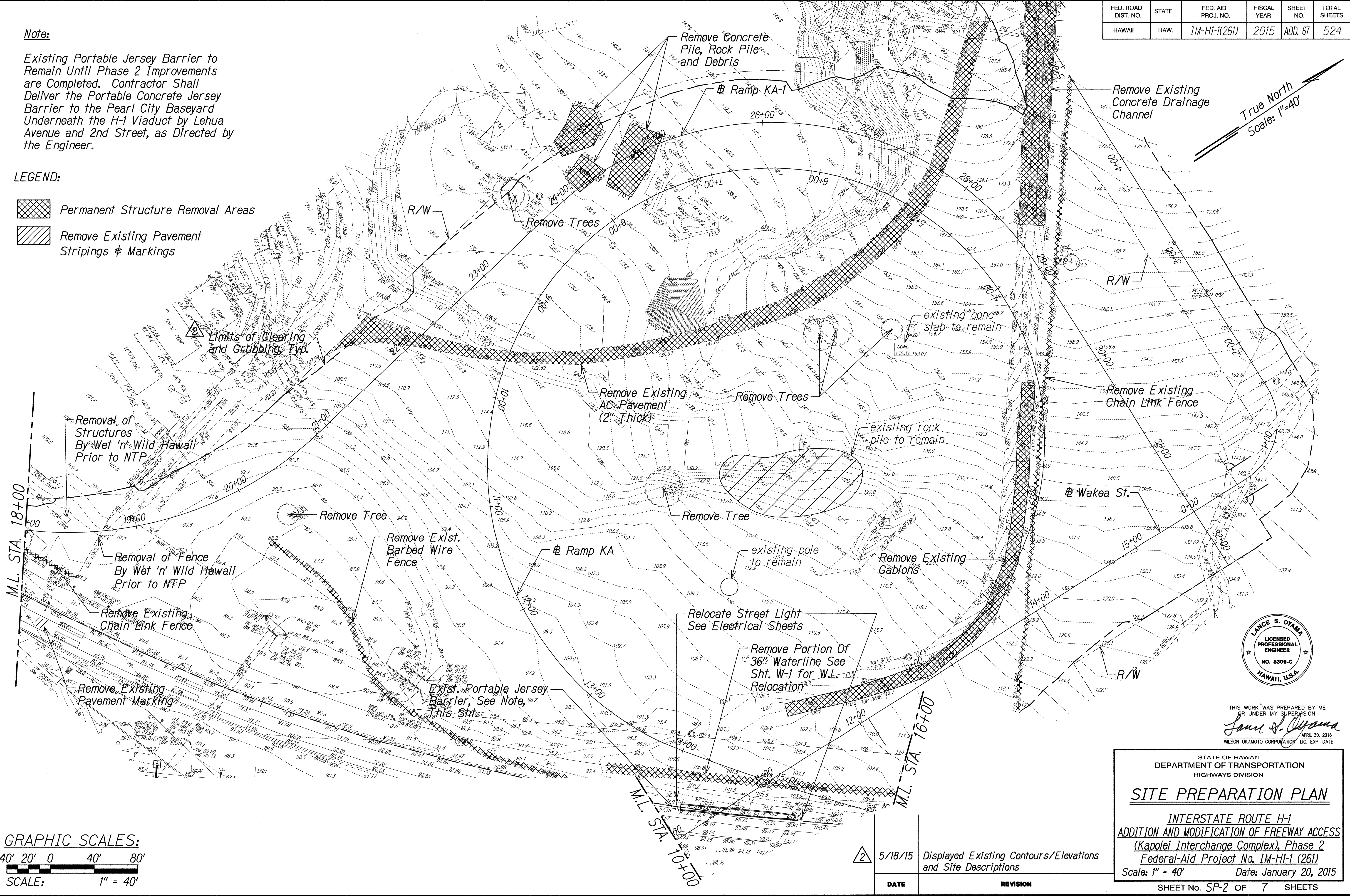
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-HI-1(261)	2015	ADD. 67	524

Note:

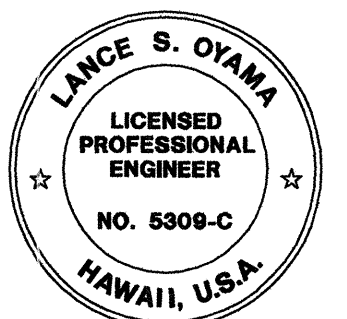
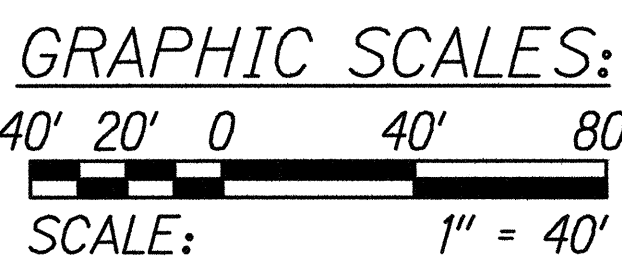
Existing Portable Jersey Barrier to Remain Until Phase 2 Improvements are Completed. Contractor Shall Deliver the Portable Concrete Jersey Barrier to the Pearl City Baseyard Underneath the H-1 Viaduct by Lehua Avenue and 2nd Street, as Directed by the Engineer.

LEGEND:

-  Permanent Structure Removal Areas
-  Remove Existing Pavement Stripings & Markings



DATE	
SURVEY PLOTTED BY	
DESIGNED BY	
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	



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WILSON OKAMOTO CORPORATION
APRIL 30, 2016
LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE PREPARATION PLAN
INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-HI-1 (261)
Scale: 1" = 40' Date: January 20, 2015

SHEET No. SP-2 OF 7 SHEETS

DATE	REVISION
5/18/15	Displayed Existing Contours/Elevations and Site Descriptions

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-HI-1(261)	2015	ADD. 70	524

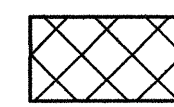
TRUE NORTH
SCALE: 1" = 20'

INTERSTATE ROUTE H-1 Outbound Lanes

INTERSTATE ROUTE H-1 Inbound Lanes

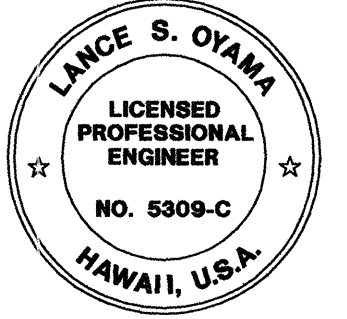
Remove existing median barrier

LEGEND:

 Permanent Structure Removal Areas

GRAPHIC SCALE:
20' 10' 0 20' 40'
SCALE: 1" = 20'

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



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APRIL 30, 2016
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

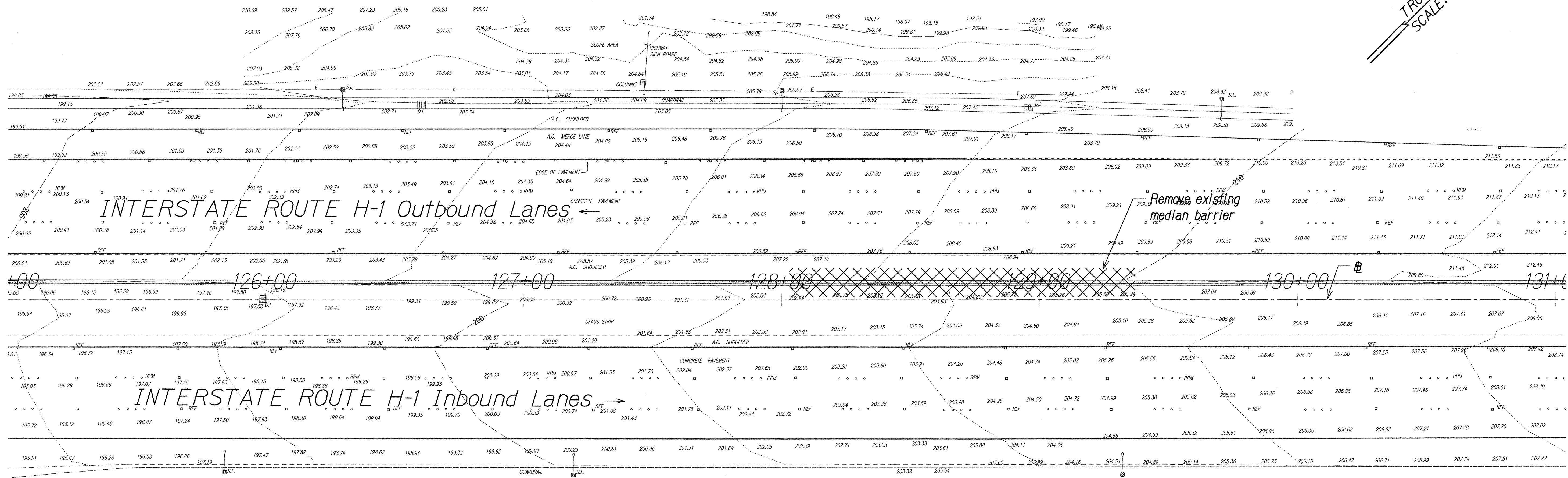
SITE PREPARATION PLAN
INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-HI-1 (261)
Scale: 1" = 40' Date: January 20, 2015

SHEET No. SP-5 OF 7 SHEETS

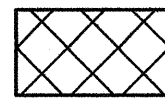
DATE	REVISION
5/18/15	Displayed Existing Contours/Elevations and Site Descriptions

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 71	524

TRUE NORTH
SCALE: 1" = 20'

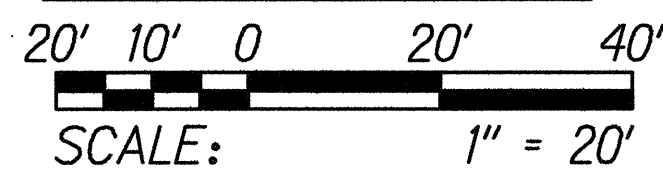


LEGEND:

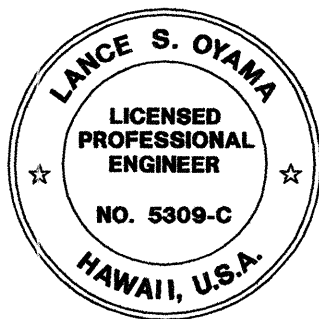


Permanent Structure Removal Areas

GRAPHIC SCALE:



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



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE PREPARATION PLAN

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)

Scale: 1" = 40' Date: January 20, 2015

SHEET No. SP-6 OF 7 SHEETS

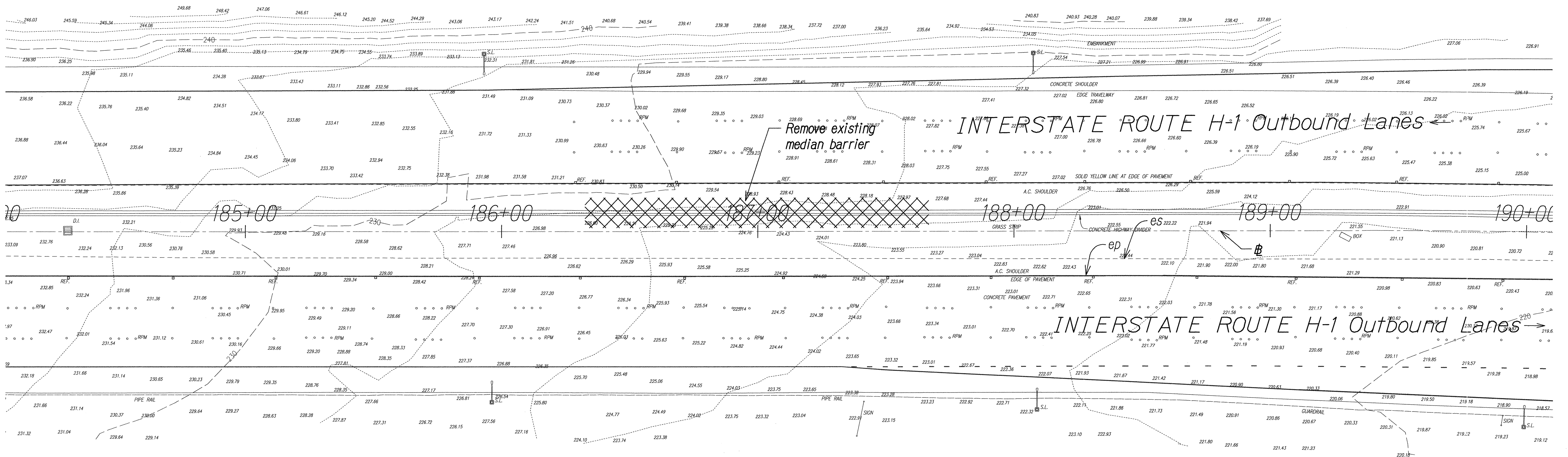


5/18/15 Displayed Existing Contours/Elevations and Site Descriptions

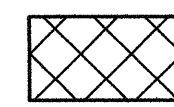
DATE REVISION

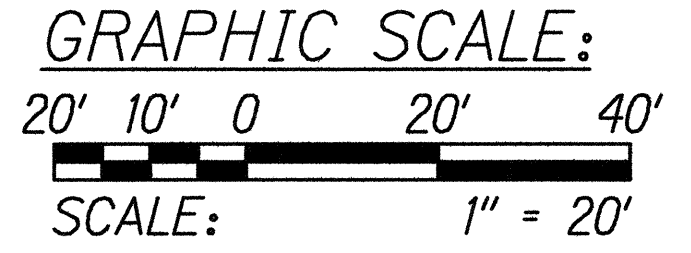
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 72	524

TRUE NORTH
SCALE: 1" = 20'

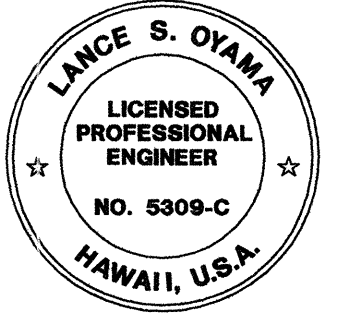


LEGEND:

 Permanent Structure Removal Areas



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



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5/18/15	Displayed Existing Contours/Elevations and Site Descriptions
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

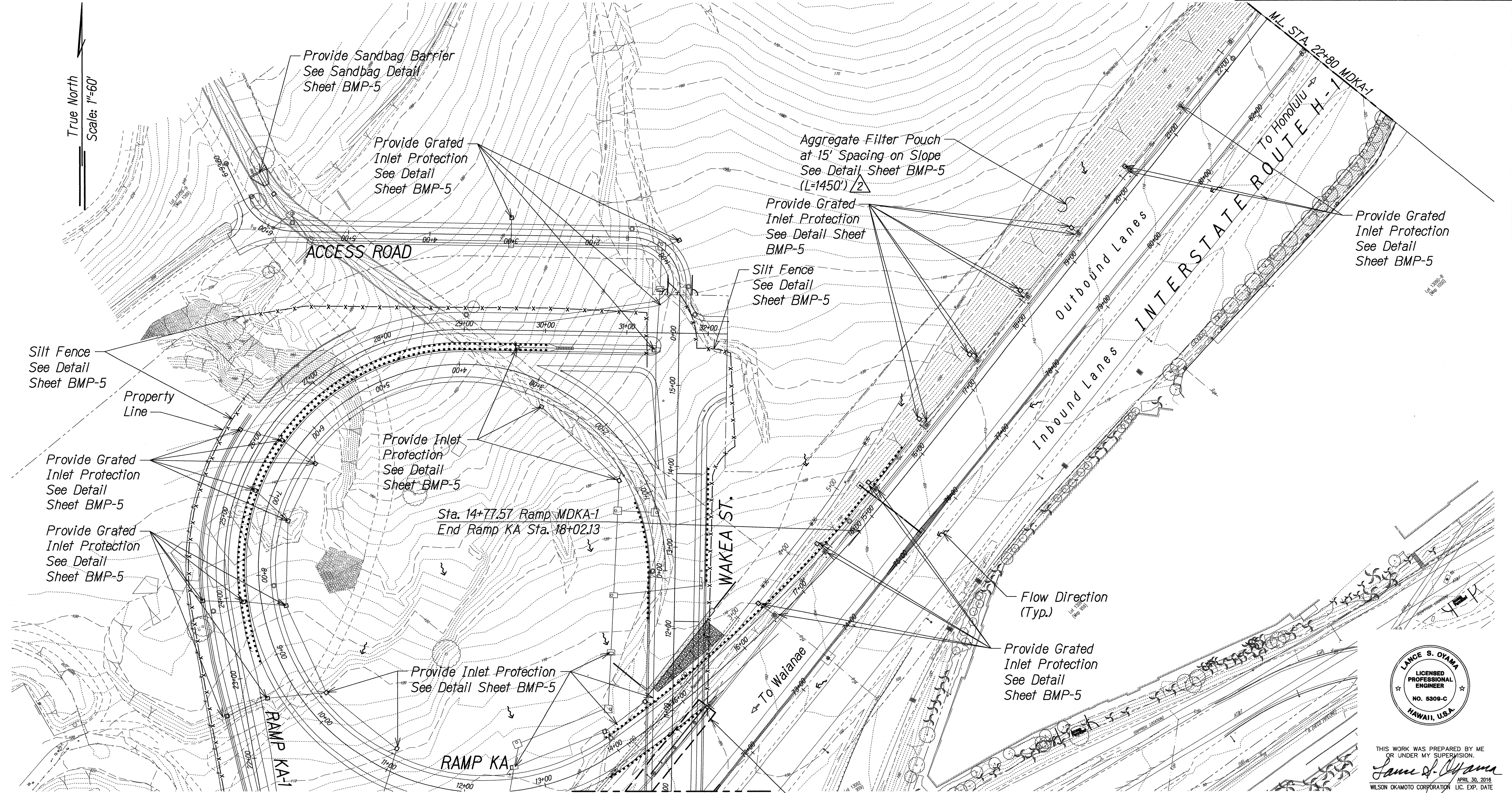
SITE PREPARATION PLAN

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)

Scale: 1" = 40' Date: January 20, 2015

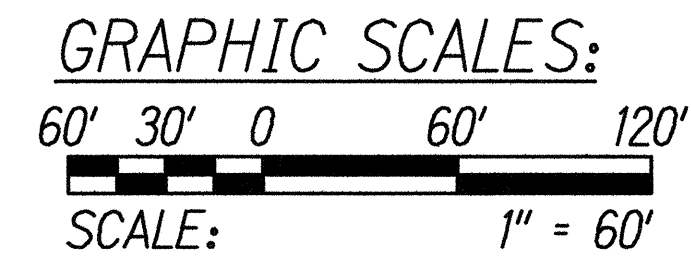
SHEET No. SP-7 OF 7 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-HI-1(261)	2015	ADD. 75	524

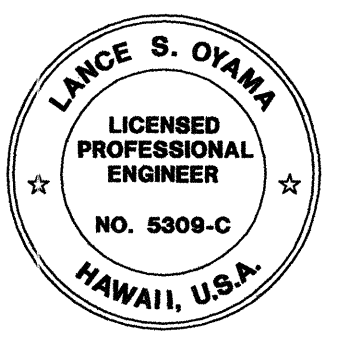


True North
Scale: 1"=60'

- Legend:**
- x-x-x- Temporary Silt Fence
 - o-o-o- Barricade Fence with Dust Screen
 - - - Aggregate Filter Pouch
 - ~ Surface Flow Direction



DATE	_____
SURVEY PLOTTED BY	_____
DESIGNED BY	_____
TRACED BY	_____
NOTE BOOK	_____
QUANTITIES BY	_____
CHECKED BY	_____



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.
Lance S. Oyama
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EROSION CONTROL PLAN

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-HI-1 (261)

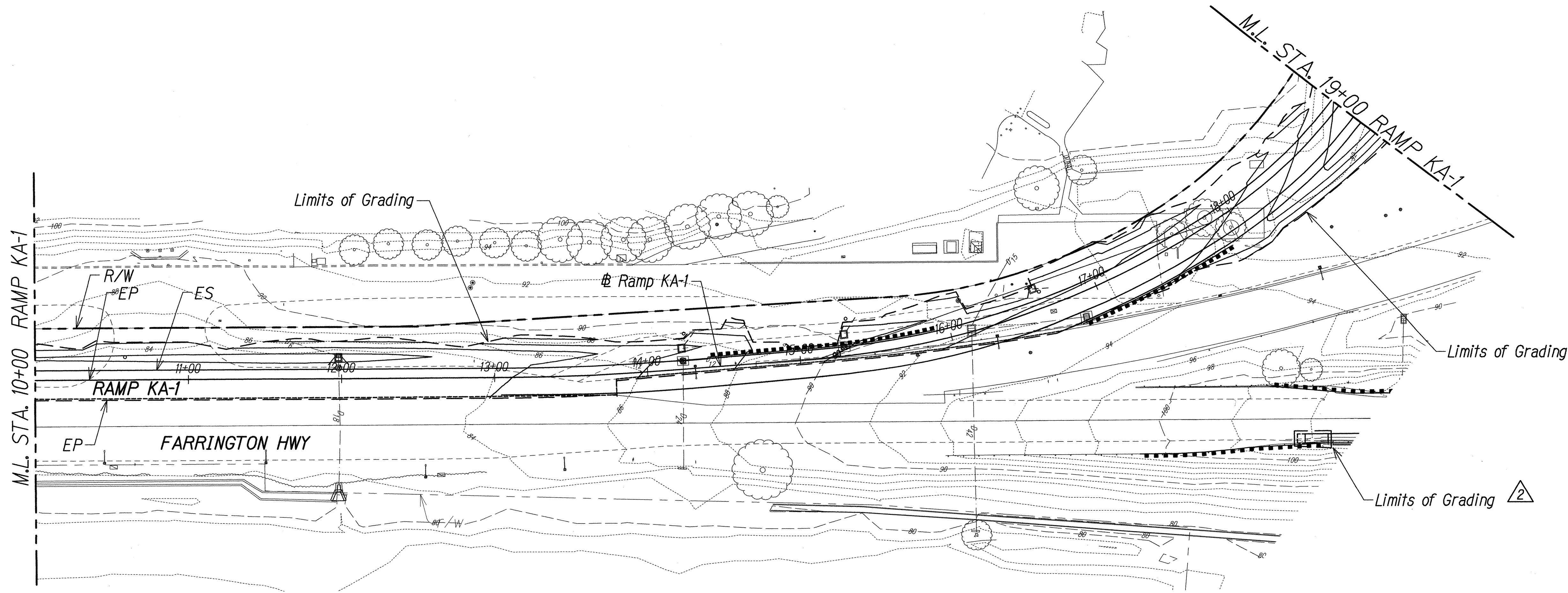
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SHEET No. BMP-3 OF 5 SHEETS

DATE	REVISION
5/18/15	Added BMP Limits

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(261)	2015	ADD. 105	524

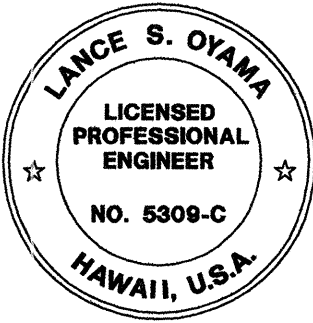
True North
Scale: 1"=40'



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

GRAPHIC SCALES:
40' 20' 0 40' 80'
SCALE: 1" = 40'

GRADING PLAN - 3
Scale: 1"=40'



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WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

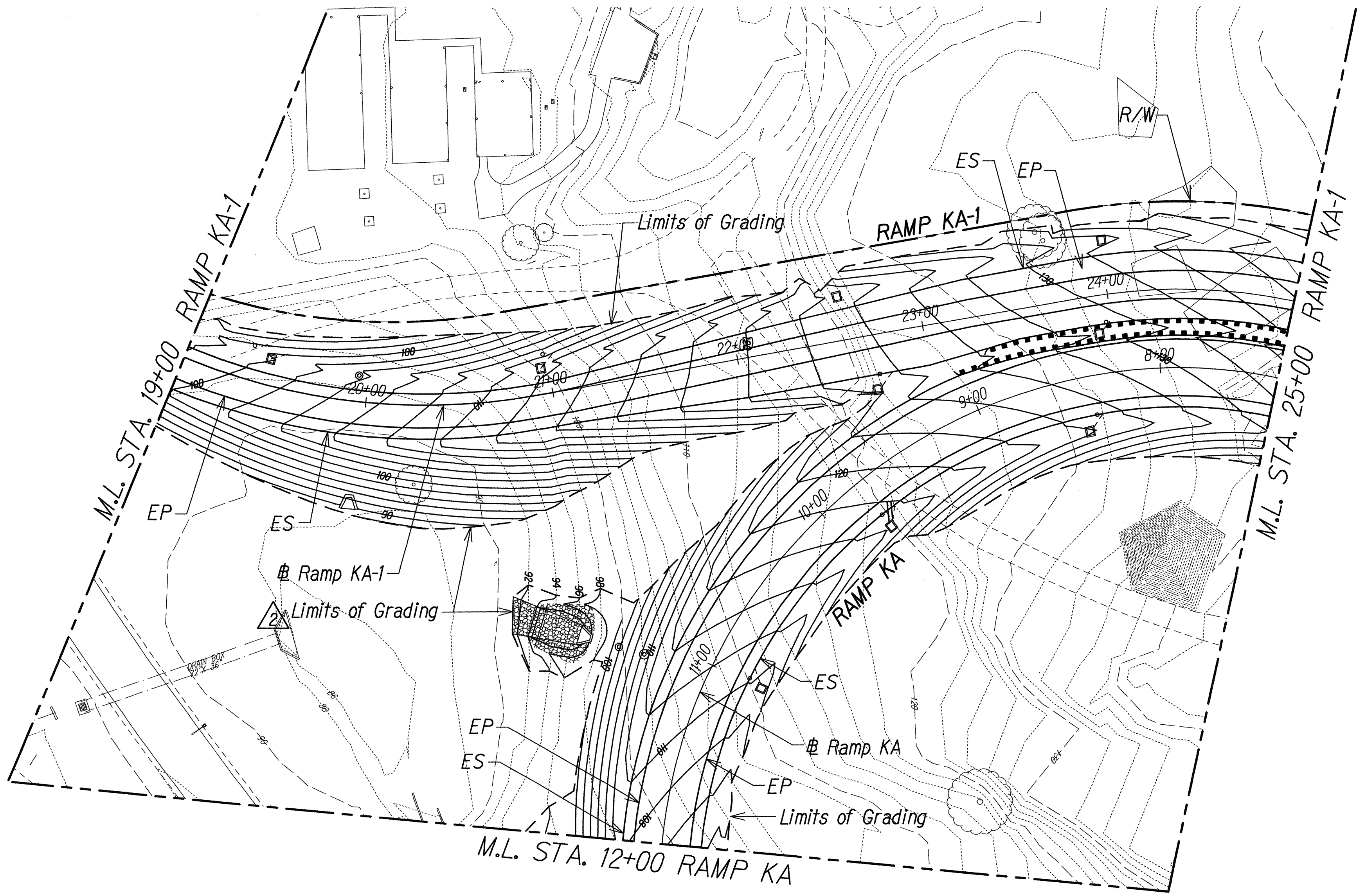
GRADING PLAN

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. IM-H1-1 (261)
Scale: 1" = 40' Date: January 20, 2015
SHEET No. GP-3 OF 19 SHEETS

2	5/18/15	Added Grading Limits
DATE	REVISION	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 106	524

True North
Scale: 1"=40'



GRADING PLAN - 4
Scale: 1"=40'



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Lance S. Oyama
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GRADING PLAN

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)
Scale: 1" = 40' Date: January 20, 2015

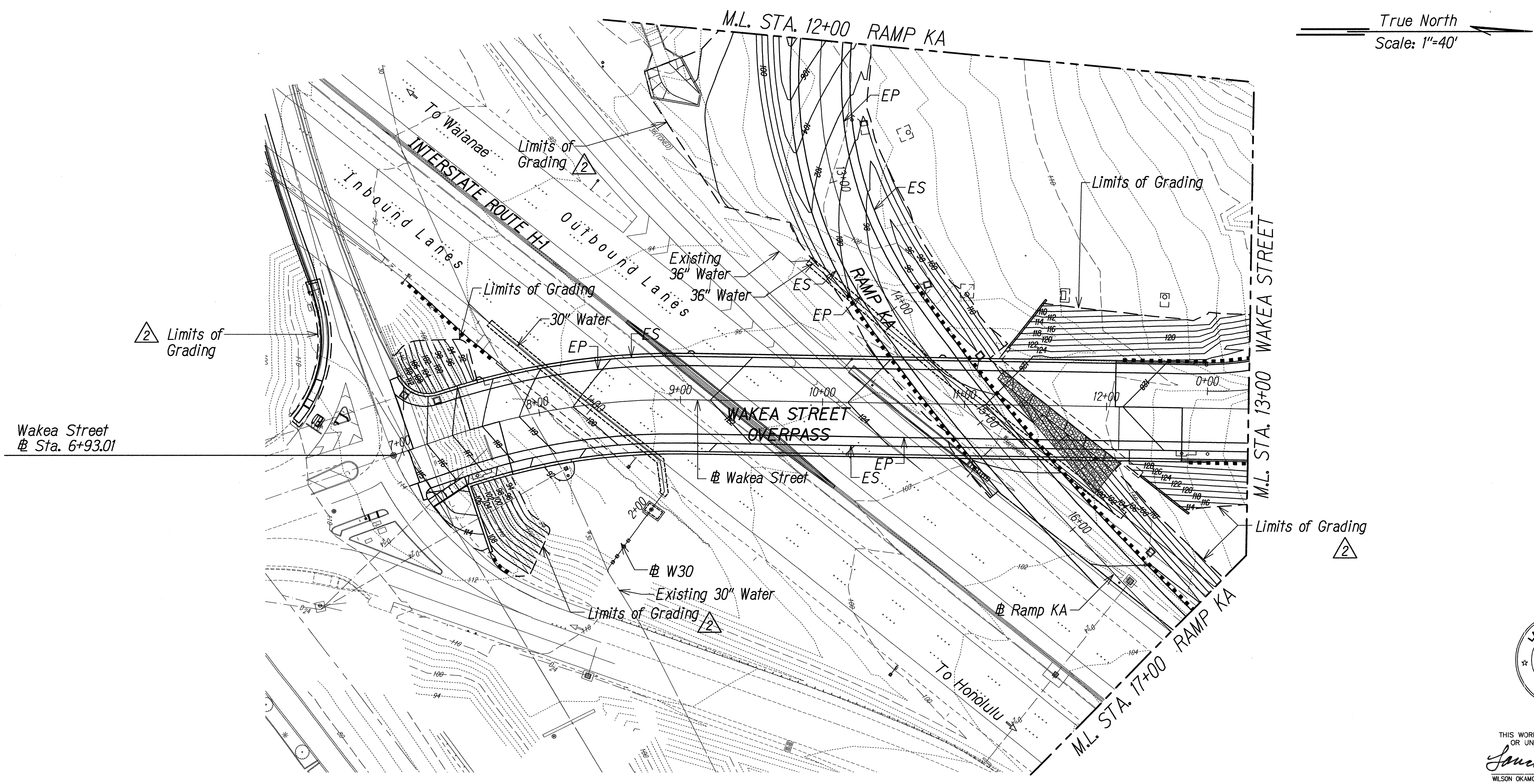
SHEET No. GP-4 OF 19 SHEETS

GRAPHIC SCALES:
40' 20' 0 40' 80'
SCALE: 1" = 40'

2	5/18/15	Added Grading Limits
DATE	REVISION	

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(261)	2015	ADD. 108	524

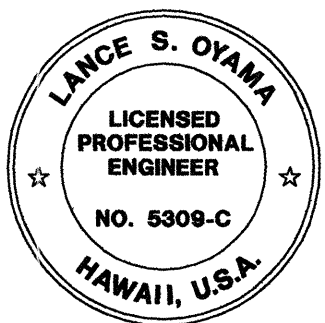


DATE	
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
CHECKED BY	
NOTE BOOK	
No.	

GRAPHIC SCALES:
 40' 20' 0 40' 80'
 SCALE: 1" = 40'

GRADING PLAN - 6
 Scale: 1"=40'

5/18/15	Added Grading Limits
DATE	REVISION



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 OR UNDER MY SUPERVISION.
Lance S. Oyama
 APRIL 30, 2016
 WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

GRADING PLAN

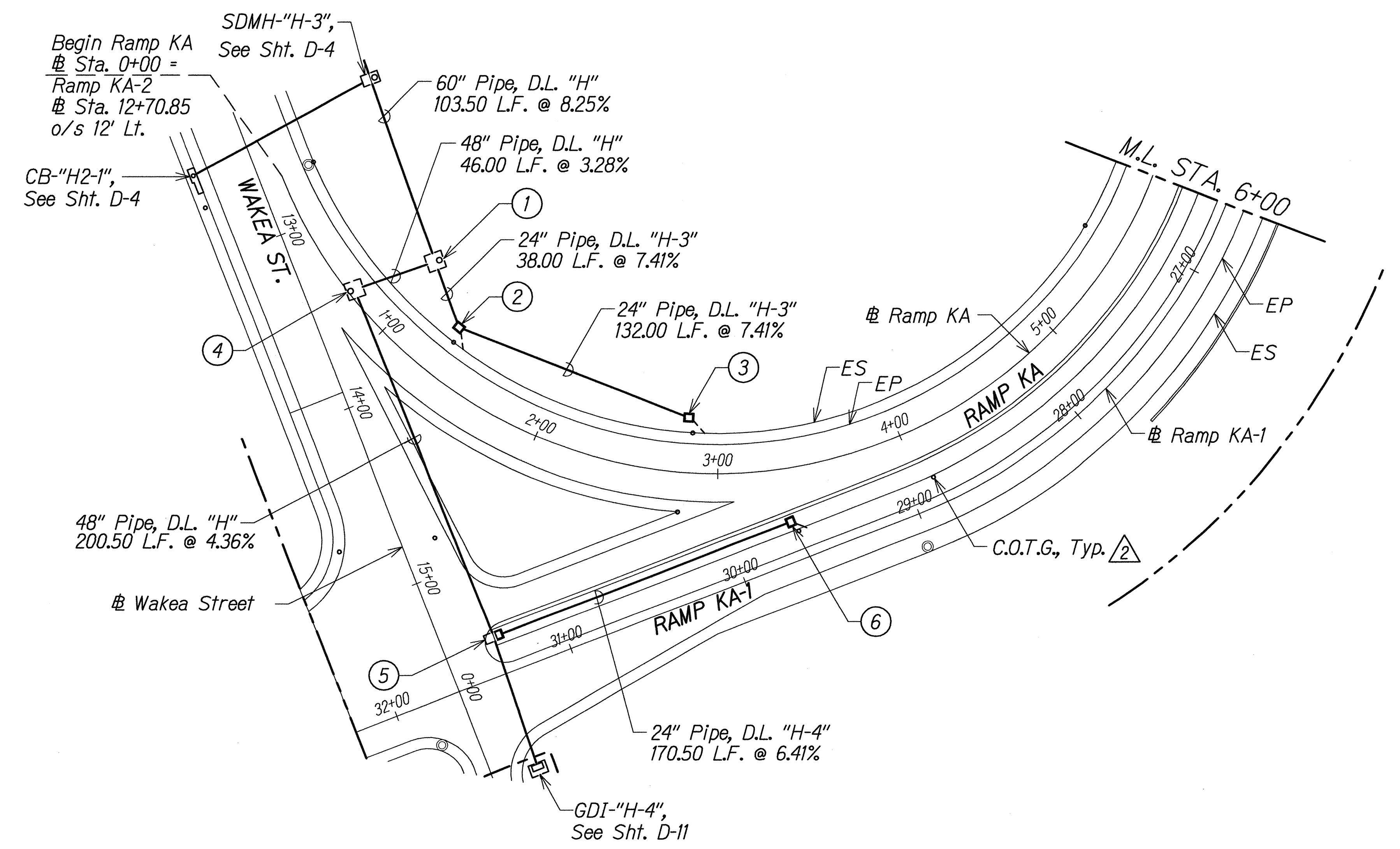
INTERSTATE ROUTE H-1
 ADDITION AND MODIFICATION OF FREEWAY ACCESS
 (Kapolei Interchange Complex), Phase 2
 Federal-Aid Project No. IM-HI-1 (261)
 Scale: 1" = 40' Date: January 20, 2015

SHEET No. GP-6 OF 19 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(261)	2015	ADD. 123	524

- ① **SDMH-"H-4"**
Sta 5+10.50 D.L. "H"
=Sta 0+00.00 D.L. "H-3"
=Sta 0+90.97 @ Ramp KA o/s 46.35 Lt.
Sta 13+43.32 @ Wakea Street o/s 71.71 Lt.
Modified Type "C" SDMH
For Details, See Sht. D/S11-4 △2
Top = 124.27
Inv. = 119.00 (24") D.L. "H-3"
Inv. = 114.14 (48") D.L. "H"
Inv. = 114.14 (60") D.L. "H"
- ② **GDI-"H3-1"**
Sta 0+38.00 D.L. "H-3"
=Sta 1+30.82 @ Ramp KA o/s 29.00 Lt.
Type "61614" Grated Drop Inlet w/ Conc. Apron
For Details, See Std. Plan H-12
1-6" Underdrain Conn.
Inv. = 121.82
- ③ **GDI-"H3-2"**
Sta 1+70.00 D.L. "H-3"
=Sta 2+82.45 @ Ramp KA o/s 29.00 Lt.
Type "61614" Grated Drop Inlet w/ Conc. Apron
For Details, See Std. Plan H-12
1-6" Underdrain Conn.
Top = 137.81
Inv. = 131.60
- ④ **SDMH-"H-5"**
Sta 5+56.50 D.L. "H"
=Sta 0+72.39 @ Ramp KA o/s 2.37 Lt.
Modified Type "C" SDMH
For Details, See E/S11-4 △2
Top = 130.43 △2
Inv. = 115.65

- ⑤ **GDI-"H-3"**
Sta. 7+57.00 D.L. "H"
=Sta. 0+00.00 D.L. "H-4"
=Sta. 31+40.68 @ Ramp KA-1 o/s 21.00 Rt.
=Sta. 15+41.85 @ Wakea Street o/s 28.00 Lt.
Modified Type "61614" Grated Drop Inlet w/ Conc. Apron
For Details, See S11-7
1-6" Underdrain Conn.
△2 Top = 135.57
Inv. = 126.40 (24") D.L. "H-4"
Inv. = 124.40 (48") D.L. "H"
- ⑥ **GDI-"H4-1"**
Sta. 1+70.50 D.L. "H-4"
=Sta. 29+70.18 @ Ramp KA-1 o/s 21.00 Rt.
Type "61614" Grated Drop Inlet w/ Conc. Apron
For Details, See Standard Plan H-12
1-6" Underdrain Conn.
Top = 142.49 △2
Inv. = 137.33



Notes:
1. For Conc. Apron, See Sht. D-31.
2. For Profiles Of Drain Lines, See Sht. D-12 to D-28.

GRAPHIC SCALES:
40' 20' 0 40' 80'
SCALE: 1" = 40'

PLAN - RAMP KA
Scale: 1" = 40'

△2	5/18/15	Revised Callout
DATE	REVISION	

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Sam S. Oyama
WILSON OKAMOTO CORPORATION APRIL 30, 2016 LIC. EXP. DATE

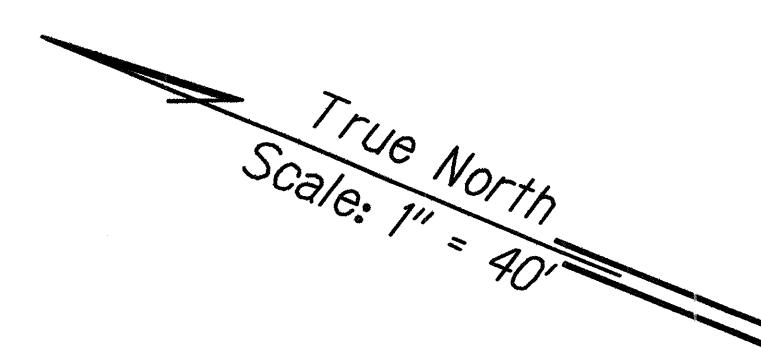
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PLAN

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. IM-H1-1 (261)
Scale: 1" = 40' Date: January 20, 2015

SHEET No. D-2 OF 37 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 124	524



- ① GDI-"G-5"
Sta 5+06.00 D.L. "G"
② =Sta 6+35.25 ∇ Ramp KA o/s 29.00 Lt
Type "61614" Grated Drop Inlet
w/ Conc Apron
For Detail, See Std Plan H-12
1-6" Underdrain Conn
Inv = 131.73

- ② GDI-"G-4"
Sta 4+27.00 D.L. "G"
② =Sta 0+00.00 D.L. "G-3"
=Sta 7+25.10 ∇ Ramp KA o/s 29.00 Lt
Type "61614" Grated Drop Inlet
w/ Conc Apron
For Detail, See Std Plan H-12
1-6" Underdrain Conn
Inv = 126.43 (24") D.L. "G-3"
Inv = 126.43 (24") D.L. "G"

- ③ GDI-"G-3"
Sta 3+23.00 D.L. "G"
② =Sta 0+00.00 D.L. "G-2"
=Sta 8+43.41 ∇ Ramp KA o/s 29.00 Lt
Type "61614" Grated Drop Inlet
w/ Conc Apron
For Detail, See Std Plan H-12
1-6" Underdrain Conn
Inv = 119.76 (24") D.L. "G-2"
Inv = 119.42 (24") D.L. "G"

- ④ GDI-"G-2"
Sta 2+06.00 D.L. "G"
② =Sta 0+00.00 D.L. "G-1"
=Sta 9+75.14 ∇ Ramp KA o/s 29.00 Lt
Type "61614" Grated Drop Inlet w/ Conc Apron
For Detail, See Std Plan H-12
1-6" Underdrain Conn.
Inv = 112.12 (24") D.L. "G-1"
Inv = 111.70 (24") D.L. "G"

- ⑤ GDI-"G-1"
Sta 0+95.00 D.L. "G"
② =Sta 11+00.00 ∇ Ramp KA o/s 29.00 Lt
Type "61614" Grated Drop Inlet w/ Conc Apron
For Detail, See Std Plan H-12
1-6" Underdrain Conn
Inv = 104.79

- ⑥ Storm Water Quality Treatment Unit
Sta 0+30.00 D.L. "G"
② =Sta 11+09.34 ∇ Ramp KA o/s 35.30 Rt
For Detail, See Special Provisions
Top = 108.71
Inv = 99.52

- ⑦ Outlet #1
Sta 0+00 D.L. "G"
=Sta 11+12.47 ∇ Ramp KA o/s 65.09 Rt.
For Concrete Structure, See Std. Plan H-22
For GRP, See Sht D-33
② Top = 97.06
Inv = 93.06

- ⑧ GDI-"G1-1"
Sta 0+72.50 D.L. "G-1"
=Sta 9+39.87 ∇ Ramp KA o/s 34.87 Rt
=Sta 22+75.34 ∇ Ramp KA-1 o/s 29.00 Rt
Type "61614" Grated Drop Inlet w/ Conc Apron
For Detail, See Std Plan H-12
1-6" Underdrain Conn
Inv = 114.70

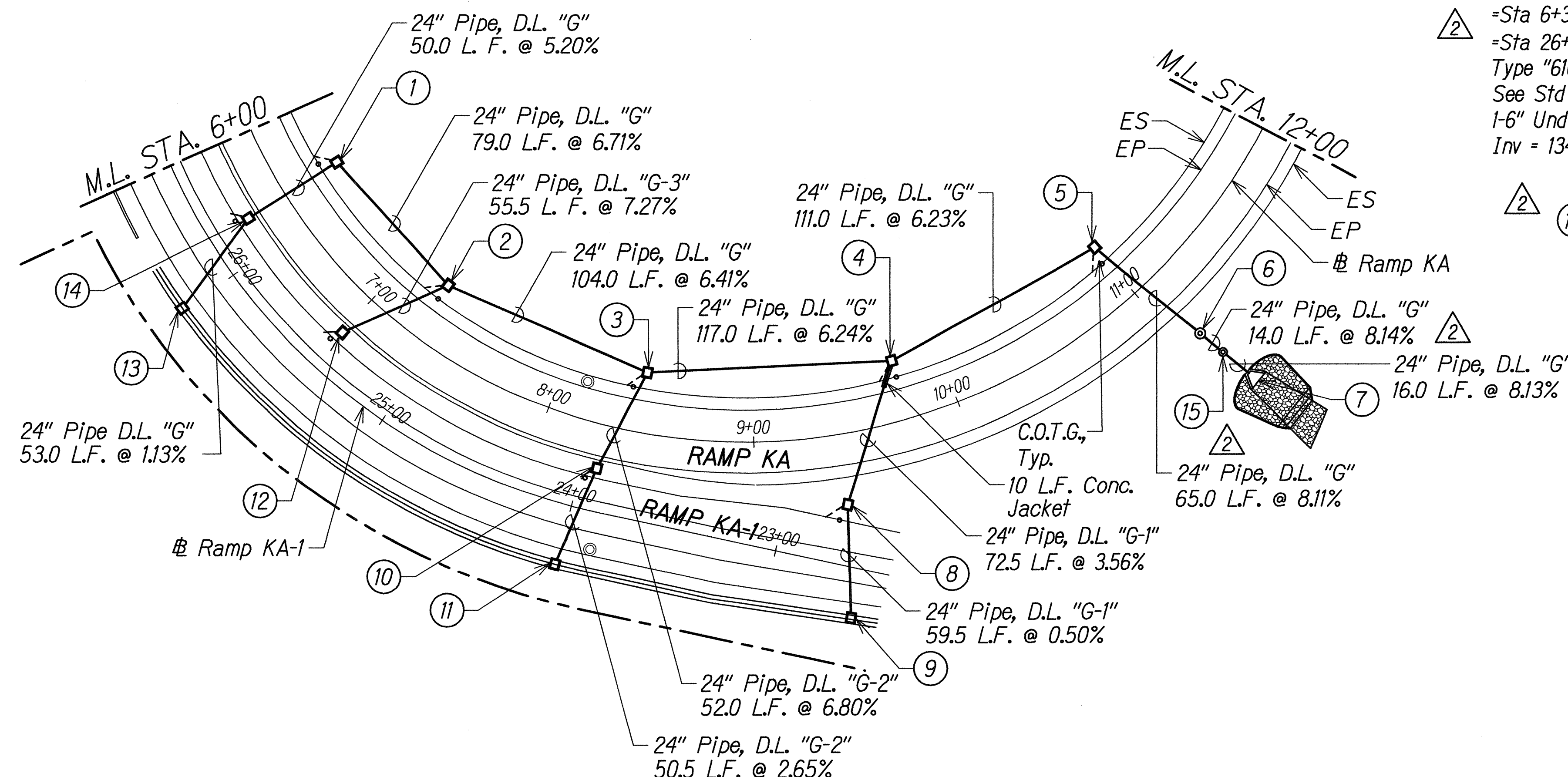
- ⑨ GDI-"G1-2"
Sta 1+32.00 D.L. "G-1"
=Sta 22+57.92 ∇ Ramp KA-1 o/s 23.82 Lt
Type "61614" Grated Drop Inlet w/ Conc Apron
For Detail, See Std Plan H-12
1-6" Underdrain Conn
Inv = 115.00

- ⑩ GDI-"G2-1"
Sta 0+52.00 D.L. "G-2"
=Sta 8+29.34 ∇ Ramp KA o/s 21.13 Rt
=Sta 23+96.96 ∇ Ramp KA-1 o/s 20.87 Rt
Type "61614" Grated Drop Inlet w/ Conc Apron
For Detail, See Std Plan H-12
1-6" Underdrain Conn
Inv = 123.30

- ⑪ GDI-"G2-2"
Sta 1+02.50 D.L. "G-2"
=Sta 24+04.93 ∇ Ramp KA-1 o/s 29.00 Lt
Type "61614" Grated Drop Inlet
w/ Conc Apron
For Details, See Std Plan H-12
Inv = 124.64

- ⑫ GDI-"G3-1"
Sta 0+55.50 D.L. "G-3"
=Sta 7+00.00 ∇ Ramp KA o/s 21.00 Rt
=Sta 25+47.17 ∇ Ramp KA-1 o/s 21.04 Rt
Type "61614" Grated Drop Inlet w/ Conc Apron
For Detail, See Std Plan H-12
1-6" Underdrain Conn
Inv = 130.47

- ⑬ GDI-"G-7"
Sta 6+09.00 D.L. "G"
② =Sta 26+05.97 ∇ Ramp KA-1 o/s 28.95 Lt
Type "61614" Grated Drop Inlet
w/ Conc Apron
For Details, See Standard Plan H-12
Inv = 134.93



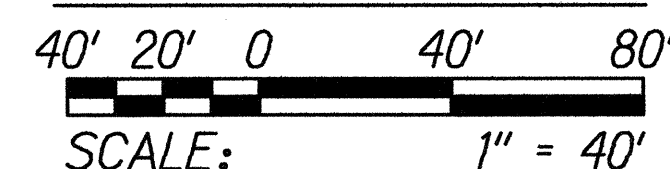
- ⑭ GDI-"G-6"
Sta 5+56.00 D.L. "G"
② =Sta 6+35.25 ∇ Ramp KA o/s 21.00 Rt
=Sta 26+28.38 ∇ Ramp KA-1 o/s 21.05 Rt
Type "61614" Grated Drop Inlet w/ Conc Apron
See Std Plan H-12
1-6" Underdrain Conn For Detail,
Inv = 134.33

- ⑮ SDMH-"G-1"
Sta 0+16.00 D.L. "G"
=Sta 11+10.87 ∇ Ramp KA o/s 49.21 Rt
Type A SDMH
For Details, See Std Plan H-03
Top = 101.67
Inv = 98.38
Inv = 94.36

Notes:

- For Conc. Apron, See Sht. D-31.
- For Profiles Of Drain Lines, See Sht. D-12 to D-28.

GRAPHIC SCALES:



PLAN - RAMP KA
Scale: Horiz. 1" = 40'

② 5/18/15 Revised Callouts

DATE

REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PLAN

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)
Scale: 1" = 40' Date: January 20, 2015

SHEET No. D-3 OF 37 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 125	524

- ① Outlet #2
Sta 0+00 D.L. "H"
=Sta 12+37.50 @ Ramp KA o/s 85.61 Lt
=Sta 9+09.27 @ Wakea Street o/s 211.67 Lt
For Detail See Sht D-34 & S11-11
Top = 95.40
Inv = 87.96

- ⑥ SDMH-"H-3"
Sta 4+07.00 D.L. "H"
=Sta 0+00.00 D.L. "H-2"
=Sta 12+39.67 @ Wakea Street o/s 74.83 Lt.
Modified Type "C" SDMH
For Details, See Sht C/S11-4
Top = 113.24
Inv = 108.00 (24") D.L. "H-2"
Inv = 105.60 (60") D.L. "H"
Inv = 103.00 (60") D.L. "H"

- ⑪ GDI-"H1-2" (Flanker)
Sta 1+81.60 D.L. "H-1"
=Sta 14+63.11 @ Ramp KA o/s 28.97 Lt
Type "61614" Grated Drop Inlet w/ Conc Apron
For Details, See Std Plan H-12
1-6" Underdrain Conn
Top = 96.11
Inv = 91.84

- ⑬ Existing GDI
Sta 0+00.00 D.L. "L"
=Sta 17+54.46 @ Ramp KA o/s 16.24 Lt
=Sta 14+31.00 Ramp MDK-A o/s 18.00 Lt
Connect to Exist. Inlet & Reconstruct
Top of Existing Inlet to Convert to
SDMH, See Detail Sht D-31
Top = 104.35
Inv = 99.71+

- ② GDI-"H-1"
Sta 1+18.50 D.L. "H"
=Sta 0+00.00 D.L. "H-1"
=Sta 12+65.00 @ Ramp KA o/s 29.00 Lt
=Sta 10+26.29 @ Wakea Street o/s 193.60 Lt
Modified Type "61614" Grated Drop Inlet w/ Conc. Apron
For Details, See Sht S11-7
1-6" Underdrain Conn
Top = 99.40
Inv = 90.75 (24") D.L. "H-1"
Inv = 90.01 (60") D.L. "H"

- ⑦ CB-"H2-1" (Type B)
Sta 1+08.00 D.L. "H-2"
=Sta 12+53.45 @ Wakea Street o/s
32.21
Inv = 115.63

- ⑧ GDI-"K-1"
Sta 0+24.00 D.L. "K"
=Sta 16+49.91 @ Ramp KA o/s 29.00 Lt
=Sta 13+29.94 @ Ramp MDKA-1 o/s 41.86 Lt
Type "61614" Grated Drop Inlet w/ Conc. Apron
For Details, See Std Plan H-12
1-6" Underdrain Conn
Top = 100.67
Inv = 98.33

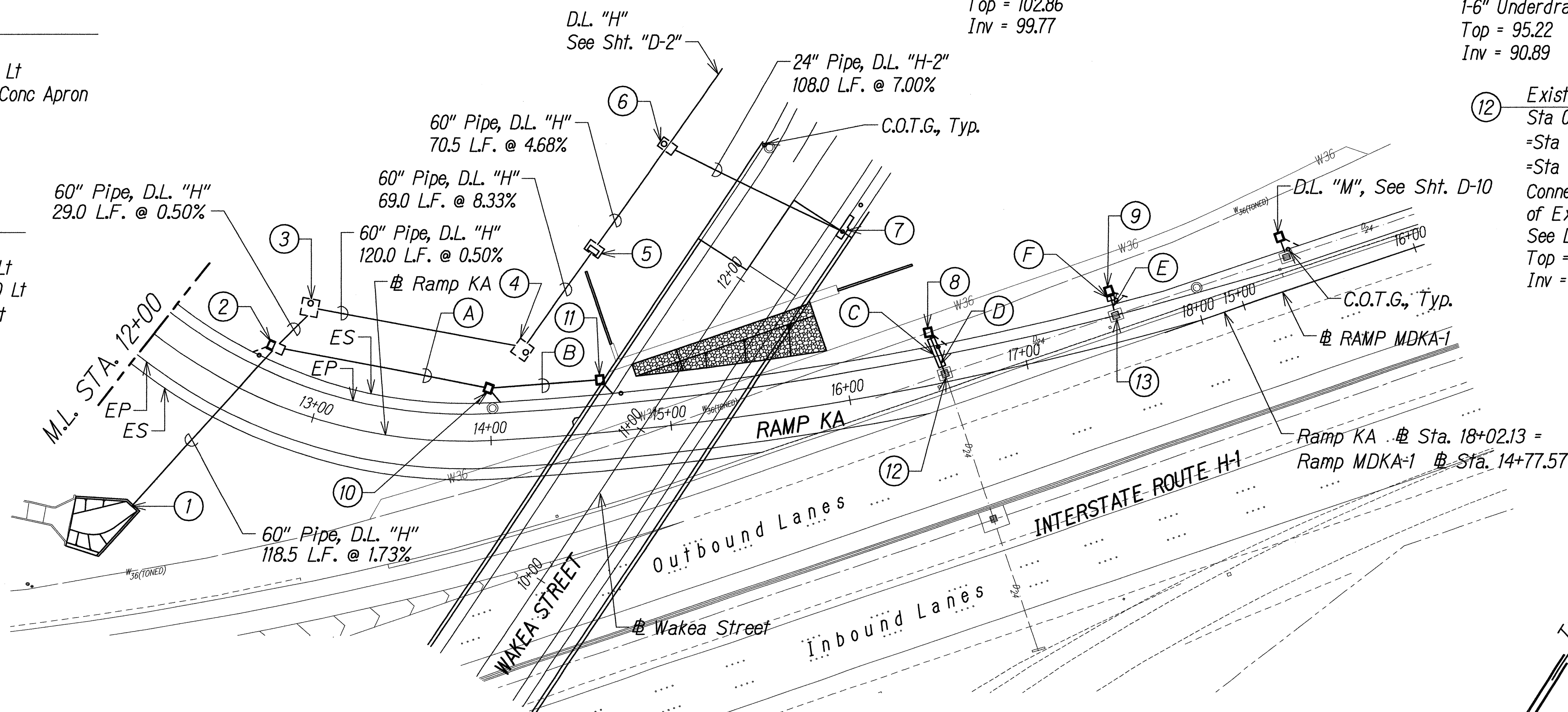
- ③ SDMH-"H-1"
Sta 1+47.50 D.L. "H"
=Sta 12+75.00 Ramp KA o/s 56.76 Lt
=Sta 10+55.08 Ramp KA o/s 190.04 Lt
② Modified Type "C" SDMH
For Details, See Sht A/S11-4
Top = 102.86
Inv = 90.15

- ④ SDMH-"H-2"
Sta 2+67.50 D.L. "H"
=Sta 14+20.49 @ Ramp KA o/s 48.97 Lt
=Sta 11+00.44 @ Wakea Street o/s 79.01 Lt
② Modified Type "C" SDMH
For Details, See Sht B/S11-4
② Top = 103.97
Inv = 93.95 (60") D.L. "H"
Inv = 90.75 (60") D.L. "H"

- ⑤ GDI-"H-2"
Sta 3+36.50 D.L. "H"
=Sta 14+66.48 @ Ramp KA o/s 102.08 Lt
=Sta 11+69.41 @ Wakea Street o/s 76.94 Lt
② Modified Type "61614" Grated Drop Inlet
w/ Conc Apron
For Details, See Sht. S11-6
Top = 108.23
Inv = 99.70

- ⑩ GDI-"H1-1"
Sta 1+19.70 D.L. "H-1"
=Sta 14+00 @ Ramp KA o/s 29.00 Lt
Type "61614" Grated Drop Inlet w/ Conc Apron
For Details, See Std Plan H-12
1-6" Underdrain Conn.
Top = 95.22
Inv = 90.89

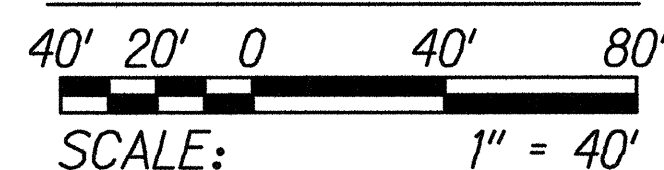
- ⑫ Existing GDI
Sta 0+00.00 D.L. "K"
=Sta 16+54.57 @ Ramp KA o/s 5.46 Lt
=Sta 13+31.00 @ Ramp MDKA-1 o/s 18.00 Lt
Connect to Exist Inlet & Reconstruct Top
of Existing Inlet to Convert to SDMH,
See Detail Sht D-31
Top = 102.36
Inv = 98.21+



Notes:

- For Conc. Apron, See Sht. D-31.
- For Profiles Of Drain Lines, See Sht. D-12 to D-28.

GRAPHIC SCALES:



- (A) 24" Pipe, D.L. "H-1"
119.7 L.F. @ 0.12%
(B) 24" Pipe, D.L. "H-1"
61.9 L.F. @ 1.54%
(C) 17 L.F. Conc Jacket
(D) 24" Pipe, D.L. "K"
24.0 L.F. @ 0.50%
(E) 24" Pipe, D.L. "L"
16.0 L.F. @ 0.38%
(F) 5 L.F. Conc. Jacket

PLAN - RAMP KA
Scale: 1" = 40'

②	5/18/15	Revised Callout
DATE	REVISION	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PLAN

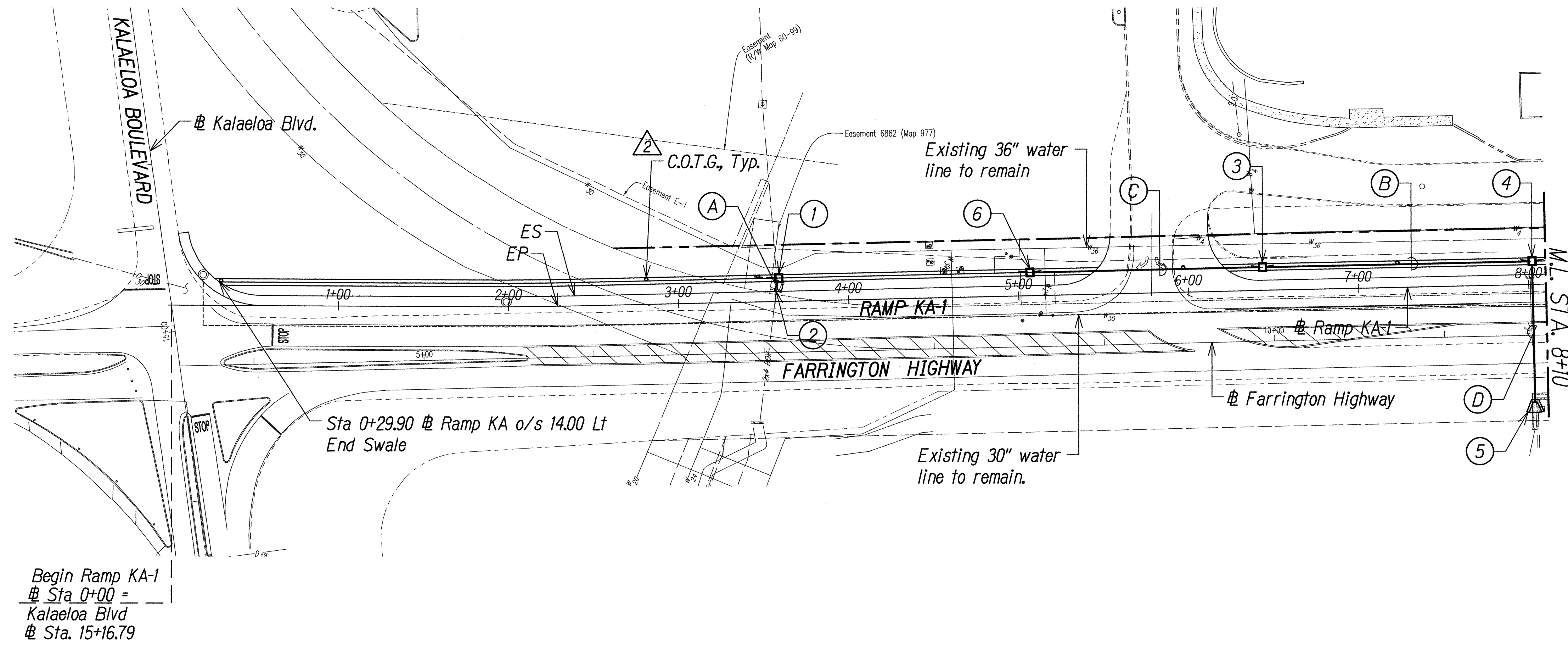
INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)
Scale: 1" = 40' Date: January 20, 2015

SHEET No. D-4 OF 37 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(261)	2015	ADD. 126	524

- ① GDI-"A-1"
Sta 0+07.70 D.L. "A"
=Sta 3+59.32 Ramp KA-1 o/s 14.00 Lt
Type "61614" Grated Drop Inlet w/ Conc Apron
For Details, See Std Plan H-12
1-6" Underdrain Conn
Inv = 78.36
- ② Existing Inlet
Sta 0+00.00 D.L. "A"
=Sta 3+55.29 Ramp KA-1 o/s 5.64 Lt
Remove Inlet Structure & Connect to
Exist 4'x2' Conc Box Culvert,
For Details, See Sht S11-9
Inv = 78.28±
- ③ GDI-"B-2"
Sta 2+41.90 D.L. "B"
=Sta 6+43.71 Ramp KA-1 o/s 14.00 Lt
Type "61614" Grated Drop Inlet w/ Conc Apron
For Details, See Std Plan H-12
2-6" Underdrain Conn
Inv = 74.49
- ④ GDI-"B-1"
Sta 0+83.40 D.L. "B"
=Sta 8+02.20 Ramp KA-1 o/s 14.00 Lt
Type "61614" Grated Drop Inlet w/ Conc Apron
For Details, See Std Plan H-12
2-6" Underdrain Conn
Inv = 72.45
- ⑤ Outlet #3
Sta 0+00.00 D.L. "B"
=Sta 8+02.19 Ramp KA-1 o/s 69.44 Rt
For Concrete Structure, See Std Plan H-22,
Top = 75.21
Inv = 72.03
- ⑥ GDI-"B-3"
Sta 3+78.70 D.L. "B"
=Sta 5+39.21 Ramp KA-1 o/s 14.00 Lt
Type "61614" Grated Drop Inlet w/ Conc Apron
For Details, See Std Plan H-12
2-6" Underdrain Conn
Inv = 76.81

True North
Scale: 1" = 40'



- Notes:
- For Conc. Apron, See Sht. D-31.
 - For Profiles Of Drain Lines, See Sht. D-12 to D-28.

GRAPHIC SCALES:
40' 20' 0 40' 80'
SCALE: 1" = 40'

- Ⓐ 4x2 Box Culvert, D.L. "A"
7.7 L.F. @ 1.00%

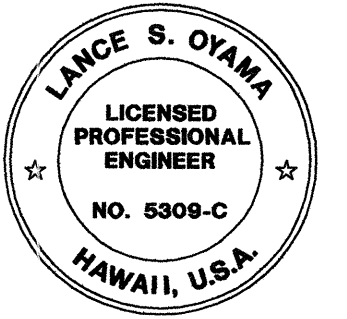
Ⓑ 24" Pipe, D.L. "B"
158.5 L.F. @ 1.05%
- Ⓒ 24" Pipe, D.L. "B"
136.8 L.F. @ 1.97%

Ⓓ 24" Pipe, D.L. "B"
83.4 L.F. @ 0.50%
See Pavement Restoration Detail, Sheet R-1

PLAN RAMP KA-1
Scale: 1" = 40'

② 5/18/15 Revised Callout

DATE REVISION



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Lance S. Oyama
APRIL 30, 2016
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PLAN

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. IM-HI-1 (261)

Scale: 1" = 40' Date: January 20, 2015

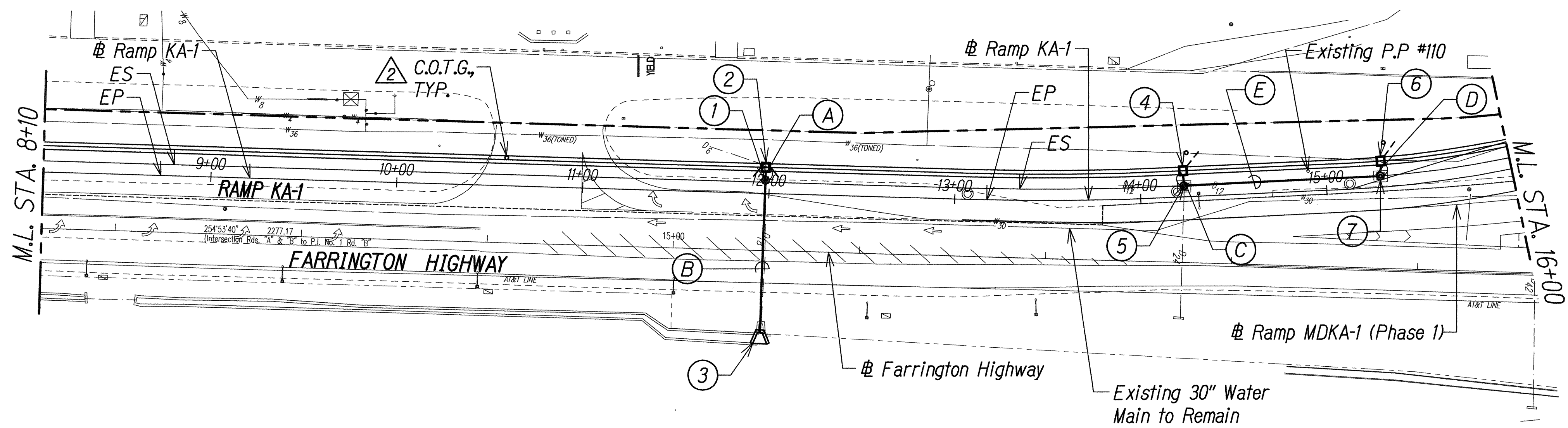
SHEET No. D-5 OF 37 SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(261)	2015	ADD. 127	524

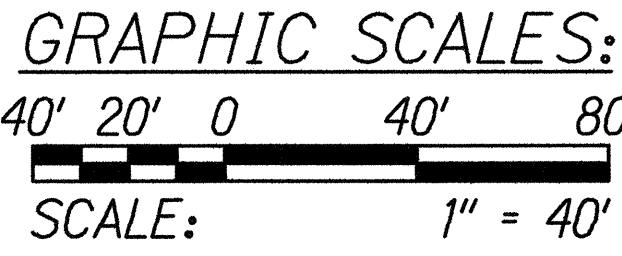
True North
Scale: 1" = 40'

- ① **SDMH-"C-1"**
Sta 0+81.10 D.L. "C"
=Sta 11+97.95 @ Ramp KA-1 o/s 7.00 Lt
Type A SDMH
△2 Top = 82.46
Inv = 81.38± (6")
Inv = 71.52 (24") D.L. "C"
- ② **GDI-"C-1"**
Sta 0+88.10 D.L. "C"
=Sta 11+97.98 @ Ramp KA-1 o/s 14.00 Lt
Type 61614 Grated Drop Inlet w/ Conc Apron
For Details, See Standard Plan H-12
2-6" Underdrain Conn
Inv = 71.56
- ③ **Outlet #4**
Sta 0+00.00 D.L. "C"
=Sta 11+97.46 @ Ramp KA-1 o/s 74.12 Rt For CRM
Structure, See Standard Plan H-20,
Top = 74.11
Inv = 71.11
- ④ **GDI-"D-1"**
Sta 14+19.00 D.L. "D"
=Sta 14+23.10 @ Ramp KA-1 o/s 14.00 Lt Type
"61614" Grated Drop Inlet w/ Conc. Apron
For Details, See Standard Plan H-12
1-6" Underdrain Conn
Inv = 81.11
- ⑤ **SDMH-"D-1"**
Sta 0+11.00 D.L. "D"
=Sta 0+00 D.L. "D-1"
=Sta 14+21.63 @ Ramp KA-1 o/s 3.35 Lt
Reconstruct top of existing inlet to
convert to SDMH, See Detail Sht D-32
Top = 86.65
Inv = 81.07±
- ⑥ **GDI-"DI-1"**
Sta 1+12.00 D.L. "D-1"
=Sta 15+30.06 @ Ramp KA-1 o/s 14.00 Lt.
Type "61614" Grated Drop Inlet w/ Conc Apron
For Details, See Standard Plan H-12
1-6" Underdrain Conn
Inv = 84.50
- ⑦ **SDMH-"DI-1"**
Sta 1+04.00 D.L. "D-1"
=Sta 15+25.00 @ Ramp KA-1 o/s 4.00 Lt.
Reconstruct Top to Convert to SDMH,
See Detail Sht D-31
△2 Top = 89.23
Inv = 84.46



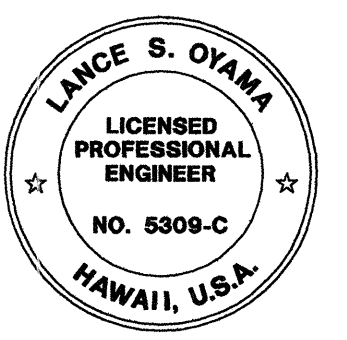
PLAN - RAMP KA-1
Scale: 1" = 40'

- Notes:
- For Conc. Apron, See Sht. D-31.
 - For Profiles Of Drain Lines, See Sht. D-12 to D-28.



- ① 24" HDPE Pipe, D.L. "C"
7.0 L.F. @ 0.57%
- ② 24" HDPE Pipe, D.L. "C"
81.1 L.F. @ 0.51%
See Pavement Restoration
Detail, Sheet R-1
- ③ 24" Pipe, D.L. "D"
8.0 L.F. @ 0.50%
- ④ 24" Pipe, D.L. "D-1"
8.0 L.F. @ 0.50%
- ⑤ 24" Pipe, D.L. "D-1"
104.0 L.F. @ 3.26%

△2	5/18/15	Revised Callout
DATE	REVISION	



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Lance S. Oyama
WILSON OKAMOTO CORPORATION APRIL 30, 2016 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PLAN

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. IM-HI-1 (261)
Scale: 1" = 40' Date: January 20, 2015

SHEET No. D-6 OF 37 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 128	524

True North
Scale: 1" = 40'

- ① SDMH-"E-1"
Sta 0+00 D.L. "E"
=Sta 16+11.51 @ Ramp KA-1 o/s 3.97 Lt
Reconstruct top of existing inlet to
convert to SDMH, See Detail Sht D-31
- △② Top = 91.81
Inv = 86.51 (24") D.L. "E"
Inv = 83.01 (15")
Inv = 78.53± (42")

- ② GDI-"E-1"
Sta 0+47.70 D.L. "E"
=Sta 16+60.00 @ Ramp KA-1 o/s 14.00 Lt
Type "61614" Grated Drop Inlet w/ Conc Apron
For Details, See Standard Plan H-12
1-6" Underdrain Conn
Inv = 87.18

- ③ GDI-"F1-1"
Sta 0+60.60 D.L. "F-1"
=Sta 19+31.55 @ Ramp KA-1 o/s 14.00 Lt
Type "61614" Grated Drop Inlet w/ Conc Apron
for Details, See Standard Plan H-12
1-6" Underdrain Conn
Inv = 93.52

- ④ SDMH-"F-1"
Sta 0+61.20 D.L. "F"
=Sta 0+00 D.L. "F-1"
=Sta 19+94.88 @ Ramp KA-1 o/s 14.00 Lt
- △② Type A SDMH
For Details, See Std. Plan H-12
- △② Top = 105.06
Inv = 95.00 (24") D.L. "F"
Inv = 93.00 (24") D.L. "F-1"
Inv = 93.00 (24") D.L. "F"

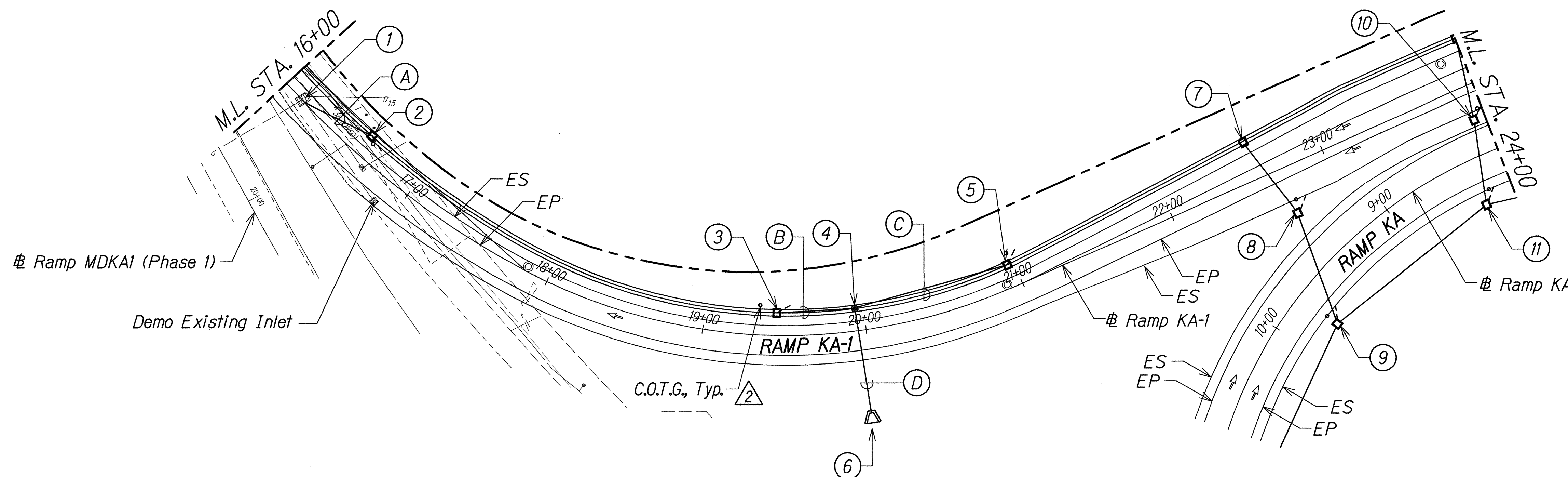
- ⑤ GDI-"F-1"
Sta 1+57.40 D.L. "F"
=Sta 20+96.06 @ Ramp KA-1 o/s 14.00 Lt
Type "61614" Grated Drop Inlet w/ Conc Apron
For Details, See Standard Plan H-12
1-6" Underdrain Conn
Inv = 100.57

- ⑥ Outlet #5
Sta 0+00 D.L. "F"
=Sta 20+00.00 @ Ramp KA-1 o/s 46.27 Rt
For CRM Structure,
See Standard Plan H-20
Top = 94.49
Inv = 89.85

- ⑦ GDI-"G1-2"
See Sht. D-3 for Details
- ⑩ GDI-"G2-1"
See Sht. D-3 for Details

- ⑧ GDI-"G1-1"
See Sht. D-3 for Details
- ⑪ GDI-"G-3"
See Sht. D-3 for Details

- ⑨ GDI-"G-2"
See Sht. D-3 for Details



- ① 24" Pipe D.L. "E"
47.7 L.F. @ 1.40%
- ② 24" Pipe D.L. "F-1"
60.6 L.F. @ 0.86%
- ③ 24" Pipe D.L. "F"
96.8 L.F. @ 5.75%
- ④ 24" Pipe D.L. "F"
61.2 L.F. @ 6.14%

Notes:

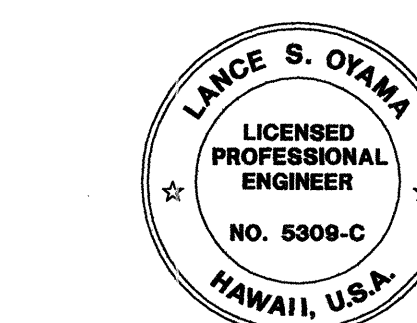
- For Conc. Apron, See Sht. D-31.
- For Profiles Of Drain Lines, See Sht. D-12 to D-28.

GRAPHIC SCALES:

40' 20' 0 40' 80'
SCALE: 1" = 40'

PLAN - RAMP KA-1
Scale: 1" = 40'

② 5/18/15 Revised Callout
DATE REVISION



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Lance S. Oyama
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PLAN

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)
Scale: 1" = 40' Date: January 20, 2015

SHEET No. D-7 OF 37 SHEETS

ADD. 128

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(261)	2015	ADD. 130	524

- ① GDI-"J-1"
Sta 0+00.00 D.L. "J"
=Sta 7+13.81 @ Wakea Street o/s 37.89 Lt
Modified Type "61614" Grated Drop Inlet w/
Conc Apron
△ For Detail, See Sht S11-8
Connect To Ex. Capped 24" S.D.
1-6" Underdrain Conn
Inv = 110.00

② GDI-"J-2"
Sta 0+23.50 D.L. "J"
=Sta 7+34.29 @ Wakea Street o/s 26.62 Lt
Type "61614" Grated Drop Inlet w/ Conc Apron
For Detail, See Standard Plan H-12
1-6" Underdrain Conn
Inv = 110.47
- ③ CB-"J-3" (Type B)
Sta 0+83.50 D.L. "J"
Sta 7+45.20 @ Wakea Street o/s 32.25 Rt
Inv = 111.67

④ GDI-"H1-1"
See Sht D-4
for Details

⑤ GDI-"H1-2"
See Sht D-4
for Details

⑥ SDMH-"H-2"
See Sht D-4
for Details

⑦ GDI-"H-2"
See Sht D-4
for Details

⑧ SDMH-"H-3"
See Sht D-4
for Details

⑨ CB-"H2-1"
See Sht D-4
for Details

⑩ SDMH-"H-4"
See Sht D-2
for Details

⑪ SDMH-"H-5"
See Sht D-2
for Details

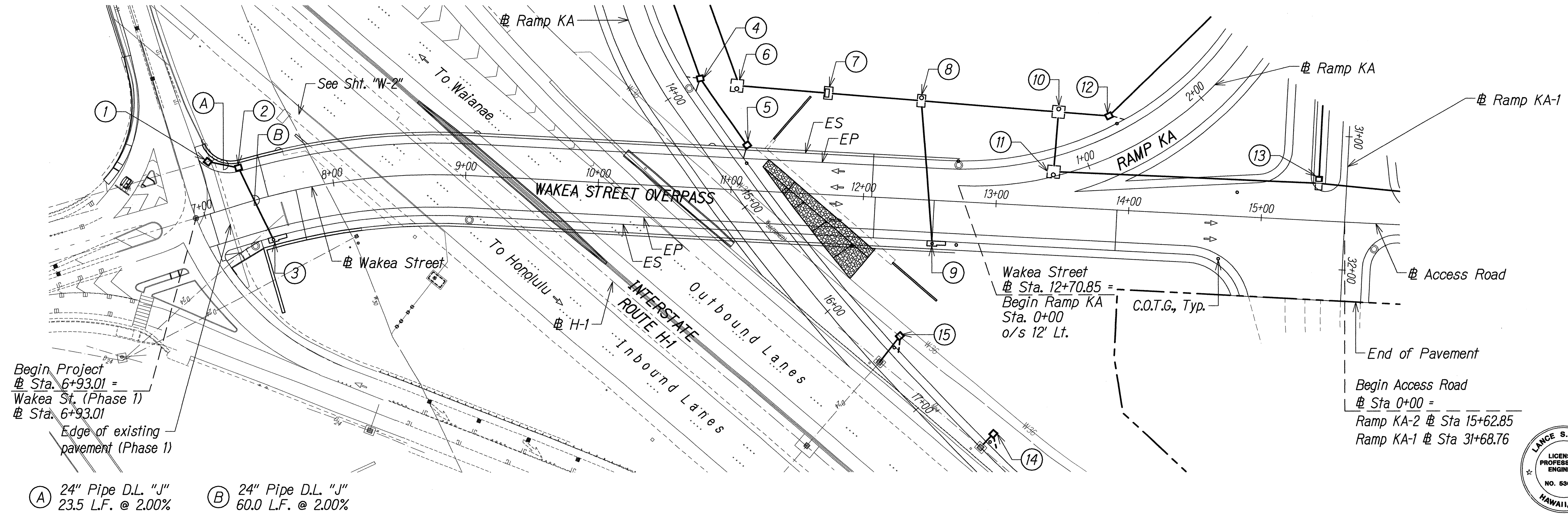
⑫ GDI-"H3-1"
See Sht D-2
for Details

⑬ GDI-"H-3"
See Sht D-2
for Details

⑭ GDI-"L-1"
See Sht D-4
for Details

⑮ GDI-"K-1"
See Sht D-4
for Details

True North
Scale: 1" = 40'



- Ⓐ 24" Pipe D.L. "J"
23.5 L.F. @ 2.00%
- Ⓑ 24" Pipe D.L. "J"
60.0 L.F. @ 2.00%

- Notes:
- For Conc. Apron, See Sht. D-31.
 - For Profiles Of Drain Lines, See Sht. D-12 to D-28.

GRAPHIC SCALES:
40' 20' 0 40' 80'
SCALE: 1" = 40'

PLAN - WAKEA STREET
Scale: 1" = 40'

△ 2	5/18/15	Revised Detail Reference
DATE	REVISION	

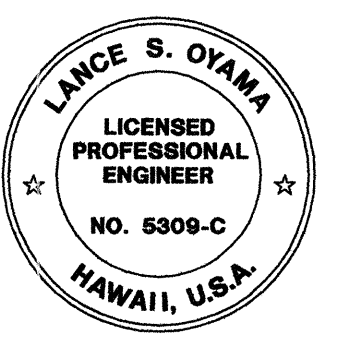
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PLAN

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. IM-H1-1 (261)
Scale: 1" = 40' Date: January 20, 2015

SHEET No. D-9 OF 37 SHEETS

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ORIGINAL PLAN	No.
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Lance S. Oyama
APRIL 30, 2016
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 132	524

① GDI-"H5-1"
Sta 0+22.50 D.L. "H-5"
=Sta 1+04.31 Access Road o/s 21.50 Rt
Type "61614" Grated Drop Inlet w/ Conc Apron
for Details, See Std Plan H-12
Inv = 135.50

② SDMH-"H-6"
Sta 8+85.00 D.L. "H"
=Sta 0+00.00 D.L. "H-5"
=Sta 1+13.39 Access Road o/s 1.62 Rt
② Modified Type "C" SDMH
For Details, See A/S11-5
Inv = 135.00 (24") D.L. "H-5"
Inv = 133.00 (48") D.L. "H"
Inv = 126.00 (48") D.L. "H"

③ GDI-"H-4"
Sta 8+13.00 D.L. "H"
=Sta 0+34.80 Access Road o/s 23.28 Lt
Modified Type "61614" Grated Drop Inlet
w/ Conc Apron for Details, See S11-6
Inv = 125.00

④ GDI-"H-3"
See Sht D-2
for Details
⑤ GDI-"H4-1"
See Sht D-2
for Details

⑥ GDI-"H6-1"
Sta 0+32.00 D.L. "H-6"
=Sta 2+99.98 Access Road o/s 21.50 Rt
Type "61614" Grated Drop Inlet w/ Conc Apron
for Details, See Std Plan H-12
Inv = 163.50

⑦ SDMH-"H-7"
Sta 10+70.00 D.L. "H"
=Sta 0+00.00 D.L. "H-6"
=Sta 2+99.98 Access Road o/s 10.73 Lt
② Modified Type "C" SDMH
For Details see B/S11-5
Inv = 163.00 (24") D.L. "H-6"
Inv = 159.90 (48") D.L. "H"
Inv = 145.95 (48") D.L. "H"

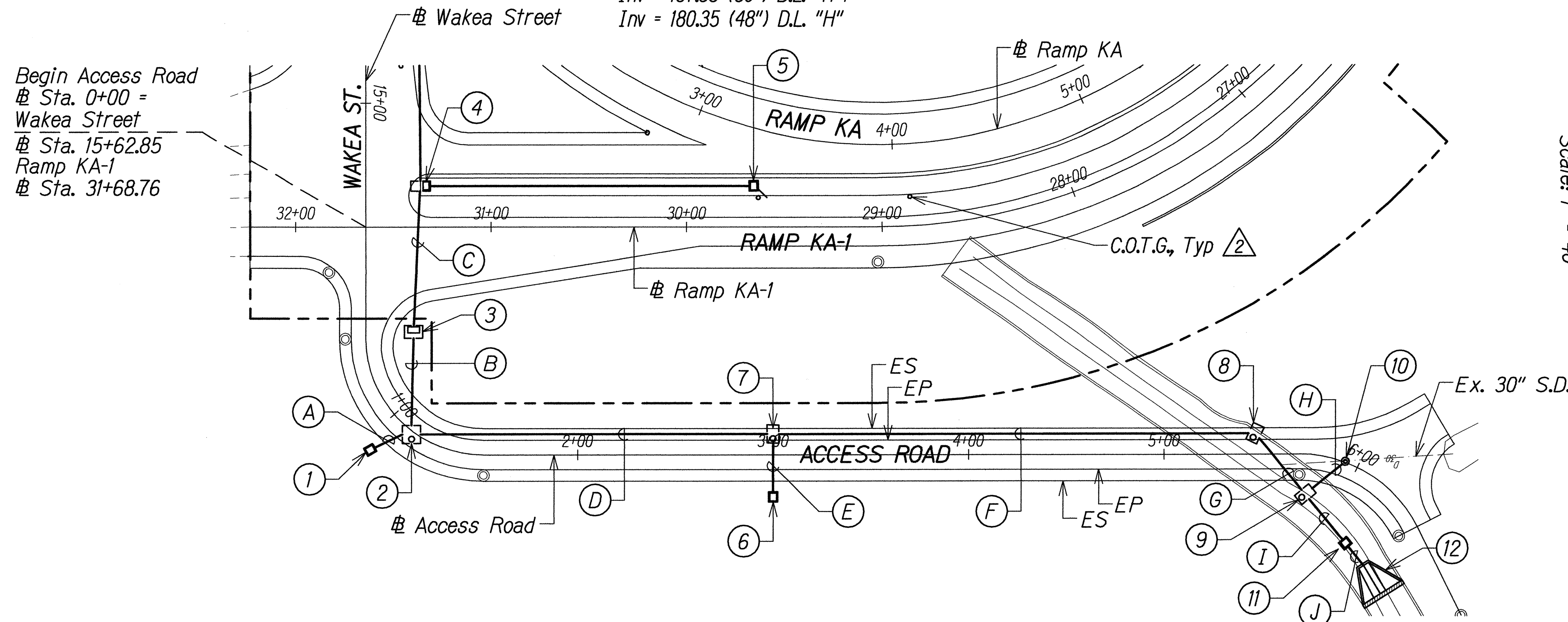
⑧ SDMH-"H-8"
Sta 13+16.50 D.L. "H"
=Sta 5+46.65 Access Road o/s 10.71 Lt
② Modified Type "C" SDMH
For Details see C/S11-5
Inv = 177.52 (48") D.L. "H"
Inv = 175.52 (48") D.L. "H"

⑨ SDMH-"H-9"
Sta 13+57.00 D.L. "H"
=Sta 0+00.00 D.L. "H-7"
=Sta 5+72.33 Access Road o/s 20.60 Rt
② Modified Type "C" SDMH
For Details see D/S11-5
Top = 194.82
Inv = 187.35 (30") D.L. "H-7"
Inv = 180.35 (48") D.L. "H"

⑩ SDMH-"H7-1" (Type C)
Sta 0+26.50 D.L. "H-7"
=Sta 5+92.83 Access Road o/s 3.80 Rt
For Details See Std Plan H-03 & E/S11-5
Top = 196.97
Inv = 189.87± (30") Exist.
Inv = 188.87 (30") D.L. "H-7"

⑪ SDMH-"H-10"
Sta 13+89.00 D.L. "H"
=Sta 6+24.53 Access Road o/s 35.28 Lt
For Details, Sht F/S11-5
② Top = 202.04
Inv = 195.04 (48") D.L. "H"
Inv = 182.59 (48") D.L. "H"

⑫ Inlet #1
Sta 13+99.00 D.L. "H"
=Sta 6+02.13 Access Road o/s 56.93 Rt
For Detail See Sht S11-10 & D-32
Top = 203.0±
Inv = 196.04



- | | | |
|--|--|---|
| ① 24" Pipe D.L. "H-5"
22.5 L.F. @ 2.22% | ⑤ 24" Pipe D.L. "H-6"
32.0 L.F. @ 1.56% | ⑨ 48" Pipe D.L. "H"
32.0 L.F. @ 7.00% |
| ② 48" Pipe D.L. "H"
72.0 L.F. @ 1.39% | ⑥ 48" Pipe D.L. "H"
246.5 L.F. @ 6.34% | ⑩ 48" Pipe D.L. "H"
15.0 L.F. @ 10.00% |
| ③ 48" Pipe D.L. "H"
56.0 L.F. @ 1.07% | ⑦ 48" Pipe D.L. "H"
40.5 L.F. @ 7.00% | |
| ④ 48" Pipe D.L. "H"
185.0 L.F. @ 7.00% | ⑧ 30" Pipe D.L. "H-7"
26.5 L.F. @ 5.74% | |

Notes:

- For Conc. Apron, See Sht. D-31.
- For Profiles Of Drain Lines, See Sht. D-12 to D-28.

GRAPHIC SCALES:

40' 20' 0 40' 80'
SCALE: 1" = 40'

PLAN - ACCESS ROAD
Scale: 1" = 40'

② 5/18/15 Revised Callout

DATE

REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PLAN

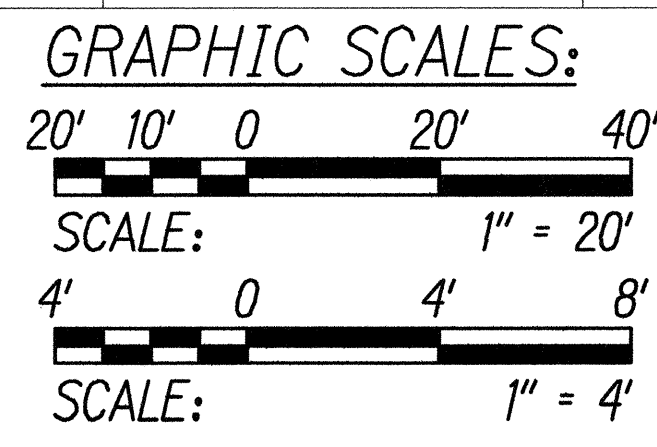
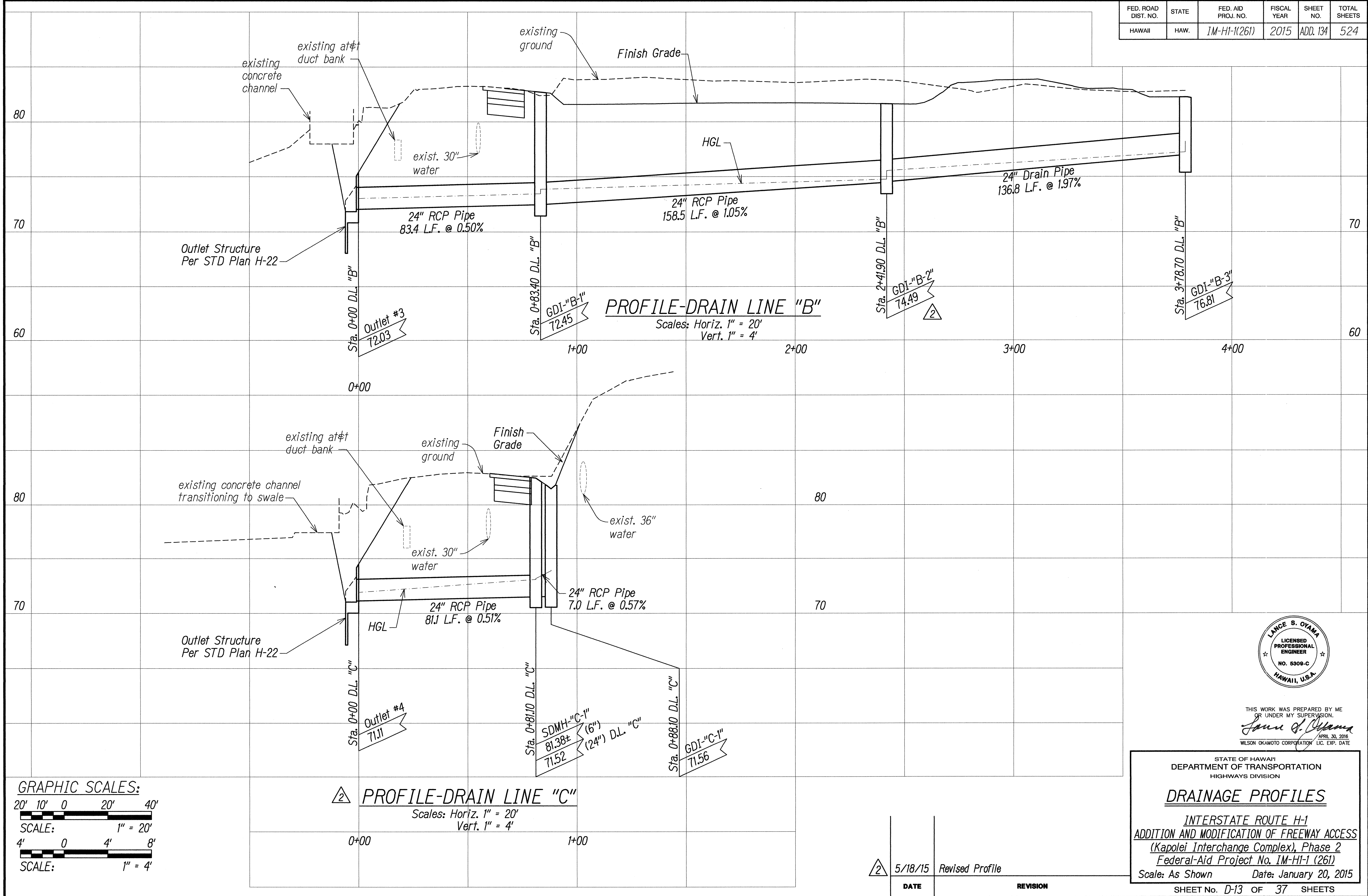
INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)
Scale: 1" = 40' Date: January 20, 2015

SHEET No. D-11 OF 37 SHEETS

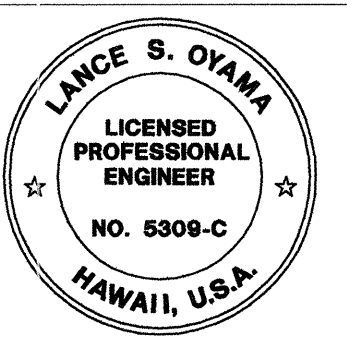


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Lance S. Oyama
WILSON OKAMOTO CORPORATION APRIL 30, 2016 LIC. EXP. DATE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 134	524



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ORIGINAL PLAN	No.
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 WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

DRAINAGE PROFILES

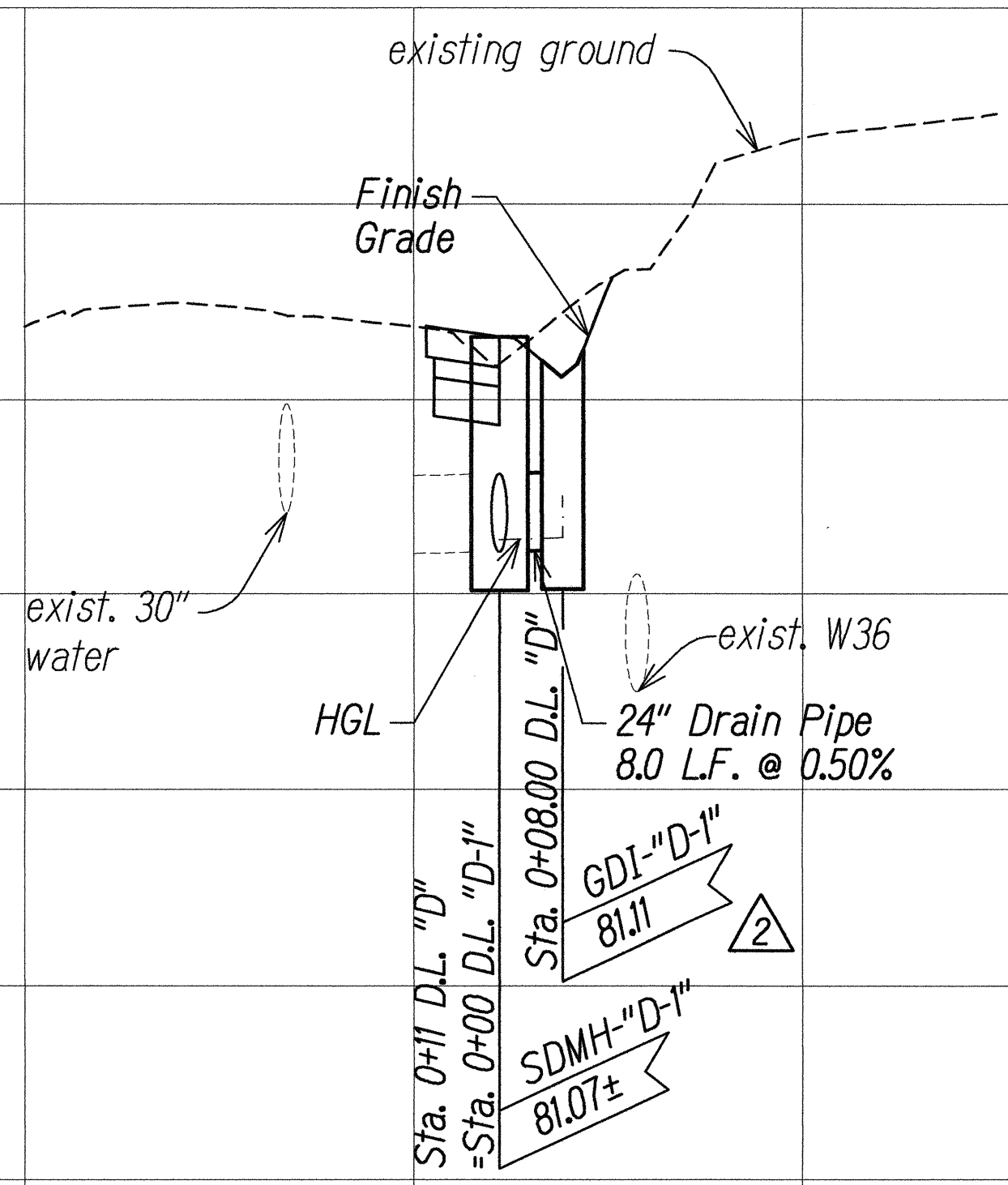
INTERSTATE ROUTE H-1
 ADDITION AND MODIFICATION OF FREEWAY ACCESS
 (Kapolei Interchange Complex), Phase 2
 Federal-Aid Project No. 1M-H1-1 (261)

Scale: As Shown Date: January 20, 2015

SHEET No. D-13 OF 37 SHEETS

5/18/15	Revised Profile
DATE	REVISION

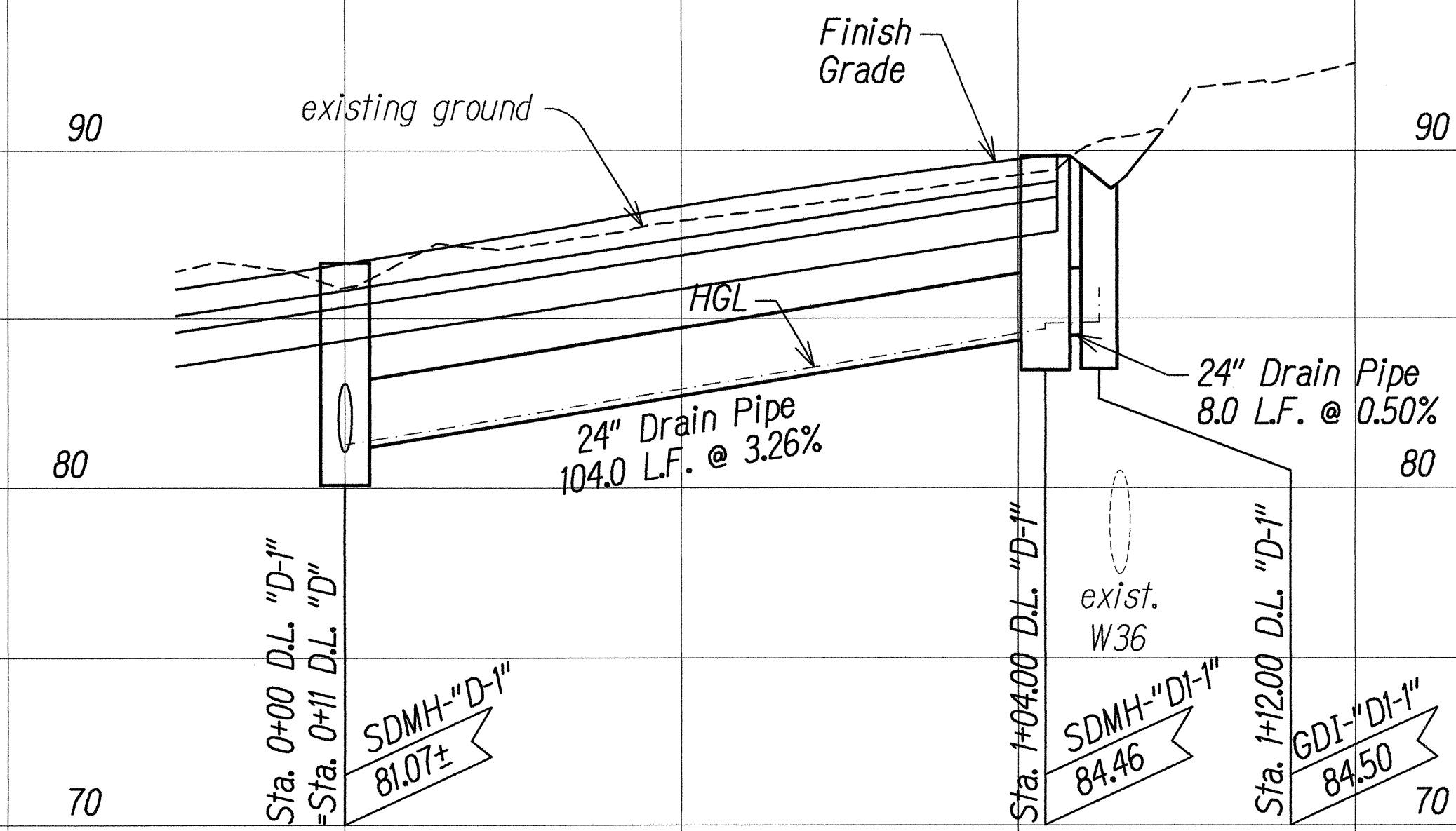
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(261)	2015	ADD. 135	524



PROFILE-DRAIN LINE "D"

Scales: Horiz. 1" = 20'

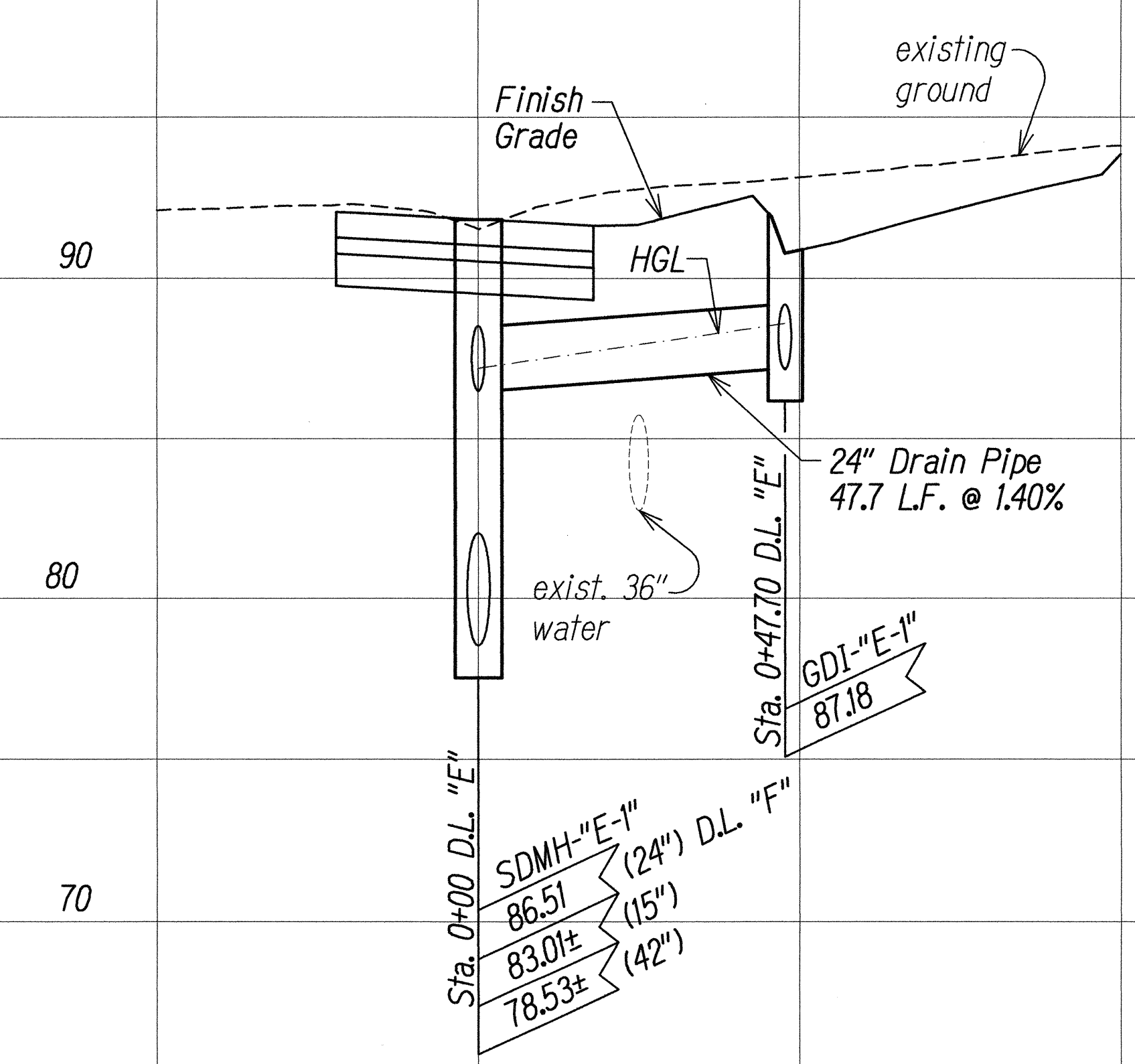
Vert. 1" = 4'



PROFILE-DRAIN LINE "D-1"

Scales: Horiz. 1" = 20'

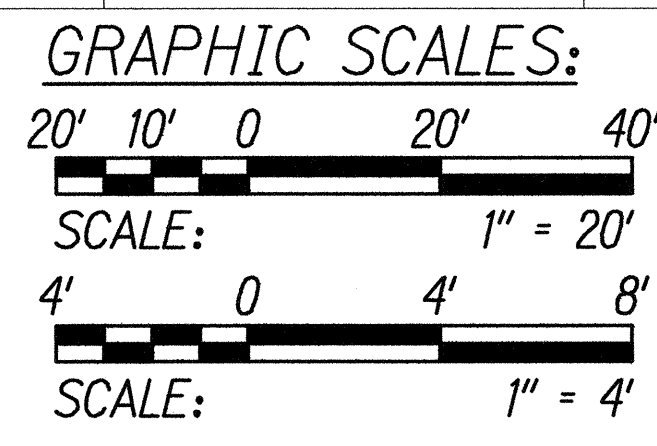
Vert. 1" = 4'



PROFILE-DRAIN LINE "E"

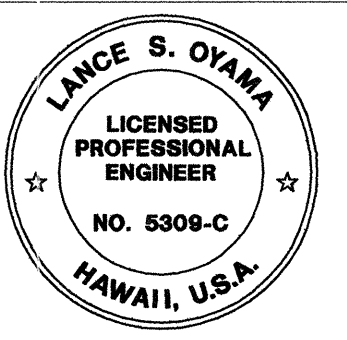
Scales: Horiz. 1" = 20'

Vert. 1" = 4'



SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
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ORIGINAL PLAN	No.
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Lance S. Oyama

APRIL 30, 2016

WILSON OKAMOTO CORPORATION, L.C. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PROFILES

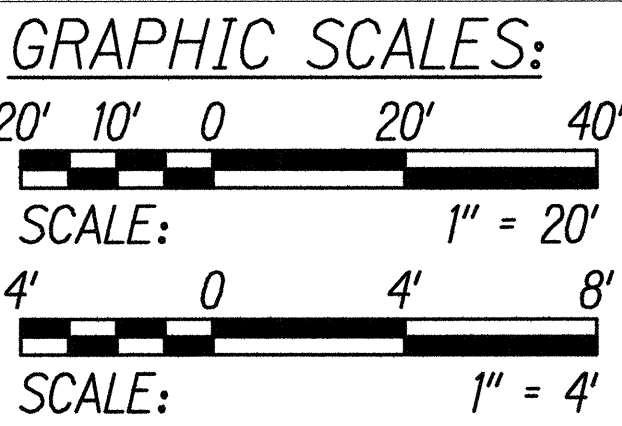
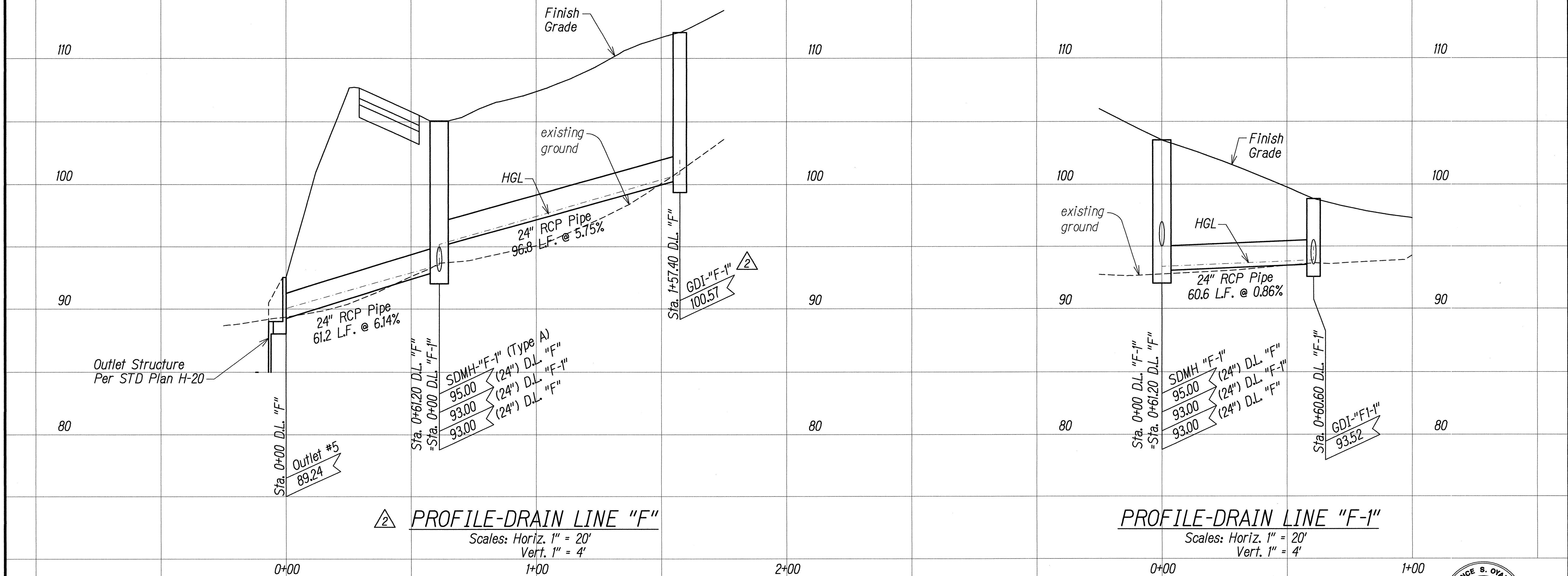
INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. IM-H1-1 (261)

Scale: As Shown Date: January 20, 2015

SHEET No. D-14 OF 37 SHEETS

DATE	REVISION
5/18/15	Revised Profile Station

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 136	524



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

DATE	5/18/15	Revised Profile Callout
DATE		REVISION

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Lance S. Oyama
APRIL 30, 2016
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

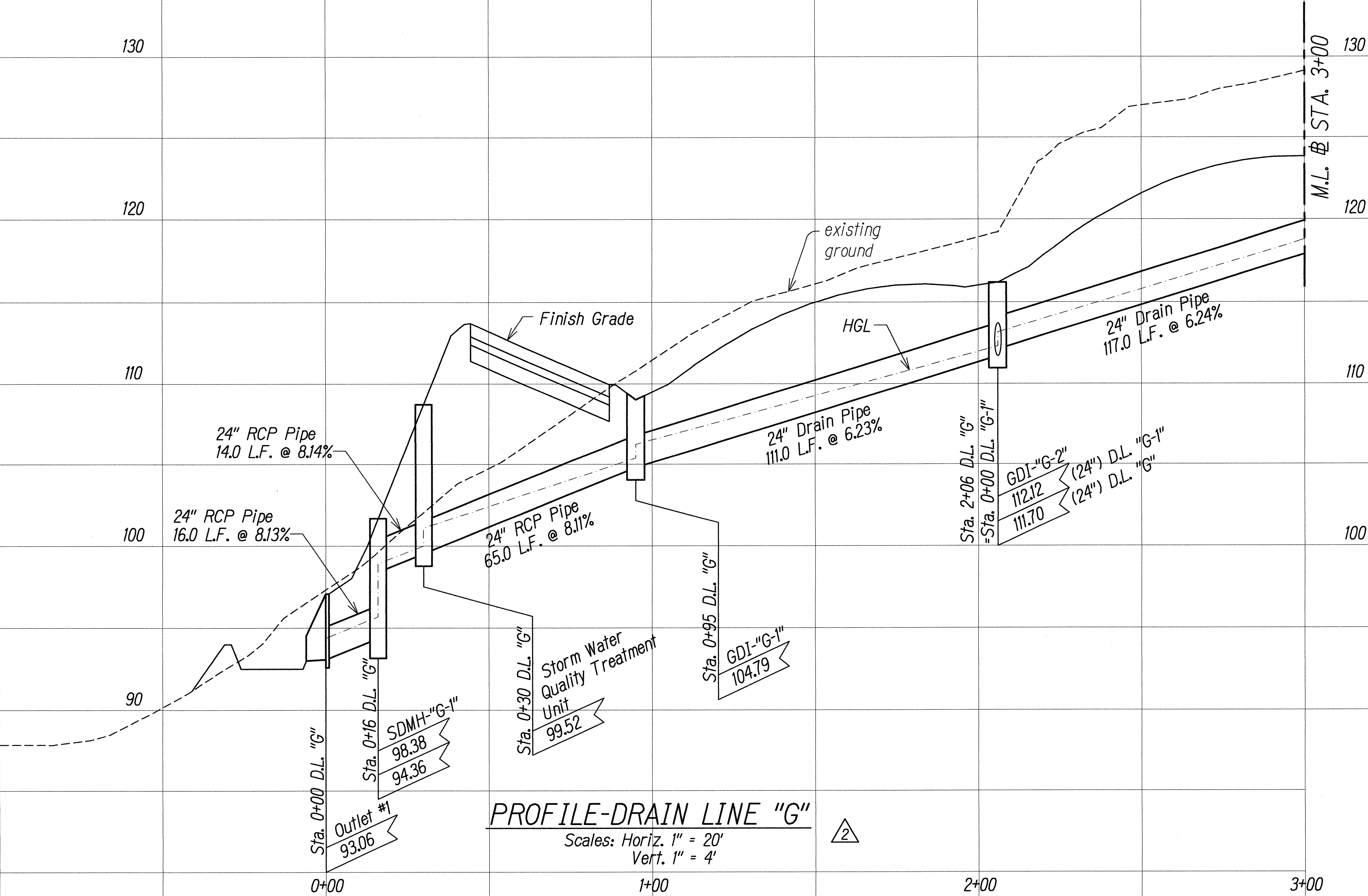
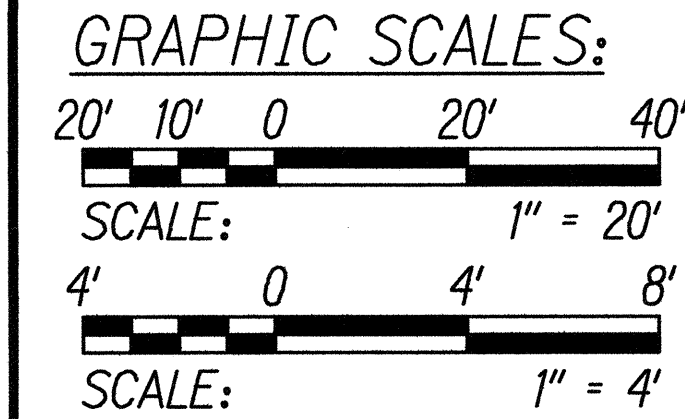
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PROFILES

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)
Scale: As Shown Date: January 20, 2015

SHEET No. D-15 OF 37 SHEETS

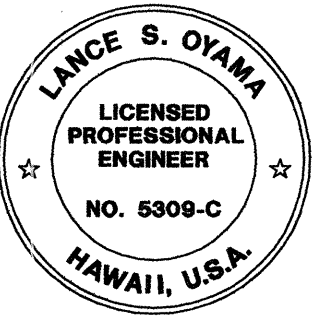
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(261)	2015	ADD. 137	524



PROFILE-DRAIN LINE "G"

Scales: Horiz. 1" = 20'

Vert. 1" = 4'



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WILSON OKAMOTO CORPORATION APRIL 30, 2016 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PROFILES

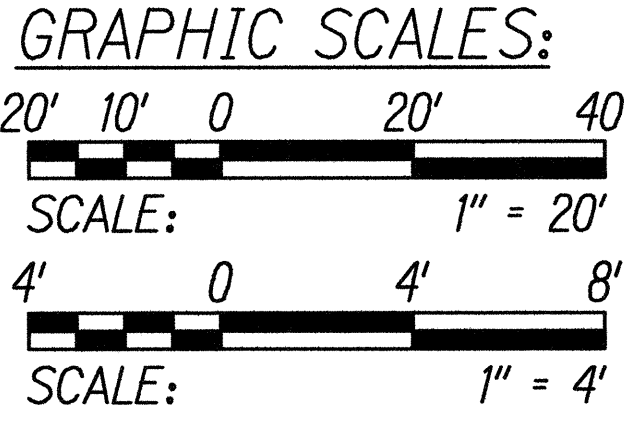
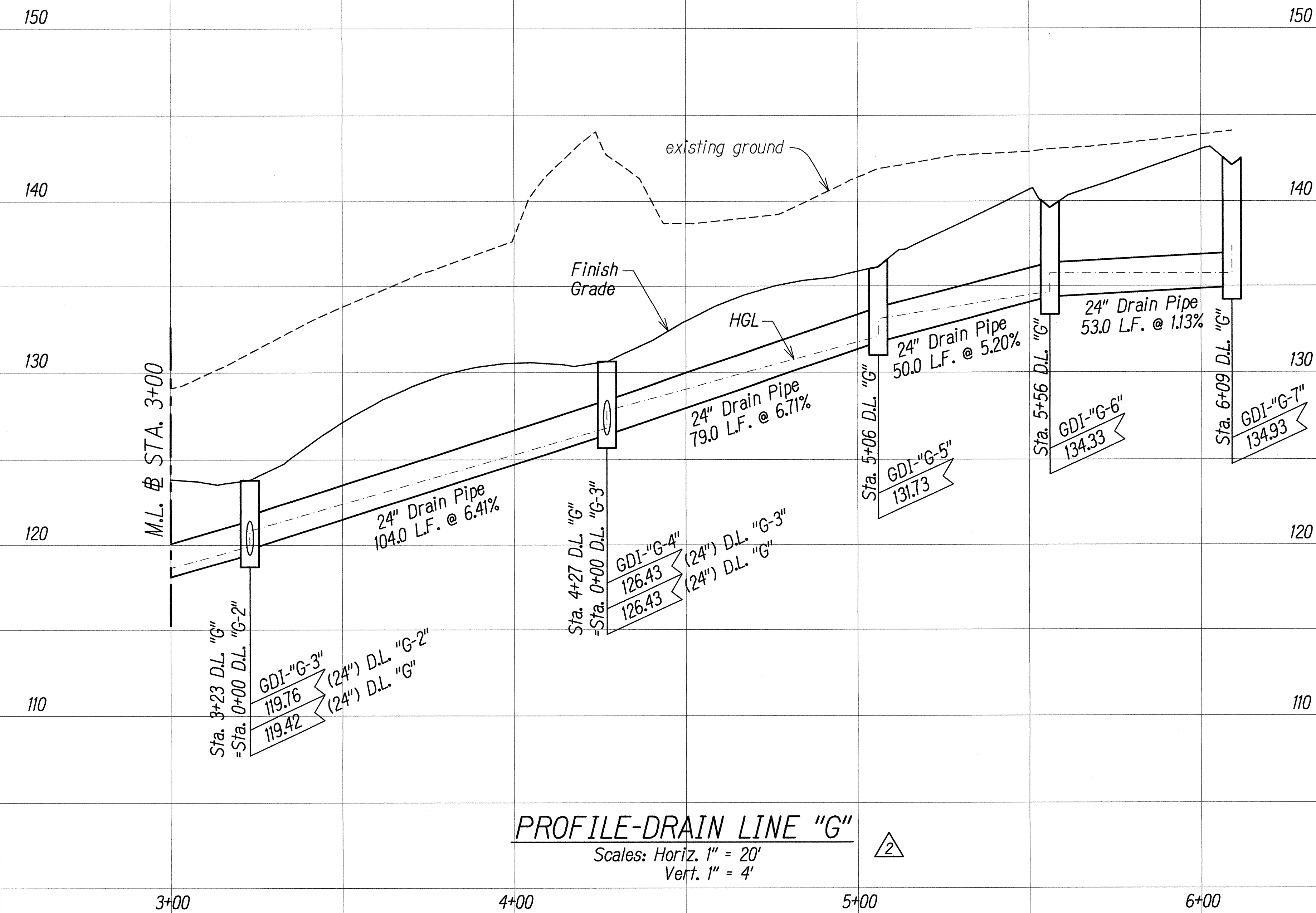
INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. IM-H1-1 (261)

Scale: As Shown Date: January 20, 2015

SHEET No. D-16 OF 37 SHEETS

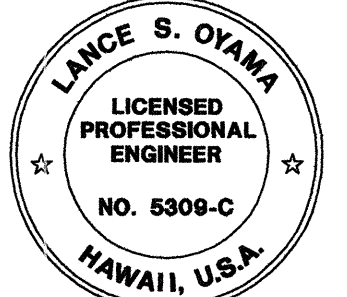
DATE	REVISION
5/18/15	Revised Profile

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(261)	2015	ADD. 138	524



SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

ORIGINAL PLAN	No.
NOTE BOOK	



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PROFILES

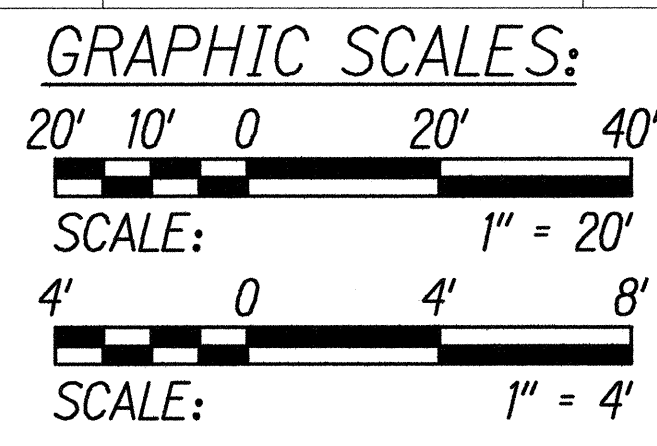
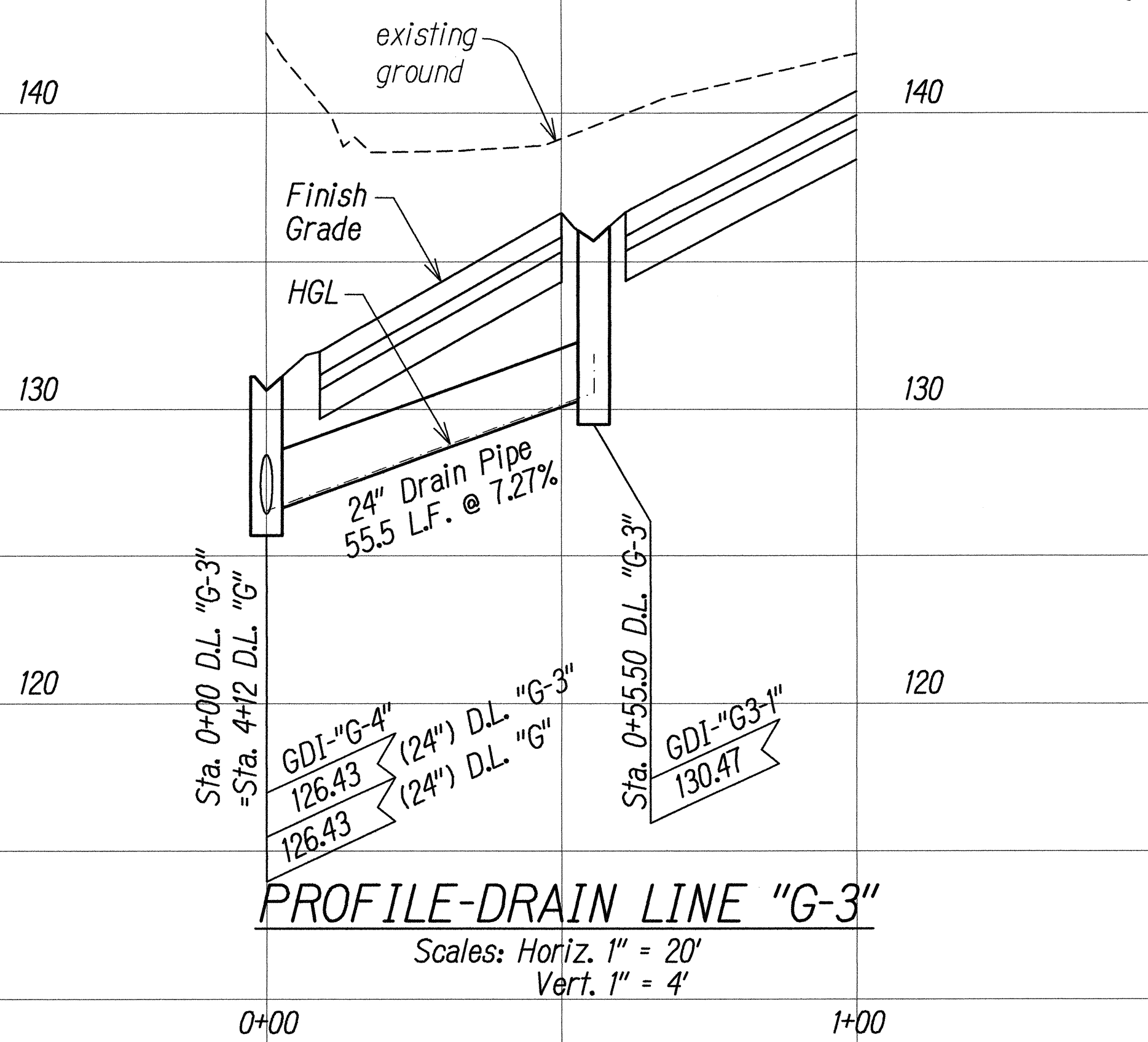
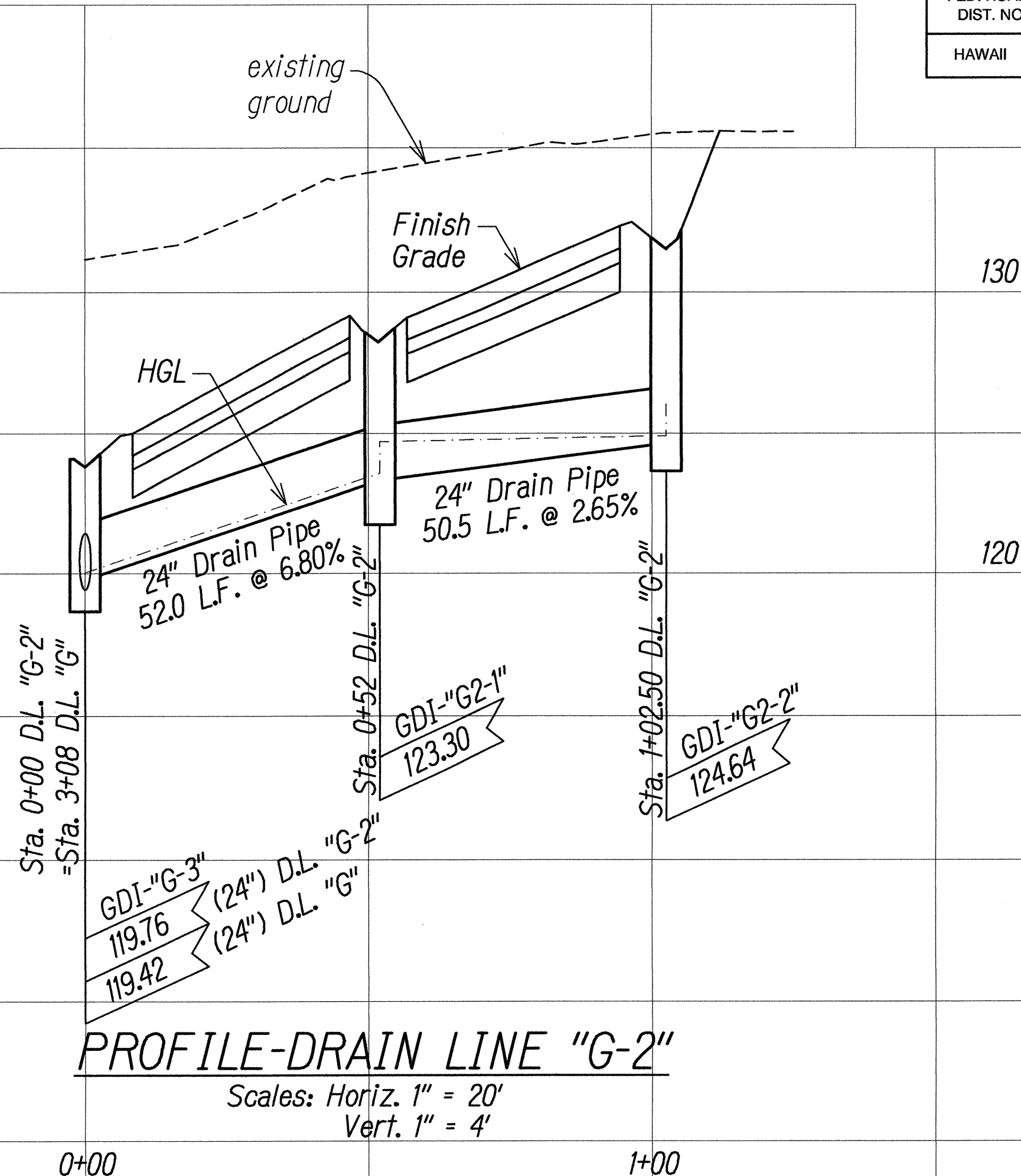
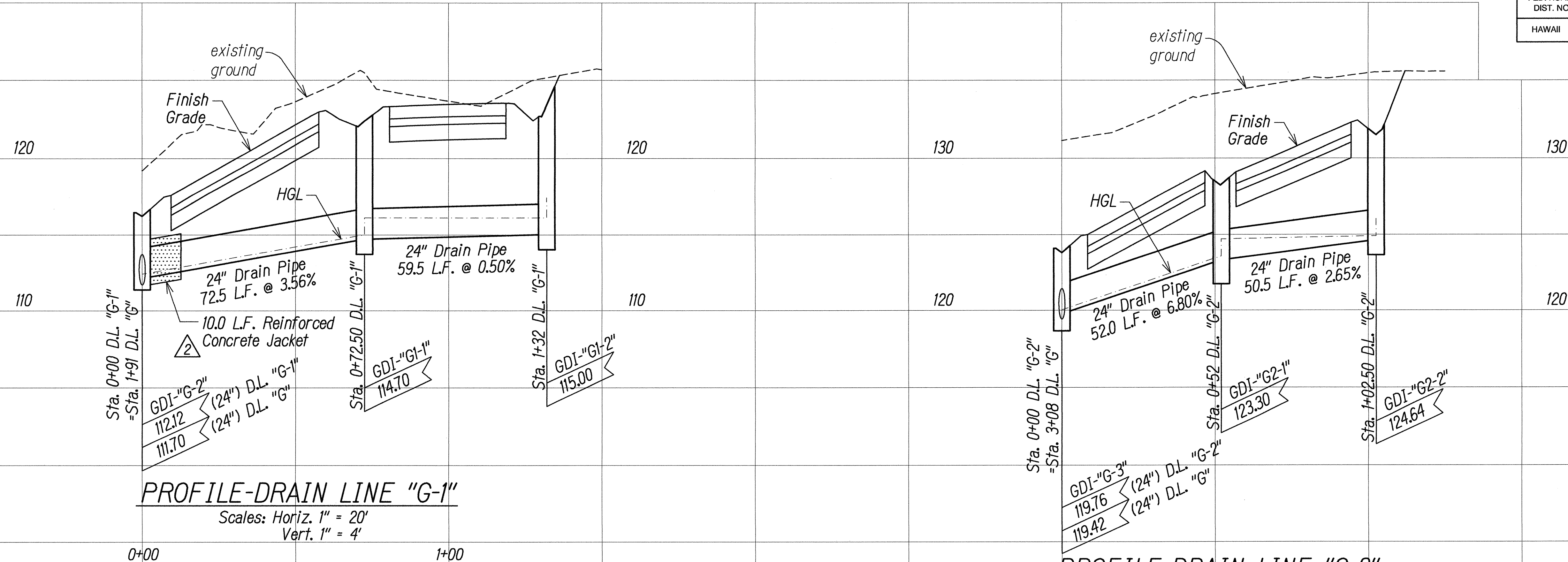
INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. IM-H1-1 (261)

Scale: As Shown Date: January 20, 2015

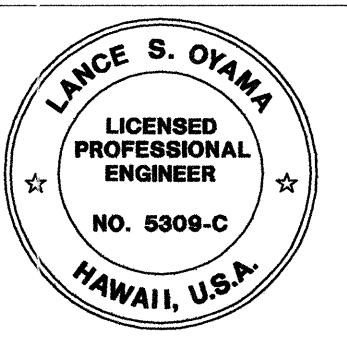
SHEET No. D-17 OF 37 SHEETS

DATE	REVISION
5/18/15	Revised profile

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 139	524



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



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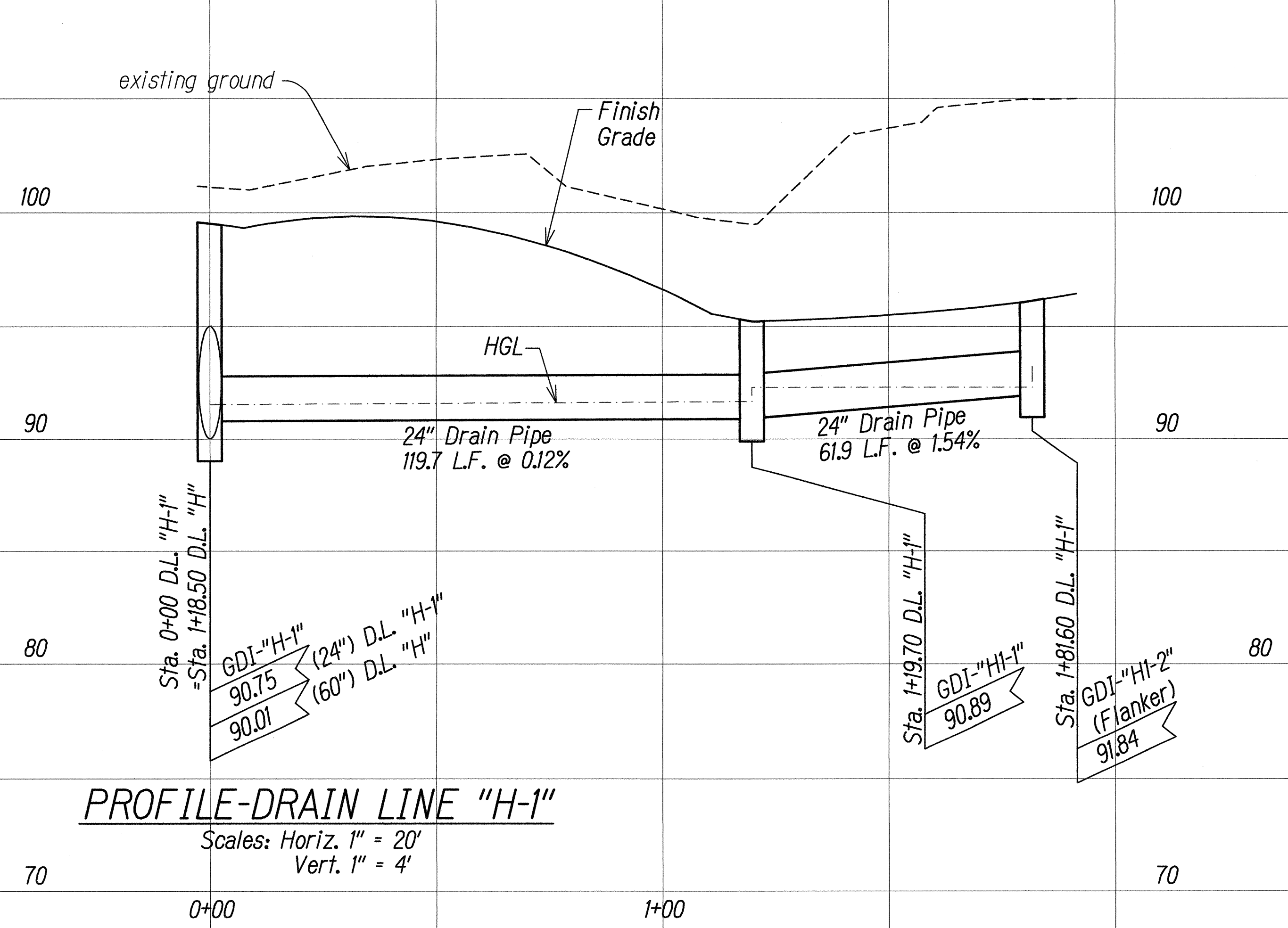
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PROFILES

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)
Scale: As Shown Date: January 20, 2015
SHEET No. D-18 OF 37 SHEETS

DATE	REVISION
5/18/15	Revised Profile

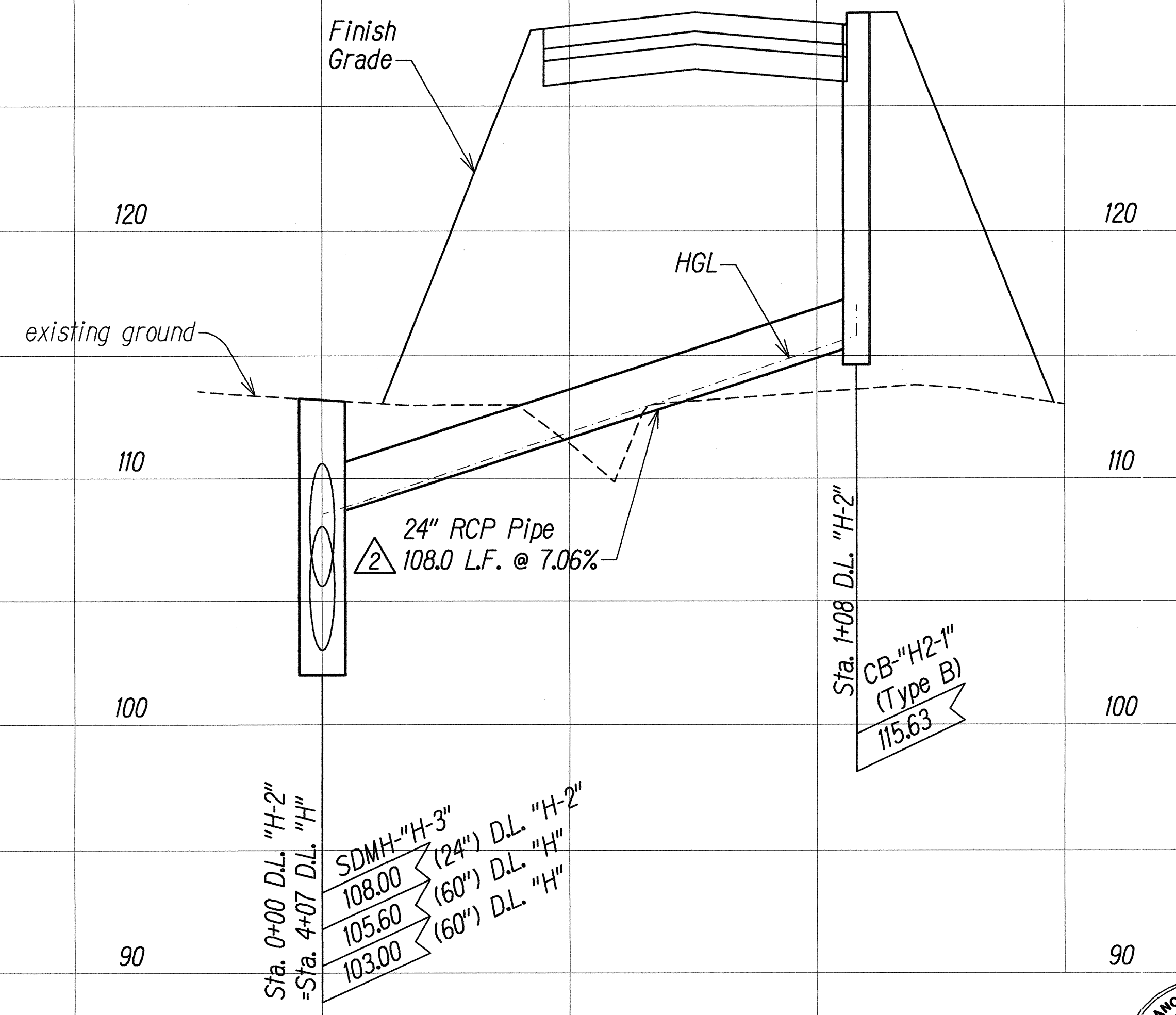
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 143	524



PROFILE-DRAIN LINE "H-1"

Scales: Horiz. 1" = 20'

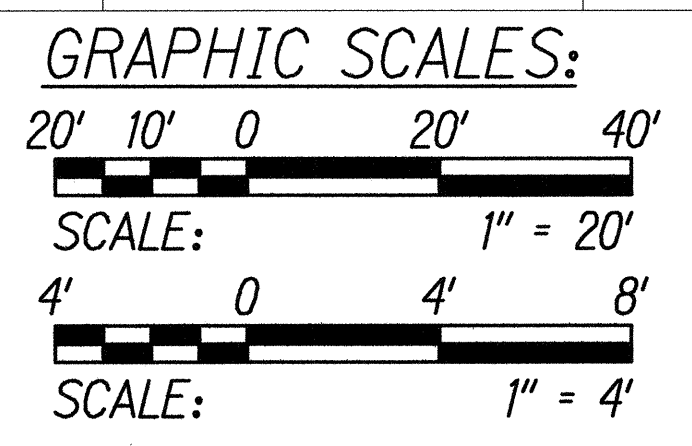
Vert. 1" = 4'



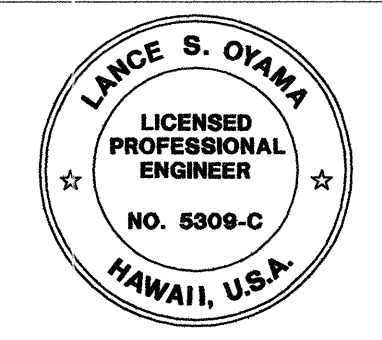
PROFILE-DRAIN LINE "H-2"

Scales: Horiz. 1" = 20'

Vert. 1" = 4'



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



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APRIL 30, 2016
WILSON OKAMOTO CORPORATION / LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PROFILES

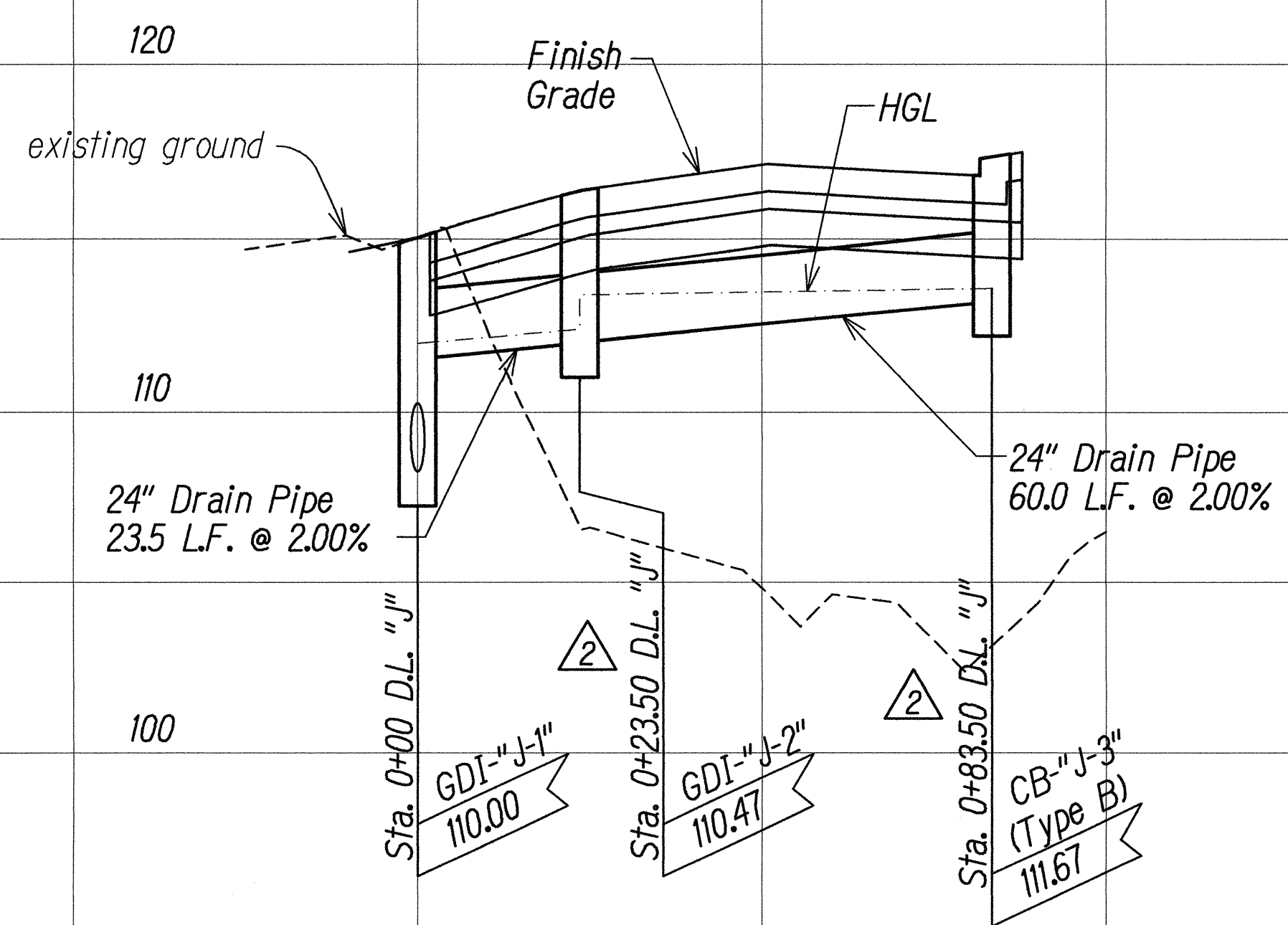
INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)

Scale: As Shown Date: January 20, 2015

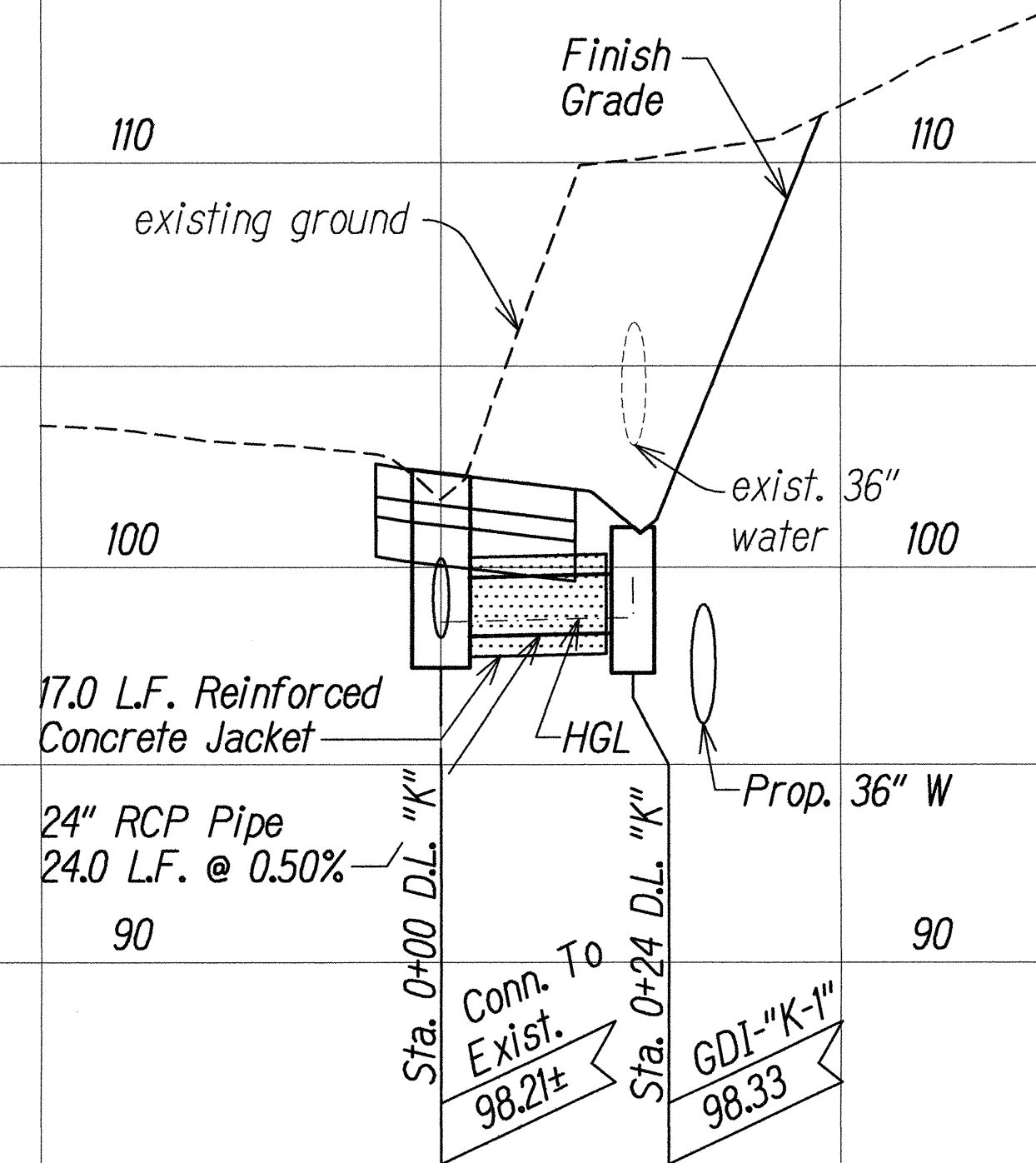
SHEET No. D-22 OF 37 SHEETS

2	5/18/15	Revised Profile Callout
DATE	REVISION	

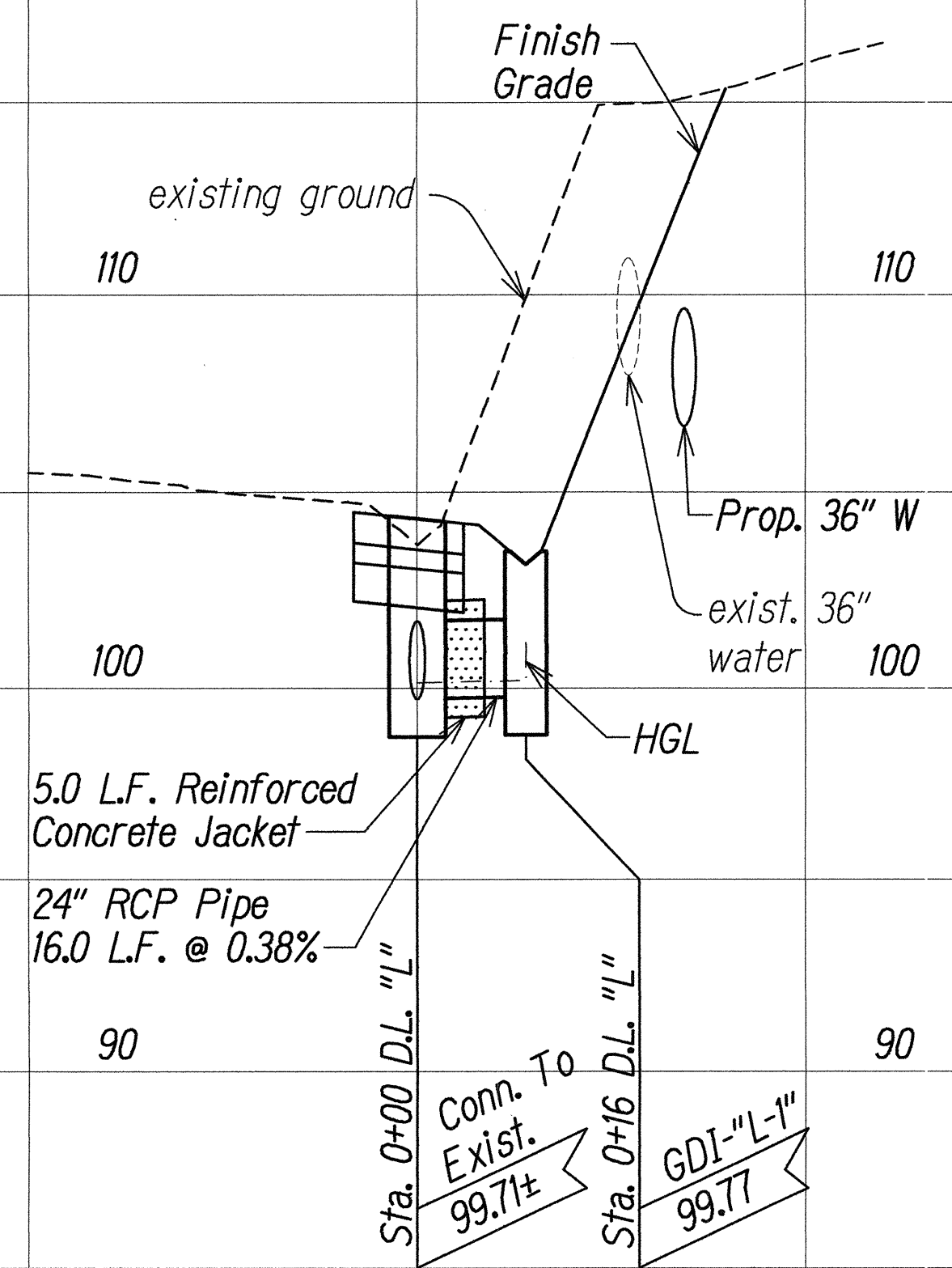
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 146	524



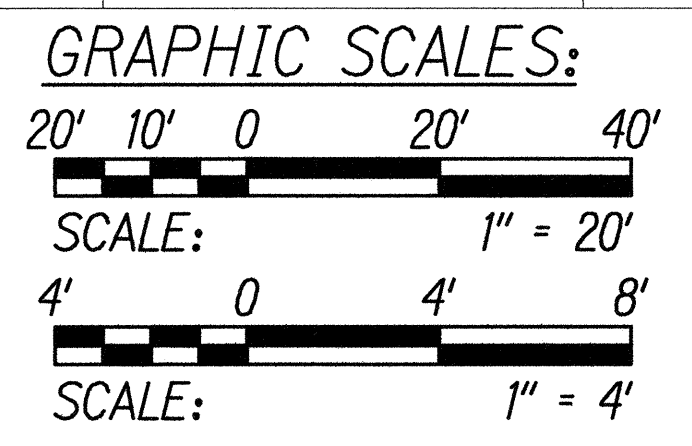
PROFILE-DRAIN LINE "J"
Scales: Horiz. 1" = 20'
Vert. 1" = 4'



PROFILE-DRAIN LINE "K"
Scales: Horiz. 1" = 20'
Vert. 1" = 4'



PROFILE-DRAIN LINE "L"
Scales: Horiz. 1" = 20'
Vert. 1" = 4'



SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

ORIGINAL PLAN	No.
NOTE BOOK	

5/18/15	Revised Profile Stations
DATE	REVISION

LANCE S. OYAMA
LICENSED PROFESSIONAL ENGINEER
NO. 5309-C
HAWAII, U.S.A.

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APRIL 30, 2016
WILSON OKAMOTO CORPORATION, LLC, EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

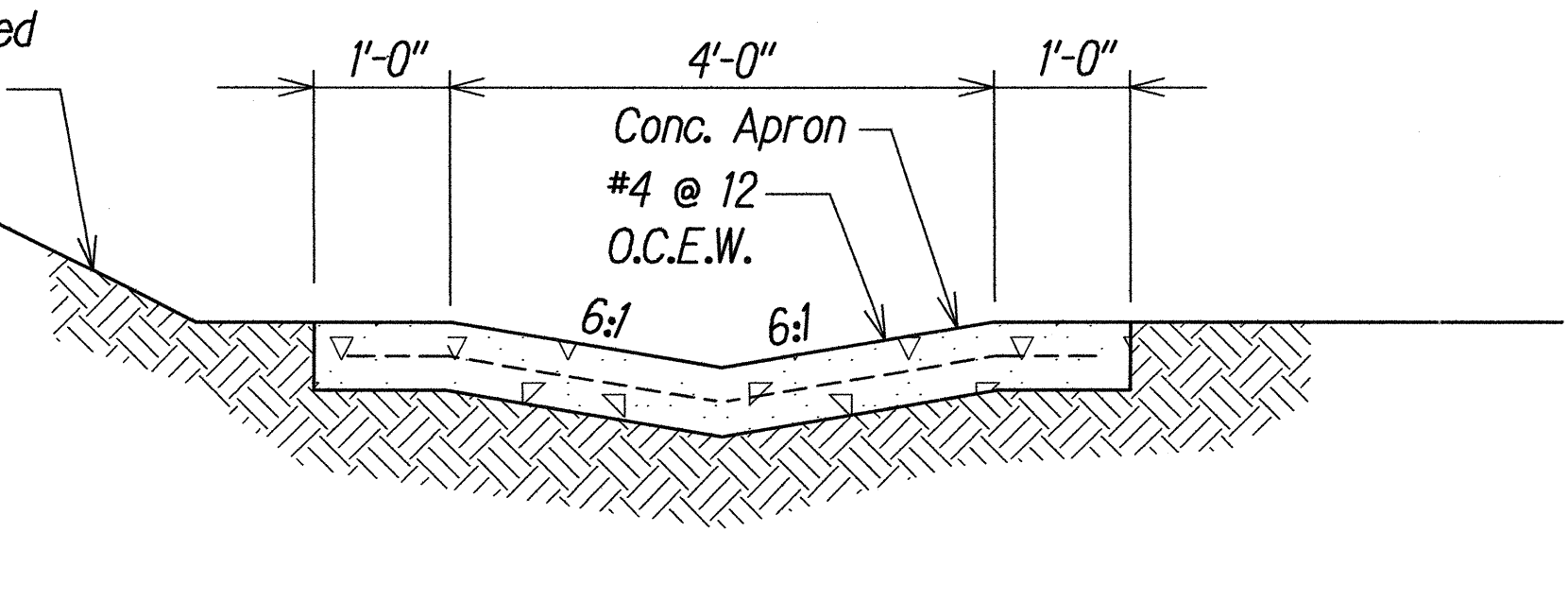
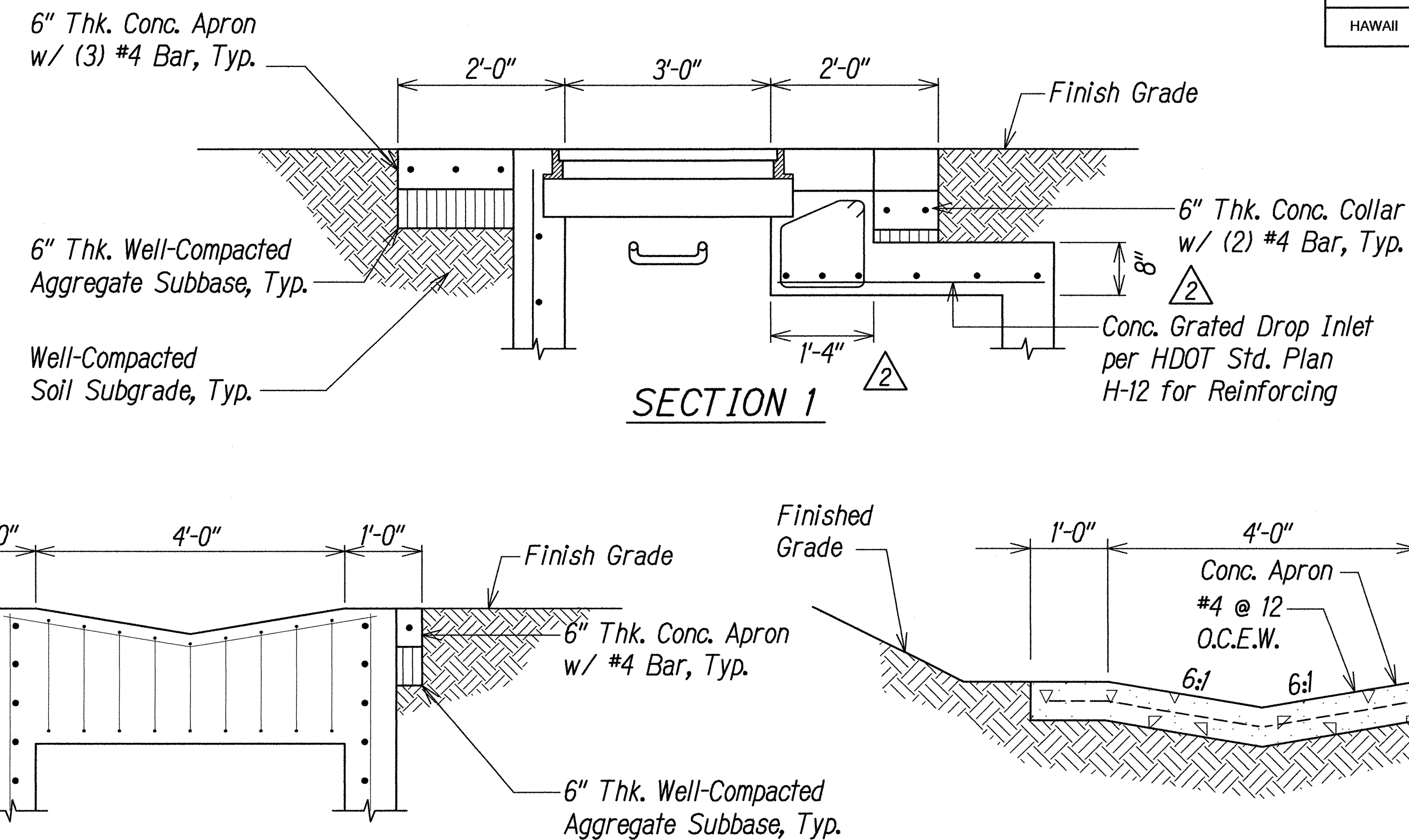
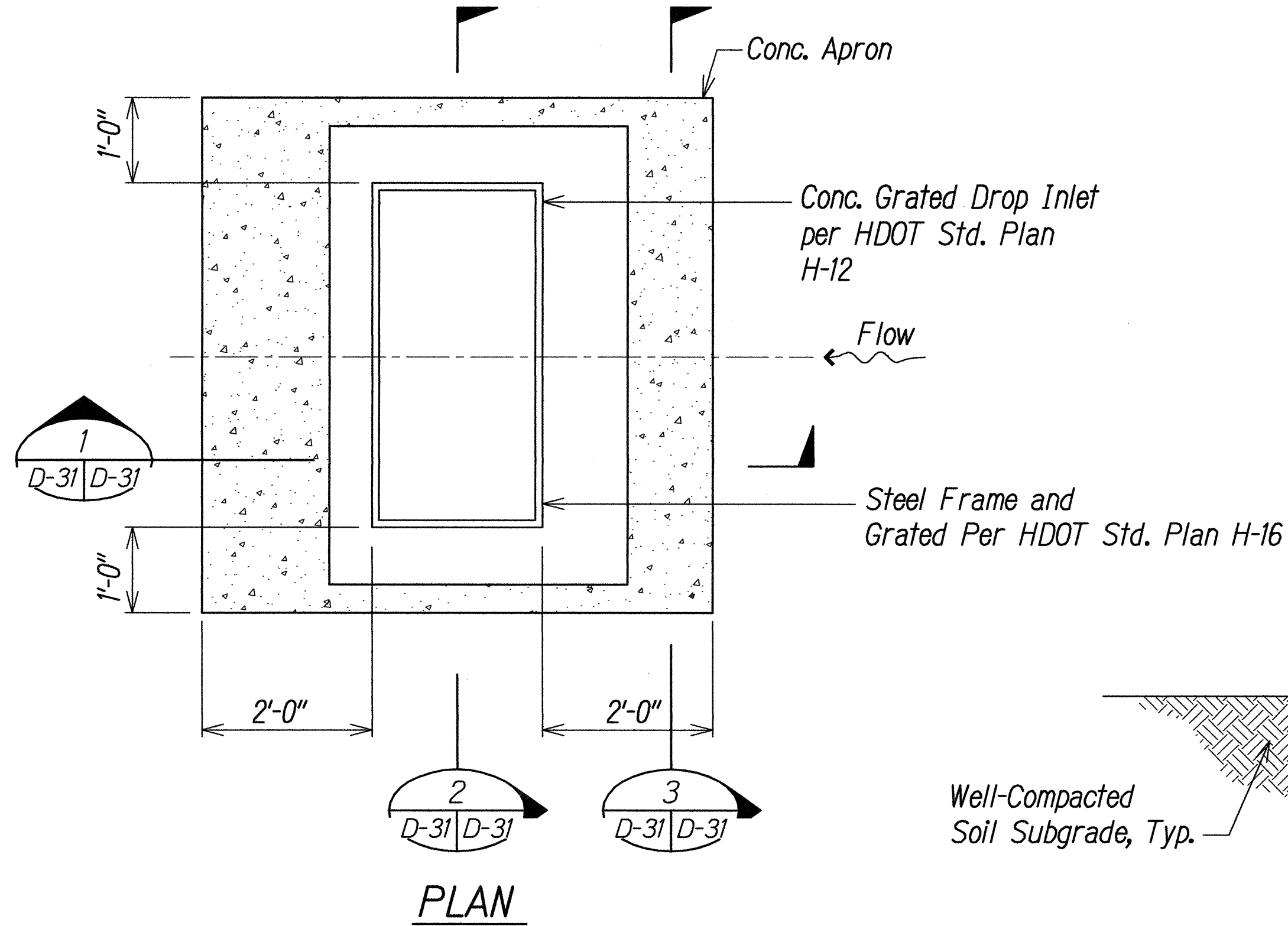
DRAINAGE PROFILES

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)

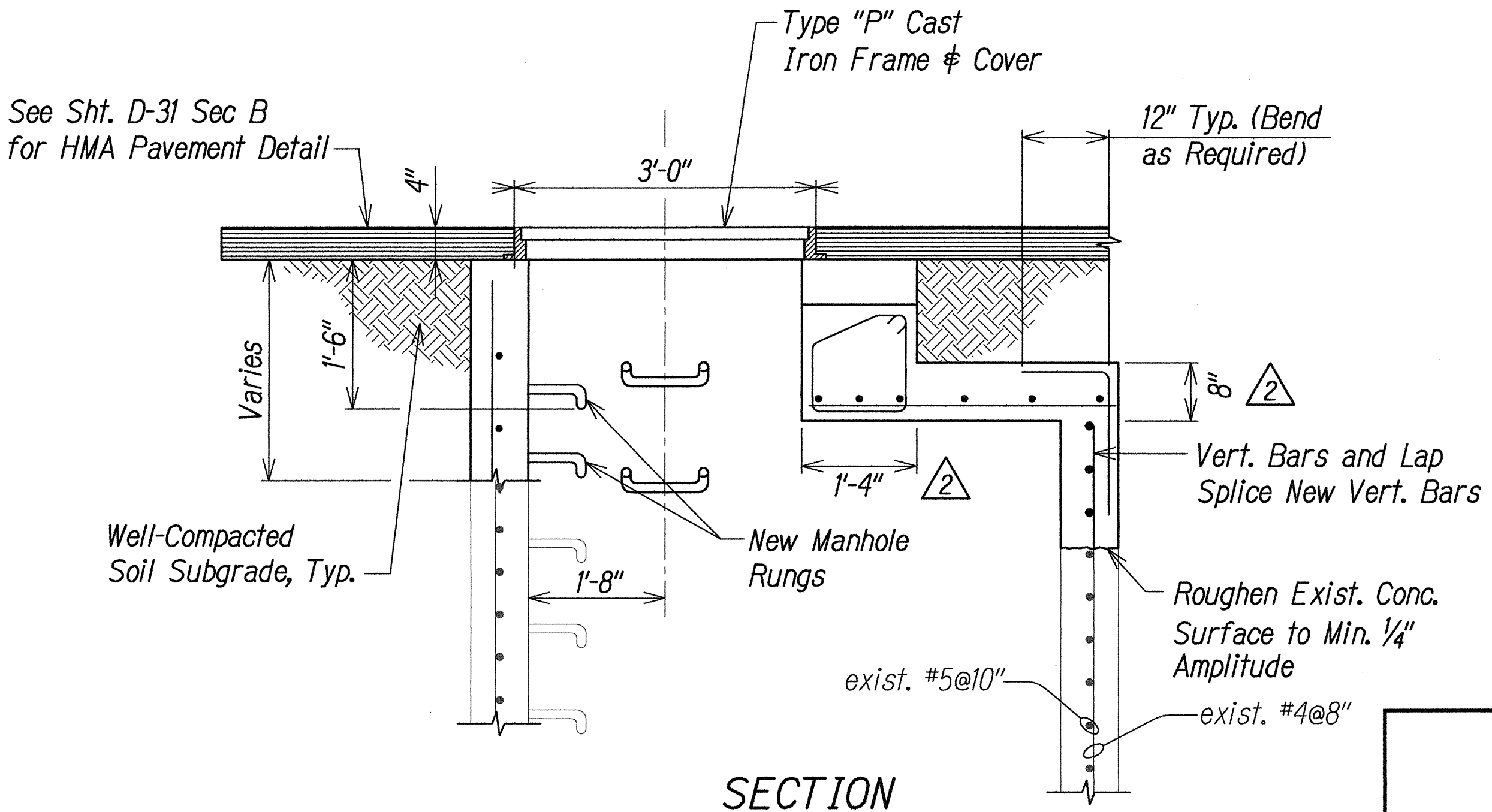
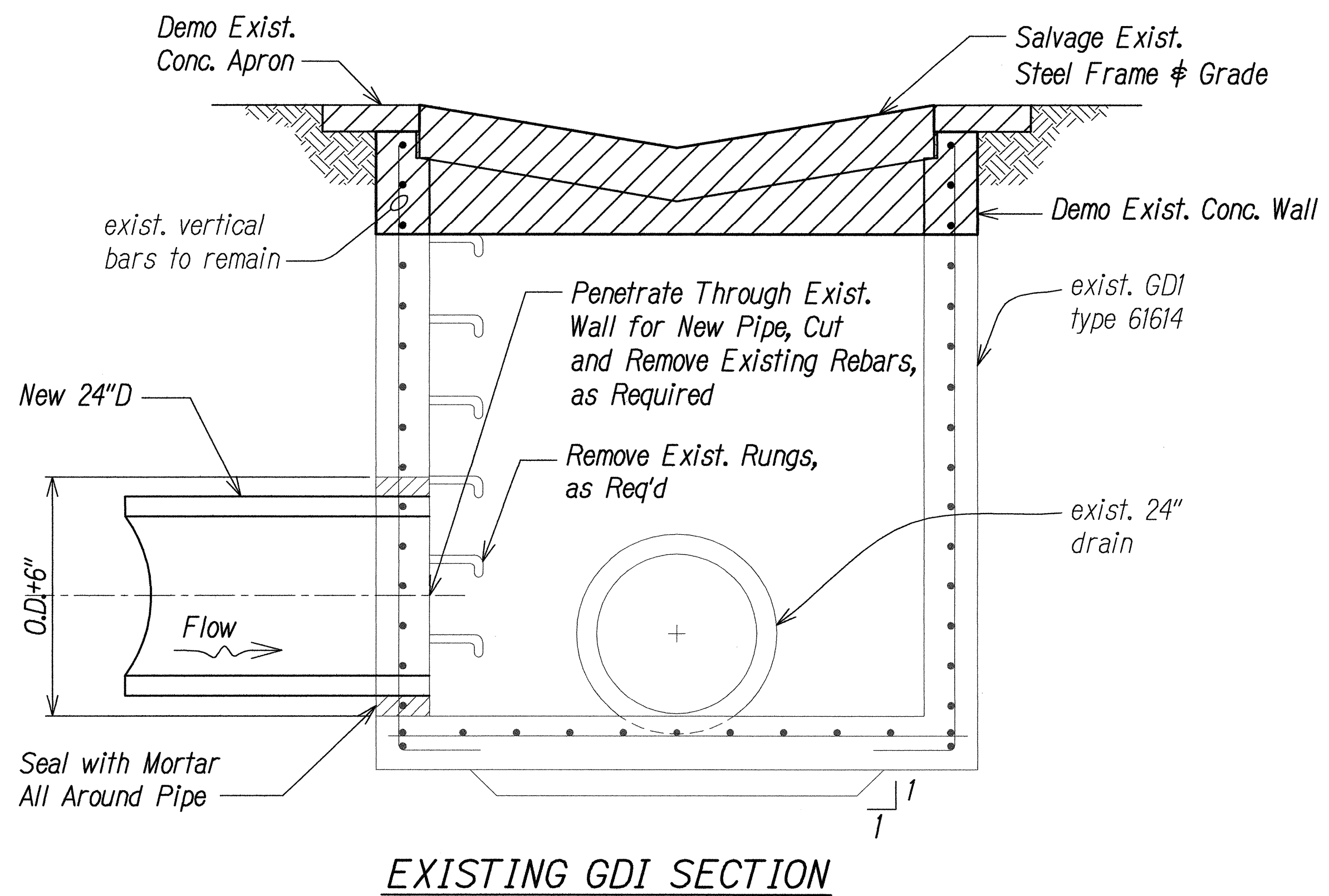
Scale: As Shown Date: January 20, 2015

SHEET No. D-25 OF 37 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(261)	2015	ADD. 152	524



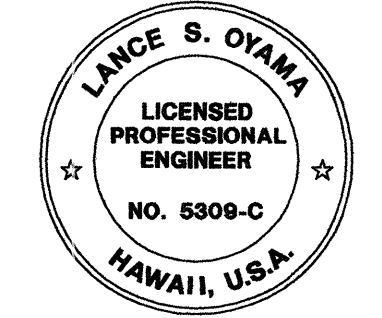
CONC. APRON FOR HDOT GDI 61614
Scale: NTS



PENETRATION AND CONVERSION DETAIL
Scale: NTS

SECTION

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



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

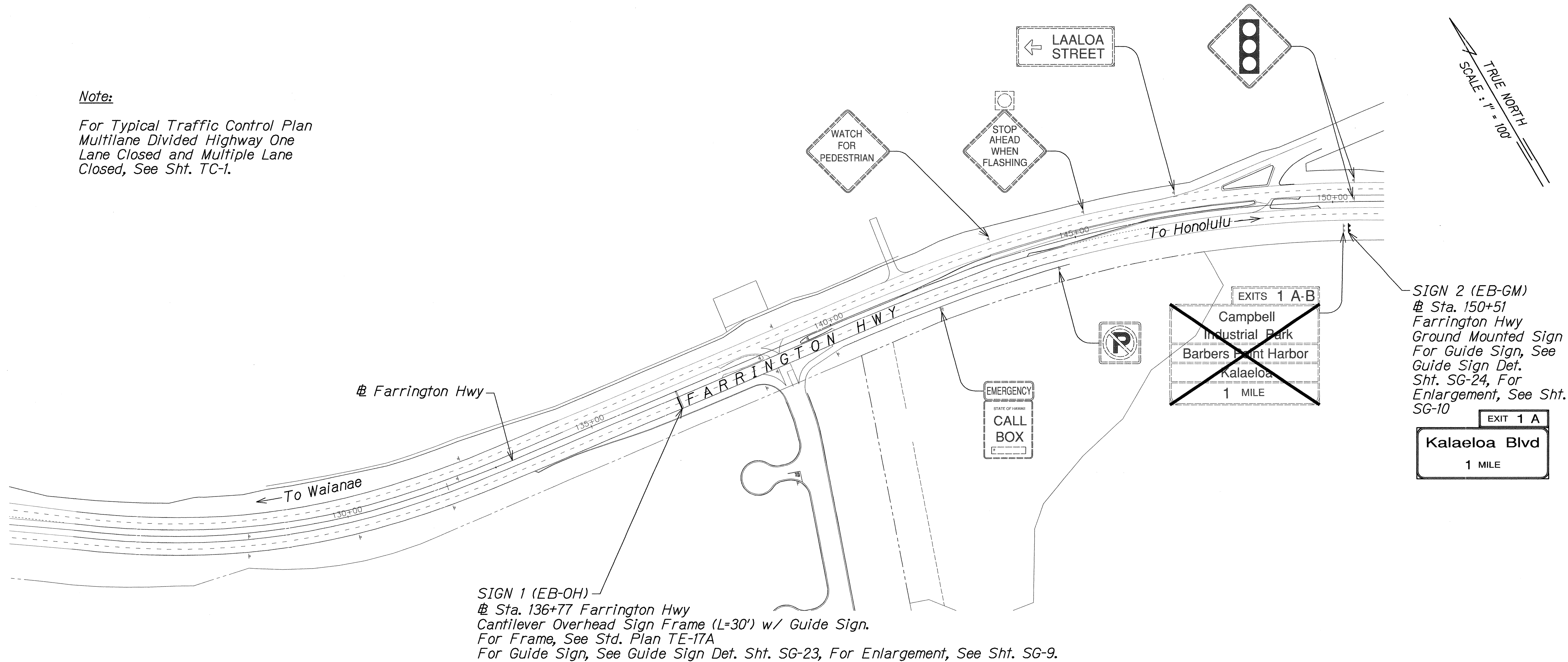
DRAINAGE DETAILS

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. IM-H1-1 (261)
Scale: Not to Scale Date: January 20, 2015
SHEET No. D-31 OF 37 SHEETS

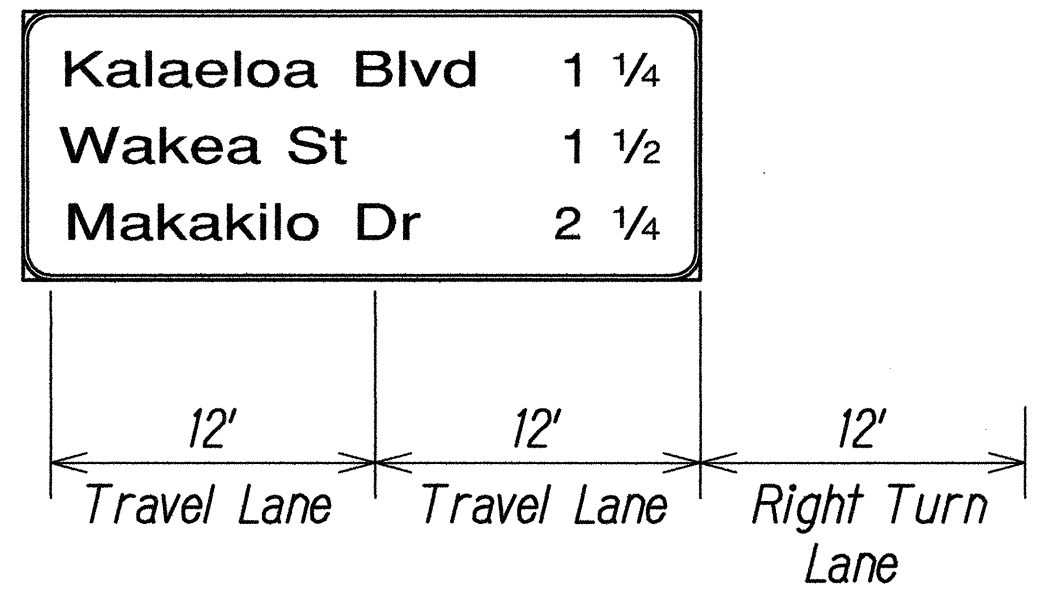
DATE	REVISION
5/18/15	Revised Callout

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 174	524

Note:
For Typical Traffic Control Plan
Multilane Divided Highway One
Lane Closed and Multiple Lane
Closed, See Sht. TC-1.

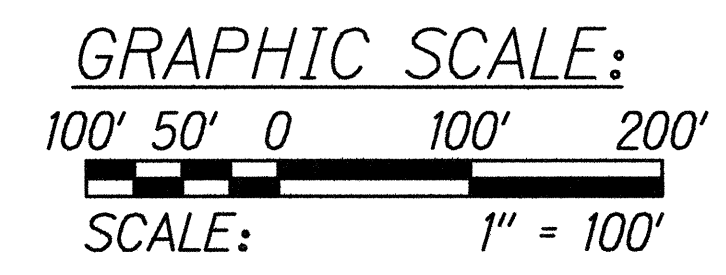


SIGN 1 (EB-OH)
@ Sta. 136+77 Farrington Hwy
Cantilever Overhead Sign Frame (L=30') w/ Guide Sign.
For Frame, See Std. Plan TE-17A
For Guide Sign, See Guide Sign Det. Sht. SG-23, For Enlargement, See Sht. SG-9.

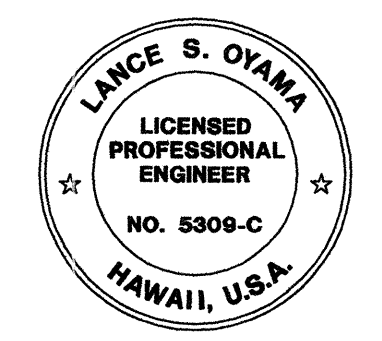


Kalaeloa Blvd	1 1/4
Wakea St	1 1/2
Makakilo Dr	2 1/4

- LEGEND:**
- ☐ exist sign to remain
 - ☒ exist sign, sign post & foundation ☒ to be removed
 - ☐ New Sign (OH or GM)



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



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WILSON OKAMOTO CORPORATION / LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

OVERHEAD SIGN PLAN

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)
Scale: 1" = 100' Date: January 20, 2015

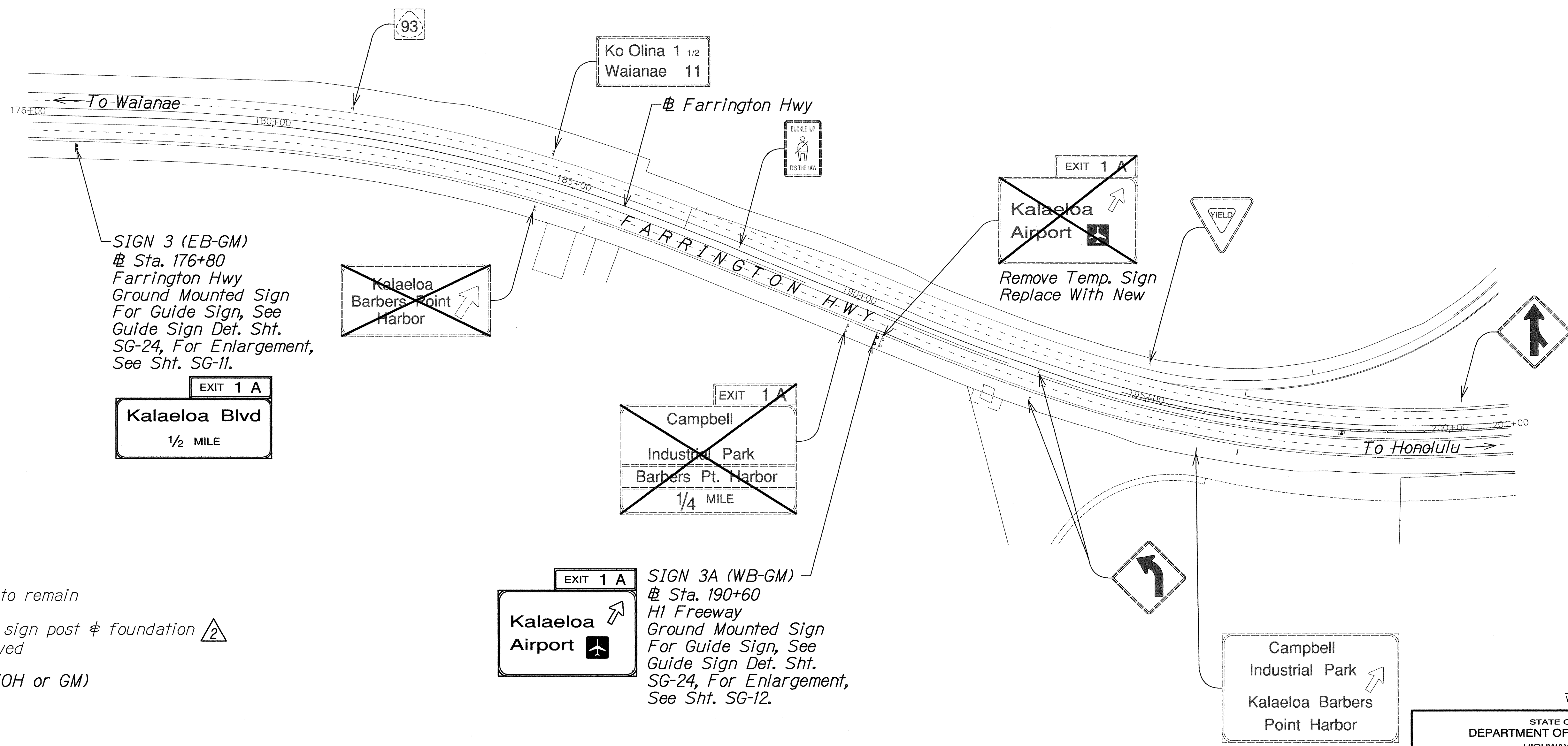
SHEET No. SG-1 OF 32 SHEETS

2	5/18/15	Revised Legend
DATE	REVISION	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 175	524

TRUE NORTH
SCALE : 1" = 100'

Note:
For Typical Traffic Control Plan,
Multilane Divided Highway One Lane
Closed, See Sht. TC-1.



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APR 30, 2016
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

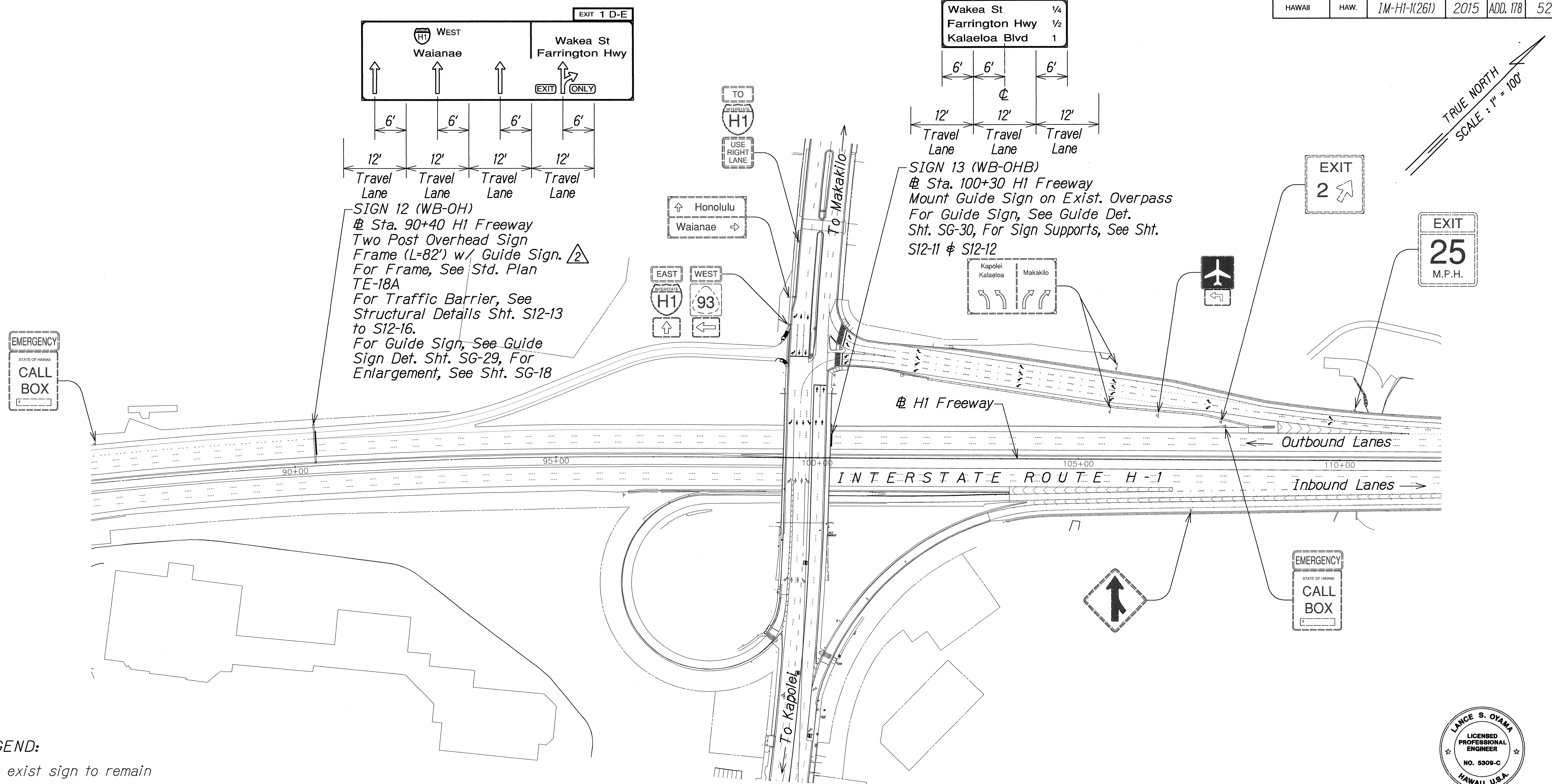
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

OVERHEAD SIGN PLAN

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)
Scale: 1" = 100' Date: January 20, 2015

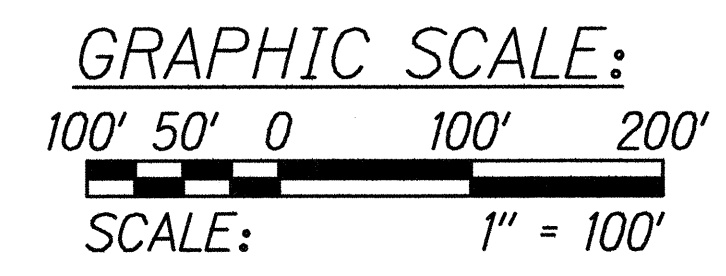
SHEET No. SG-2 OF 32 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 178	524



- LEGEND:
- ☐ exist sign to remain
 - ☒ exist sign to be removed
 - ☐ New Sign (OH or GM)

- Note:
- For Interstate Route H-1 Outbound Lane Closures Between Makakilo Interchange and Kalaeloa Interchange, See Sht. TC-3 (Phasing Plan 1).
 - Contractor to Remove Existing Callbox Sign Poles and Foundations and Restore the Work Area Back to Existing Surrounding Condition.



SURVEY PLOTTED BY	DATE
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TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

ORIGINAL PLAN	NOTE BOOK
No.	No.

2	5/18/15	Revised Sign 12 Length
DATE	REVISION	

LANCE S. OYAMA
LICENSED PROFESSIONAL ENGINEER
NO. 5308-C
HAWAII, U.S.A.

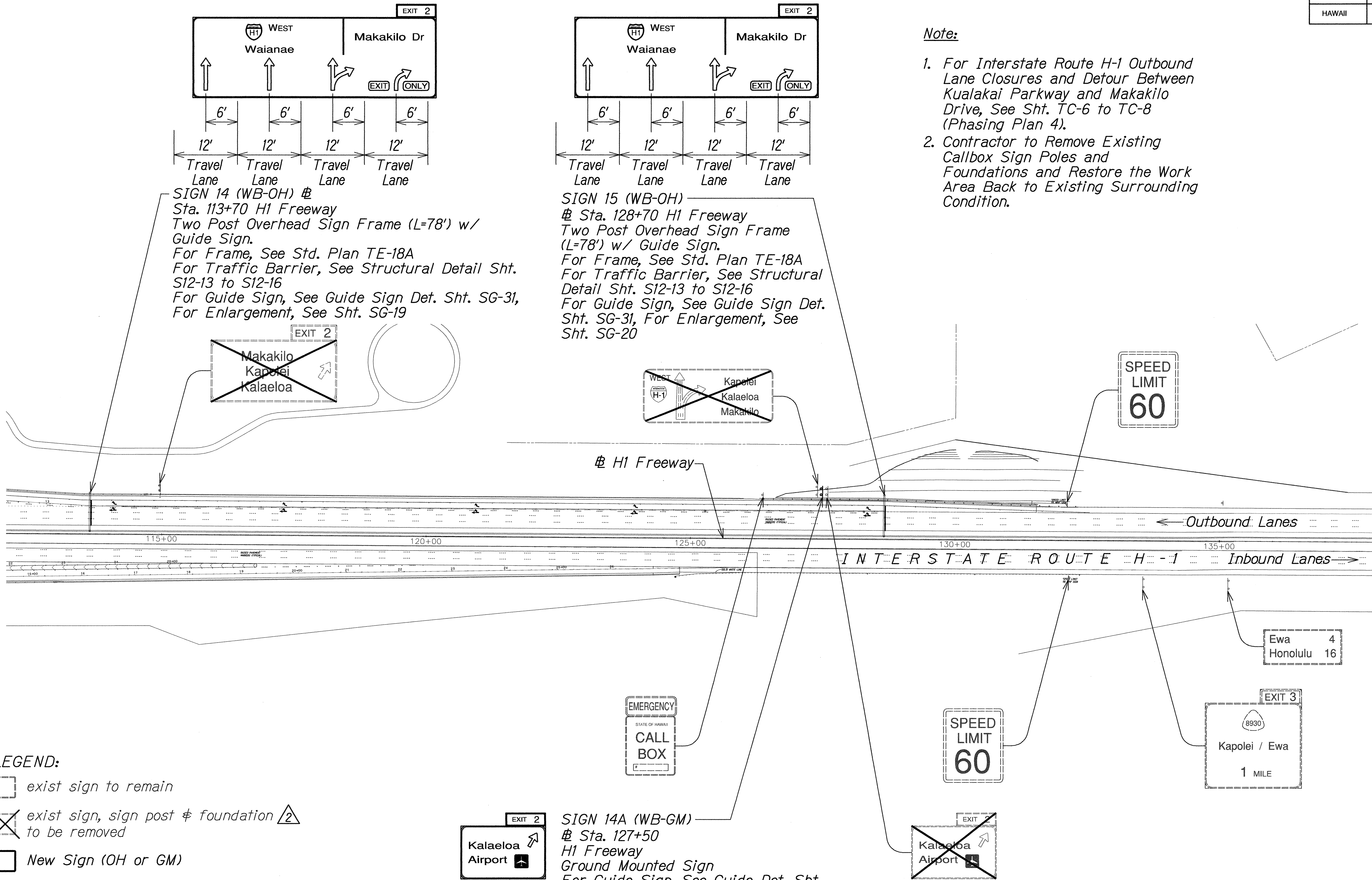
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WILSON OKAMOTO CORPORATION LIC. EXP. DATE
APRIL 30, 2016

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
OVERHEAD SIGN PLAN
INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)
Scale: 1" = 100' Date: January 20, 2015
SHEET No. SG-5 OF 32 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 179	524

TRUE NORTH
SCALE: 1" = 100'

- Note:**
1. For Interstate Route H-1 Outbound Lane Closures and Detour Between Kualakai Parkway and Makakilo Drive, See Sht. TC-6 to TC-8 (Phasing Plan 4).
 2. Contractor to Remove Existing Callbox Sign Poles and Foundations and Restore the Work Area Back to Existing Surrounding Condition.



- LEGEND:**
- ☐ exist sign to remain
 - ☒ exist sign, sign post & foundation to be removed
 - ☐ New Sign (OH or GM)

GRAPHIC SCALE:
100' 50' 0 100' 200'
SCALE: 1" = 100'

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

SIGN 14A (WB-GM)
Sta. 127+50
H1 Freeway
Ground Mounted Sign
For Guide Sign, See Guide Det. Sht. SG-29, For Enlargement, See Sht. SG-19

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

OVERHEAD SIGN PLAN
INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)
Scale: 1" = 100' Date: January 20, 2015

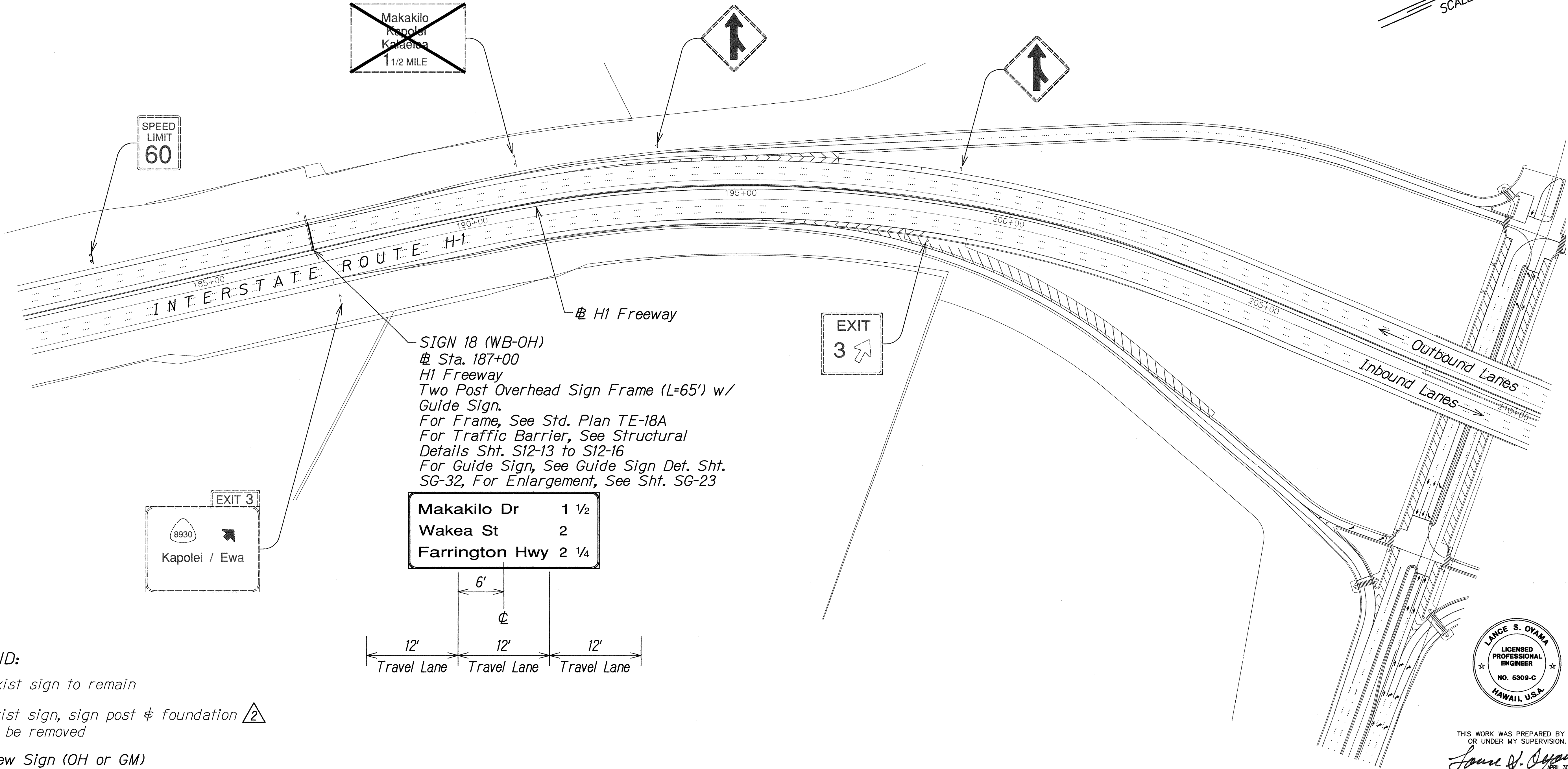
SHEET No. SG-6 OF 32 SHEETS

5/18/15	Revised Legend
DATE	REVISION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(261)	2015	ADD. 181	524

Note:
For Interstate Route H-1
Outbound Lane Closure and
Detour Between Kualakai
Parkway and Makakilo Drive,
See Sht. TC-6 to TC-8
(Phasing Plan 4).

TRUE NORTH
SCALE : 1" = 100'



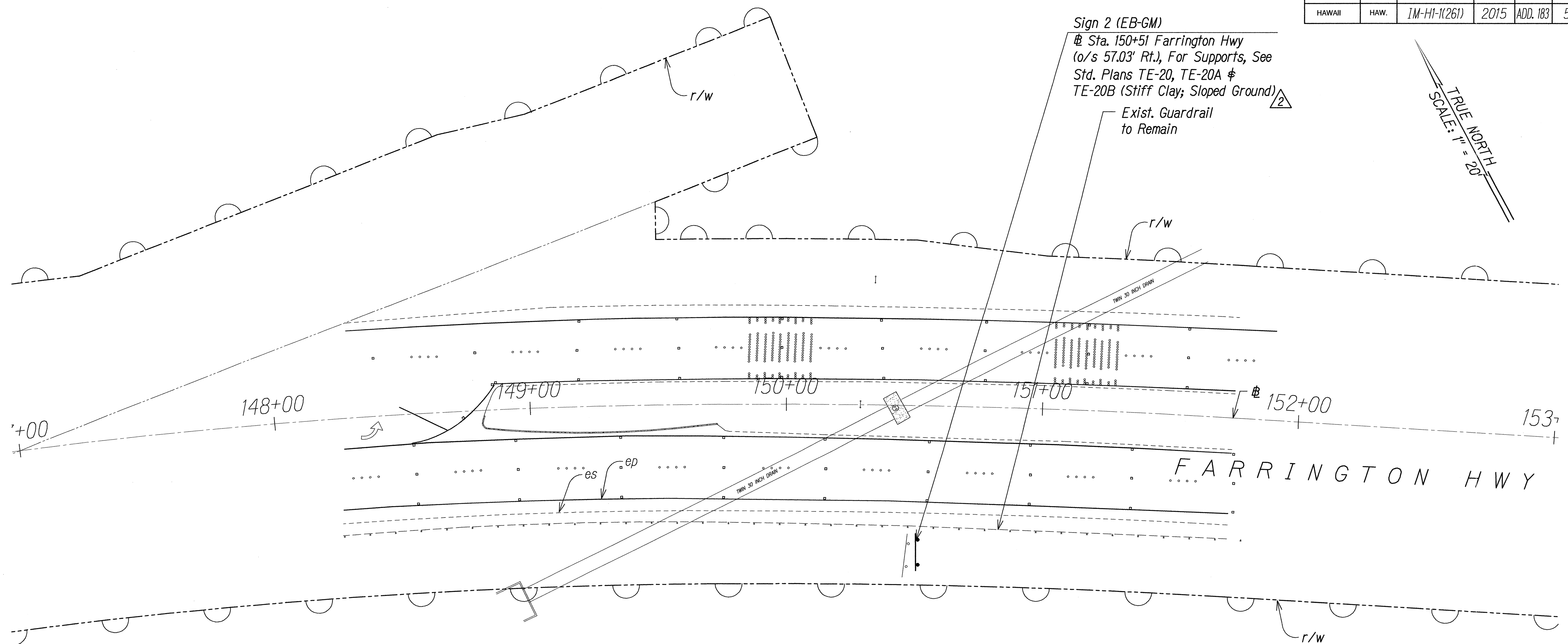
- LEGEND:
- exist sign to remain
 - exist sign, sign post & foundation to be removed
 - New Sign (OH or GM)

GRAPHIC SCALE:
100' 50' 0 100' 200'
SCALE: 1" = 100'

2 5/18/15 Revised Legend
DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
OVERHEAD SIGN PLAN
INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. IM-H1-1 (261)
Scale: 1" = 100' Date: January 20, 2015
SHEET No. SG-8 OF 32 SHEETS

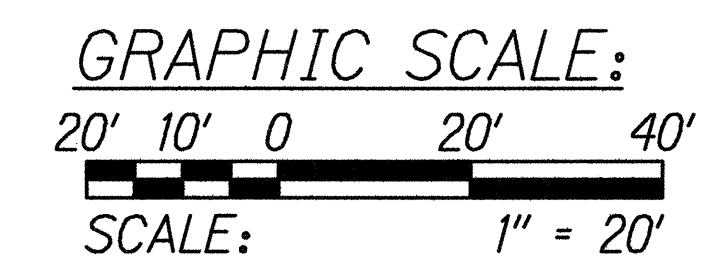
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(261)	2015	ADD. 183	524



TRUE NORTH
SCALE: 1" = 20'

SITE PLAN - SIGN 2
SCALE: 1"=20'

- LEGEND:
- ☐ exist sign to remain
 - ☒ exist sign to be removed
 - ☐ New Sign (OH or GM)



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



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OR UNDER MY SUPERVISION.
Lance S. Oyama
APR 30, 2016
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

2	5/18/15	Revised Callout
DATE	REVISION	

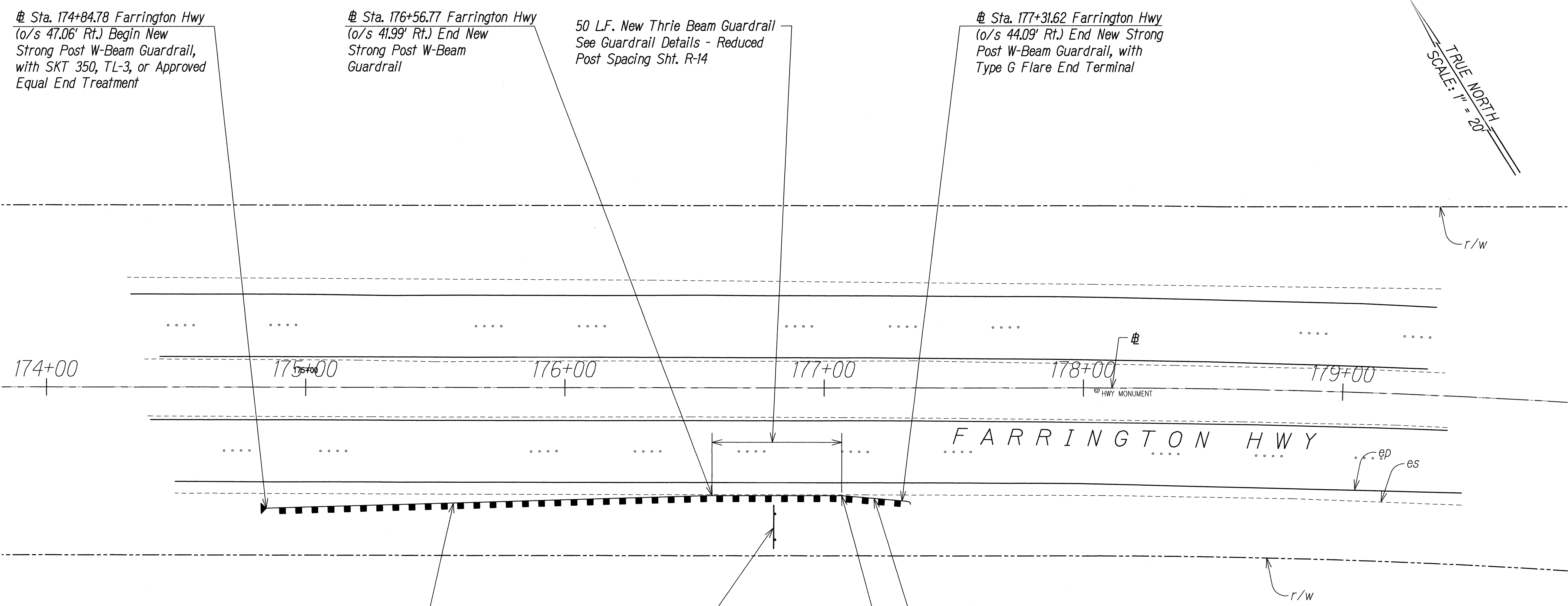
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE PLAN - SIGN 2

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. IM-H1-1 (261)
Scale: 1" = 20' Date: January 20, 2015

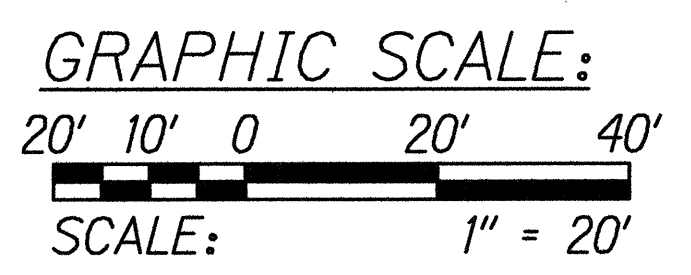
SHEET No. SG-10 OF 32 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(261)	2015	ADD. 184	524

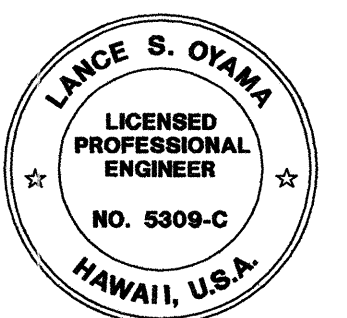


- LEGEND:**
- ☐ exist sign to remain
 - ☒ exist sign to be removed
 - ☐ New Sign (OH or GM)
- Sign 3 (EB-GM) Post**
Sta. 176+80 Farrington Hwy
(o/s 53.99' Rt.), For Supports, See
Std. Plans TE-20, TE-20A & TE-20B
(Stiff Clay; Level Ground)
- New Strong Post W-Beam Guardrail 163.50 L.F.**
- New Strong Post W-Beam Guardrail 25 L.F.**

SITE PLAN - SIGN 3
SCALE: 1"=20'



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



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James H. Oyama
WILSON OKAMOTO CORPORATION APRIL 30, 2016
LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE PLAN - SIGN 3

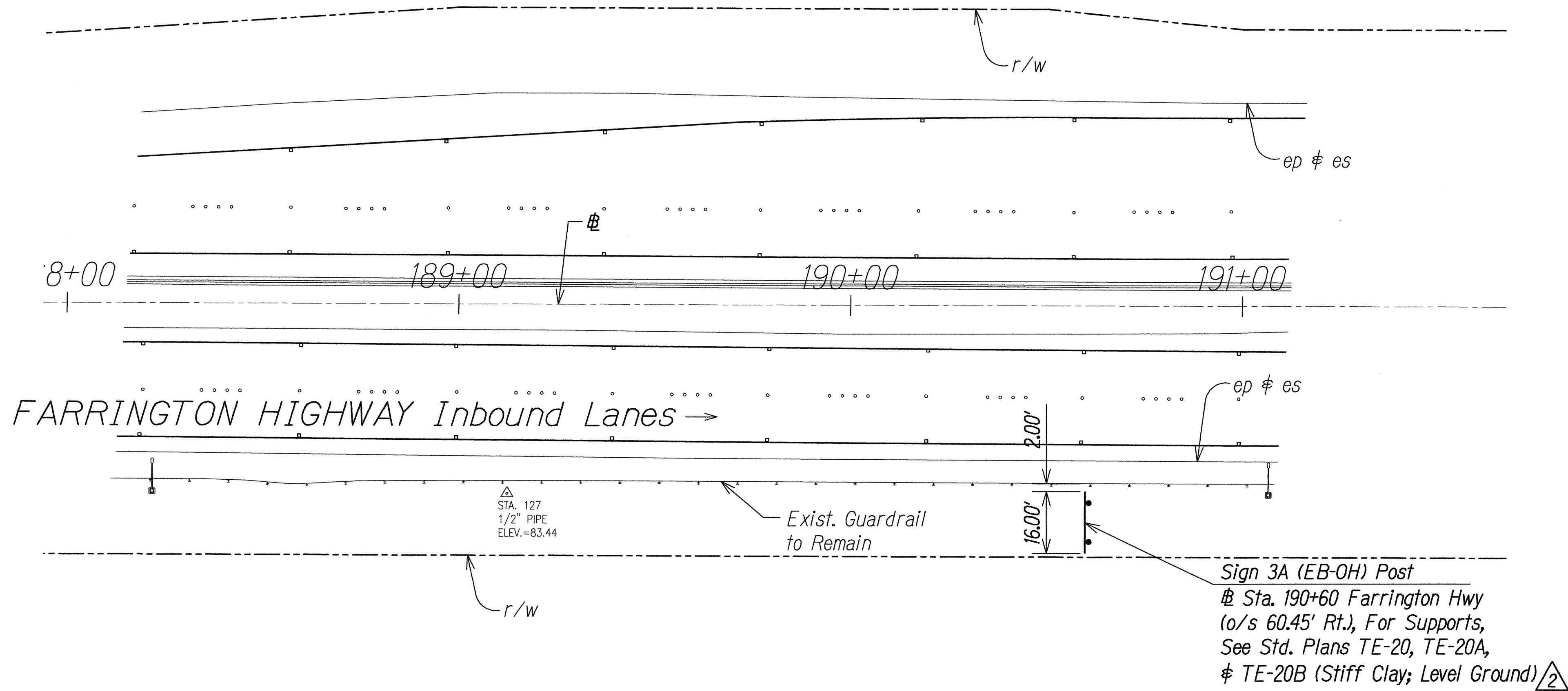
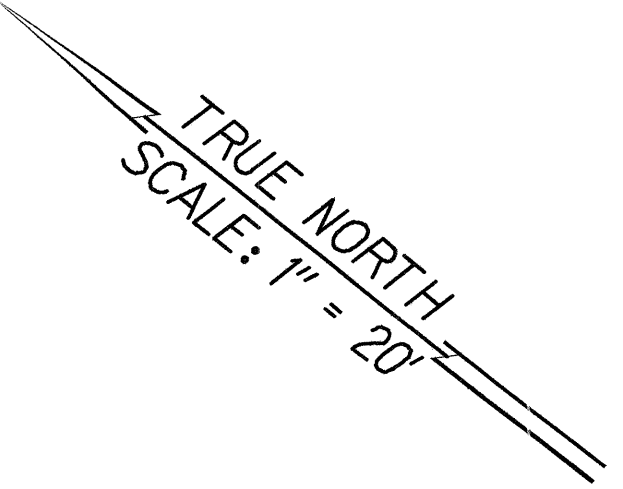
**INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. IM-H1-1 (261)**

Scale: 1" = 20' Date: January 20, 2015

SHEET No. *SG-11* OF 32 SHEETS

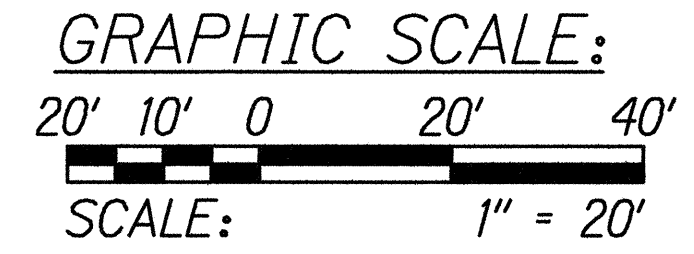
	5/18/15	Revised Callout
DATE	REVISION	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 185	524

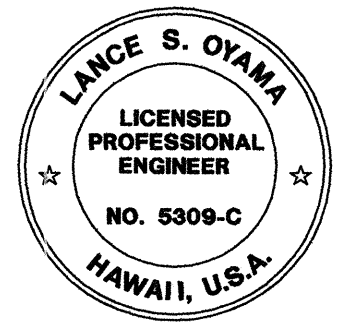


LEGEND:

- ☐ exist sign to remain
- ☒ exist sign to be removed
- ☐ New Sign (OH or GM)



SITE PLAN - SIGN 3A
SCALE: 1"=20'



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Lance S. Oyama
APRIL 30, 2016
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

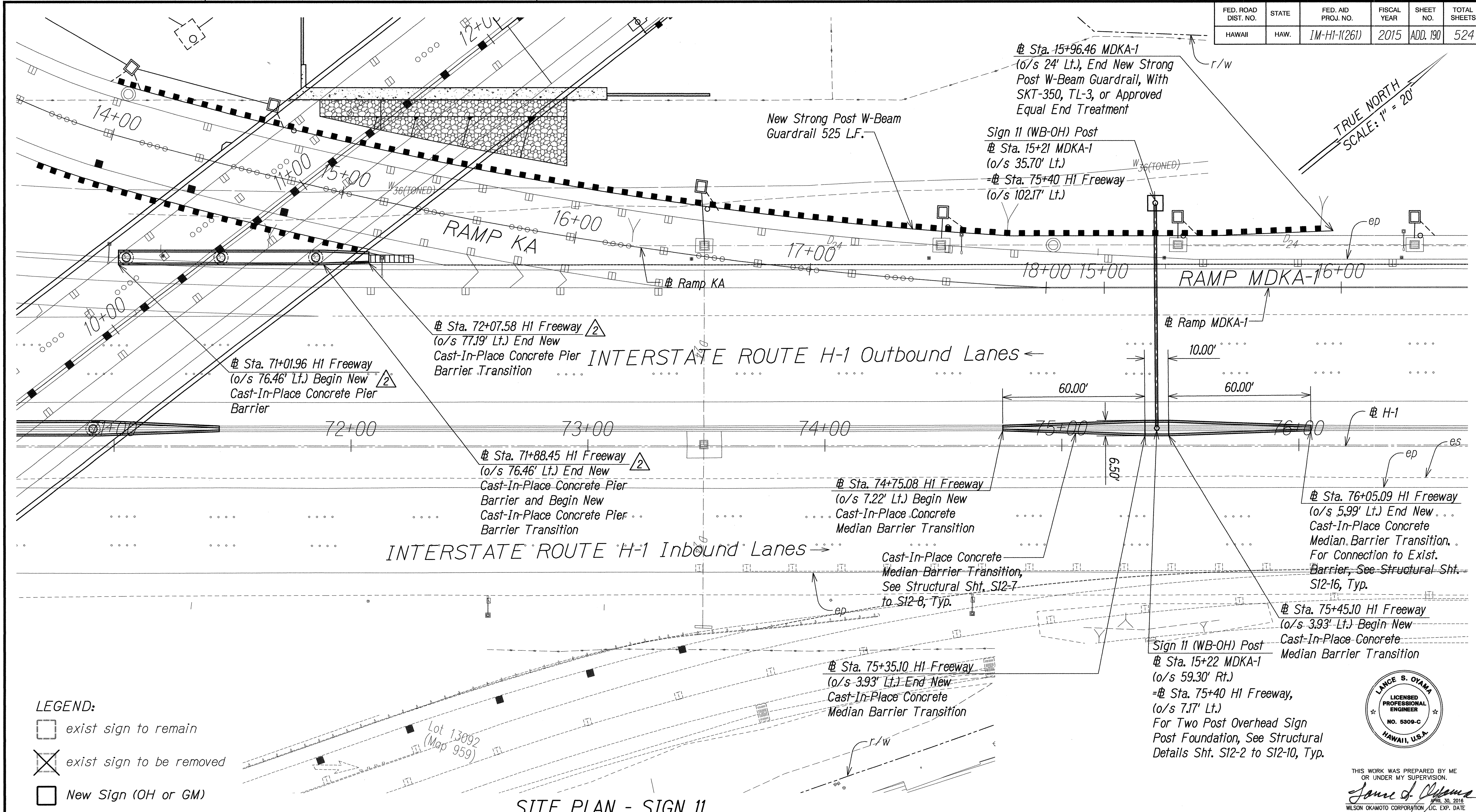
SITE PLAN - SIGN 3A

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)
Scale: 1" = 20' Date: January 20, 2015

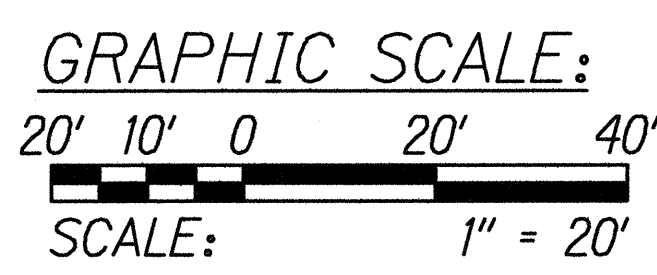
SHEET No. SG-12 OF 32 SHEETS

5/18/15	Revised Callout
DATE	REVISION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 190	524



- LEGEND:
- exist sign to remain
 - exist sign to be removed
 - New Sign (OH or GM)



SITE PLAN - SIGN 11
SCALE: 1"=20'

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

2	5/18/15	Added Concrete Pier Barrier and Transitions
	DATE	REVISION

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Lance S. Oyama
 APRIL 30, 2016
 WILSON OKAMOTO CORPORATION, LLC, EXP. DATE

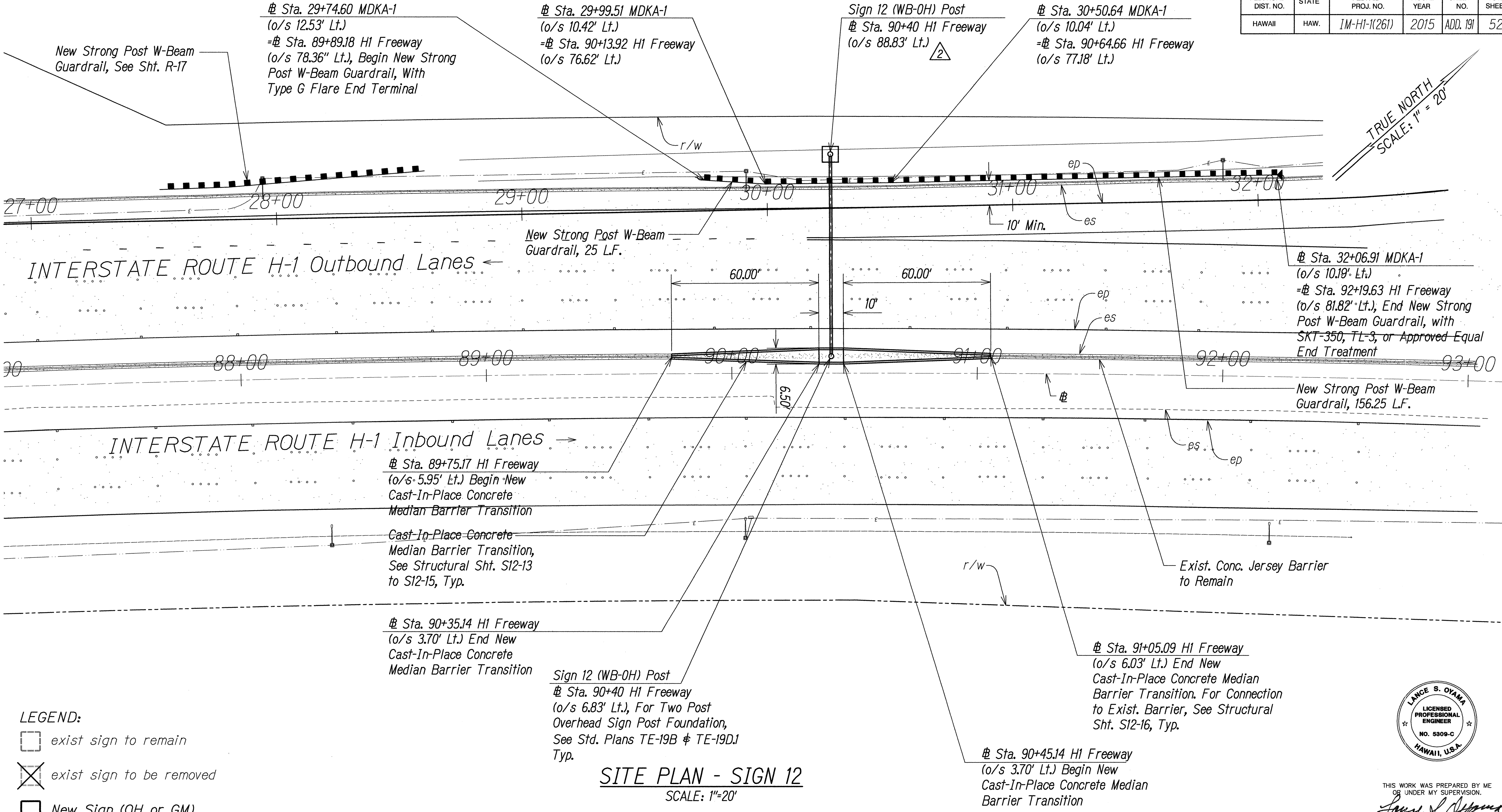
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE PLAN - SIGN 11

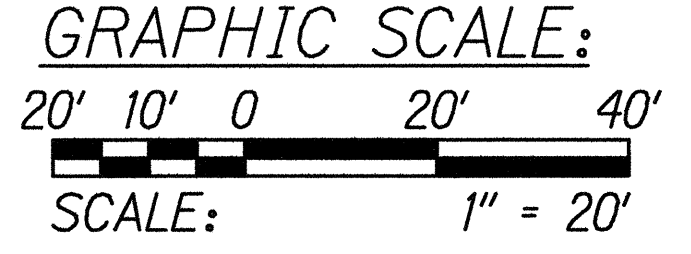
INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)
Scale: 1" = 20' Date: January 20, 2015

SHEET No. SG-17 OF 32 SHEETS

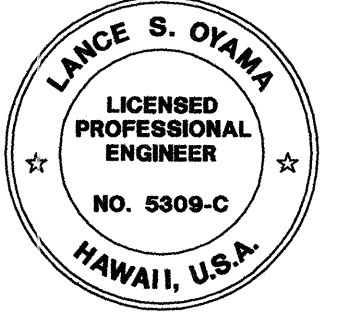
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 191	524



- LEGEND:
- exist sign to remain
 - exist sign to be removed
 - New Sign (OH or GM)



SITE PLAN - SIGN 12
SCALE: 1"=20'



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APRIL 30, 2016
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

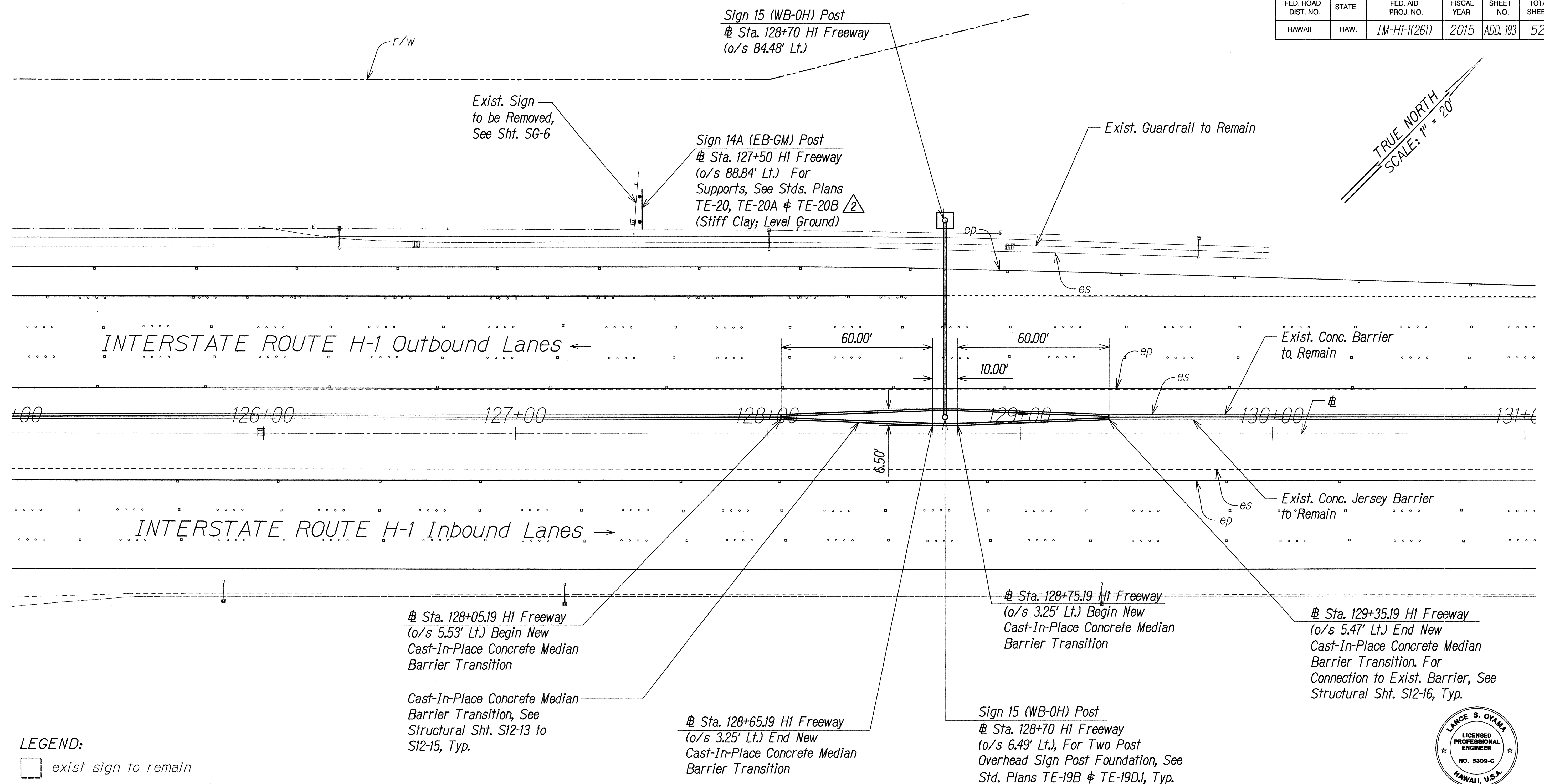
SITE PLAN - SIGN 12

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)
Scale: 1" = 20' Date: January 20, 2015

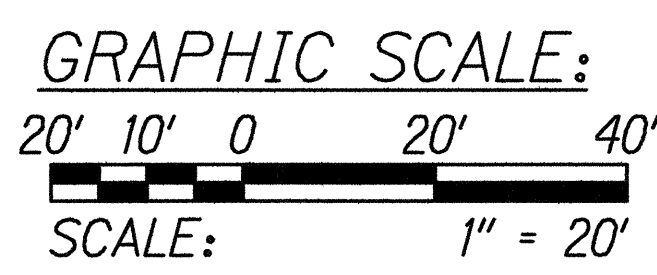
SHEET No. SG-18 OF 32 SHEETS

	5/18/15	Revised Sign 12 Offset.
	DATE	REVISION

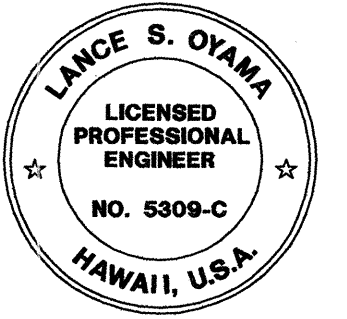
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 193	524



- LEGEND:
- ☐ exist sign to remain
 - ☒ exist sign to be removed
 - ☐ New Sign (OH or GM)



SITE PLAN - SIGN 14A & 15
SCALE: 1"=20'



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APR 30, 2016
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

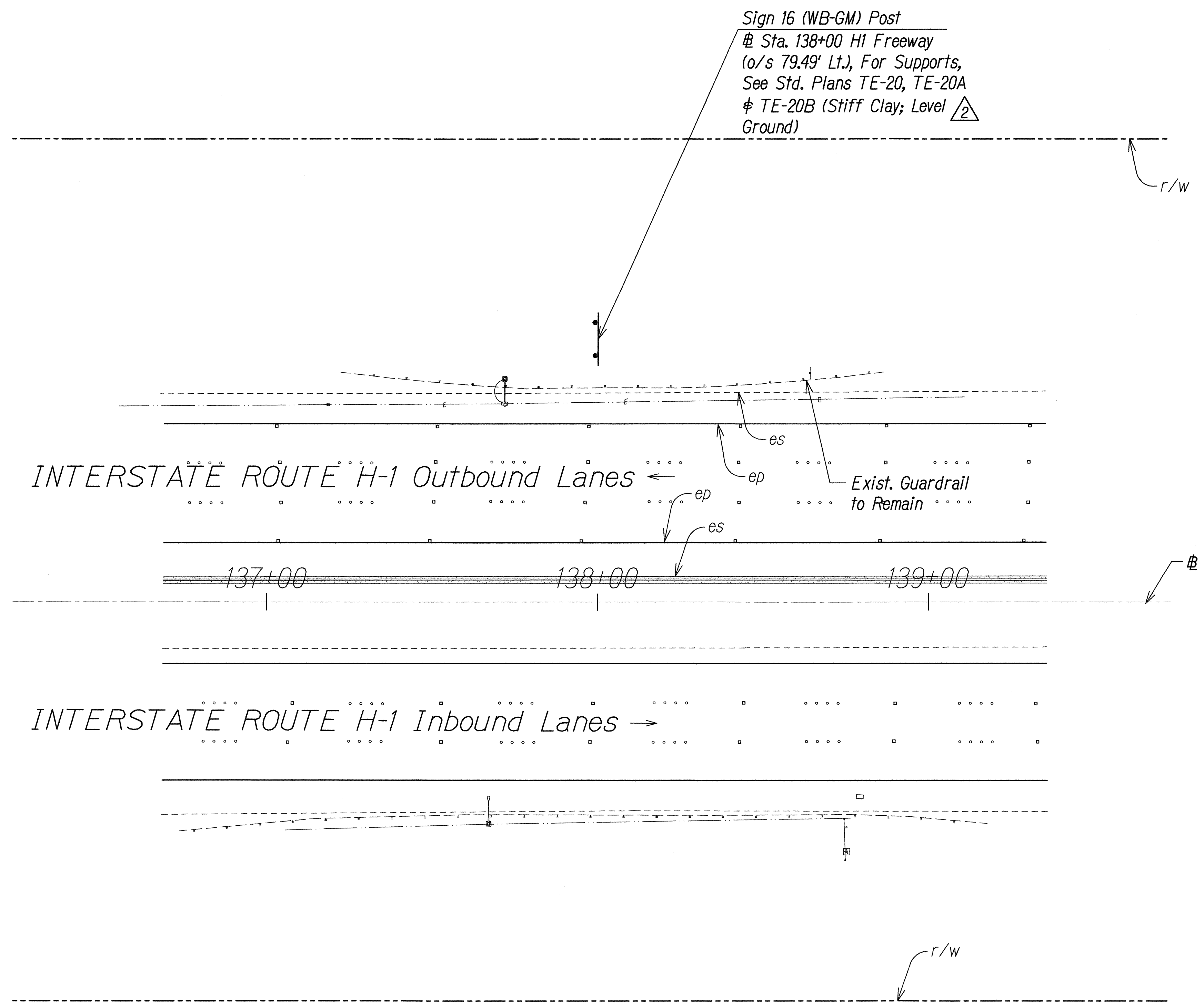
SITE PLAN - SIGN 14A & 15

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)
Scale: 1" = 20' Date: January 20, 2015
SHEET No. SG-20 OF 32 SHEETS

2	5/18/15	Revised Callout
	DATE	REVISION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(261)	2015	ADD. 194	524

TRUE NORTH
SCALE: 1" = 20'



Sign 16 (WB-GM) Post
Sta. 138+00 H1 Freeway
(o/s 79.49' Lt.), For Supports,
See Std. Plans TE-20, TE-20A
TE-20B (Stiff Clay; Level 2
Ground)

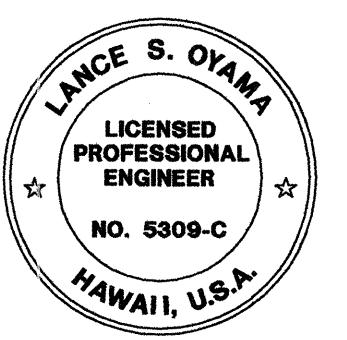
INTERSTATE ROUTE H-1 Outbound Lanes ←

INTERSTATE ROUTE H-1 Inbound Lanes →

- LEGEND:
- ☐ exist sign to remain
 - ☒ exist sign to be removed
 - ☐ New Sign (OH or GM)

GRAPHIC SCALE:
20' 10' 0 20' 40'
SCALE: 1" = 20'

SITE PLAN - SIGN 16
SCALE: 1"=20'



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APRIL 30, 2016
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

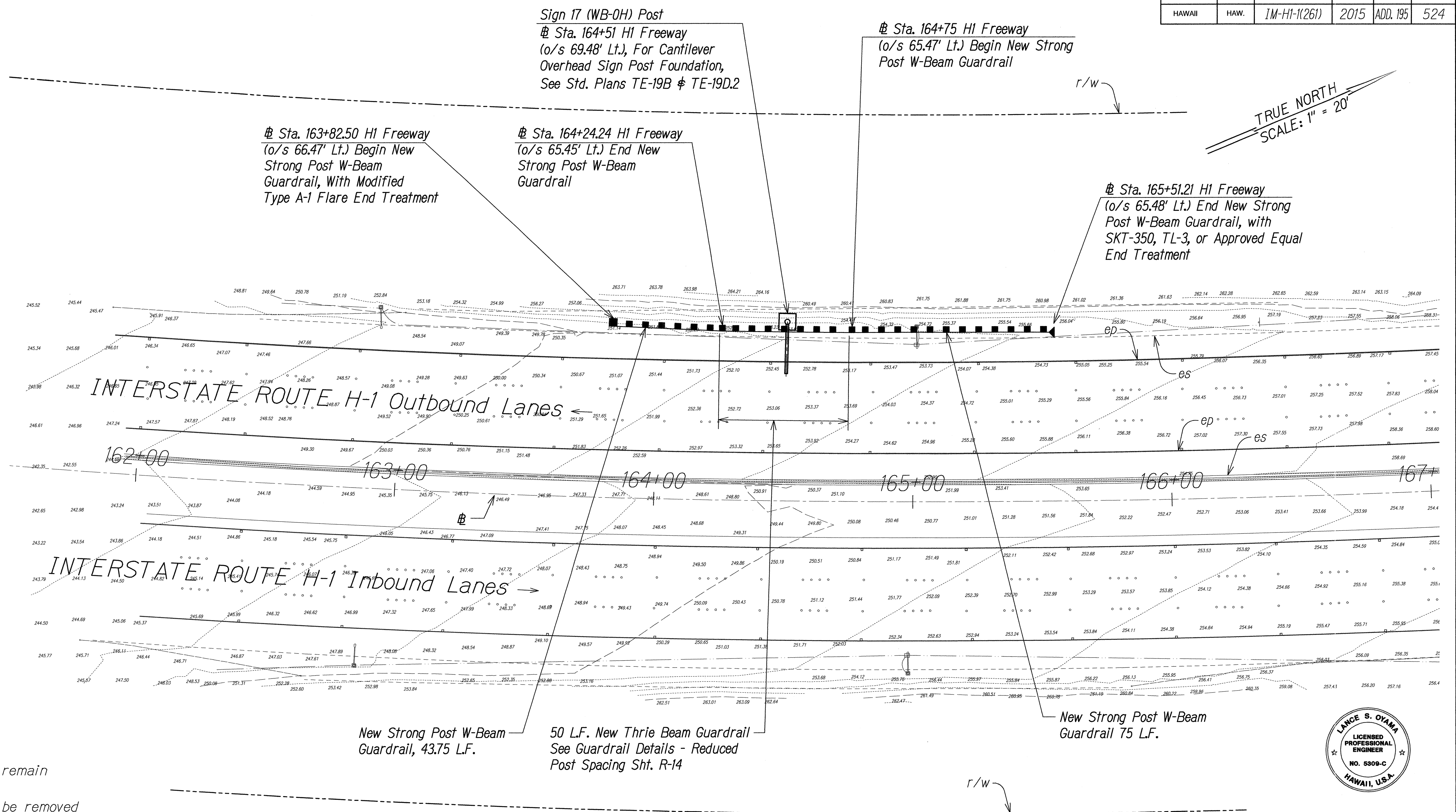
SITE PLAN - SIGN 16

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. IM-H1-1 (261)
Scale: 1" = 20' Date: January 20, 2015

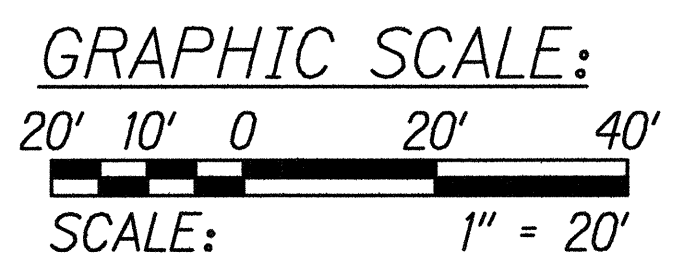
SHEET No. SG-21 OF 32 SHEETS

DATE	REVISION
5/18/15	Revised Callout

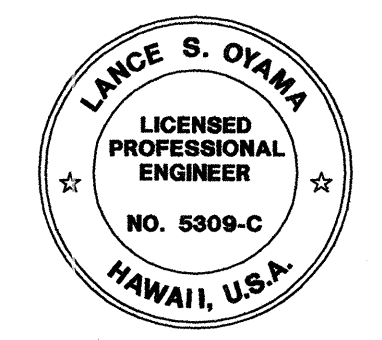
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 195	524



- LEGEND:
- ☐ exist sign to remain
 - ☒ exist sign to be removed
 - ☐ New Sign (OH or GM)



SITE PLAN - SIGN 17
SCALE: 1"=20'



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

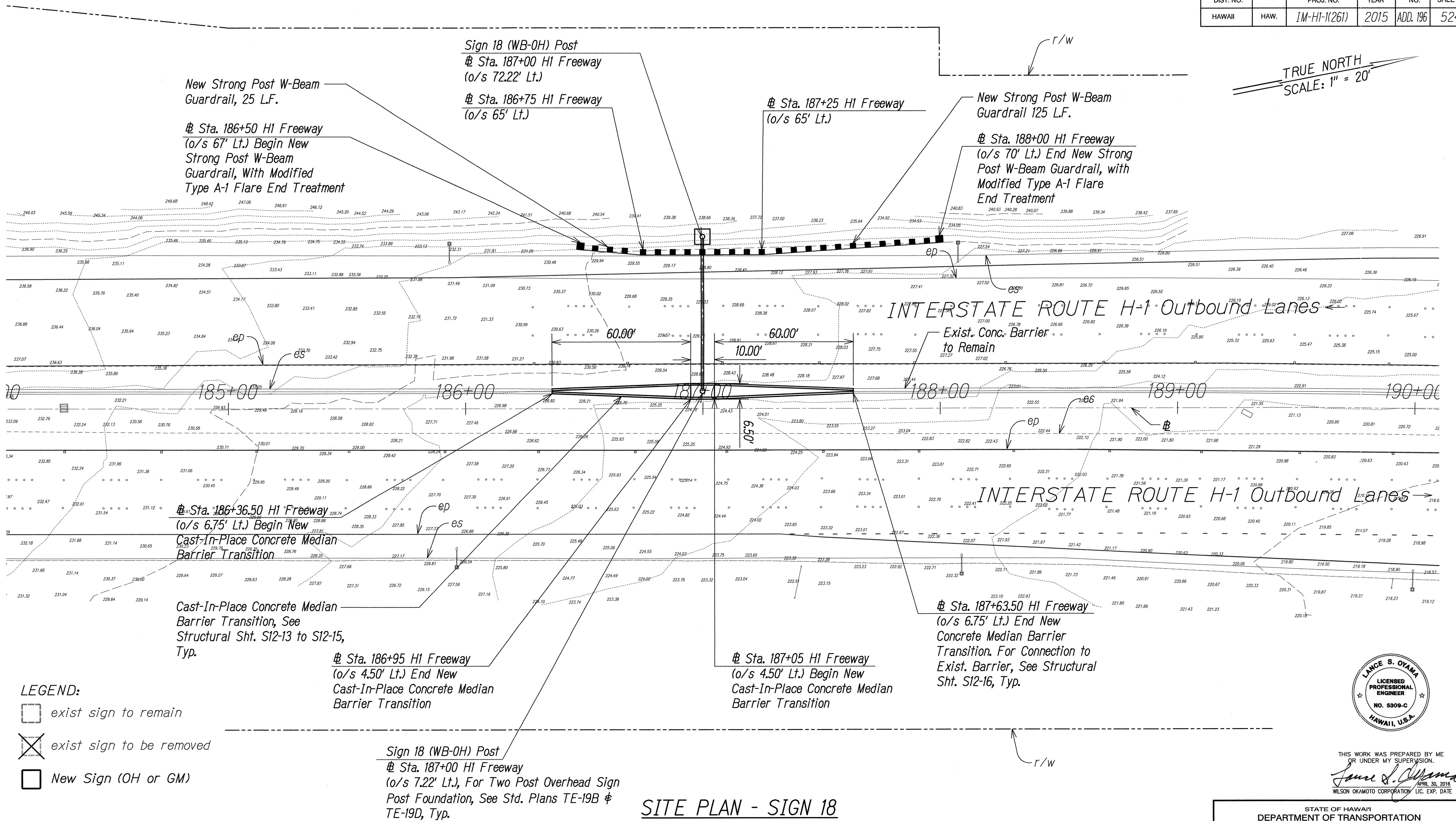
SITE PLAN - SIGN 17

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)
Scale: 1" = 20' Date: January 20, 2015

SHEET No. SG-22 OF 32 SHEETS

DATE	REVISION
5/18/15	Displayed Existing Contours/Elevations

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(261)	2015	ADD. 196	524



SITE PLAN - SIGN 18
SCALE: 1"=20'

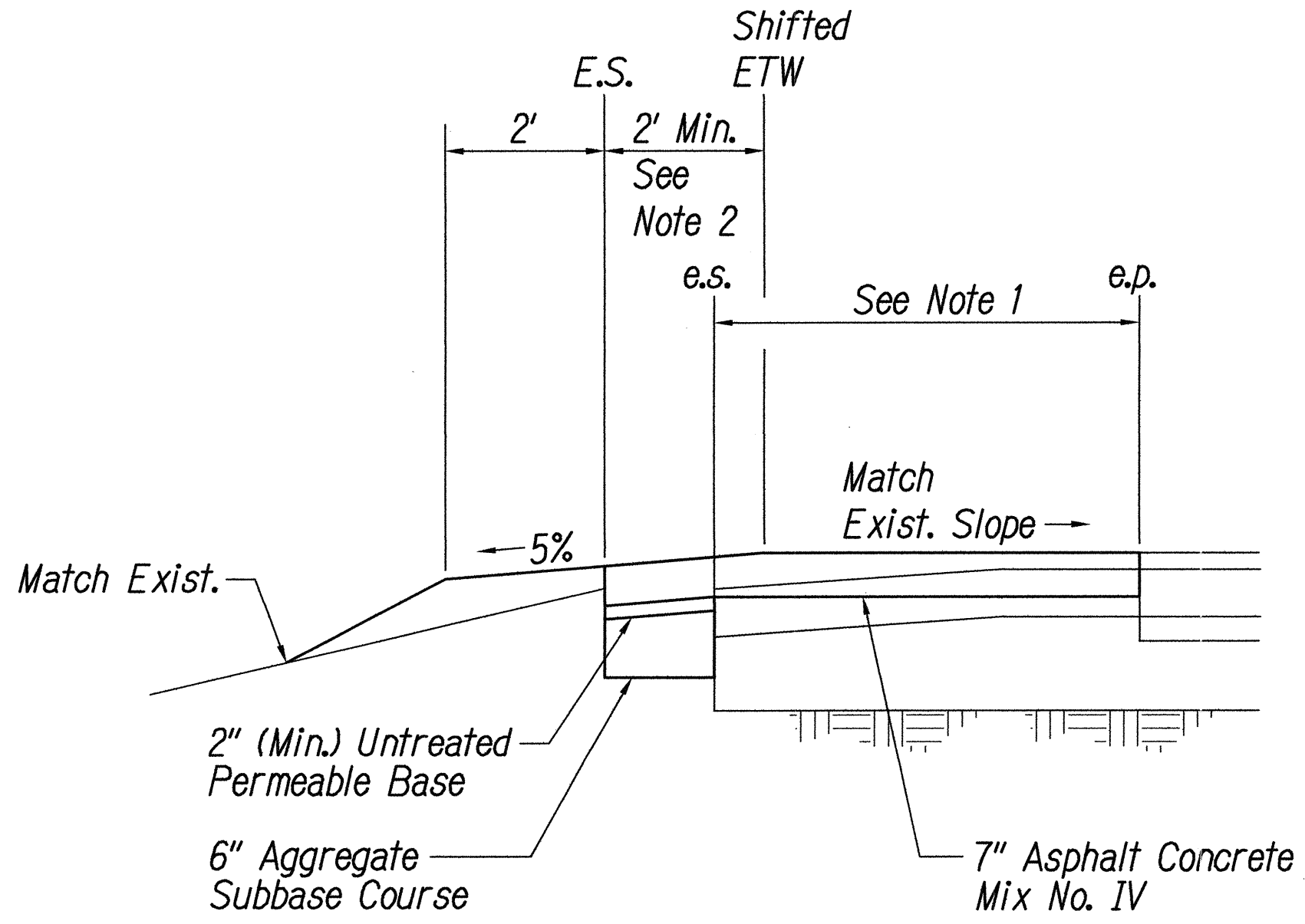
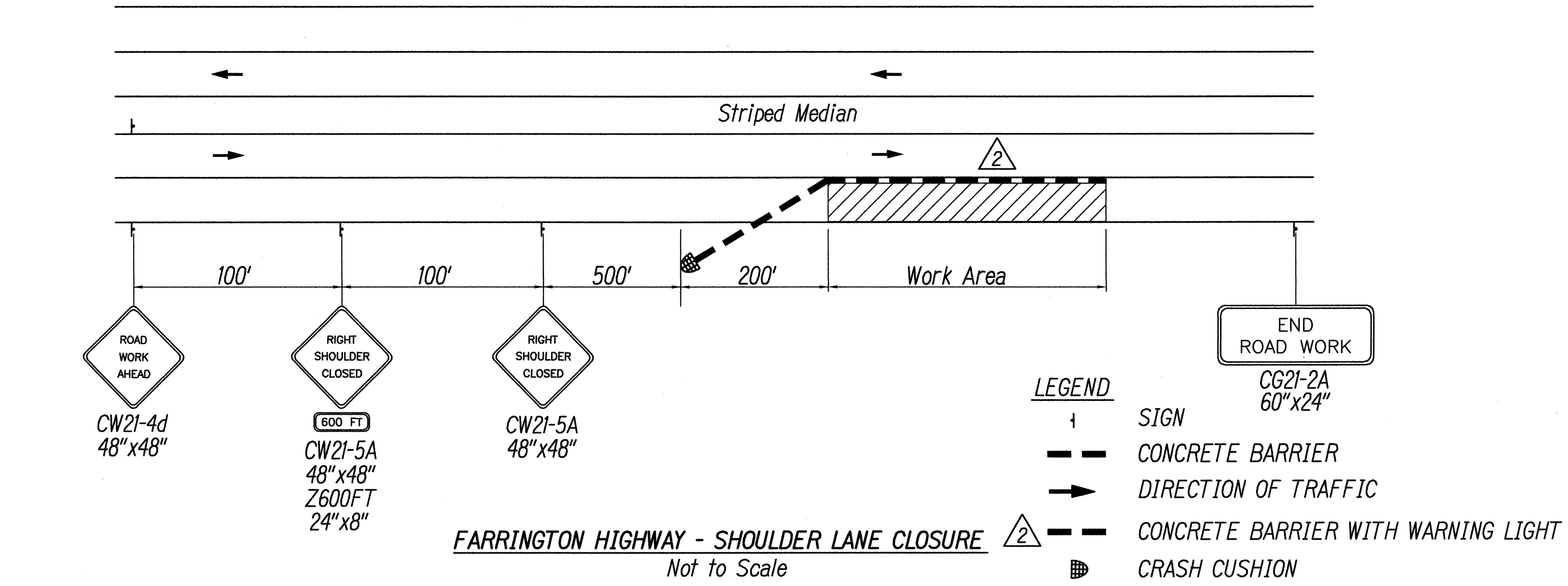
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE PLAN - SIGN 18

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. IM-H1-1 (261)
Scale: 1" = 20' Date: January 20, 2015

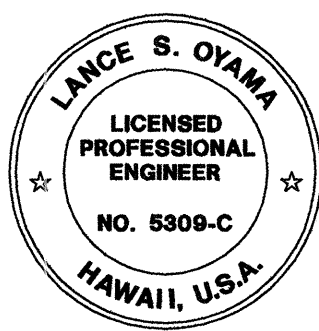
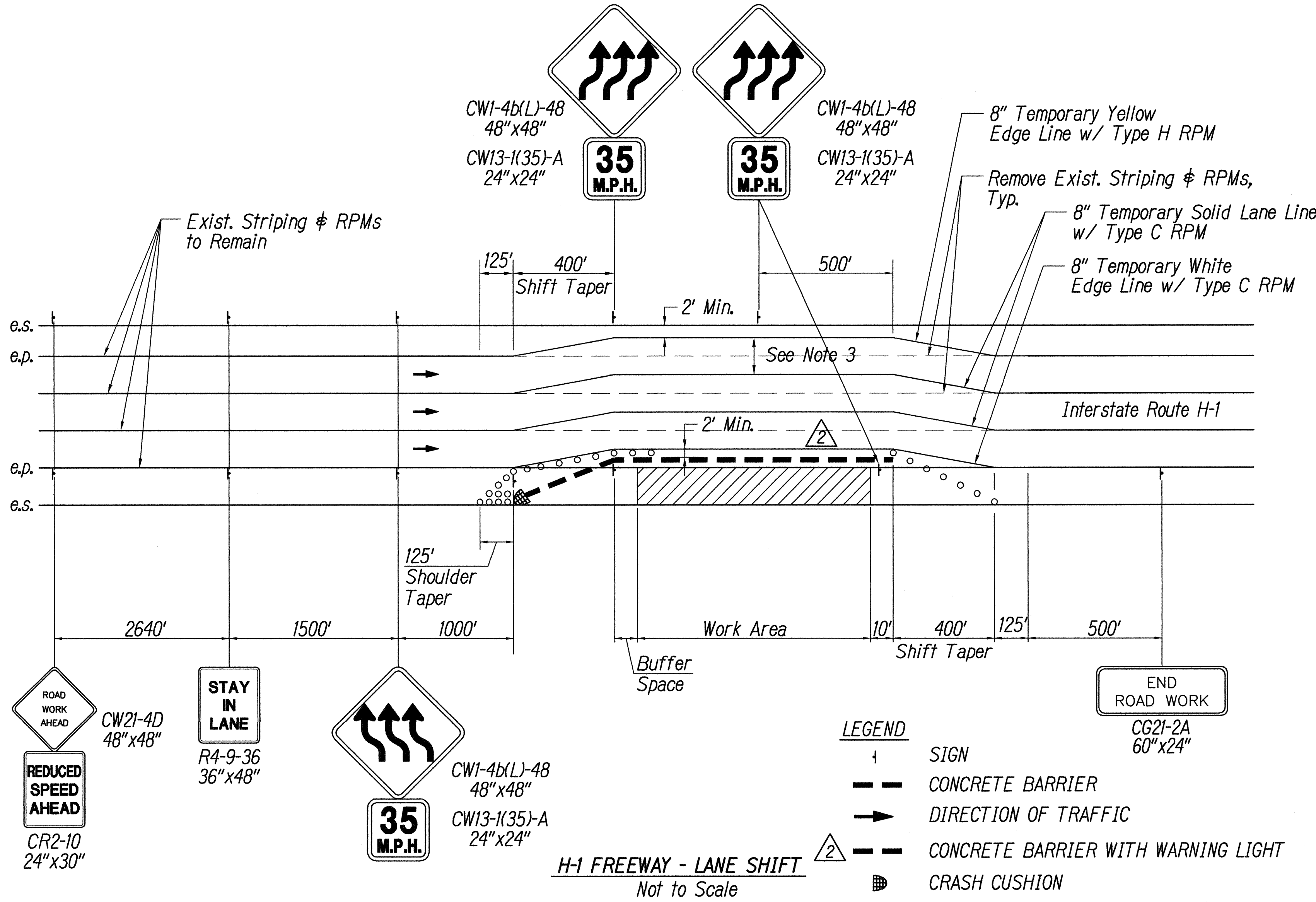
SHEET No. SG-23 OF 32 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 207	524



- Notes:
1. Remove Existing Pavement Section As Necessary And Recompact Existing Base Course (95% Relative Compaction) Prior To Installing 7" Asphalt Concrete Mix No. IV.
 2. Contractor To Coordinate All Widening As Necessary With DOT.
 3. All Shifted Lane Widths Shall Be a Minimum of 11 Feet Wide.

LANE SHIFT PAVEMENT DETAIL
Not to Scale



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WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL DETAILS

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)
Scale: Not to Scale Date: January 20, 2015

DATE: 5/18/15 REVISION: Revised Linetype

SHEET No. TC-2 OF 16 SHEETS

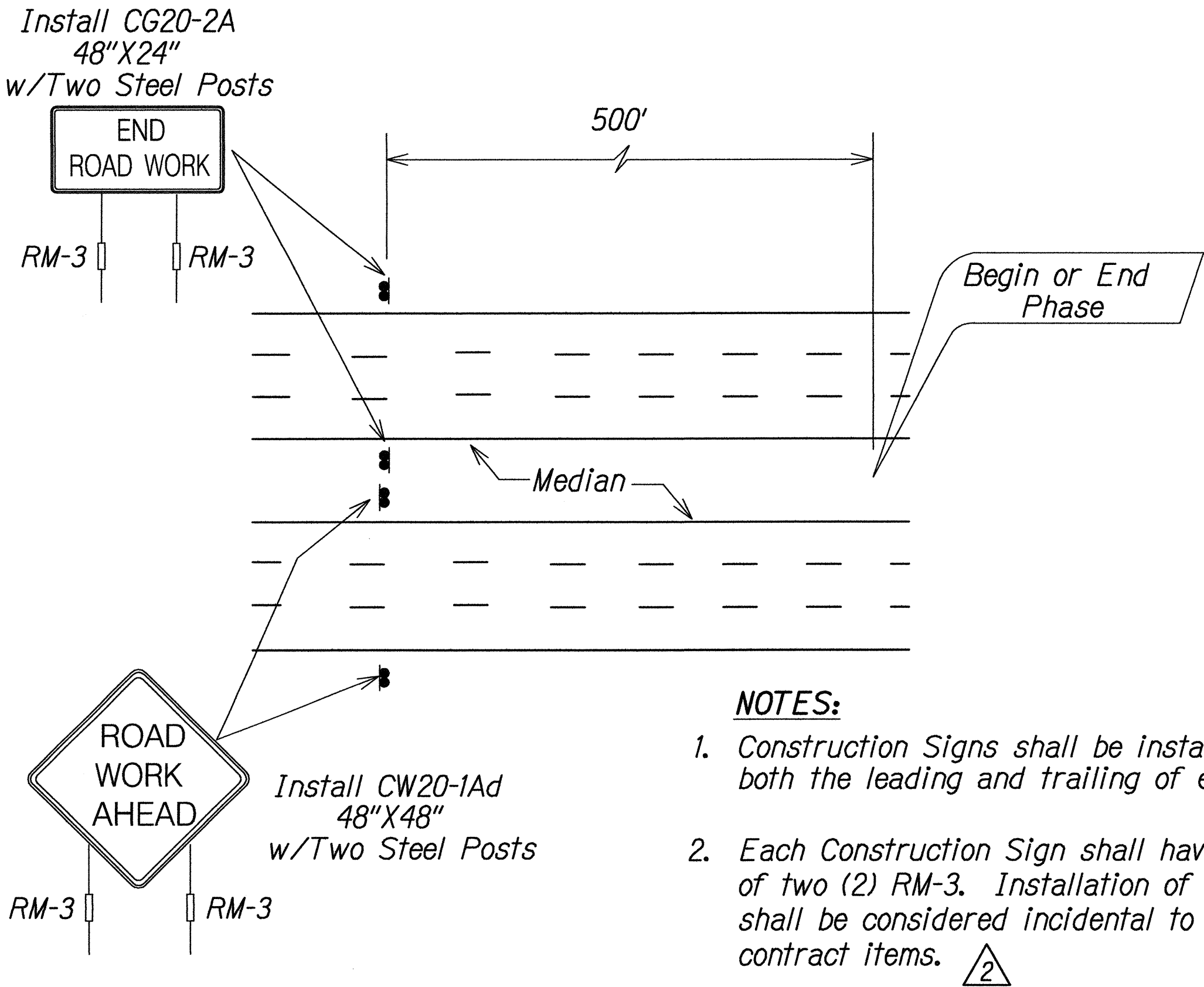
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H1-1(261)	2015	ADD. 219	524

CONSTRUCTION PHASING NOTES

- Any requests for adjustments in sequence of Construction Phasing shall be submitted in writing and approved by the Engineer. The Contractor's attention is directed to Subsection 108.08 - Failure to Complete on Time and Liquidated Damages of the Special Provisions.
- Relocation and/or removal of Construction signs, posts and portable concrete barriers used for Construction Phasing shall be considered incidental to their respective contract items.
- All Construction signs and delineators for the purposes of Construction Phasing shall become the property of the Contractor at the completion of the project.
- The Contractor shall delete the use of the ground anchorage steel pin for State Furnished Portable Concrete Barrier.
- Portable concrete barrier panels not in use during construction work shall not be stockpiled or otherwise stored within the highway rights-of-way except at locations approved by the Engineer.
- The Contractor shall periodically wash down signs, delineators and portable concrete barriers called for in the Construction Phasing Plans as deemed necessary by the Engineer. This work shall be considered incidental to the various contract items and no payment will be made therefore.
- The location of pavement markings and signs, delineators and portable concrete guardrail panels used in the Construction Phasing shall be as shown on the plans and/or as determined in the field by the Engineer.
- Work required in the State's Construction Phase Plans will be paid under applicable contract items or as otherwise specified herein. All other traffic control work shall be in accordance with Section 645 - Traffic Control. Work required for lane closures during the working day will not be paid for but shall be considered incidental to various contract items. Advance Construction Warning Signs as required under Section 645 of the Special Provisions shall be installed on all approaches to construction areas. This work shall be considered incidental to the various contract items.
- Install Steady Burn Amber Lamps on portable concrete barrier @ 20.0' o.c. Installing, maintaining and removing each steady burn amber lamp, including changing of batteries and bulbs, shall be considered incidental to applicable portable concrete barrier items. 2
- The Type II Barricades with steady burn amber lamp used during Construction Phase shall be considered incidental to the various contract items.

LEGEND

- Portable Concrete Barrier
- Construction Area
- Temporary Pavement
- 4 each Type A Raised Pavement Markers
Type C Raised Pavement Markers @ 40'-0" o.c.
- 8" Yellow Construction Edge Stripe with Type H Raised Pavement Markers @ 40'-0" o.c. (Tape, Type II)
- 8" White Construction Edge Stripe with Type C Raised Pavement Markers @ 40'-0" o.c. (Tape, Type II)
- Reflector Markers (RM-2) with Flexible Delineator Post



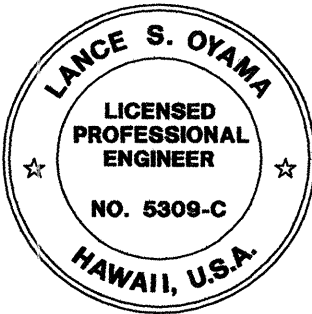
- NOTES:
- Construction Signs shall be installed on both the leading and trailing of each phase.
 - Each Construction Sign shall have a minimum of two (2) RM-3. Installation of each RM-3 shall be considered incidental to applicable contract items. 2

TYPICAL DETAIL FOR CONSTRUCTION SIGNS
DURING VARIOUS PHASES

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

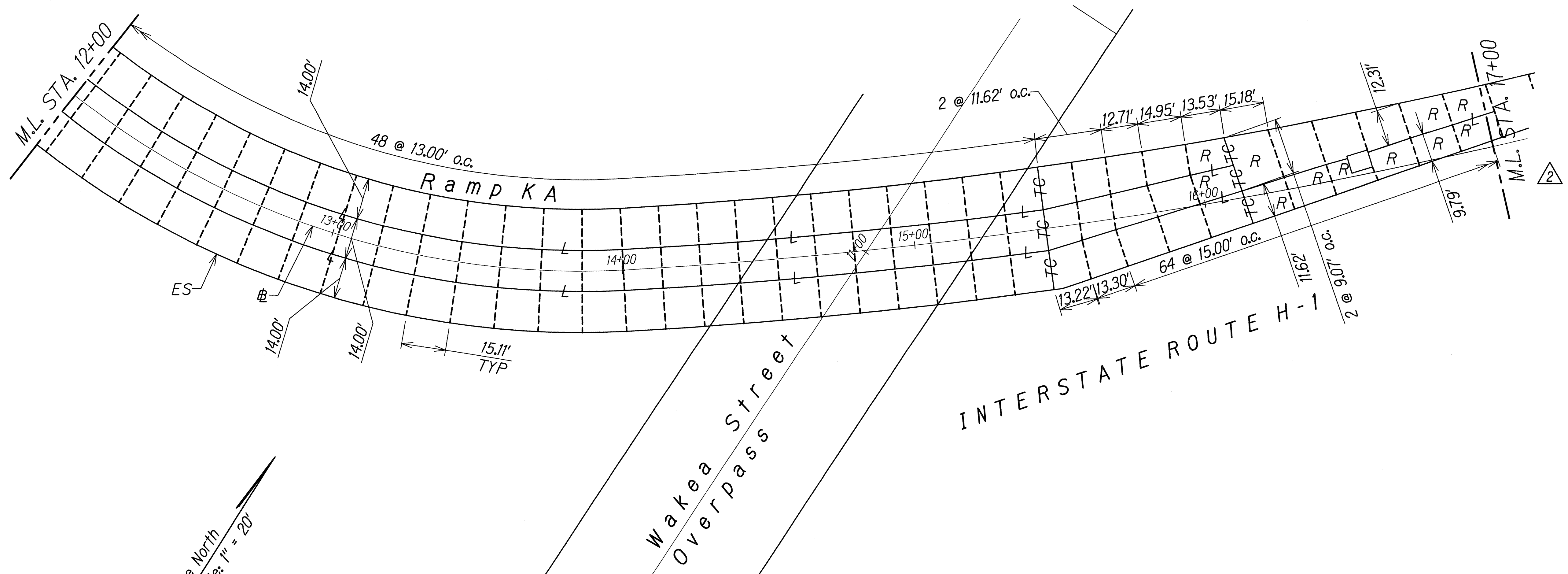
2	5/18/15	Revised Note
DATE	REVISION	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
CONSTRUCTION PHASING
NOTES & DETAILS
INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-H1-1 (261)
Scale: Not to Scale Date: January 20, 2015
SHEET No. TC-14 OF 16 SHEETS

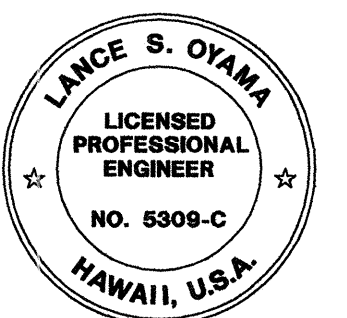


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Lance S. Oyama
APRIL 30, 2016
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(261)	2015	ADD. 248	524



- NOTES:
1. Match Joints to Existing H-1 Joints. Construct Longitudinal Joint to Existing Conc Pmnt per Detail 2 on Std Plan D-21. Joint Locations Shown are Approximate. Contractor Shall Compare the Plans with Field Conditions, Submit any Discrepancies to Engineer and Receive Approval from the Engineer Prior to Placing Concrete.
 2. See Standard Plan D-18 (Notes 1, 4, 5, 6, and 7) to address reinforcement of odd shaped slabs in the event that field adjustments are needed.



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WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PAVEMENT JOINTING PLAN

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. IM-H1-1 (261)

Scale: 1" = 20' Date: January 20, 2015

SHEET No. PJP-3 OF 10 SHEETS

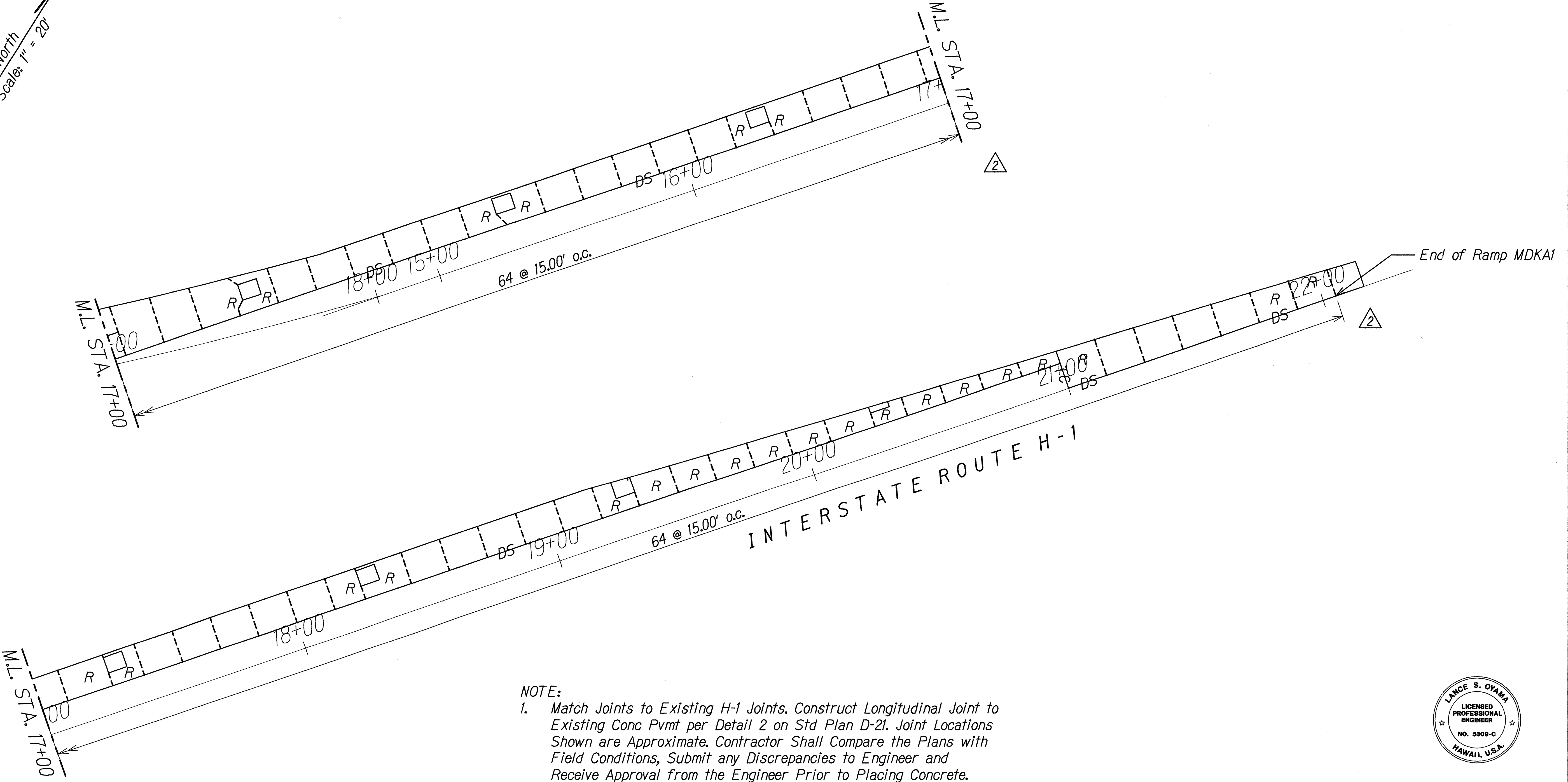
GRAPHIC SCALES:
20' 10' 0 20' 40'
SCALE: 1" = 20'

PLAN - RAMP KA ²
Scale: 1" = 20'

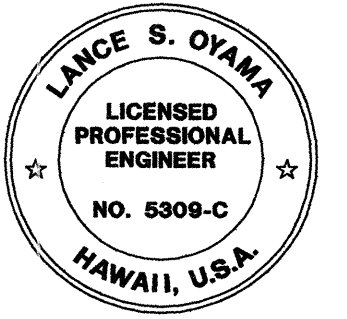
DATE	REVISION
² 5/18/15	Revised Sheet Title & Ramp KA Pavement Jointing Limits

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(261)	2015	ADD. 249	524

True North
Scale: 1" = 20'



- NOTE:
1. Match Joints to Existing H-1 Joints. Construct Longitudinal Joint to Existing Conc Pvmnt per Detail 2 on Std Plan D-21. Joint Locations Shown are Approximate. Contractor Shall Compare the Plans with Field Conditions, Submit any Discrepancies to Engineer and Receive Approval from the Engineer Prior to Placing Concrete.
 2. See Standard Plan D-18 (Notes 1, 4, 5, 6, and 7) to address reinforcement of odd shaped slabs in the event that field adjustments are needed.



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WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PAVEMENT JOINTING PLAN

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. IM-H1-1 (261)

Scale: 1" = 20' Date: January 20, 2015

SHEET No. PJP-4 OF 10 SHEETS

GRAPHIC SCALES:
20' 10' 0 20' 40'
SCALE: 1" = 20'

PLAN - RAMP KA/MDKA-1
Scale: 1" = 20'

DATE	REVISION
5/18/15	Revised Sheet Title & Ramp KA/MDKA-1 Pavement Jointing Limits

GENERAL STRUCTURAL NOTES:

GENERAL:

- All Materials Provided and Work Performed Shall Conform to the Requirements in the Drawings, the Hawaii Standard Specifications for Road and Bridge Construction (2005 Edition), the Standard Specifications for Public Works Construction (1986 Edition) and Special Provisions.
- Contractor Shall Verify Site Conditions Before Commencing with Work.
- Contractor Shall Verify the Location of Existing Utility Lines and Notify the Respective Owners Before Commencing with Work.
- Unless Otherwise Noted, Vertical Dimensions are Measured Plumb.
- Standard Detail Drawings Refer to Structures in General Except for Modifications as may be Required for Special Conditions. For Such Modifications, Refer to Corresponding Detailed Drawings.
- Contractor Shall Provide Measures Necessary to Protect the Structure During Construction. Such Measures Shall Include, but not Limited to, Bracing, Shoring for Loads Due to Construction Equipment, Winds, Seismic, Stream Flow, etc.
- Contractor Shall be Responsible for Excavation and Dewatering Permit Requirements and Procedures Including Lagging, Shoring and Protection of Streets and Utilities, Including Treatment and Discharge of Pumped Water.
- Contractor Shall be Responsible for Coordinating the Work of all Trades and Shall Check all Dimensions. Discrepancies Shall be Called to the Attention of the Engineer and be Resolved Before Proceeding with the Work.
- Contractor Shall Comply with Construction Permits for this Project. In Addition, the Contractor Shall Comply with Applicable Laws of the Federal, State, and County Governments.
- Shop Drawings Required by the Specifications Shall be Submitted to the Engineer for Review Prior to Fabrication.

DESIGN CRITERIA:

- AASHTO Load and Resistance Factor Design (LRFD) Bridge Design Specifications, 6th Edition, 2012.
- AASHTO Guide Specifications for LRFD Seismic Bridge Design, 2nd Edition, 2011.
- State of Hawaii "Design Criteria for Bridges and Structures" Dated, August 8, 2014.

DESIGN DATA:

- Live Loads:
 - Pedestrian/Bicycle Load. 0.075 KSF (On Shoulders)
 - Vehicle Load. HL-93
- Additional Dead Loads:
 - Future Utility Loads. 0.150 KLF (Each Side of Bridge)
 - Future Wearing Surface. 0.025 KSF
- Seismic:
 - Peak Ground Acceleration Coefficient, PGA. 0.18
 - Seismic Design Category. C
 - Importance Category. Essential
 - Site Class. D
- Bridge Railing Test Level: TL-4

FOUNDATION EXCAVATION AND DEWATERING:

- Temporary Shoring and Dewatering, if Required, Shall be Considered Incidental to Structural Excavation.

FOUNDATION:

The Foundation Design was Based on Recommendations Contained in the Geotechnical Engineering Exploration Report by Geolabs, Inc. dated February 17, 2015. Contractor may Obtain a Copy of the Report at the State of Hawaii, Department of Transportation - Highways Division Upon Request.

- Abutment Walls/Wing Walls:
 - Static Lateral Earth Pressures:
 - Active Earth Pressure (Level Backfill) = 36 PCF
 - At-rest Earth Pressure (Level Backfill) = 53 PCF
 - Dynamic Lateral Earth Forces:
 - Level Backfill = $7.1 \times H^2$ Pounds Per Foot (Rectangular Distribution)
 - Soil Bearing Pressure:
 - Service Limit State: 4 KSF
 - Strength Limit State: 6 KSF
 - Extreme Event Limit State: 12 KSF
- Structural Backfill:
 - Structural Backfill Shall be in Accordance with the Requirements for Structural Backfill Material A as Indicated in Section 703.20 of the Hawaii Standard Specifications for Road and Bridge Construction (2005) and the Special Provisions.
 - Placement of the Structural Backfill Shall be in Accordance with the Standard Specifications and the Special Provisions.
 - Standard Backfill on the Back Face of the Abutment Shall not be Placed Until the Bridge Concrete Topping has been Poured and has Attained 28-day Concrete Compressive Strength.

CONCRETE:

- Schedule of Structural Concrete 28-day Minimum Strength:

Prestressed Girders.	9,000 PSI with W/C Ratio of 0.40 max.
Bridge Deck Slab.	4,500 PSI with W/C Ratio of 0.40 max.
Drilled Shafts.	4,500 PSI with W/C Ratio of 0.40 max.
Pile Caps, Approach Slab, Columns Abutments, Walls, Pier Caps	4,000 PSI with W/C Ratio of 0.40 max.
Railings, Barriers.	4,000 PSI with W/C Ratio of 0.40 max. Δ
All Other Concrete.	4,000 PSI with W/C Ratio of 0.40 max.
- Concrete Mixes Shall be Submitted to the Engineer for Review.
- Concrete Admixtures Containing Chlorides or Chloride Salts Shall not be Used.
- Tetraguard AS20 Shrinkage Reducing Admixture, Eclipse Plus Shrinkage Reducing Admixture, or an Approved Equal Shall be Included in the Concrete Mix for the Concrete Topping Slab and Concrete Bridge Railings. The Dosage Shall be in Accordance with Manufacturers Recommendations. Addition of Shrinkage Reducing Admixture Shall be Approved by the Manufacturer.
- A Migrating Corrosion Inhibiting Admixture Shall be Included in the Concrete Mix for all Concrete. The Dosage Rate Shall be in Accordance with Manufacturer's Recommendation. Addition of Corrosive Inhibiting Admixture Shall be Approved by the Manufacturer.

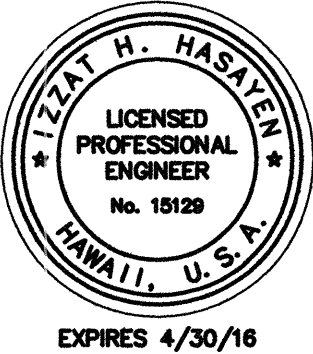
REINFORCING STEEL:

- Reinforcing Bars Shall be ASTM A706, Grade 60, Unless Shown Otherwise.
- Reinforcing Splices Shall be Made Only Where Indicated on the Drawings.
- Reinforcing Bars, Anchor Bolts, Dowels and Other Embedded Items are to be Securely Tied in Place Before Concrete Pour.
- Reinforcing Bar Bends Shall be Made Cold.
- Reinforcement Shall be Detailed in Accordance with AASHTO LRFD Bridge Design Specifications, 6th Edition, 2012, Including Subsequent Interim Revisions, Unless Otherwise Noted.
- Welding of Reinforcing Steel is not Permitted, Unless Otherwise Shown on the Drawings. Welding of Reinforcing Steel Shall Conform to the Latest Edition of AWS D1.4 "AWS Structural Welding Code-Reinforcing Steel" of the American Welding Society. Deformed Reinforcing Bars to be Welded Shall Conform to ASTM A706, Grade 60.
- Unless Otherwise Noted, the Covering Measured From the Surface of the Concrete to the Face of Reinforcing Bars Shall be as Follows:

(a) Deck Top Bars.	2 1/2" Clear
(b) Deck Bottom Bars	1 1/2" Clear
(c) Railing and Parapets.	2" Clear
(d) Formed Surfaces Exposed to Earth and Weather.	2" Clear
(e) Bottoms and Side of Footings Where Concrete is Deposited on Grade.	3" Clear
(f) Bent Caps.	3" Clear
(g) Cast walls	2" Clear
(h) Drilled Shafts.	4" Clear
(i) All Others.	2" Clear
- Minimum Clear Spacing Between Parallel Bars Shall Be 1 1/2 Times the Diameter of the Bar, but in No Case Shall the Clear Distance Between Parallel Bars be less than 1 1/2 Times the Maximum Size of the Coarse Aggregate, or 1 1/2 Inches.
- Dimensions Relating to Reinforcing Bars (E.G. Spacing of Bars, etc.) are to Center of Bars, Unless Otherwise Noted.
- Reinforcing Bars Shall be Securely Tied at Intersections and Lap Spliced Except Where the Spacing of the Intersections is Less than 12 Inches in Each Direction, in Which Case Alternate Intersections Shall be Tied.

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

Δ	5/18/15	Add Material Property
DATE	REVISION	



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T. H. Hagan APRIL 30, 2016
CONSULTING ENGINEERS LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

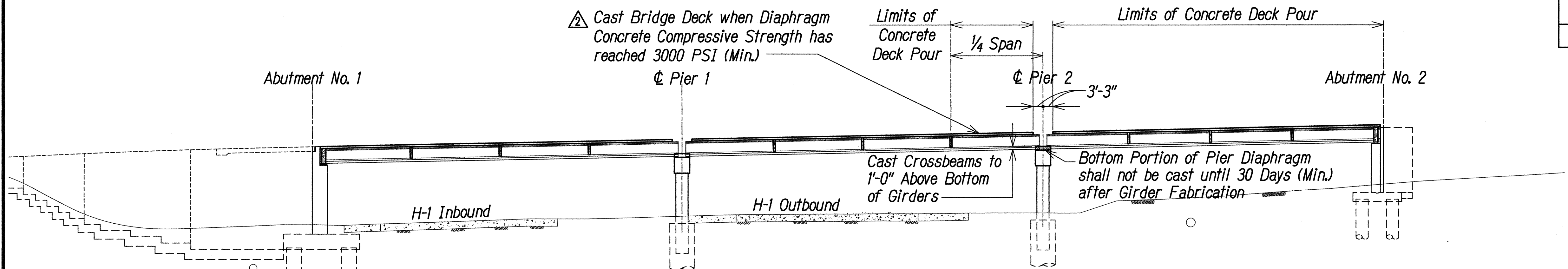
STRUCTURAL GENERAL NOTES (1)

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. IM-HI-1 (261)

Scale: Date: January 20, 2015

SHEET No. SF-2 OF 103 SHEETS

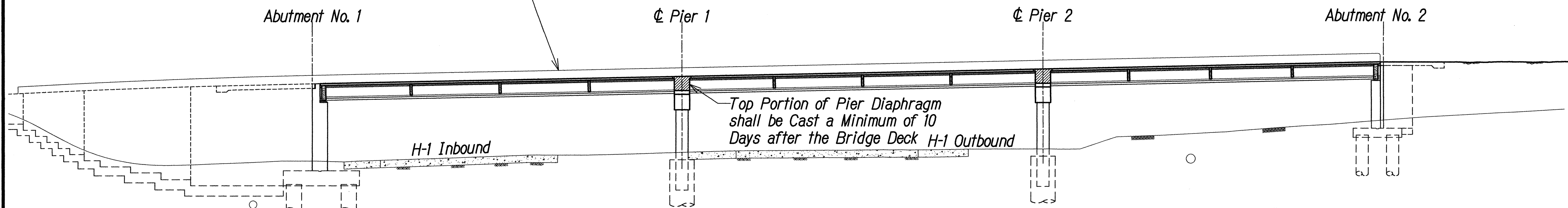
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-HI-1(261)	2015	ADD.260	524



STAGE 5
Not to Scale

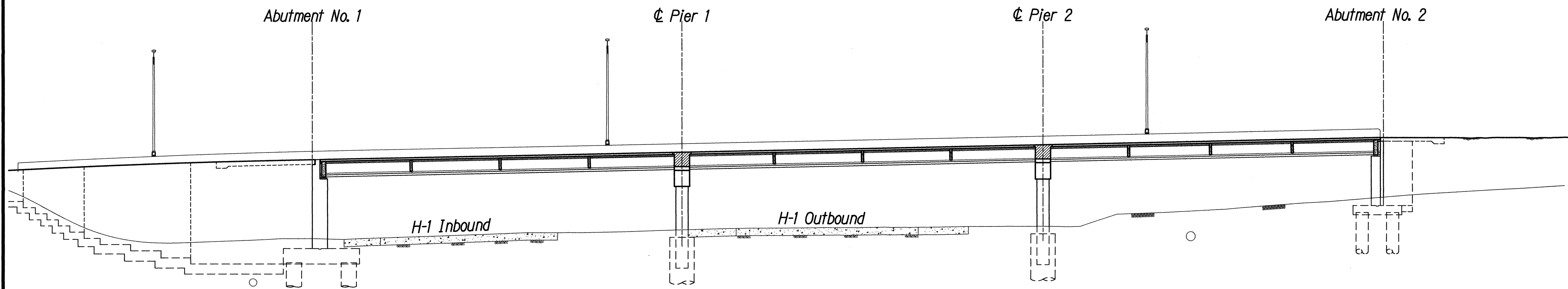
1. Erect Girders for Span No. 3.
2. Construct Intermediate and Abut. No. 2 End Diaphragms and Portion of Pier No. 2 Crossbeam.
3. Cast Deck Concrete as Shown.

Bridge Railings, and Sidewalks shall not be Cast Until the Deck and Intermediate Pier Crossbeam Concrete Compressive Strength has reached 3000 PSI (Min.)



STAGE 6
Not to Scale

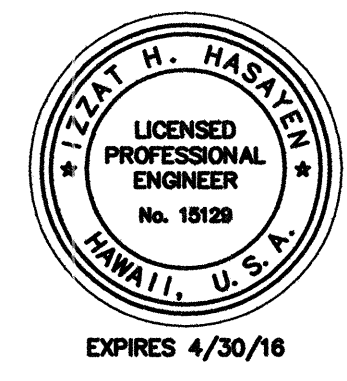
1. Cast Top Portion of Pier Crossbeams and Deck.
2. Construct Approach Slabs.
3. Construct Sidewalk and Bridge Railings.



STAGE 7
Not to Scale

1. Install Light Poles, Utilities and Miscellaneous Items.

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



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Alek H. Hasafa
CONSULTING ENGINEERS APRIL 30, 2016 LIC. EXP. DATE

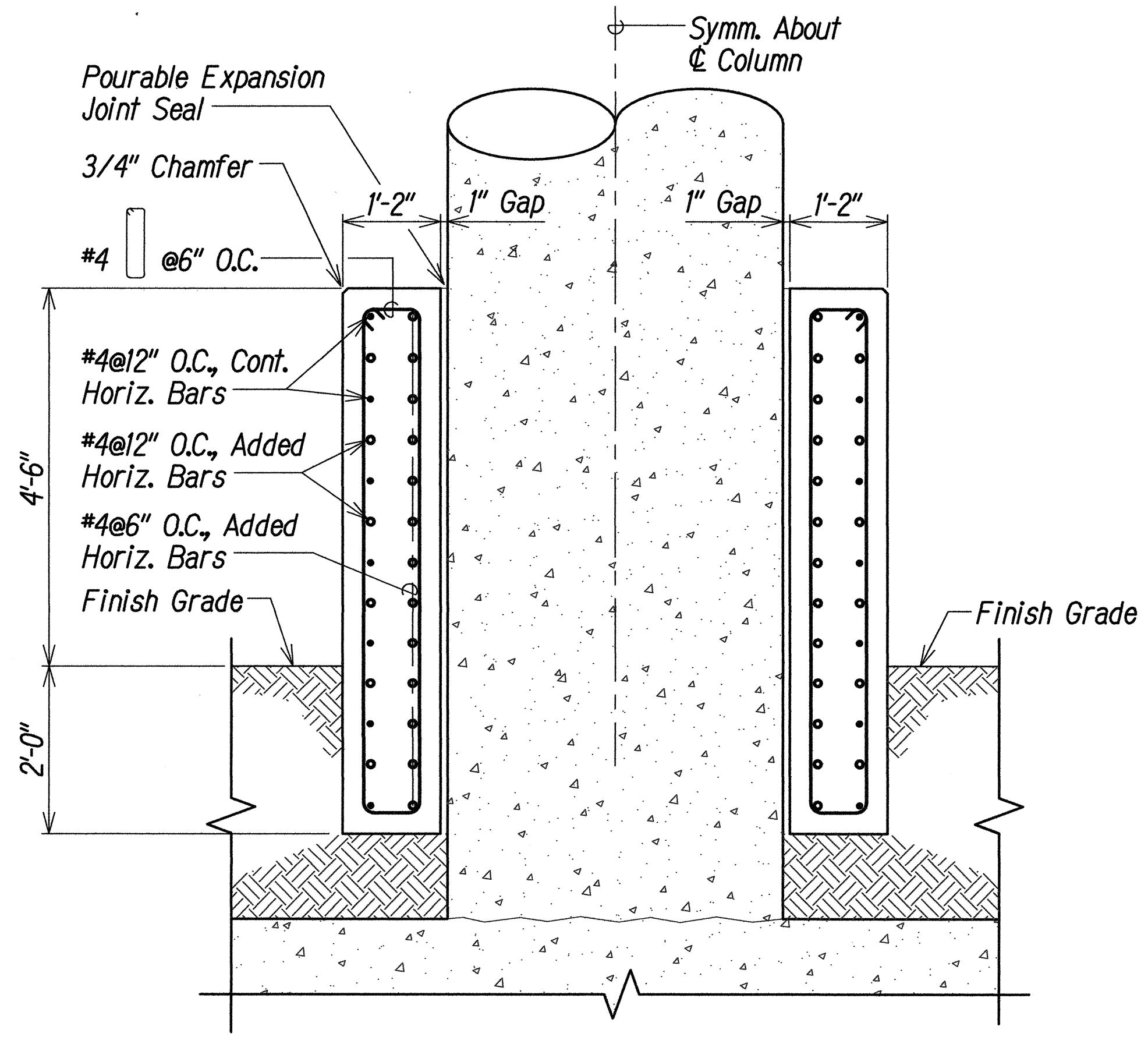
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PROPOSED CONSTRUCTION
SEQUENCE (2)
INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-HI-1 (261)
Scale: Date: January 20, 2015

5/18/15

Remove Reference to Deck Panel

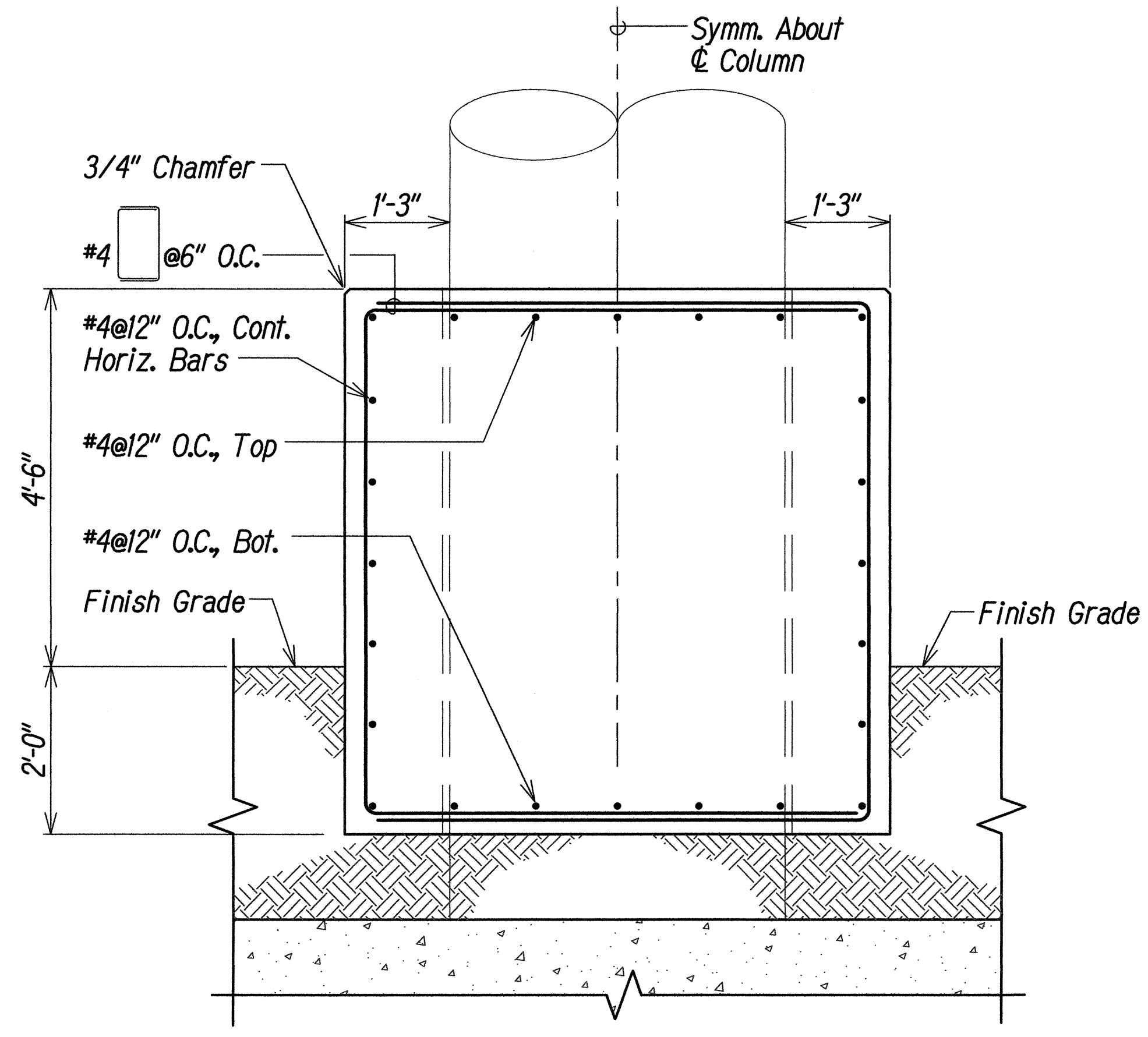
DATE
REVISION

SHEET No. SI-5 OF 103 SHEETS

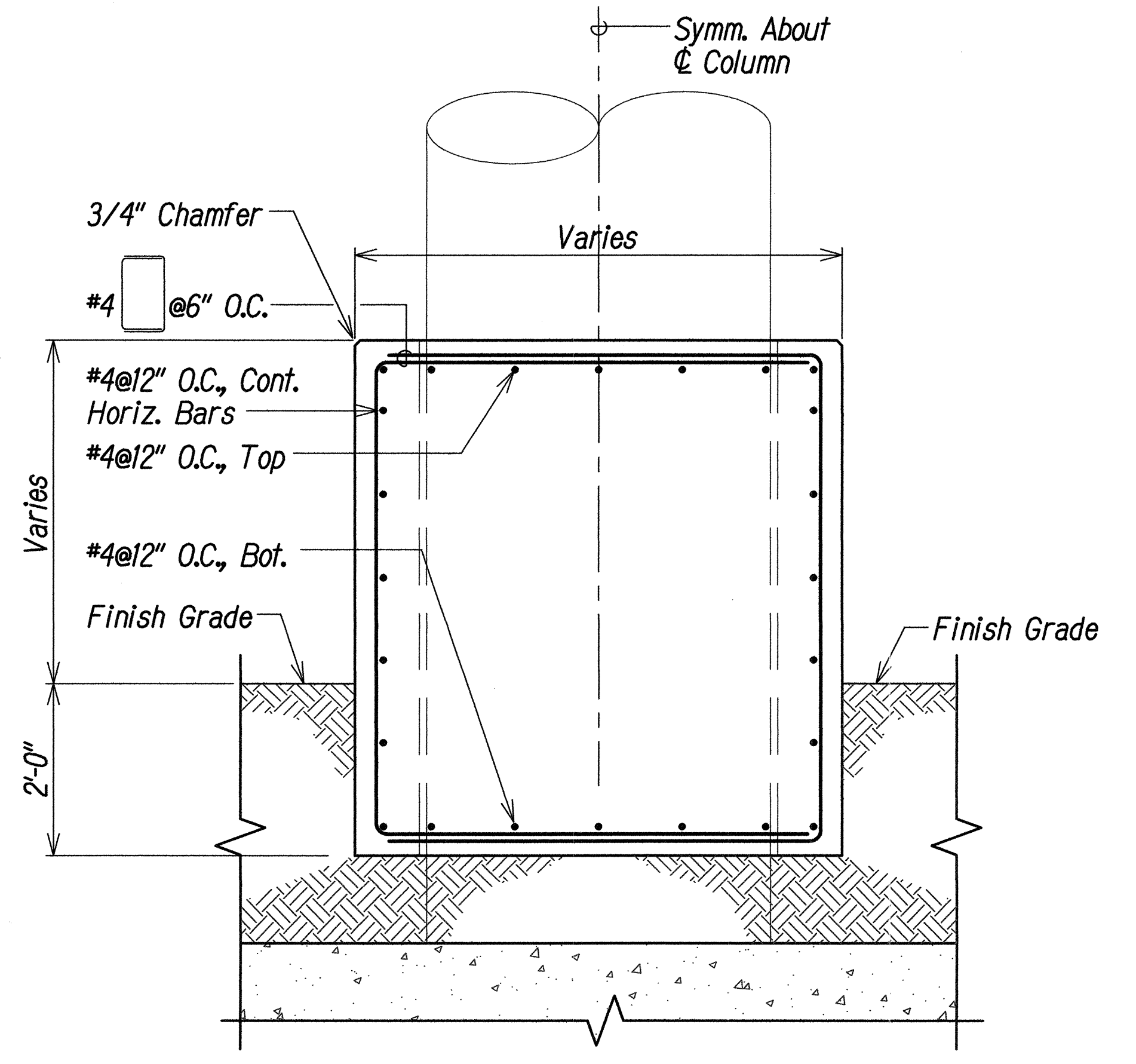


TYPICAL SECTION AT TANGENT

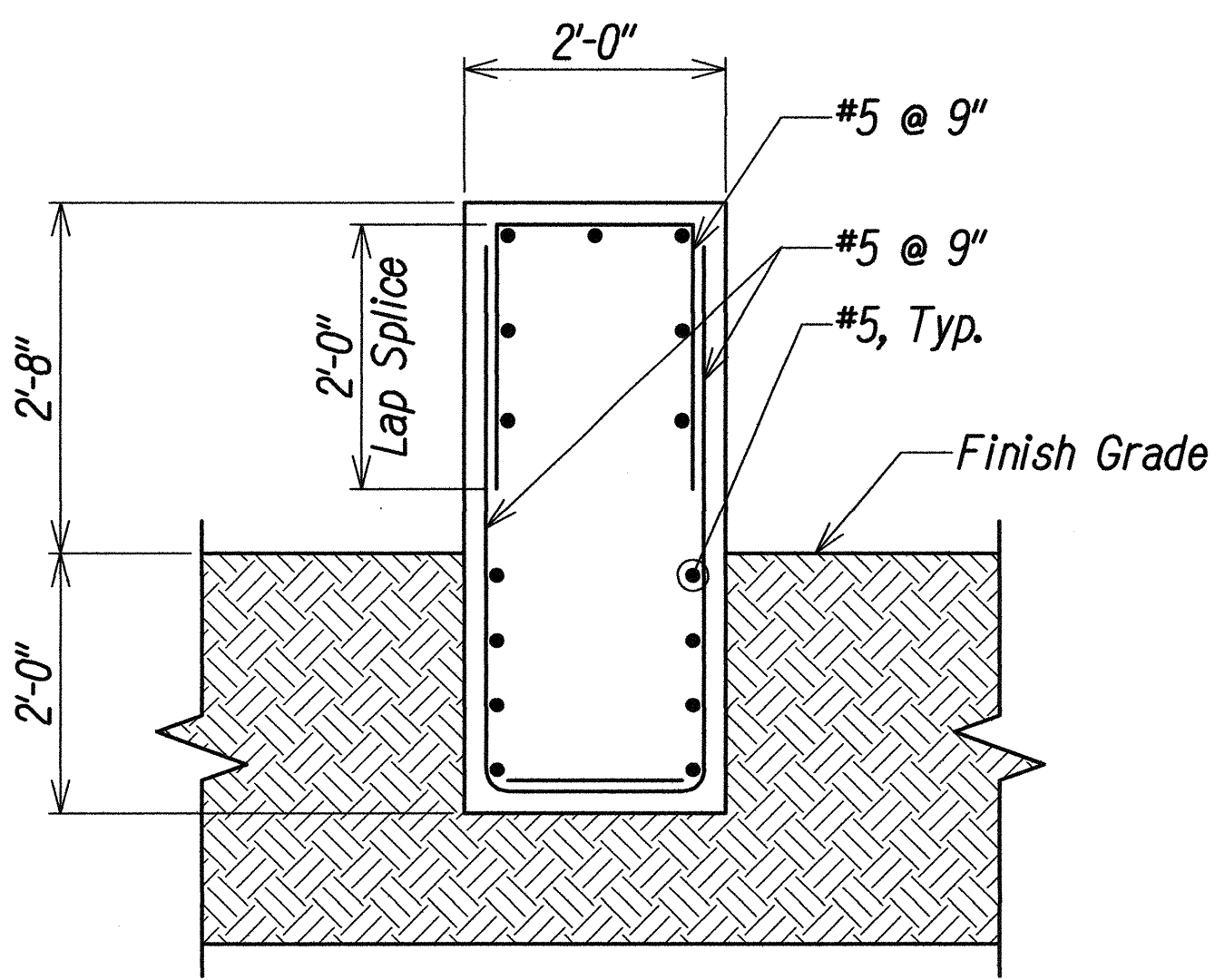
DETAIL A
Scale: 3/4"=1'-0"
S4-8 S4-8



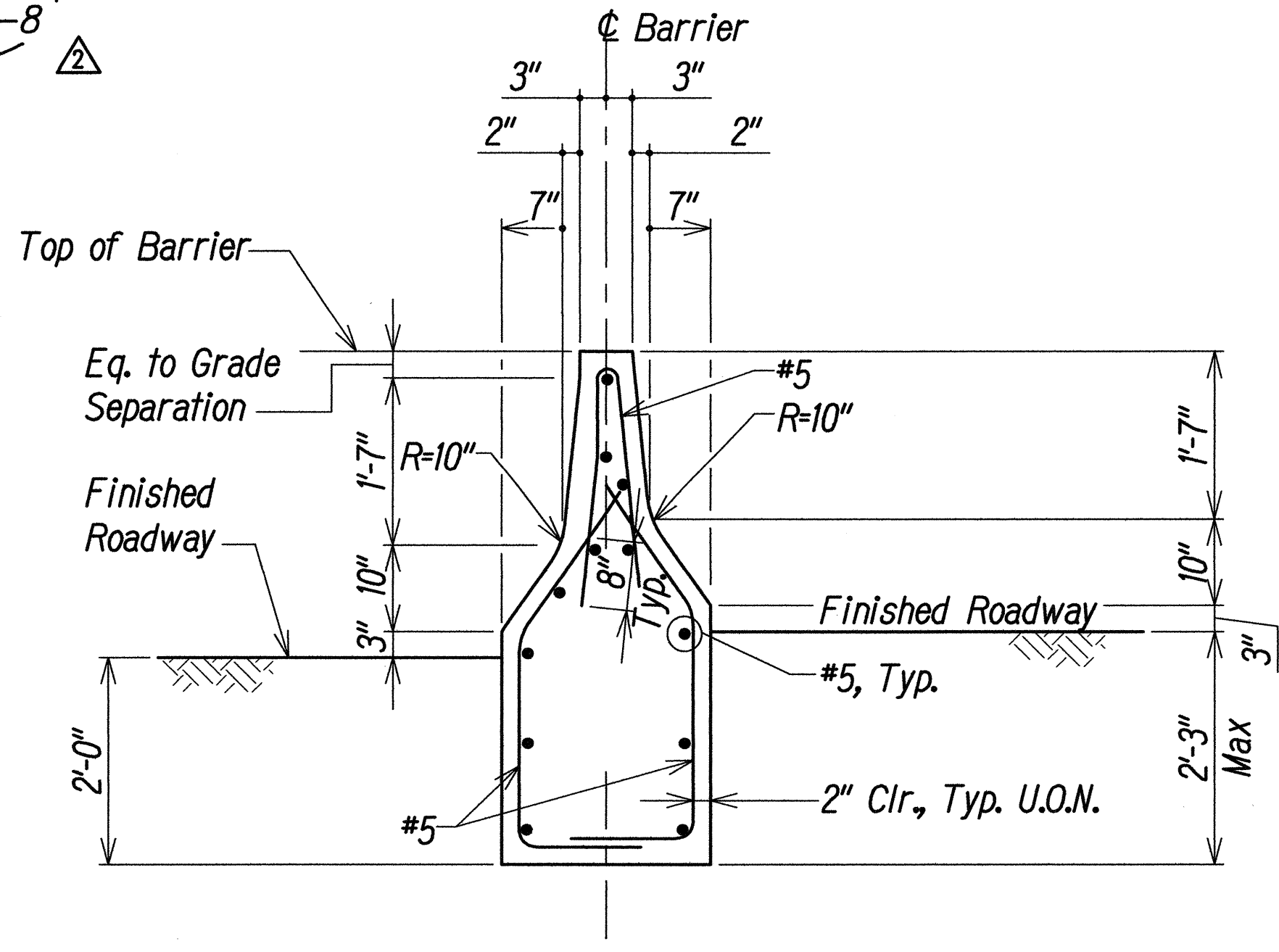
SECTION B
Scale: 3/4"=1'-0"
S4-7 S4-8



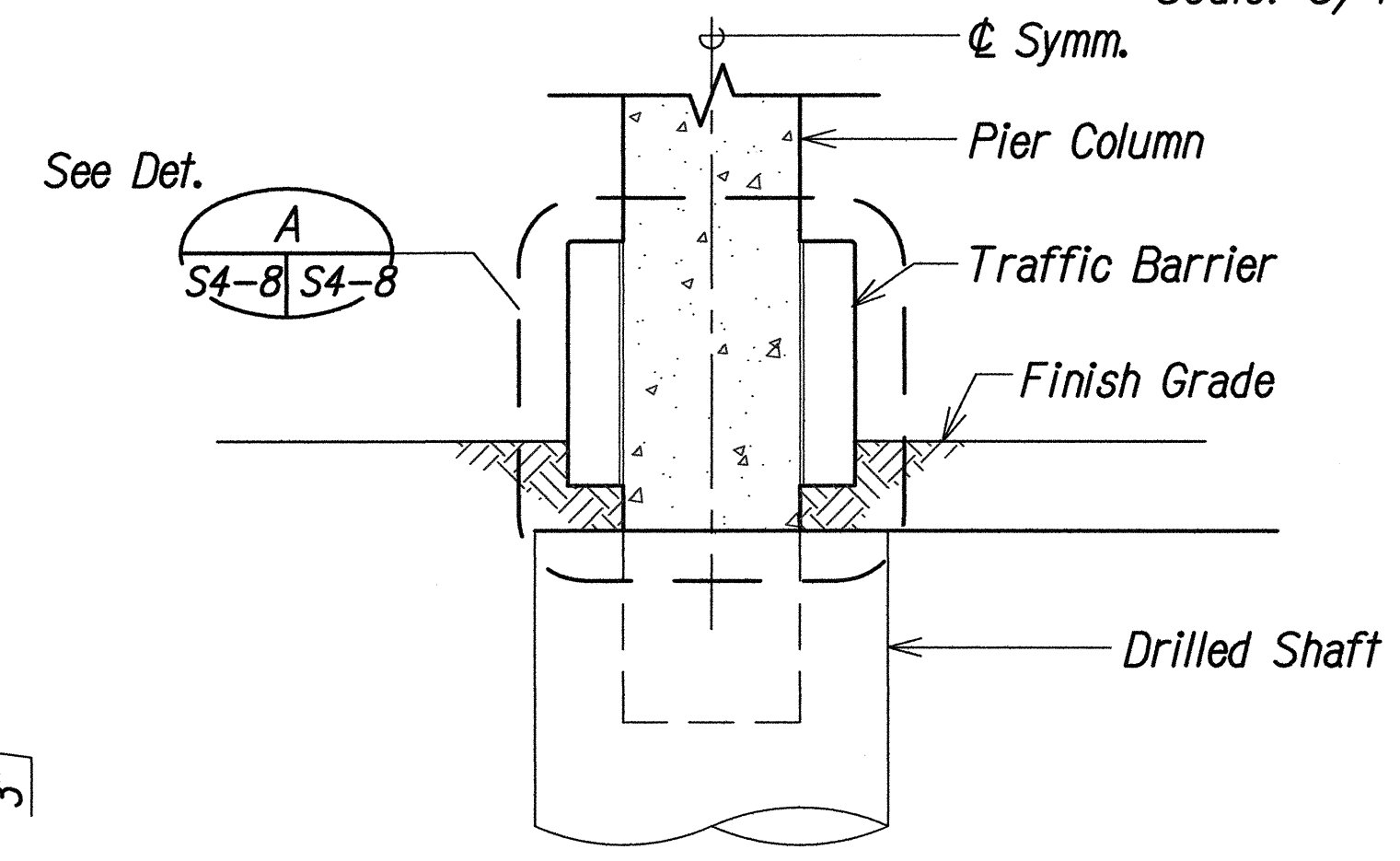
SECTION C
Scale: 3/4"=1'-0"
S4-7 S4-8



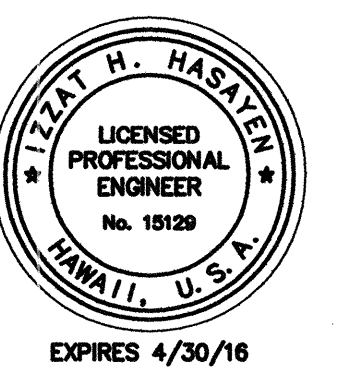
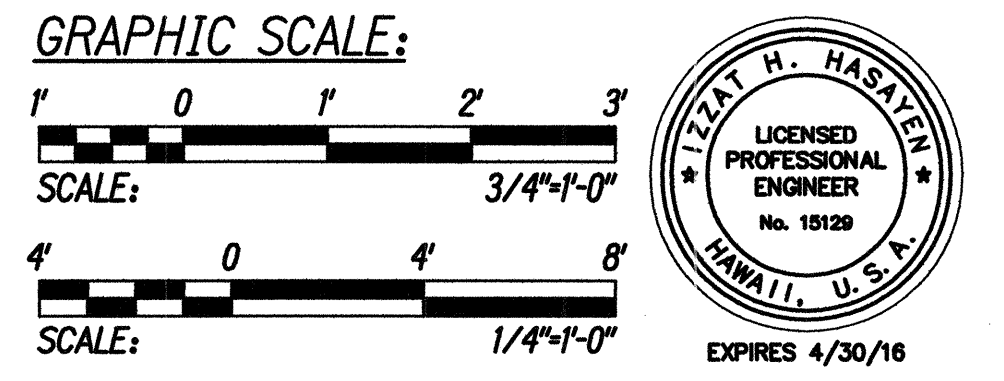
SECTION D
Not to Scale
S4-7 S4-8



SECTION E
Not to Scale
S4-7 S4-8



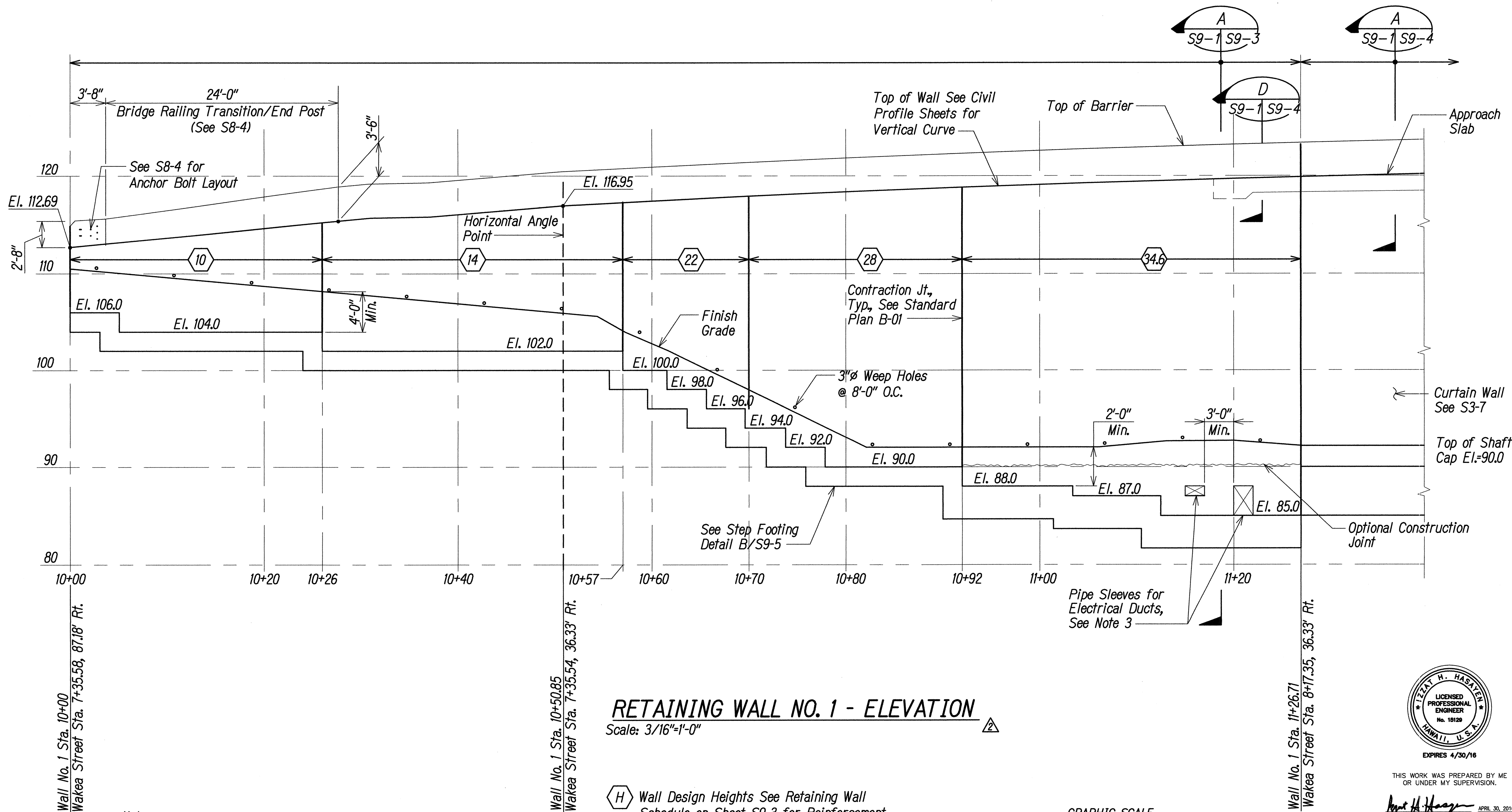
SECTION A
Scale: 1/4"=1'-0"
S4-7 S4-8



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PIER BARRIER DETAILS
INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-HI-1 (261)
Scale: As Shown Date: January 20, 2015
SHEET No. S4-8 OF 103 SHEETS

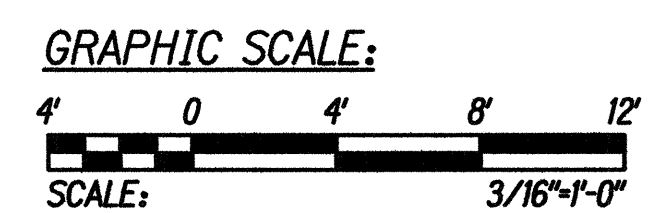
DATE	REVISION
5/18/15	Add New Sections for Clarity



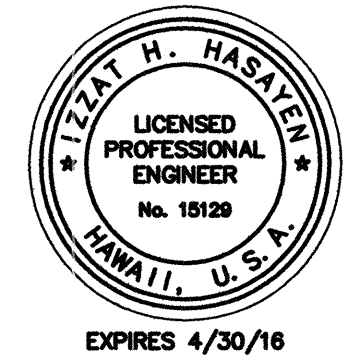
RETAINING WALL NO. 1 - ELEVATION
Scale: 3/16"=1'-0"

H Wall Design Heights See Retaining Wall Schedule on Sheet S9-3 for Reinforcement.

- Notes:**
1. See Civil Drawings for Horizontal and Vertical Curve Wall Alignment.
 2. Minimum Cover on Toe of Footing Shall be 4'-0" Between Stations 10+00 Thru 10+50.25.
 3. Duct Bank to be Constructed After Construction of The Retaining Wall. See Sheet ED7 for Duct Bank Location, EA Sheets for Duct Bank Geometry, and S9-5 for Reinforcing.

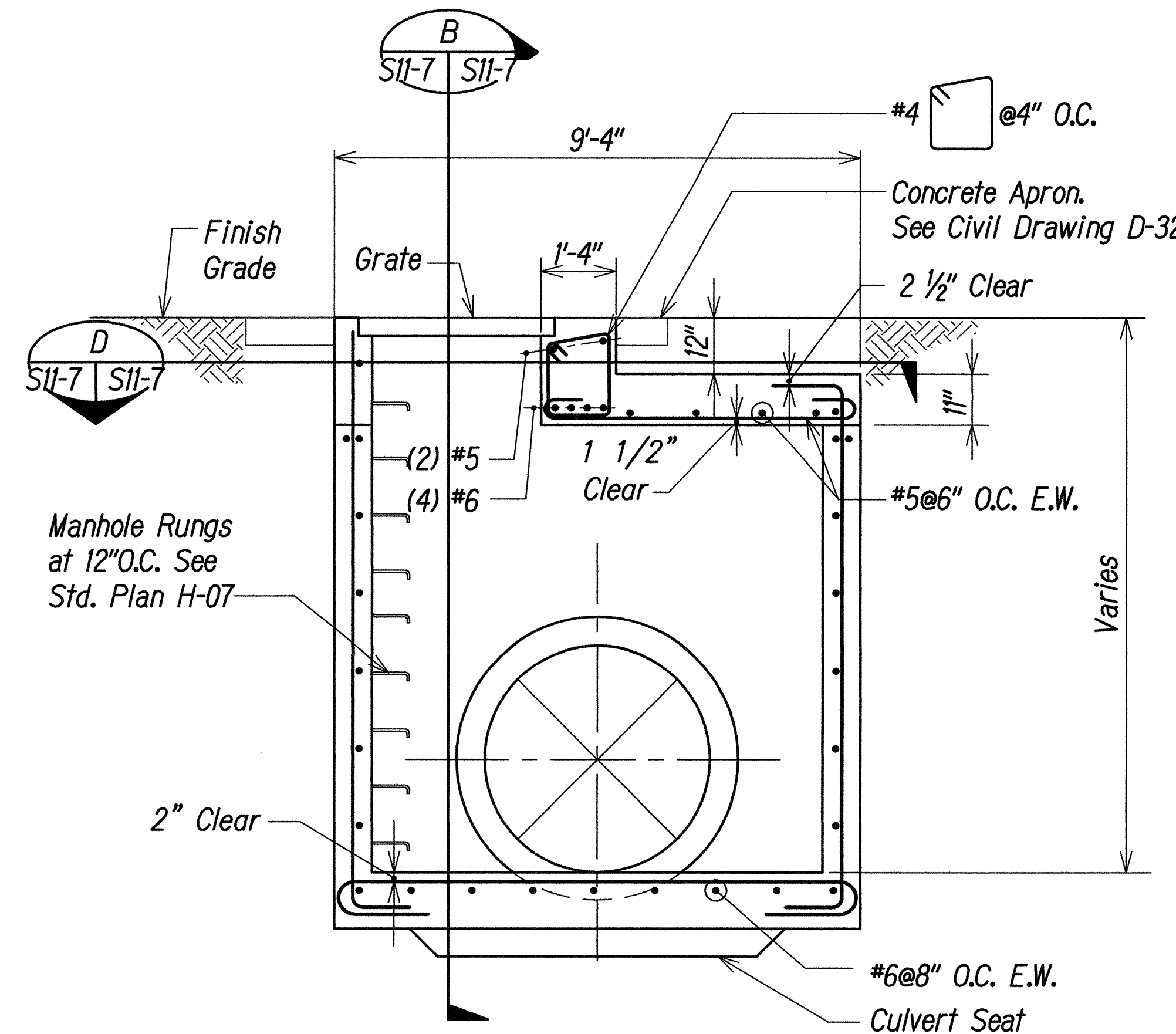


DATE	REVISION
5/18/15	Update Wall Length

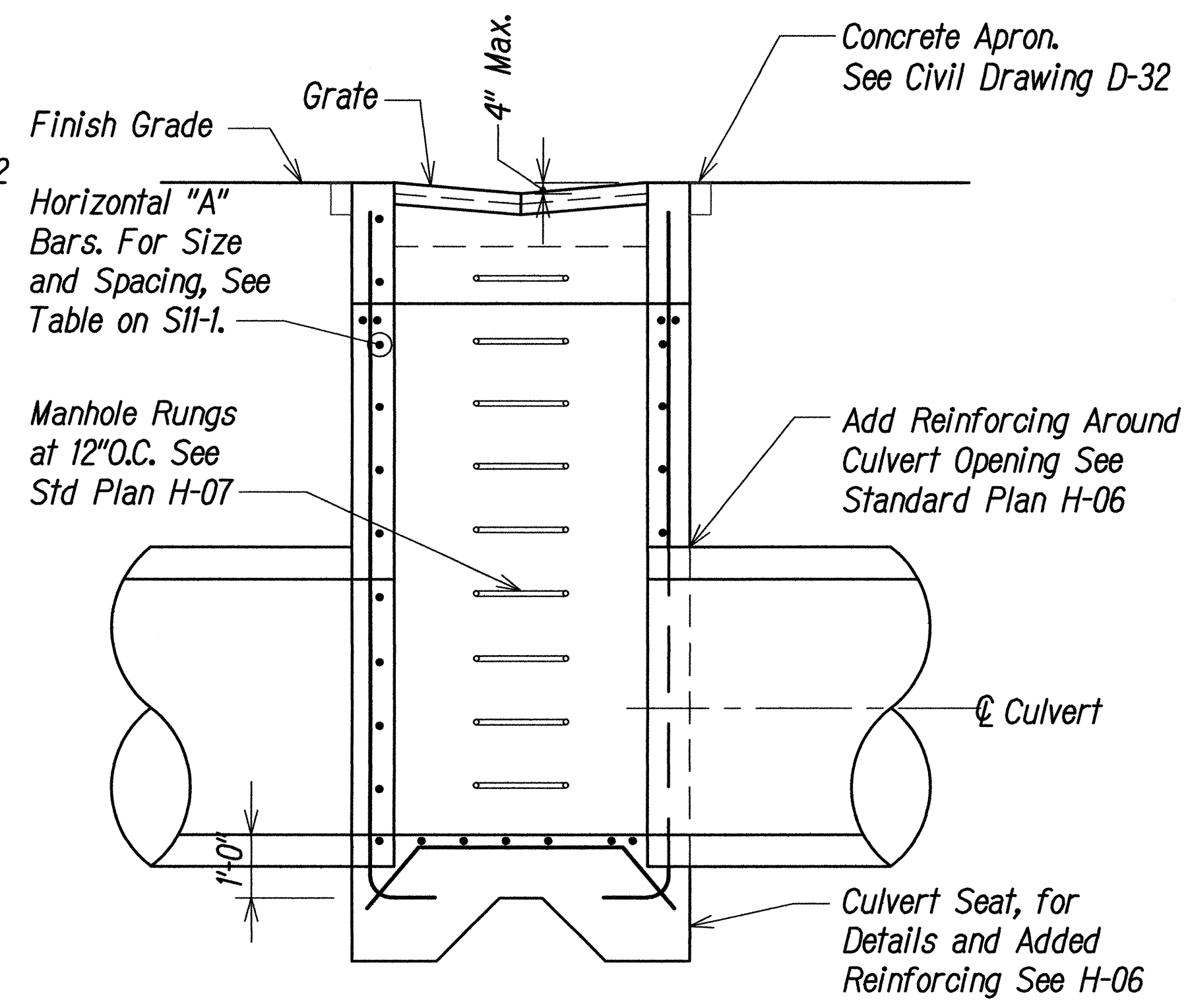


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Jeff H. Hauger APRIL 30, 2016
JEFF CONSULTING ENGINEERS LIC. EXP. DATE

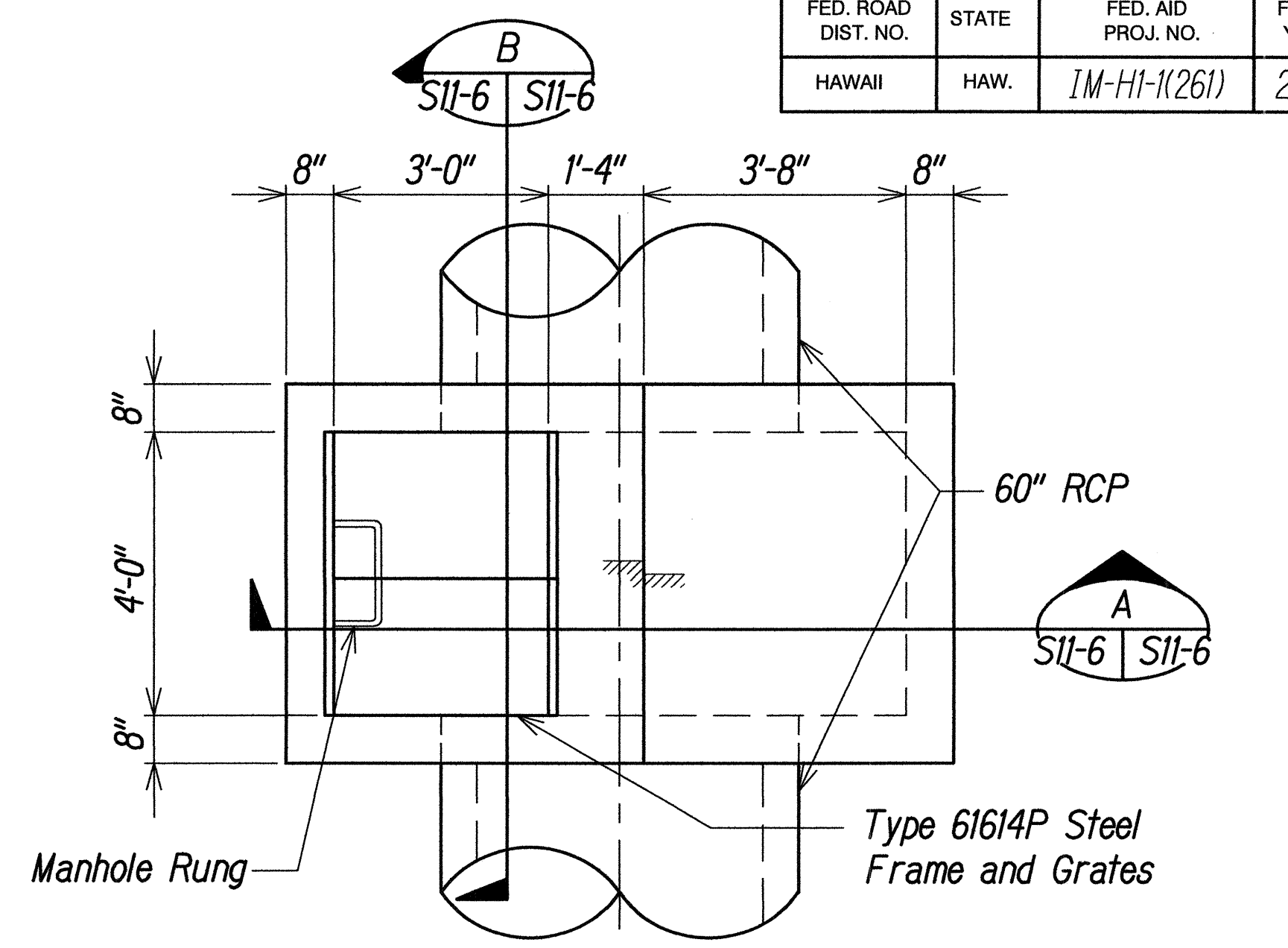
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
RETAINING WALL NO. 1
ELEVATION
INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. 1M-HI-1 (261)
Scale: 3/16"=1'-0" Date: January 20, 2015
SHEET No. S9-1 OF 103 SHEETS



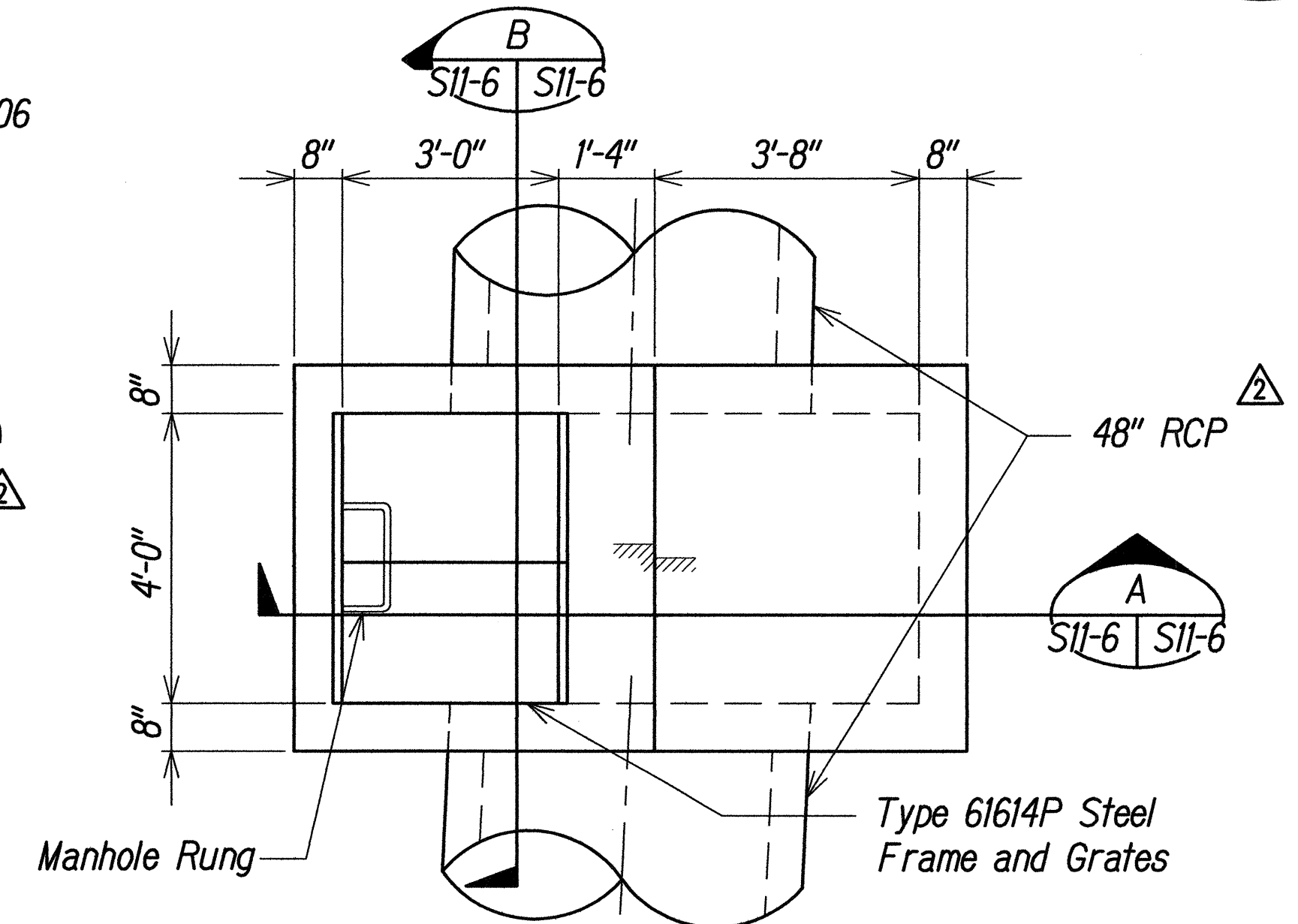
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MODIFIED TYPE "61614" - SECTION
 Scale: 1/2"=1'-0"



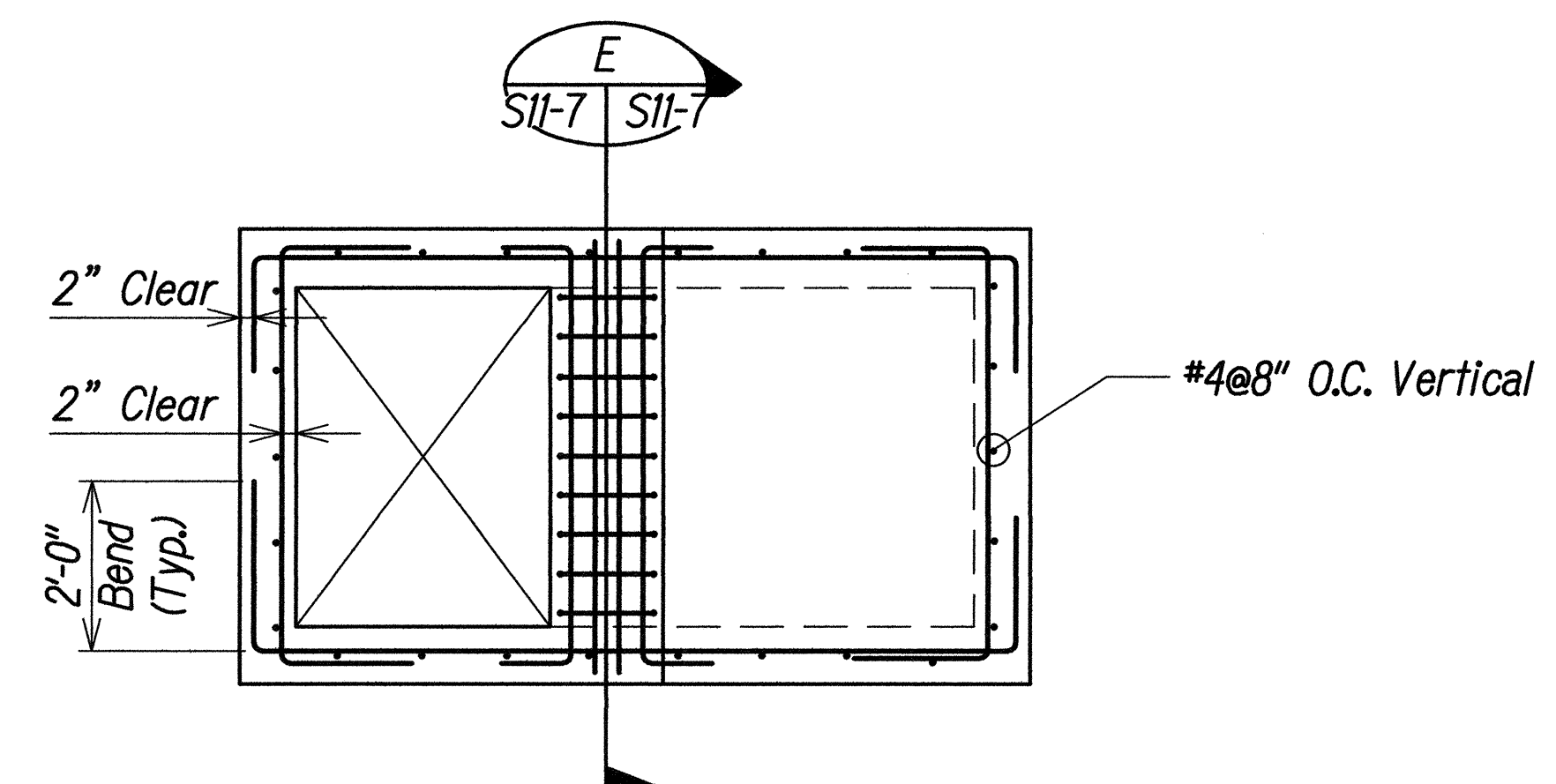
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MODIFIED TYPE "61614" - SECTION
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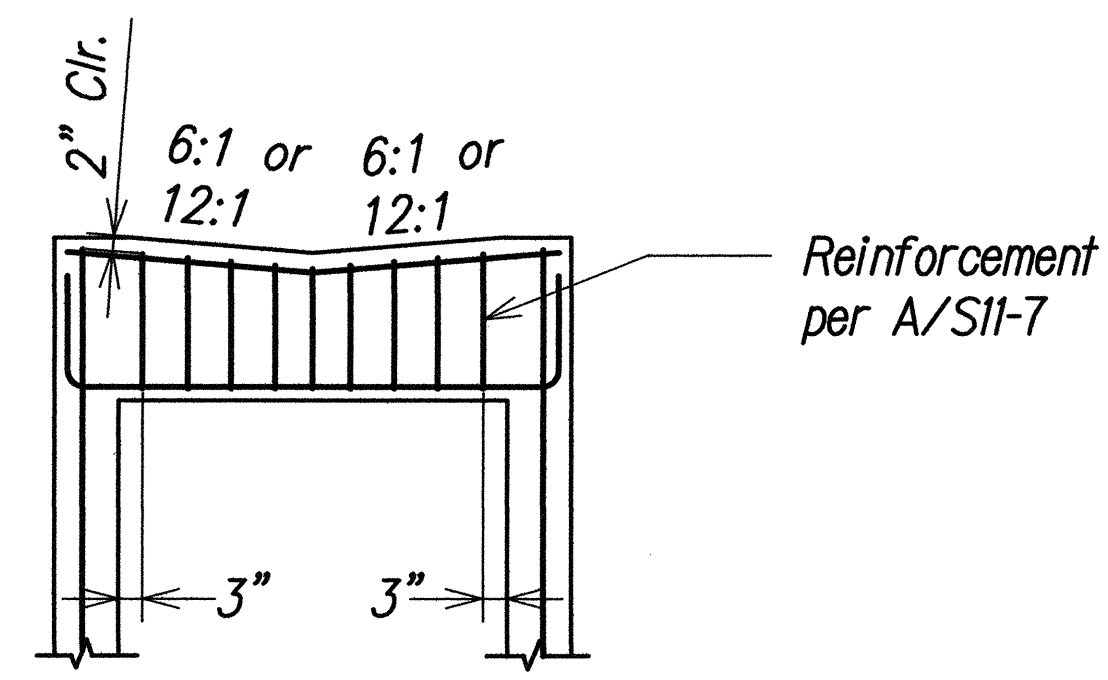
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MODIFIED TYPE "61614" - PLAN
 Scale: 1/2"=1'-0"



GDI-"H-4"
MODIFIED TYPE "61614" - PLAN
 Scale: 1/2"=1'-0"



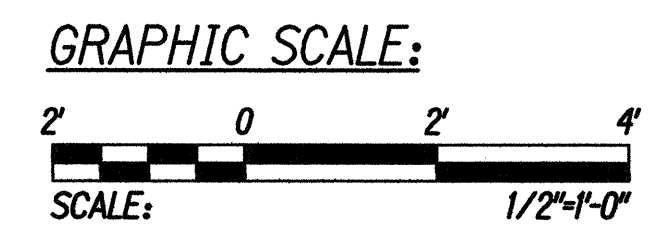
LID PLAN
 Scale: 1/2"=1'-0"



SECTION OF BEAM REINFORCING
 Scale: 1/2"=1'-0"

Structural Notes:

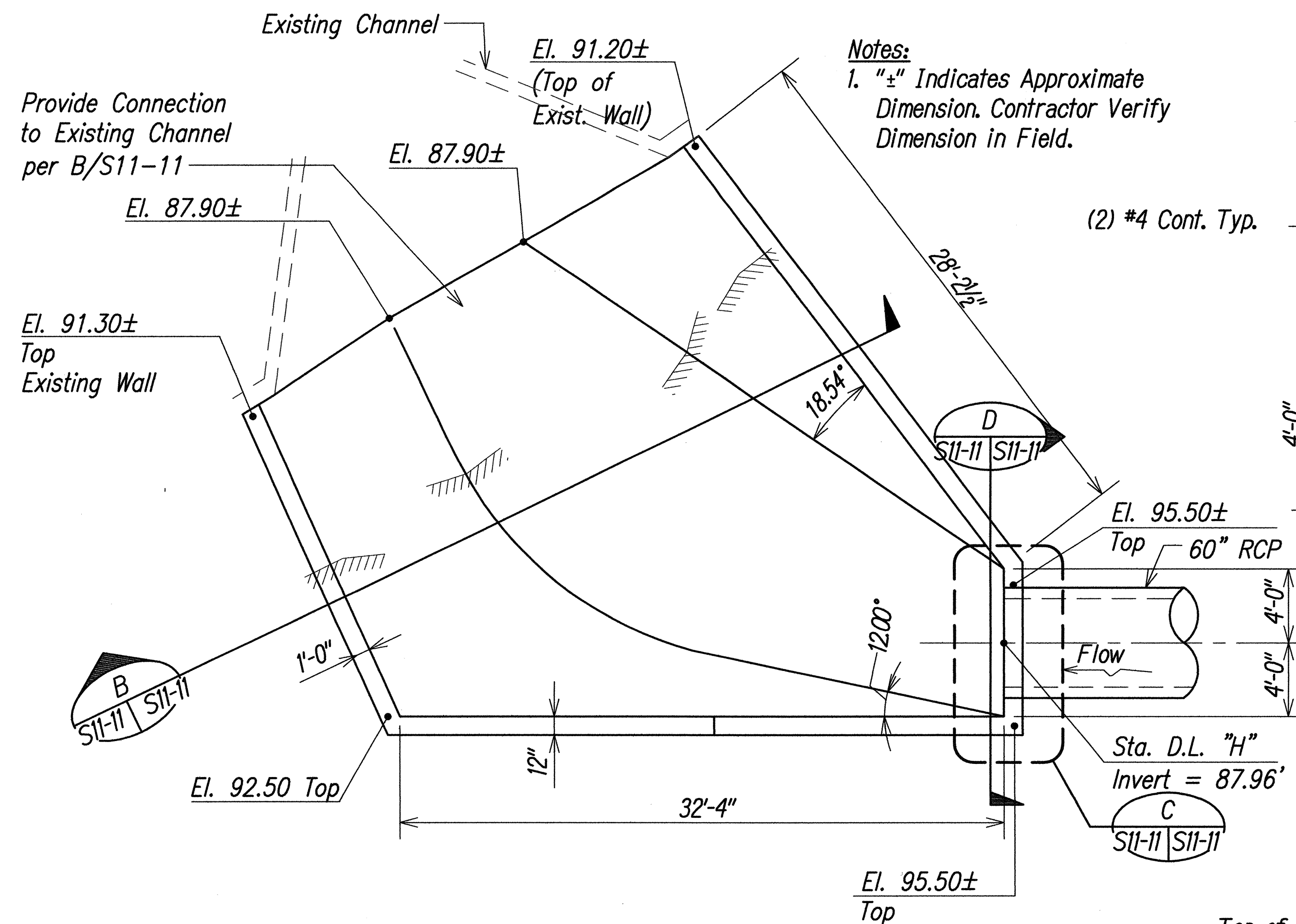
- See Sheet S11-1 and S11-2 for General Notes and Typical Manhole Details.



DATE	REVISION
5/18/15	Update Section Title

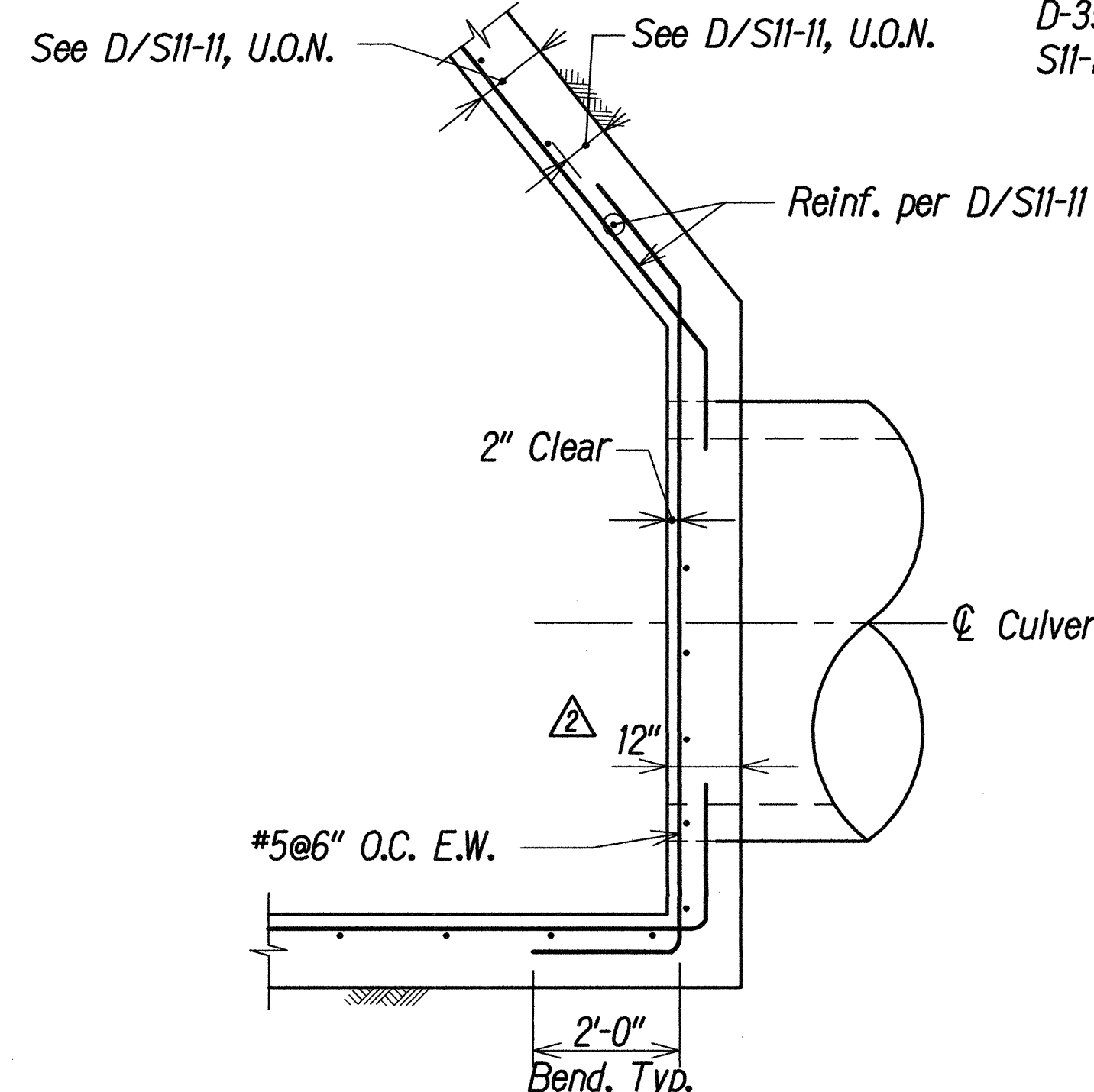
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
GRATED DROP INLET
DETAILS AND SECTIONS (1)
 INTERSTATE ROUTE H-1
 ADDITION AND MODIFICATION OF FREEWAY ACCESS
 (Kapolei Interchange Complex), Phase 2
 Federal-Aid Project No. IM-HI-1 (261)
 Scale: 1/2"=1'-0" Date: January 20, 2015

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



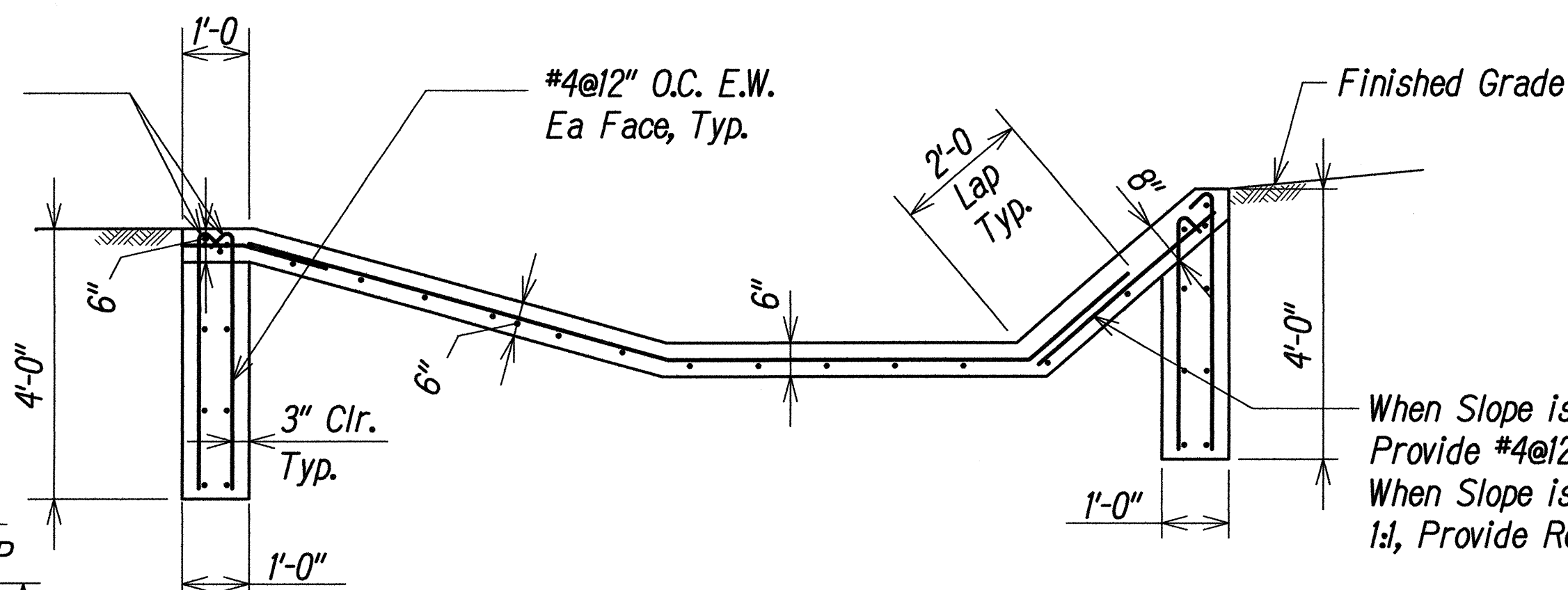
OUTLET STRUCTURE #2 PLAN

Scale: 1"=5'-0"



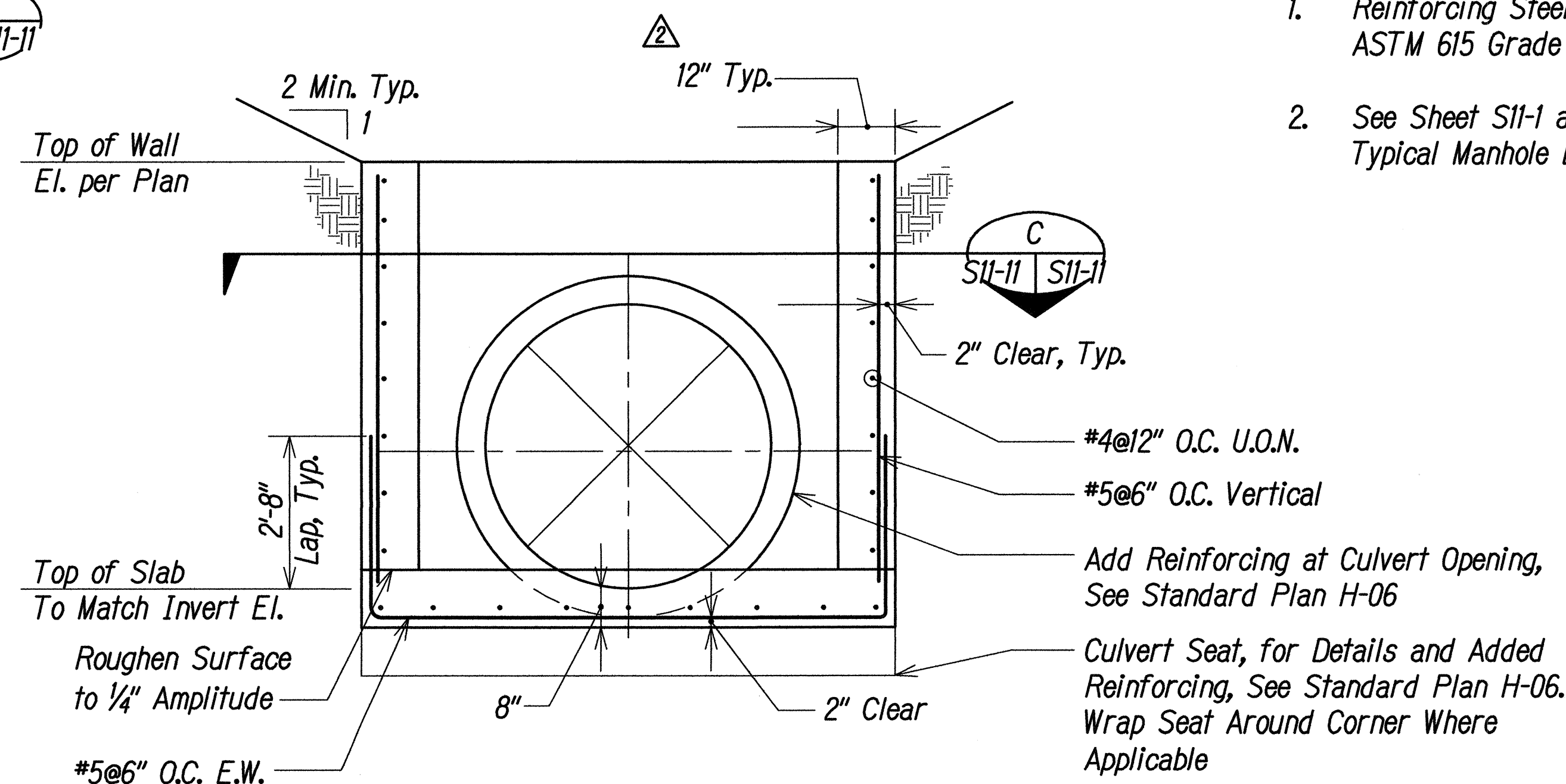
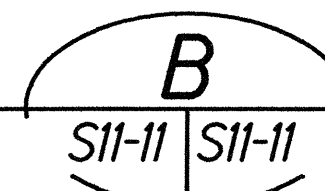
PLAN VIEW OF OUTLET STR #2

No Scale



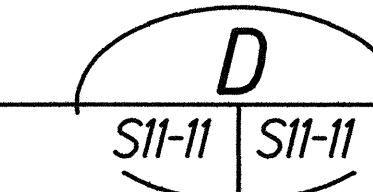
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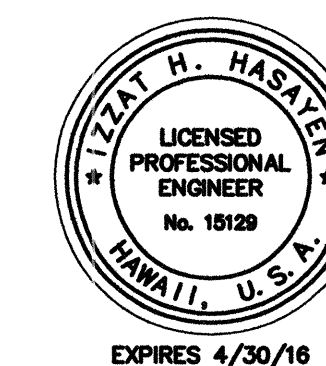
OUTLET STRUCTURE #2 SECTION

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



Structural Notes:

- Reinforcing Steel This Sheet Shall be Deformed Bars ASTM 615 Grade 40, Field Bend as required.
- See Sheet S11-1 and S11-2 for General Notes and Typical Manhole Details.



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APRIL 30, 2016
OFF CONSULTING ENGINEERS LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

OUTLET

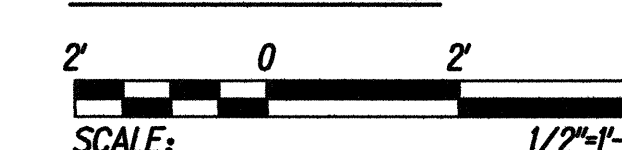
DETAILS AND SECTIONS (1)

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. IM-HI-1 (261)

Scale: As Shown Date: January 20, 2015

SHEET No. S11-11 OF 103 SHEETS

GRAPHIC SCALE:



5/18/15 Update Wall Thickness

DATE REVISION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(261)	2015	ADD. 524	524

SOIL PREPARATION NOTES:

1. CONTRACTOR TO UTILIZE EXISTING SOIL FOR THE PROJECT. FINISH GRADE OF THE COMPLETED 1. PROJECT SHALL REMAIN APPROXIMATELY THE SAME AS EXISTING GRADE. PRESERVE EXISTING DRAINAGE PATTERNS. SOIL PREPARATION NOTES APPLY TO ALL AREAS.
2. DO NOT SCREEN EXISTING SOIL.
3. USE LOCALLY AVAILABLE COMPOST SUCH AS HAWAIIAN EARTH PRODUCTS COMPOST.
4. DO NOT WORK THE SOIL WHEN AIR OR SOIL IS SO MOIST THAT EXCESSIVE COMPACTION OCCURS OR 4. SO DRY THAT DUST FORMS. APPLY WATER IF NECESSARY TO BRING SOIL TO OPTIMAL MOISTURE CONTENT FOR TILLING, PLANTING AND DUST CONTROL.
5. REMOVE AND DISPOSE OF TOP LAYER OF ROAD SILT.
6. REMOVE AND DISPOSE OF PLASTICS, GLASS, GRAVEL, PLASTIC AND METAL HEADER, TRASH AND STONES 6. GREATER THAN 1 INCH DIAMETER AS A RESULT OF SOIL PREPARATION.
7. THE CONTRACTOR SHALL ONLY PERFORM SOIL PREPARATION TO THE EXTENT THAT CAN BE COMPLETED BY THE END OF THE WORK DAY. ANY EXPOSED SOILS AT THE END OF THE WORK DAY SHALL BE COVERED WITH COMPOST.

PHASE I

1. PRIOR TO CONSTRUCTION, UNIFORMLY SPREAD TWO INCHES OF COMPOST OVER ENTIRE AREA TO BE PLANTED.
2. SCARIFY THE TOP 12 INCHES OF EXISTING SOIL.
3. APPLY GENEROUS AMOUNTS OF WATER TO BREAK SOIL CLUMPS TO BETWEEN ONE INCH AND SIX INCHES IN DIAMETER.

PHASE II

1. APPLY 2 INCHES OF COMPOST AND MECHANICALLY INCORPORATE INTO THE TOP 6 INCHES OF SOIL. AFTERWARDS DO NOT ALLOW VEHICLES OR EQUIPMENT ON PLANTING AREA.

PHASE III

1. GRADE SOIL TO A SMOOTH AND EVEN FINISH WITHOUT ABRUPT CHANGES OR POCKETS.

NOTE: IN AREAS OF CUT SLOPES AND ENGINEERED COMPACTED FILL, PROVIDE TWO INCHES OF COMPOST OVER ENTIRE AREA TO BE PLANTED. DO NOT TILL INTO EXISTING SOIL. (SEE CIVIL DRAWINGS FOR CUT AND FILL AREAS)

2

NOTE: AFTER THE COMPLETION OF THE SOIL PREPARATION, REMOVE THE TOP TWO INCHES OF SOIL WITHIN 12 INCHES OF THE PAVEMENT EDGE, CAREFUL NOT TO DAMAGE THE PAVEMENT. REPAIR ALL DAMAGED PAVEMENT AND CURB AS A RESULT OF CONSTRUCTION ACTIVITY AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

PROTECT 14 UNDISTURBED SUBGRADE SLOPE

EXISTING FINISH GRADE

12"

EXISTING PAVEMENT

EXISTING PAVEMENT GRAVEL BASE

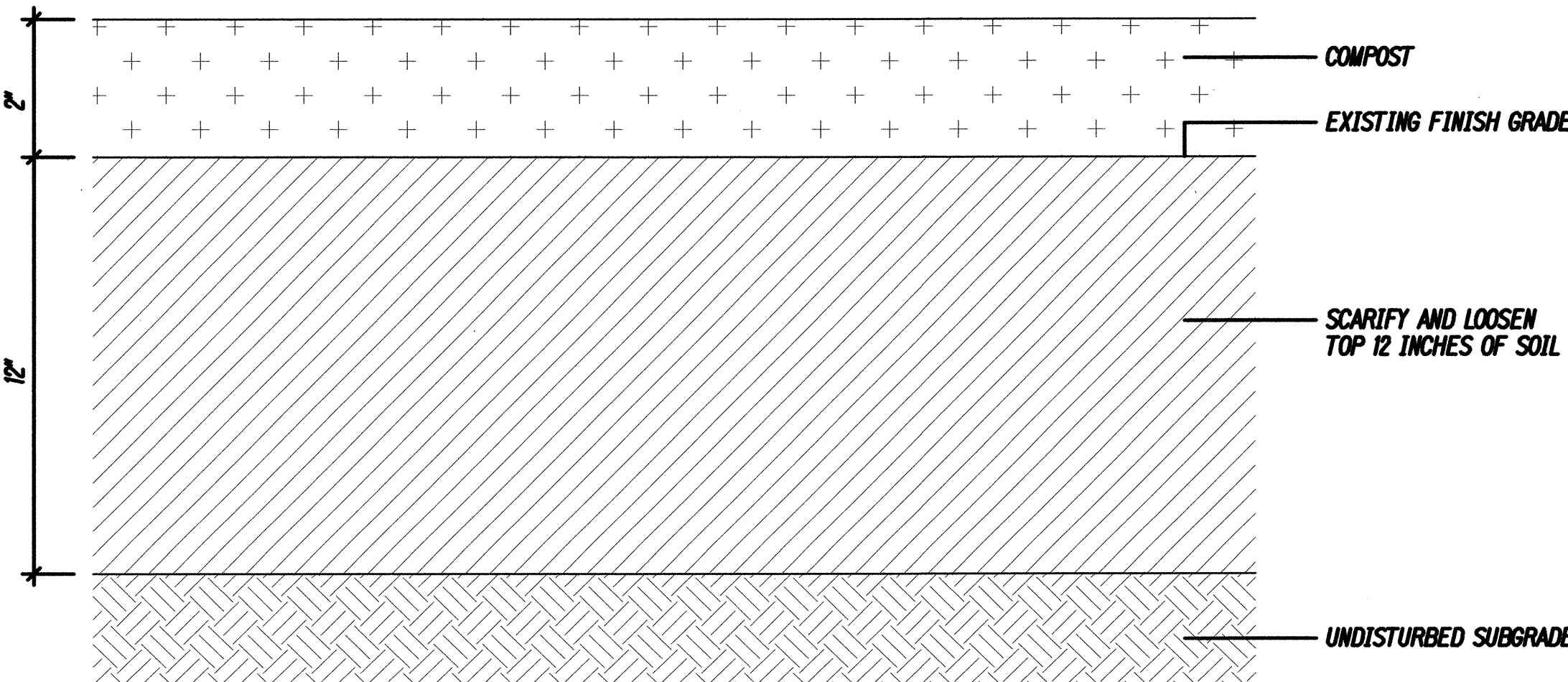
UPGRADE

LOOSENEO SOIL

PAVEMENT EDGE PROTECTION DETAIL

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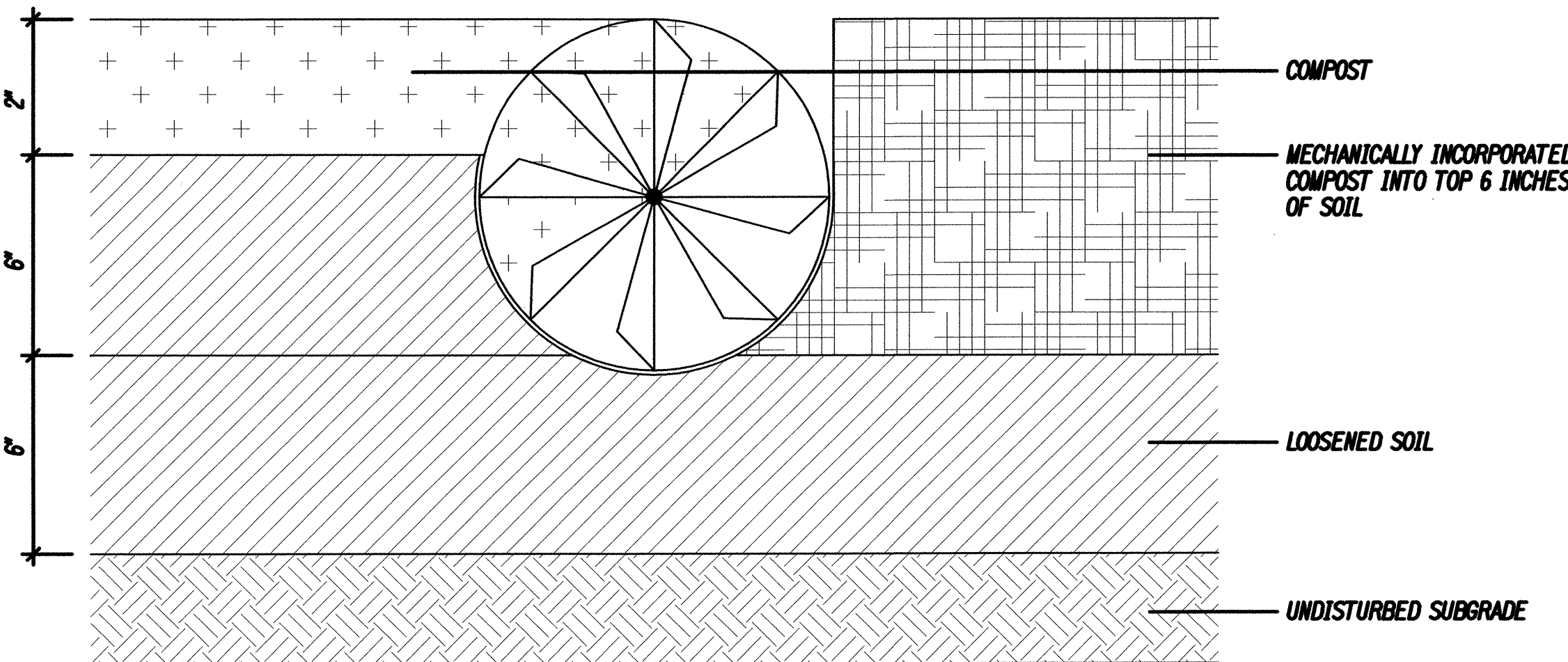
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L-5/L-5



SOIL PREPARATION PROCESS PHASE I

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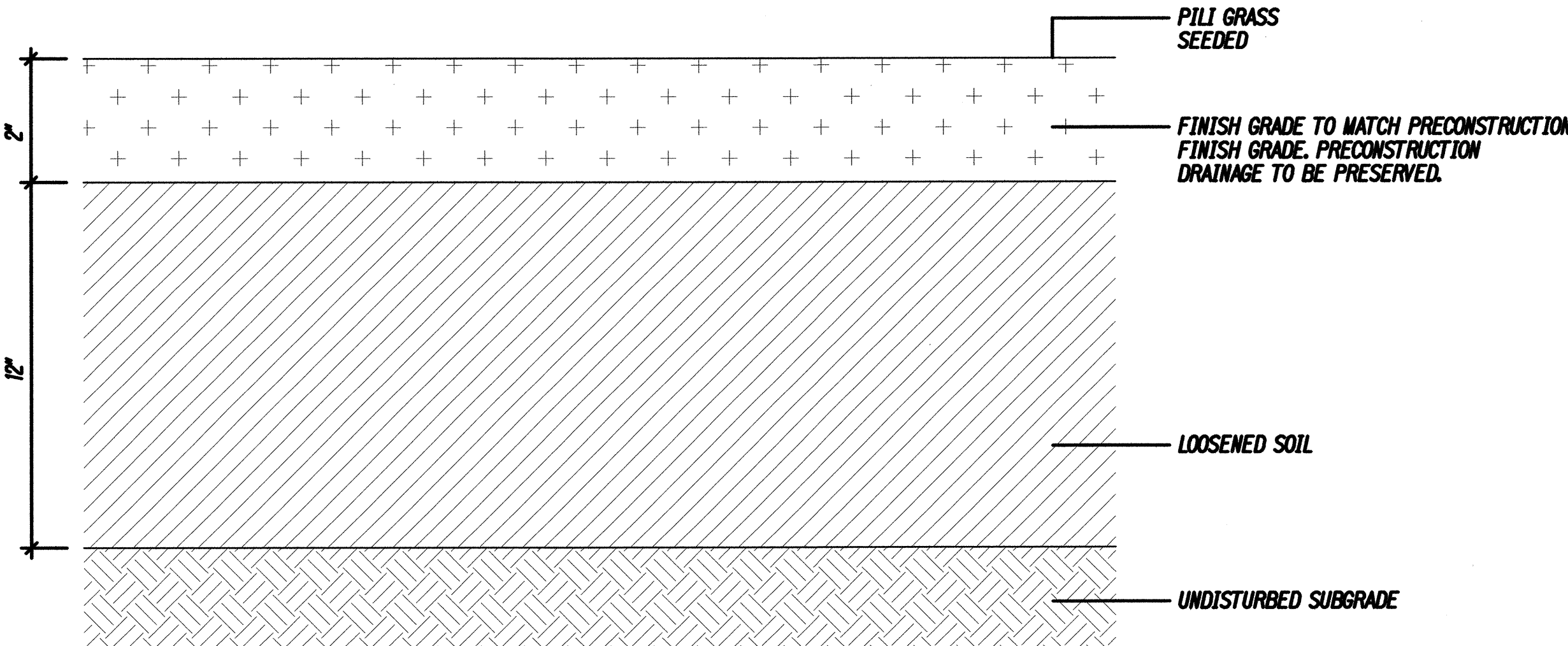
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L-5/L-5



SOIL PREPARATION PROCESS PHASE II

NO SCALE

3
L-5/L-5



SOIL PREPARATION PROCESS PHASE III

NO SCALE

4
L-5/L-5

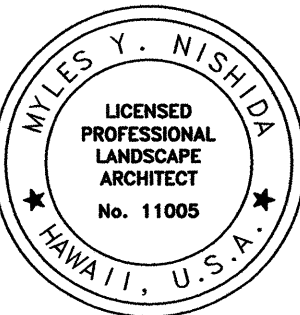
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5/18/15

Added Note For Soil Amendment

DATE

REVISION



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Miles Y. Nishida APRIL 30, 2016
WALTERS, KIMURA, MOTODA, INC. U.C. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SOIL PREPARATION DETAILS

INTERSTATE ROUTE H-1
ADDITION AND MODIFICATION OF FREEWAY ACCESS
(Kapolei Interchange Complex), Phase 2
Federal-Aid Project No. IM-HI-1 (261)
Scale: NO SCALE Date: January 20, 2015

SHEET No. L-5 OF 5 SHEETS

ADD. 524