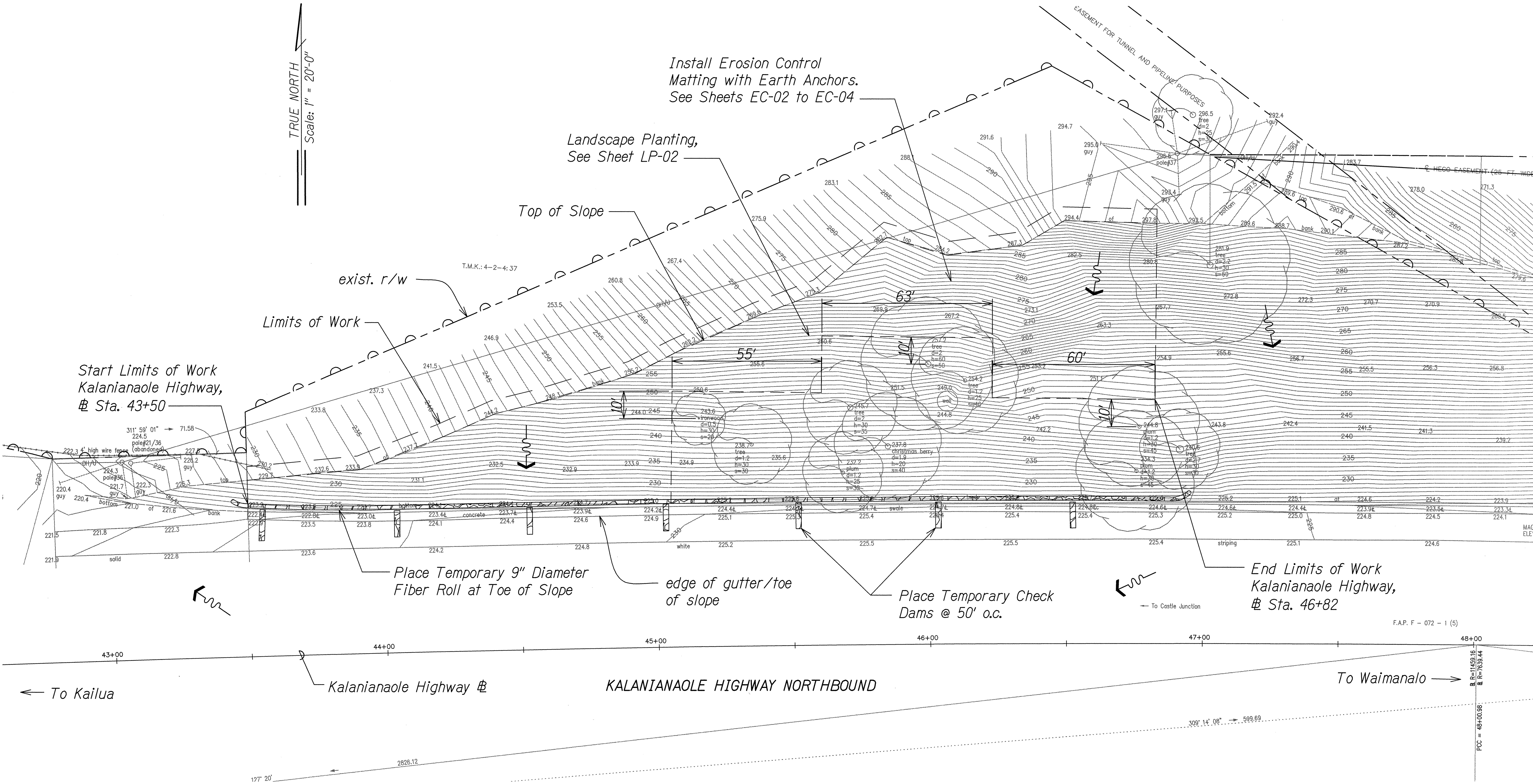


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-07-14M	2014	25	51



TEMPORARY EROSION CONTROL AND PERMANENT BMP PLAN PID 125
Scale: 1" = 20'-0"

- Notes:**
- For erosion mat details, see Sheets EC-02 & EC-03.
 - See Landscaping Drawings for tree protection and removal.

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

JASON H. LAU
 LICENSED PROFESSIONAL ENGINEER
 NO. 9360-C
 HAWAII, USA
 EXP. DATE 4/30/16
[Signature]
 This Work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMP. EC AND PERMANENT BMP PLAN

PID 125

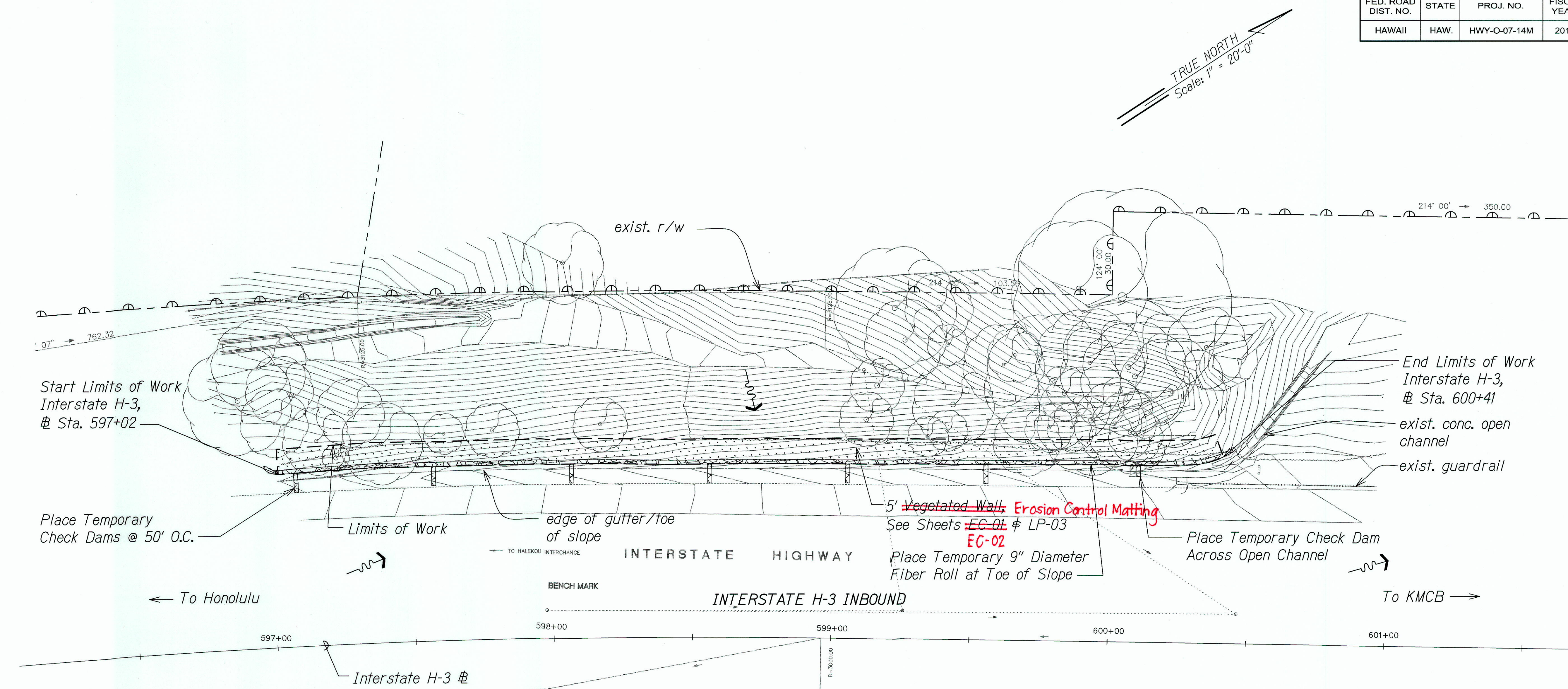
KAWAINUI WATERSHED STORM WATER BEST MANAGEMENT PRACTICES ON OAHU

Project No. HWY-O-07-14M

Scale: 1" = 20'-0" Date: April 2014

SHEET No. EC-10 OF 19 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-07-14M	2014	26	51



TEMPORARY EROSION CONTROL AND PERMANENT BMP PLAN PID 214
Scale: 1" = 20'-0"

Note:
1. See Landscaping Drawings for tree protection and removal.

SURVEY PLOTTED BY	DATE
DESIGNED BY	
NOTED BY	
CHECKED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMP. EC & PERMANENT BMP PLAN
PID 214

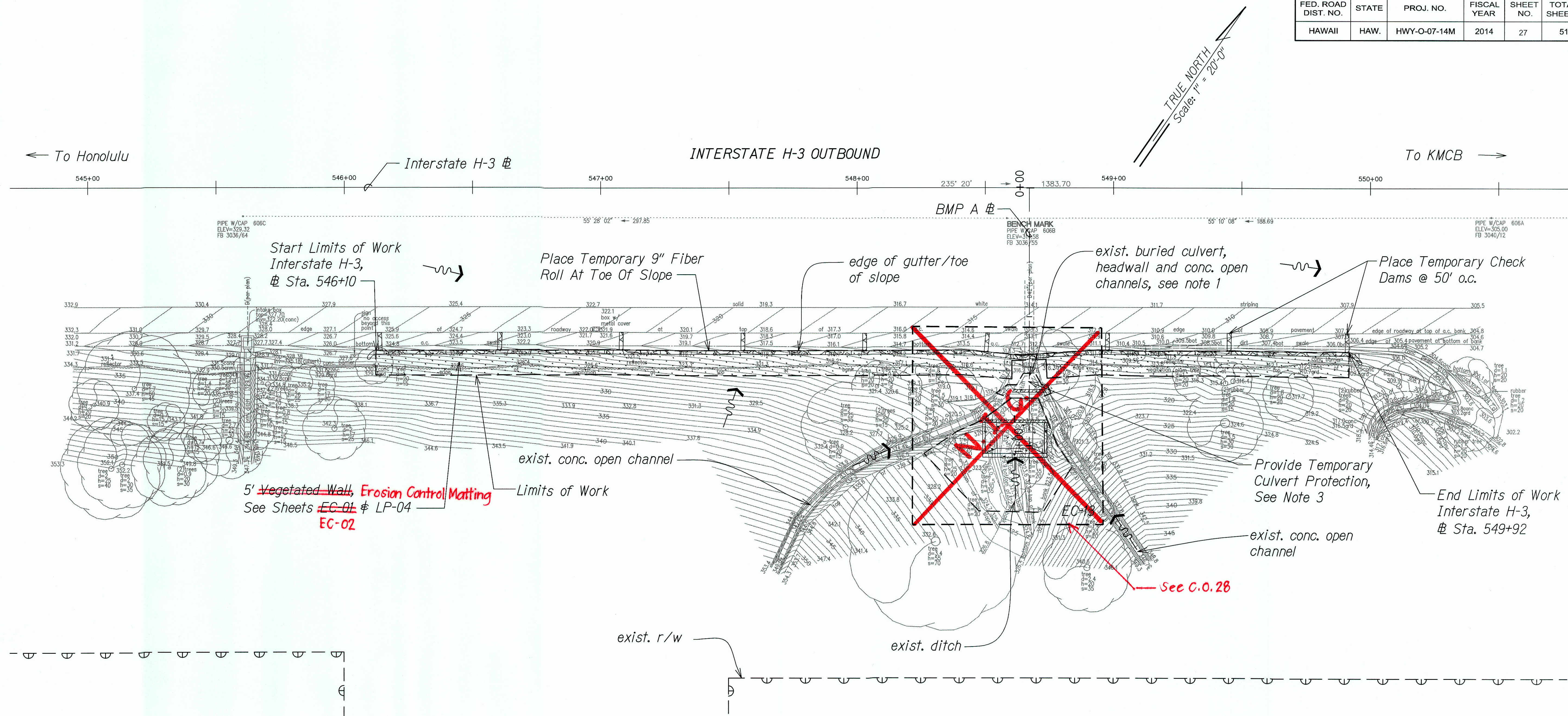
KAWAINUI WATERSHED STORM WATER
BEST MANAGEMENT PRACTICES ON OAHU

Project No. HWY-O-07-14M
Scale: 1" = 20'-0" Date: April 2014

SHEET No. EC-11 OF 19 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-07-14M	2014	27	51



TEMPORARY EROSION CONTROL AND PERMANENT BMP PLAN PID 215

Scale: 1" = 20'-0"

Notes:

1. The Contractor shall verify the location and invert of the existing buried culvert, concrete headwall and concrete open channels and notify the Engineer immediately of any discrepancies.
2. See Landscaping Drawings for tree protection and removal.
3. The Contractor shall provide culvert protection prior to construction of BMP A.
4. The Contractor shall schedule construction during dry weather periods and be prepared in case of rainfall events. The Contractor shall provide for temporary bypass or detention of storm water flows or other measures to avoid flooding or properties upstream of adjacent to the site.

ORIGINAL PLAN	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

4/30/16
EXP. DATE

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMP. EC AND PERMANENT BMP PLAN

PID 215

KAWAINUI WATERSHED STORM WATER
BEST MANAGEMENT PRACTICES ON OAHU

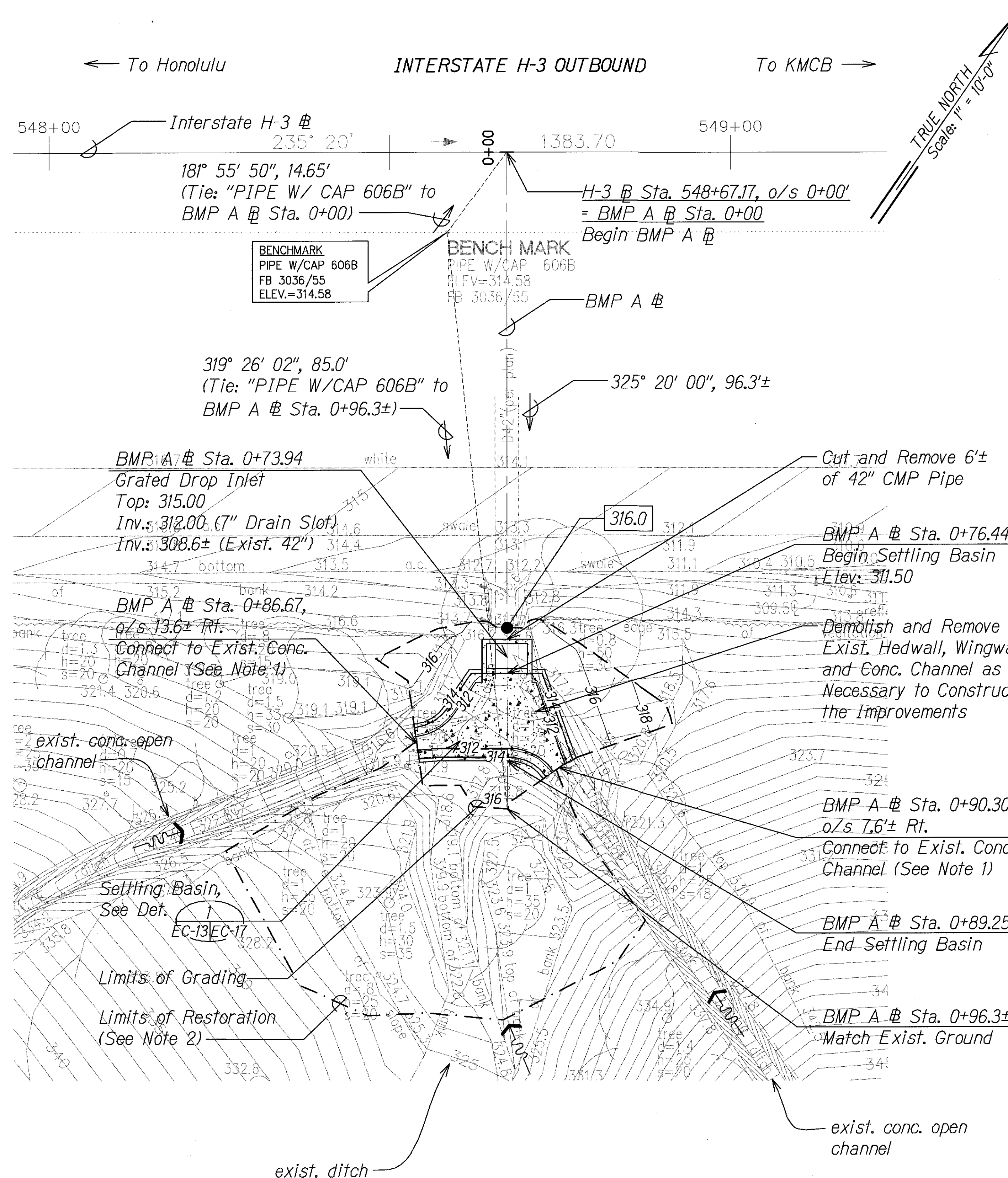
Project No. HWY-O-07-14M

Scale: 1" = 20'-0" Date: April 2014

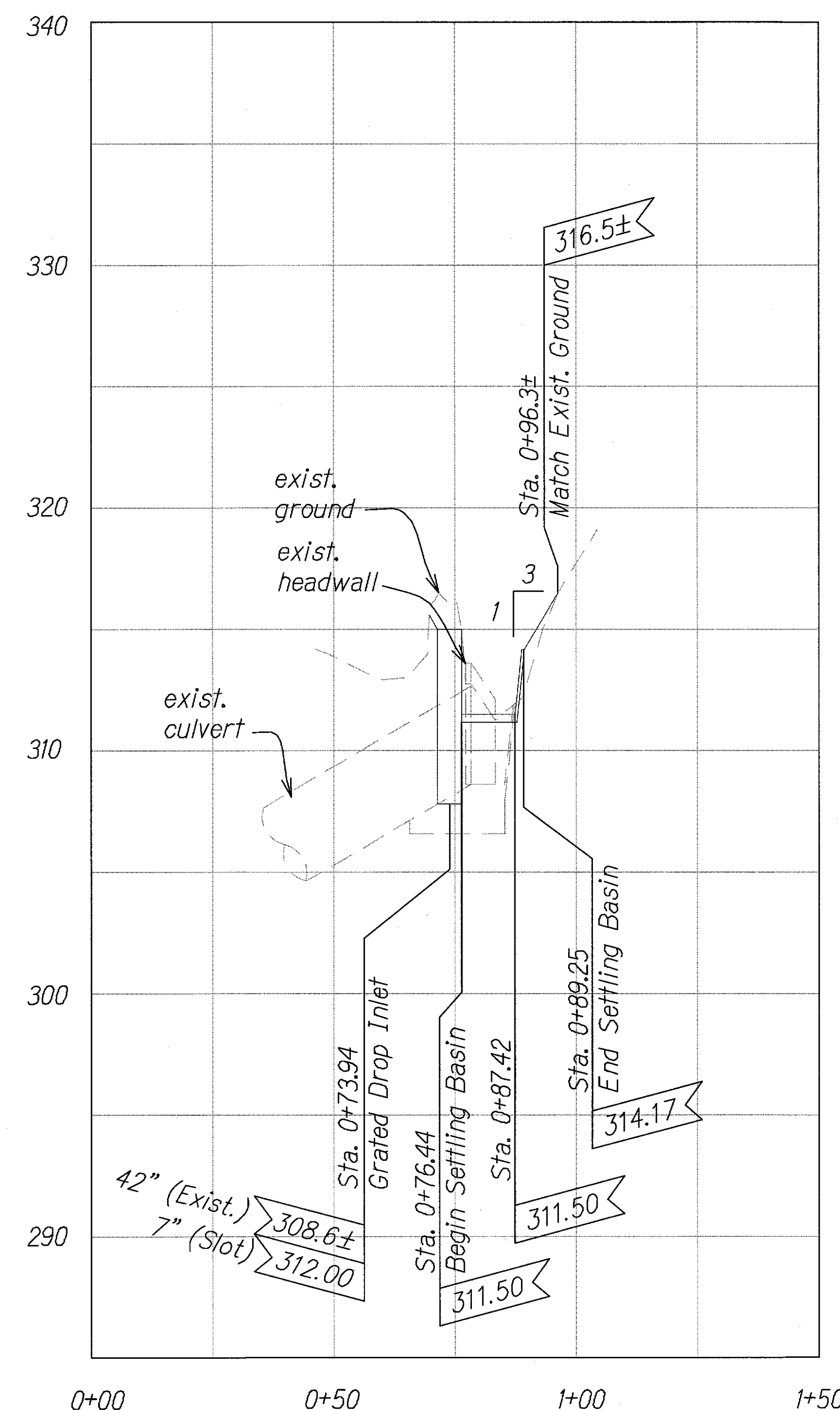
SHEET No. EC-12 OF 19 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-07-14M	2014	C.O. 28	51



PERMANENT BMP PLAN
PID 215
Scale: 1" = 10'-0"



BMP A PROFILE
Scale: Horiz. 1" = 20'-0"
Vert. 1" = 4'-0"

LEGEND

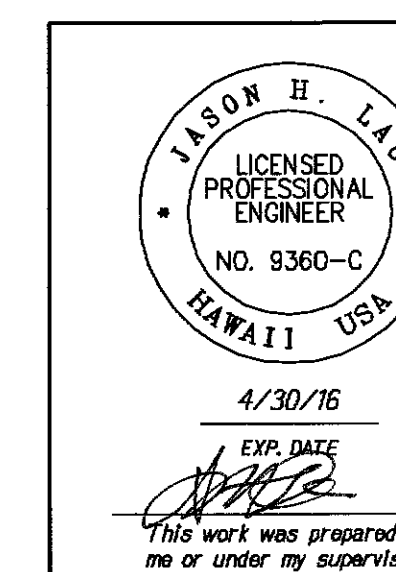
- 100 --- Existing Contour
- 100 — Finish Contour
- Limits of Grading
- Limits of Restoration
- Concrete Settling Basin
- 316.0 Finish Ground Elevation

Note:

- The Contractor shall verify the location and invert of the existing buried culvert, concrete headwall and concrete open channels & notify the Engineer immediately of any discrepancies.
- The Contractor shall install ECM on all disturbed slopes steeper than 3H:1V.

DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
DESIGNED BY	_____
CHECKED BY	_____
NOTED BY	_____
NO.	_____

PLAN PROFILE 05 - REVISED 10/22/2015 10:43 PM



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

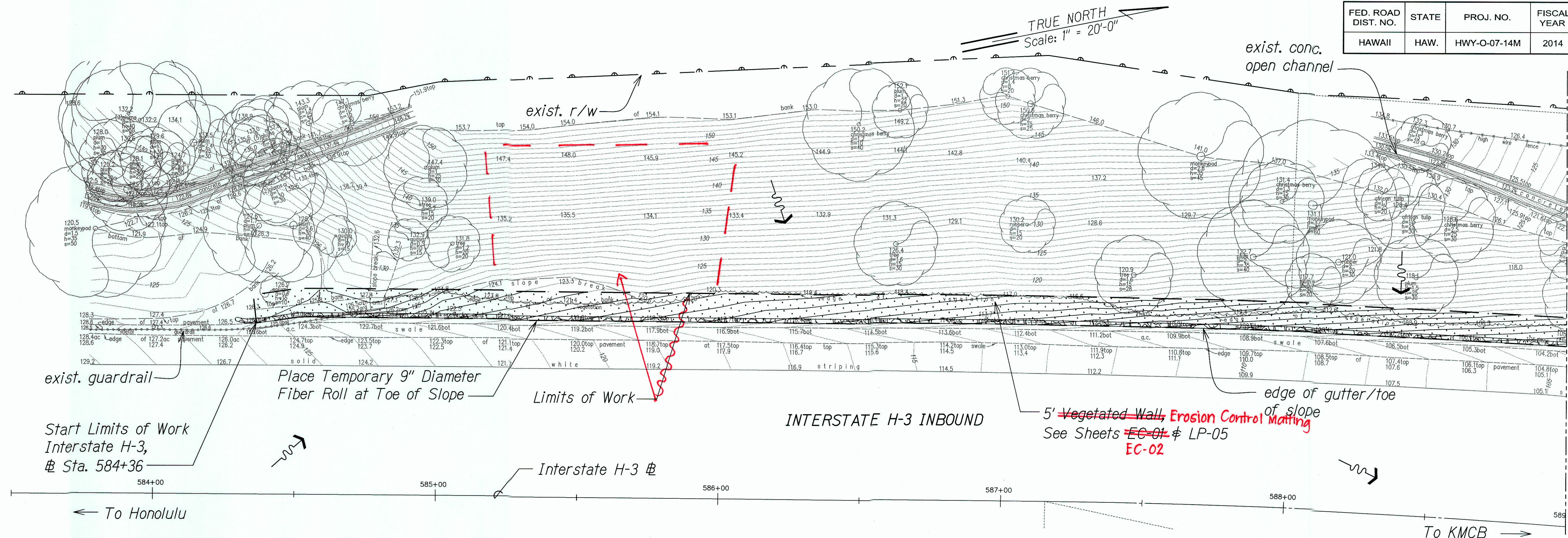
PERMANENT BMP PLAN
PID 215

KAWAINUI WATERSHED STORM WATER
BEST MANAGEMENT PRACTICES ON OAHU
Project No. HWY-O-07-14M

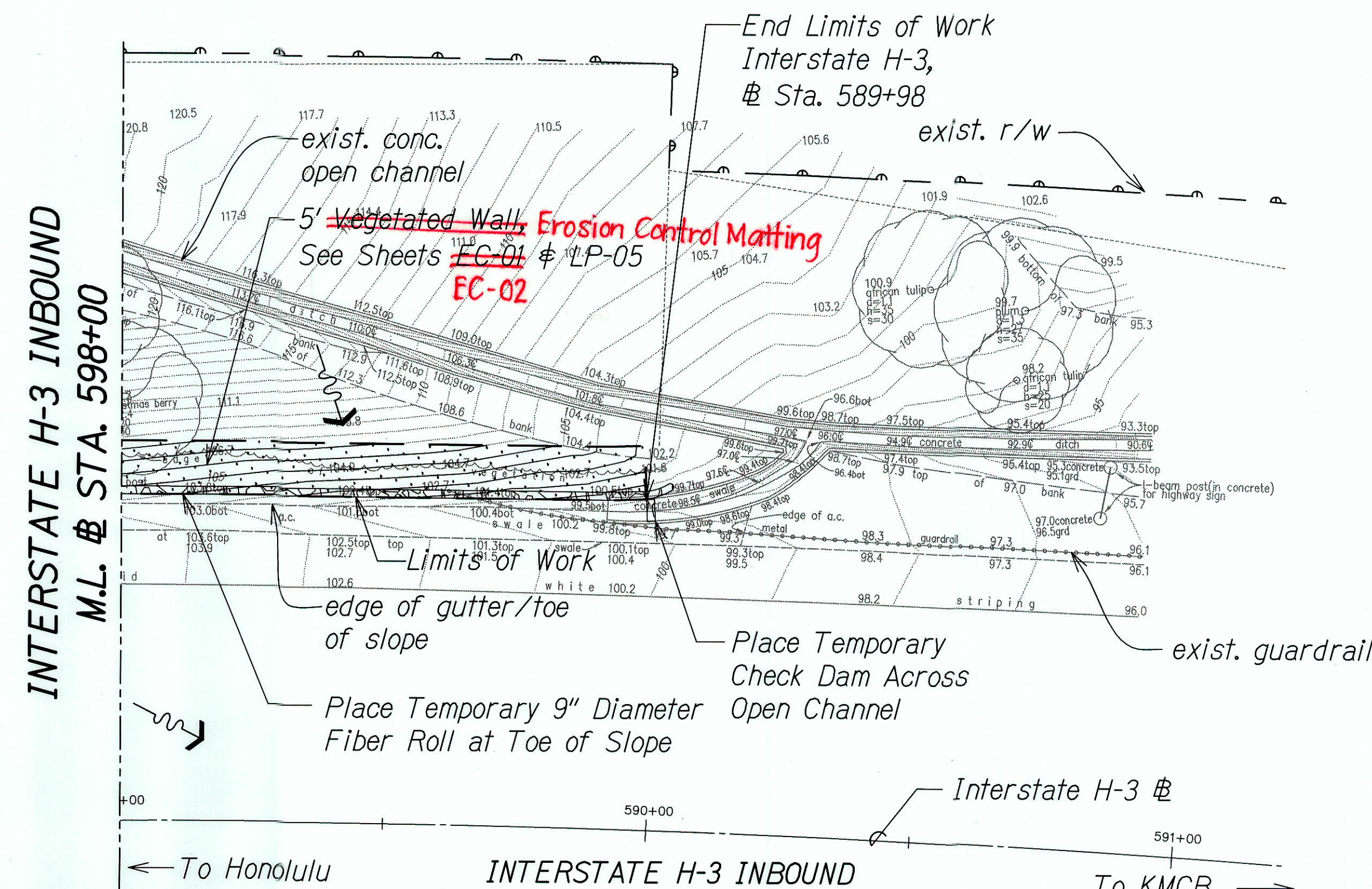
Scale: As Shown Date: April 2014

SHEET No. EC-13 OF 19 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-07-14M	2014	29	51



INTERSTATE H-3 INBOUND
M.L. @ STA. 598+00

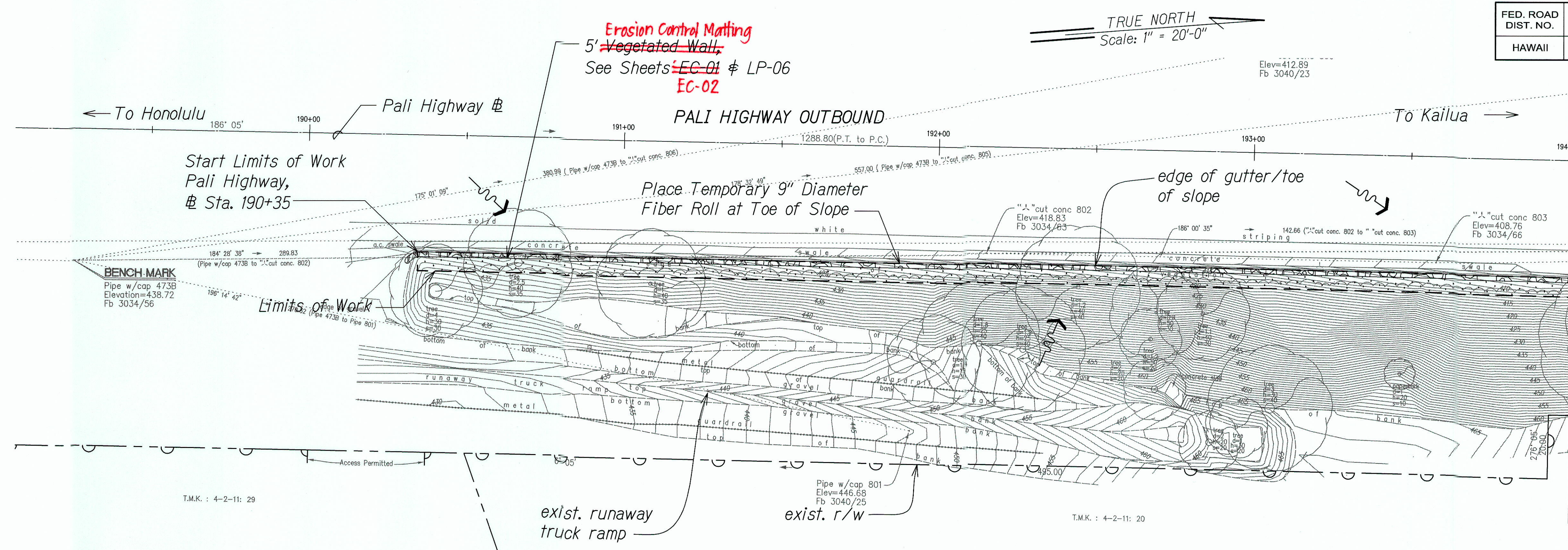


TEMPORARY EROSION CONTROL AND PERMANENT PLAN BMP PID 9003
Scale: 1" = 20'-0"

Note:
1. See Landscaping Drawings for tree protection and removal.

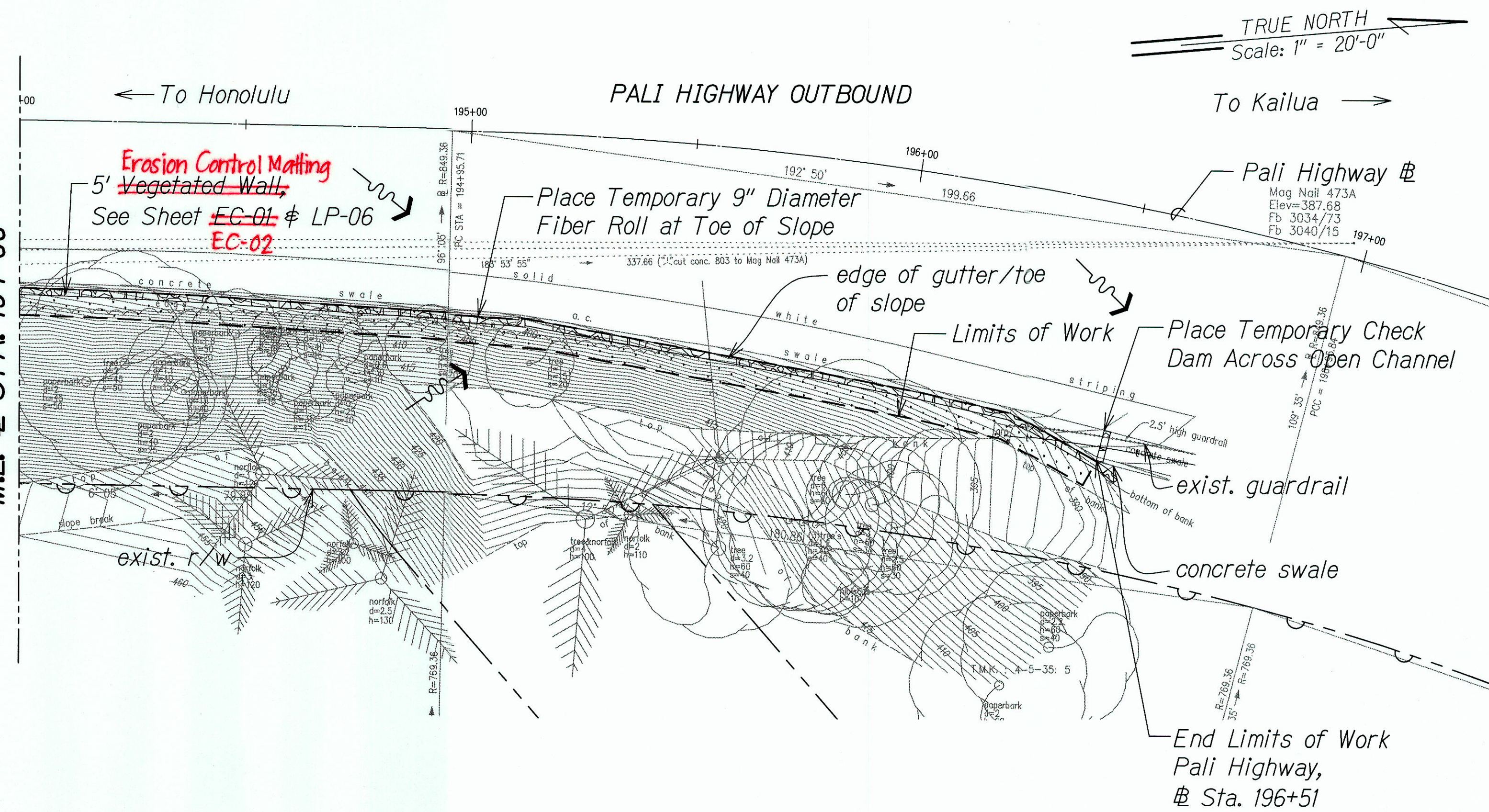
	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
	TEMP. EC AND PERMANENT BMP PLAN
	PID 9003
	KAWAINUI WATERSHED STORM WATER BEST MANAGEMENT PRACTICES ON OAHU Project No. HWY-O-07-14M Scale: 1" = 20'-0" Date: April 2014

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-07-14M	2014	30	51



PALI HIGHWAY OUTBOUND
M.L. & STA. 194+00

PALI HIGHWAY OUTBOUND
M.L. & STA. 194+00



TEMPORARY EROSION CONTROL AND PERMANENT BMP PLAN PID 473

Scale: 1" = 20'-0"

Note:
1. See Landscaping Drawings for tree protection and removal.

ORIGINAL PLAN	DATE
DESIGNED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	

PLAN PROFILE 473.DWG 1/2/2014 11:53:02 AM

4/30/16
EXP. DATE
This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

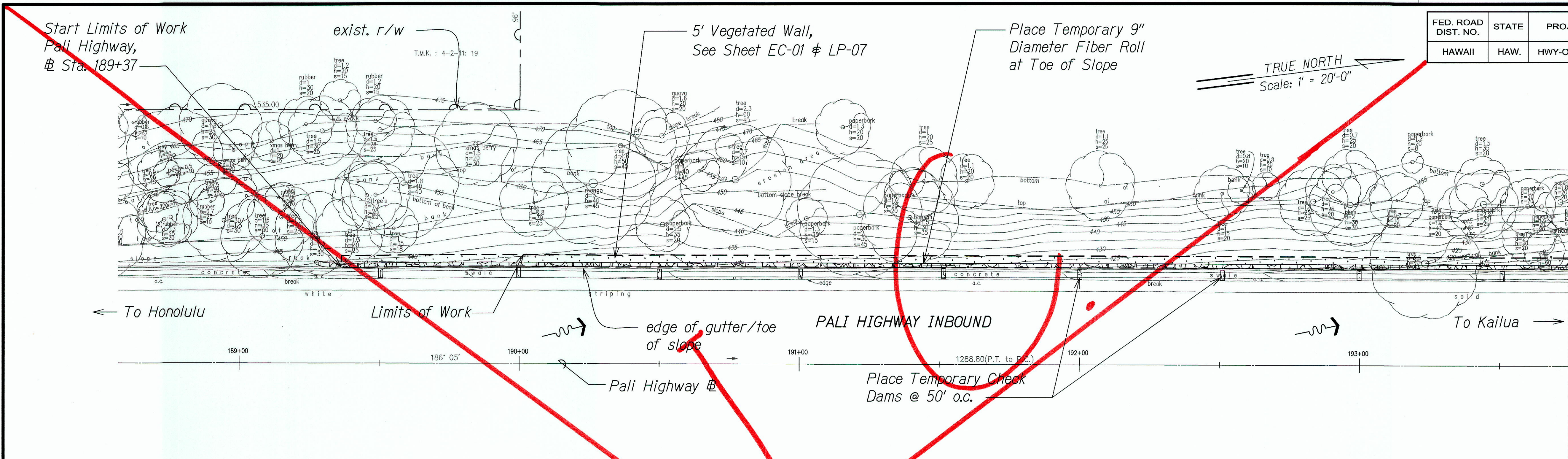
TEMP. EC AND PERMANENT BMP PLAN
PID 473

KAWAINUI WATERSHED STORM WATER
BEST MANAGEMENT PRACTICES ON OAHU
Project No. HWY-O-07-14M
Scale: 1" = 20'-0" Date: April 2014

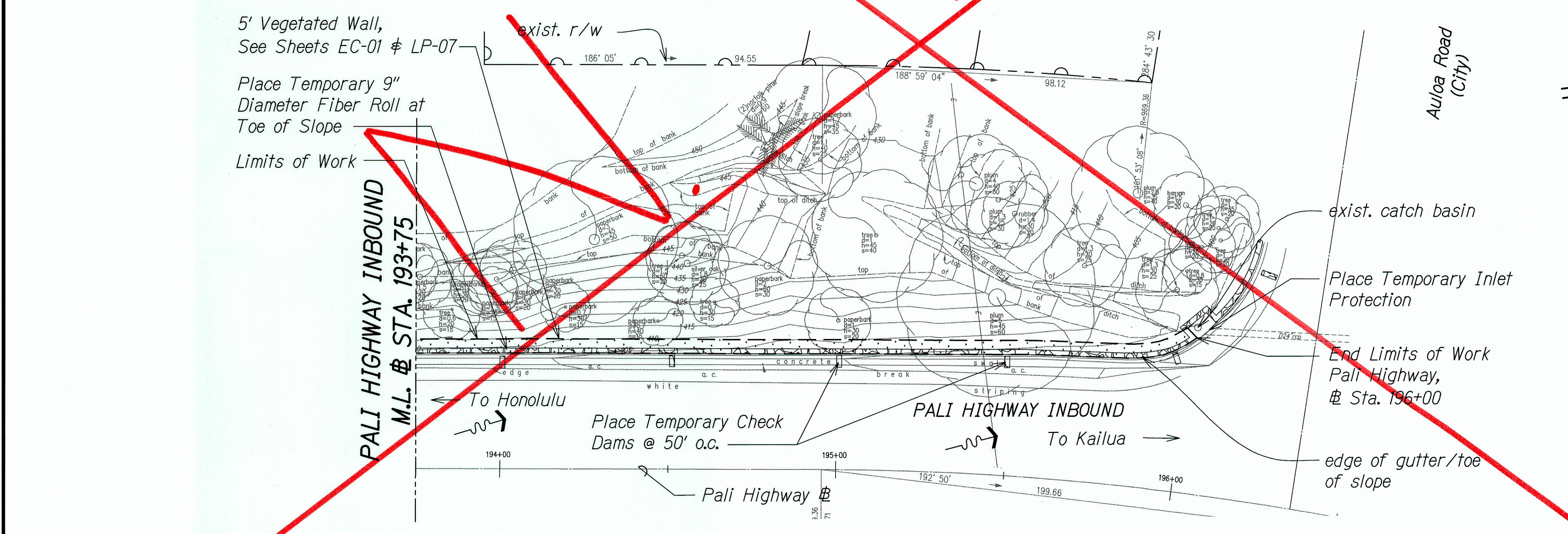
SHEET No. EC-15 OF 19 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-07-14M	2014	31	51



PALI HIGHWAY INBOUND
M.L. # STA. 193+75



TEMPORARY EROSION CONTROL AND PERMANENT BMP PLAN PID 474
Scale: 1" = 20'-0"

Note:
1. See Landscaping Drawings for tree protection and removal.

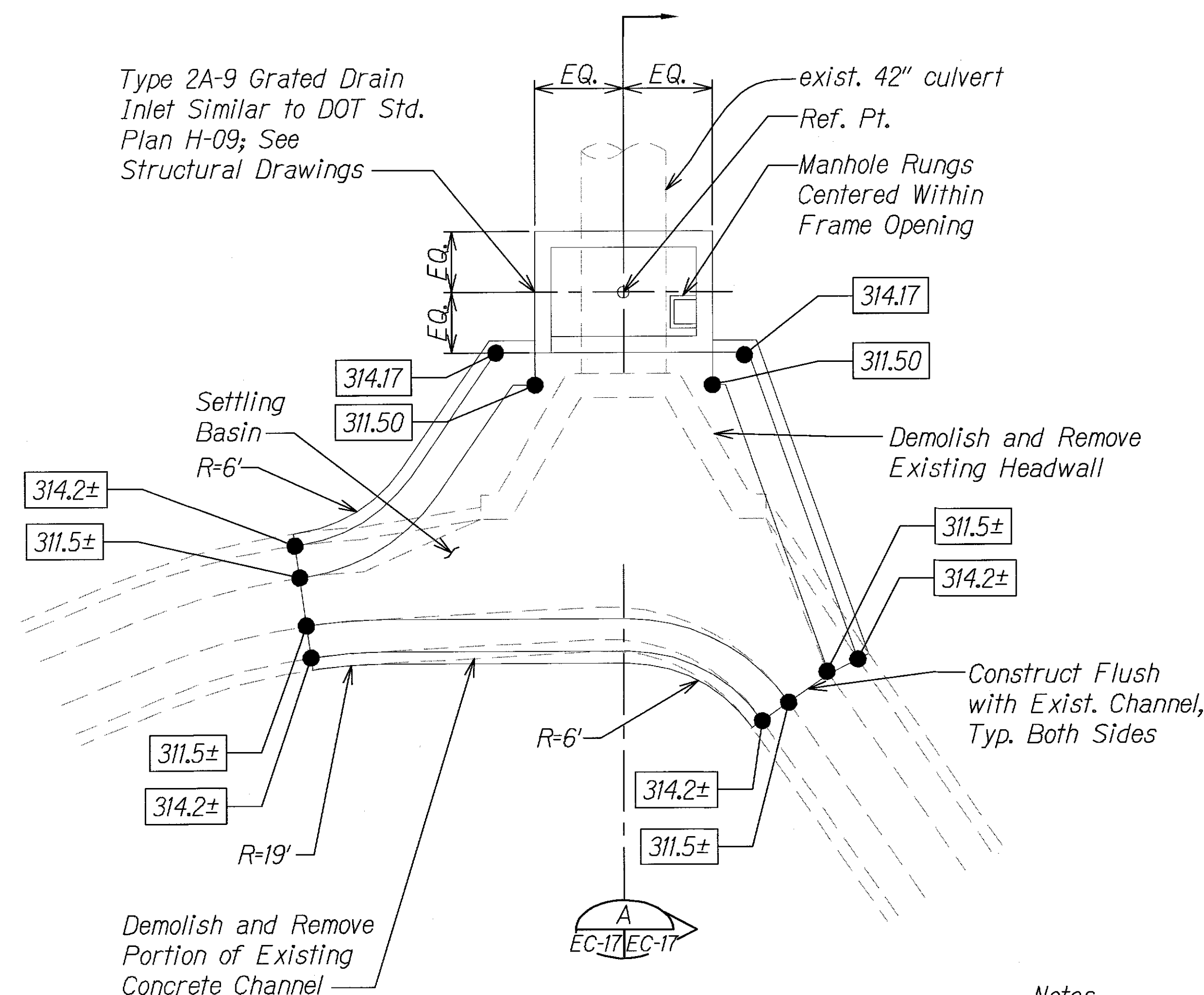
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
TRACED BY		
NOTES BOOK		
CHECKED BY		

4/30/16
 EXP. DATE
 This work was prepared by me or under my supervision.

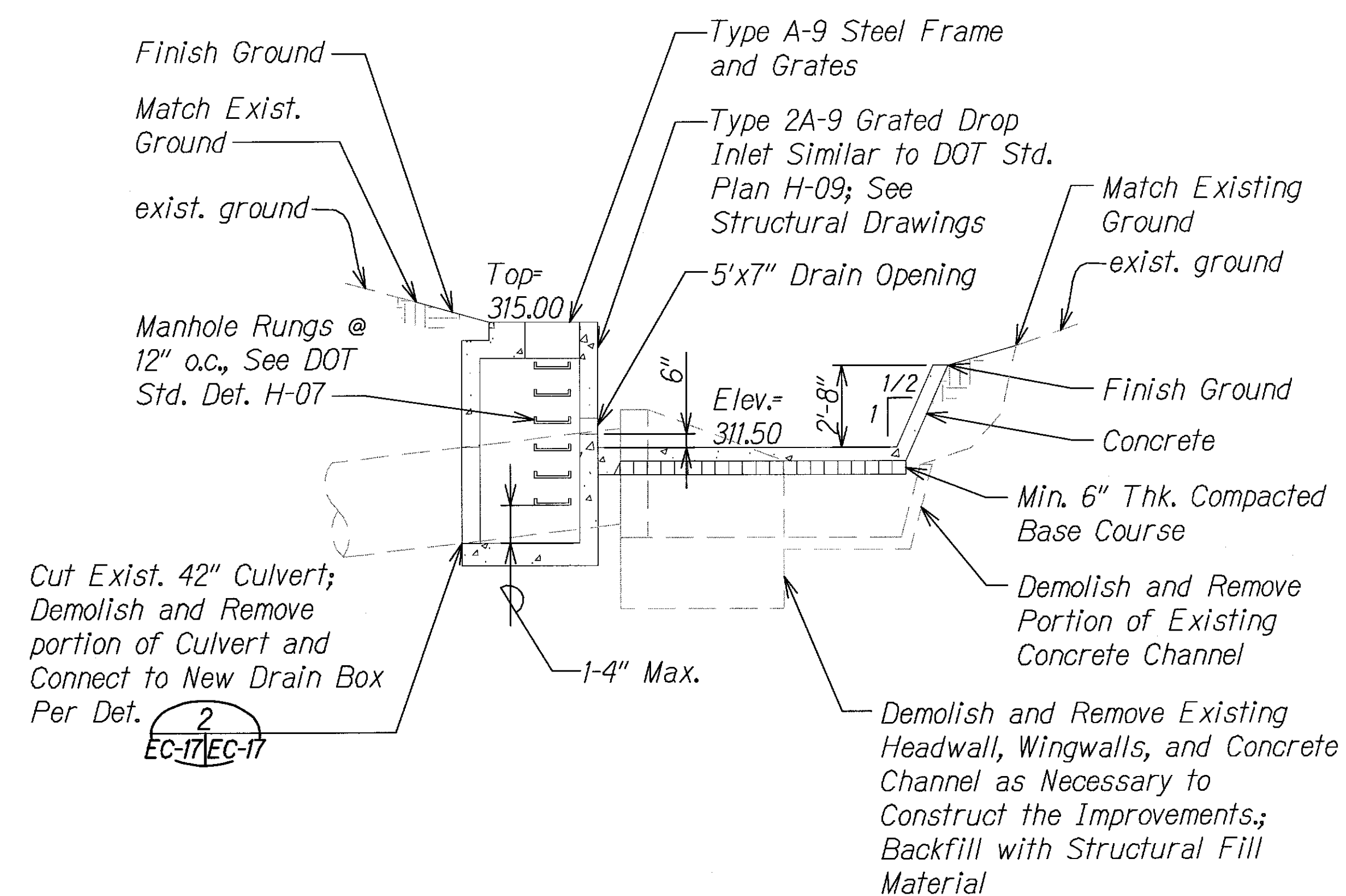
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
TEMP. EC AND PERMANENT BMP PLAN
PID 474
 KAWAINUI WATERSHED STORM WATER
 BEST MANAGEMENT PRACTICES ON OAHU
 Project No. HWY-O-07-14M
 Scale: 1" = 20'-0" Date: April 2014

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-07-14M	2014	C.O. 32	51

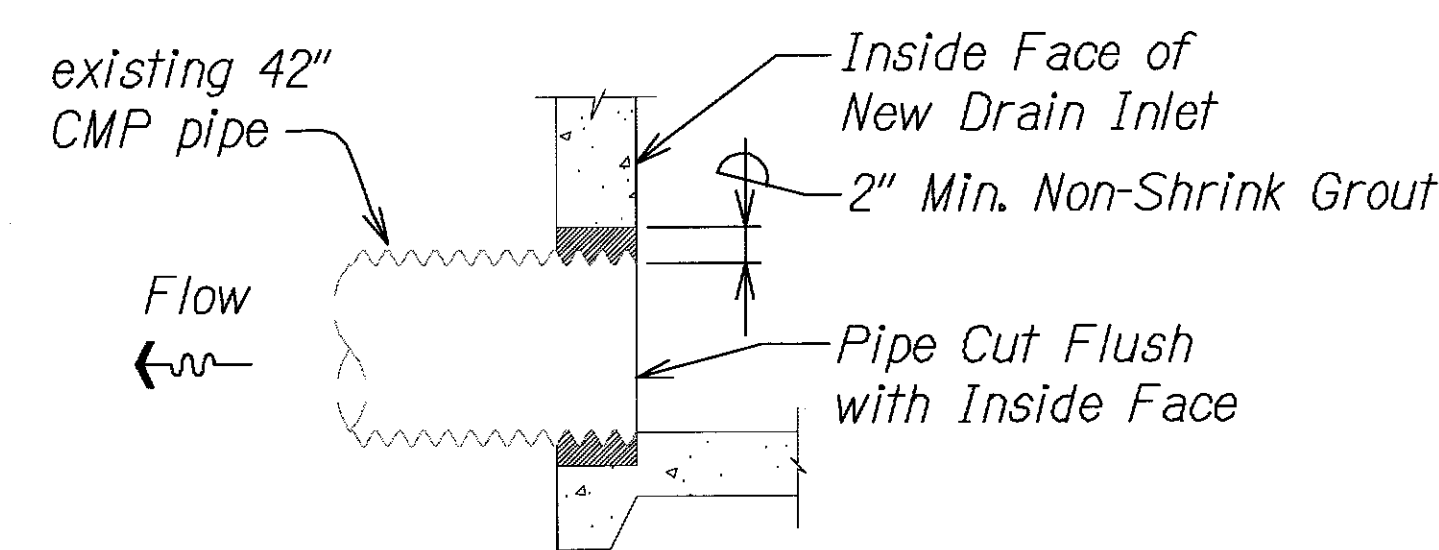


SETTLING BASIN DETAIL
Scale: Not to Scale



SECTION A-A
EC-17/EC-17

- Notes:**
1. Location of existing open conc. channels in relation to the conc. headwall as shown in the detail are approximate. Contractor to verify the location and elevation of the exist. conc. open channels.
 2. The Contractor shall transition to existing ground at 3:1 (max.).



CMP PIPE CONNECTION DETAIL
Scale: Not to Scale

4/30/16
EXP. DATE

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

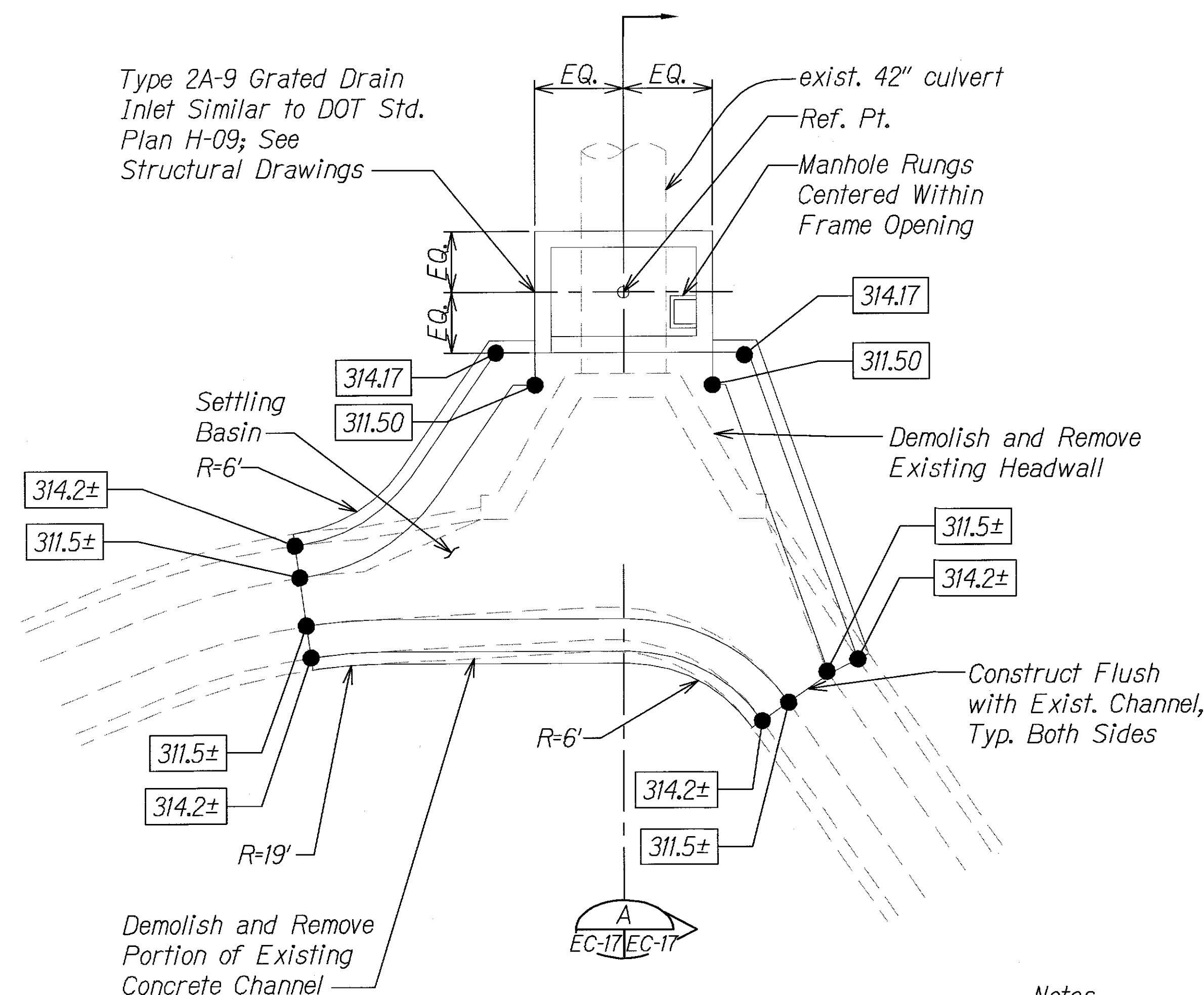
**BMP A DETAILS
PID 215 DETAILS**

KAWAINUI WATERSHED STORM WATER
BEST MANAGEMENT PRACTICES ON OAHU

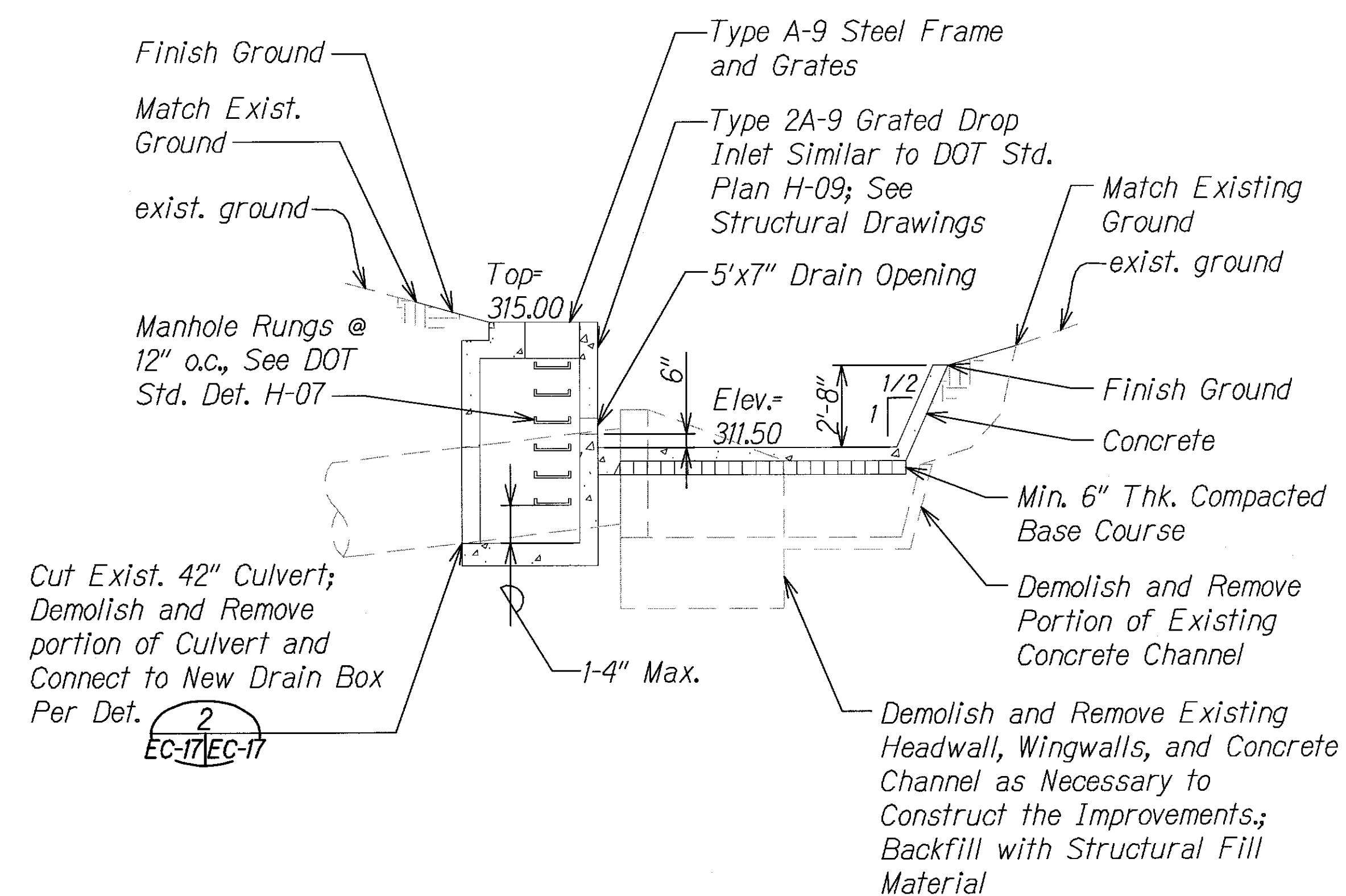
Project No. HWY-O-07-14M
Scale: Not to Scale Date: April 2014

SHEET No. EC-17 OF 19 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-07-14M	2014	C.O. 32	51

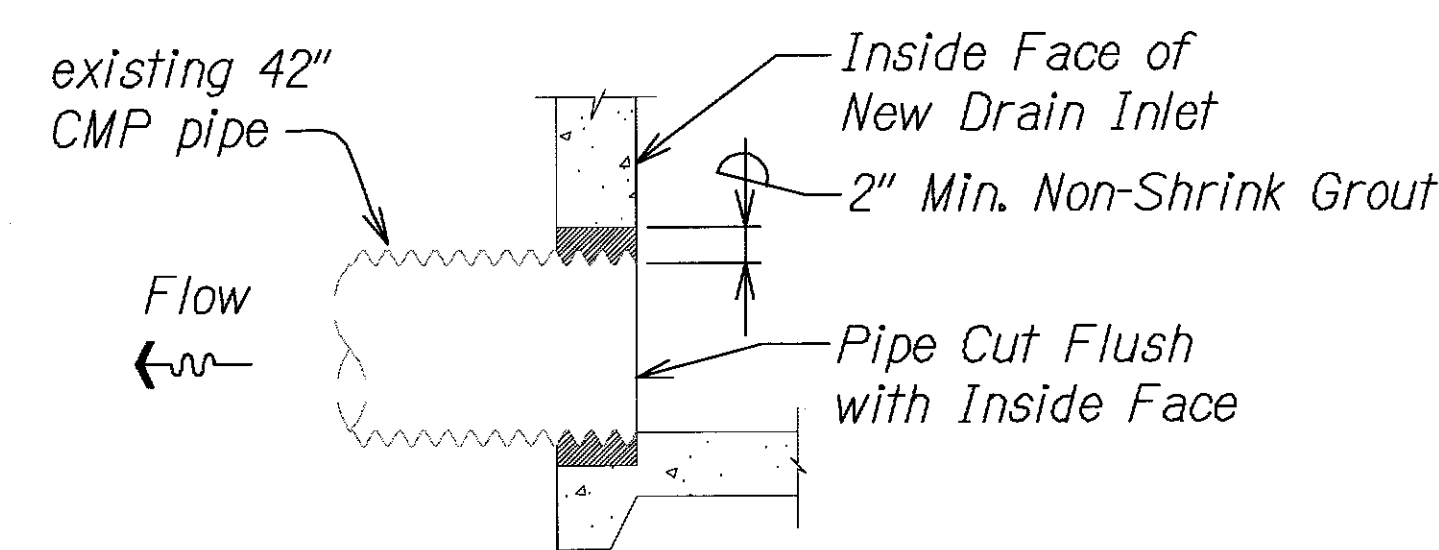


SETTLING BASIN DETAIL
Scale: Not to Scale



SECTION A
EC-17/EC-17

- Notes:**
1. Location of existing open conc. channels in relation to the conc. headwall as shown in the detail are approximate. Contractor to verify the location and elevation of the exist. conc. open channels.
 2. The Contractor shall transition to existing ground at 3:1 (max.).



CMP PIPE CONNECTION DETAIL
Scale: Not to Scale

4/30/16
EXP. DATE

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**BMP A DETAILS
PID 215 DETAILS**

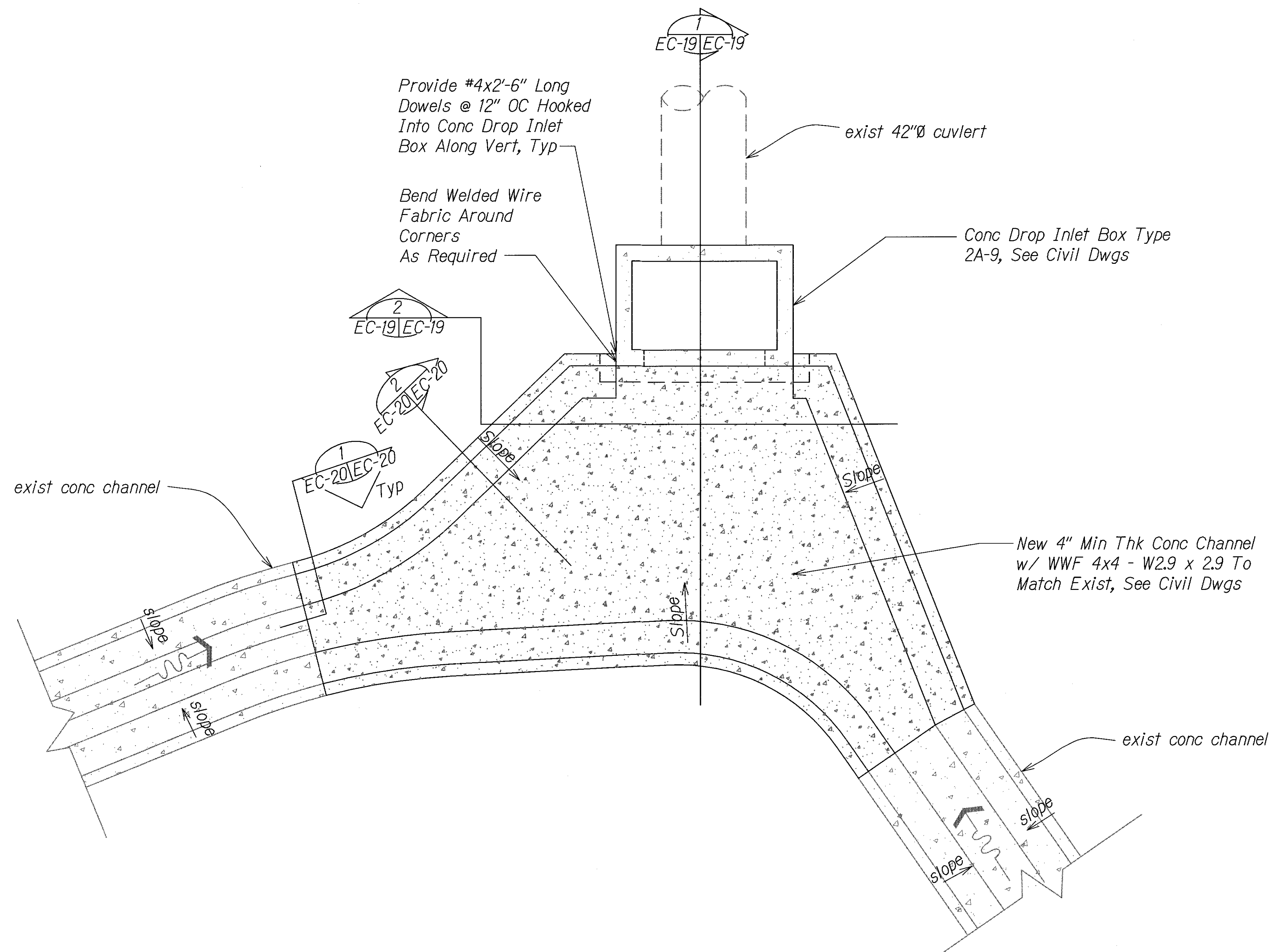
KAWAINUI WATERSHED STORM WATER
BEST MANAGEMENT PRACTICES ON OAHU

Project No. HWY-O-07-14M

Scale: Not to Scale Date: April 2014

SHEET No. EC-17 OF 19 SHEETS

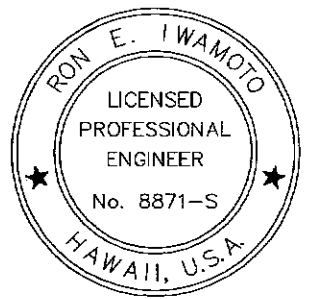
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-07-14M	2014	C.O. 33	51



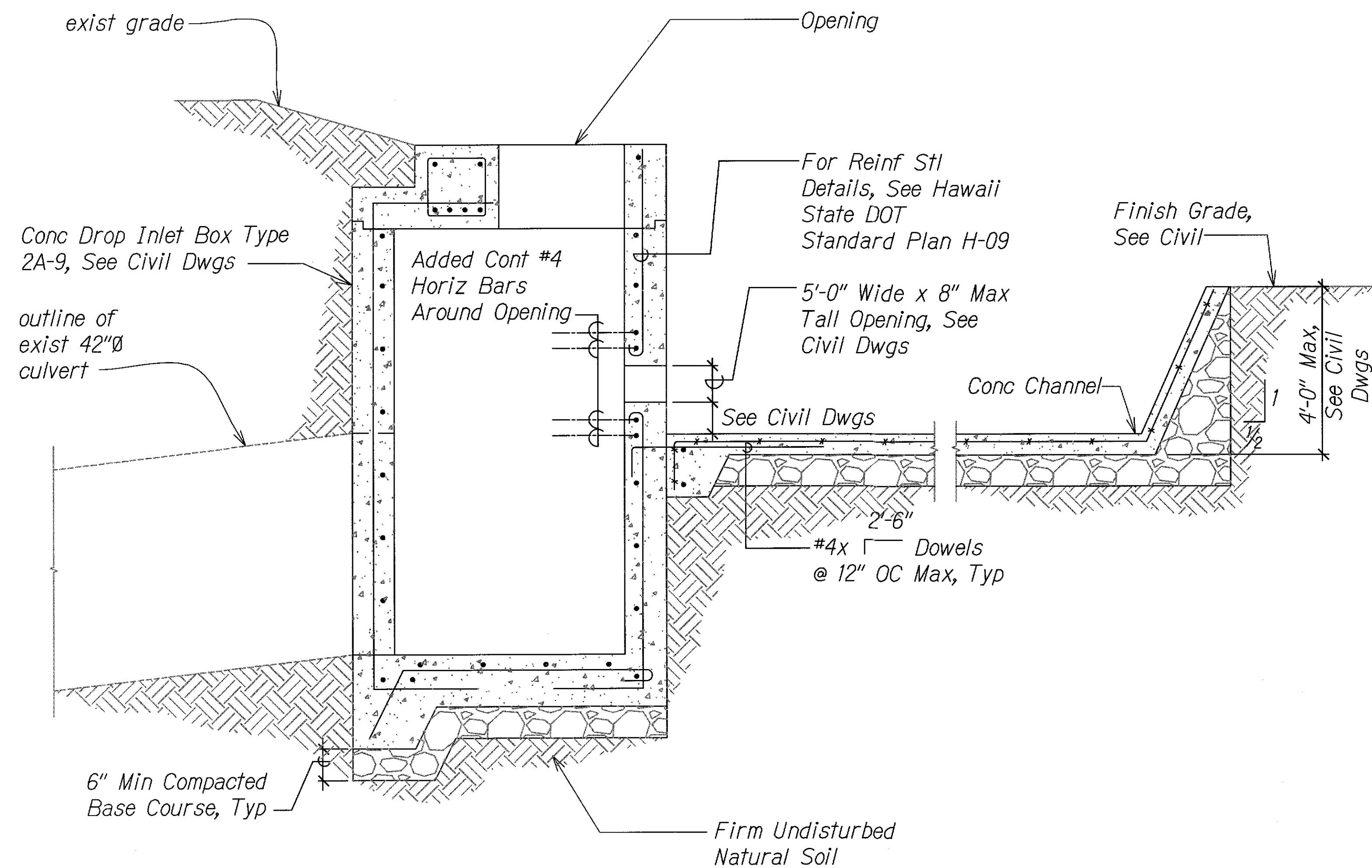
FOUNDATION PLAN
Scale: 3/8" = 1'-0"

DESIGNED BY	DATE
DRAWN BY	
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	

X-BDR_KAWAINUI.DWG 10/29/2012 3:35:45 PM

 4/30/16 EXP. DATE <i>Ron E. Iwamoto</i> This work was prepared by me or under my supervision.	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION FOUNDATION PLAN - PID 215 KAWAINUI WATERSHED STORM WATER BEST MANAGEMENT PRACTICES ON OAHU Project No. HWY-O-07-14M Scale: As Shown Date: April 2014
	SHEET No. EC-18 OF 19 SHEETS C.O. 33

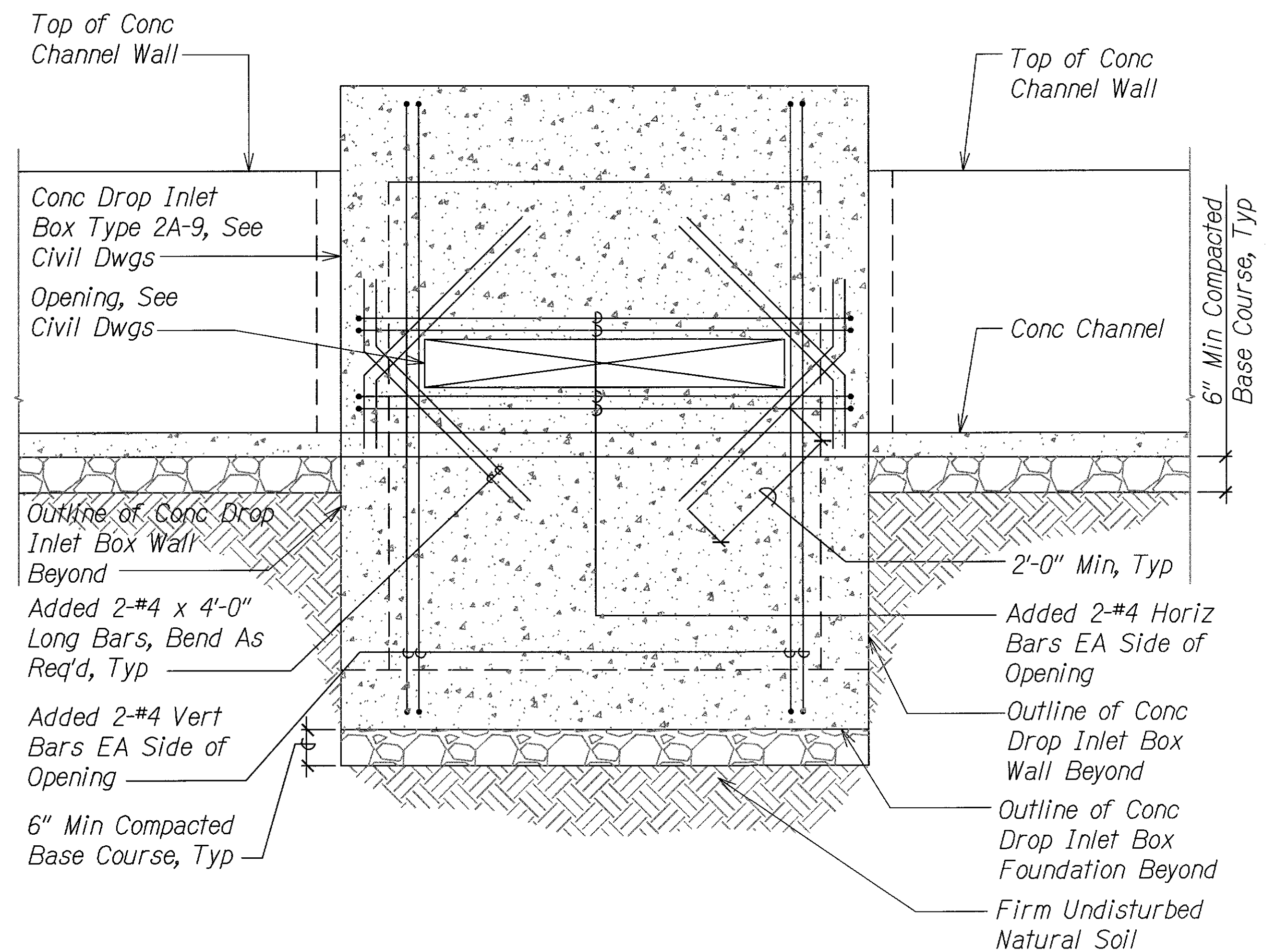
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-07-14M	2014	C.O. 34	51



SECTION

Scale: 3/4" = 1'-0"

SECTION 1
EC-19/EC-19

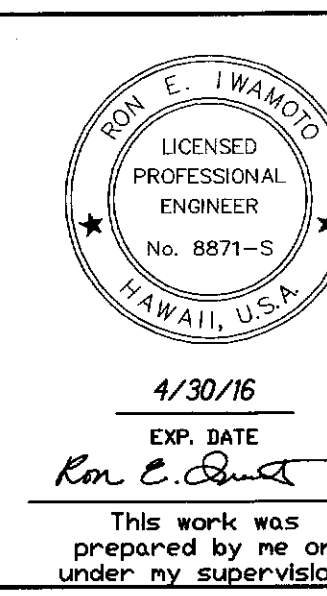


SECTION

Scale: 3/4" = 1'-0"

SECTION 2
EC-19/EC-19

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
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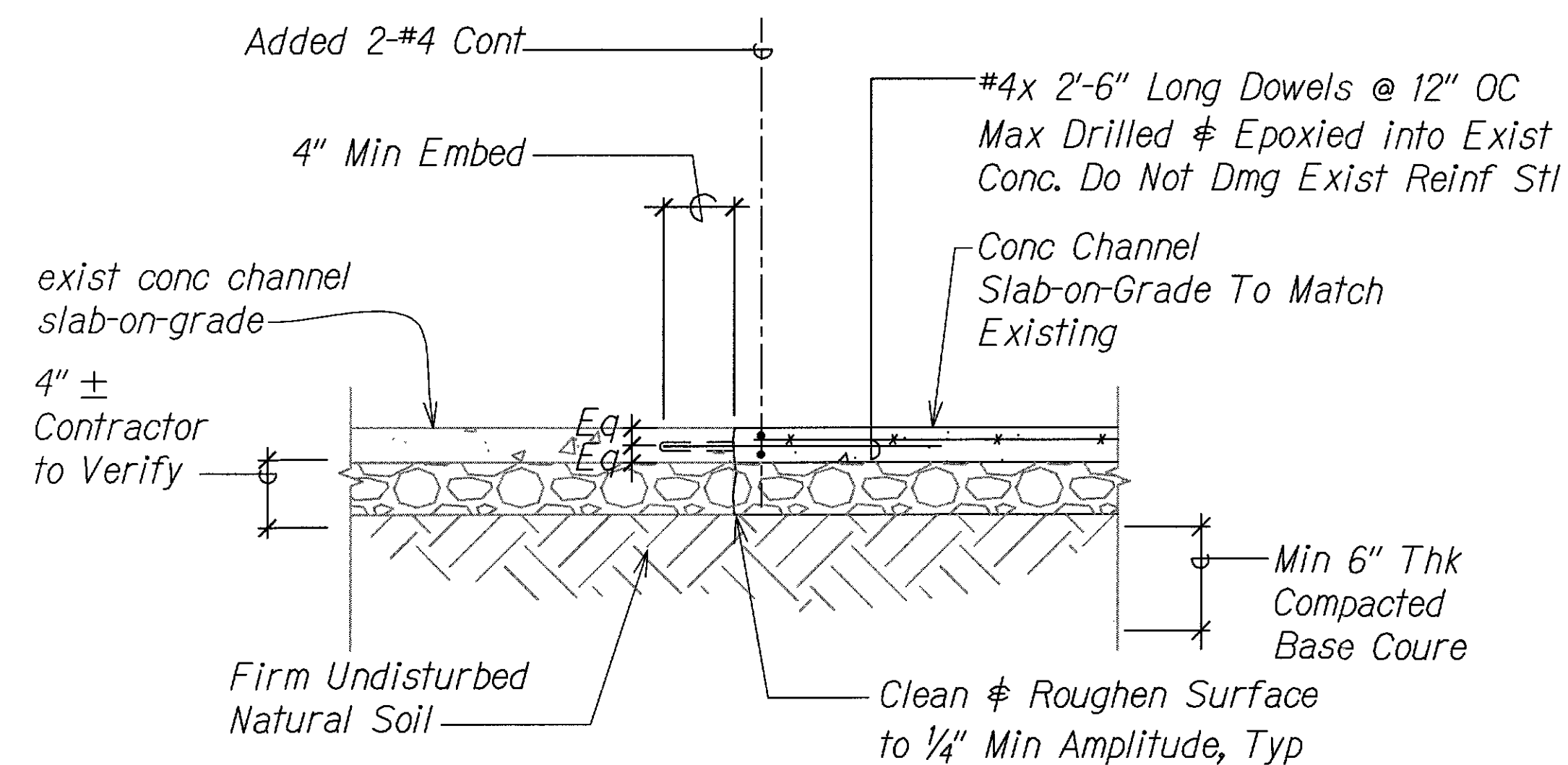
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SECTIONS - PID 215

**KAWAINUI WATERSHED STORM WATER
BEST MANAGEMENT PRACTICES ON OAHU**
Project No. HWY-O-07-14M
Scale: As Shown Date: April 2014

SHEET No. EC-19 OF 19 SHEETS

C.O. 34

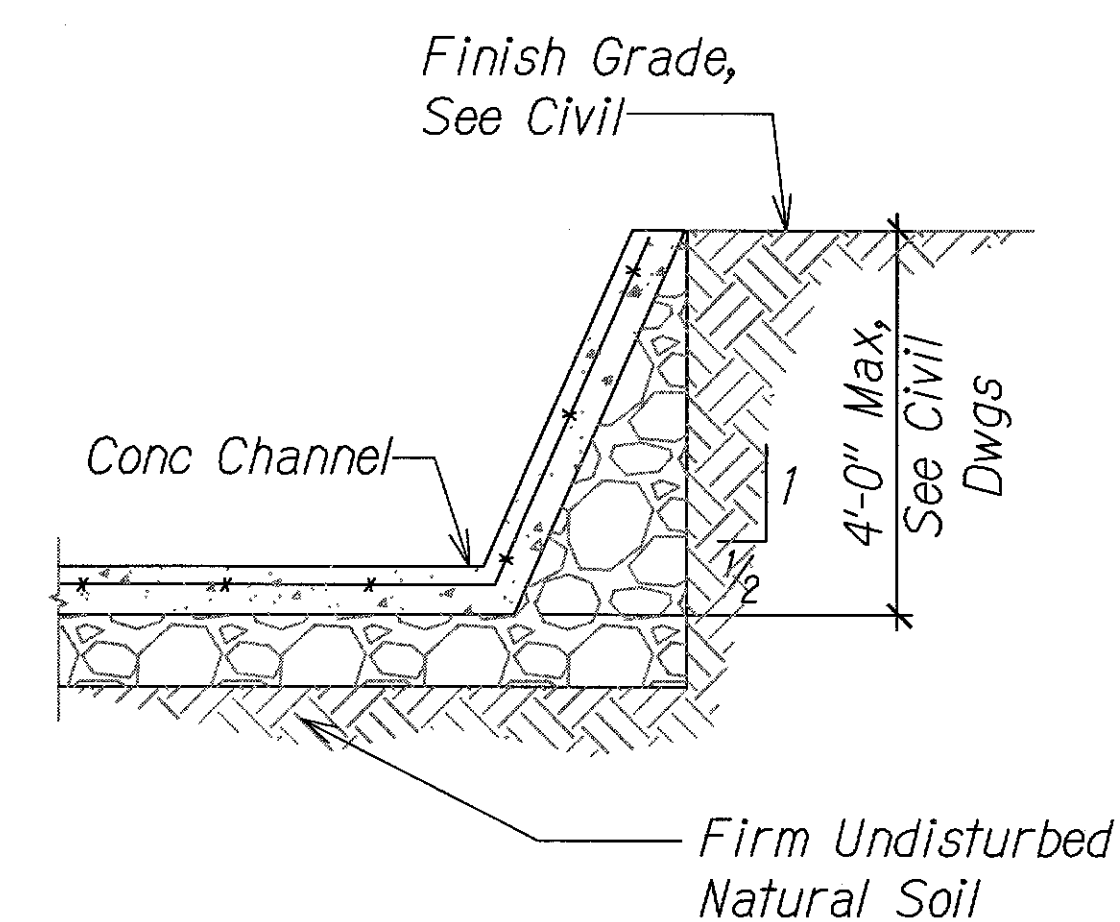
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-07-14M	2014	C.O. 34S-1	51



SECTION

Scale: 3/4" = 1'-0"

1
EC-20/EC-20



SECTION

Scale: 3/4" = 1'-0"

2
EC-20/EC-20

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

X-50R-KAWAINUI-10/29/2012 3:55:45 PM

4/30/16 EXP. DATE Ron E. Iwamoto This work was prepared by me or under my supervision.	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION SECTIONS - PID 215 KAWAINUI WATERSHED STORM WATER BEST MANAGEMENT PRACTICES ON OAHU Project No. HWY-O-07-14M Scale: As Shown Date: April 2014
	SHEET No. EC-20 OF 19 SHEETS
	C.O. 34S-1