N

0 250 500 1,000 1,500 2,000

Feet

Ala Wai Canal Project - Alternative 2A

1-Percent ACE (100-Year) Floodplain

Note:
This flood boundary is subject to change.

N

0 250 500 1,000 1,500 2,000

Feet

Ala Wai Canal Project - Alternative 3A

1-Percent ACE (100-Year) Floodplain

Note:
This flood boundary is subject to change.

N

Note:
This flood boundary is subject to change.

0 250 500 1,000 1,500 2,000

Feet

ALA WAI CANAL PROJECT - ALTERNATIVES 2A &3A

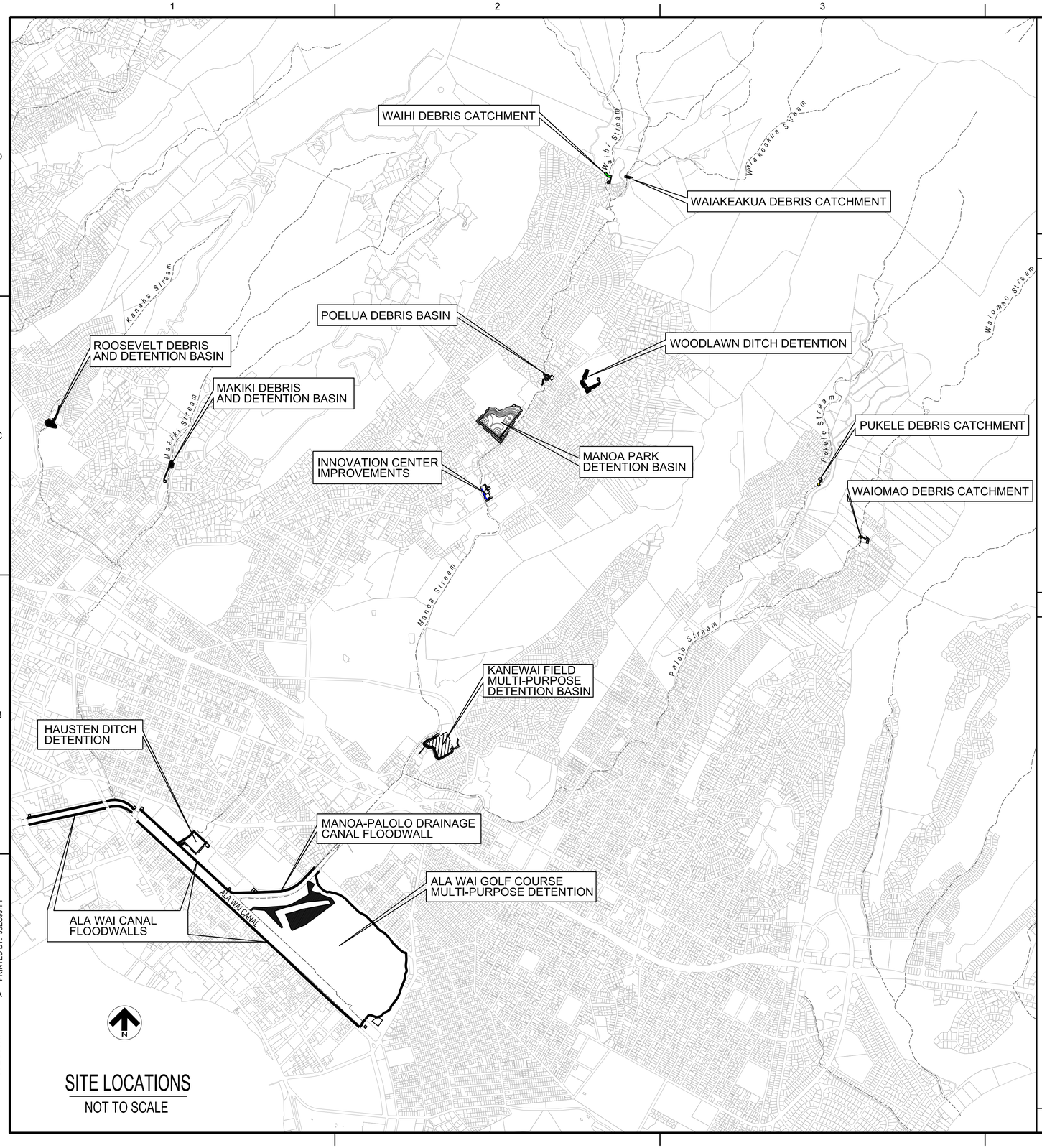
Alternative 3A 1-Percent ACE (100-Year) Floodplain

Alternative 2A 1-Percent ACE (100-Year) Floodplain

Plate 8 - Existing Without Project, Alternative 2A, and Alternative 3A 1-Percent ACE Water Surface Elevations at HEC-FDA Index Points

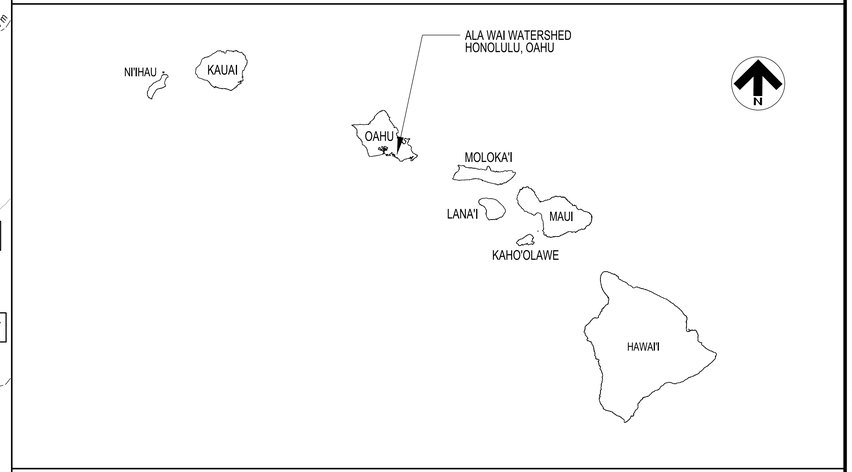
HEC-RAS		HEC-FDA	HEC-RAS	HEC-RAS Water Surface Elevations (ft)		
River	Reach	Reach	River Station	Existing Without-Project	Alternative 2A	Alternative 3A
Ala Wai	Lower	ALA1	1477	3.56	3.44	3.27
Ala Wai	Middle	ALA2	4847	7.48	6.94	6.82
Ala Wai	Upper	ALA3	8015	8.26	7.65	7.58
Palolo	Lower	MPC1	1813	10.96	9.55	8.61
Palolo	Lower	MPC2	3406	16.91	13.64	12.96
Makiki	Lower	MAK1	1719	10.61	9.50	9.01
Makiki	Lower	MAK2	4325	33.31	32.80	27.88
Makiki	Upper	MAK3	6606	71.59	70.17	70.17
Makiki	Upper	MAK4	9666	178.40	177.94	177.94
Kanaha	Split	KAO1	1393	42.90	42.24	42.96
Kanaha	Ditch	KAH1	1874	73.12	72.05	70.37
Kanaha	Ditch	KAH2	3005	78.15	76.96	78.15
Manoa	Main	MAN1	948	40.75	37.61	38.06
Manoa	Main	MAN2	5461	116.78	113.11	113.87
Manoa	Main	MAN3	8367	153.06	150.71	151.25
Manoa	Main	MAN4	9032	164.16	157.98	159.58
Manoa	Main	MAN5	10309	173.33	173.51	171.54
Manoa	Main	MAN6	13136	212.02	212.02	208.09
Manoa	Main	MAN7	15753	260.74	260.74	256.48
UH_Split	UH_Split	UNI1	1107	13.70	11.45	11.45
UH_Split	UH_Split	UNI2	4606	102.20	99.72	99.72
Palolo	Main	PAL1	6376	41.77	41.79	39.10
Palolo	Main	PAL2	8574	89.06	89.06	87.40
Palolo	Main	PAL3	11649	140.63	140.63	139.57
Palolo	Main	PAL4	14619	187.18	187.18	184.59
Pukele	Tributary	PUK1	2184	287.58	287.58	283.77
Waiomao	Tributary	WAI1	1724	266.67	266.66	265.39

ALA WAI CANAL PROJECT
ALTERNATIVE 2A
HONOLULU, OAHU, HI

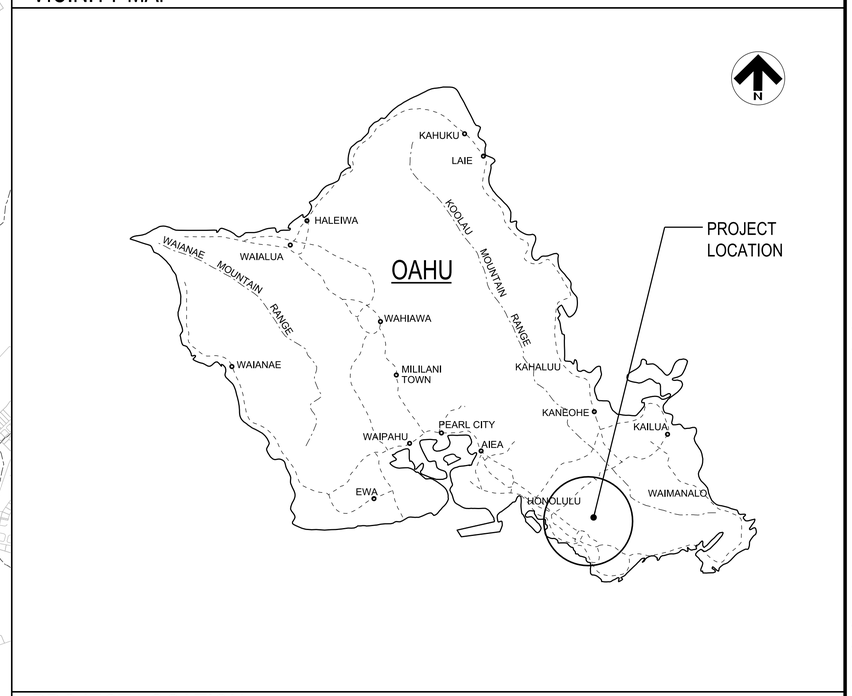


SITE LOCATIONS
NOT TO SCALE

PROJECT TITLE



VICINITY MAP
NOT TO SCALE



PROJECT LOCATION
NOT TO SCALE

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PLOT DATE: 12/18/2014
SIZE: ANSI D
FILE NAME: Cover Sheet - Site Locations, Vicinity Map, Project Location
DATE:
REVISION:
SOLICIT./ CONTRACT NO.:
LOCATION CODE
DRAWING NUMBER:

US ARMY CORPS OF ENGINEERS
HONOLULU DISTRICT
HONOLULU, HAWAII

ALA WAI CANAL PROJECT

SITE LOCATIONS
PROJECT LOCATION & VICINITY MAP
ALTERNATIVE 2A

SHEET IDENTIFICATION
G-001
SHEET 1 OF 25

FILE: c:\pw-work\poh-1\j3ec9jhh\d0145830\Ala_Wai_G-001xxx.dgn
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ALA WAI CANAL PROJECT - ALTERNATIVE 2A
INDEX OF DRAWINGS

SHT. NO	SHT. REF. NO.	DESCRIPTION
1	G-001	COVER SHEET
2	G-002	INDEX TO DRAWINGS
3	C-101	ALA WAI CANAL FLOODWALLS, SITE PLAN
4	C-102	HAUSTEN DITCH DETENTION, PLAN
5	C-103	ALA WAI GOLF COURSE MULTI-PURPOSE DETENTION, SITE PLAN
6	C-104	MANOA PARK DETENTION BASIN, PLAN
7	C-105	BY-PASS CULVERT TO MANOA PARK DETENSION BASIN, SITE PLAN
8	C-303	POELUA PLACE DEBRIS BASIN, PLAN AND PROFILE
9	C-304	INNOVATION CENTER IMPROVEMENTS, PLAN AND SECTIONS
10	C-305	WOODLAWN DITCH DETENTION BASIN, PLAN AND SECTIONS
11	C-306	KANEWAI FIELD MULTI-PURPOSE DETENTION BASIN, PLAN AND SECTIONS
12	C-307	MANOA-PALOLO DRAINAGE CANAL FLOODWALL; PLAN, PROFILE AND SECTION
13	C-309	ALA WAI CANAL MIDDLE AND LOWER RIGHT BANK, PROFILE AND SECTION
14	C-310	ALA WAI CANAL MIDDLE AND LOWER LEFT BANK, PROFILE
15	C-311	ALA WAI CANAL UPPER LEFT BANK, PROFILE AND SECTION
16	C-312	MANOA PARK DETENTION BASIN, PLAN AND SECTIONS
17	C-314	ROOSEVELT DEBRIS AND DETENTION BASIN, PLAN AND SECTIONS
18	C-315	MAKIKI DEBRIS AND DETENTION BASIN, PLAN AND PROFILE
19	C-316	HAUSTEN DITCH, PROFILE AND SECTION
20	C-317	ALA WAI GOLF COURSE MULTI-PURPOSE DETENTION, PROFILE
21	C-319	WAIHI DEBRIS CATCHMENT, PLAN AND PROFILE
22	C-320	WAIAKEAKUA DEBRIS CATCHMENT, PLAN AND PROFILE
23	C-321	WAIOMAO DEBRIS CATCHMENT, PLAN AND SECTIONS
24	C-322	PUKELE DEBRIS CATCHMENT, PLAN AND SECTIONS
25	C-401	HAUSTEN BRIDGE; PLAN, SECTION AND PROFILE

GENERAL NOTES:

1. EXISTING CONDITIONS MAY VARY FROM THOSE SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND ADJUST WORK PLAN ACCORDINGLY PRIOR TO BEGINNING CONSTRUCTION.
2. COORDINATE SYSTEM: NAD 1983 (HARN), HAWAII ZONE 3 (US FEET)
3. PROVIDE FENCING AS NECESSARY TO MAINTAIN SECURITY AT ALL TIMES.
4. UNLESS SHOWN OTHERWISE, ALL DISTURBED AREAS NOT RECEIVING A HARD SURFACE SHALL BE COVERED WITH GRASS.
5. CONTRACTOR SHALL SUBMIT A COMPLETE SOIL EROSION CONTROL PLAN FOR REGULATORY APPROVAL. CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING EROSION CONTROL DEVICES DURING CONSTRUCTION. CONTRACTOR SHALL TAKE ALL OTHER MEASURES TO POSITIVELY PRECLUDE EROSION MATERIALS FROM LEAVING THE SITE.
6. EXISTING UNDERGROUND UTILITIES OBTAINED FROM AS-BUILTS AND FROM FIELD SURVEYS. CONTRACTOR SHALL POTHOLE AND FIELD VERIFY DEPTH AND LOCATION PRIOR TO EXCAVATION AND PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION.
7. THERE WILL BE A FLOODWARNING SYSTEM INSTALLED FOR THIS PROJECT.

GENERAL ABBREVIATIONS

A.C.	ASHPALT CONCRETE
AVE	AVENUE
BLVD	BOULEVARD
CONC	CONCRETE
DIA	DIAMETER
EL	ELEVATION
EXIST	EXISTING
FT	FOOT, FEET
IN	INCH, INCHES
INV	INVERT
LB	LEFT BANK
MAX	MAXIMUM
MSL	MEAN SEA LEVEL
NTS	NOT TO SCALE
o.c.	ON CENTER
O&M	OPERATIONS AND MAINTENANCE
PL	PLACE
RB	RIGHT BANK
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
ST	STREET
STA	STATION
THK	THICK
TMK	TAX MAP KEY
TYP	TYPICAL
W.S.	WATER SURFACE
YR	YEAR

SYMBOLS

&	AND
@	AT
℄	CENTER LINE
'	FOOT, FEET
"	INCH, INCHES

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Honolulu District

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HONOLULU DISTRICT
HONOLULU, HAWAII

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CHECKED BY:
PLOT DATE:
SIZE:
FILE NAME: Index To Drawings, General Notes & Abbreviations - Alternative 2A.dgn
REVISION:
SOLICIT. / CONTRACT NO.:
LOCATION CODE
DRAWING NUMBER:

ALA WAI CANAL PROJECT

INDEX OF DRAWINGS, GENERAL NOTES
ABBREVIATIONS & SYMBOLS
ALTERNATIVE 2A

SHEET IDENTIFICATION
G-002
SHEET 2 OF 25

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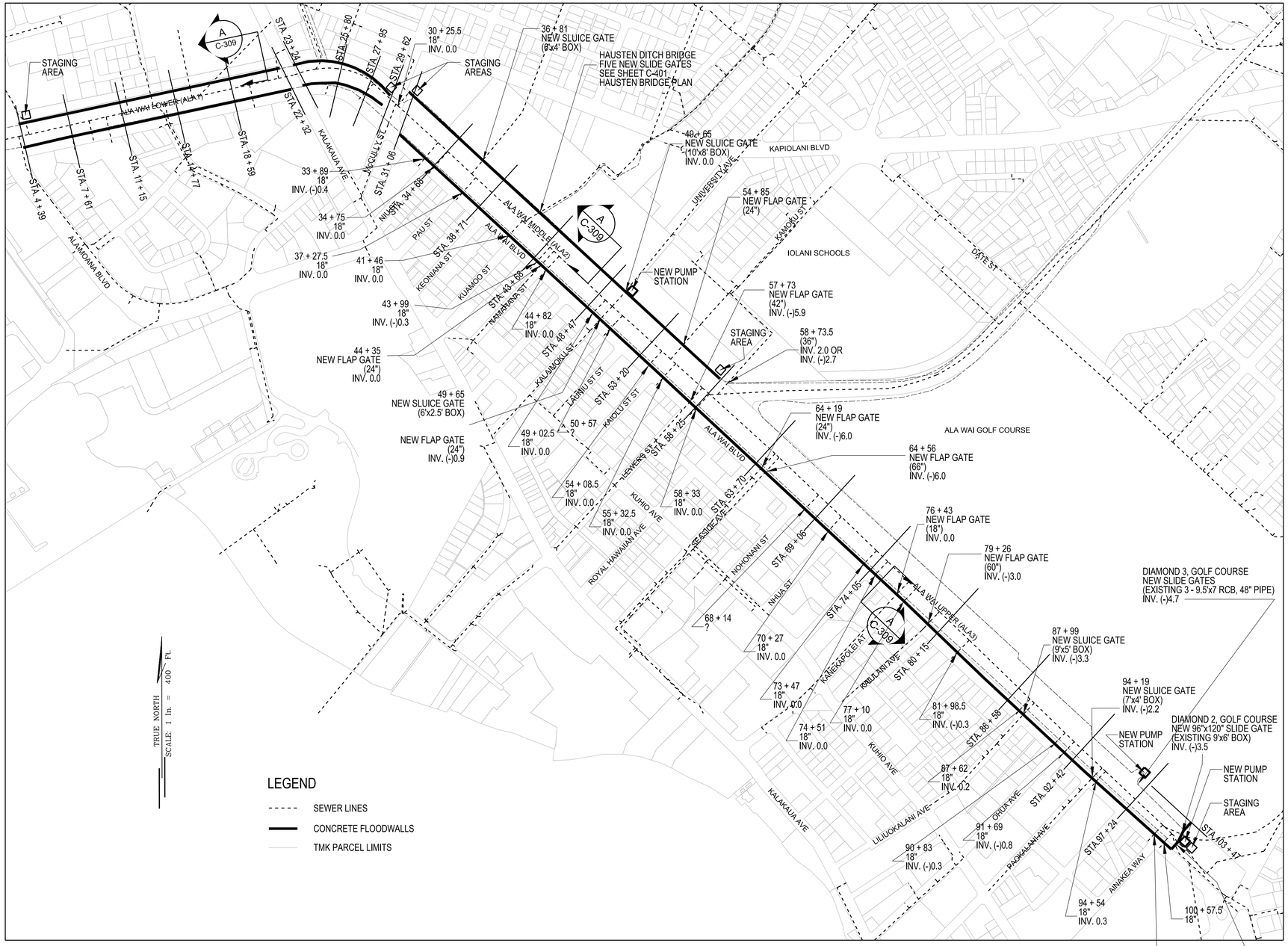

PLAN
ALA WAI CANAL FLOODWALLS

SCALE 1"=400'

ALA WAI CANAL INTERIOR DRAINAGE TABLE

CULVERT NAME	STATION	SIZE & TYPE	NOTES
DIAMOND 2, GOLF COURSE	102+45.5	96"x120" SLIDE GATE	PUMP STATION
DIAMOND 1, ALA WAI BLVD	101+75	2 - 60"x120" SLIDE GATES	
DIAMOND 3, GOLF COURSE	96+67	SLIDE GATES	PUMP STATION
100+57.5	100+57.5	18" FLAP GATE	
99+72.5	99+72.5	18" FLAP GATE	
94+54	94+54	18" FLAP GATE	INV. 0.3
94+19	94+19	SLUICE GATE	INV. (-)2.2
91+69	91+69	18" FLAP GATE	INV. (-)0.8
90+83	90+83	18" FLAP GATE	INV. (-)0.3
87+99	87+99	SLUICE GATE	INV. (-)3.3
87+62	87+62	18" FLAP GATE	INV. 0.2
81+98.5	81+98.5	18" FLAP GATE	INV. (-)0.3
79+26	79+26	60" FLAP GATE	INV. (-)3.0
77+10	77+10	18" FLAP GATE	
76+43	76+43	18" FLAP GATE	INV. 0.0
74+51	74+51	18" FLAP GATE	
73+47	73+47	18" FLAP GATE	
70+27	70+27	18" FLAP GATE	
68+14	68+14	?	
64+56	64+56	66" FLAP GATE	INV. (-)6.0
64+19	64+19	24" FLAP GATE	INV. (-)6.0
58+73.5	58+73.5	36" FLAP GATE	INV. 2.0 OR (-)2.7
58+33	58+33	18" FLAP GATE	
57+73	57+73	42" FLAP GATE	INV. (-)5.9
55+32.5	55+32.5	18" FLAP GATE	
54+08.5	54+08.5	18" FLAP GATE	
54+85	54+85	24" FLAP GATE	
50+57	50+57	?	
49+65, RB	49+65	SLUICE GATE	INV. 0.0, PUMP STATION
49+65	49+65	SLUICE GATE & 24" FLAP GATE	INV. ? & (-)0.9
49+02.5	49+02.5	18" FLAP GATE	
44+82	44+82	18" FLAP GATE	
44+35	44+35	24" FLAP GATE	
43+99	43+99	18" FLAP GATE	INV. (-)0.3
HAUSTEN DITCH BRIDGE	42+10	5 - SLIDE GATES	SEE SHEET C-401
41+46	41+46	18" FLAP GATE	
37+27.5	37+27.5	18" FLAP GATE	
36+81	36+81	SLUICE GATE	
34+75	34+75	18" FLAP GATE	
33+89	33+89	18" FLAP GATE	INV. (-)0.4
30+25.5	30+25.5	18" FLAP GATE	

NOTES:

1. SEE SHEET C-309 FOR THE RIGHT BANK (MOUNTAIN SIDE) PROFILE OF ALA WAI MIDDLE (ALA2) AND ALA WAI LOWER (ALA1).
2. SEE SHEET C-310 FOR THE LEFT BANK (OCEAN SIDE) PROFILE OF ALA WAI MIDDLE (ALA2) AND ALA WAI LOWER (ALA1).
3. SEE SHEET C-311 FOR THE LEFT BANK (OCEAN SIDE) PROFILE OF ALA WAI UPPER (ALA3).
4. PUMP STATIONS WILL BE 50'x50'.

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PLOT SCALE: AS SHOWN
SIZE: ANSI D
DATE:
CHECKED BY:
PLOT DATE: 12/15/2014
FILE NAME: ALA WAI CANAL FLOODWALLS, PLAN
REVISION:
SOLICIT. / CONTRACT NO.:
LOCATION CODE
DRAWING NUMBER:

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HONOLULU DISTRICT
HONOLULU, HAWAII

ALA WAI CANAL PROJECT

ALA WAI LOWER, MIDDLE & UPPER FLOODWALLS
SITE PLAN
ALTERNATIVE 2A

SHEET IDENTIFICATION
C-101
SHEET 3 OF 25

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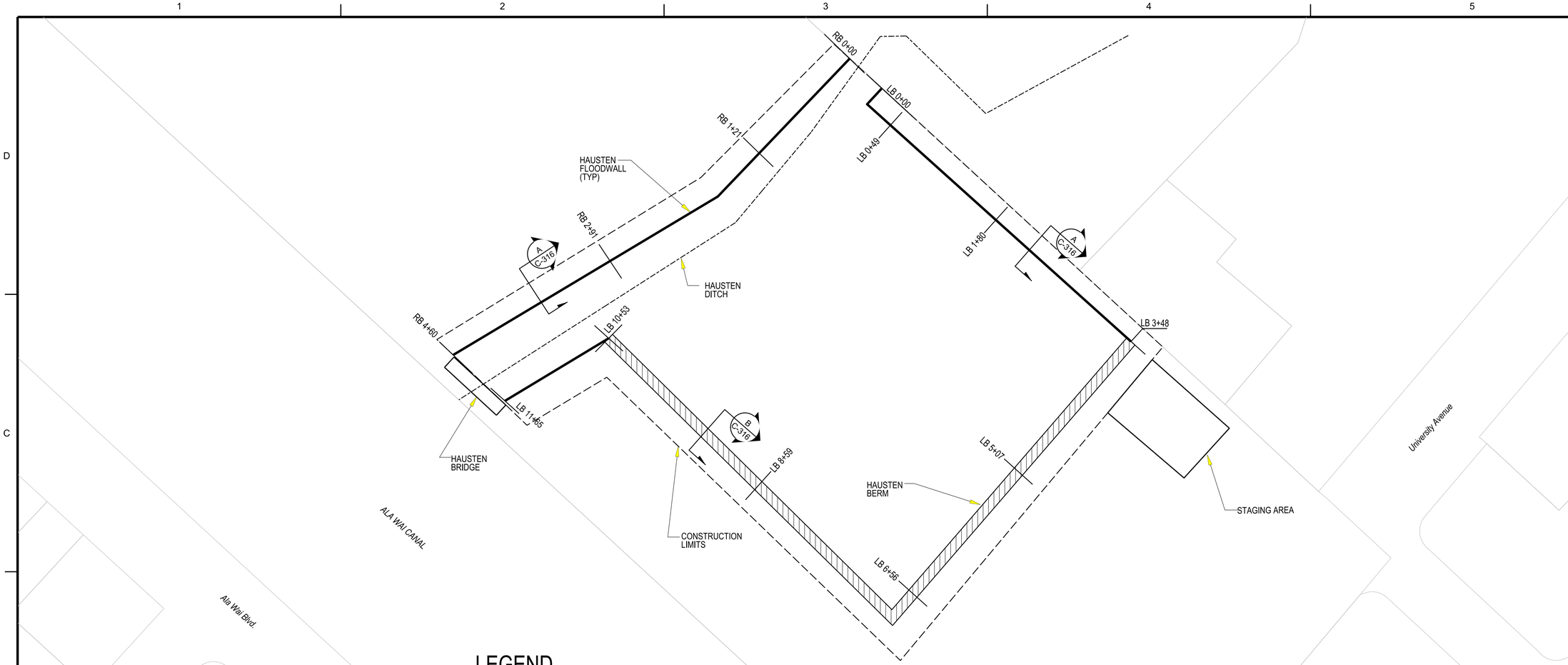

LEGEND

BERM

CONCRETE FLOODWALLS

NOTES:

1. STAGING AREA WILL HAVE GEOTEXTILE AND 3" OF SURGE MATERIAL.
2. SEE SHEET C-316 FOR THE PLAN AND PROFILE OF THE FLOODWALLS AND BERM.
3. SEE SHEET C-401 FOR THE HAUSTEN DITCH BRIDGE NEW CONRETE WALL PLAN.

HAUSTEN DITCH DETENTION PLAN

SCALE: 1"=50'

TRUE NORTH

SCALE: 1 In. = 50 Ft.

50' 25' 0 50' 100'

SCALE: 1" = 50'

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LOCATION CODE
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FILE NAME: HAUSTEN DITCH DETENTION PLAN
REVISION:

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ALA WAI CANAL PROJECT

HAUSTEN DITCH DETENTION PLAN
ALTERNATIVE 2A

SHEET IDENTIFICATION
C-102
SHEET 4 OF 25

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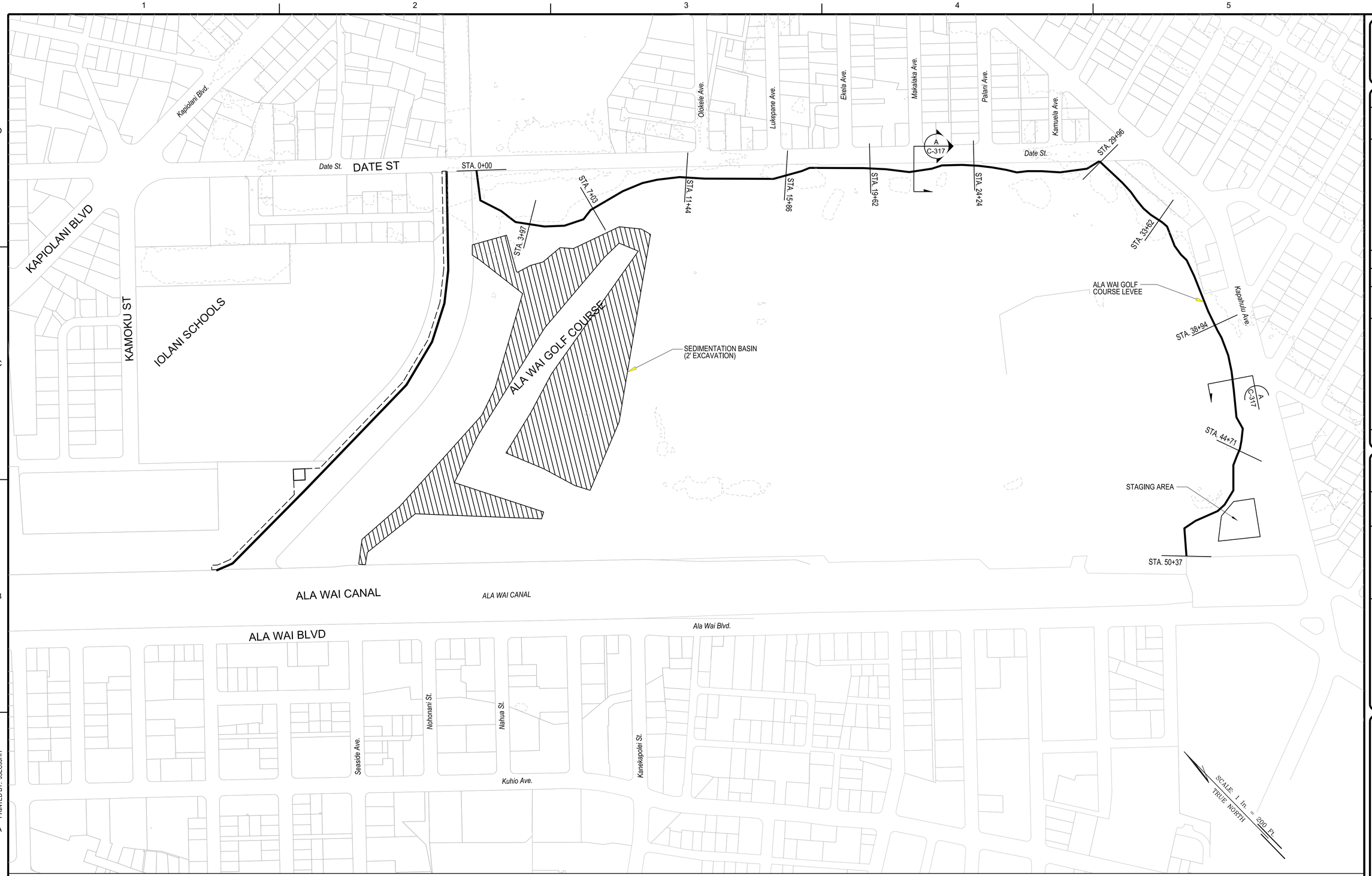

NOTES:

1. THE STAGING AREA WILL HAVE GEOTEXTILE AND 3" OF SURGE MATERIAL.

ALA WAI GOLF COURSE MULTI-PURPOSE DETENTION
PLAN
SCALE: 1"=200'

SOLID LINE = 50' CONTOURS
DOTTED LINE = 10' CONTOURS

200' 100' 0 200' 300'
SCALE: 1" = 200'

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DATE:
REVISION:
SOLICIT. / CONTRACT NO.:
LOCATION CODE
DRAWING NUMBER:

US ARMY CORPS OF ENGINEERS
HONOLULU DISTRICT
HONOLULU, HAWAII

ALA WAI CANAL PROJECT

ALA WAI GOLF COURSE MULTI-PURPOSE DETENTION
PLAN
ALTERNATIVE 2A

SHEET IDENTIFICATION
C-103
SHEET 5 OF 25

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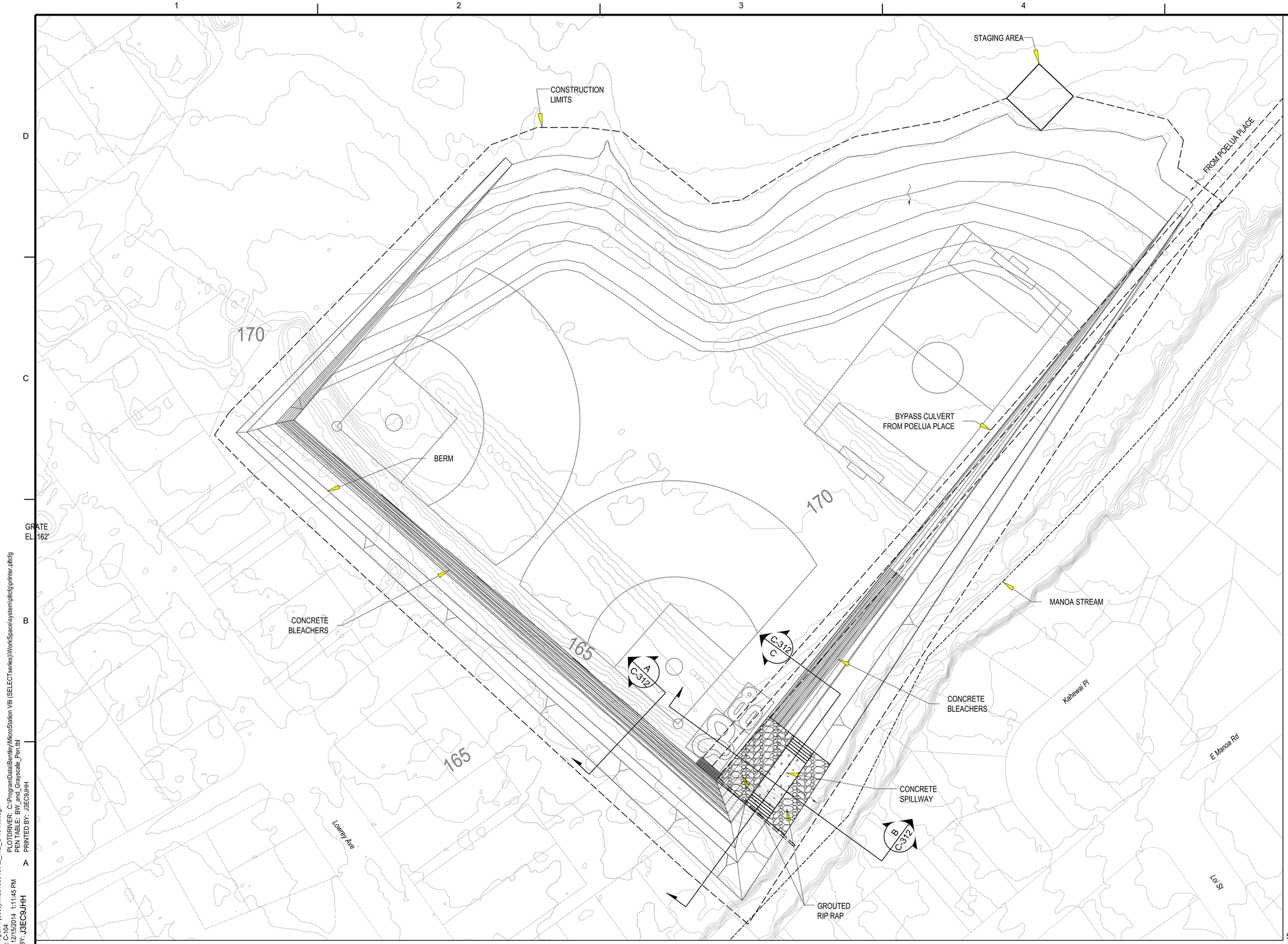

NOTES:

1. SEE SHEET C-312 FOR THE PLAN AND SECTIONS.

SOLID LINE = 5' CONTOURS
DOTTED LINE = 1' CONTOURS

50' 25' 0 50' 100'
SCALE: 1" = 50'

SCALE: 1 In. = 50 Ft.
TRUE NORTH

MANOA PARK DETENTION BASIN
PLAN

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DATE:
SOLICIT. / CONTRACT NO.:
LOCATION CODE
DRAWING NUMBER:
REVISION:

ALA WAI CANAL PROJECT

MANOA PARK DETENTION BASIN
PLAN
ALTERNATIVE 2A

SHEET IDENTIFICATION
C-104
SHEET 6 OF 25

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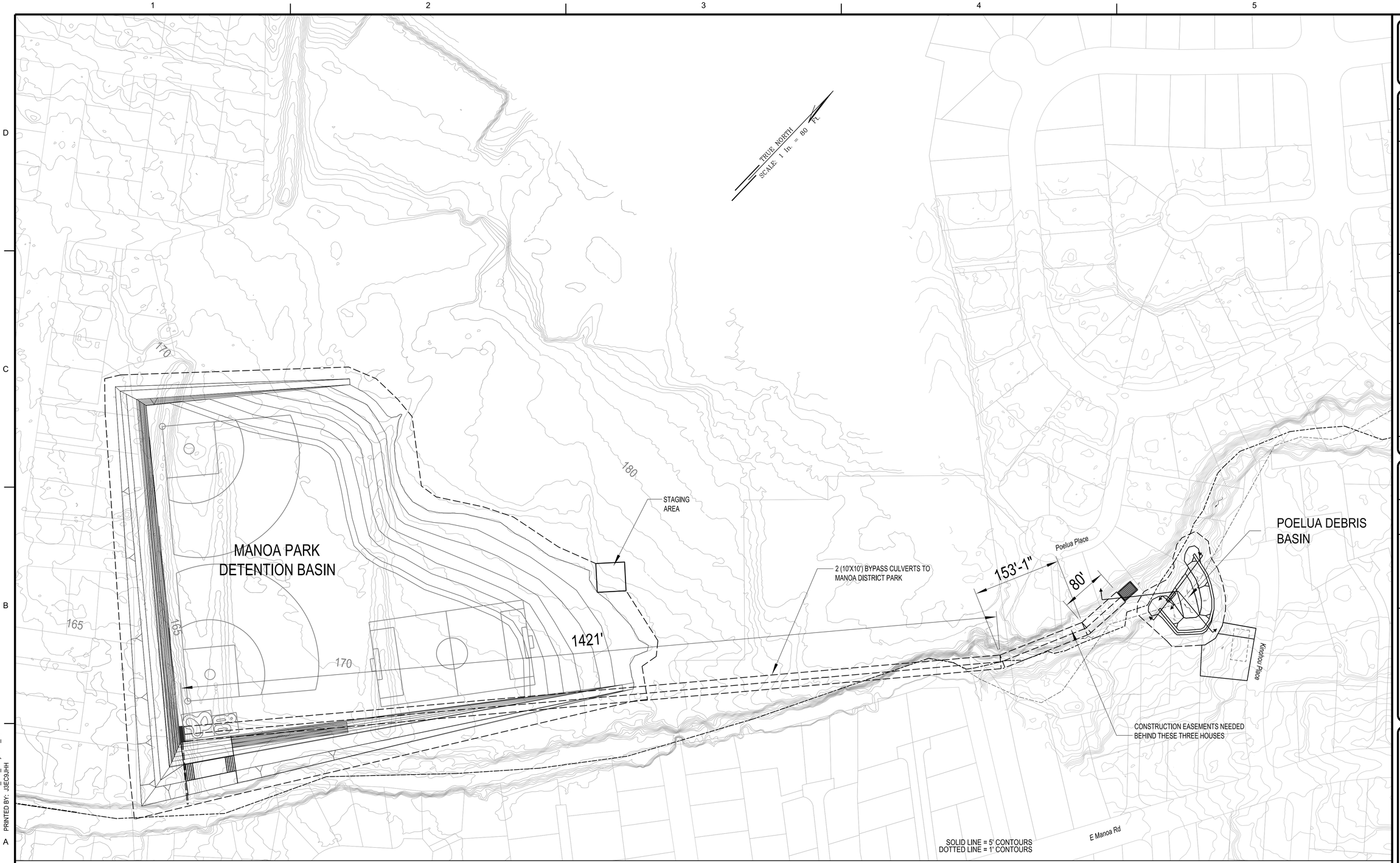

BYPASS CULVERT TO MANOA PARK DETENTION BASIN
SITE PLAN

SCALE: 1"=80'

NOTES:

1. SEE SHEET C-104 FOR THE MANOA PARK DETENTION BASIN PLAN.
2. SEE SHEET C-303 FOR THE POELUA DEBRIS BASIN PLAN.

80' 0' 80' 160'

SCALE: 1" = 80'

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SIZE: ANSI D

DATE:
CHECKED BY:
PLOT DATE:
FILE NAME: BY-PASS CULVERT TO MANOA PARK DETENTION BASIN

REVISION:
SOLICIT. / CONTRACT NO.:
LOCATION CODE
DRAWING NUMBER:

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ALA WAI CANAL PROJECT

POELUA PLACE DEBRIS BASIN
PLAN
ALTERNATIVE 2A

SHEET IDENTIFICATION
C-105
SHEET 7 OF 25

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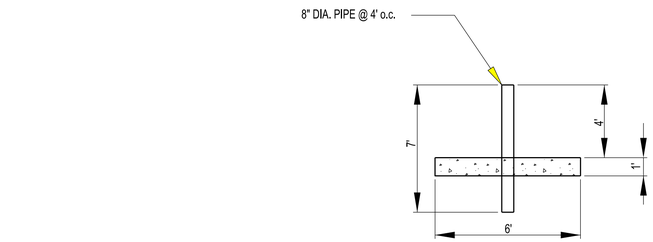

SECTION D-D
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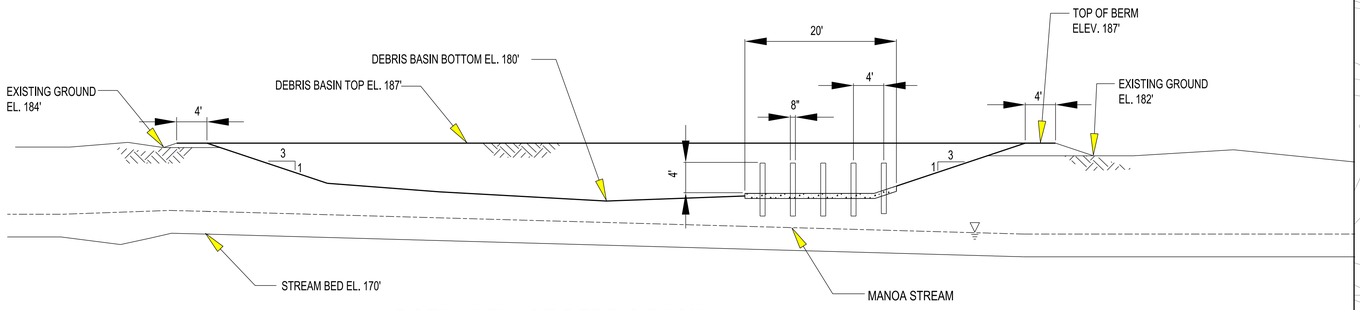
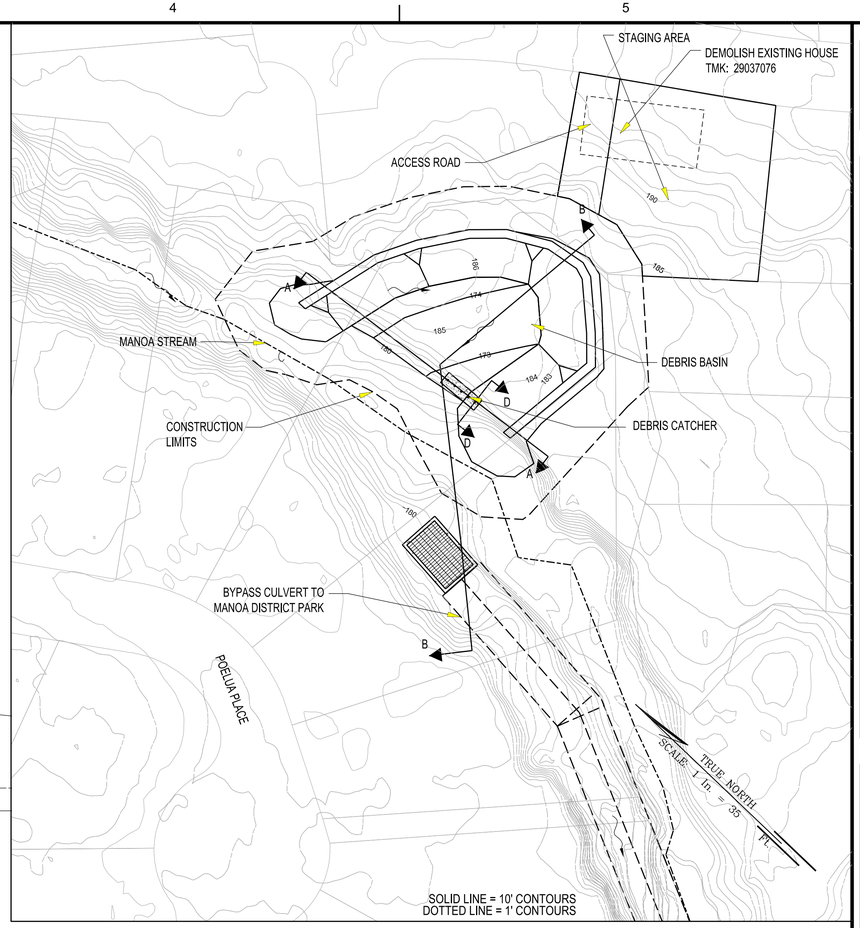
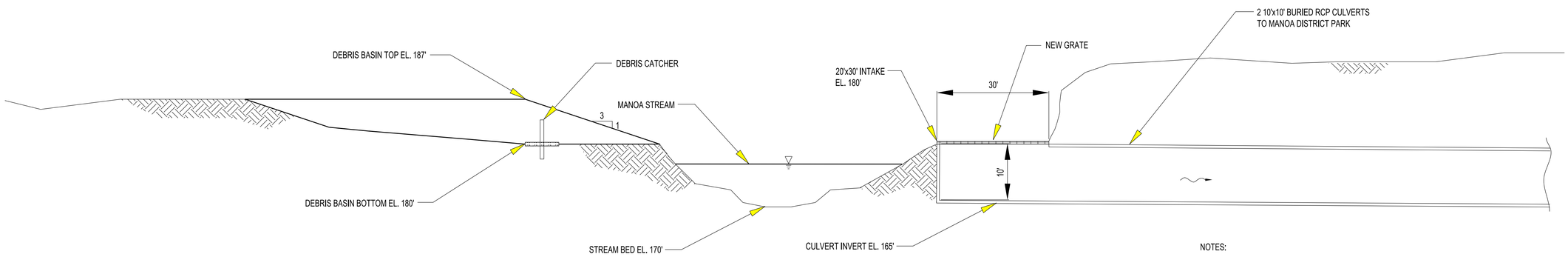


POELUA PLACE DEBRIS BASIN
SECTION A-A
SCALE: 1"=10'



PLAN
SCALE: 1"=35'



POELUA PLACE DEBRIS BASIN
SECTION B-B
SCALE: 1"=10'

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

Note: All elevations are feet MSL

NOTES:

1. 6 FOOT HIGH CHAIN LINK FENCE AROUND ACCESS ROAD AND STAGING AREA.
2. 6 FOOT HIGH AND 24 FOOT WIDE CHAIN LINK FENCE GATE TO BE INSTALLED IN FRONT OF THE ACCESS ROAD.

US Army Corps of Engineers
Honolulu District

10% DESIGN

MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: JHH
DRAWN BY:
SUBMITTED BY:
PLOT SCALE:
SIZE: ANSI D

CHECKED BY:
PLOT DATE: 12/15/2014
FILE NAME: POELUA PLACE_DEBRIS_BASIN_PLAN & SECTIONS

SOLICIT. / CONTRACT NO.:
LOCATION CODE
DRAWING NUMBER:

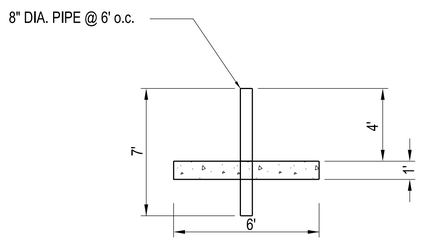
US ARMY CORPS OF ENGINEERS
HONOLULU DISTRICT
HONOLULU, HAWAII

ALA WAI CANAL PROJECT

POELUA PLACE DEBRIS BASIN
PLAN AND SECTIONS
ALTERNATIVE 2A

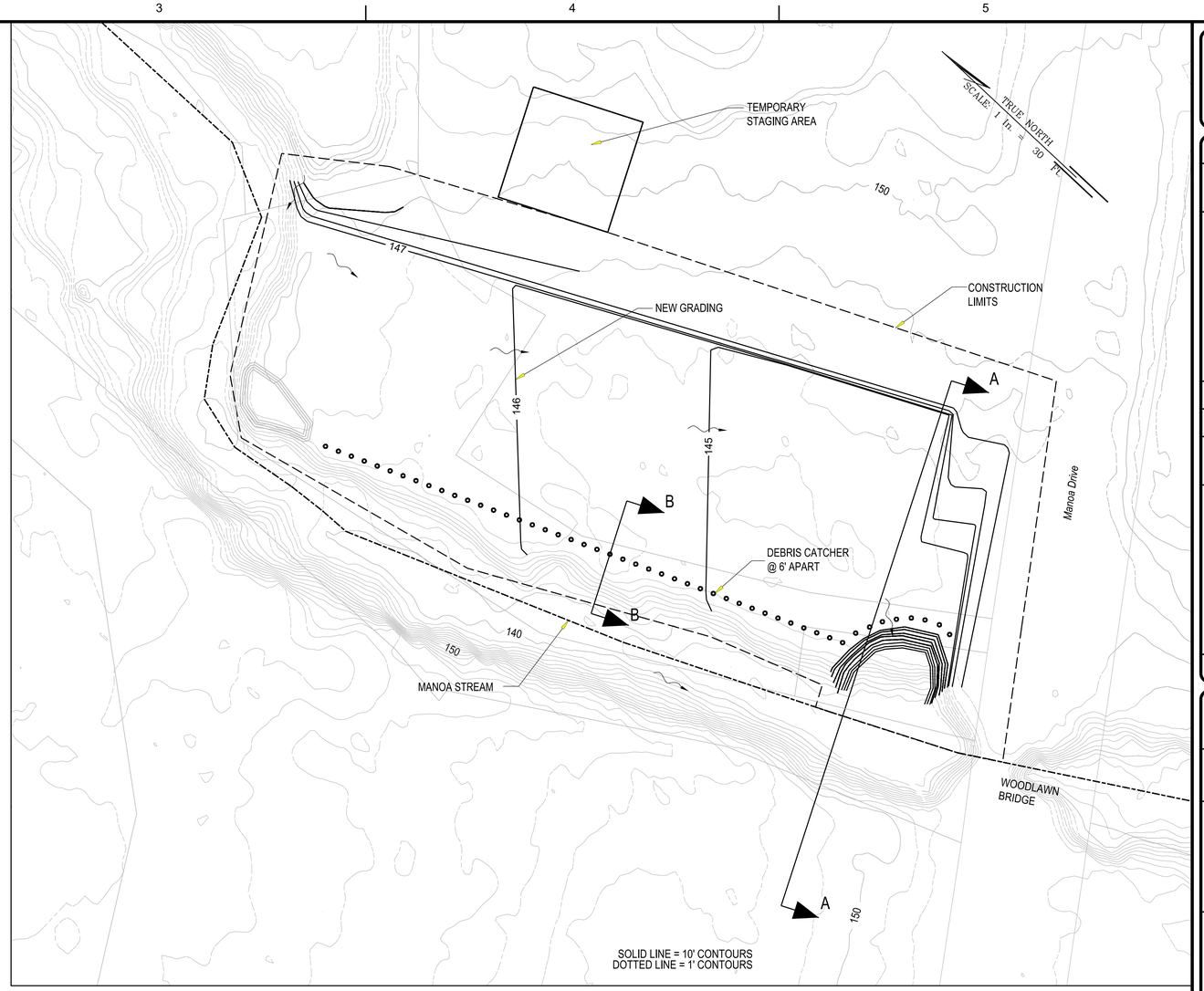
SHEET IDENTIFICATION
C-303
SHEET 8 OF 25

FILE: c:\pw\work\poh-1\j3ec9jhh\d0139948\Ala_Wai_C-303xxx.dgn
MODEL NAME: C-303
DATE & TIME: 12/15/2014 1:17:57 PM
LAST SAVED BY: J3EC9JHH
PLOTDRIVER: C:\ProgramData\Bentley\MicroStation V8i (SELECTseries)\WorkSpace\system\plotdrv\printer.pltcfg
PEN TABLE: BW_and_Grayscale_Pen.tbl
PRINTED BY: J3EC9JHH



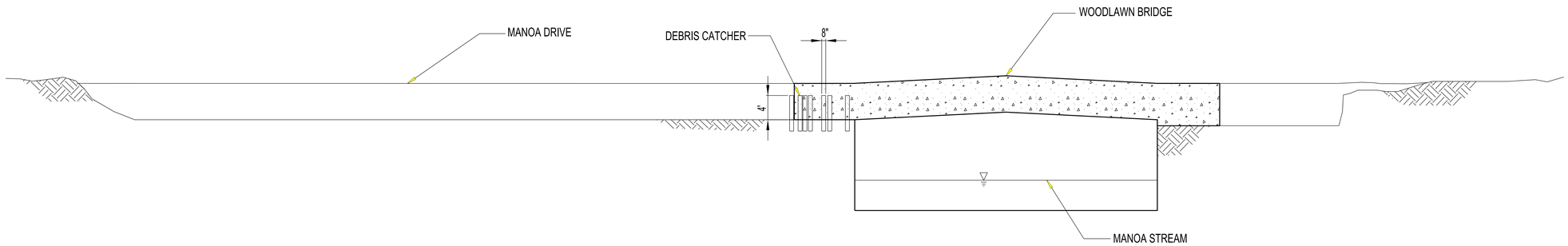
INNOVATION CENTER IMPROVEMENTS
SECTION B-B

SCALE: NTS



PLAN

SCALE: 1"=30'



10' 5' 0 10' 20'

SCALE: 1" = 10'

Note: All elevations are feet MSL

INNOVATION CENTER IMPROVEMENTS
SECTION A-A

SCALE: 1"=10'

US Army Corps of Engineers®
Honolulu District

10% DESIGN

MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: JHH
DRAWN BY:
CHECKED BY:
SUBMITTED BY:
PLOT SCALE:
PLOT DATE: 12/15/2014
SIZE: ANSI D
DATE:
REVISION:
SOLICIT./ CONTRACT NO.:
LOCATION CODE
DRAWING NUMBER:
FILE NAME: INNOVATION CENTER IMPROVEMENTS, PLAN & SECTIONS

US ARMY CORPS OF ENGINEERS
HONOLULU DISTRICT
HONOLULU, HAWAII

ALA WAI CANAL PROJECT

INNOVATION CENTER IMPROVEMENTS
PLAN AND SECTIONS
ALTERNATIVE 2A

SHEET IDENTIFICATION
C-304
SHEET 9 OF 25

FILE: c:\pw-work\poh-1\j3ec9jhh\d0139948\Ala_Wai_C-304xxx.dgn
MODEL NAME: C-304
DATE & TIME: 12/15/2014 1:20:22 PM
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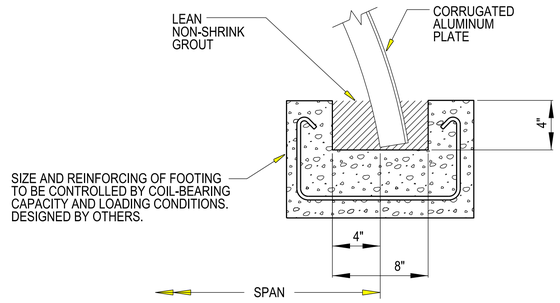
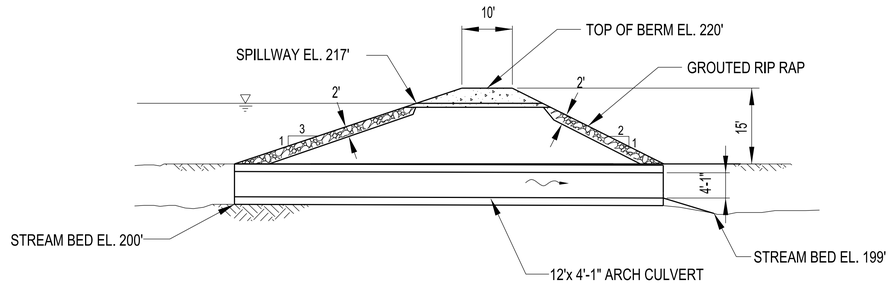
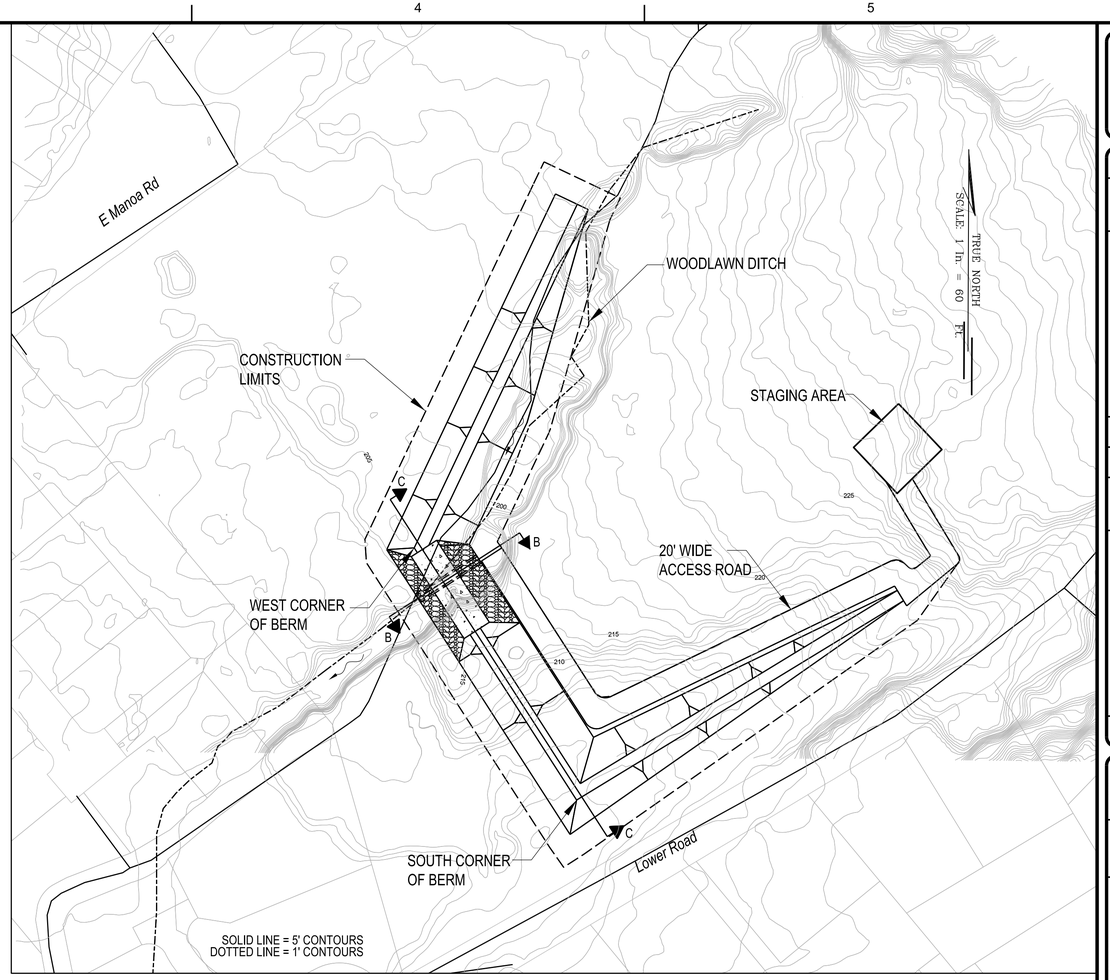
PLOTDRIVER: C:\ProgramData\Bentley\MicroStation V8i (SELECTseries)\WorkSpace\system\pltcfg\printer.pltcfg
PEN TABLE: BW_and_Grayscale_Pen.tbl
PRINTED BY: J3EC9JHH



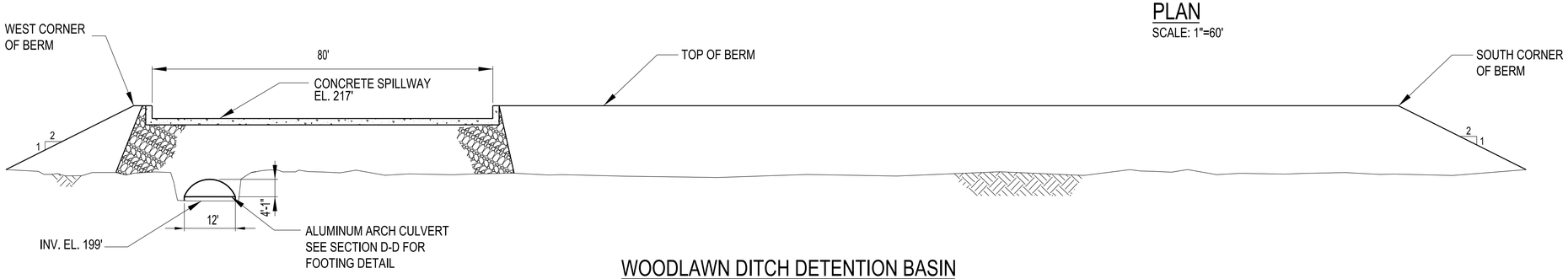
SLOTTED CONCRETE FOOTING
WOODLAWN DITCH DETENTION BASIN
SECTION D-D
SCALE: NTS



WOODLAWN DITCH DETENTION BASIN
SECTION B-B
SCALE: 1"=15'



PLAN
SCALE: 1"=60'



WOODLAWN DITCH DETENTION BASIN
SECTION C-C
SCALE: 1"=15'

15' 7.5' 0 15' 30'
SCALE: 1" = 15'

Note: All elevations are feet MSL

US Army Corps of Engineers
Honolulu District

	DESCRIPTION	DATE	APPR.

	DESCRIPTION	DATE	APPR.

DESIGNED BY: JJH
DRAWN BY:
SUBMITTED BY:
PLOT SCALE: AS SHOWN
SIZE: ANSI D
DATE:
CHECKED BY:
PLOT DATE: 12/15/2014
FILE NAME: WOODLAWN DITCH DETENTION BASIN, PLAN & SECTIONS

REVISION:
SOLICIT. / CONTRACT NO.:
LOCATION CODE
DRAWING NUMBER:

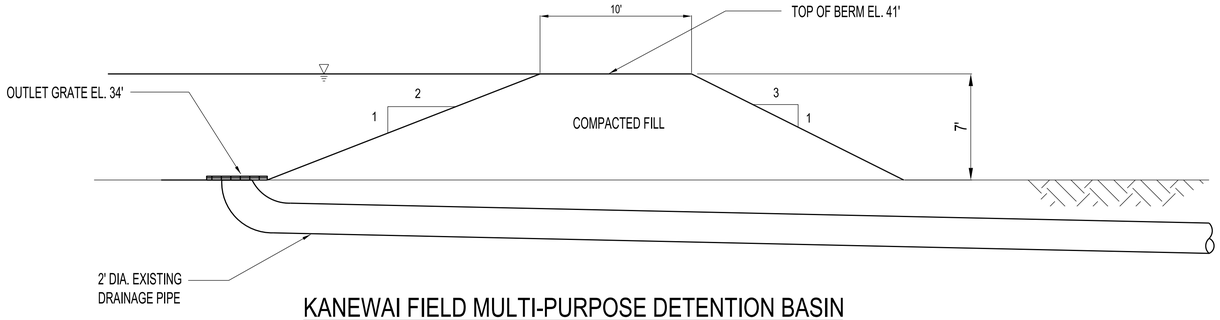
US ARMY CORPS OF ENGINEERS
HONOLULU DISTRICT
HONOLULU, HAWAII

ALA WAI CANAL PROJECT

WOODLAWN DITCH DETENTION
PLAN AND SECTIONS
ALTERNATIVE 2A

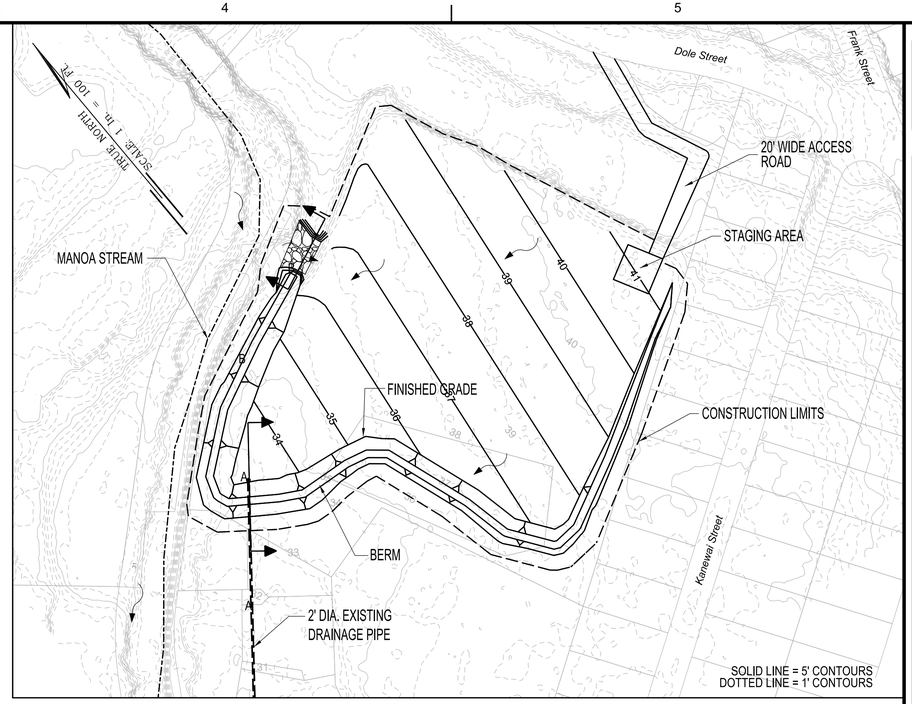
SHEET IDENTIFICATION
C-305
SHEET 10 OF 25

FILE: c:\pw_work\poh-1\j3ec9jhh\d01389484a_Wai_C-305x.dgn
MODEL NAME: C-305
DATE & TIME: 12/15/2014 1:48:51 PM
LAST SAVED BY: J3EC9JHH
PLOTDRIVER: C:\ProgramData\Bentley\MicroStation V8i (SELECTseries)\WorkSpace\system\plotdrv\printer.pltcfg
PEN TABLE: BW_and_Grayscale_Pen.tbl
PRINTED BY: J3EC9JHH



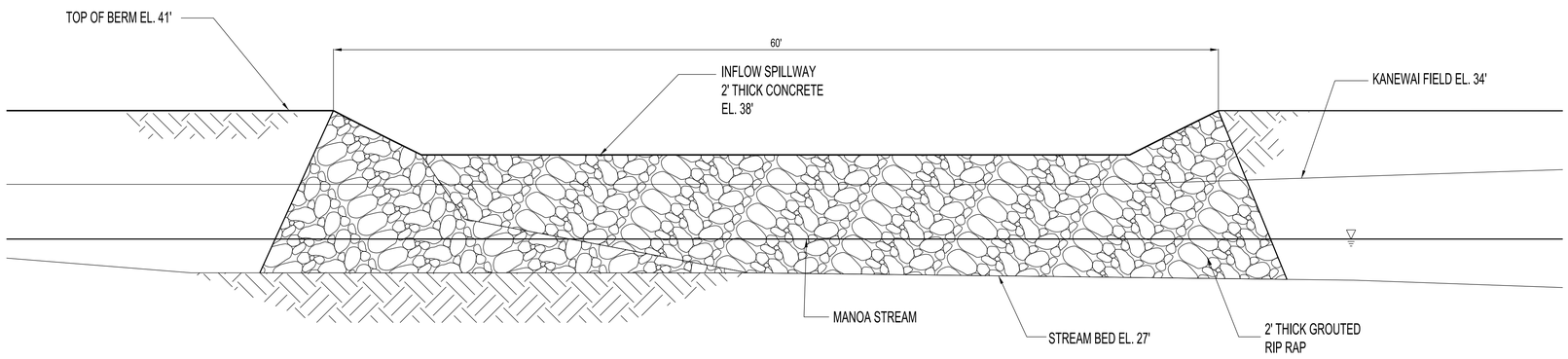
KANEWAI FIELD MULTI-PURPOSE DETENTION BASIN
SECTION A-A

SCALE: 1" = 5'



PLAN

SCALE: 1" = 100'



KANEWAI FIELD MULTI-PURPOSE DETENTION BASIN
SECTION B-B

SCALE: 1" = 5'

5' 2.5' 0 5' 10'

SCALE: 1" = 5'

Note: All elevations are feet MSL

US Army Corps of Engineers®
HONOLULU DISTRICT

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MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: | DATE: | REVISION:
DRAWN BY: | CHECKED BY: | SOLICIT./ CONTRACT NO.:
SUBMITTED BY: | LOCATION CODE
PLOT SCALE: AS SHOWN | PLOT DATE: 12/15/2014 | DRAWING NUMBER:
SIZE: ANSI D | FILE NAME: KANEWAI FIELD MULTI-PURPOSE DETENTION BASIN_PLAN.dgn

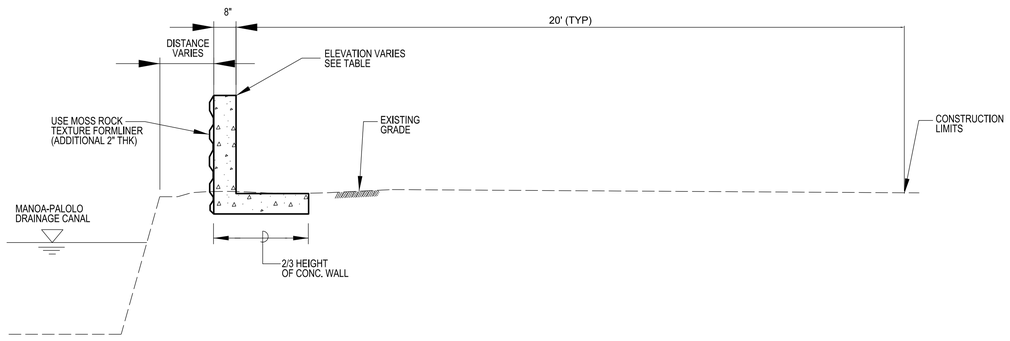
US ARMY CORPS OF ENGINEERS
HONOLULU DISTRICT
HONOLULU, HAWAII

ALA WAI CANAL PROJECT

KANEWAI FIELD MULTI-PURPOSE DETENTION BASIN
PLAN AND SECTIONS
ALTERNATIVE 2A

SHEET IDENTIFICATION
C-306
SHEET 11 OF 25

FILE: c:\pw-work\poh-1\j3ec9jhh\d0139948\Ala_Wai_C-306xxx.dgn
MODEL NAME: C-306
DATE & TIME: 12/15/2014 1:52:44 PM
LAST SAVED BY: J3EC9JHH
PLOTDRIVER: C:\ProgramData\Bentley\MicroStation V8i (SELECTseries)\WorkSpace\system\pltcfg\printer.pltcfg
PEN TABLE: BW_and_Grayscale_Pen.tbl
PRINTED BY: J3EC9JHH

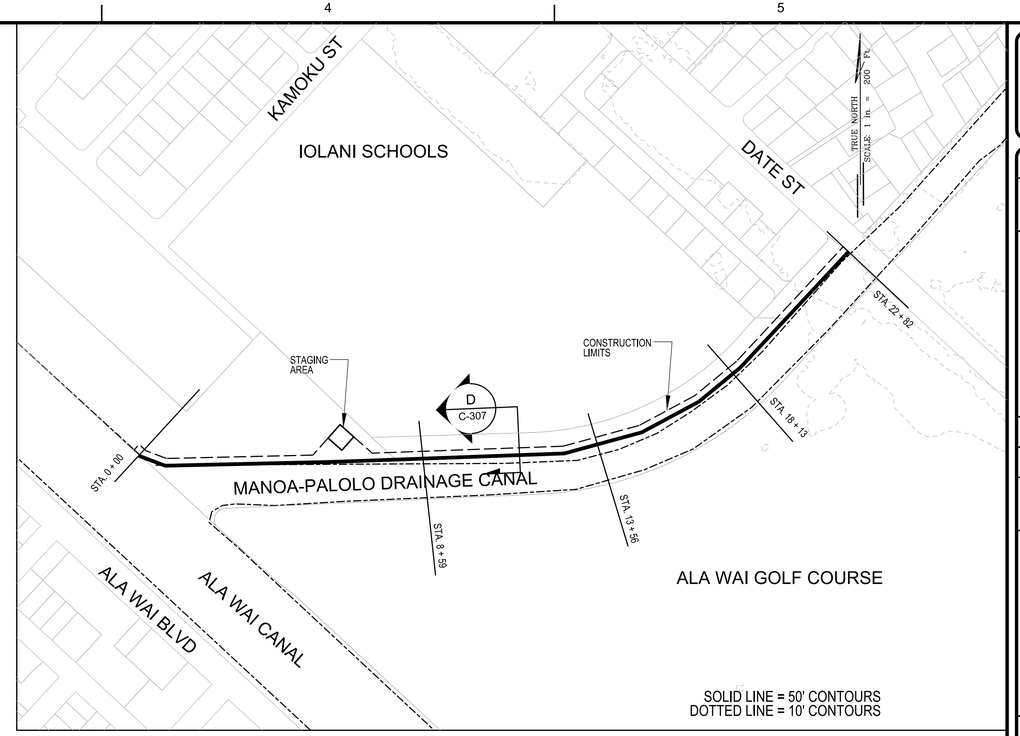


D TYPICAL CONCRETE FLOODWALL SECTION

NOT TO SCALE

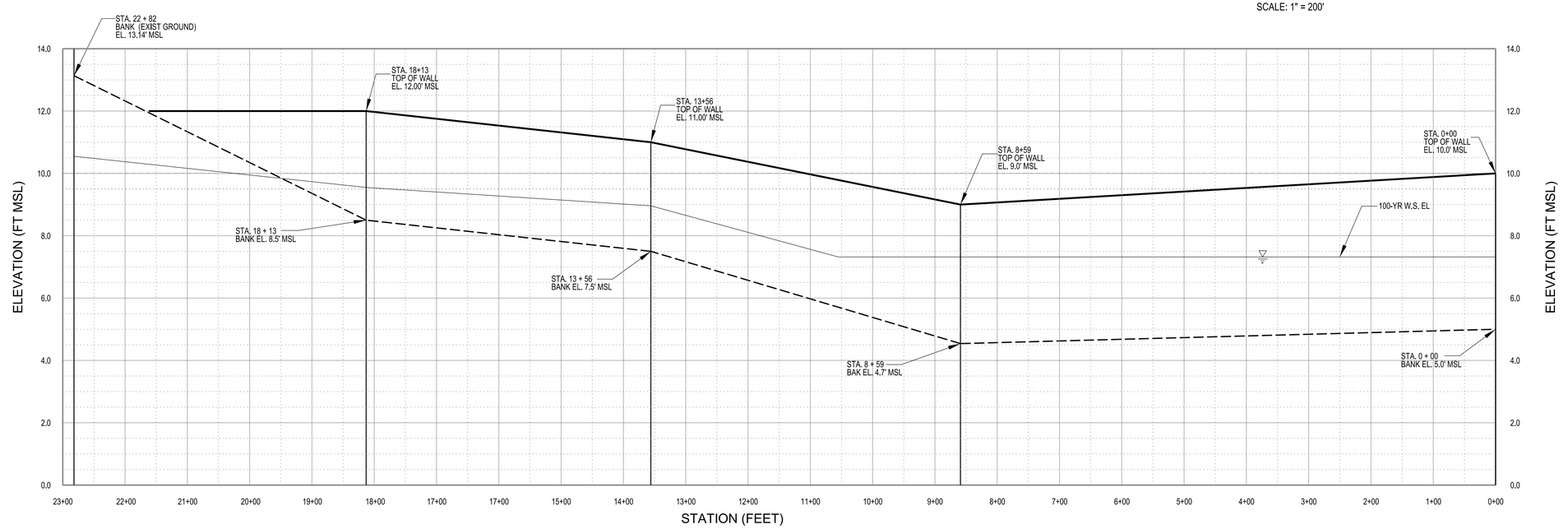
MANOA-PALOLO DRAINAGE CANAL
RIGHT BANK STA 22 + 82 TO 0 + 00

STATION	WALL HEIGHT (FT)	FINISHED WALL ELEVATION (FT MSL)
22 + 82	-	-
18 + 13	3.50	12.00
13 + 56	3.50	11.00
8 + 59	4.30	9.00
0 + 00	5.00	10.00



PLAN

SCALE: 1" = 200'



PROFILE
MANOA-PALOLO DRAINAGE CANAL FLOODWALL

SCALE:
HORIZONTAL: 1" = 100'
VERTICAL: 1" = 2'

US Army Corps of Engineers®
Honolulu District

10% DESIGN

MARK	DESCRIPTION	DATE	APPR.

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: JHH
DRAWN BY:
CHECKED BY:
SUBMITTED BY:
PLOT SCALE: AS SHOWN
PLOT DATE: 12/15/2014
SIZE: ANSI D
FILE NAME: MANOA-PALOLO DRAINAGE CANAL FLOODWALL, PLAN, PROFILE AND SECTION
DATE:
REVISION:
SOLICIT./ CONTRACT NO.:
LOCATION CODE
DRAWING NUMBER:

US ARMY CORPS OF ENGINEERS
HONOLULU DISTRICT
HONOLULU, HAWAII

ALA WAI CANAL PROJECT

MANOA-PALOLO DRAINAGE CANAL FLOODWALL
PLAN, PROFILE AND SECTION
ALTERNATIVE 2A

SHEET IDENTIFICATION
C-307
SHEET 12 OF 25

FILE: c:\pw-work\poh-1\j3ec9jhh\d0139948\Ala_Wai_C-307xxx.dgn
MODEL NAME: C-301
DATE & TIME: 12/15/2014 1:55:16 PM
LAST SAVED BY: J3EC9JHH
PLOTDRIVER: C:\ProgramData\Bentley\MicroStation V8i (SELECTseries)\WorkSpace\system\pltcfg\printer.pltcfg
PEN TABLE: BW_and_Grayscale_Pen.tbl
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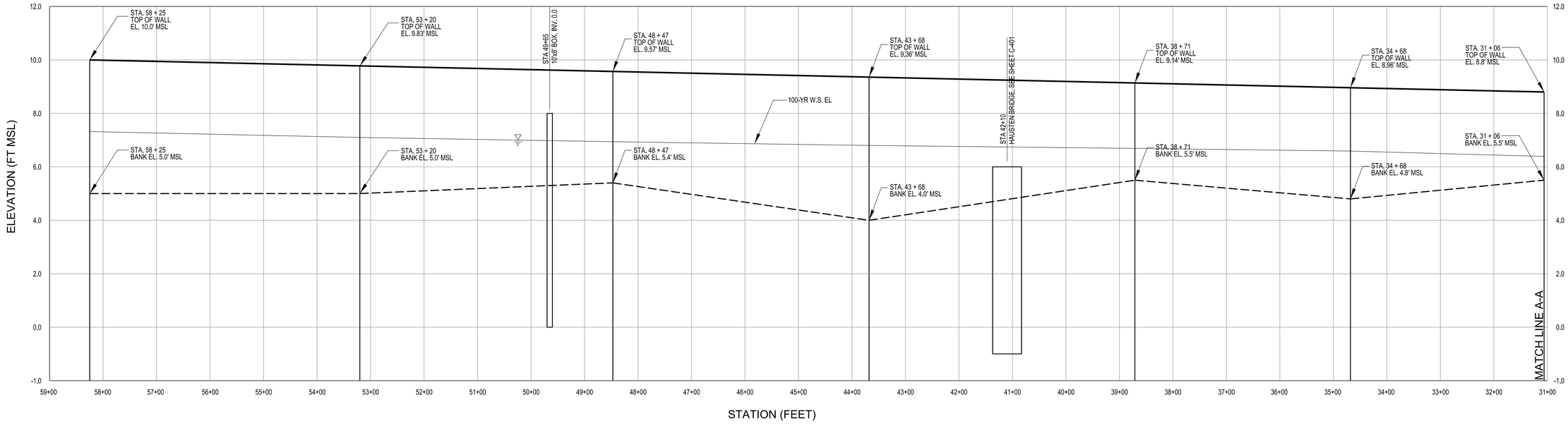

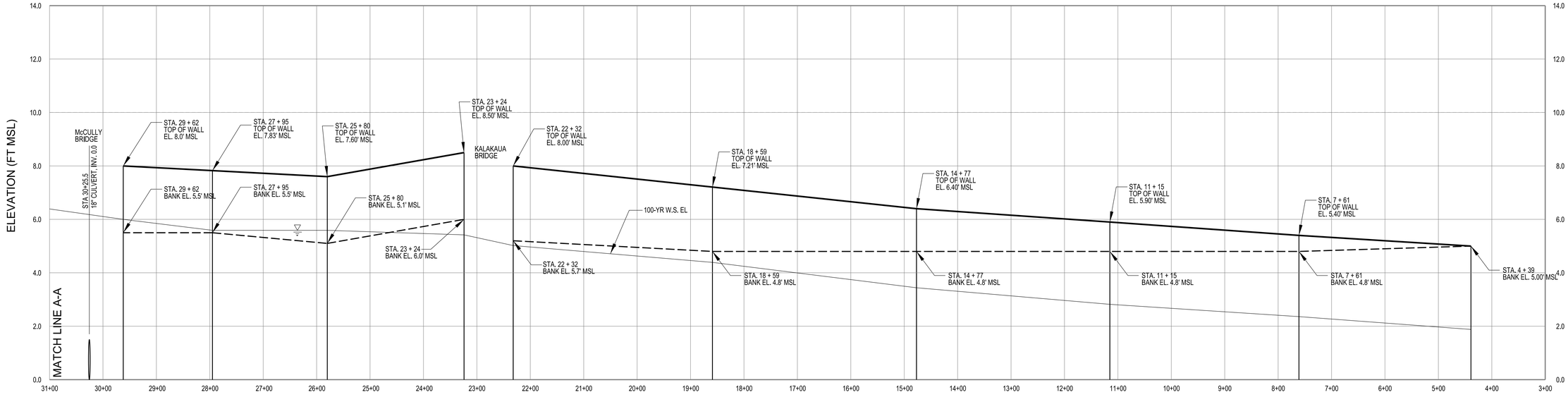

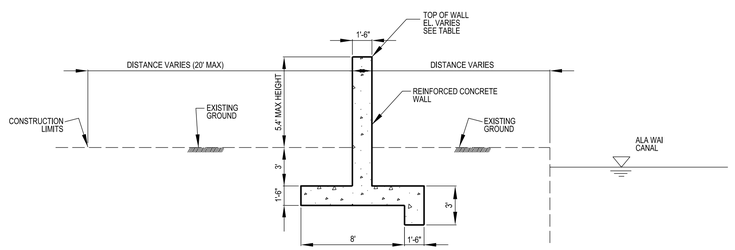

A TYPICAL RIGHT BANK REINFORCED CONCRETE FLOODWALL SECTION

NOT TO SCALE

PROFILE

ALA WAI MIDDLE (ALA2) AND LOWER (ALA1) RIGHT BANK FLOODWALLS

SCALE:
HORIZONTAL: 1" = 100'
VERTICAL: 1" = 2'

ALA WAI CANAL MIDDLE (ALA2) RIGHT BANK
STA 58 + 25 TO 25+80

STATION	WALL HEIGHT (FT)	FINISHED WALL ELEVATION (FT MSL)
58 + 25	5.00	10.00
53 + 20	4.78	9.83
48 + 47	4.17	9.57
43 + 68	5.36	9.36
38 + 71	3.64	9.14
34 + 68	4.16	8.96
31 + 06	3.39	8.80
MCCLULLY BRIDGE		
29 + 62	2.50	8.00
27 + 95	2.33	7.83
25 + 80	2.50	7.60

ALA WAI CANAL LOWER (ALA1) RIGHT BANK
STA 23 + 24 TO 4 + 39

STATION	WALL HEIGHT (FT)	FINISHED WALL ELEVATION (FT MSL)
23 + 24	2.50	8.50
KALAKAUA AVE BRIDGE		
22 + 32	2.80	8.00
18 + 59	2.41	7.21
14 + 77	1.60	6.40
11 + 15	1.10	5.90
7 + 61	0.60	5.40
4 + 39	0	5.00

US Army Corps of Engineers
HONOLULU DISTRICT

10% DESIGN

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: JHH
DRAWN BY:
SUBMITTED BY:
PLOT SCALE: 1:1 ON 24"x36"
SIZE: ANSI D

DATE:
CHECKED BY:
LOCATION CODE
PLOT DATE: 12/15/2014
FILE NAME: ALA WAI CANAL MIDDLE & LOWER RIGHT BANK PROFILE & SECTION

REVISION:
SOLICIT. / CONTRACT NO.:
DRAWING NUMBER:

US ARMY CORPS OF ENGINEERS
HONOLULU DISTRICT
HONOLULU, HAWAII

ALA WAI CANAL PROJECT

ALA WAI MIDDLE & LOWER RIGHT BANK FLOODWALLS
PROFILE AND SECTION
ALTERNATIVE 2A

SHEET IDENTIFICATION
C-309
SHEET 13 OF 25

FILE: c:\pw-workpoh-1\j3ec9jhh\d0139948\Ala_Wai_C-309xxx.dgn
MODEL NAME: C-309
DATE & TIME: 12/15/2014 1:57:35 PM
LAST SAVED BY: J3EC9JHH
PLOTDRIVER: C:\ProgramData\Bentley\MicroStation V8i (SELECTseries)\WorkSpace\system\plotdg\printer.plotdg
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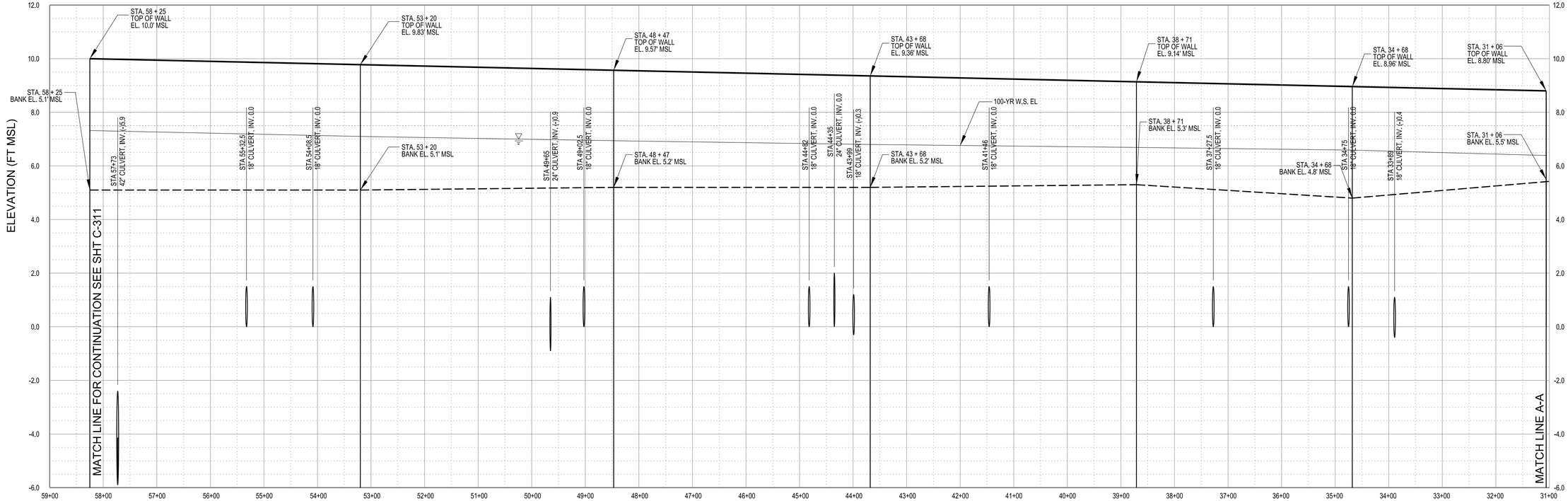
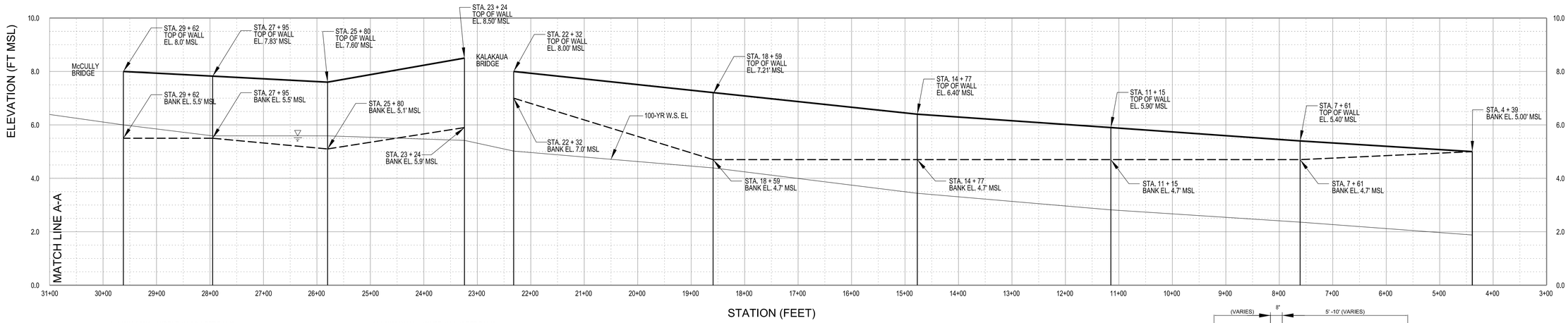
PRINTED BY: J3EC9JHH





ALA WAI CANAL MIDDLE (ALA2) LEFT BANK
STA TO 58 + 25 TO 25+80

STATION	WALL HEIGHT (FT)	FINISHED WALL ELEVATION (FT MSL)
58 + 25	4.90	10.00
53 + 20	4.68	9.83
48 + 47	4.30	9.57
43 + 68	4.16	9.36
38 + 71	3.84	9.14
34 + 68	4.16	8.96
31 + 06	3.39	8.80
MCCLULLY BRIDGE		
29 + 62	2.50	8.00
27 + 95	2.33	7.83
25 + 80	2.50	7.60

ALA WAI CANAL LOWER (ALA1)LEFT BANK
STA TO 23 + 24 TO 4 + 39

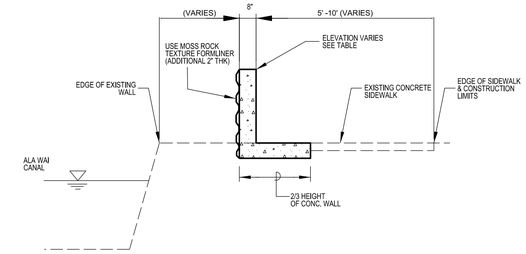
STATION	WALL HEIGHT (FT)	FINISHED WALL ELEVATION (FT MSL)
23 + 24	2.6	8.5
KALAKAUA BRIDGE		
22 + 32	1.00	8.00
18 + 59	2.51	7.21
14 + 77	1.70	6.40
11 + 15	1.20	5.90
7 + 61	0.70	5.40
4 + 39	0	5

PROFILE
ALA WAI CANAL MIDDLE (ALA2) AND LOWER (ALA1) LEFT BANK FLOODWALLS

SCALE:
HORIZONTAL: 1" = 100'
VERTICAL: 1" = 2'

NOTES:

1. SEE DETAIL "C" ON SHEET C-311 FOR ALA WAI CANAL MIDDLE (ALA2) TYPICAL LEFT BANK CONCRETE FLOODWALL SECTION.
2. ALA WAI CANAL LOWER (ALA 1) IS FROM STATION 23+24 TO STATION 4+39.



B TYPICAL ALA WAI LOWER (ALA1) LEFT BANK CONCRETE FLOODWALL SECTION

NOT TO SCALE

US Army Corps of Engineers
HONOLULU DISTRICT

10% DESIGN

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: JHH
DRAWN BY:
SUBMITTED BY:
PLOT SCALE: 1=1 PLOT DRAWN
SIZE: ANSI D
DATE:
CHECKED BY:
PLOT DATE:
FILE NAME: ALA WAI CANAL MIDDLE & LOWER LEFT BANK PROFILE
REVISION:
SOLICIT. / CONTRACT NO.:
LOCATION CODE
DRAWING NUMBER:

US ARMY CORPS OF ENGINEERS
HONOLULU DISTRICT
HONOLULU, HAWAII

ALA WAI CANAL PROJECT

ALA WAI MIDDLE & LOWER LEFT BANK FLOODWALLS
PROFILE
ALTERNATIVE 2A

SHEET IDENTIFICATION
C-310
SHEET 14 OF 25

FILE: c:\pw-work\poh-1\j3ec9jhh\d01399848-Ala_Wai_C-310xxx.dgn
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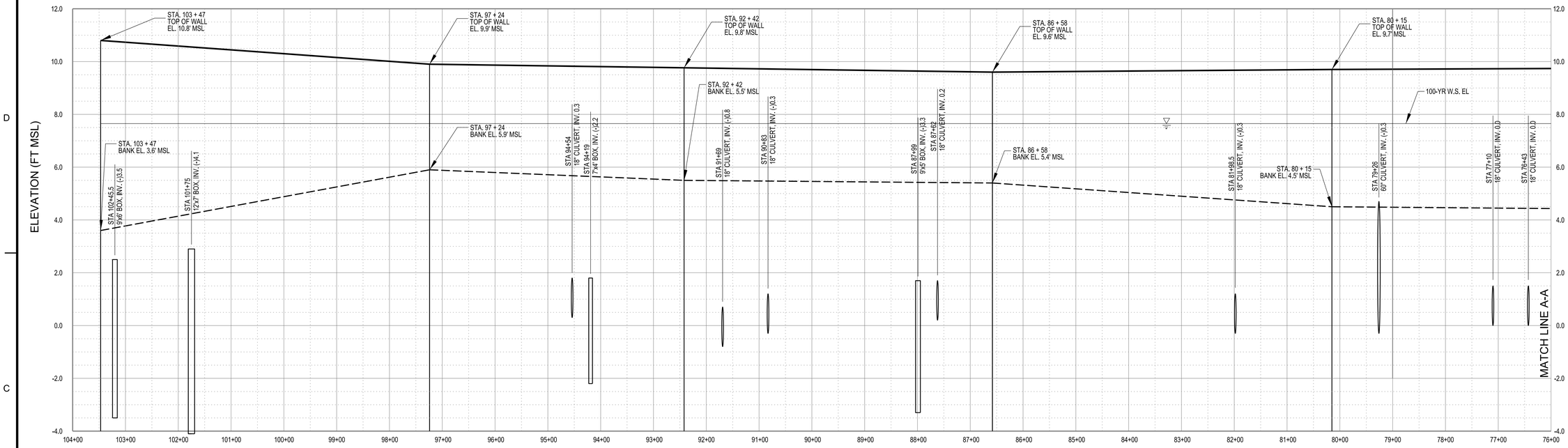
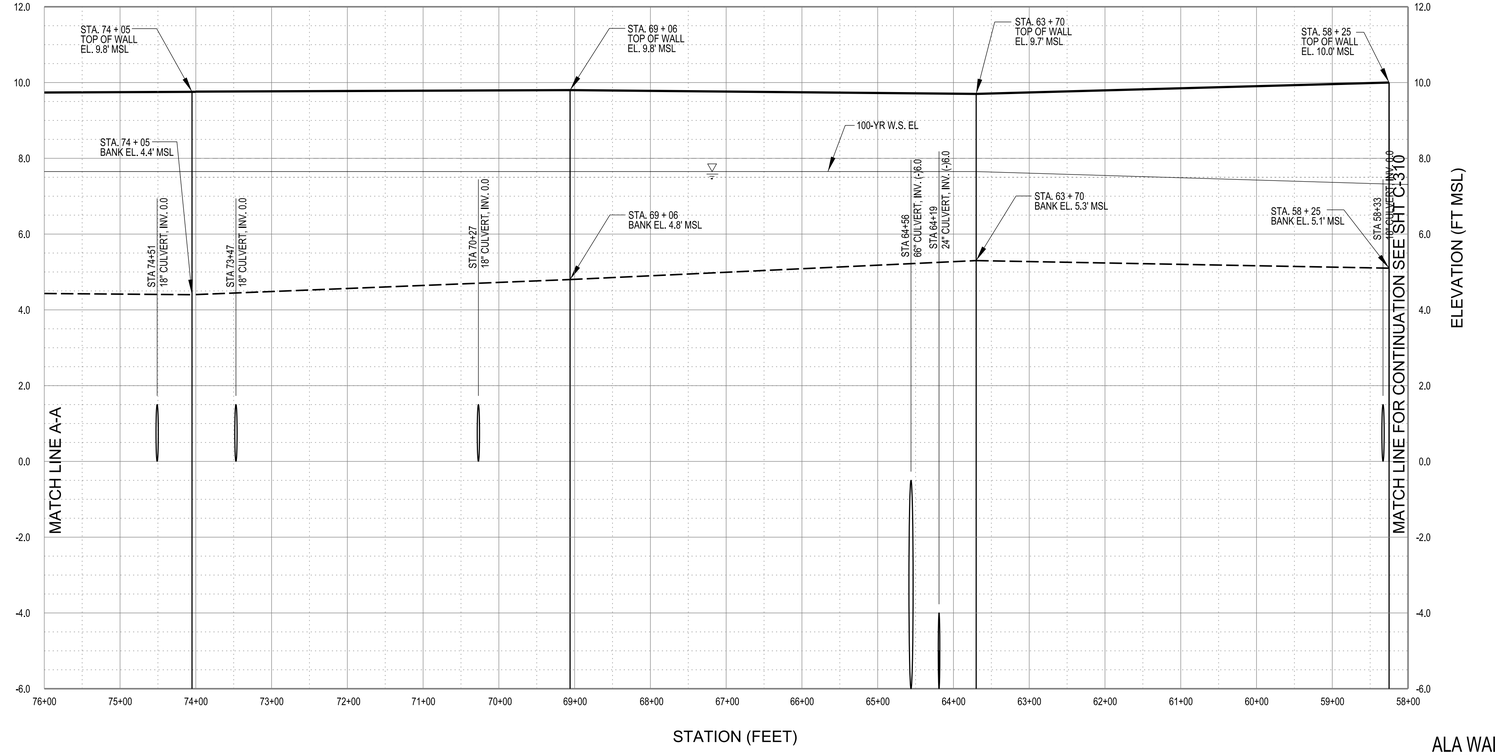
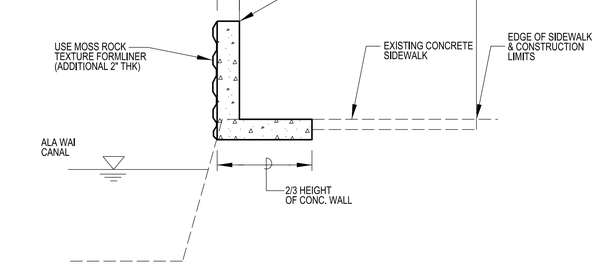
DATE & TIME: 12/15/2014 2:06:11 PM
LAST SAVED BY: J3EC9JHH
PLOTDRIVER: C:\ProgramData\Bentley\MicroStation V8i (SELECTseries)\WorkSpace\system\plotdg\printer.plotcfg
PEN TABLE: BW_and_Grayscale_Pen.tbl
PRINTED BY: J3EC9JHH







C TYPICAL LEFT BANK CONCRETE FLOODWALL SECTION

NOT TO SCALE

ALA WAI CANAL UPPER (ALA3) LEFT BANK
STA 101 + 24 TO 58 + 25

STATION	WALL HEIGHT (FT)	FINISHED WALL ELEVATION (FT MSL)
101 + 24	7.20	10.80
97 +24	4.00	9.90
92 + 42	4.30	9.80
86 + 58	4.20	9.60
80 + 15	5.20	9.70
74 + 05	5.40	9.80
69 + 06	5.00	9.80
63 + 70	4.40	9.70
58 + 25	4.90	10.00

PROFILE

ALA WAI CANAL UPPER (ALA3) LEFT BANK FLOODWALLS

SCALE:
HORIZONTAL: 1" = 100'
VERTICAL: 1" = 2'

US Army Corps of Engineers®
HONOLULU DISTRICT

10% DESIGN

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: JHH
DRAWN BY:
SUBMITTED BY:
PLOT SCALE: 1:1
PLOT DRAWN BY:
SIZE: ANSI D

DATE:
CHECKED BY:
REVISION:
SOLICIT. / CONTRACT NO.:
LOCATION CODE
DRAWING NUMBER:
PLOT DATE:
FILE NAME: ALA WAI CANAL UPPER LEFT BANK, PROFILE & SECTION

US ARMY CORPS OF ENGINEERS
HONOLULU DISTRICT
HONOLULU, HAWAII

ALA WAI CANAL PROJECT

ALA WAI UPPER LEFT BANK FLOODWALLS
PROFILE
ALTERNATIVE 2A

SHEET IDENTIFICATION
C-311
SHEET 15 OF 25

FILE: c:\pw_work\poh-1\j3ec9jhh\d0139948\Ala_Wai_C-311xxx.dgn
MODEL NAME: C-311
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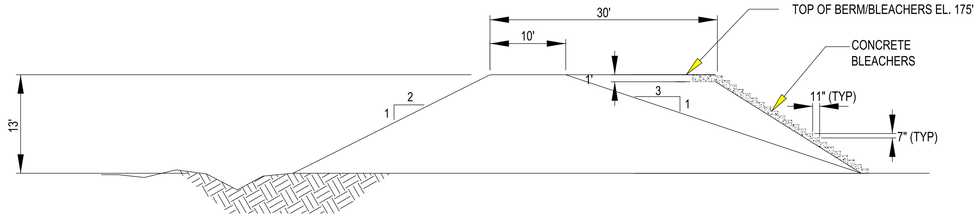
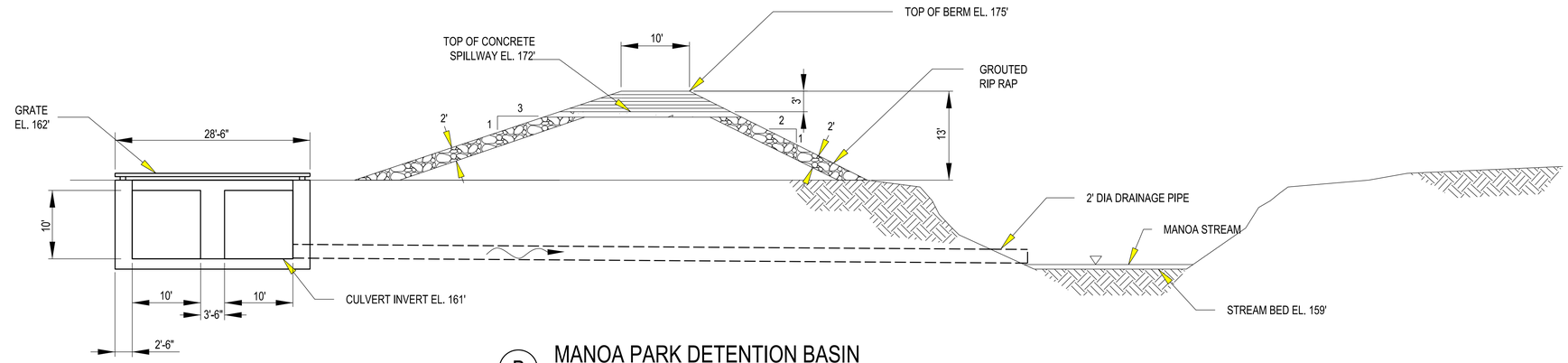


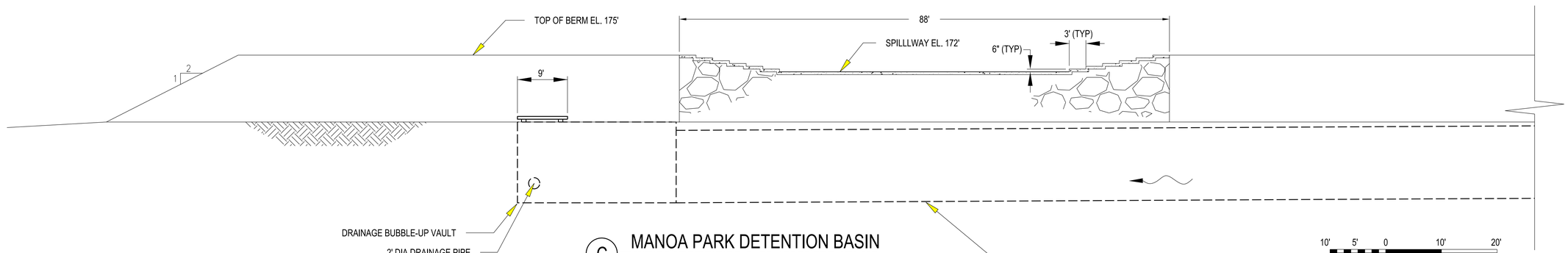
A MANOA PARK DETENTION BASIN SECTION A-A

SCALE: 1"=10'



B MANOA PARK DETENTION BASIN SECTION B-B

SCALE: 1"=10'



C MANOA PARK DETENTION BASIN SECTION C-C

SCALE: 1"=10'

SCALE: 1" = 10'

Note: All elevations are feet MSL

US Army Corps of Engineers
Honolulu District

10% DESIGN

MARK	DESCRIPTION	DATE	APPR.

US ARMY CORPS OF ENGINEERS
HONOLULU DISTRICT
HONOLULU, HAWAII

DESIGNED BY: JHH
DRAWN BY:
SUBMITTED BY:
CHECKED BY:
PLOT SCALE: AS SHOWN
SIZE: ANSI D
PLOT DATE: 1/2/2014
DATE:
SOLICIT. / CONTRACT NO.:
LOCATION CODE
DRAWING NUMBER:
FILE NAME: MANOA PARK DETENTION BASIN, SECTIONS
REVISION:

ALA WAI CANAL PROJECT

MANOA PARK DETENTION BASIN
SECTIONS
ALTERNATIVE 2A

SHEET IDENTIFICATION
C-312
SHEET16 OF25

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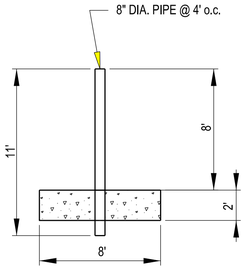
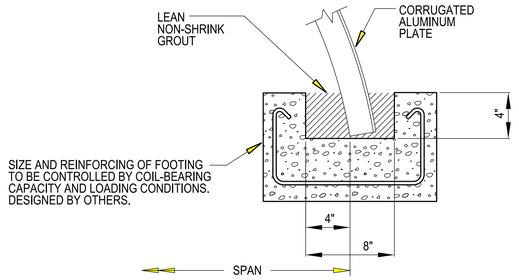
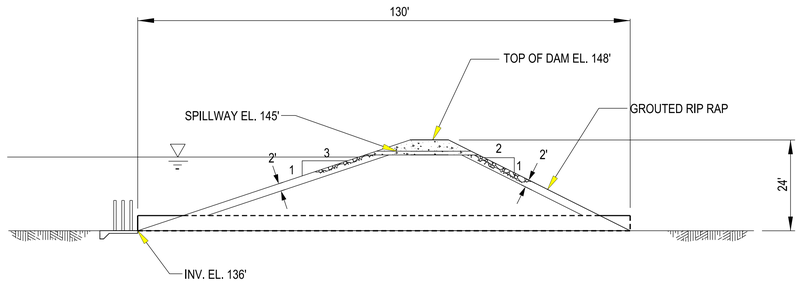


ROOSEVELT DEBRIS AND DETENTION BASIN
SECTION A-A
SCALE: 1"=5'

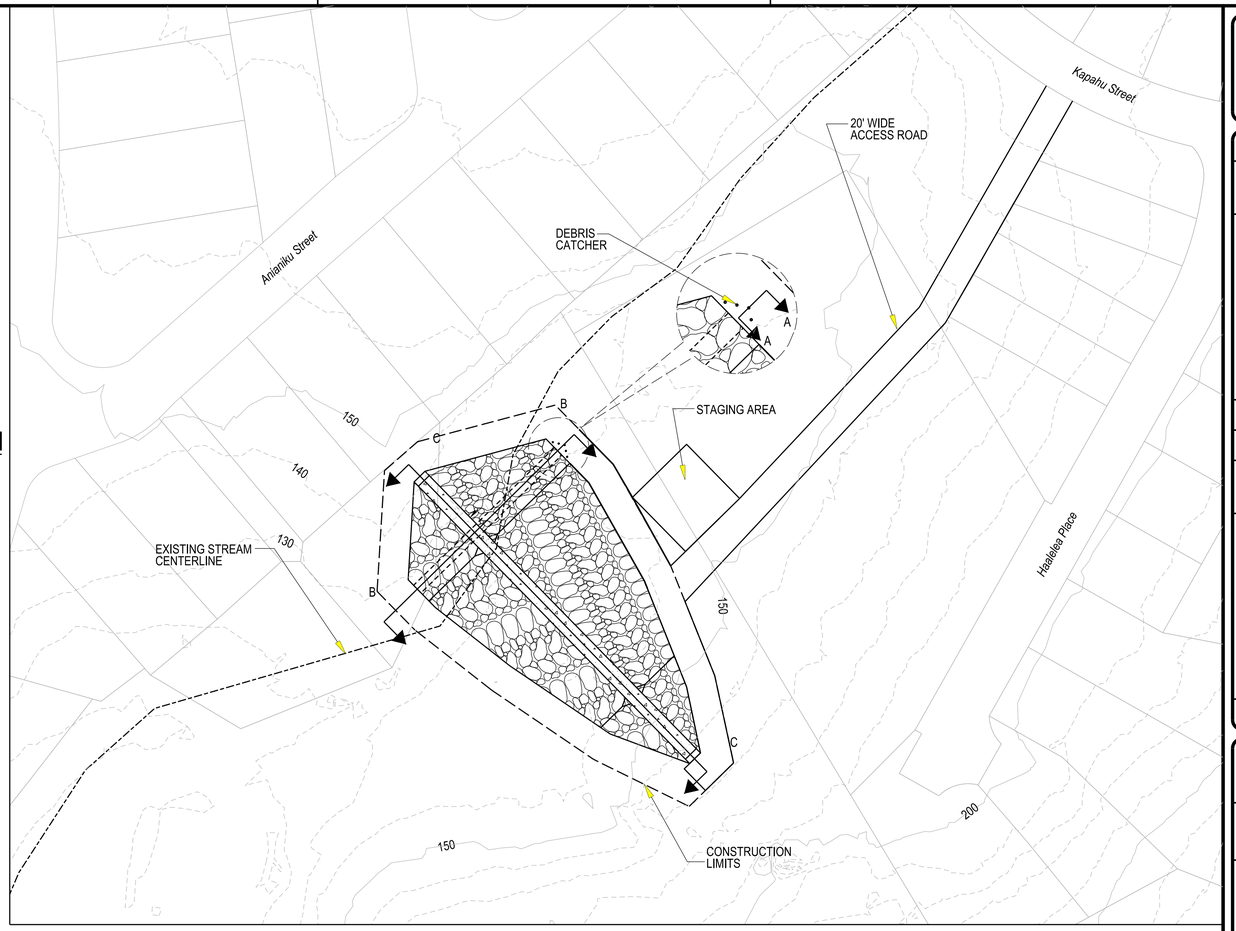


SLOTTED CONCRETE FOOTING
ROOSEVELT DEBRIS AND DETENTION BASIN
SECTION D-D
SCALE: NTS

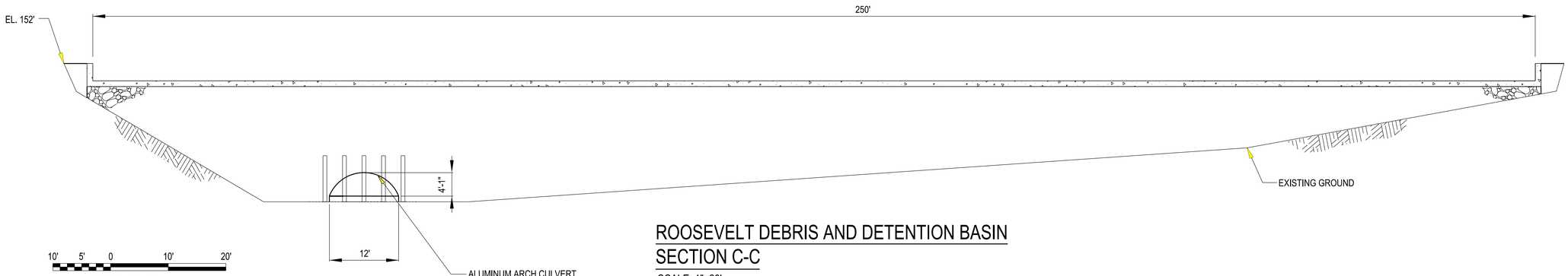


20' 10' 0 20' 40'
SCALE: 1" = 20'
Note: All elevations are feet MSL

ROOSEVELT DEBRIS AND DETENTION BASIN
SECTION B-B
SCALE: 1"=20'



SOLID LINE = 50' CONTOURS
DOTTED LINE = 10' CONTOURS



10' 5' 0 10' 20'
SCALE: 1" = 10'
Note: All elevations are feet MSL

ROOSEVELT DEBRIS AND DETENTION BASIN
SECTION C-C
SCALE: 1"=20'

US Army Corps of Engineers®
Honolulu District

MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

10% DESIGN

DESIGNED BY: JHH
DRAWN BY:
SUBMITTED BY:
PLOT SCALE: AS SHOWN
SIZE: ANSI D
DATE:
CHECKED BY:
PLOT DATE: 12/15/2014
FILE NAME: ROOSEVELT DEBRIS & DETENTION BASIN, PLAN & SECTIONS
REVISION:
SOLICIT./ CONTRACT NO.:
LOCATION CODE
DRAWING NUMBER:

US ARMY CORPS OF ENGINEERS
HONOLULU DISTRICT
HONOLULU, HAWAII

ALA WAI CANAL PROJECT

ROOSEVELT DEBRIS AND DETENTION BASIN
PLAN AND SECTIONS
ALTERNATIVE 2A

SHEET IDENTIFICATION
C-314
SHEET 17 OF 25

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