A-2 Selected Project Plans

STANDARD PLANS SUMMARY

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-11R	2014	2	43

STANDARD PLAN NO.	TITLE	DATE
B-01	NOTES & MISCELLANEOUS DETAILS	05/31/07
B-03	BACKFILL DETAILS AT EARTH RETAINING STRUCTURES	05/31/07
B-12	PRESTRESSED CONCRETE PILES & COMPRESSION SPLICE	05/31/07
	CAN DETAILS	
B-12A	PRESTRESSED CONCRETE PILES, PILE & COMPRESSION	05/31/07
	SPLICE CAN DETAILS & NOTES	
B-12B	PILE INTERACTION DIAGRAM	05/31/07
B-13	PRESTRESSED CONCRETE PILE BUILD-UP DETAILS	05/31/07

D-01	CATTLE GATE	05/31/07
D-02	CHAIN LINK FENCE WITH TOPRAIL	05/31/07
D-03	CHAIN LINK FENCE WITHOUT TOPRAIL	05/31/07
D-04	WIRE FENCE WITH METAL POSTS	05/31/07
D-05	TYPICAL DETAILS OF CURBS AND/OR GUTTERS	05/31/07
D-06	TYPICAL DETAIL OF REINFORCED CONCRETE DROP DRIVEWAY	05/31/07
D-07	CENTERLINE AND REFERENCE SURVEY MONUMENTS	05/31/07
D-08	STREET SURVEY MONUMENT	05/31/07
D-15	CONCRETE SIDEWALK	05/31/07
D-16	P.C.C. BUS PAD	05/31/07
D-17	P.C.C. BUS PAD	05/31/07
D-18	P.C.C. PAVEMENT LAYOUT	05/31/07
D-19	P.C.C. PAVEMENT W/ PERMEABLE BASE JOINT DETAILS	05/31/07
D-20	P.C.C. PAVEMENT W/ PERMEABLE BASE JOINT DETAILS	05/31/07
D-21	P.C.C. LONGITUDINAL JOINT DETAILS	05/31/07
D-22	P.C.C. CONNECTION TO CURBS AND GUTTERS	05/31/07
D-23	JOINTS	05/31/07

L-01	TREE PLANTING	08/16/06
L-02	TREE PLANTING	08/16/06
L-03	TREE TRANSPLANTING	08/16/06
L-04	PALM PLANTING	08/16/06
L-05	SHRUB PLANTING	08/16/06
L-06	LANDSCAPE DETAILS	08/16/06
L-07	LANDSCAPE DETAILS	08/16/06
L-08	LANDSCAPE DETAILS	08/16/06
L-09	LANDSCAPE DETAILS	08/16/06
L-10	LANDSCAPE DETAILS	08/16/06
L-11	PLANTING NOTES	08/16/06
L-12	IRRIGATION DETAILS	08/16/06
L-13	IRRIGATION DETAILS	08/16/06
L-14	IRRIGATION DETAILS	08/16/06
L-15	IRRIGATION DETAILS	08/16/06
L-16	IRRIGATION DETAILS	08/16/06
L-17	IRRIGATION DETAILS	08/16/06
L-18	IRRIGATION DETAILS	08/16/06
L-19	IRRIGATION DETAILS	08/16/06
L-20	IRRIGATION DETAILS	08/16/06
L-21	IRRIGATION DETAILS	08/16/06
L-22	IRRIGATION DETAILS	08/16/06
L-23	IRRIGATION DETAILS	08/16/06
L-24	IRRIGATION NOTES	08/16/06

STANDARD PLAN NO.	*TITLE*	*DATE*
H-01A	TYPE A CATCH BASIN	05/31/07
H-01B	TYPE B CATCH BASIN	05/31/07
H-01C	TYPE C CATCH BASIN	05/31/07
H-01D	TYPE D CATCH BASIN	05/31/07
H-01E	CATCH BASIN SECTIONS	05/31/07
H-02A	TYPE A1 CATCH BASIN	05/31/07
H-02B	TYPE B2 CATCH BASIN	05/31/07
H-02C	TYPE C1 CATCH BASIN	05/31/07
H-02D	TYPE D1 CATCH BASIN	05/31/07
H-02E	CATCH BASIN SECTION	05/31/07
H-03	TYPE A,B, AND C STORM DRAIN MANHOLE	05/31/07
H-04	TYPE D STORM DRAIN MANHOLE	05/31/07
H-05	TYPICAL REINFORCING DETAILS FOR DRAINAGE STRUCTURES	05/31/07
H-06	TYPICAL REINFORCING DETAILS FOR DRAINAGE STRUCTURES	05/31/07
H-07	CATCH BASIN AND MANHOLE CASTINGS	05/31/07
H-08	TYPE 1A-9 AND 1A-9P GRATED DROP INLET	05/31/07
H-09	TYPE 2A-9 AND 2A-9P GRATED DROP INLET	05/31/07
H-10	TYPE A-9 OR A-9P STEEL FRAMES	05/31/07
H-11	TYPE A-9 AND A-9P STEEL GRATES	05/31/07
H-12	TYPE 61614P AND 1211214P GRATED DROP INLET	05/31/07
H-13	TYPE 61616P AND 1211216P GRATED DROP INLET	05/31/07
H-14	TYPE 61214P GRATED DROP INLET	05/31/07
H-15	TYPE 1211214, 1211214P, 1211216, 1211216P STEEL	05/31/07
	FRAME AND GRATES	
H-16	TYPE 61614, 61614P, 61616, 61616P STEEL FRAME	05/31/07
	AND GRATES	
H-17	TYPE 61214 STEEL FRAMES AND GRATES	05/31/07
H-18	TYPE 61214P STEEL GRATES	05/31/07
H-19	TYPE 616143 STEEL FRAME AND GRATES	05/31/07
H-20	CEMENT RUBBLE MASONRY STRUCTURES	05/31/07
H-21	CONCRETE AND CEMENT RUBBLE MASONRY STRUCTURES	05/31/07
H-22	INLET/OUTLET STRUCTURE	05/31/07
H-23	INLET/OUTLET STRUCTURE	05/31/07
H-24	FLARED END SECTION FOR CULVERTS	05/31/07
H-25	FLARED END SECTION FOR CULVERTS	05/31/07
H-26	CONCRETE SPILLWAY INLET	05/31/07
H-27	CAP COUPLING DETAILS STANDARD JOINT	05/31/07
H-28	REINFORCED CONCRETE COLLAR & JACKET	05/31/07
H-29	UNDERDRAIN CLEANOUT STEEL FRAME AND COVER	05/31/07
H-30	UNDERDRAIN CONNECTION TO DRAINAGE STRUCTURE	05/31/07

TE-01	SIGN HEIGHT AND LOCATION	07/11/08
TE-1A	SIGN INSTALLATION	07/11/08
TE-02A	GALVANIZED FLANGED CHANNEL SIGN POST MOUNTING	05/31/07
TE-02B	GALVANIZED FLANGED CHANNEL SIGN POST MOUNTING	05/31/07
TE-02C	GALVANIZED FLANGED CHANNEL SIGN POST MOUNTING	05/31/07
TE-03A	GALVANIZED SQUARE TUBE SIGN POST MOUNTING	05/31/07
TE-03B	GALVANIZED SQUARE TUBE SIGN POST MOUNTING	05/31/07
TE-04 ●	REGULATORY SIGNS	07/11/08
TE-05 ●	WARNING SIGNS	07/11/08
TE-06 ●	MISCELLANEOUS SIGNS	07/11/08
TE-07 ●	CONSTRUCTION SIGNS	07/11/08
TE-08	MISCELLANEOUS INTERSECTION SIGNS	07/11/08

STANDARD PLAN NO.	*TITLE*	*DATE*
TE-09	BIKE ROUTE SIGN & SUPPLEMENTARY PLATES	07/11/08
TE-10	INTERSTATE ROUTE MARKER	07/11/08
TE-11	STATE ROUTE MARKER AND AUXILIARY MARKERS	07/11/08
TE-12	STATE ROUTE MARKER AND BORDER DETAIL FOR	07/11/08
	GUIDE SIGNS	
TE-12A	ROUTE SIGN ASSEMBLIES	07/11/08
TE-13	STREET NAME SIGN ON MAST ARM	07/11/08
TE-14	MISCELLANEOUS REFLECTOR MARKERS	07/11/08
TE-15	OBJECT MARKERS	07/11/08
TE-16	MILE POSTS	07/11/08
TE-17A	CANTILEVER OVERHEAD SIGN ELEVATION & DETAILS	05/31/07
TE-17B	CENTILEVER SIGN FRAME DETAIL AND SECTION	05/31/07
TE-17C	CANTILEVER SIGN FRAME DETAIL	05/31/07
TE-17D	CENTILEVER SIGN FRAME SECTION	05/31/07
TE-17E	CENTILEVER SIGN FRAME DETAILS	05/31/07
TE-18A	TWO POST OVERHEAD SIGN FRAME ELEVATIONS	05/31/07
TE-18B	TWO POST SIGN FRAMING PLAN SECTION	05/31/07
TE-18C	TWO POST SIGN FRAMING SECTIONS AND DETAILS	05/31/07
TE-18D	TWO POST SIGN FRAME DETAILS	05/31/07
TE-18E	TWO POST SIGN FRAME DETAILS	05/31/07
TE-19A	OVERHEAD SIGN FRAMING SCHEDULE	05/31/07
TE-19B	SIGN POST DRILLED SHAFT FOUNDATION	05/31/07
TE-19C	SPREAD FOOTING	05/31/07
TE-19D	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19D.1	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19D.2	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19D.3	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19D.4	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19D.5	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19E	ANCHORAGE DETAILS	05/31/07
TE-19F	ANCHORAGE DETAILS	05/31/07
TE-19G	MISCELLANEOUS SIGN FRAME DETAILS	05/31/07
TE-19H	LUMINAIRE WALKWAY SUPPORT	05/31/07
TE-19J	FIXED MESSAGE LUMINAIRE SUPPORT	05/31/07
TE-19K	MISCELLANEOUS SIGN DETAILS	05/31/07
TE-19L	MISCELLANEOUS SIGN DETAILS	05/31/07
TE-19M	MISCELLANEOUS SIGN FRAME DETAILS	05/31/07
TE-20	SUPPORTS FOR GROUND MOUNTED GUIDE SIGN	05/31/07
TE-20A	SUPPORTS FOR GROUND MOUNTED GUIDE SIGN	05/31/07
TE-20B	SUPPORTS FOR GROUND MOUNTED GUIDE SIGN	05/31/07
TE-20C	SUPPORTS FOR GROUND MOUNTED GUIDE SIGN	05/31/07
TE-21A	SIGN BREAKAWAY MOUNTS	05/31/07
TE-21B	SIGN BREAKAWAY MOUNTS	05/31/07
TE-22	LAMINATED ALUMINUM SIGN PANELS (OVERHEAD)	05/31/07
TE-23	LAMINATED ALUMINUM SIGN PANELS (GROUND MOUNTED)	07/11/08
TE-24	SOLID ALUMINUM EXTRUDED SIGN PANEL AND	05/31/07
	ACCESSORY DETAILS	
TE-25	GUIDE SIGNS LUMINAIRE MOUNTINGS	05/31/07
TE-26	RAISED PAVEMENT MARKERS AND STRIPING	07/11/08
TE-27	RAISED PAVEMENT MARKERS AND STRIPING	07/11/08
TE-28	ENTRANCE AND EXIT PAVEMENT MARKINGS	07/11/08
TE-28A	MISCELLANEOUS PAVEMENT MARKINGS	07/11/08
TE-29	PAVEMENT ARROWS AND SYMBOLS	07/11/08
TE-30	PAVEMENT ALPHABETS, NUMBERS & SYMBOLS	07/11/08
TE-31	PAVEMENT ALPHABETS, NUMBERS & SYMBOLS	07/11/08

STANDARD PLAN NO.	*TITLE*	*DATE*
TE-32	TYPE I & II TRAFFIC SIGNAL SYSTEM MISC. DETAILS	05/31/07
TE-33	TYPE II TRAFFIC SIGNAL SYSTEM	08/16/06
TE-33A.1	TYPE II TRAFFIC SIGNAL STANDARD	05/31/07
TE-33A.2	TYPE II TRAFFIC SIGNAL STANDARD	05/31/07
TE-34	LOOP DETECTOR DETAILS	07/11/08
TE-35	LOOP DETECTORS & DUCT DETAILS	07/11/08
TE-36	TRAFFIC SIGNAL DETAILS	07/11/08
TE-37	PULLBOX & COVER DETAILS	07/11/08
TE-37A	TYPE "A" TRAFFIC PULLBOX	05/31/07
TE-37B	TYPE "A" TRAFFIC PULLBOX REINFORCING	05/31/07
TE-37C	TYPE "B" TRAFFIC PULLBOX	05/31/07
TE-37D	TYPE "B" TRAFFIC PULLBOX REINFORCING	05/31/07
TE-37E	TYPE "B" TRAFFIC PULLBOX FOUNDATION	05/31/07
TE-37F	TYPE "C" TRAFFIC PULLBOX	05/31/07
TE-37G	TYPE "C" TRAFFIC PULLBOX REINFORCING	05/31/07
TE-37H	TYPE "C" TRAFFIC PULLBOX FOUNDATION	05/31/07
TE-37J	TRAFFIC PULLBOX COVER AND DETAILS	05/31/07
TE-38	TYPE III TRAFFIC SIGNAL STANDARD	05/31/07
TE-38A.1	TYPE III TRAFFIC SIGNAL STANDARD	05/31/07
TE-38A.2	TYPE III TRAFFIC SIGNAL STANDARD	05/31/07
TE-39	METAL GUARDRAIL CONNECTION TO CONCRETE BARRIER	07/11/08
TE-40	CONCRETE BARRIER TRANSITION	05/31/07
TE-40A	CONCRETE BARRIER TRANSITION SECTIONS	05/31/07
TE-41	GUARDRAIL TYPE 4 (RIGID BARRIER)	05/31/07
TE-42 ●	PORTABLE CONCRETE BARRIER	05/31/07
TE-43 ●	PORTABLE CONCRETE BARRIER	05/31/07
TE-44	GUARDRAIL TYPE 4 MISCELLANEOUS DETAILS	07/11/08
TE-45	BARRICADES	07/11/08
TE-46	DELINEATION & PAVEMENT MARKINGS AT NARROW BRIDGES	07/11/08
TE-47	HIGHWAY LIGHT STANDARD	05/31/07

NOTE:

STANDARD PLANS APPLICABLE TO THIS PROJECT ARE INDICATED BY A " " ● NEXT TO THE STANDARD PLAN NO. (FOR EXAMPLE: D-07) ●

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD PLANS SUMMARY

MISCELLANEOUS PERMANENT BEST MANAGEMENT PRACTICES ON OAHU
PROJECT NO. HWY-0-02-11R

Scale: None *Date: May, 2012*

SHEET No. *G-1* OF *11* SHEETS

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

T:/16523A/Permanent_BMP/Cadd/Sheets/stdpsumrv8dgn

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-11R	2014	3	43

GENERAL NOTES:

1. The scope of work for this project includes removal of AC and concrete ditches, installation of bioswale infiltration trenches, construction of an in-line storm water filtration system, drain pipe installation, grading, planting, mulching, maintaining vegetation during plant establishment, erosion control BMPs and providing of temporary traffic controls.
2. The Contractor's attention is directed to the following Specification Sections of the Standard Specifications: Subsection 107.06 - Contractor Duty Regarding Public Convenience; Subsection 104.11 - Utilities and Services; and Section 645 - Work Zone Traffic Control.
3. The Contractor's attention is directed to the Specifications Section 212 - Archaeological Monitoring. Archaeological Monitoring by an approved permitted archaeologist is required during excavation of Bioswales H and I.
4. At the end of each day's work, the Contractor shall remove all equipment and other obstruction to permit free and safe passage of public traffic.
5. The existence and location of underground utilities, manholes, monuments and structures as shown on the plans are from the latest available data but the accuracy is not guaranteed. The encountering of other obstacles during the course of work is possible. The Contractor shall be held liable for any damages incurred to the existing facilities and/or improvements as a result of his operations.
6. The Contractor shall verify the presence of existing aerial and underground utilities which may conflict with construction activities and shall coordinate with the utility company for temporary relocation, as necessary. All costs associated with temporary relocations shall be borne by the Contractor.
7. The Contractor shall provide for vehicle and pedestrian access to and from all existing side streets at all times.
8. Existing drainage system shall be kept functional at all times during construction. The Contractor is to furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to various contract items.
9. Existing concrete structures, such as manholes, culverts, channels, etc., which are designated to be removed or are in conflict with proposed construction shall be removed to a depth of not less than 3 feet below finish grade in roadway and not less than 1.5 feet below finish grade in other areas.
10. Existing pavement within 6 inches of the finish grade in areas to be grassed shall be removed. All other existing pavement which will not be overlaid with new A.C. pavement shall be rooted, plowed, pulverized, or scarified to a minimum depth of 6 inches.
11. Existing facilities and/or pavement to remain which has been damaged by the Contractor shall be restored to its original condition at no cost to the State.
12. All regraded areas and all grassed areas damaged by construction activities shall be planted in accordance with Specifications Section 619 - Planting. Contractor shall restore to its original condition at no cost to the State.
13. When excavating in close proximity to walls, fences, and other improvements, the Contractor shall protect, support, secure, and take all precautions to prevent damaging these facilities and improvements.
14. The Contractor shall verify the locations and elevations of all existing utility lines and notify respective owners before commencing any excavation work.
15. No material or equipment shall be stockpiled or otherwise stored within highway right-of-way except at locations designated in writing and approved by the Engineer.
16. Contractor shall dispose of any removed material at no cost to the State.
17. The Contractor shall be held liable for any damages incurred to the existing landscaping as a result of his operations.
18. After the project is completed, the Contractor shall restore grades and groundcover within the project limits to a condition equal or better than existing condition prior to construction.
19. All existing utilities, whether or not shown on the plans, shall be protected at all times by the Contractor during construction unless specified on the plans to be abandoned. The Contractor shall be held liable for any damages incurred to the existing utilities as a result of his operations. All damaged portions shall be replaced in accordance with the standards and specifications of the affected utility company at no cost to the State.
20. All work specified in the contract but not listed separately in the proposal schedule shall be considered incidental to other various contract items and shall not be paid for separately.

ABBREVIATIONS:

Abut.	Abutment
AC, ac	Asphalt Concrete
℄	Baseline
Bot.	Bottom
CL	Chain Link
Conc.	Concrete
CPP	Corrugated Polyethylene Pipe
Elev	Elevation
es	Existing Edge of Shoulder
etw	Existing Edge of Travel Way
EA.	Each
EB	Eastbound
ftg.	Footing
G.W.	Guy Wire
M.L.	Matchline
ST. MON.	Street Monument
NTS	Not to Scale
o.c.	On Center
O/H	Overhead
PC	Point of Curvature
PCC	Point of Compound Curve (for Alignment)
PE	Polyethylene
PI	Point on Intersection
POC	Point on Curvature
POT	Point on Tangent
PPWP	Polyvinyl Chloride Profile Wall Pipe
PT	Point of Tangency
PVC	Polyvinyl Chloride
R	Radius
R/W	Right-of-Way
SFM	Sewer Force Main
sl	Street Light
SLB	Street Light Box
STA	Station along ℄
t	Telephone
TCP	Traffic Control Plan
TRM	Turf Reinforcement Mat
UG	Underground
U.P.	Utility Pole
w	Water
WQV	Water Quality Volume

LEGEND:

Existing

- Chain Link Fence
- –200– Contour
- Denotes No Access Permitted, Right-of-Way
- d30 Drain Pipe
- Grated Drop Inlet
- Guardrail, Type 3
- Slope
- Street Light
- Trees
- sl Utility

ORIGINAL PLAN

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

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GERALD D. ANDRADE
LICENSED PROFESSIONAL ENGINEER
No. 10377-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE — 04/30/14 EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL NOTES, LEGEND AND ABBREVIATIONS

MISCELLANEOUS PERMANENT BEST MANAGEMENT PRACTICES ON OAHU
PROJECT NO. HWY-0-02-11R

Scale: None Date: May, 2012

SHEET No. G-2 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-11R	2014	4	43

GRADING NOTES

1. All grading work shall be done in accordance with Chapter 14, Articles 13, 14, 15 and 16, as related to Grading, Soil Erosion and Sediment Control, of the Revised Ordinances of Honolulu, 1990, as Amended.

2. No Contractor shall perform any grading operation so as to cause falling rocks, soil or debris in any form to fall, slide or flow onto adjoining properties, streets or natural watercourses. Should such violations occur, the costs incurred for any remedial action shall be payable by the Contractor.

3. The Contractor, at his own expense, shall keep the project area and surrounding area free from dust nuisance. The work shall be in conformance with the Air Pollution Control Standards contained in Chapter 11-60, "Air Pollution Control".

4. The underground pipes, cables or ductlines known to exist by the Engineer from his search of records are indicated on the plans. The Contractor shall verify the locations and depths of the facilities and exercise proper care in excavating in the area.

5. Adequate provisions shall be made to prevent surface waters from damaging the cut face of an excavation or the sloped surfaces of a fill. Furthermore, adequate provisions shall be made to prevent sediment-laden runoff from leaving the site.

6. All slopes and exposed areas shall be sodded or planted as soon as final grades have been established. Planting shall not be delayed until all grading work has been completed. Grading to final grade shall be continuous, and any area within which work has been interrupted or delayed shall be planted.

7. No grading work shall be done on saturdays, sundays and holidays at any time without prior notice to the District Engineer, provided such grading work is also in conformance with Hawaii Administrative Rules, Chapter 11-43, "Community Noise Control for Oahu".

8. The limits of the area to be graded shall be flagged before the commencement of the grading work.

9. All grading operations shall be performed in conformance with the applicable provisions of the water pollution control and water quality standards contained in Hawaii Administrative Rules, Chapter 11-55, "Water Pollution Control" and Chapter 11-54, "Water Quality Standards" and if applicable, the NPDES permit for the project.

10. Where applicable and feasible the measures to control erosion and other pollutants shall be in place before any earth moving phase of the grading is initiated.

11. Temporary erosion controls shall not be removed before permanent erosion controls are in-place and established.

12. Temporary erosion control procedures shall be submitted for approval prior to application for grading permit.

13. If the grading work involves contaminated soil, then all grading work shall be done in conformance with applicable State and Federal requirements.

14. Non-compliance to any of the above requirements shall mean immediate suspension of all work, and remedial work should commence immediately. All remedial work shall be billed to the Contractor. All remedial work shall be no cost to the Sate. Furthermore, violators shall be subjected to administrative, civil and/or criminal penalties.

15. Prior to placement of any fill, the existing ground shall be scarified to a depth of six inches and compacted to a minimum of 90 percent compaction as determined by AASHTO T-180.

16. Restore AC swale width with Carpet Grass sod, utilizing 2" square sod plugs at 6" on center spacing.

17. Contractor shall be solely responsible for eradication all Fireweed (Senecio madagascariensis), as a result of Carpet grass use.

18. Contractor shall be solely responsible for complete removal and damages resulting from planting any species listed on the Hawaii Department of Agriculture "Noxious Weed Rules" as defined in the statute, Hawaii Administrative Rules 4-68-1 or the "Federal Noxious Weed List" as defined in Title 7 of the Code of Federal Regulations (CFR), parts 360 and 361.

ORIGINAL PLAN

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

NOTE BOOK ____
No. ____

T:/16523A-Permanent_BMP/Cadd/Sheets/Misc/G-3.dgn

GERALD D. ANDRADE
LICENSED PROFESSIONAL ENGINEER
No. 10377-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE

04/30/14
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

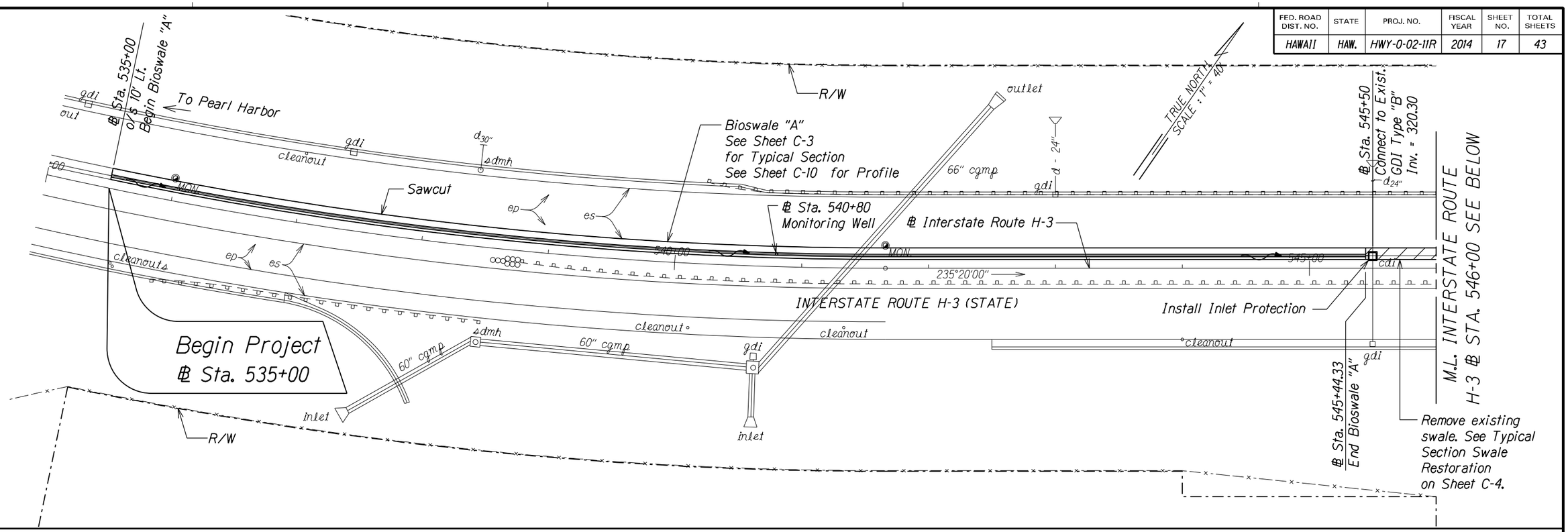
GRADING NOTES

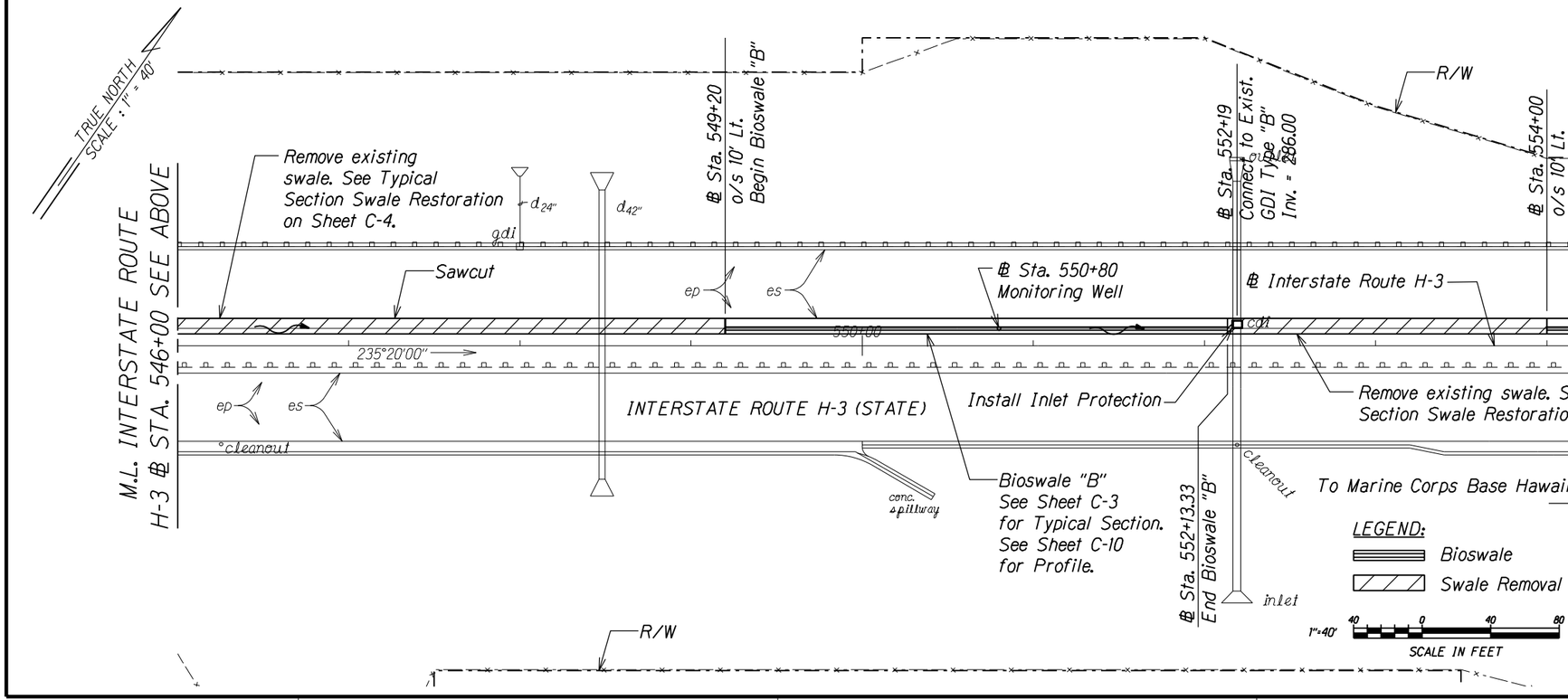
MISCELLANEOUS PERMANENT BEST MANAGEMENT PRACTICES ON OAHU
PROJECT NO. HWY-0-02-11R

Scale: None Date: May, 2012

SHEET No. G-3 OF 11 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-11R	2014	17	43





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

GERALD D. ANDRADE
LICENSED PROFESSIONAL ENGINEER
No. 10377-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

04/30/14
SIGNATURE — EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BIOSWALE PLAN
INTERSTATE ROUTE H-3

MISCELLANEOUS PERMANENT BEST MANAGEMENT PRACTICES ON OAHU
PROJECT NO. HWY-0-02-11R

Scale: 1"=40' Date: May, 2012

SHEET No. C-5 OF 23 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-11R	2014	18	43

TRUE NORTH
SCALE : 1" = 40'

M.L. INTERSTATE ROUTE H-3
℄ STA. 557+00 SEE SHT. C-5

M.L. INTERSTATE ROUTE H-3
℄ STA. 568+00 SEE BELOW

R/W

To Pearl Harbor

℄ Sta. 559+00±
Connect to Exist. GDI
Inv. = 252.00±

℄ Sta. 560+35
o/s 58' Lt.
Begin Bioswale "E"

Bioswale "E"
See Sheet C-3
for Typical Section.
See Sheet C-12
for Profile.

℄ Sta. 562+39.83
End Bioswale "E"

℄ Sta. 562+45±
Connect to Exist. GDI
Inv. = 230.00

2-24" pipe culvert

3-84" pipe culvert

outlet

Quarry Access Road "A-1"

inlet

84" pipe culvert

4 - 24"

gdi

etel
(H3W0126)

ep

Sawcut

es

Remove existing swale. See Sheet C-4
for Typical Section.

INTERSTATE ROUTE H-3 (STATE)

℄ Sta. 561+45
Monitoring Well

Install Inlet Protection

84" pipe culvert

Sawcut

℄ Interstate Route H-3

℄ Sta. 557+80
Monitoring Well

Install Inlet Protection

Quarry Access Road "A-2"

cleanout

℄ Sta. 561+45
Monitoring Well

Install Inlet Protection

cleanout

Kapaa Quarry Separation Structure No. 2

Bioswale "C"
See Sheet C-3
for Typical Section

℄ Sta. 558+94.33
End Bioswale "C"

℄ Sta. 560+00
o/s 10' Lt.
Begin Bioswale "D"

conc. spillway

Bioswale "D"
See Sheet C-3
for Typical Section

℄ Sta. 562+39.83
End Bioswale "D"

℄ Sta. 562+45±
Connect to Exist. GDI
Inv. = 234.75

84" pipe culvert

℄ Sta. 565+45±
Begin Bioswale "F"
o/s 10' Lt.

Bioswale "F"
See Sheet C-3
for Typical Section.
See Sheet C-12 for Profile.

LEGEND:
Bioswale
Swale Removal

Bioswale "H" Bioswale "I"

TRUE NORTH
SCALE : 1" = 40'

M.L. INTERSTATE ROUTE
H-3 ℄ STA. 568+00 SEE ABOVE

M.L. INTERSTATE
ROUTE H-3 ℄ STA. 579+00
SEE SHT. C-7

Kapaa Quarry Road "A-1"

R/W

Remove existing swale. See Typical Section Swale Restoration on Sheet C-4.

℄ Sta. 569+94.33
End Bioswale "F"

℄ Sta. 570+00±
o/s 10' Lt.
Connect to Exist. GDI

℄ Sta. 571+00
o/s 10' Lt.
Begin Bioswale "G"

℄ Sta. 571+94.33
End Bioswale "G"

℄ Sta. 572+00
o/s 10' Lt.
Connect to Exist. GDI

℄ Sta. 573+00
o/s 10' Lt.
Begin Bioswale "H"

℄ Sta. 573+94.33
End Bioswale "H"

℄ Sta. 574+05
o/s 10' Lt.
Connect to Exist. GDI

℄ Sta. 574+62.30
o/s 10' Lt.
Angle Bioswale "I"

℄ Sta. 575+12.50
Connect to Exist.
GDI Type "B"
Inv. = 176.00

℄ Sta. 575+06.83
End Bioswale "I"

℄ Sta. 574+35
Begin Bioswale "I"

Kapaa Quarry Separation Structure No. 1

Sawcut

Install Inlet Protection

℄ Sta. 569+32
Monitoring Well

℄ Sta. 571+34
Monitoring Well

℄ Sta. 574+62
Monitoring Well

℄ Interstate Route H-3

Install Inlet Protection

INTERSTATE ROUTE H-3
(STATE)

Bioswale "I"
See Sheet C-3 for Typical Section.
See Sheet C-13 for Profile.

Install Inlet Protection

℄ Sta. 572+52
Monitoring Well

Bioswale "F"
See Sheet C-3
for Typical Section.
See Sheet C-12
for Profile.

Bioswale "G"
See Sheet C-3
for Typical Section.
See Sheet C-12
for Profile.

Bioswale "H"
See Sheet C-3
for Typical Section.
See Sheet C-13 for Profile.

2'x2.5' lined drainage ditch

R/W

Install Inlet Protection

To Marine Corps Base Hawaii

1"=40' 40 0 40 80
SCALE IN FEET

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

GERALD D. ANDRADE
LICENSED PROFESSIONAL ENGINEER
No. 10377-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE 04/30/14 EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

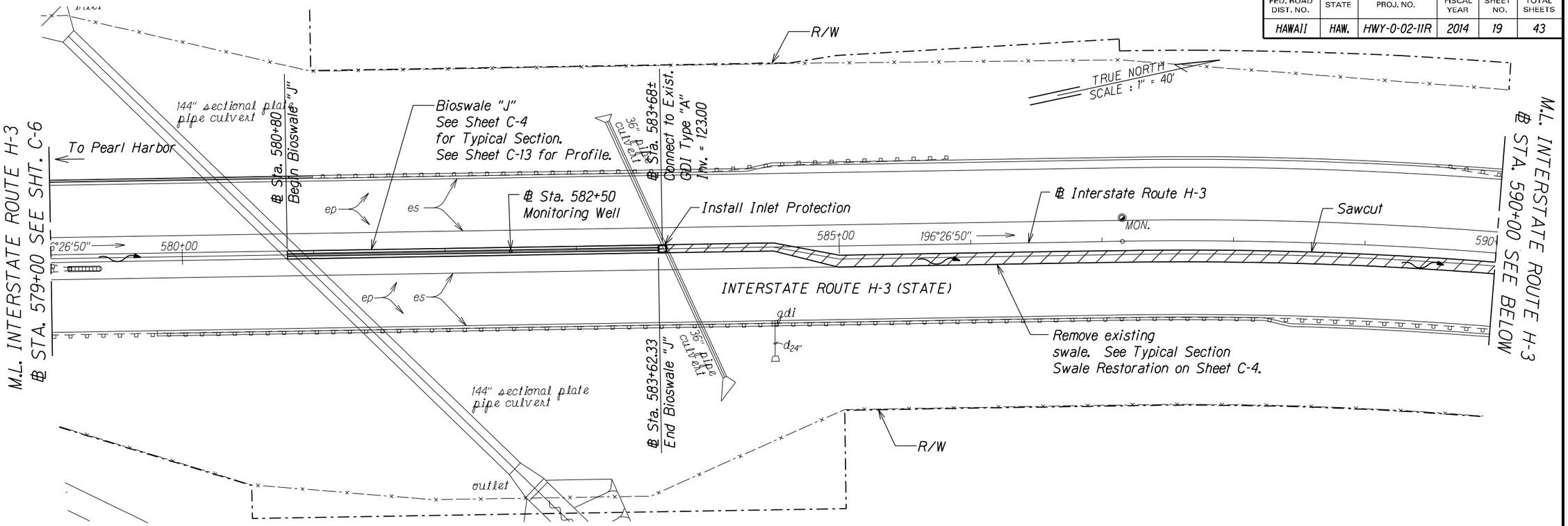
BIOSWALE PLAN
INTERSTATE ROUTE H-3

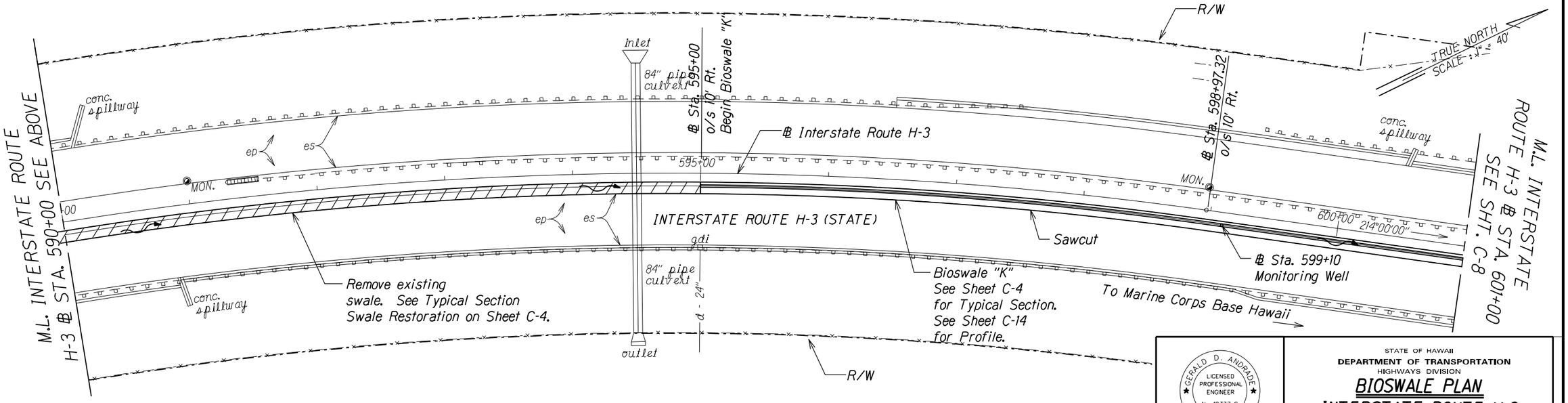
MISCELLANEOUS PERMANENT BEST MANAGEMENT PRACTICES ON OAHU
PROJECT NO. HWY-0-02-11R

Scale: 1"=40' Date: May, 2012

SHEET No. C-6 OF 23 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-11R	2014	19	43





LEGEND:

Bioswale

Swale Removal

1"=40' 40 0 40 40 SCALE IN FEET

ORIGINAL PLAN

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

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

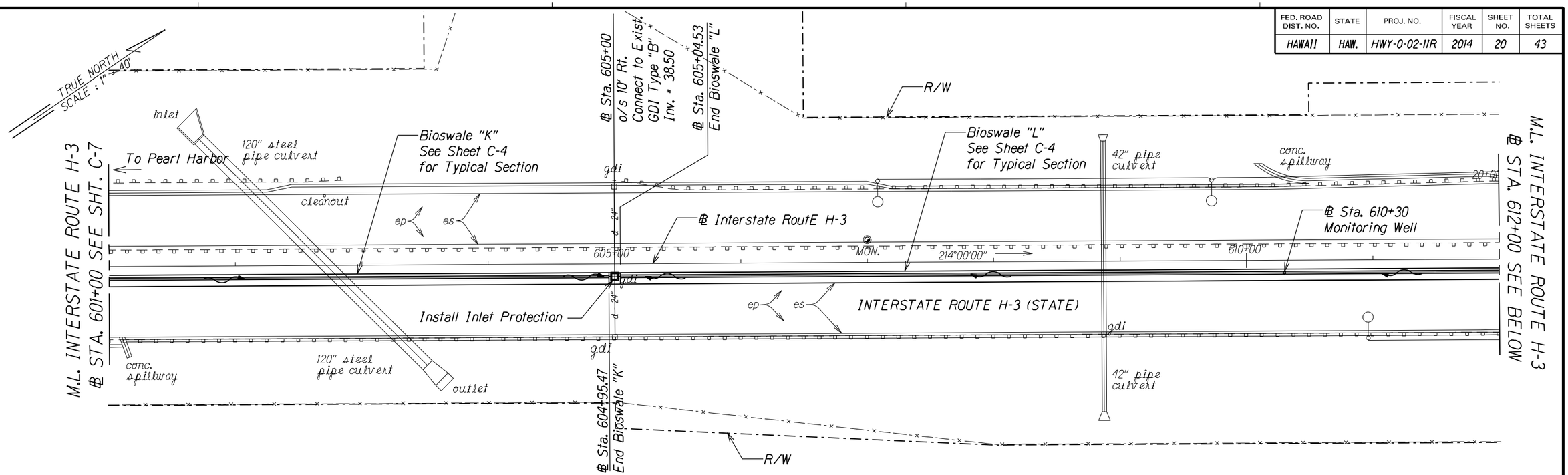
BIOSWALE PLAN
INTERSTATE ROUTE H-3

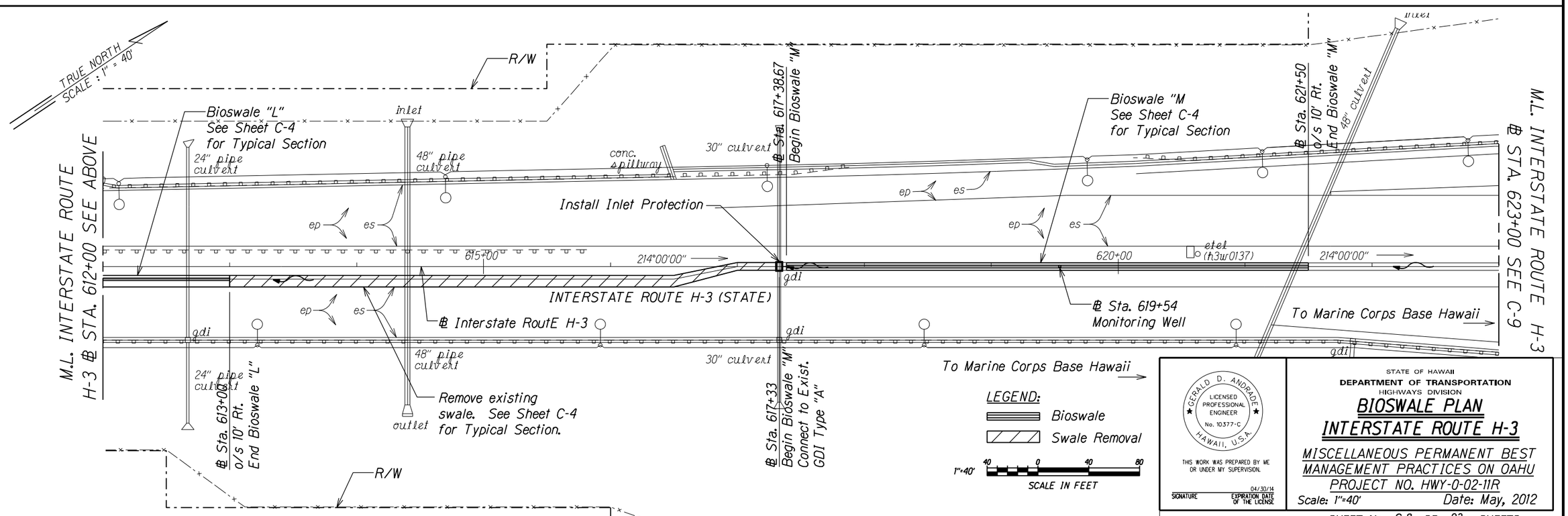
MISCELLANEOUS PERMANENT BEST MANAGEMENT PRACTICES ON OAHU
PROJECT NO. HWY-0-02-11R

Scale: 1"=40' Date: May, 2012

SHEET No. C-7 OF 23 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-11R	2014	20	43





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

LEGEND:
- Bioswale
- Swale Removal

1"=40' 40 0 40 80
SCALE IN FEET

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

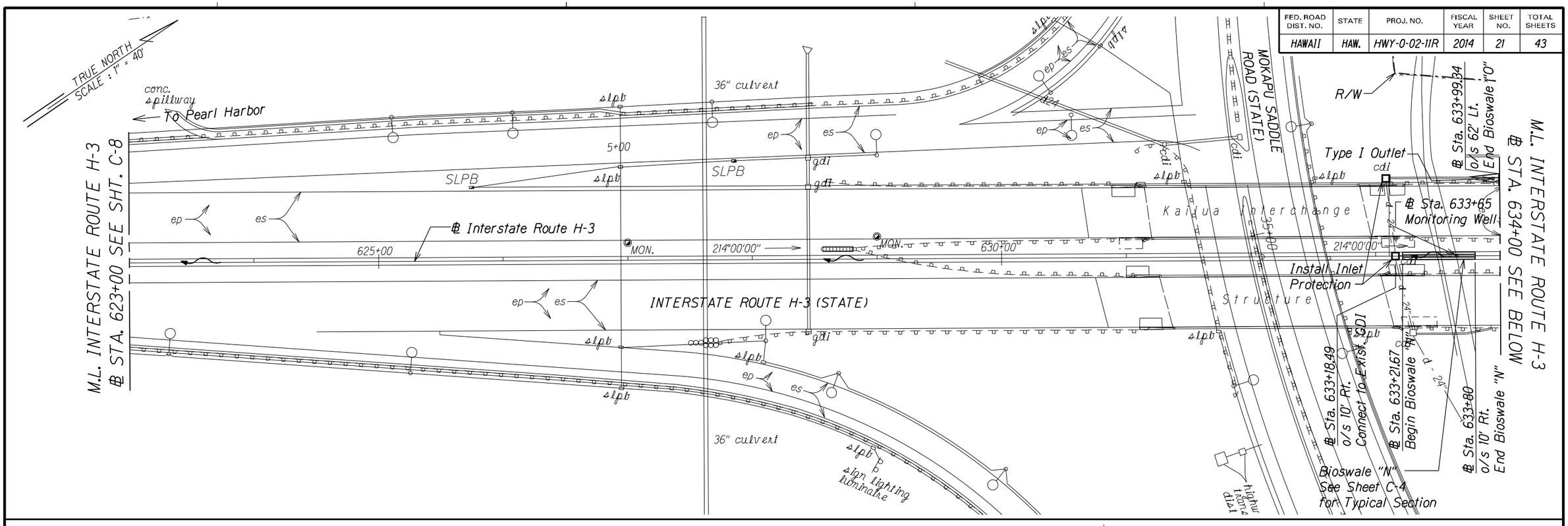
BIOSWALE PLAN
INTERSTATE ROUTE H-3

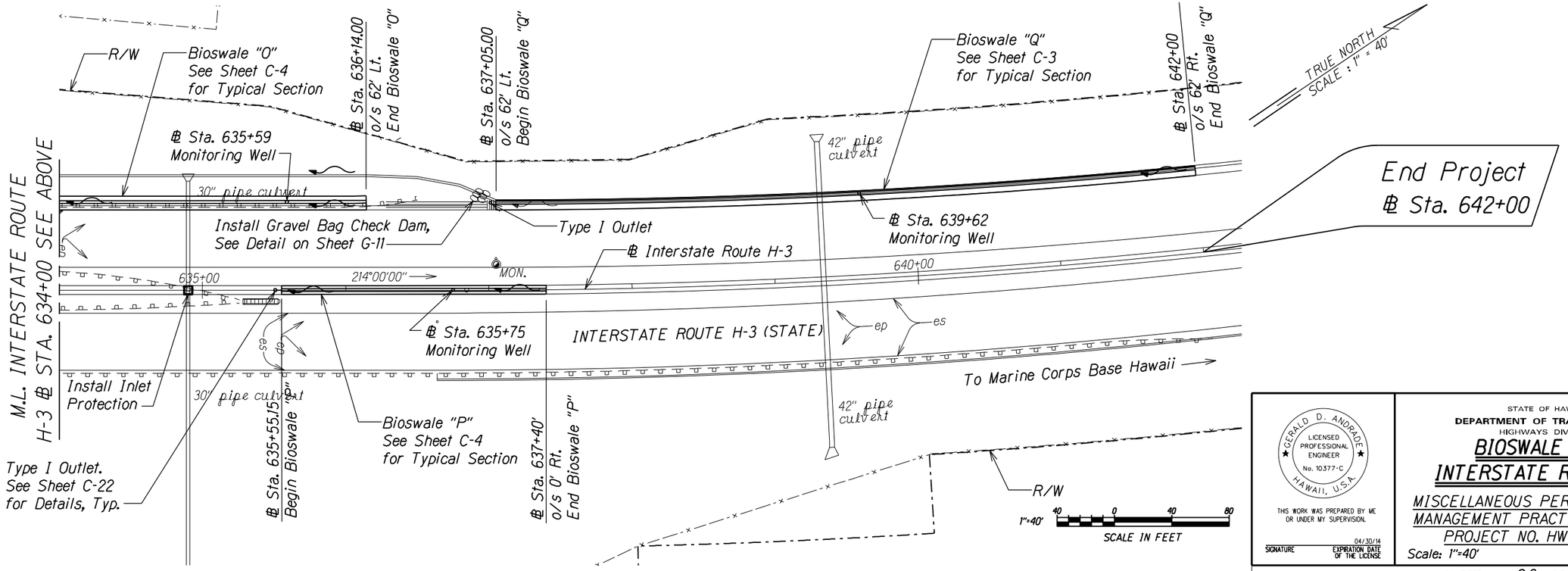
MISCELLANEOUS PERMANENT BEST MANAGEMENT PRACTICES ON OAHU
PROJECT NO. HWY-0-02-11R

Scale: 1"=40' Date: May, 2012

SHEET No. C-8 OF 23 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-11R	2014	21	43





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

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

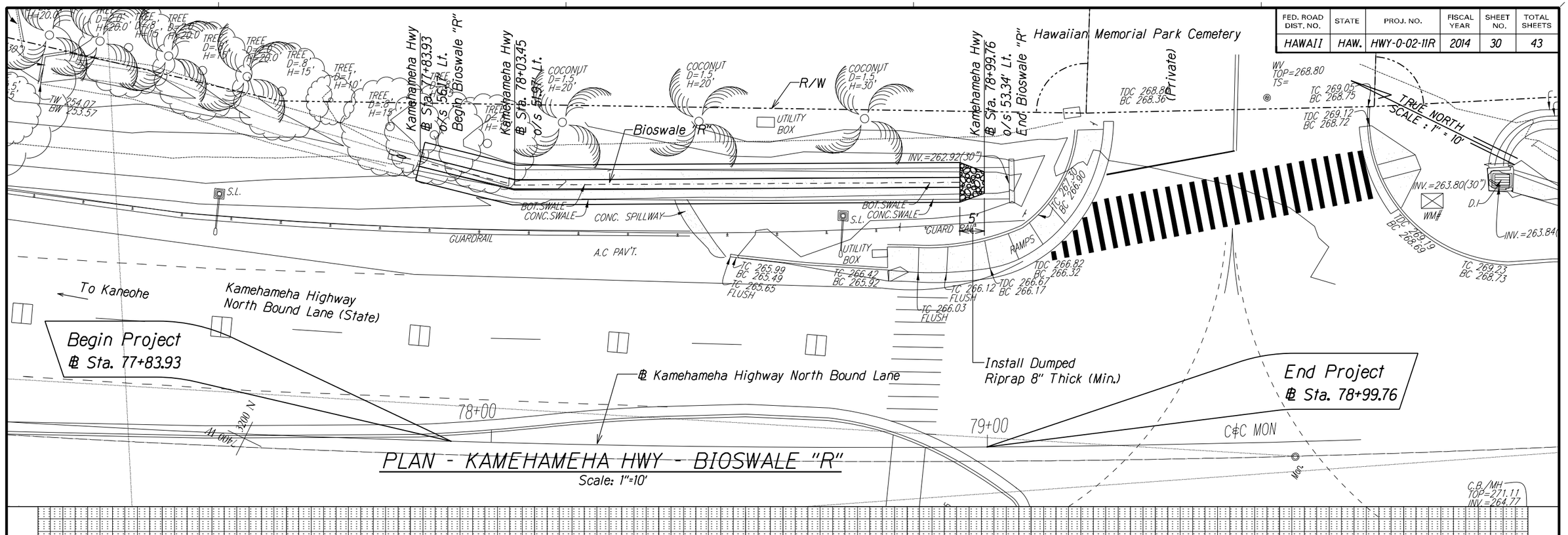
BIOSWALE PLAN
INTERSTATE ROUTE H-3

MISCELLANEOUS PERMANENT BEST MANAGEMENT PRACTICES ON OAHU
PROJECT NO. HWY-0-02-11R

Scale: 1"=40' Date: May, 2012

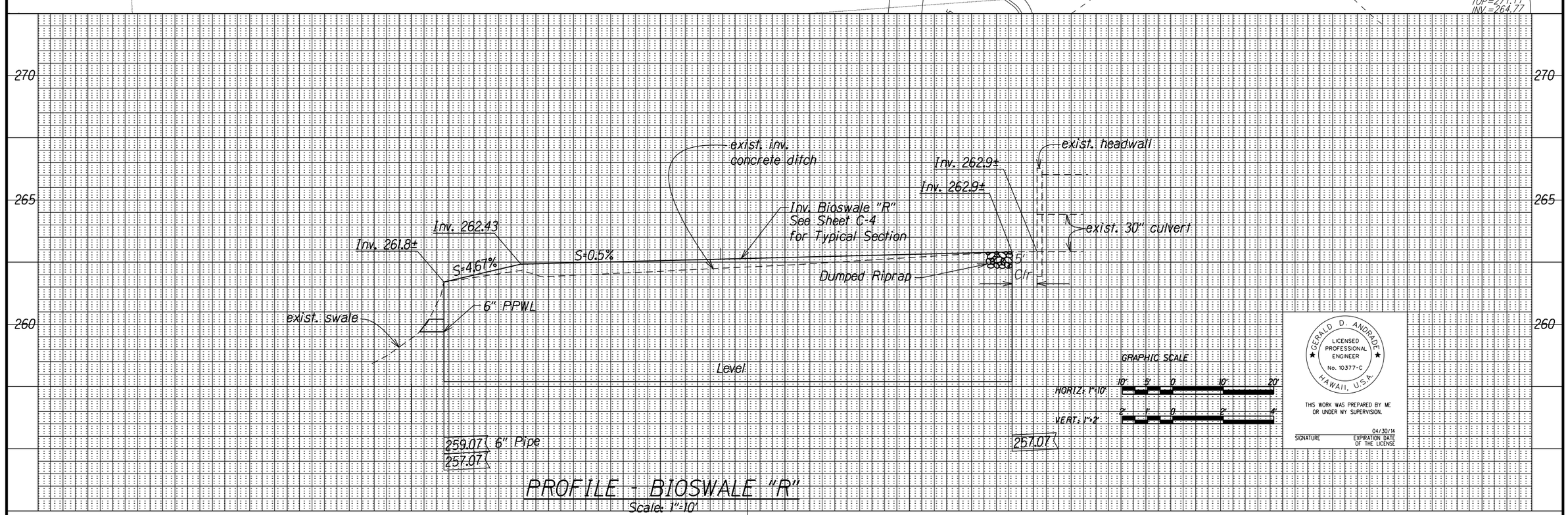
SHEET No. C-9 OF 23 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-11R	2014	30	43



PLAN - KAMEHAMEHA HWY - BIOSWALE "R"

Scale: 1"=10'



PROFILE - BIOSWALE "R"

Scale: 1"=10'

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EXPIRATION DATE OF THE LICENSE

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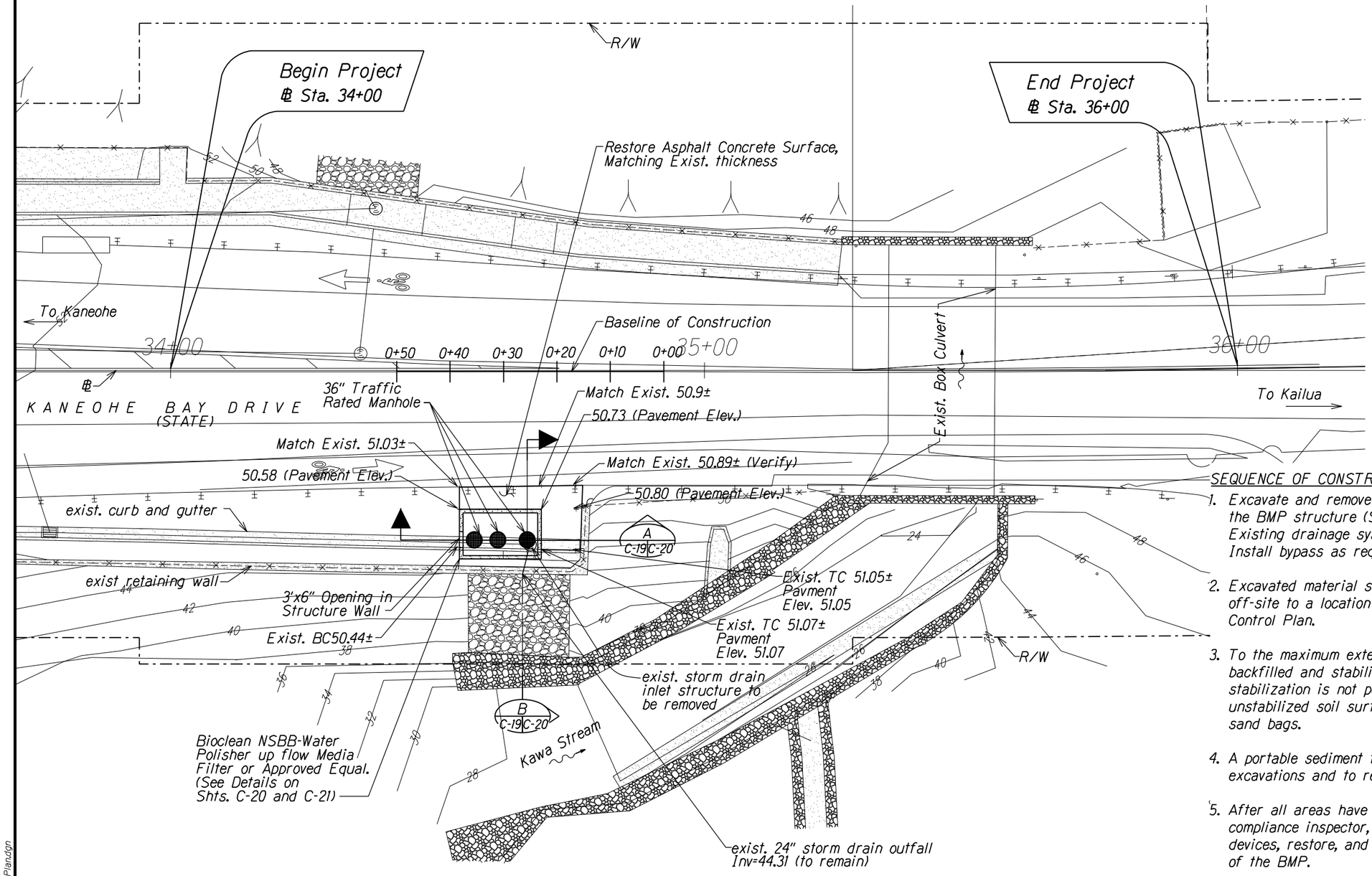
	DRAWN BY	
NOTE BOOK	TRACED BY	
	DESIGNED BY	
No.	QUANTITIES BY	
	CHECKED BY	

SHEET No. C-18 OF 23 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-11R	2014	31	43

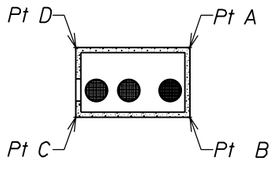


TRUE NORTH
SCALE: 1"=10'

SEQUENCE OF CONSTRUCTION:

1. Excavate and remove existing structure as necessary to install the BMP structure (Storm Water Treatment Device). Existing drainage system must remain functional at all times. Install bypass as required.
2. Excavated material shall not be stockpiled on-site but shall be taken off-site to a location with an approved Erosion and Sediment Control Plan.
3. To the maximum extent possible the BMP Installation site shall be backfilled and stabilized at the end of each day. If same day stabilization is not possible, the contractor shall protect unstabilized soil surfaces with impermeable sheeting secured with sand bags.
4. A portable sediment tank shall be used as necessary to dewater excavations and to remove sediment laden water.
5. After all areas have been stabilized and with approval from the compliance inspector, remove erosion and sediment control devices, restore, and stabilize any areas disturbed by the installation of the BMP.

BASELINE CONTROL COORDINATES		
STATION	EASTING	NORTHING
0+00	7935.88	-5317.06
0+10	7936.64	-5327.04
0+20	7937.40	-5337.01
0+30	7938.16	-5346.98
0+40	7938.92	-5356.95
0+50	7939.68	-5366.92



PROPOSED BMP STRUCTURE
Inset

PROPOSED BMP STRUCTURE LOCATION DATA	
POINT	LOCATION
A	Sta. 0+22.89, 25.78' Rt.
B	Sta. 0+22.89, 35.09' Rt.
C	Sta. 0+38.22, 35.09' Rt.
D	Sta. 0+38.22, 25.75' Rt.

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

T:/16523A-Permanent_BMP/Cadd/Sheets/01_Kawa_Plan.dgn

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KANEOHE BAY DRIVE
BMP RETROFIT PLAN

MISCELLANEOUS PERMANENT BEST MANAGEMENT PRACTICES ON OAHU
PROJECT NO. HWY-0-02-11R

Scale: 1"=10' Date: May, 2012

SHEET No. C-19 OF 23 SHEETS