

STANDARD PLANS SUMMARY

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-HI-1(219)	1998	2	378

STANDARD PLAN NO.	TITLE	DATE
B-01 ●	Notes and Miscellaneous Details	07/01/86
B-02		
B-03 ●	Typical Structure Excavation and Backfill Pay Limits	07/01/86
B-04		
B-05		
B-06	Concrete Box Girder	07/01/86
B-07	Concrete Box Girder	07/01/86
B-08	Concrete Box Girder	07/01/86
B-09		
B-10		
B-11		
B-12	Prestressed Concrete Piles	r07/16/90
B-13	Prestressed Concrete Piles	r07/16/90

D-01 ●	Chain Link Fence With Toprail	r03/06/87
D-02	Chain Link Fence Without Toprail	r07/26/90
D-03	Wire Fence With Metal Posts	07/01/86
D-04 ●	Typical Details of Curbs and/or Gutters	07/01/86
D-05	Typical Details of Reinforced Concrete Drop Driveway	07/01/86
D-06 ●	Centerline and Reference Survey Monument	07/01/86
D-07	Street Survey Monument	07/01/86
D-08	Landscaping Shrub and Tree Planting	07/01/86
D-09	Field Office	07/01/86
D-10	Field Office	07/01/86
D-11	Project Site Laboratory	07/01/86
D-12	Project Site Laboratory	07/01/86
D-13	Field Office & Project Site Laboratory	07/01/86

H-01 ●	Type A, B, C and D Catch Basin	07/01/86
H-02	Type A1, B1, C1 and D1 Catch Basin	07/01/86
H-03	Type A2, B2, C2 and D2 Catch Basin	07/01/86
H-04 ●	Typical Reinforcing Details for Catch Basins	07/01/86
H-05 ●	Type A, B and C Storm Drain Manhole	07/01/86
H-06 ●	Type D and E Storm Drain Manhole	07/01/86
H-07	Type F Storm Drain Manhole	07/01/86
H-08 ●	Catch Basin and Manhole Casting	07/01/86
H-09 ●	Type A-9 and A-9P Frames and Grates	07/01/86
H-10	Type A-9B Frames and Grates	07/01/86
H-11 ●	Type 61614 and 61214 Grated Drop Inlet	07/01/86
H-12 ●	Type 61616 Grated Drop Inlet	07/01/86
H-13 ●	61214, 61614 & 61616 Steel Frames and Grates	07/01/86
H-14	61214B Steel Frame and Grates	07/01/86
H-15	61614B Steel Frame and Grates	07/01/86
H-16	Concrete and Cement Rubble Masonry Structures	r10/16/90
H-17	Inlet Structures	r10/16/90
H-18	Flared End Section for Culverts	07/01/86
H-19	Outlet Structures	r02/15/91
H-20 ●	Concrete Spillway Inlet	07/01/86
H-21	18" Slotted C.M.P. Drain	07/01/86
H-22 ●	C.M.P. Coupling Details Standard Joint	r10/16/90
H-23 ●	Hat Shaped Coupling Band	r10/16/90

STANDARD PLAN NO.	TITLE	DATE
TE-01 ●	Miscellaneous Sign Details	07/01/86
TE-02 ●	Galvanized Flanged Channel Sign Post Mounting	07/01/86
TE-03 ●	Galvanized Square Tube Sign Post Mounting	07/01/86
TE-04 ●	Regulatory Signs	r09/01/87
TE-05 ●	Warning Signs	07/01/86
TE-06 ●	Miscellaneous Signs	r11/03/89
TE-07	Reserved	07/01/86
TE-08 ●	Construction Signs	r09/01/87
TE-09 ●	Miscellaneous Intersection Signs	r03/06/87
TE-10	Reserved	07/01/86
TE-11 ●	Bike Route Sign and Supplementary Plates	07/01/86
TE-12 ●	State Route Marker and Auxiliary Markers	07/01/86
TE-13 ●	Interstate Route Marker	07/01/86
TE-14 ●	State Route Marker and Border Detail for Guide Signs	07/01/86
TE-15 ●	Route Marker Assemblies	07/01/86
TE-16 ●	Miscellaneous Reflector Markers	07/01/86
TE-17 ●	Type II Object Markers	07/01/86
TE-18 ●	Mileposts	07/01/86
TE-19	Reserved	07/01/86
TE-20 ●	Overhead Sign Supports	07/01/86
TE-21 ●	Overhead Sign Support, Box Truss Type, Aluminum	07/01/86
TE-22 ●	Foundation Details and Schedules	07/01/86
TE-23 ●	Supports for Ground Mounted Guide Sign	r11/03/89
TE-24 ●	Breakaway Sign Supports for Ground Mounted Guide Signs	07/01/86
TE-25 ●	Laminated Aluminum Sign Panels (Overhead)	07/01/86
TE-26 ●	Laminated Aluminum Sign Panels (Ground Mounted)	07/01/86
TE-27 ●	Solid Aluminum Extruded Sign Panel and Accessory Details	07/01/86
TE-28 ●	Guide Signs Luminaire Mountings	07/01/86
TE-29	Reserved	07/01/86
TE-30 ●	Raised Pavement Markers and Striping	r05/09/90
TE-31 ●	Miscellaneous Pavement Markings	r05/09/90
TE-32 ●	Miscellaneous Pavement Markings	r05/09/90
TE-33 ●	Miscellaneous Pavement Markings	r11/03/89
TE-34	Reserved	07/01/86
TE-35 ●	Pavement Alphabets, Numbers & Symbols	07/01/86
TE-36 ●	Pavement Alphabets, Numbers & Symbols	07/01/86
TE-37	Reserved	07/01/86
TE-38 ●	Traffic Signal System, Miscellaneous Details	r11/03/89
TE-39 ●	Traffic Signal System, Miscellaneous Details	07/01/86
TE-40	Loop Detectors	r11/03/89
TE-41 ●	Pullboxes	07/01/86
TE-42	Type III Traffic Signal Standard	07/01/86
TE-43	Concrete Pullbox (2' x 3')	07/01/86
TE-44	Reserved	07/01/86

STANDARD PLAN NO.	TITLE	DATE
TE-45	Reserved	07/01/86
TE-46	Reserved	07/01/86
TE-47	Reserved	07/01/86
TE-48	Reserved	07/01/86
TE-49	Reserved	07/01/86
TE-50 ●	Metal Guardrail	r03/06/87
TE-51 ●	Metal Guardrail	r09/01/87
TE-52	Metal Guardrail with Rubrail	r11/03/89
TE-53	Metal Guardrail with Rubrail at Obstruction	r09/01/87
TE-54	Beam Type Guardrail with Rubrail at Obstruction (Shoulder Installation)	r11/03/89
TE-55	Metal Guardrail Connection to Concrete Barrier	r11/03/89
TE-56	Concrete Barrier Transition	07/01/86
TE-57 ●	Guardrail Type 3, Thrie Beam	r11/03/89
TE-57A	Guardrail Type 3, Modified Thrie Beam	11/03/89
TE-58 ●	Approach End Flare, One & Two Way Roadway	07/01/86
TE-59 ●	Trailing End Flare, One & Two Way Roadway	r11/03/89
TE-60 ●	Anchor Block Details	07/01/86
TE-61	Breakaway Cable Terminal (BCT)	r11/03/89
TE-62	Breakaway Cable Terminal (BCT)	r09/01/87
TE-63	Guardrail Type 4 (Rigid Barrier)	r09/01/87
TE-64 ●	Portable Concrete Barrier	r11/03/89
TE-65	Guardrail Type 4, Miscellaneous	r09/01/87
TE-66 ●	Barricades	07/01/86
TE-67	Delineation & Pavement Markings at Bridges	07/01/86
TE-68	Wheelchair Ramps	r11/03/89
TE-69	Wheelchair Ramps	r11/03/89

02/15/91	09/01/87	03/06/87	
10/16/90			
07/26/90			
07/16/90			
05/09/90			
11/03/89			

REVISED H-19	
REVISED H-16,H-17, H-22 & H-23	
REVISED D-02	
REVISED B-12,B-13	
REVISED TE-30,TE-31 & TE-32	
REVISED TE-06,TE-23, TE-30, TE-31,	
TE-32, TE-33, TE-38, TE-40, TE-52,	
TE-54, TE-55, TE-57, TE-59, TE-61,	
TE-64, TE-68 & TE-69, ADDED TE-57A	
REVISED TE-04,TE-06, TE-08, TE-32,	
TE-51, TE-53, TE-54, TE-55, TE-57,	
TE-59, TE-62, TE-63, TE-65 & TE-69	
REVISED D-01, TE-09, TE-40, TE-50,	
TE-51, TE-57, TE-59, TE-61, TE-63	
& TE-64	

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

INTERSTATE ROUTE H-1
Kunia Interchange Improvements
F. A. I. Project No. 1M-HI-1(219)

Date: Oct. 1997

SHEET No. 1 OF 1 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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17. For Curb, Type 2D details, see Standard Plan D-04. "T" on the detail shall be 12".
18. Wherever new guardrail installation crosses paved gutters, the minimum clearance between guardrail post and invert of gutter shall be 6 inches. If guardrail post removal is necessary to maintain the minimum clearance, then nested guardrail shall be installed to span the distance between the adjacent guardrail posts. Prior to construction, the Contractor shall submit a shop drawing showing the proposed guardrail post layout for the acceptance by the Engineer. The nested guardrail elements and other incidentals necessary to complete the work will not be paid for separately and shall be considered incidental to the various guardrail contract items.

1. The Contractor, at his expense, shall keep the project area and surrounding area free of dust nuisance. The work shall be in conformance with the Air Pollution Control Standards and Regulations of the State Department of Health and the City and County of Honolulu Code.
2. The graded or project site that is cleared of vegetation shall be kept damp seven (7) days a week through the use of misters and/or water wagons as necessary. At the end of each day, the site shall be sufficiently dampened so that it will remain moistened during the night. If the use of water causes problems with mud or soil erosion or water pollution or there is a notice by the Board of Water Supply to conserve water in the area, the contractor shall utilize dust control agents approved by the Engineer.
3. The Contractor shall conduct his operations so that excavation, embankment, and imported material shall be dampened to prevent dust problems.
4. The Contractor shall designate a contact person to whom the State can direct public inquiries and/or complaints regarding fugitive dust. The person shall have the authority to resolve all inquiries and complaints in regards to fugitive dust.
5. The Contractor shall hire an independent monitoring laboratory to monitor the amount of dust in the air daily or as directed by the Engineer. The monitoring shall begin before the project starts and end 90 days after the final acceptance. Adjustments to the Contractor's dust control means and methods shall be based on the report made by the independent monitoring laboratory. A copy of all reports shall be submitted to the Engineer. This work shall be incidental to the various contract items.

ORIGINAL PLAN	SURVEY PLOTTED BY _____ DATE <u>11-4-97</u>
NOTE BOOK	DRAWN BY <u>M. Howells/P. Wang</u>
<u>dd/mm/yyyy</u>	TITLED BY _____
No.	DESIGNED BY <u>M. Quelada</u>
	QUANTITIES BY _____
	CHECKED BY <u>dd/mm/yyyy</u>

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

INTERSTATE ROUTE H-1
Kunia Interchange Improvements
F. A. I. Project No. IM-HI-1(219)

Date: Oct. 1997

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL NOTES

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-K(219)	1998	4	378

(A) Erosion and Sediment Control Inspection and Maintenance Practices.

(1) The Contractor shall inspect the erosion and sediment control measures at least once a week or after 0.5 inches of rainfall.

(2) The Contractor shall maintain the erosion and sediment control measures according to the contract. If a repair is necessary, the Contractor shall initiate the repairs within twenty-four (24) hours after the inspection such as:

(a) When sediment build-up reaches one-third (1/3) the height of the silt fence, the Contractor shall remove and dispose of the sediment build-up from the silt fence.

(b) When the depth of the sediment basin reaches ten percent (10%) of the design capacity, the Contractor shall remove and dispose of the sediment build-up.

(c) When tears are found on the silt fence, the Contractor shall replace the fabric.

(d) The Contractor shall check to see if the fabric is securely attached to the fence posts and to see that the fence posts are firmly in the ground.

(e) The Contractor shall inspect the diversion dike and repair the breaches.

(f) The Contractor shall inspect temporary and permanent seeding and planting for bare spots, washouts, and healthy growth.

(3) The Contractor shall have its personnel make a maintenance inspection report promptly after each inspection. The Contractor shall select a minimum of three (3) personnel who will be responsible for inspection, maintenance, repair activities, and filling out the inspection and maintenance report. Personnel selected for the inspection and maintenance responsibilities will receive training from the Contractor. The Contractor shall train these personnel in the inspection and maintenance practices necessary for keeping the erosion and sediment used onsite according to the contract.

(B) Submittal Requirements:

(1) Construction activities of five (5) acres or more.

(a) Storm water discharges into State waters due to construction activities of five (5) acres or more, will require an NPDES permit from the Department of Health (DOH). The Contractor shall submit to the Engineer four (4) sets of Site-Specific Best Management Plans (BMP). The Plans shall be submitted no later than thirty (30) calendar days after the award of Contract.

(b) No construction activities will be authorized until the Contractor's Site-Specific BMP has been approved by the Highways Division.

(2) Construction activities dewatering and/or hydrotesting water.

(a) Discharges into State waters due to dewatering and/or hydrotesting activities will require NPDES Permits(s) from DOH. If the Contractor options to discharge dewatering and/or hydrotesting effluent into State waters, the Contractor shall submit to the Engineer four (4) sets of Site-Specific Dewatering and/or Hydrotesting BMP, and four (4) copies of the Quality of Discharge Test results. The Plans and test results shall be submitted no later than thirty (30) calendar days after the award of Contract.

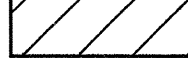
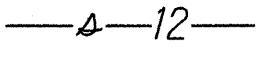

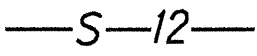
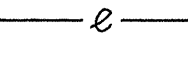
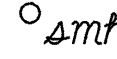
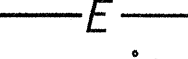


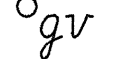



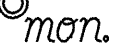



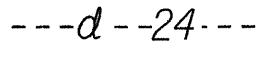
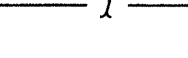
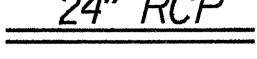

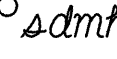


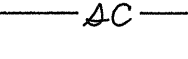
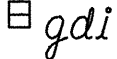
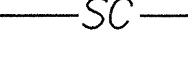


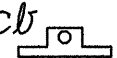
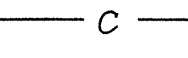
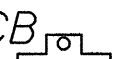
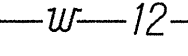











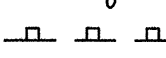



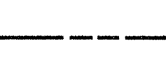



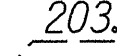
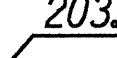
(b) No dewatering and/or hydrotesting activities will be authorized until the receipt of the NPDES Permit(s) from DOH.

ORIGINAL PLAN	SURVEY PLOTTED BY DRAWN BY	DATE
NOTE BOOK	DESIGNED BY	
QUANTITIES BY	CHECKED BY	
N. ellendropes		

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
NPDES GENERAL NOTES
<u>INTERSTATE ROUTE H-1</u> <u>Kunia Interchange Improvements</u> <u>F. A. I. Project No. IM-HI-K(219)</u>
Date: Oct. 1997
SHEET No. 1 OF 1 SHEETS

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LEGEND

	New Pavement Areas - (See Typical Sections for Pavement Structures)		Existing Sewer Line
	New P.C.C.		New 12" Sewer Line
	Existing Electrical Line		Existing Sewer Manhole
	New Electrical Line		Existing 6" Gas Line
	Existing Joint Pole		Existing Gas Valve Box
	Relocated Joint Pole		Existing Gas Manhole
	Existing Power Pole		Existing Monument
	Relocated Power Pole		New Monument
	Existing Electric Manhole		Existing 24" Drain Line
	Existing Telephone Line		New 24 " RCP Drain Line
	Existing Telephone Pole		Existing Storm Drain Manhole
	Existing Telephone Manhole		New Storm Drain Manhole Frame & Cover
	Existing Signal Corps Line		Existing Grated Drop Inlet
	New Signal Corps Line		New Grated Drop Inlet
	Existing Cable TV Pullbox		Existing Catch Basin
	Existing Cable TV Line		New Catch Basin
	Existing 12" Water Line		New Traffic Sign
	Existing Water Manhole		Existing Traffic Sign
	Existing Water Air Valve		Existing Highway Lighting Standard
	Existing Water Valve Box		New Highway Lighting Standard
	Existing Water Meter		Existing Traffic Signal Pullbox
	Existing Fire Hydrant		New Traffic Signal Pullbox
	Existing Guard Rail		Existing Traffic Signal Control Box
	New Guard Rail		Existing Traffic Signal Pole
	Existing Right-of-Way		Existing Loop Detectors
	New Right-of-Way		New Loop Detectors
			Existing Pavement Grade
			New Pavement Grade

ABBREVIATIONS

A.C., a.c.	Asphalt Concrete
#	Baseline
e.p.	Existing edge of pavement
e.s.	Existing edge of shoulder
E.P.	New Edge of Pavement
E.S.	New Edge of Shoulder
S.E.	Super Elevation
F.W.R.	Fort Weaver Road
P.C.	Point of Curvature
P.C.C.	Point of Compound Curvature (for Alignment)
P.C.C.	Portland Cement Concrete
P.I.	Point of Intersection
P.O.C.	Point on Curvature
P.T.	Point of Tangency
R	Radius
S.B., s.b.	Southbound
N.B., n.b.	Norhtbound

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY M. Howells/P. Wong	9-30-97
dd/mh	DESIGNED BY M. Ouelala	
N. Chidley	CHECKED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LEGEND AND ABBREVIATIONS

INTERSTATE ROUTE H-1
Kunia Interchange Improvements
F. A. I. Project No. IM-H1-1(219)

Date: Oct. 1997

SHEET No. 1 OF 1 SHEETS