## PUBLIC WORKS CONSTRUCTION STANDARD DETAILS

200 1101	
R-1	Pre-cast Concrete Curb
R-2	Pre-cast Concrete Curb
R-3	Pre-cast Concrete Drop Curb Block
R-4	Integral Curb And Gutter, Integral Driveway Curb And Gutter
R-4A	Integral Curb And Gutter, Integral Driveway Curb And Gutter
	For R/W Of 70' More
R-5	Rolled Curb
R-6	Rolled Curb Transition To Curb And Catch Basins
R-7	Driveway Apron With Rolled Curb
R-8	Thru Gutter
R-9	Concrete Pavement
R-10	Concrete Pavement Joint Details
R-11	Concrete Pavement Joint Details  Street Survey Manuscrapt
R-12 R-13	Street Survey Monument
R-13 ●	Street Survey Monument Castings  Centerline Monument
R-14 <b>C</b>	
R-15	Temporary Wooden Barricade Sidewalk Reinforcement Details At Utility Boxes Or Openings
R-17	Tree Well With Concrete Cover
R-17 ●	Three Ft. Or Four Ft. Chain Link Fence
R-19 •	Six Ft. Chain Link Fence
R-20	Typical Single Gate
R-21	Typical Double Gate
R-22	Metal Guardrail Details
R-23	Metal Guardrail Details
R-24	Metal Guardrail Details
R-25	Wheelchair Ramp (superseded)
R-25a	Curb Ramp
R-26	Private Driveway Ramp
R-27	Full-width Sidewalk At Curb Return
R-28 Rev.	Sidewalk Details
R-29	Driveway Apron (superseded)
R-29a	Driveway Apron With Accessible Route
R-30	Driveway Layout
R-31	Grade Adjustment Walls
R-32	Street Cross-sections With Sidewalk
R-33	Street Cross-sections Without Sidewalk
R-34 ●	Road Pavement And Shoulders
R-35	Typical Roadway Utility Location With Sidewalk
R-36	Typical Roadway Utility Location Without Sidewalk
R-37	Residential Driveway Without Curb And Gutter
R-38	Driveway Layout
R-39	Non-dedicable Streets
R-40	Dry Well Cover
R-41	Street Cross-sections With Curb And Gutter
R-42 ●	Street Cross-sections Without Curb And Gutter
R-43 ●	Road Pavement And Shoulders
R-44	Cul-de-sac
R-45	Tapered Road Intersection
R-46	Typical Roadway Utility Location
R-47	Space Allocation For Underground Utilities
R-48	Residential Driveway Without Curb And Gutter
R-49	Driveway Layouts For Concrete Curb Streets
R-50	Driveway Layouts For Non-curb
R-51	Concrete Driveway With Existing Sidewalk
R-52 ●	Roadway Typical Sections

Standard

Det No.

Standard Det No.	Title
R-53 ●	Roadway Typical Sections
R-54 ●	Roadway Typical Sections
R-55 ●	Roadway Swales
R-56	Sidewalk Details
R-57	Cul-de-sac
R-58	Space Allocation For Underground Utilities
R-59	Space Allocation For Underground Utilities
D - 1	Type "A" Catch Basin
D-2	Type ''A'' Catch Basin Reinforcement Details
D-3	Type "E" Catch Basin
D-4	Type "E" Catch Basin Reinforcement Details
D-5	Type "B" Catch Basin
D-6	Type ''B'' Catch Basin Reinforcement Details
D-7	Type "F" Catch Basin
D-8	Type ''F'' Catch Basin Reinforcement Details
D-9	Type "C" Catch Basin
D - 10	Type ''C'' Catch Basin Reinforcement Details
D - 11	Type ''D'' Catch Basin
D-12	Type ''D'' Catch Basin Reinforcement Details
D - 13	Catch Basin Details
D - 14	Details For Catch Basin With 5" Curb
D - 15	Deflector Inlet For Catch Basin
D-16	Monolithic Construction Of Catch Basin Top Slab And Sidewalk
D-17	Shallow Drain Manhole For Sidewalk Area
D-18	Shallow Drain Manhole For Pavement Area
D-19	Pre-cast Top Slab For Shallow Drain Manhole
D-20	Concrete Wall Drain Manhole
D-21 D-22	Brick Wall Drain Manhole  Pre-cast Concrete Drain Manhole
D-22 D-23	Pre-cast Concrete Drain Manhole Details
D-24	Pre-cast Concrete Drain Manhole Details
D-25	Pre-cast Concrete Drain Manhole Details
D-26	Channelizing Details For Drain Manhole
D-27 ●	Rungs For Catch Basins And Manhole
D-28 ●	Type ''DA'' Frame For Catch Basin And Manhole
D-29	Type "DB" Frame For Catch Basin And Manhole
D-30 •	Catch Basin And Manhole Cover
D-31 •	Pavement Trench Width And Repaving For Drain Pipes
D-32	Sidewalk Culvert
D-33	Driveway Drainage - Box Culvert
)-34	Driveway Drainage - Pipe Culvert
D-35	Driveway Drainage - Swale
D-36	Type G1 And G2 Drainage Inlets
D- <i>37</i>	Type G3 Drainage Inlet
D-38 ●	Type G4 Drainage Inlet
)-39	Standard Frame And Grate
0-40	Local Depression Without Curb And Gutter
D-41	Junction Structure B
D-42	Junction Structure C
D-43	Junction Structure D
)-44	Monolithic Catch Basin Connection For Pipes 12" To 72"
D-45	Concrete Collar Details
D-46	Single Box Culverts
	Double Box Culverts

)-49	Rectangular Transition
)-50	Circular Transition
)-51	Parapet Details For Box Culverts
)-52	Support For Drain And Sewer Pipes Across Trenches
5-1	Rock Cradle For Sewer Pipe
5-2	Concrete Cradle For Vitrified Clay Pipe
5-3	Method Of Laying Pipe
5-4	Pre-cast Concrete Pipe Block
5-5	Concrete Jacket, Reinforced Concrete Cradle
6-6	Laterals
6-7	Advance Riser Connection
5-8	Method Of Backfill
6-9	Chimney
G - 10	Index To Sewer Manhole Details
G - 11	Manhole Notes (note: No Rungs To Be Installed)
6 - 12	Manhole Notes
G - 13	Pre-cast Concrete Plain Manhole
6-14	Pre-cast Concrete Plain Manhole - Section And Alternate Base
S - 15	Pre-cast Concrete Shallow Drop Manhole
6 - 16	Pre-cast Concrete Shallow Drop Manhole - Butt Joint Details
5-17	Pre-cast Concrete Drop Manhole
5 - 18	Pre-cast Concrete Drop Manhole - Sections
5-19	Pre-cast Concrete Plain Manhole For 27" To 48" R.C. Pipe
5-20	Pre-cast Concrete Plain Manhole For 27" To 48" R.C. Pipe-sec
5-21	Pre-cast Concrete Manhole Wall
5-22	Pre-cast Concrete Eccentric Manhole Cone
5-23	Pre-cast Concrete Manhole Wall To Adapter Ring
5-24	Pre-cast Concrete Manhole Wall Joints
5-25	Pre-cast Concrete - Detail At Top Rung
5-26	Brick Manhole
5-27	Plain Manhole
5-28	Shallow Drop Manhole
5-29	Drop Manhole
5-30	Drop Manhole - Sections
5-31	Manhole Cover - Type SA
5-32	Manhole Frame - Type SA
5-33	Manhole Cover - Type SB, Top View
5-34	Manhole Cover - Type SB, Bottom View
5-35	Manhole Frame - Type SB
5-36	Modified Type SB Pressure Manhole Frame And Cover
5-37	Pressure Manhole Cover - Type SC
5-38	Pressure Manhole Cover - Type SC
5-39	Pressure Manhole Frame And Cover - Type SC
5-40	Manhole Frame - Type SD
6-41	Drop Manhole Chimney Casting

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAI'I	HAW.	ARR-050-1(036)	FY13/14	Model	50

Title

Det No.	Title				
S-42	Manhole Rung Details - Type SA				
S-43	Manhole Rung Details - Type SC				
S-44	Manhole Rung Details - Type SD				
S-45	Manhole Rung Details - Type SE				
S-46	Manhole Rung Details - Type SF				
S-47	PVC Pipe - Bedding Requirements				
S-48	PVC Pipe - Resilent Manhole Connection				
P-1	Backflow Preventer				
P-2	Fence And Gate Details				
P-3	Oil Seals And Related Piping				
P-4	Oil Seals And Related Piping				
P-5	Oil Seals And Related Piping				
P-6	Removable Post And Chain Details				
P-7	Removable Railing Details				
P-8	Typical Wall Sleeve				
P-9	Sprinkler Valve Control				
P-10	Motor Shaft And Coupling				
P-11	Typical Pump Motor Drive Shaft Guard				
P-12	Typical Pump Coupling Guard				
P-13	Typical Horizontal Shaft Guard No. 1				
P-14	Typical Horizontal Shaft Guard No. 2				
P-15	Safety Guard General Notes				
P-16	1-1/2" Stand Pipe Detail				
T − 1 •	Street Name And Stop Sign Details				
<i>T-2</i> ●	Height And Lateral Location Of Sign				
<i>T-3</i> ●	Typical Location For Stop Signs				
T - 4	Typical Detail For Crosswalk And Stop Lines				
T-5	Typical Sign Installations In Cul-de-sacs				
<i>T-6</i> ●	Road Marker				
<i>T</i> − <i>7</i> •	Raised Pavement Markers				
T-8 •	Typical Installation Of Raised Pavement Markers				
T-9 •	-9 ● Typical Intersection Detail For Striping				
T - 10 •	-10 ● Striping Details				
T - 11 •	Street Name And Stop Sign Details				
T-12	Parking Design Standard, One-way Traffic				
T-13	Parking Design Standard, Two-way Traffic				
T - 14 ●	Standard Street Name Sign				

Standard Plans Applicable To This Project Are Indicated By A "• " Next To The Standard Plan Ño. (D-1 •)

## APPROVED BY:

COUNTY ENGINEER, DEPARTMENT OF PUBLIC WORKS (FOR WORK IN THE COUNTY RIGHT-OF-WAY) DATE

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND

\★ \ No. 8624-C / \*/

CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

April 30, 2014 SIGNATURE EXPIRATION DATE OF THE LICENSE

STATE OF HAWAI'I DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION PUBLIC WORKS CONSTRUCTION STANDARD DETAILS

PHASE 1 - KAUMUALI'I HIGHWAY LIHU'E MILL BRIDGE TO RICE STREET PHASE 1 - HO'OMANA ROAD

Date: December 4, 2012 Scale: As Shown OF 50 SHEETS SHEET No.C-2