## DRAINAGE SUMMARY

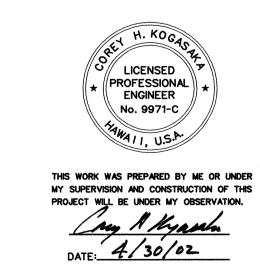
HANA HIGHWAY REPAIRS AND MAINTENANCE DISTRICTS OF MAKAWAO AND HANA PROJECT NO.: 360AB-01-00M

ITEM	1 NO.	<i>206</i> <i>2020</i>	<i>206 7000</i>	<i>207 0100</i>	<i>207 0110</i>	<i>304</i> <i>1110</i>	<i>305</i>	401 0400	503 0020	508 0100	603 1006	603 1010	<i>604 5040</i>	<i>604 5041</i>	<i>604 5042</i>	<i>604 5050</i>	<i>604 5051</i>	<i>604 5052</i>	<i>604 5053</i>	<i>609 2110</i>	<i>611 0100</i>	<i>640 0200</i>	640 1000
UNIT	USED	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	L.F.	L.F.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	L.F.	C.Y.	L.F.	L.F.
STRUCTURE	₿ STATION	Structure Excavation for Drainage System	Structure Backfill	Ditch and Channel Excavation	Ditch and Channel Embankment	Aggregate Base for Pavement	Aggregate Subbase for Pavement	Asphalt Concrete Pavement Mix No. IV	Concrete for Drainage Systems	Cement Rubble Masonry Headwall	18-Inch RCP Class III	24-Inch RCP Class III	61614P Grated Drop Inlet, 3.00 ft. to 3.99 ft.	61614P Grated Drop Inlet, 4.00 ft. to 4.99 ft.	Modified 61614P Grated Drop Inlet, 6.00 ft. to 6.99 ft.	Type A-9P Grated Drop Inlet 2.00 ft. to 2.99 ft.	Type A-9P Grated Drop Inlet 3.00 ft. to 3.99 ft.	Type A-9P Grated Drop Inlet 4.00 ft. to 4.99 ft.	Type A-9P Grated Drop Inlet 5.00 ft. to 5.99 ft.	Gutter, Type 2H	Handlaid Rip-Rap	Lined Drainage Ditch	1.5 ft. x 1.5 ft. (SS 1/1) Lined Trapezoidal Drainage Ditch
Lined Drainage Ditch	Site 1, Milepost 1.9			28	85								·								7	24	349
Lined Drainage Ditch	Site 2, Milepost 2.3			1	5																1	10	13
2-24" RCP	Site 3, Milepost 6.7	45	27			5	7	3	5			58				,							
61614P GDI	Site 3, Milepost 6.7													1									
Type A-9P GDI	Site 4, Milepost 10.0															1							
Type A-9P GDI	Site 5, Milepost 11.0	3	6															1					
24" RCP	Site 5 Milepost 11.0	34	19	,		4		1		1		47											
Gutter, Type 2	Site 5, Milepost 11.0																			317			
Type A-9P GDI	Site 5, Milepost 11.0	3			7												1						
24" RCP	Site 6, Milepost 13.6	28	15			4	5	2		2		33									2		
Type A-9P GDI	Site 6, Milepost 13.6	5									A Northwest Control of the Control o							1					
61614P GDI	Site 7, Milepost 14.5	3	4							,			1										
18" RCP	Site 8, Milepost 18.8	16	11			2	3	1		2	25									***			
Type A-9P GDI	Site 8, Milepost 18.8	2																	1				
Type A-9P GDI	Site 9, Milepost 19.3	4															1						
Modified 61614P GDI	Site 10, Milepost 20.8	13													1								3
TOTAL		156	82	29	90	15	15	7	5	5	25	138	1	1	1	1	2	2	1	317	10	34	362
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FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	360AB-01-02M	2002	38	41

## DRAINAGE NOTES

- 1. Existing drainage systems will be functional at all times during construction. The Contractor is to furnish materials, equipment, labor, tools and incidentals necessary to accomplish maintenance of flow. The cost shall be incidental to the various Contract Items.
- 2. The Contractor shall verify the locations of all existing culverts and utilities in the field. Any existing culverts and utilities damaged during construction shall be repaired or replaced by the Contractor at his own expense.
- 3. Concrete shall be Class A unless otherwise noted.
- 4. Chamfer all exposed concrete edges 3/4".
- 5. Reinforcing Steel for Concrete Collar and shall conform to the requirements of ASTM 615-Grade 60.
- 6. The Contractor shall clean, remove, and dispose of any silt, trash, and vegetative growth from existing culverts and adjoining drainage structures as directed by the Engineer.



STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

DRAINAGE SUMMARY

HANA HIGHWAY REPAIRS AND MAINTENANCE PROJECT NO. 360AB-01-02M

Scale: N/A

Date: March, 2001

SHEETS

SHEET No. 1 OF 1