FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-019-1(38)R	2016	C.O. 3	528

LEGEND: 1

- Existing Edge of Pavement
- Existing Right-of-way Line
- Baseline
- AC Median
- New Pavement Structure
- Pavement Overlay
- New Median Barrier
- New Universal TAU-II End Barrier Treatment
- Landscape Wall
- existing guardrail
- New Guardrail
- New Retaining Wall with Chain Link Fence
- Rumble Strip
- existing sign and post
- New Sign and post
- Existing Sign To Remain/Relocated or to be removed
- New Sign
- 50 Finish Grade
- 50 existing ground
- Limits of Grading
- 45.7 existing spot elevation
- SIHP# XXXXX Archaeology Sites
- Direction of Flow
- existing drywell
- New Shallow Drywell
- New Shallow Drywell (MH)
- New Shallow Drywell (Type 61616P)
- New Shallow Drywell (Type 1A-9P)
- New Shallow Drywell (Mod. Type 1211214P)
- existing grated drop inlet
- New Grated Drop Inlet (Type 61616P)
- New Grated Drop Inlet (Type 1A-9P)
- New Grated Drop Inlet (Type 2A-9P)
- D120 existing culvert
- D18" New Drainline
- New Sewer Manhole
- New Clean out
- S10" New Sewerline
- RW20" New Reclaimed Water Line
- 2-FM20" New Dual Force Main Line
- W12 existing waterline
- W16" New Waterline
- New 1" Air Release Valve (ARV) or 2" Sewage Air Release Valve (SARV)
- New Blow Off Valve (BOV)
- New Butterfly Valve (BV) or Gate Valve (GV)
- EGL Peak Flow
- HGL Peak Flow
- EGL Average Flow
- HGL Average Flow
- FIBER OPTIC existing underground fiber optic
- existing overhead electric
- existing underground electric
- Archaeological Site Buffer 3

ABBREVIATION LIST 1

&	And
@	At
℄	Centerline
Ⓑ	Baseline
A.C./AC 2	Asphalt Concrete
AASHTO	American Association of State Highway and Transportation Officials
APMP 2	Archaeological Preservation and Mitigation Plan
Approx.	Approximate
Arch	Archaeology/ Archaeological
ARV	Air Relief Valve
Aux.	Auxiliary
AWWA	American Water Works Association
Az.	Azimuth
Ball corp.	Ball corporation
BFP	Backflow Preventer
BM 2	Benchmark
BMP	Best Management Practices
BOF 2	Bottom of Footing
BOT	Bottom
BOV	Blow Off Valve
B.V.C.	Begin Vertical Curve
BV	Butterfly Valve
C	Curve Chord Length
C.G.	Change Grade
CAP	Corrugated Aluminum Pipe
CCTV	Closed Circuit Television
Cl. 2	Class
Clr.	Clearance
CLSM 2	Controlled Low Strength Material
cmp	Corrugated Metal Pipe
CMSP	Corrugated Metal Steel Plate
C.O. 2	Change Order
Conc.	Concrete
Cond.	Condition
CRM	Concrete Rubble Masonry
D.I./DI 2	Ductile Iron
Dist.	Distance
DAF	Design Average Flow
Det.	Detail
Dia./D 2	Diameter
Div.	Division
DOT	Department of Transportation
DPW	Department of Public Works
DPWWF	Design Peak Wet Weather Flow
DR	Dimension Ratio (Pipe), Data Recovery (Archaeology Sites) or Drive
Dwg	Drawing
DWS	Department of Water Supply
ea	Each
EG	Existing Grade
EGL	Energy Grade Line
Elec.	Electric
Elev.	Elevation
EP	Edge of Pavement
Eq.	Equal
ERW	End of Work
ES	Edge of Shoulder
ETL	Edge of Travel Lane
E.V.C.	End Vertical Curve
e.w.	Each way
Exist.	Existing
Ext.	Extension
FAP	Federal Aid Project
FE	Female End
FED	Federal
FG	Finish Grade
FH	Fire Hydrant
FHWA	Federal Highway Administration
FIPT	Female Iron Pipe Thread
FM	Force Main
FPS	Feet per second
FT	Foot
Ftg.	Footing
Galv.	Galvanized
GDI	Grated Drop Inlet
GPM	Gallons per Minute
GRP	Grouted Rubble Pavement 2
GV	Gate Valve
H	Height or Horizontal
HAR	Hawaii Revised Statutes
2 HDOT	Hawaii Department of Transportation
HDPE	High-Density Polyethylene
HGL	Hydraulic Grade Line
Horiz.	Horizontal
HP	High Point
3 HW	Headwall
HWY	Highway
2 ID	Identification
IHRM	Impact Head Reflector Marker
Inv.	Invert
L	Length
Lc	Overall Length of Curve
LF	Linear Feet
LP	Low Point
Lt.	Left
mag.	Magnetic
Max.	Maximum
Med.	Median
MGD	Million Gallons per Day
MH	Manhole
Min.	Minimum
MIPT	Male Iron Pipe Thread
Misc.	Miscellaneous
Mix.	Mixture
MJ	Mechanical Joint
M.L.	Matchline
2 MOA	Memorandum of Agreement
Mod.	Modified
MON	Monument
MPH	Miles per Hour
MUTCD	Manual on Uniform Traffic Control Devices for Streets and Highway
n	Manning's Roughness Coefficient
NB	Northbound
NCHRP	National Cooperative Highway Research Program
N.I.C.	Not in Contract
No.	Number
NPDES	National Pollutant Discharge Elimination System
NTS	Not to Scale
O.C.	On center
O.D.	Outer Diameter
O.M.	Object Marker
O/S	Offset
2 Pav't	Pavement
PB	Pullbox
PC	Point of Curvature
PCB	Portable Concrete Barrier
PCC	Point of Compound Curve
PE	Plain End
PED	Pedestrian
PH	Phase
Pkwy.	Parkway
POC	Point of Connection
PRES.	Preservation
Proj.	Project
PSI	Pounds per square inch
PT	Point of Tangency
PVC	Polyvinyl Chloride
R	Radius
RCP	Reinforced Concrete Pipe
2 Rd.	Road
2 Ref.	Reference
Reloc.	Relocation
Ret.	Retaining
Rev.	Revision
RM	Reflectorized Markers 2
R.O.W.	Right Of Way
RPM	Raised Pavement Marker
Rt.	Right
RW	Reclaimed Water
RWA	Road Work Ahead
S	Slope or Spread
SARV	Sewage Air Relief Valve
SB	Southbound
SDMH	Storm Drain Manhole
SDR	Standard Dimension Ratio
SDW	Shallow Drywell
SE	Superelevation
SF	Square Foot
Shldr.	Shoulder
Sht.	Sheet
SIHP	State Inventory of Historic Property
SL	Street Light
SMH	Sewer Manhole
sp.	Space
sq.	Square
St.	Street
Sta.	Station
Std.	Standard
T	External Tangent of Curve
TCP	Traffic Control Plan
TMK	Tax Map Key
TOF	Top of Footing
TRV	Traverse
TS	Traffic Signal
TW	Top of Wall
Typ.	Typical
U.S.	United States
V/Vert.	Vertical
Var.	Varies 3
VB	Valve Box 2
VC	Vertical Curve
VCP	Vitrified Clay Pipe
VIF	Verify in Field
W	Width
W/	With
W/O	Without
WL	Waterline
WMH	Water Manhole
WW	Wastewater
WWD	Waste Water Division
WWF	Welded Wire Fabric

DATE	REVISION
1/31/17	3 Added abbreviations/definitions & legend
8/1/16	2 Added abbreviations/definitions; Replaced ADD. with C.O.
1/22/16	1 Updated list

AUSTEN W. DRAKE LICENSED PROFESSIONAL ENGINEER NO. 13059-C HAWAII, USA

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

Austen W. Drake — SIGNATURE

APRIL 30, 2018 — EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LEGEND AND ABBREVIATIONS

QUEEN KAAHUMANU HIGHWAY WIDENING
Kealakehe Pkwy. To Keahole Airport Rd.(Ph. 2)
Federal Aid Project No. NH-019-1(38)R

Scale: AS NOTED Date: DECEMBER 2016

SHEET No. 1 OF 1 SHEETS

C.O. 3

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

W:_CIVIL 3D PROJECTS\2008_003_001 GBI QUEEN K HWY WIDENING\01 CIVIL DRAWINGS\003 LEGEND AND ABBREVIATIONS.DWG 2/13/2017 5:17 PM