

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

GENERAL NOTES

- The project scope includes widening shoulders, pavement reconstruction, installing guardrail and end treatments, guardrail reflector markers, flexible delineators, traffic signs, pavement markings and striping, milled shoulder rumble strips, milled centerline rumble strips, asphalt shoulder regrading, grated drain inlets and shallow concrete drywells.
- Construction and restoration of all existing highway facilities within State right-of-way shall be done in accordance with all applicable sections of the 2005 Standard Specifications for Road and Bridge Construction and the Special Provisions.
- The Contractor's attention is directed to the following Sections of the Special Provisions: Subsection 105.16 - Subcontracts; Subsection 107.06 - Contractor Duty Regarding Public Convenience; Subsection 104.11 - Utilities and Services; and Section 645 - Work Zone Traffic Control.
- At the end of each day's work, the Contractor shall remove all equipment and other obstructions to permit free and safe passage of public traffic.
- 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 Contractor shall exercise extreme caution whenever construction crosses or is in close proximity of underground lines. The Contractor shall be held liable for any damages incurred to the existing facilities and/or improvements as a result of their operations.
- The location of overhead lines shown on the plans are from existing records with varying degrees of accuracy and are not guaranteed as shown. The Contractor shall exercise extreme caution whenever construction crosses or is in close proximity of overhead lines and shall maintain adequate clearance when operating equipment within or under any overhead lines.
- All saw cutting work shall be considered incidental to the various contract items.
- The Contractor shall survey and stake out the State Highway right-of-way and install all appurtenances associated with the project within the State right-of-way or construction parcels as shown in the plans. This work shall be considered incidental to the various contract items.
- The Contractor shall be responsible for all Highway Monuments and State Survey Disks in the project area. If any of the Highway Monuments or State Survey Disks are disturbed or removed, the Contractor will be responsible to reset the monuments at no cost to the State Highways Division. The Contractor shall hire a State of Hawaii Licensed Professional Land Surveyor to reset the monuments at the cost of the Contractor.
- The Contractor shall be solely responsible for the protection of adjacent properties, utilities and existing structures from damages due to construction. Repairing any damage shall be at the Contractor's own expense, and to the satisfaction of the Engineer.

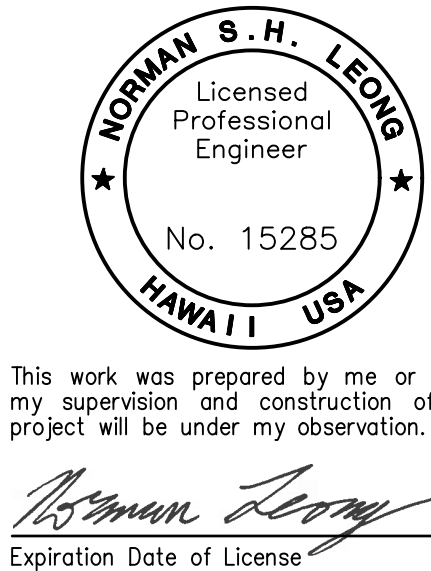
GENERAL NOTES (Cont.)

- Removal and disposal of any debris shall be considered incidental to their respective bid items. This work shall be considered incidental to the various contract items and will not be paid for separately.
- When excavating near utility poles, the Contractor shall protect, support, secure and take all other precautions to prevent damage to or leaning of those poles. The Contractor is responsible for all costs associated to repair and/or straighten pole.
- At least one lane must be open to traffic at all times. Closure of the highway will not be permitted. Open all lanes during non-working hours.
- All regulatory, guide and construction signs and barricades shall be high intensity reflective sheeting.
- All signs, pavement markings, striping, etc. removed or damaged by the Contractor shall be replaced by the Contractor at no additional cost to the State.
- The Contractor shall provide for free and safe vehicular access to and from all existing side streets and driveways at all times. This work shall be considered incidental to the various contract items and will not be paid for separately.
- The Contractor shall notify the State in writing, two (2) weeks prior to starting paving operations.
- Trimming and dressing of shoulder shall consist of clearing, grubbing, grading, reshaping and compacting the unpaved shoulders with suitable material as shown on the plans and/or as directed by Engineer. This work shall be considered incidental to the various contract items.
- Public notice is required for lane closures. The Contractor shall submit notice to the Engineer for approval a minimum of three weeks prior to publication. Pre-approval of notice, with dates left blank, is permissible.
- Guardrail and sign post probing work is incidental to the various guardrail and sign Pay Items.
- A Traffic Control Plan shall be required prior to starting work in each area. The Contractor shall submit a Traffic Control Plan stamped by a Registered Civil Engineer from the State of Hawaii to the Engineer for approval.
- No material and/or equipment shall be stockpiled or otherwise stored within the highway right-of-way except at locations designated in writing and approved by the Engineer. If use of location is approved by the Engineer, the Contractor shall obtain a permit to use the property within the highway right-of-way from the Hawaii District Office at telephone no. (808) 933-8866.
- Woody plants greater than 15 feet tall should not be disturbed, removed, or trimmed during the bat birthing and pup rearing season from June 1 through September 15. Barbed wire should also be avoided for any construction during this period.

GENERAL NOTES (Cont.)

- If necessary, night time work should be avoided during the Hawaiian seabird fledgling period from September 15 through December 15. If not possible, lights shall be fully shielded and pointed towards the ground.
- If trees are to be cut, the surrounding area should be surveyed to ensure no Hawaiian Hawk nests are present during the breeding season from March to September. Should a nest(s) be found in the project vicinity, immediately contact the DLNR Division of Forestry and Wildlife at (808) 587-0166.
- All equipment, materials, and personnel should be cleaned of excess soil and debris to minimize the risk of spreading invasive species. Gear that may contain soil, such as work boots and vehicles, should be thoroughly cleaned with water and sprayed with 70% alcohol solution to prevent the spread of Rapid Ohia Death and other harmful fungal pathogens.
- Movement of plant or soil material between worksites should be minimized as much as possible.
- Stop work and contact the State Historic Preservation Division, at (808) 692-8015 immediately should any unidentified archaeological site or remains (such as artifacts, shells, bones, charcoal deposits, road or coral alignments, pavings or walls) be encountered during construction.
- Existing drainage system will be functional at all times during construction. The Contractor shall furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to various contract items and will not be paid for separately.
- The Contractor shall clean and remove any accumulation of aggregates along the roadside within 10 feet of the edge of pavement. This work shall be considered incidental to bulk of work or the various contract items and will not be paid for separately.
- Removal and disposal of existing asphalt concrete pavement and any debris shall be considered incidental to their bid items.
- Before any excavation in the public right of way or on private property, call the Hawaii One Call Center at least five (5) working days before you plan to dig. Provide the address and location of the nearest cross street(s) near where you plan to dig.

Call 811 toll-free 24 hours a day.
For more information, go to www.callbeforeyoudig.com



STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<u>GENERAL NOTES</u>	
<u>MAMALAHOA HIGHWAY</u>	
<u>SAFETY IMPROVEMENTS</u>	
<u>Vicinity of Haleili Street and Bruner Road</u>	
<u>Federal-Aid Project No. HS1P-011-1(045)</u>	
<u>Scale: NTS</u>	<u>Date: September 2023</u>
SHEET No. 1 OF 2 SHEETS	

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

GENERAL NOTES (Cont.):

33. The Hawaii One Call Center will contact all utility companies to tone, mark, or identify the location of their underground utilities for free. Mark the area where you plan to excavate in White and label all of the other utilities as listed below.

RED	Electric power lines, cables, or conduits, and lighting cables
YELLOW	Gas, oil steam, petroleum or other hazardous liquid or gaseous materials.
ORANGE	Communications, cable TV, alarm or signal lines, cables or conduits.
BLUE	Water, irrigation, and slurry lines.
GREEN	Sewers, storm sewer facilities or other drain lines.
WHITE	Proposed excavation
PINK	Temporary survey markings
PURPLE	Reclaimed water, irigation and slurry lines.

34. The Contractor shall coordinate with home/business owners when reconstructing or connecting to driveways. Alternate parking/access shall be provided as necessary.

DEPARTMENT OF WATER SUPPLY NOTES:

- Unless otherwise specified, all materials and construction of water system facilities and appurtenances shall be in accordance with the "Standard Specifications for Road and Bridge Construction, dated 2005, as amended, of the Highways Division, Hawaii Department of Transportation and the Department of Water Supply, County of Hawaii "Water System Standards", dated 2002, as amended.
- No deviation to the Department of Water Supply 2002 Water System Standards, as amended, shall be allowed without the Manager-Chief Engineer's approval.
- All plans approved by the Department of Water Supply are based solely on the adequacy of the water supply and/or if work is to be done on/or near the water system.
- The existence and location of underground utilities and structures as shown on the plans are from the latest available data but are not guaranteed as to their accuracy or the encountering of other obstacles during the course of the work. The Contractor shall be responsible and pay for all damages to existing utilities. The Contractor shall not assume that where no utilities are shown, that none exist.
- The Contractor shall be responsible for the protection of all waterlines and appurtenances during construction. The Contractor shall be especially careful when excavating behind waterlines, tees, and bends wherever there is a possibility of waterline movement due to the removal of the supporting earth beyond the existing reaction blocks. The Contractor shall take whatever measures necessary to protect the waterlines, such as constructing special reaction blocks (with Department of Water Supply approval) and/or modifying construction method.

DEPARTMENT OF WATER SUPPLY NOTES (Cont.):

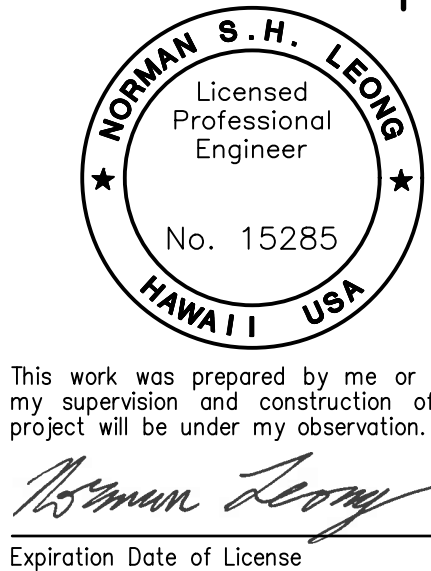
- Re-approval shall be required if this project is not under construction within a period of one (1) year.
- All water valve boxes and water meter boxes within the shoulder widening limits shall be adjusted to finish grade per DWS Standards.
- All utility boxes, frames and covers within the milled shoulder rumble strip limits shall be protected during construction. A gap in the milled rumble strip shall be provided around the utility boxes. Gap spacing shall be as shown on plan sheet 83.
- All materials used in the adjustment shall meet the specifications under the respective sections for concrete and mortar, bricks, manholes, frames and covers and other castings.
- All frames and covers and castings shall be salvaged, cleaned and re-used unless directed by the Engineer or stated otherwise on the plans.
- During adjustment of utilities, all frames and covers shall be cleaned and painted with one coat of approved asphaltum paint.

LEGEND

	Sawcut and Widen Exist. Shoulder
	New Milled Centerline Rumble Strip
	New Milled Edgeline Rumble Strip
	Existing Metal Guardrail
	New Metal Guardrail
	Existing Power Pole
	Existing Telephone Pole
	Existing Utility Pole
	Existing Water Meter
	Existing Water Valve Box
	Existing Fire Hydrant
	Existing Water Manhole
	Adjust Existing Water Valve Box
	Adjust Existing Water Manhole
	Existing Mailbox
	Existing Grated Drain Inlet
	New Grated Drain Inlet Over Drywell
	Existing Fence
	Existing Traffic Sign
	New Traffic Sign
	Existing Flexible Delineator
	New RM-2 Mkr. on Flexible Delineator
	Existing Monument
	Existing Traverse Point
	Existing Wall

ABBREVIATIONS

ac	asphalt concrete
acb	asphalt concrete base
anc	anchor
bb	bottom bank
bfp	backflow preventer
℄	baseline
bldg	building
bmp	best management practices
bound	boundary
cb	catch basin
cl	centerline
clf	chain link fence
cmp	corrugated metal pipe
Conc	concrete
Cont	continuation
crm	concrete rubble masonry
culv	culvert
dept	department
di	drain inlet
dwy	driveway
e	east
ehp	elevation hold point
elec	electrical
elev	elevation
ep	edge of pavement
es	edge of shoulder
etc.	etcetera
exist., ex.	existing
fd	found
fh	fire hydrant
gp	guy pole
grv	gravel
hl	highway lighting
hdpe	high density polyethylene
hdwl	headwall
hma	hot mix asphalt
hwf	hog wire fence
hwy	highway
inv	invert
lf	linear feet
lt	left
max	maximum
mbx	mailbox
ME	match existing
mgn	mag nail
mgs	mag spike
min	minimum
mkr	marker
m.l.	match line
mon	monument
n	north
no.	number



This work was prepared by me or under my supervision and construction of this project will be under my observation.
Norman S. H. Leong
Expiration Date of License: 4/24

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HS1P-011-1(045)	2023	4	114

ABBREVIATIONS (Cont)

o.c.	on center
o/h	overhead
o/s	offset
pav't	pavement
pc	point of curvature
pcc	point of compound curvat.
pl	property line
prc	point of reverse curvatur
pt	point of tangency
pvc	polyvinyl chloride
r	radius
rcp	reinforced concrete pipe
ref	reflector
remn	remnant
ret	retaining
rt	right
r/w	right of way
rm	refelctive marker
s.e.	superelevation
sf	square feet
Shldr.	shoulder
Sht.	sheet
smh	sewer man hole
Sta.	station
Std.	standard
t	top
tb	top bank
temp	temporary
Thk.	thick
TMK	tax map key
tp	telephone pole
ts	tangent to spiral point
typ	typical
up	utility pole
w/	with
w/o	without
wl	water line
wm	water meter
wmb	water meter box
wmh	water man hole
wv	water valve box
xfmr	transformer
xpsd	exposed

GENERAL NOTES 2

MAMALAHOA HIGHWAY
SAFETY IMPROVEMENTS

Vicinity of Haleili Street and Bruner Road
Federal-Aid Project No. HS1P-011-1(045)

Scale: NTS Date: September 2023