

GENERAL NOTES:

1. The scope of work includes converting an un-signalized intersection into a fully signalized intersection, trench restoration for signal interconnects, the re-design of median, impact attenuator, and guardrail, as well as restoring pavement marking and striping.
2. The Contractor is reminded of the requirements of Subsection 105.16 – Subcontracts, which requires him to perform work amounting to not less than 30 percent of the total contract cost less deductible items. Non-compliance with this Subsection may be grounds for rejection of bid.
3. The Contractor's attention is directed to the following Sections of the Standard Specifications and Special Provisions: Subsection 104.11 – Utilities and Services; Subsection 107.06 – Contractor Duty Regarding Public Convenience; Subsection 107.11 – Safety: Accident Prevention; Subsection 107.12 – Protection of Persons and Property; and Section 645 – Work Zone Traffic Control.
4. 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.
5. 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 encountering of other obstacles during the course of work is possible. The Contractor shall be held liable for any damages incurred to the existing facilities and/or improvements as a result of his operations. The Contractor will immediately report to the Engineer and utility companies damage discovered or caused by his work to any utilities. All damaged portions shall be replaced or repaired in accordance with the standards and specifications of the affected utility company at the Contractor's expense.
6. The existing drainage system will be functional at all times during construction. The Contractor is to furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to various contract items.
7. The Contractor shall provide for free and safe access to and from all existing side streets at all times.
8. All saw cutting work shall be considered incidental to structural excavation or roadway excavation.
9. Where pedestrian walkways exist, they shall be maintained in a safe and passable ADA compliant condition, or other facilities for pedestrians shall be provided. Passages between walkways at intersections shall likewise be provided at all times. The Contractor shall maintain at least one paved shoulder free and clear of debris for pedestrian and bicycle traffic at the end of each work day. The Contractor shall provide for access to and from all existing driveways at all times. The Contractor shall coordinate with the Homeowner if driveway closure is required.

10. The Contractor shall comply with the directives of the State of Hawaii Occupational Safety And Health Law (HIOSH). Any citation (fine) received by the State for noncompliance by the Contractor shall be deducted from the progress payment.
11. This project may affect bus operations, bus routes, bus stops, and para-transit operations. At least two (2) weeks prior to construction, the Contractor shall provide notification of the scope of work, location, detour, proposed closure of any street, traffic lane, sidewalk, or bus stop and duration of project to:
- DTS-PTD: 768-8396 and TheBusStop@honolulu.gov  
Oahu Transit Services:  
Bus Operations: 848-4571 and 848-4565 and  
Field\_Operation\_Mgr@thebus.org  
Para-transit Operations: 454-5006 and 454-5083
12. The Contractor shall follow the requirements of various permits and Best Management Practices (BMP) during the construction.
13. No work or equipment shall be located or take place within 10' of any overhead wires or any HECO utility pole without prior acceptance from the Engineer and HECO. No excavation shall take place within 5' of any HECO utility pole without prior acceptance from the Engineer and HECO.
14. The Contractor is advised that in addition to other Contractors working in the same areas, various utility companies (or their contractors) including Hawaiian Electric Company, Hawaiian Telcom, Spectrum, Hawaii Gas, and the Board of Water Supply (BWS) may be performing work within the project area. Comply with Subsection 105.09 Coordination Between the Contractors.
15. The Contractor shall coordinate all work with other Contractors in the areas. In case of unreasonable conflict among contractors regarding access or work sites, the Engineer will make the final determination of priorities.
16. Smooth riding connections shall be constructed at all limits of the project, including the beginning and end of project, connecting approaches, side streets, driveways and all trench repairs as shown on the plans and/or as directed by the Engineer. Test in the presence of the Engineer with a 12-foot straight edge all pavement surface areas mentioned. It shall not vary more than 1/8 inch from the lower edge of a straightedge. Driveways may be excluded by the Engineer and another method used.
17. All necessary permits shall be obtained by the Contractor at his own cost.
18. The Contractor shall exercise extreme caution to preserve BENCHMARKS (Survey Monuments). Whenever the center of a Survey Monument is less than three (3) feet away from the edge of construction, the Contractor shall retain a Licensed Land Surveyor to reference the location of said survey monument.

19. Benchmarks that are disturbed or destroyed shall be restored under a licensed Land Surveyor's direction. Copies of field notes, descriptions and new values of the replaced Benchmark shall be sent to the Department of Transportation, highways Division, Cadastral Engineering Section, for review and approval before commencement of construction.
20. The Contractor is reminded to call the Hawaii One Call Center at (866) 423-7287 prior to starting any excavation work.
21. The Contractor shall indemnify and be solely responsible for the protection of adjacent properties, utilities, curbs, sidewalks, and existing structures from damage due to construction. Repairing any damage shall be at the Contractor's own expense, to the satisfaction of the Engineer.
22. The Contractor shall observe and comply with the administrative rules of The Department of Health regarding noise control of Oahu.
23. No section of incomplete guardrail, footing and/or excavation shall be left unshielded at the end of each work day. Intermediate concrete barriers and crash cushion end treatments used for shielding shall meet current SOH DOT standards and guidelines along with manufacturer's specifications. All shielding used during construction shall be considered incidental to various guardrail items. A minimum of five concrete barriers shall be used before and beyond the work zone.
24. All work specified in the Contract but not listed separately in the proposal schedule shall be considered incidental to the various contract items and shall not be paid for separately.

HAWAII ONE CALL CENTER:

1. Before conducting 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 planning to dig. Be sure to give them the address and location of the nearest cross street(s) near where digging is planned.
- Call 811 toll-free 24 hours a day.  
For more information, go to [www.callbeforeyoudig.org](http://www.callbeforeyoudig.org)
2. 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 Contractor plans 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.

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- 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, irrigation and slurry lines.

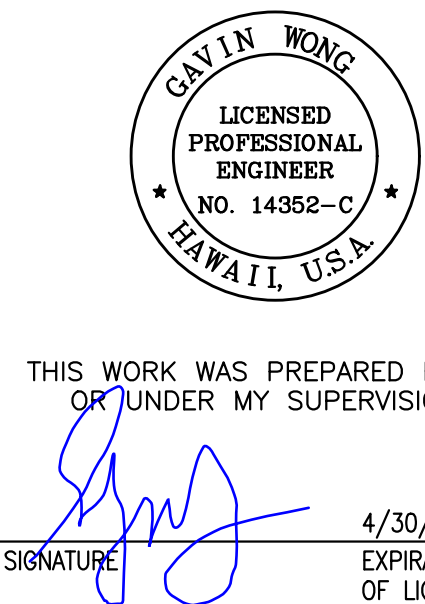
PUBLIC HEALTH, SAFETY, AND CONVENIENCE NOTES:

1. The Contractor shall observe and comply with all Federal, State, and Local laws required for the protection of public health and safety and environmental quality.
2. The Contractor, at his own expense, shall keep the project and its surrounding areas free from dust nuisance. The work shall be in conformance with the air pollution control standards and regulations of the State Department of Health. The City may require supplementary measures as necessary.
3. No Contractor shall perform any trenching operation so as to cause falling rocks, soil or debris in any form to fall, slide or flow onto adjoining properties, streets or natural water-courses. Should such violations occur, the cost incurred shall be borne by the Contractor. For any remedial action by the Director, HDOT shall be payable by the Contractor.
4. The Contractor shall provide, install and maintain all necessary signs, lights, flares, barricades, markers, cones, and other protective facilities and shall take all necessary precautions for the protection, convenience, and safety of the public. The Contractor shall apply for a construction permit with a noise pollution control plan if work should extend beyond permitted working hours.

CHANGES TO DESIGN CRITERIA FOR BRIDGES AND STRUCTURES:

1. The Contractor shall use the Bridge Design Criteria dated 8-8-2014 as modified by Changes to Design Criteria for Bridges and Structures dated 1-8-2018 (HWY-DB 2.5098).

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



STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
GENERAL NOTES
KALANIANA'OLE HIGHWAY
TRAFFIC SIGNAL INSTALLATION AT WAA ST.
Project No. 72C-01-19
Date: November 2019
SHEET No. 1 OF 3 SHEETS



ARCHAEOLOGICAL NOTES:

1.

In the event that an archaeological or historic structure within the work area is inadvertently damaged during construction, cease work in the vicinity of the site and notify the Engineer and the State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources of the damage. SHPD will determine the appropriate mitigation measures.

2.

In the event that a previously unknown archaeological feature is exposed by construction, cease work in the vicinity of the new feature and notify the Engineer and SHPD of the new discovery.

3.

In the event that previously unknown human remains are exposed by construction, cease all work in the area of the remains, and protect the area with an appropriate material. Notify the Engineer and SHPD at 692-8015.

4.

If human remains are discovered, HAR Title 13, Subtitle 13, Chapter 300 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the State Historic Preservation Division and the Police Department will be contacted. The appropriate process would then proceed in conformance with HAR 13-300 Subchapter 4, "Procedures for Proper Treatment of Burial Sites and Human Skeletal Remains."

5.

If any lava tube or coral cavern is uncovered during earthwork operations, the Contractor shall cease all ground work in the area and immediately notify the Archaeological Monitor and the Engineer. With or without the help of the Archaeological Monitor, the Engineer will assess the situation. If the Engineer has any doubts as to the extent and/or significance of the discovery, the Engineer will contact the appropriate regulatory agency (e.g., State Historic Preservation Division).
4.

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.

5.

The Contractor shall be responsible for the protection of all waterlines 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 BWS approval) an/or modifying his construction method.

6.

Re-approval shall be required if this project is not under construction within a period of two (2) years.

7.

Prior to any excavating, the Contractor shall verify in the field, the location of existing waterlines and appurtenances.

8.

Any adjustments to the existing water system required during construction, to meet the requirements of the BWS Standards, whether shown on the plans or not, shall be done by the Contractor at no cost to the Board.

9.

At the electrical/cable/signal ductline water crossings, adjust all electrical/cable/signal ductline elevations to maintain 12" vertical clear separation from all waterlines at no cost to the Board of Water Supply.

10.

Maintain 3'-0" minimum horizontal clear separation between all waterlines, and the nearest electical/cable/signal ductlines paralleling the water system at no cost to the Board of Water Supply.

11.

Maintain 3'-0" minimum horizontal clear separation between electrical/cable/signal appurtenances, (including any modular units) and the nearest water line or water appurtenance. Contractor shall field verify for any conflicts at each electrical/cable/signal appurtenance location. Where conflicts occur, the Contractor shall coordinate with the project engineer to revise the electrical/cable/signal appurtenance to provide the required clearances at no cost to the BWS.

BOARD OF WATER SUPPLY NOTES:

1.

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 1994, as amended, of the Hawaii Highways Division, Department of Transportation, and the City and County of Honolulu Board of Water Supply's "WATER SYSTEM STANDARD", DATED 2002, THE "WATER SYSTEM EXTERNAL CORROSION CONTROL STANDARDS", VOLUME 3, DATED 1991, and all subsequent amendments and additions.
2.

All plans approved by the Board of Water Supply are based solely on the adequacy of the water supply.
3.

The Contractor shall notify BWS Capital Projects Division, Construction Section in writing one week prior to commencing work on the water system.

MANAGER AND CHIEF ENGINEER, BWS  
(FOR WORK AFFECTING BWS FACILITIES IN CITY/STATE  
R/W AND BWS EASEMENTS ONLY)

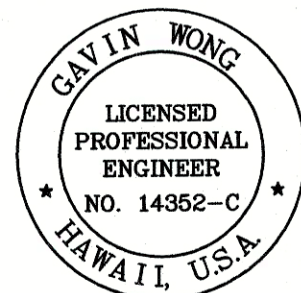
DATE

ABBREVIATIONS:

AFG	Above Finished Grade
BL	Base Line
BC	Bottom Curb
cb	Catch Basin
CL	Center Line
CRM	Concrete Rubble Masonry
di	Drain Inlet
Dia.	Diameter
ep	Existing Edge of Pavement
Ep	Edge of Pavement
es	Existing Edge of Shoulder
ES	Edge of Shoulder
et	Existing Edge of Travel Way
ET	Edge of Travel Way
Exist.	Existing
F'c	Minimum Specified Compressive Strength of Concrete
HDOT	Hawaii Department of Transportation
HMA	Hot Mix Asphalt
KAL	Kalaniana'ole Highway Alignment
LF	Linear Feet
Lt.	Left
MBGR	Existing Metal Beam Guardrail
Max.	Maximum
MGS	Midwest Guardrail System
Min.	Minimum
No.	Number
NTS	Not to Scale
NWC	Normal Weight Concrete
o.c.	On Center
O/S, o/s	Offset
PC	Point of Curvature
PCF	Pounds per Cubic Foot
PT	Point of Tangency
P	Property Line
R	Radius
RPM	Raised Pavement Marker
R/W, r/w	Right-of-way
Rt.	Right
SF	Square Feet
Shts.	Sheets
SOH	State of Hawaii
Sta.	Station
TC	Top Curb
Thk.	Thick
TMK	Tax Map Key
Typ.	Typical
UNO	Unless Noted Otherwise

LEGEND

○ <sub>rm</sub>	Existing Reflector Marker
⊠ <sub>lp</sub>	Existing Light Pole
—swl—	Single White Line
—syl—	Single Yellow Line
==dyl==	Double Yellow Line
s/bar	Existing Stop Bar
byl	Existing Broken Yellow Line
● <sub>mon.</sub>	Existing Monument
⊥	Existing Traffic Sign
↘ <sub>r/w</sub>	Existing Right-of-Way Line
—+—+—+—+—+—+—	Existing Fence



THIS WORK WAS PREPARED BY ME  
OR UNDER MY SUPERVISION.

SIGNATURE

4/30/20

EXPIRATION DATE  
OF LICENSE

12/18/19 Addressed BWS Review Comments

DATE REVISION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

GENERAL NOTES, LEGEND, & ABBREVIATIONS

KALANIANA'OLE HIGHWAY  
TRAFFIC SIGNAL INSTALLATION AT WAA ST.  
Project No. 72C-01-19

Date: November 2019

SHEET No. 3 OF 3 SHEETS

ADD. 4