

GENERAL NOTES

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0300(163)	2020	3	284

1. The project includes removing portions of existing traffic signal equipment, roadway pavement, curb, gutter, sidewalks, driveways, curb ramps, terminal impact attenuators, and guardrails; installing new traffic signal equipment, curb, gutter, sidewalks, driveways, curb ramps, terminal impact attenuators, guardrails, signing, and pavement markings; relocation of existing water meter, laterals, and irrigation system; restoration of asphalt concrete roadway pavement and landscaping.

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 special provisions: Subsection 107.06 - Contractor Duty Regarding Public Convenience; 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 tone for the exact locations and depths of all underground facilities, either shown on the or omitted from the plans, in areas where work, such as the placement of sign posts, traffic signal conduits, etc. may affect these properties. Toning shall be considered incidental to the various contract items and will not be paid for separately. The Contractor shall be held liable for any damages incurred to the existing facilities and/or improvements as a result of his operations.

6. The exact pavement locations and limits or areas to be resurfaced or reconstructed shall be determined in the field by the Engineer.

7. The Contractor shall notify the Department of Transportation Services, Public Transit Division at 768-8396 and Oahu Transit Services, Inc. (bus operations: 848-4578 or 848-6016 and para-transit operations: 454-5041 or 454-5020) of scope of work, location, and proposed closure of any street, traffic lane, sidewalk, or bus stop and duration of project at least two (2) weeks prior to construction.

8. The Contractor shall notify the Emergency Medical Services Department, EMS Operations Chief (phone number: 723-7906), one (1) week prior to construction, informing them of location, scope of work, and dates of lane closure(s). For after hours, in case of emergency notify District Chief on duty (phone number: 723-7844).

9. The Contractor shall notify the Honolulu Fire Department, Fire Communication Center (phone number: 723-3473), one (1) week prior to construction, informing them of location, scope of work, and dates of lane closure(s).

10. For construction work at the intersection of Farrington Highway and Nanaikeola Street, the Contractor shall notify the Honolulu Police Department, Kapolei Police Station (phone number: 723-8400), one (1) week prior to construction, informing them of location, scope of work, and dates of lane closure(s).

11. For construction work at the intersection of Kahuapaani Street and Ulune Street, the Contractor shall notify the Honolulu Police Department, Pearl City Police Station (phone number: 723-8800), one (1) week prior to construction, informing them of location, scope of work, and dates of lane closure(s).

12. For construction work at the intersection of Vineyard Boulevard and Queen Emma Street, the Contractor shall notify the Honolulu Police Department, Downtown Police Station, District 1 (phone number: 723-3327), one (1) week prior to construction, informing them of location, scope of work, and dates of lane closure(s).

13. For construction work at the intersections of H-1 Freeway off-ramp Exit 26A with Koko Head Avenue and Kalaniana'ole Highway with Kalaniki Street/Waieli Street, the Contractor shall notify the Honolulu Police Department, Downtown Police Station, District 7 (phone number: 723-3369), one (1) week prior to construction, informing them of location, scope of work, and dates of lane closure(s).

14. The Contractor shall notify the Engineer in writing, two (2) weeks prior to starting paving operations.

15. The Contractor shall remove and dispose of all existing raised pavement markers prior to the overlaying of asphalt concrete. This work shall be considered incidental to asphalt concrete pavement, Mix No. IV and will not be paid for separately.

16. Smooth riding connections shall be constructed at all connections between new and existing pavement, sidewalk, ramps, driveway, curb, and gutter.

17. Existing drainage system shall 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.

18. The Contractor shall provide for access to and from all existing streets at all times.

19. All saw cutting work shall be considered incidental to asphalt concrete pavement, mix no. IV and not be paid for separately. Removal of slurry generated by all saw cutting work shall be incidental to the contract items and will not be paid for separately.

20. Prime coat/tack coat shall be incidental to asphalt concrete pavement, mix no. IV and V and will not be paid for separately.

21. The Contractor's attention is directed to Subsection 401.03 of the special provisions. All longitudinal and transverse tapers within the traveled way shall be removed prior to commencing and continuing of paving operations.

22. Per Subsection 107.02, the Contractor shall obtain all permits and licenses required to perform the work; and shall be responsible for for identifying, acquiring, and paying for all permits and licenses required to perform the work.

23. The Contractor is reminded that this is a Federal-Aid project and, as such, shall conform to the requirements in Subsection 106.11. For Federal-Aid projects, the major quantities of steel and iron construction material that are permanently incorporated into the project shall consist of American-made materials only in accordance with 23 CFR Subpart 635.410 and 49 CFR 661.

24. The Contractor shall coordinate all lane closures with other projects.

25. Per Subsection 645.03, the Contractor shall furnish two (2) police officers for each location that requires work zone traffic control.

26. The Contractor shall not do operations involving traffic lane closures or slow down of traffic during the following peak hours:

Morning peak hours - 6:30 a.m. to 8:30 a.m.

Afternoon peak hours - 3:00 p.m. to 6:00 p.m.

Exceptions to the above peak hours, as required by the contract documents, shall require the acceptance of the Engineer.

27. The Contractor may use Figures 1 through 7 in Section 645 of the Hawaii Standard Specifications for Road and Bridge Construction, 2005, if necessary, in addition to the traffic control plans on sheets 152 through 190.

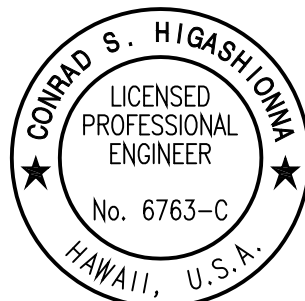
28. Traffic signal systems shall remain operational at all times during construction. Existing traffic signal standards, vehicle signal heads, and pedestrian signal heads may be removed ONLY after new equipment is operational.

29. 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.

30. All materials shall be new and free from defects, such as rust, damage, or corrosion. The Engineer will determine acceptability. No payment will be made for material that is not accepted by the Engineer. Removed signs or guardrails shall not be reused.

31. The Contractor shall be responsible for coordinating with the HDOT Surveyor and referencing monuments prior to disturbance of survey monuments. All survey monuments disturbed or destroyed by the Contractor shall be reinstalled at no cost to the State. Only licensed State of Hawaii Land Surveyor's shall reinstall monuments.

32. In the event subsurface historic resources, including human skeletal remains, structural remains, cultural deposits, artifacts, sand deposits, or sink holes are identified during the demolition and/or construction work, the Contractor shall cease work in the immediate vicinity of the find, protect the find from additional disturbance, and contact the State Historic Preservation Division, at (808) 692-8015.



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Conrad Higashimura

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
CONSTRUCTION NOTES
Traffic Signal Modernization, Oahu, Phase 1
Federal-Aid Project No. STP-0300(163)
Scale: none Date: July 2020
SHEET No. N-1 OF 11 SHEETS

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
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PROJECT AREA NOTES:

1.

The Contractor shall construct the project by geographical area. The areas are listed in table below.
2.

The sequence of geographical area construction shall be determined by the Contractor and approved by the State with the requirement that the Contractor shall begin construction at Area "A" in January.
3.

All construction shall be completed in one geographical area prior to beginning construction in a new geographical area unless otherwise approved by the State. The Contractor shall not work in multiple geographical areas concurrently without authorization from the State. Failure to complete work in a geographical area will be subject to Section 108.09 "Rental Fee for Unauthorized Lane Closure or Occupancy."
4.

The Contractor shall notify the State of the planned sequence of construction a minimum of two weeks prior to beginning work.

Table – Geographical Area		
Area	Location	Intersection
A	Nanakuli	Farrington Highway with Nanaikeola Street
B	Halawa	Kahuapaani Street with Ulune Street/Ulune Extension
C	Honolulu	Vineyard Boulevard with Queen Emma Street
D	Kaimuki	Interstate Route H-1 Exit 26A with Koko Head Avenue
E	Waialae	Kalanianaʻole Highway with Kalaniiki Street/Waieli Street

ABBREVIATIONS

A.C.	Asphalt Concrete
Approx.	Approximate
℄	Base Line
BC	Bottom of Curb
BW	Bottom of Wall
Blvd.	Boulevard
℄	Center Line
Ch	Chord
C & C	City & County of Honolulu
Clr.	Clear
Conc.	Concrete
CMU	Concrete Masonry Unit
CRM	Concrete Rubble Masonry
Demo.	Demolition
Dept.	Department
Det.	Detail
DOT	Dept. of Transportation
Dwy.	Driveway
E.W.	Each Way
Elev.	Elevation
ESCP	Erosion and Sediment Control Plan
Exist.	Existing
Ex.	Existing
G	Gutter
Ft.	Feet
HECO	Hawaiian Electric Company
HMA	Hot Mix Asphalt
HTCO	Telephone Company
Hwy.	Highway
Inv.	Invert
Irr.	Irrigation
Lc	Length of Curve
L.F.	Linear Feet
Lt.	Left
Max.	Maximum
Min.	Minimum
Mon.	Street Monument
No.	Number
o.c.	On Center
O.W.	Outside Diamenter
o/s	Offset
P	Top of Pavement

Pav't	Pavement
PPB	Pedestrian Push Button
P.C.	Point of Curvature
P.C.C.	Portland Cement Conc.
P.O.C.	Point on Curve
P.T.	Point of Tangency
℄	Property Line
R	Radius
Rd.	Road
Rt.	Right
ROW	Right-of-Way
R/W	Right-of-Way
Sht.	Sheet
Shldr.	Shoulder
St.	Street
Sta.	Station
Std.	Standard
T	Tangent
Thk.	Thick
TMK	Tax Map Key
TC	Top of Curb
TW	Top of Wall
Trans.	Transition
Typ.	Typical
W.W.F.	Welded Wire Fabric

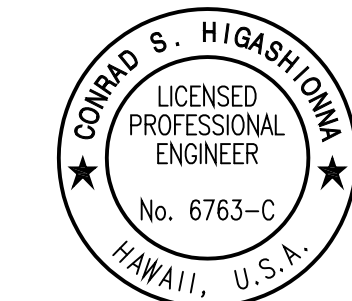
LEGEND

—e—oh—	Existing Electrical Overhead Line
—e—	Existing Electrical Duct
○jp	Existing Joint Utility Pole
○emh	Existing Electrical Manhole
—t—	Existing Telephone Duct
○tmh	Existing Telephone Manhole
—catv—	Existing Cable TV Duct
—w ₁₂ —	Existing 12" Water Line
○wmh	Existing Water Manhole
○arv	Existing Water Air Relief Valve
•wv	Existing Water Valve
⊠wm	Existing Water Meter
—s ₈ —	Existing 12" Sewer Line
⊙smh	Existing Sewer Manhole
—g ₄ —	Existing 4" Gas Line
○gv	Existing Gas Valve
⊙mon	Existing Monument
—d ₂₄ —	Existing 24" Drain Line
○dmh	Existing Storm Drain Manhole
▤gdi	Existing Grated Drop Inlet
▭○cb	Existing Catch Basin
⌞	Existing Traffic Sign
—sl—	Existing Street Light Duct
▭slpb	Existing Street Light Box
—sl	Existing Highway Lighting Standard
⊠tss	Existing Traffic Signal Standard
▭tspb	Existing Traffic Signal Pullbox
⇌ppb-3	Existing Pedestrian Push Button/Label
⇌PPB-2	New Pedestrian Push Button/Label
—+—	Existing Guardrail
⊙B-1	Boring Location & Number

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Conrad Higashimura

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONSTRUCTION NOTES

Traffic Signal Modernization,
Oahu, Phase 1

Federal-Aid Project No. STP-0300(163)

Scale: none Date: July 2020

SHEET No. N-2 OF 11 SHEETS

NOTES FOR CONSTRUCTION WITHIN STATE RIGHT-OF-WAY

1. The Contractor shall obtain a permit to perform work upon State highways from the Oahu District Engineer, State Highways, at 727 Kakoi Street, prior to commencement of work within State highway right-of-way.
2. Construction and restoration of all existing highway facilities within the State's right-of-way, including the Legal Relations and Responsibility to the Public, shall be in accordance with the current Hawaii Standard Specifications for Road and Bridge Construction, 2005, and the Specifications for Installation of Miscellaneous Improvements within State Highways, of the State Highways Division.
3. Work may be performed only between the hours of 8:30 a.m. and 3:00 p.m., Monday through Friday, except holidays, unless otherwise permitted by the District Engineer.

During work hours, only one lane of traffic shall be closed, unless otherwise approved in writing by the District Engineer.

At certain locations, "No Lane Closure" will be allowed during the "Back to School Jam", Thanksgiving weekend, Christmas/New Year period and at other times as directed by the Highways Division.

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 public traffic. All such protective facilities and precautions to be taken shall conform with the "Administrative Rules of Hawaii Governing the Use of Traffic Control Devices at Work Sites on or Adjacent to Public Streets and Highways" adopted by the Director of Transportation, and the current U.S. Federal Highway Administration "Manual on Uniform Traffic Control Devices, Part 6 – Temporary Traffic Control".

Lane closures shall conform to the traffic control plans incorporated into these construction plans and must be approved by the Division prior to the issuance of the permit.

5. No material and/or equipment shall be stockpiled or otherwise stored within the highway right-of-way, except at locaions designated in writing and approved by the District Engineer.
6. Compaction tests shall be taken in accordance with the specifications for installation of miscellaneous improvements within State highways, as follows:
- a. Subbase: One (1) compaction test per lift per 1,000 square feet of roadway.
 - b. Base Course: One (1) compaction test per lift per 1,000 square feet of roadway.
 - c. One (1) compaction test per 300 lineal feet of trench.
 - d. A copy of the test results shall be submitted to the Resident Engineer.

7. Prior to commencing trench excavation work, the Contractor shall take a profile along the centerline of the proposed utility trench. This information shall be used in the verification of restoring the roadway to its original condition. A copy of the profile shall be submitted to the District Engineer.

8. The Contractor shall provide an adequate and safe non-skid bridging material, including shoring, over trenches in pavement areas. The bridging shall be able to support all types of vehicular traffic.

9. Unless otherwise noted, no trench shall be opened more than 300 feet in advance of installed and tested pipeline and/or duct line.

10. Existing drainage systems shall be functional at all times.

11. The Contractor shall exercise care to minimize damages to existing highway improvements. All damages shall be repaired by the Contractor, at his expense, to the satisfaction of the District Engineer.

12. All regulatory, guide and construction signs and barricades shall have a high-intensity reflective background.

13. The Contractor shall submit requests for detours and lane closures in accordance with Hawaii Standard Specification Subsection 645.03(F) and with the minimum time frames required for implementation. Once the request has been approved by HDOT, the Contractor shall provide written Weekly Lane Closure Request to the HDOT Construction field office at least one (1) week prior to commencing work.

14. Driveways shall be kept open unless the owners of the property using these right-of-way are otherwise provided for satisfactorily.

15. Where pedestrian walkways exist, they shall be maintained in a safe and passable condition or other facilities for pedestrians shall be provided. Passages between walkways at intersections shall likewise be provided. All walkways shall conform to the ADA requirements.

16. The Contractor shall reference, to the satisfaction of the District Engineer, all existing traffic signs, posts and pavement markings prior to the commencement of construction. The Contractor shall replace or repair all traffic signs, posts and pavement markings disturbed by his activities, at his expense, unless directed otherwise by the District Engineer or his representative.

17. The Contractor shall exercise care when performing work in or adjacent to the State highway right-of-way. Damages to all existing buried facilities, surface facilities, and overhead utility lines shall be immediately reported to the respective utility companies, and/or City or State agencies. The repair work shall be done at the Contractor's expense.

18. The Contractor shall notify the State Highway's highway lighting supervisor (837-8056) one (1) week prior to commencing work.

19. The Contractor shall notify the City Department of Transportation Services, Traffic Signal Engineer (523-4589), one (1) week prior to any signalization intersection work.

20. Traffic signals shall be kept operational during construction. Temporary operational microwave or other approved detection devices shall be installed one (1) week prior to any signalization intersection excavation work. All work shall be done in accordance to the requirements of the Department of Transportation Services, City and County of Honolulu, and paid for by the Contractor.

7. The Contractor shall notify the Department of Transportation Services, Public Transit Division at 768-8396 and Oahu Transit Services, Inc. (bus operations: 848-4578 or 848-6016 and para-transit operations: 454-5041 or 454-5020) of scope of work, location, and proposed closure of any street, traffic lane, sidewalk, or bus stop and duration of project at least two (2) weeks prior to construction.

8. The permit to perform work upon State Highways may be revoked because of default in any of the following, but not limited to, conditions:
- a. Work performed before or after permitted hours.
 - b. Failure to maintain roadway surfaces in a smooth and safe condition.
 - c. Failure to clean up construction debris generated from project work.
 - d. Failure to provide proper traffic control.
 - e. Failure to replace damaged pavement markings and signs.

23. The Contractor shall notify the HDOT Construction field office in writing at least one week of all upcoming work. This work shall include any backfilling and compacting trench material; any placing and compacting of base course material; and any paving operations. Any trench restoration work performed by the Contractor that is not witnessed by a State representative will required to be removed and restored with a State representative present. All restoration work will be at the Contractor's expense.

24. Temporary cold mix trench patches will be permitted in any given area for a maximum duration of two weeks, and shall be a minimum of 2 inches thick. All temporary patches shall be placed over properly placed and compacted backfill and base course layers. Contractor shall be responsible for maintaining all temporary patches and to make repairs to unsatisfactory patches within 24 hours.

25. The Contractor will make every effort to minimize the use and the duration of use of steel plates. All steel plates shall have a non-skid surface. The State may require the backfilling and patches of trenches due to the excessive usage of steel plates.

26. Plastic marking tape. Provide plastic marking tape that is acid and alkali resistant polyethylene film 6 inches wide with minimum thickness of 0.004 inch. Provide tape with minimum strength of 1,750 PSI lengthwise and 1,500 PSI crosswise. Manufacture tape with integral wires, foil backing or other means to enable detection by a metal detector when tape is buried up to 3 feet deep. Manufacture tape specifically for marking and locating underground utilities. Provide the metallic core of the tape encased in a protective jacket or provided with other means to protect it from corrosion. Conform to the following tape color and bear a continuous printed inscription describing the specific utility.

Red: Electric

Yellow: Gas, oil & dangerous materials

Orange: Telephone, telegraph, television, police & fire communications

Blue: Water systems

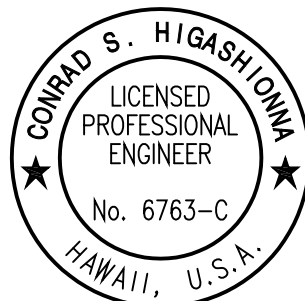
Green: Sewer systems

27. The Contractor shall place an advertisement in the newspaper for the temporary road closure. The "Notice to Motorist" shall be placed in the Honolulu Star Advertiser for three consecutive days within one week before the temporary lane closures. The "Notice to Motorist" shall be in accordance with the current Hawaii Standard Specifications for Road and Bridge Construction, 2005, Subsection 107.06 – Contractor Duty Regarding Public Convenience and Subsection 645.03(H) – Advertisement.

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Traffic Signal Modernization, Oahu, Phase 1
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Scale: none Date: July 2020
SHEET No. N-3 OF 11 SHEETS

WATER POLLUTION AND EROSION CONTROL NOTES

A. GENERAL:

1. See Special Provisions Section 209 – Water Pollution and Erosion Control. Section 209 describes but is not limited to: submittal requirements; scheduling of a water pollution and erosion control conference with the Engineer; construction requirements; method of measurement; and basis of payment. In addition, Appendix A lists potential pollutant sources and corresponding BMPs used to mitigate the pollutants.
2. Follow the guidelines in the current HDOT Construction Best Management Practices Field Manual in developing, installing and maintaining the Best Management Practices (BMP) for the project. For any conflicting requirements between the Manual and applicable bid documents, the applicable bid documents will govern. Should a requirement not be clearly described within the applicable bid documents, the Contractor shall notify the Engineer immediately for interpretation. For the purposes of clarification under Note A.2, "applicable bid documents" include the construction plans, standard specifications, Special Provisions, Permits, and the Storm Water Pollution Prevention Plan (SWPPP) when applicable.
3. Follow the guidelines in the Honolulu's City & County "Rules Relating to Soil Erosion Standard and Guidelines" along with applicable Soil Erosion Guidelines for projects on Maui, Molokai, Kauai, and Hawaii.
4. The Engineer may assess liquidated damages of up to \$27,500 for non-compliance of each BMP requirement and each requirement stated in Section 209 and special provisions, for every day of non-compliance. There is no maximum limit on the amount assessed per day.
5. The Engineer will deduct the cost from the progress payment for all citations received by the Department for non-compliance, or the Contractor shall reimburse the State for the full amount of the outstanding cost incurred by the State.
6. If necessary, install a rain gage prior to any field work including the installation of any site-specific best management practices. The rain gage shall have a tolerance of at least 0.05 inches of rainfall. Install the rain gage on the project site in an area that will not deter rainfall from entering the gage opening. Do not install in a location where rain water may splash into rain gage. The rain gage installation shall be stable and plumbed. Do not begin field work until the rain gage is installed and site-specific best management practices are in-place.
7. Submit Site-Specific BMP Plan to the Engineer along with a completed Site-Specific BMP Review Checklist within 30 calendar days of contract execution. The Site-Specific BMP Review Checklist may be obtained from <http://www.stormwaterhawaii.com>.

B. WASTE DISPOSAL:

1. Waste Materials

Collect and store all waste materials in a securely lidded metal dumpster or roll off container with cover to keep rain out or loss of waste during windy conditions. The dumpster shall meet all local and State solid waste management regulations. Deposit all trash and construction debris from the site in the dumpster. Empty the dumpster weekly or when the container is two-thirds full, whichever is sooner. Do not bury construction waste materials onsite. The Contractor's supervisory personnel shall be instructed regarding the correct procedure for waste disposal. Post notices stating these practices in the office trailer, on a weatherproof bulletin board, or other accessible location acceptable to the Engineer. The Contractor shall be responsible for seeing that these procedures are followed. Submit the Solid Waste Disclosure Form from Construction Site to the Engineer within 30 calendar days of contract execution. Provide a copy of all the disposal receipts from the facility permitted by the Department of Health to receive solid waste to the Engineer monthly. This should also include documentation from any intermediary facility where solid waste is handled or processed.

2. Hazardous Waste

Dispose all hazardous waste materials in the manner specified by local or State regulations and by the manufacturer. The Contractor's site personnel shall be instructed in these practices and shall be responsible for seeing that these practices are followed.

3. Sanitary Waste

Collect all sanitary waste from the portable units a minimum of once per week, or as required. Position sanitary facilities where they are secure and will not be tipped over or knocked down.

C. EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:

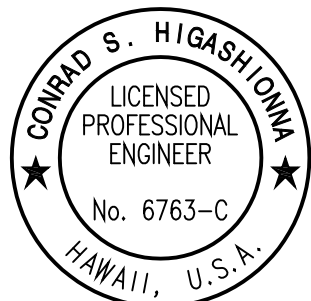
1. For projects with a NPDES Permit for Construction Activities, inspect at the following intervals. For construction areas discharging to nutrient or sediment impaired waters, inspect all control measures at least once each week and within 24 hours of any rainfall event of 0.25 inches or greater within a 24 hour period. For construction areas discharging to waters not impaired for nutrient or sediments, inspect all control measures weekly. Inspections are only required during the project's normal working hours. The discharge point water classification may be found in the SWPPP.
2. For projects without a NPDES Permit for Construction Activities, inspect all control measures weekly.

3. Maintain all erosion and sediment control measures in good working order. If repair is necessary, initiate repair immediately and complete by the close of the next work day if the problem does not require significant repair or replacement, or if the problem can be corrected through routine maintenance. When installation of a new erosion or sediment control or a significant repair is needed, install the new or modified control or complete the repair no later than 7 calendar days from the time of discovery. "Immediately" means the Contractor shall take all reasonable measures to minimize or prevent discharge of pollutants until a permanent solution is installed and made operational. If a problem is identified at a time in the day in which it is too late to initiate repair, initiation of repair shall begin on the following work day.
4. Remove built-up sediment from silt fence when it has reached one-third the height of the fence. Remove sediment from other perimeter sediment control devices when it has reached one-half the height of the device.
5. Inspect silt screen or fence for depth of sediment, tears, to verify that the fabric is securely attached to the fence posts or concrete slab and to verify that the fence posts are firmly in the ground. Inspect and verify the bottom of the silt screen is buried a minimum of 6 inches below the existing ground.
6. Inspect temporary and permanent seeding and planting for bare spots, washouts and healthy growth.
7. Complete and submit to the Engineer a maintenance inspection report within 24 hours after each inspection.
8. Provide a stabilized construction entrance at all points of exit onto paved roads to reduce vehicle tracking of sediments. Include stabilized construction entrance in the Water Pollution, Dust, and Erosion Control submittals. Minimum length should be 50 feet. Minimum width should be 30 feet. Minimum depth should be 12 inches or as recommended by the soils engineer and underlain with geo-textile fabric. If minimum dimensions cannot be met, provide other stabilization techniques that remove sediment prior to exit. Clean the paved street adjacent to the site entrance daily or as required to remove any excess mud, cold-planed materials, dirt or rock tracked from the site. Do not hose down the street without containing or vacuuming wash water. Cover dump trucks hauling materials from the construction site with a tarpaulin. Remove sediment tracked onto the street, sidewalk, or other paved area by the end of the day in which the track-out occurs.

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HAWAII	HAW.	STP-0300(163)	2020	6	284

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Conrad Higashimura

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
CONSTRUCTION NOTES
Traffic Signal Modernization, Oahu, Phase 1
Federal-Aid Project No. STP-0300(163)
Scale: none Date: July 2020
SHEET No. N-4 OF 11 SHEETS

WATER POLLUTION AND EROSION CONTROL NOTES (CONT.)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0300(163)	2020	7	284

C. EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:

9. Include designated Concrete Washout Area(s) in the Water Pollution, Dust, and Erosion Control submittals.
10. Submit the name of a specific individual designated responsible for inspections, maintenance and repair activities and filling out the inspection and maintenance report.
11. Personnel selected for the inspection and maintenance responsibilities shall receive training from the Contractor. They shall be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite in good working order.
12. Contain, remove, and dispose slurry generated from saw cutting of pavement in accordance with approved BMP practices. Do not allow discharge into the drainage system or State waters.
13. For projects with a NPDES Permit for Construction Activities, immediately initiate stabilizing exposed soil areas upon completion of earth-disturbing activities for areas where earth-disturbing activities have permanently or temporarily ceased. Earth-disturbing activities have permanently ceased when clearing and excavation within any area of the construction site that will not include permanent structures has been completed. Earth-disturbing activities have temporarily ceased when clearing, grading, and excavation within any area of the site that will not include permanent structures will not resume (i.e., the land will be idle) for a period of 14 or more calendar days, but such activities will resume in the future. For construction areas discharging into waters not impaired for nutrients sediments, complete initial stabilization within 14 calendar days after the temporary or permanent cessation of earth-disturbing activities. For construction areas discharging into nutrient or sediment impaired waters, complete initial stabilization within 7 calendar days after the temporary or permanent cessation of earth-disturbing activities. Classification of water at the discharge point may be found in the SWPPP.
14. For project without an NPDES Permit for Construction Activities, complete initial stabilization within 14 calendar days after the temporary or permanent cessation of earth-disturbing activities.

D. GOOD HOUSEKEEPING BEST MANAGEMENT PRACTICES:

9. Materials Pollution Prevention Plan

- a. Applicable materials or substances listed below are expected to be present onsite during construction. Other materials and substances not listed below shall be added to the inventory.

Concrete	Herbicides and Pesticides
Cleaning Solvents	Tar
Detergents	Curing Compounds
Wood	Fertilizers
Paint (enamel and latex)	Adhesives
Masonry Block	Pertroleum Based Products
Metal Studs	

- b. Used Material Management Practices to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff. Make an effort to store only enough product as is required to do the job.
- c. Store all materials stored onsite in a neat, orderly manner in their appropriate containers and if possible under a roof or other enclosure.
- d. Keep products in their original containers with the original manufacturer's label.
- e. Do not mix substances with one another unless recommended by the manufacturer.
- f. Whenever possible, use a product up completely before disposing of the container.
- g. Follow manufacturer's recommendations for proper use and disposal.
- h. Conduct a daily inspection to ensure proper use and disposal of materials onsite.

2. Hazardous Material Pollution Prevention Plan

- a. Keep products in original containers unless they are not resealable.
- b. Retain original labes and Safey Data Sheets (SDS), formerly Material Safety Data Sheets (MSDS).
- c. Dispose of surplus products according to manufacturers' instructions and local and State regulations.

3. Onsite and Offsite Product Specific Plan

The following product specific practices shall be followed onsite:

a. Petroleum Based Products:

Monitor all onsite vehicles for leaks and perform regular preventive maintenance to reduce the chance of leakage. Store petroleum products in tightly sealed containers which are clearly labeled. Apply asphalt substances used onsite according to the manufacturer's recommendation.

b. Fertilizers:

Apply fertilizers used only in the minimum amounts recommended by the manufacturer and Federal, State, and local requirements. Avoid applying just before a heavy rain event. Apply at the appropriate time of year for the location, and preferably timed to coincide as closely as possible to the period of maximum vegetation uptake and growth. Once applied, work fertilizer into the soil to limit exposure to storm water. Do not apply to storm conveyance channels with flowing water. Storage shall be in a covered shed or in an area where fertilizer will not come into contact with precipitation or stormwater. Transfer the contents of any partially used bags of fertilizer to a sealable plastic bin to avoid spills.

c. Paints:

Seal and store all containers when not required for use. Do not discharge excess paint to the drainage system, sanitary sewer system, or State waters. Dispose properly according to manufacturers' instructions and State and local regulations.

d. Concrete Trucks:

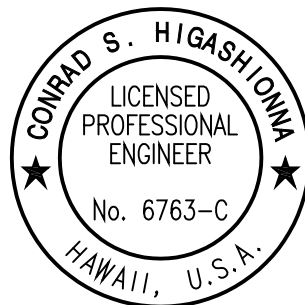
Washout or discharge concrete truck drum wash water only at a designated site as far as practicable from storm drain inlets or State waters. Do not discharge water in the drainage system or State waters. Disposal by percolation is prohibited. Clean disposal site as required or as requested by the Engineer.

4. Spill Control Plan

- a. Post a spill prevention plan to include measures to prevent and clean up each spill.
- b. The Contractor shall be the spill prevention and cleanup coordinator. Designate at least three site personnel who shall receive spill prevention and cleanup training. These individuals shall each become responsible for a particular phase of prevention and cleanup. Post the names of responsible spill personnel in the material storage area on a weatherproof bulletin board or other accessible location acceptable to the Engineer and in the office trailer onsite.
- c. Clearly post manufacturers' recommended methods for spill cleanup. Make site personnel aware of the procedures and location of the information and cleanup supplies
- d. Keep ample materials and equipment necessary for spill cleanup in the material storage area onsite.
- e. Clean up all spills immediately after discovery.
- f. Keep the spill area well ventilated. Personnel shall wear appropriate protective clothing to prevent injury from contact with a hazardous substance

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Conrad Higashimura

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
CONSTRUCTION NOTES
<u>Traffic Signal Modernization,</u> <u>Oahu, Phase 1</u>
Federal-Aid Project No. STP-0300(163)
Scale: none Date: July 2020
SHEET No. N-5 OF 11 SHEETS

WATER POLLUTION AND EROSION CONTROL NOTES (CONT.)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0300(163)	2020	8	284

g. Report spills of toxic hazardous material to the appropriate State or local government agency, regardless of the size. Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302 occurs during a 24-hour period, the Contractor shall notify the Engineer as soon as the Contractor has knowledge of the discharge. The Engineer will notify the National Response Center (NRC) at (800) 424-8802, the Clean Water Branch during regular business hours at 586-4309, and the Hawaii State Hospital Operator at 247-2191 and the Clean Water Branch (DOH-CWB) via email at cleanwaterbranch@doh.hawaii.gov during non-business hours immediately. The Contractor shall also provide to the Engineer, within 7 calendar days of knowledge of the release, a description of the release, the circumstances leading to the release, and the date of the release. The Engineer will provide this information to the DOH-CWB. The Engineer will provide information to the NRC if requested.

E. PERMIT REQUIREMENTS:

- The calculated land disturbance area for this project based on the construction plans is 0.64 acres not including Contractor Staging and Storage areas. If the total of the disturbed area and the Contractor Staging and Storage area is one acre or greater, the Contractor shall obtain the NPDES Construction Activities Permit using HDOT's latest SWPPP template. See Hawaii Administrative Rules Chapter 11-55, Appendix C for the definition of land disturbance. The Contractor shall be responsible for obtaining the required NPDES Construction Activities Permit and complying with the requirements of HAR 11-55 including, but not limited to:
 - Deadlines for initiating and completing initial stabilization.
 - Increased inspection frequency and installation of rain gage if applicable.
 - Deadlines to initiate and complete repairs to BMPs.
 - Reporting requirements and corrective action reports.
- Comply with all applicable State and Federal Permit conditions. Permits may include, but not limited to the following:
 - NPDES Permit for Construction Activities
 - NPDES Permit for Construction Dewatering
 - NPDES Permit for Hydrotesting Waters
 - Water Quality Certification
 - Stream Channel Alteration Permit
 - Section 404 Army Corps of Engineer Permit

F. SITE-SPECIFIC BMP REQUIREMENTS:

Each BMP below is referenced to the corresponding section of the current HDOT Construction Best Management Practices Field Manual and appropriate Supplemental Sheets. The Manual may be obtained from the HDOT Statewide Stormwater Management Program Website at <http://www.stormwaterhawaii.com/resources/contractors-and-consultants/> under Construction Best Management Practices Field Manual. Supplemental BMP sheets are located at <http://www.stormwaterhawaii.com/resources/contractors-and-consultants/storm-water-pollution-prevention-plan-swppp/> under Concrete Curing and Irrigation Water.

The requirements for Water Pollution, Dust, and Erosion Control submittals are included in Section 209 of the Hawaii Standard Specifications for Road and Bridge Construction dated 2005 and applicable Special Provisions. A list of pollutant sources and corresponding BMP used to mitigate the pollutants are included in Section 209 of the Special Provisions under Appendix A.

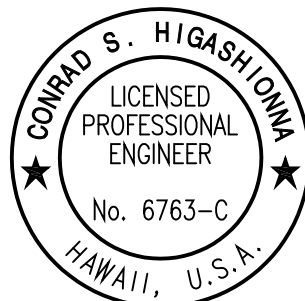
Follow the requirements below:

- Protect all Drainage Inlets receiving runoff from disturbed areas (SC-2).
- Contain on-site runoff using Perimeter Sediment Controls
 - SC-1 Silt Fence.
 - SC-5 Vegetated Filter Strips and Buffers
 - SC-8 Compost Filter Berm
 - SC-13 Sandbag Barrier
 - SC-14 Brush or Rock Filter
- Control offsite runoff from entering construction area
 - EC-8 Run-On Diversion
 - SC-6 Earth Dike
 - SC-7 Temporary Drains and Swales
- Incorporate applicable Site Management BMP
 - SM-1 Employee Training
 - SM-2 Material Delivery and Storage
 - SM-3 Material Use
 - SM-4 Protection of Stockpiles
 - SM-6 Solid Waste Management
 - SM-7 Sanitary/Septic Waste Management
 - SM-9 Hazardous Waste Management
 - SM-10 Spill Prevention and Control
 - SM-11 Vehicle and Equipment Cleaning

- SM-12 Vehicle and Equipment Maintenance
 - SM-13 Vehicle and Equipment Refueling
 - SM-14 Scheduling
 - SM-15 Location of Potential Sources of Sediment
 - SM-16 Preservation of Existing Vegetation
 - SM-18 Dust Control
- Contain pollutants within the Construction Staging/Storage Area BMP with applicable Perimeter Sediment Controls and Site Management BMP. Include a Stabilized Construction Entrance/Exit (EC-2) for all areas which exit onto a paved street. Restrict vehicle access to these points.
 - Manage Concrete Waste including installing a Concrete Washout Area (SM-5) and properly disposing of Concrete Curing Water (California Stormwater BMP Handbook NS-12 Concrete Curing).
 - Remove saw cut slurry and hydrodemolition water from the site by vacuuming. Provide storm drain protection and/or perimeter sediment controls during saw cutting and hydrodemolition work.

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Conrad Higashimura

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
CONSTRUCTION NOTES
Traffic Signal Modernization, Oahu, Phase 1
Federal-Aid Project No. STP-0300(163)
Scale: none Date: July 2020
SHEET No. N-6 OF 11 SHEETS

CONSTRUCTION NOTES

FED ROAD DIST. NO.	STATE	FED AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0300(163)	2020	9	284

1. All applicable construction work shall be done in accordance with the, Standard Specifications for Public Works construction, September 1986 and Standard Details for Public Works Construction, September 1984, as amended, of the Department of Public Works, City and County of Honolulu and the Counties of Kauai, Maui, and Hawaii.
2. The underground pipes, cables or duct lines known to exist by the engineer from his search of records are indicated on the plans. The Contractor shall verify the locations and depths of the facilities and exercise proper care in excavating in the area. Wherever connections of new utilities to existing utilities are shown on the plans, the Contractor shall expose the existing lines at the proposed connections to verify their locations and depths prior to excavation for new lines. The Contractor shall contact the Hawaii One Call Center at 811 prior to any work in public right of way or on private property.
3. No Contractor shall perform any construction operation so as to cause falling rocks, soil or debris in any form to fall, slide or flow into existing City drainage systems, or adjoining properties, streets or natural watercourses. Should such violations occur, the Contractor may be cited and the Contractor shall immediately make all remedial actions necessary.
4. The General Contractor/Developer/Owner of the project shall be responsible for conformance with applicable provisions of the Hawaii Administrative Rules, Title 11, Chapter 54, "Water Quality Standards," and Title 11, Chapter 55, "Water Pollution Control", as well as Chapter 14 of the Revised Ordinances of Honolulu, as amended. Best Management Practices shall be employed at all times during construction.

The General Contractor/Developer/Owner of the project shall obtain National Pollutant Discharge Elimination System (NPDES) Permit coverage(s) for the following:

- a. Storm water discharges associated with construction activities that disturb one (1) acre or more, and
- b. Discharges of hydrotesting effluent, dewatering effluent, and well drilling effluent to state waters.

In accordance with State law, all discharges related to project construction or operations are required to comply with State Water Quality Standards (Hawaii Administrative Rules, Chapter 11-54). Best Management Practices shall be used to minimize or prevent the discharge of sediment, debris, and other pollutants to State waters. Permit coverage is available from the Department of Health, Clean Water Branch at <http://health.hawaii.gov/cwb>. The owner/developer/contractor is responsible for obtaining other Federal, State, or local authorizations as required by law.

5. The Contractor shall notify the Civil Engineering Branch, Department of Planning and Permitting, at 768-8084 to arrange for inspection services and submit two (2) sets of approved construction plans seven (7) days prior to commencement of construction work.

- ## 6. Confined Space

For entry by City personnel, including inspectors, into a permit required confined space as defined in 29 CFR Part 1910.146(b), the Contractor shall be responsible for providing:

- I. All safety equipment required by the confined space regulations applicable to all parties other than the construction industry, to include, but not limited to the following:
 - a. Full body harnesses for up to two personnel.
 - b. Lifeline and associated clips.
 - c. Ingress/egress and fall protection equipment.
 - d. Two-way radios (walkie-talkies) if out of line-of-sight.
 - e. Emergency (escape) respirator (10 minute duration).
 - f. Cellular telephone to call for emergency assistance.
 - g. Continuous gas detector (calibrated) to measure oxygen, hydrogen sulfide, carbon monoxide and flammables (capable of monitoring at a distance at least 20 feet away).
 - h. Personal multi-gas detector to be carried by inspector.

- II. Continuous forced air ventilation adequate to provide safe entry conditions.
- III. One attendant/rescue personnel topside (two, if conditions warrant it).

7. Pursuant to Chapter 6E, HRS, in the event any artifacts or human remains are uncovered during construction operations, the Contractor shall immediately suspend work and notify the Honolulu Police Department, the State Department of Land and Natural Resources—Historic Preservation Division (692-8015). In addition, for non-City projects, the Contractor shall inform the Civil Engineering Branch, Department of Planning and Permitting (768-8084); and for City projects, notify the responsible City agency.

8. For bench mark, see sheets 22, 23, 24, 25, and 26. The Contractor shall survey and stake out the work per Section 105.10 Construction Stakes, Lines and Grades of the Hawaii Standard Specifications for Road and Bridge Construction, 2005.

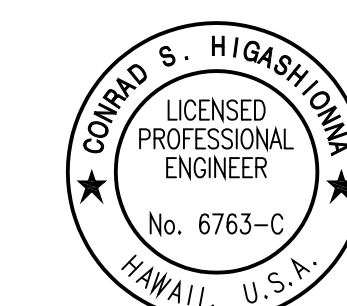
9. The Contractor shall verify and check all dimensions and details shown on the drawings prior to the start of construction. The Contractor shall immediately notify the Engineer of any discrepancy or conflict found in the field prior to or during the course of construction and shall not proceed with construction until the Engineer resolves the said discrepancy or conflict.

10. Unless otherwise noted, all existing pavement, utility lines and other improvements damaged or undermined as a result of the Contractor's operations shall be reconstructed or replaced by the Contractor at his own expense to match existing conditions.

11. All visible utility structures have been located in the field. However, connections to underground utility lines as shown are unverified and compiled from existing data. Underground utilities shown hereon are for information only, having been obtained from the best available sources. No guarantee is made on the accuracy or completeness of said information. The contractor shall be responsible for and pay for all damaged utilities.

Approved By: _____ _____ Director, Department of Planning and Permitting City & County of Honolulu (For Construction within City ROW only)		_____ Date
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<p>Approved By:</p> <p>Chief, Civil Engineering Branch, DPP (For Construction within City ROW only)</p>		<p>Date</p>
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONSTRUCTION NOTES

Traffic Signal Modernization,
Oahu, Phase 1
Federal-Aid Project No. STP-0300(163)
Scale: none Date: July 2020
SHEET No. N-7 OF 11 SHEETS

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

WATER NOTES

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0300(163)	2020	10	284

1. Unless otherwise specified, all materials and construction of water system facilities and appurtenances shall be in accordance with the "Hawaii Standard Specifications for Road and Bridge Construction," dated 2005, as amended, of the Hawaii Department of Transportation, Highways Division, and the City and County of Honolulu Board of Water Supply's "Water System Standards", dated 2002, and 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. Test pressure shall be 150 PSI. During the 30-minutes pressure test, the pressure shall not drop more than 10 PSI.

4. The Contractor shall notify BWS Capital Projects Division, Construction Section in writing and submit six (6) sets of approved construction plans one week prior to commencing work on the water system to 630 South Beretania Street (phone number: 748-5730).

5. The Contractor shall chlorinate the entire inside surface of each pipe and fitting with disinfection solution of 5 ounces of sodium hydrochloride mixed in 10 gallons of water. (For connection only)

6. The Contractor shall be responsible for the protection of all water lines during construction. The Contractor shall be especially careful when excavating behind water lines, tees, and bends wherever there is a possibility of water line movement due to the removal of the supporting earth beyond the existing reaction blocks. The Contractor shall take whatever measures necessary to protect the water lines, such as constructing special reaction blocks (with BWS approval) and/or modifying his construction method.

7. The existence and location of underground utilities and structures as shown on the plans are from the latest available data but is not guaranteed as to the accuracy or the encountering of other obstacle 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.

8. Prior to installation, the Contractor shall submit for approval by the Board of Water Supply, the manufacturer's certification that all cast iron (gray or ductile) fittings for the project conform in all respects to the Water System Standards, dated 2002.

9. Polygon shape for mechanical joint glands as described in AWWA Standard C111 shall be straight-sided" or an approved equal on a job-to-job basis.

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

11. The Contractor shall cut and plug all existing unused laterals at the main whether or not shown on the plans. Meter and valve boxes to be or already abandoned shall be demolished or removed and properly disposed of. The damages area shall be repaired to an equal or better condition than the immediate area. All work shall be done at the expense of the Contractor.

12. The Contractor shall obtain NPDES permit prior to chlorination and/or dewatering. A copy of the permit shall be submitted to the Board of Water Supply, Capital Projects Division, Construction Section.

13. Pipe cushion shall be of high resistivity material. The Contractor shall submit a soil certification that high resistant cushion material has a resistivity greater than 5,000 OHM-CM. Reminder of the backfill material shall be as specified in the Water System Standards. Pipe cushion and backfill material shall contain no hazardous substances above regulatory action levels including but not limited to lead, asbestos, mercury, chromium, cadmium, zinc, strontium, and polychlorinated biphenyl's (PCB).

14. All ductile iron pipe, fittings and valves shall be wrapped with two layers of 8 mil. polyethylene wrap.

15. Cleaning shall be use of "pigs" introduced into the pipeline and run completely through all installed pipelines and all branch lines for fire hydrants. "Pigging" of service laterals is not required. Bare foam "pigs" shall be used to swab piping clean as each length of the pipeline is installed. Each "pig" shall consist of a cylindrical piece of polyurethane foam with a density of 3-7 pounds per cubic foot and vinyl-coated nose. Outside diameter of the "pig" shall be equal to 1-1/4 to 1-1/2 times the inside diameter of the pipe being installed. The length of the "pig" shall be 1-1/2 to 2 times the diameter. Prior to use, the "pig" shall be submerged in a chlorine solution of 1 oz. of 5% chlorine bleach in 5 gallons of water. "Pigging" of the pipeline shall be considered incidental to the installation of the new pipeline.

16. Two-way blue reflective hydrant markers Type DB shall be installed at all fire hydrant locations. The Contractor shall verify the exact location of hydrant marker with the nearest Honolulu Battalion Chief.

17. Ball Corp and Ball Stop shall be used in lieu of a corporation stop and stopcock, respectively.

18. Install 4 mil thick, non-metallic, blue colored, 6 inches wide warning tape over centerline of the pipe and below the base along the entire length of trench. Tape should be marked with "CAUTION WATER LINE BURIED BELOW".

19. Board of Water Supply approval of these plans does not constitute a water commitment. Availability of water will be determined when building permit is presented to the Department. Water commitment will depend upon the status of the water system at that time. Should water service be made available, the water commitment will be effective when the project receives an approved building permit from the Building Department. All water commitments will be canceled in the event the building permit is canceled.

20. The installation, chlorination and testing of the water main and facilities after the meter shall not be the responsibility of the Board of Water Supply.

21. The Contractor shall furnish and install polyethylene wrap, 3 feet minimum at all taps (for DI pipe and copper lateral combination only).

22. The Contractor shall have existing water mains toned before construction of work in vicinity of water mains, call the investigation section at 745-5381 for toning services. Guardrail post locations are to be kept to a minimum clear distance of 18 inches to any 2-1/2 inch water lines and meter boxes. No post driving will be allowed when post is to be installed closer than 3 feet from water main. Excavated areas shall be restored to their original conditions.

23. All waterline construction affecting residential water meters requiring shutdown connection shall be scheduled for non-operating hours with a six (6) hours maximum downtime. The Contractor shall notify residents at least four (4) weeks prior to shutdown of water supply.

24. At the electrical/signal ductline water crossings, adjust all electrical/signal ductline elevations to maintain 6" vertical clear separation from all waterlines (12" clear for all electrical/signal ductline structures larger than 16") at no cost to the Board of Water Supply.

25. Maintain 3'-0" min. horizontal clear separation between street light/traffic signal standards (including any modular units) and the nearest water system. The Contractor shall field verify for any conflicts at each street light/traffic signal standard location. Where conflicts occur, the Contractor shall coordinate with the projects engineer to revise the street light/traffic signal standard to provide the required clearances at no cost to the BWS.

26. The Contractor shall exercise care when performing work in or adjacent to the State highway right-of-way. Damages to all existing buried facilities, surface facilities, and overhead utility lines shall be immediately reported to the respective utility companies, and/or City or State agencies. The repair work shall be done at the Contractor's expense.

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Approved By:	
Manager and Chief Engineering, BWS (For work affecting BWS facilities in City/State R/W and BWS easements only)	Date

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Conrad Higashimura

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
CONSTRUCTION NOTES	
Traffic Signal Modernization, Oahu, Phase 1	
Federal-Aid Project No. STP-0300(163)	
Scale: none	Date: July 2020
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SEWER NOTES

- 1. All sewer construction shall be performed in accordance with the City's "Standard Specifications," September 1986, the Department of Environmental Services "Wastewater System Design Standards," July 2017, and "Wastewater System Standard Details," July 2017, Current City Practices and Revised Ordinances of Honolulu, 1990 as amended.
- 2. The Contractor shall notify the Construction Management Branch, Wastewater Engineering and Construction Division, ENV, at 768-8785, 768-8769, or 768-8755 to arrange for inspection services and submit four (4) sets of approved construction plans to Wastewater Branch, DPP seven (7) days prior to commencement of sewer work. The Contractor shall pay for all inspection costs.
- 3. The underground pipes, cables or duct lines known to exist by the engineer from his research of records are indicated on the plans. The Contractor shall verify the location and depth of the facilities, including and affecting sewer lines, in the presence of the wastewater inspector and exercise proper care in excavating the area. The Contractor shall be responsible and shall pay for all damaged utilities.
- 4. The Contractor shall be responsible for maintaining continuous sewer service to all affected areas during construction.
- 5. The Contractor shall be responsible for any sewage spills caused during construction. The Contractor shall notify the State Department of Health and utilize appropriate sampling and analyzing procedures. The Contractor shall be responsible for all public notifications and press releases.
- 6. Maintain 3'-0" minimum horizontal clear separation between all sewer systems and nearest duct lines, pull boxes, and hand holes paralleling the sewer system at no cost to the City. Maintain 6'-0" minimum horizontal clear separation between all sewer system and electrical transformer pads at no cost to the City. Do not place electrical appurtenances in between sewer laterals.
- 7. At the duct line sewer crossings, adjust all duct line elevations to maintain 24" vertical clear separation above all sewer lines. If less than 24" clear above the sewer line, RC jacket the sewer line per City Standard Detail S-03 at no cost to City.
- 8. If the duct line crosses under the sewer line, provide a RC jacket on the sewer line per City Sewer Standard Detail S-03 at no cost to the City.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
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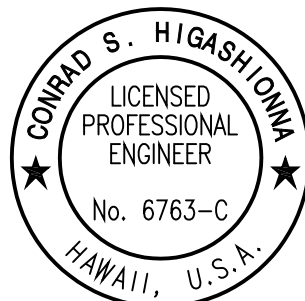
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0300(163)	2020	11	284

CONSTRUCTION NOTES FOR GAS FACILITIES

- 1. HawaiiGas gas pipeline in the project area are plastic coated and cathodically protected. The Contractor shall be extremely careful when working near these gas pipelines.
- 2. Written clearances must be obtained from HawaiiGas, Maps and Records Department, 515 Kamakee Street, at least five (5) working days prior to starting excavation near these gas pipelines.
- 3. Since gas line locations on field maps are approximate, the Contractor, after obtaining written clearance, shall call Hawaii One Call Center a minimum of five (5) working days before starting excavation to arrange for field location of the existing gas pipelines. The telephone number is 811 or 1-866-423-7287.
- 4. The Contractor shall excavate and backfill around gas pipelines in the presence of a representative of HawaiiGas.
- 5. For relocation of any gas pipeline, the Contractor shall notify HawaiiGas five (5) working days before starting work. The telephone number is 594-5574. The Contractor shall provide the necessary excavation and backfill, obtain traffic permits, and restore pavement, sidewalks, and other facilities. Any relocation of gas facilities shall be done by HawaiiGas and paid for by the Contractor.
- 6. The Contractor shall notify HawaiiGas immediately after any damage has been caused to existing gas pipelines, coatings, or its cathodic protection devices. The telephone number is 535-5933, 24 hours a day. The Contractor shall be liable for any damage of HawaiiGas facilities. Repair work on such damage shall be done by HawaiiGas with payment for this work to be borne by the Contractor.
- 7. Minimum vertical and horizontal clearance between the gas pipelines and other pipelines, conduits, ductlines, or other facilities shall be 12 inches. Adequate support and protection for gas pipelines exposed in the trench shall be provided by the Contractor and approved by HawaiiGas.
- 8. The Contractor shall work in an expeditious manner in order to keep the uncovered gas pipelines exposed for as short a period of time as possible.
- 9. The Contractor shall exercise care when performing work in or adjacent to the State highway right-of-way. Damages to all existing buried facilities, surface facilities, and overhead utility lines shall be immediately reported to the respective utility companies, and/or City or State agencies. The repair work shall be done at the Contractor's expense.

Approved By:	
Chief, Wastewater Branch, DPP	Date



License Expiration Date 04-30-22
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN HAW. TITLE 16, CHAPTER 115, RULES OF THE BOARD OF PROFESSIONAL ENGINEERS, ARCHITECTS AND SURVEYORS, STATE OF HAWAII.

Conrad Higashimura

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
CONSTRUCTION NOTES	
Traffic Signal Modernization, Oahu, Phase 1	
Federal-Aid Project No. STP-0300(163)	
Scale: none	Date: July 2020
SHEET No. N-9 OF 11 SHEETS	

TRAFFIC NOTES FOR WORK IN CITY STREETS

- 1. A permit shall be obtained from the Department of Transportation Services before work on any portion of a public street or highway may begin. Construction traffic control plans approved by the Department of Planning and Permitting must be provided when applying for the permit.
- 2. The Contractor shall provide, install, and maintain all necessary signs and other protective facilities, which shall conform with the "Hawaii Administrative Rules Governing the Use of Traffic Control Devices at Work Sites On or Adjacent to Public Streets and Highways" adopted by the Director of Transportation, and the current U.S. Federal Highway Administration's "Manual on Uniform Traffic Control Devices for Streets and Highways, Part 6 – Temporary Traffic Control."
- 3. Work on any City street area may be performed only between the hours of 8:30 a.m. to 3:30 p.m., Monday through Friday, unless otherwise permitted by the Department of Transportation Services.
- 4. During working hours, the Contractor shall provide for through traffic. During non-working hours, all trenches shall be covered with a safe non-skid bridging material and all lanes shall be open to the traffic.
- 5. As required by the Department of Transportation Services, the Contractor shall provide off-duty police officers to control the flow of traffic.
- 6. Where pedestrian walkways exist, they shall be maintained in passable condition or other facilities for pedestrians shall be provided. Passage between walkways at intersections shall likewise be provided.
- 7. Driveways shall be kept open unless the owners of the property using these rights-of-way are otherwise provided for satisfactorily.
- 8. The Contractor shall reference to the approval of the Department of Transportation Services and the Department of Planning and Permitting, all existing traffic signs, posts and pavement markings prior to the commencement of construction. The Contractor shall replace or repair all traffic sign, posts and pavement markings disturbed by his activities.
- 9. The Contractor shall notify the Department of Planning and Permitting at 768-8084 one (1) week prior to any work to be done on signs, post and pavement markings.
- 10. No equipment shall be stored within street rights-of-way except at locations designated in writing and approved by the Department of Transportation Services.
- 11. The State Department of Transportation shall ensure that the Contractor installs the construction traffic control devices in accordance with the MUTCD and the Hawaii Administrative Rules as specified in traffic note #2.

SIGNS & MARKINGS NOTES FOR WORK IN CITY STREETS

- 1. All traffic sign and pavement marking installations shall be done in accordance with the "Manual of Uniform Traffic Control Devices for Streets and Highways," 2009 Edition, as amended, the latest specifications from the Traffic Review Branch, Department of Planning and Permitting and as shown on the plans.
- 2. The Contractor shall notify and coordinate work with the Civil Engineer Branch, Department of Planning and Permitting, one (1) week in advance of commencing work at 768-8084.
- 3. The Contractor shall submit material brochures for all signs and paint materials to the Permitting and Inspection Section of the Civil Engineering Branch, Department of Planning and Permitting.
- 4. The signing and/or striping contractor shall keep one (1) set of approved plans at the project site at all times during construction work.
- 5. The Contractor shall paint temporary guidelines and outline of arrows, legends and crosswalks with a two (2) inch wide brushed line on the day of the roadway is opened to traffic. These markings must be approved by the Inspector from the Civil Engineering Branch, Department of Planning & Permitting.
- 6. The Contractor shall notify the Civil Engineering Branch, Department of Planning and Permitting at 768-8084, three (3) days in advance of final inspection.
- 7. The Contractor shall meet with the Inspector from the Civil Engineering Branch, Department of Planning and Permitting during the final inspection.
- 8. Within ten (10) days following notification of award of contract, the Contractor shall submit to the Permitting and Inspection Section, Civil Engineering Branch, Department of Planning and Permitting (768-8084) for approval, a list of any signing and pavement marking material, which he proposes to install. The list shall be complete as to the name of manufacturer, catalog number and shall be supplemented with material brochures.
- 9. Upon final inspection of the project, the Contractor shall submit a letter of certification for all traffic signing and pavement marking materials installed.
- 10. Signs shall be attached to brackets with 5/16" zinc plated steel bolts, nuts and washers. Signs 48" wide or larger than 10 square feet in area shall be mounted on two - 2" galvanized pipe post. The sign shall be installed with at least one (1) foot clearance from the sign edge to the curb face.
- 11. All traffic signs shall be reflectorized.
- 12. Raised pavement markers shall be installed in accordance with the Department of Planning and Permitting standards.

- 13. Pavement word and symbol marking shall be in accordance with the Department of Planning and Permitting standards.
- 14. The Contractor shall use thermoplastic material, approved by the Permitting and Inspection Section of the Civil Engineering Branch, Department of Planning and Permitting, for all crosswalks, stop bars, pavements arrows, centerlines, lane lines, arc lines, channelized traffic islands and legends.
- 15. All construction material submittals within the State's limits shall be approved and accepted first by Hawaii Department of Transportation (HDOT) Materials Testing and Research Laboratory prior to using the materials in any construction work.

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ORIGINAL PLAN

NOTE BOOK

No.

SURVEY PLOTTED BY

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QUANTITIES BY

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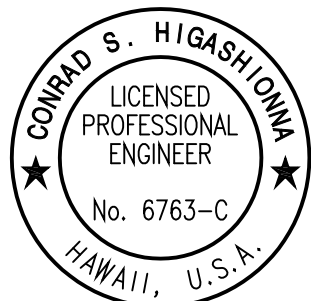
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Approved By:

Chief, Traffic Review Branch, DPP

Date

(For work within City ROW)



License Expiration Date 04-30-22
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Conrad Higashimura

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONSTRUCTION NOTES

Traffic Signal Modernization,
Oahu, Phase 1

Federal-Aid Project No. STP-0300(163)

Scale: none

Date: July 2020

SHEET No. N-10 OF 11 SHEETS

GENERAL NOTES FOR TRAFFIC CONTROL PLAN

1. The permittee shall make minor adjustments at intersections, driveways, bridges, structures, etc., to fit field conditions.
2. Cones or delineators shall be extended to a point where they are visible to approaching traffic.
3. Traffic control devices shall be installed such that the sign or device farthest from the work area is placed first. The others shall then be placed progressively toward the work area.
4. Regulatory and warning signs within the construction zone that are in conflict with the traffic control plans shall be removed or covered.
5. Flaggers and/or police officers shall be in sight of each other or in direct communication at all times.
6. When required by the issuing office, the permittee shall install a flashing arrow signal as shown on the traffic control plans.
7. All traffic lanes shall be a minimum of ten (10) feet wide.
8. All construction warning signs shall be promptly removed or covered whenever the message is not applicable or not in use.
9. The backs of all signs used for traffic control shall be appropriately covered to preclude the display of inapplicable sign messages (i.e., when signs have message on both faces).
10. Lane closure shall be limited only to the extent of accomplishing each day's work. As soon as each day's work is completed, the permittee shall remove all traffic control devices no longer needed to permit free and safe passage of public traffic. Removal shall be in the reverse order of installation. Existing faded or obliterated pavement markings that are necessary for safe traffic flow in the construction area shall be replaced with temporary or permanent markings before opening the roadway to public traffic each day.
11. Permanent pavement markings and traffic signs shall be replaced upon completion of each phase of work.
12. Cones and delineators shall be spaced at a maximum distance of twenty (20) feet apart. A minimum of six (6) channelizing devices shall be used for each taper length.
13. Driveways shall be kept open unless the owners of the property using the right-of-way are otherwise provided for satisfactorily. Further, the permittee shall control traffic going in and out of driveway.
14. Buffer and taper areas on approach to any work area shall be kept clear of vehicles and equipment.
15. A high level warning device (flag tree) shall be installed on approach to all work areas.

16. "NO PARKING" signs shall be posted within any work area and for the buffer and taper areas approaching the work area.
17. Traffic control plans are approved for work on any City street area only between the hours of 8:30 a.m. and 3:30 p.m. Monday thru Friday for construction at the intersections of:
a) Kahuapaanii Street with Ulune Street and Ulune Extension
b) Vineyard Boulevard with Queen Emma Street, and
c) H-1 Freeway Exit 26A with Koko Head Avenue.

Traffic control plans are approved for work on any City street area only between the hours of 8:00 p.m. and 5:00 a.m. Monday thru Friday for construction at the intersections of:
a) Farrington Highway with Nanaikeola Street
b) Kalaniana'ole Highway with Kalaniiki Street and Waieli Street.

MECHANICAL & ELECTRICAL DIVISION NOTES

1. The Contractor shall notify the Joint Pole Committee two (2) weeks in advance of any relocation of utility pole(s) that may be necessary.
2. The Contractor shall notify the Mechanical & Electrical Division, Department of Design and Construction (768-8431), three (3) working days prior to commencing work on the street lighting system.
3. The street lighting system shall be kept operational during construction. Any relocation required shall be approved by the Mechanical & Electrical Division, Department of Design and Construction, and paid for by the Contractor.
4. The Contractor shall be responsible for any damages to the existing street lighting facilities. Any and all damages to these facilities shall be repaired by the Contractor at his cost in accordance with the requirements of the City and County of Honolulu and the State of Hawaii.
5. The Contractor shall be responsible for any damages to the City's existing communications fiber optic cable system. Any and all damages to these facilities shall be repaired by the Contractor at his cost in accordance with the requirements of the City and County of Honolulu and the State of Hawaii.
6. The Contractor shall exercise care when performing work in or adjacent to the State highway right-of-way. Damages to all existing buried facilities, surface facilities, and overhead utility lines shall be immediately reported to the respective utility companies, and/or City or State agencies. The repair work shall be done at the Contractor's expense

PUBLIC TRANSIT DIVISION (DTS) NOTES

1. This project will affect bus routes, bus stops and para-transit operations, therefore, the Contractor shall notify the Department of Transportation Services, Public Transit Division at 768-8396 and Oahu Transit Services, Inc. (bus operations: 848-4578 or 848-6016 and para-transit operations: 454-5041 or 454-5020) of the scope of work, location, proposed closure of any street, traffic lane, sidewalk, or bus stop and duration of project at least two (2) weeks prior to construction.

TRAFFIC SIGNAL AND TECHNOLOGY DIVISION NOTES

1. The Contractor shall notify the Traffic Signal and Technology Division, Department of Transportation Services (768-8388) three (3) working days prior to commencing work on the traffic signal system.
2. The traffic signal system shall be kept operational during construction. Any relocation required shall be approved by the Traffic Signal and Technology Division, Department of Transportation Services and paid for by the Contractor.
3. The Contractor shall be responsible for any damages to the existing traffic signal facilities, including the traffic signal interconnect system. Any and all damages to these facilities shall be repaired by the Contractor at his cost in accordance with the requirements of the City and County of Honolulu and the State of Hawaii.
4. The Contractor shall be responsible for any damages to the existing traffic signal fiber optic cable system. Any and all damages to these facilities shall be repaired by the Contractor at his cost in accordance with the requirements of the City and County of Honolulu and the State of Hawaii.

HPD-PARKING METER NOTE

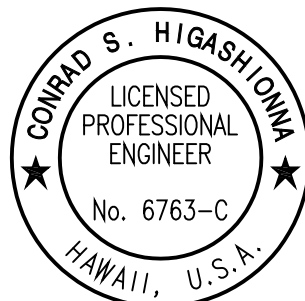
The Contractor shall contact the Honolulu Police Department, Parking Meter Section at 832-7836 at least five (5) working days prior to any parking meter work.

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HAWAII	HAW.	STP-0300(163)	2020	13	284

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Approved By:	
Chief, Traffic Review Branch, DPP (For work within City ROW)	Date



License Expiration Date: 04-30-22
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Conrad Higashimura

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
CONSTRUCTION NOTES
Traffic Signal Modernization, Oahu, Phase 1
Federal-Aid Project No. STP-0300(163)
Scale: None Date: July 2020
SHEET No. N-11 OF 11 SHEETS