

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(003)	2023	7	100

UTILITY NOTES FOR KIUC

1. All work on utility facilities shall be done in strict accordance with the Specifications and Requirements of Kauai Island Utility Cooperative (KIUC) for the facilities within their jurisdiction.

2. The Contractor shall closely coordinate all work with KIUC.

3. These notes are not intended to be used in place of the Service Installation Manual, please refer to Service Installation Manual for all service issues.

4. Contractor shall contact Kauai Island Utility Cooperative's (KIUC) Baseyard Supervisor, Ken Yamamoto, at 246-4343 prior to start of work on KIUC facilities and for scheduling site inspections.

5. Contractor shall contact KIUC's Baseyard Supervisor, Ken Yamamoto at 246-4343 for Design Approvals, Standard Detail drawings and any items not addressed in these notes or drawings.

6. All Contractors entering KIUC facilities must be approved by KIUC and must have proper licensing and insurance coverage. Contact KIUC Baseyard Supervisor, Ken Yamamoto at 246-4343 for details.

7. All trenches and pullboxes must be inspected by KIUC prior to backfilling and concrete-encasing operations. For detailed trenching and backfilling requirements refer to KIUC's Service Installation Manual.

8. The Contractor shall provide a Poly-line 200 lb. test line or equivalent as a pulling wire in all 1", 2", 3" and 4" conduits. In 5" and 6" conduits, the Contractor shall install Neptco WP1800 Muletape as a pulling line.

9. All conduits, pullboxes, handholes, and manholes shall be cleaned and free from objectionable materials. Conduit ends shall be adequately covered until the Conductor is installed by the Electric Company. (Cover's shall be Carlon Plug with Pull Tab Series P258 equivalent or better)

10. For all conduit other than services, refer to Conduit Schedule on drawings.

11. For all services where the conductor is 1/0 or less, the distance from KIUC's handhole and customer's meter is less than 125 feet, and not crossing any driveways or roads the conduit shall be 2 inch Schedule 40 PVC. For services greater than 125 feet, contact KIUC Planner for field verification and underground service requirements. Any deviations will require KIUC written approval.

12. Primary and secondary conduits for new line extensions shall be schedule 40 PVC. (Carlon P~~4~~C Duct Type DB equivalent or better) Under driveways and roadways, the conduits shall be encased in a minimum of 3 inch concrete jacket extending 12" outside the edge of pavement.

13. Schedule 80 PVC conduit may be substituted for the concrete encased Schedule 40 PVC for service conduit only crossing under unpaved Private driveways and roadways from KIUC pole/handhole to Customer's meter. If concrete driveway will be built over service conduit immediately after conduit is installed, then Schedule 40 PVC may be used provided that it meets with Rule No. 21.

14. All primary and secondary conduits which are crossing State or County roadways shall be Schedule 40 PVC encased in a minimum 3 inch concrete jacket, which shall extend a minimum of 12 inches outside of the edge of pavement.

15. Electrical supply ducts, when installed near communication cables, shall be separated from communication duct systems and buried communication cables or conductors by not less than 3 inches of concrete or 12 inches of earth when paralleling or crossing.

16. Chairs shall be installed and spaced at a maximum of 5 feet separation when concrete encasing conduits.

17. All conduits shall enter boxes at 90 degree angle, perpendicular and flush to the wall with bell ends to prevent cable damage.

18. 90 degree conduit bends shall be factory made with a minimum radius of 3 feet in trench runs.

19. Conduit bends exceeding 90 degrees will not be accepted.

20. A 36 inch minimum horizontal clearance shall be maintained when running KIUC conduits parallel to water and sewer lines. If clearance is less than 36 inches, KIUC conduit shall be concrete encased.

21. No foreign pullboxes, handholes, manholes, concrete slabs/boxes, structures, etc. are to be installed over KIUC facilities with the exception of HTCO, CATV or waterline conduit crossings. Such crossing must be approved by KIUC's Service Assurance Department and KIUC conduit to be concrete encased. Concrete encasement must be minimum of 3 inch encasement and extend a minimum of 1 foot beyond crossing conduit or pipe.

22. Yellow marker tape to be placed 1 foot above electrical conduits in the trench during backfilling. (E-Z Code WBT 6 inch wide 4 mill Polyethylene Protect-A-Line Warning Tape NA-0708 "Electric Line" in yellow, equivalent or better)

23. Unless otherwise noted, the top of all conduits shall be at a depth of 24 inches.

24. All handholes, pullboxes, and manholes shall be Walker Industries Type or approved equal. Contact KIUC prior to ordering underground boxes for vendor approval. Customer to submit Manufacturer's Shop Drawings if substituting from Walker Industries Type.

25. Typically, the top of all electrical utility boxes shall be 1 inch above finish grade, single phase transformer pads shall be 2 inches above finish grade, and three phase transformer pads shall be 4 inches above finish grade unless otherwise noted. (special conditions may apply to sidewalks, roadways, etc. see specific location notation)

26. At no time shall cement mortar, wood or any other material be used between pre-cast sections of KIUC pullboxes, handholes, or manholes. The permanent installation of wooden wedges to level or raise the pre-cast sections shall not be permitted.

27. A minimum of 6 inches of #3 Crushed Rock Backfill shall be placed loosely beneath the bottom section of handholes and pullboxes. Crushed rock or other foreign materials are not to be placed inside handholes and pullboxes.

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

RANDALL M. URASAKI

LICENSED PROFESSIONAL ENGINEER

No. 7269-C

HAWAII U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

04/30/24

SIGNATURE

EXPIRATION DATE OF LICENSE

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

UTILITY NOTES

KUHIO HIGHWAY

Emergency Slope Stabilization

for Hanalei Hills and Waikoko

F.A.P. Project No. ER-24(003)

Scale: None

Date: Sept. 2022

SHEET No. N-6

OF 7

SHEETS

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FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(003)	2023	8	100

UTILITY NOTES FOR HAWAIIAN TELCOM

1. All work on utility facilities shall be in strict accordance with specifications and requirements of Hawaiian Telcom for the facilities within their jurisdiction.
2. The Contractor shall closely coordinate all work with Hawaiian Telcom. The Contractor shall notify Hawaiian Telcom's Jimmy Sone at 808-241-5052 or Duke Sardinha at 808-371-2962, or their designated Representative, at least four weeks in advance of any work involving the Hawaiian Telcom facilities.
3. Unless otherwise indicated, all conduits, sweeps, couplings, adapters and bell ends shall be Schedule 40 PVC if direct buried. If concrete encased, conduits may be GT42 2" or 4" PVC meeting GTE Specification GTS-8342. Two inch bends are available with a 24" or 36" radius. Four inch bends are available with a 36" or 48" radius. Refer to HTCO Standard Drawing 34028 for installation.
4. All conduits shall be cleaned and be free from objectionable materials with its ends adequately covered until Hawaiian Telcom installs its cable facilities.
5. Contractor shall maintain 6" minimum separation between water pipe and direct buried utility ducts at intersection of water pipe and direct buried utility ducts. When utility ducts are concrete encased at intersections of water pipe and utility ducts, a 3" minimum separation between water pipe and concrete encasement shall be maintained. Stones, Rocks, etc. shall not be used with backfill material, only select materials shall be used as a backfill material.
6. A 4" wide warning tape orange in color with a black imprinted message "Warning - Stop Digging - Call Hawaiian Telcom, Communications Cable Buried Below, Failure to Comply Could Result in Legal Action" shall be placed 12" below the surface over the duct or concrete jacket for the entire length of duct installations. See HTCO Standard Drawing 34028. Recommended tape is manufactured by Thor Enterprises, Inc. Sun Prairie, WI 53590 (1-800-827-8467) Part Numbers DTOGTE-41 (1000') and DTOGTE-46 (6000'). Equivalent tapes are acceptable.
7. After the ducts are installed a mandrel not less than 12" long and having a diameter of 1/4" less than the inside diameter of the duct, shall be pulled through each duct after which a brush with stiff bristles shall be pulled through to make certain that no particles of earth, sand or gravel have been left in the line. Main duct runs except riser ducts and cross-connect pedestal ducts should be constructed with long smooth riding sweeps. Offsets and elevation changes shall be constructed with not less than 20 foot radius Telcom Inspector. Approved duct runs with less than 20 foot radius shall utilize a flexible mandrel followed by a stiff bristle brush. A flexible mandrel having a diameter of 1/4" less than the inside diameter will be utilized on 2" duct runs after which a brush with stiff bristles shall be pulled through.

8. Install Neptco WPI800P Muletape in all new ducts after testing. The Neptco Muletape is available in 3,000', 6,500' and 10,000' reels. The Neptco Muletape is prelubricated and printed with sequential footage marking. Using the Neptco Muletape, The Contractor shall measure at least one duct of a common duct run. The distance shall be marked on the record prints and submitted to the Hawaiian Telcom Inspector for record keeping.
9. All conduits shall enter boxes at a 90 degree angle and be flush to the wall with flared or junior end bells to prevent cable damage.
10. The Contractor shall furnish and install a No. 4 bare copper ground wire (direct buried) from all transformer pad ground rods to the nearest Hawaiian Telcom pullbox, as specified in HTCO Standard Drawing 34045. Install one 5/8" x 8' ground rod in all other Hawaiian Telcom 435T, 435TB6 and 4' x 6' Type 1 boxes, except in the Type 436T meter boxes (12" x 20"). Ground rods are to extend 4" above the finished pullbox/handhole floor (grade) and be located 4" from the pullbox corner.

UTILITY NOTES FOR SPECTRUM

1. The Contractor shall take necessary precaution not to damage existing cables. Any work involving existing cables shall be done in the presence of Spectrum's Inspector or his representative.
2. Any work required to relocate CATV facilities shall be done by Spectrum and the Contractor shall be responsible for all coordination requirements and associated costs.
3. Any damage to Spectrum's facilities shall be reported to Spectrum's Repair Dispatch Department at 625-8437 or 625-8666.
4. All Construction must be inspected and approved by Spectrum prior to the installation of any of its facilities and the energizing of its system.
5. Contractor and/or Customer shall provide Spectrum with sufficient installation time in their occupancy time table.

UTILITY NOTES FOR SANDWICH ISLES COMMUNICATIONS

1. The Contractor shall take necessary precaution not to damage existing cables. Any work involving existing cables shall be done in the presence of SIC's Inspector or his representative.
2. The Contractor shall notify SIC's project manager, Lily Duran at 808-284-3683 or 808-540-5772, or their designated representative, at least four weeks in advance of any work involving the SIC facilities.

ORIGINAL PLAN	NO.	DATE	SURVEY PLOTTED BY	_____
			DESIGNED BY	_____
NOTE BOOK	NO.	DATE	TRACED BY	_____
			CHECKED BY	_____

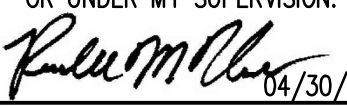
RANDALL M. URASAKI

LICENSED PROFESSIONAL ENGINEER

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SIGNATURE

EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

UTILITY NOTES

KUHIO HIGHWAY
Emergency Slope Stabilization
for Hanalei Hills and Waikoko
F.A.P. Project No. ER-24(003)

Scale: None

Date: Sept. 2022

SHEET No. N-7 OF 7 SHEETS

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