STANDARD PLANS SUMMARY

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.2	244

STANDARD PLAN NO.	TITLE	DATE
B-01 ●	NOTES & MISCELLANEOUS DETAILS	05/31/07
B-03 ●	BACKFILL DETAILS AT EARTH RETAINING STRUCTURES	05/31/07
B-12	PRESTRESSED CONCRETE PILES AND COMPRESSION SPLICE CAN DETAILS	05/31/07
B-12A	PRESTRESSED CONCRETE PILES, PILE AND COMPRESSION SPLICE CAN DETAILS AND NOTES	05/31/07
B-12B	PILE INTERACTION DIAGRAM	05/31/07
B-13	PRESTRESSED CONCRETE PILE BUILD-UP DETAILS	05/31/07
D-01	CATTLE GATE	05/31/07
D-02 ●	CHAIN LINK FENCE WITH TOPRAIL	05/31/07
D-03	CHAIN LINK FENCE WITHOUT TOPRAIL	05/31/07
D-04	WIRE FENCE WITH METAL POSTS	05/31/07
D-05 ●	TYPICAL DETAILS OF CURBS AND/OR GUTTERS	05/31/07
D-06 ●	TYPICAL DETAIL OF REINFORCED CONCRETE DROP DRIVEWAY	05/31/07
D-07	CENTERLINE AND REFERENCE SURVEY MONUMENTS	05/31/07
D-08	STREET SURVEY MONUMENT	05/31/07
D-15 ●	CONCRETE SIDEWALK	05/31/07
D-16	P.C.C. BUS PAD	05/31/07
D-17	P.C.C. BUS PAD	05/31/07
D-18	P.C.C. PAVEMENT LAYOUT	05/31/07
D-19	P.C.C. PAVEMENT W/ PERMEABLE BASE JOINT DETAILS	05/31/07
D-20	P.C.C. PAVEMENT W/ PERMEABLE BASE JOINT DETAILS	05/31/07
D-21	P.C.C. LONGITUDINAL JOINT DETAILS	05/31/07
D-22	P.C.C. CONNECTION TO CURBS AND GUTTERS	05/31/07
D-23	JOINTS	05/31/07
H-01A	TYPE A CATCH BASIN	05/31/07
H-01B	TYPE B CATCH BASIN	05/31/07
H-01C	TYPE C CATCH BASIN	05/31/07
H-01D	TYPE D CATCH BASIN	05/31/07
H-01E	CATCH BASIN SECTIONS	05/31/07
H-02A	TYPE A1 CATCH BASIN	05/31/07
H-02B	TYPE B1 CATCH BASIN	05/31/07
H-02C	TYPE C1 CATCH BASIN	05/31/07
H-02D	TYPE D1 CATCH BASIN	05/31/07
H-02E	CATCH BASIN SECTIONS	05/31/07
H-03	TYPE A, B, AND C STORM DRAIN MANHOLE	05/31/07
H-04	TYPE D STORM DRAIN MANHOLE	05/31/07
H-05	TYPICAL REINFORCING DETAILS FOR DRAINAGE STRUCTURES	05/31/07
H-06	TYPICAL REINFORCING DETAILS FOR DRAINAGE STRUCTURES	05/31/07
H-07	CATCH BASIN AND MANHOLE CASTINGS	05/31/07
H-08	TYPE 1A-9 AND 1A-9P GRATED DROP INLET	05/31/07
H-09	TYPE 2A-9 AND 2A-9P GRATED DROP INLET	05/31/07
H-10	TYPE A-9 OR A-9P STEEL FRAMES	05/31/07
H-11	TYPE A-9 AND A-9P STEEL GRATES	05/31/07
H-12	TYPE 61614P AND 1211214P GRATED DROP INLET	05/31/07
H-13	TYPE 61616P AND 1211216P GRATED DROP INLET	05/31/07
H-14	TYPE 61214P GRATED DROP INLET	05/31/07
H-15	TYPE 1211214, 1211214P, 1211216, 1211216P STEEL FRAME AND GRATES	05/31/07
H-16	TYPE 61614, 61614P, 61616, 61616P STEEL FRAME AND GRATES	05/31/07
H-17	TYPE 61214 STEEL FRAMES AND GRATES	05/31/07
H-18	TYPE 61214P STEEL GRATES	05/31/07

STANDARD PLAN NO.	TITLE	DATE
H-19	TYPE 61614B STEEL FRAME AND GRATES	05/31/07
H-20	CEMENT RUBBLE MASONRY STRUCTURES	05/31/07
H-21	CONCRETE AND CEMENT RUBBLE MASONRY STRUCTURES	05/31/07
H-22	INLET/OUTLET STRUCTURE (18" TO 24")	05/31/07
H-23	INLET/OUTLET STRUCTURE (48" TO 180")	05/31/07
H-24	FLARED END SECTION FOR CULVERTS	05/31/07
H-25	FLARED END SECTION FOR CULVERTS	05/31/07
H-26	CONCRETE SPILLWAY INLET	05/31/07
H-27	CAP COUPLING DETAILS STANDARD JOINT	05/31/07
H-28 ●	REINFORCED CONCRETE COLLAR AND JACKET	05/31/07
H-29	UNDERDRAIN CLEANOUT STEEL FRAME AND COVER	05/31/07
H-30	UNDERDRAIN CONNECTION TO DRAINAGE STRUCTURE	05/31/07
L-01 ●	TREE PLANTING	05/31/07
L-02 ●	TREE PLANTING	05/31/07
L-03	TREE TRANSPLANTING	05/31/07
L-04	PALM PLANTING	05/31/07
L-05 ●	SHRUB PLANTING	05/31/07
L-06	LANDSCAPE DETAILS	05/31/07
L-07 ●	LANDSCAPE DETAILS	05/31/07
L-08	LANDSCAPE DETAILS	05/31/07
L-09 ●	LANDSCAPE DETAILS	05/31/07
L-10	LANDSCAPE DETAILS	05/31/07
L-11	PLANTING NOTES	05/31/07
L-12	IRRIGATION DETAILS	05/31/07
L-13	IRRIGATION DETAILS	05/31/07
L-14	IRRIGATION DETAILS	05/31/07
L-15	IRRIGATION DETAILS	05/31/07
L-16	IRRIGATION DETAILS	05/31/07
L-17	IRRIGATION DETAILS	05/31/07
L-18	IRRIGATION DETAILS	05/31/07
L-19	IRRIGATION DETAILS	05/31/07
L-20	IRRIGATION DETAILS	05/31/07
L-21	IRRIGATION DETAILS	05/31/07
L-22	IRRIGATION DETAILS	05/31/07
L-23	IRRIGATION DETAILS	05/31/07
L-24	IRRIGATION NOTES	05/31/07
TE-01 ●	SIGN HEIGHT AND LOCATION	05/31/07
TE-1A ●	SIGN INSTALLATION	05/31/07
TE-02A ●	GALVANIZED FLANGED CHANNEL SIGN POST MOUNTING	05/31/07
TE-02B ●	GALVANIZED FLANGED CHANNEL SIGN POST MOUNTING	05/31/07
TE-02C ●	GALVANIZED FLANGED CHANNEL SIGN POST MOUNTING	05/31/07
TE-03A ●	GALVANIZED SQUARE TUBE SIGN POST MOUNTING	05/31/07
TE-03B ●	GALVANIZED SQUARE TUBE SIGN POST MOUNTING	05/31/07
TE-04 ●	REGULATORY SIGNS	05/31/07
TE-05 ●	WARNING SIGNS	05/31/07
TE-06	MISCELLANEOUS SIGNS	05/31/07
TE-07 ●	CONSTRUCTION SIGNS	05/31/07
TE-08	MISCELLANEOUS INTERSECTION SIGNS	05/31/07
TE-09	BIKE ROUTE SIGN & SUPPLEMENTARY PLATES	05/31/07

STANDARD PLAN NO.	TITLE	DATE
TE-10	INTERSTATE ROUTE MARKER	05/31/07
TE-11 ●	STATE ROUTE MARKER AND AUXILIARY MARKERS	05/31/07
TE-12 ●	STATE ROUTE MARKER AND BORDER DETAIL FOR GUIDE SIGNS	05/31/07
TE-12A ●	ROUTE SIGN ASSEMBLIES	05/31/07
TE-13 ●	STREET NAME SIGN ON MAST ARM	05/31/07
TE-14 ●	MISCELLANEOUS REFLECTOR MARKERS	05/31/07
TE-15 ●	OBJECT MARKERS	05/31/07
TE-16 ●	MILE POSTS	05/31/07
TE-17A	CANTILEVER OVERHEAD SIGN ELEVATION & DETAILS	05/31/07
TE-17B	CANTILEVER SIGN FRAME DETAIL AND SECTIONS	05/31/07
TE-17C	CANTILEVER SIGN FRAME DETAIL	05/31/07
TE-17D	CANTILEVER SIGN FRAME SECTIONS	05/31/07
TE-17E	CANTILEVER SIGN FRAME DETAILS	05/31/07
TE-18A	TWO POST OVERHEAD SIGN FRAME ELEVATIONS	05/31/07
TE-18B	TWO POST SIGN FRAMING PLAN SECTION	05/31/07
TE-18C	TWO POST SIGN FRAMING SECTIONS AND DETAILS	05/31/07
TE-18D	TWO POST SIGN FRAME DETAILS	05/31/07
TE-18E	TWO POST SIGN FRAME DETAILS	05/31/07
TE-19A	OVERHEAD SIGN FRAMING SCHEDULE	05/31/07
TE-19B	SIGN POST DRILLED SHAFT FOUNDATION	05/31/07
TE-19C	SPREAD FOOTING	05/31/07
TE-19D	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19D.1	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19D.2	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19D.3	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19D.4	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19D.5	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19E	ANCHORAGE DETAILS	05/31/07
TE-19F	ANCHORAGE DETAILS	05/31/07
TE-19G	MISCELLANEOUS SIGN FRAME DETAILS	05/31/07
TE-19H	LUMINAIRE WALKWAY SUPPORT	05/31/07

NOTE:

STANDARD PLANS APPLICABLE TO THIS PROJECT ARE INDICATED BY A " " ● NEXT TO THE STANDARD PLAN NO. (FOR EXAMPLE: D-07) ●

ORIGINAL PLANS — SURVEY PLOTTED BY ____ DATE ____ / DRAWN BY ____ / TRACED BY ____ / NOTE BOOK ____ / DESIGNED BY ____ / QUANTITIES BY ____ / CHECKED BY ____ / No. ____

BRIAN A. LOCK — LICENSED PROFESSIONAL ENGINEER — No. 9867-C — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020

WILSON OKAMOTO CORPORATION LIC. EXP. DATE

DATE	REVISION
11/12/19	③ Reissuing plan for legibility only. No design changes have been made.
9/20/19	① Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD PLANS SUMMARY

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: Date: July 2019

SHEET No. TT2 OF 3 SHEETS

ADD.2

STANDARD PLANS SUMMARY

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.3	244

STANDARD PLAN NO.	TITLE	DATE
TE-19J	FIXED MESSAGE LUMINAIRE SUPPORT	05/31/07
TE-19K	MISCELLANEOUS SIGN DETAILS	05/31/07
TE-19L	MISCELLANEOUS SIGN DETAILS	05/31/07
TE-19M	MISCELLANEOUS SIGN FRAME DETAILS	05/31/07
TE-20	SUPPORTS FOR GROUND MOUNTED GUIDE SIGN	05/31/07
TE-20A	SUPPORTS FOR GROUND MOUNTED GUIDE SIGN	05/31/07
TE-20B	SUPPORTS FOR GROUND MOUNTED GUIDE SIGN	05/31/07
TE-20C	SUPPORTS FOR FROUND MOUNTED GUIDE SIGN	05/31/07
TE-21A	SIGN BREAKAWAY MOUNTS	05/31/07
TE-21B	SIGN BREAKAWAY MOUNTS	05/31/07
TE-22	LAMINATED ALUMINUM SIGN PANELS (OVERHEAD)	05/31/07
TE-23	LAMINATED ALUMINUM SIGN PANELS (GROUND MOUNTED)	05/31/07
TE-24	SOLID ALUMINUM EXTRUDED SIGN PANEL AND ACCESSORY DETAILS	05/31/07
TE-25	GUIDE SIGNS LUMINAIRE MOUNTINGS	05/31/07
TE-26 ●	RAISED PAVEMENT MARKERS AND STRIPING	05/31/07
TE-27 ●	RAISED PAVEMENT MARKERS AND STRIPING	05/31/07
TE-28 ●	ENTRANCE AND EXIT PAVEMENT MARKINGS	05/31/07
TE-28A ●	MISCELLANEOUS PAVEMENT MARKINGS	05/31/07
TE-29 ●	PAVEMENT ARROWS AND SYMBOLS	05/31/07
TE-30 ●	PAVEMENT ALPHABETS, NUMBERS & SYMBOLS	05/31/07
TE-31 ●	PAVEMENT ALPHABETS, NUMBERS & SYMBOLS	05/31/07
TE-32 ●	TYPE I & II TRAFFIC SIGNAL SYSTEM MISCELLANEOUS DETAILS	05/31/07
TE-33 ●	TYPE II TRAFFIC SIGNAL SYSTEM	05/31/07
TE-33A.1 ●	TYPE II TRAFFIC SIGNAL STANDARD	05/31/07
TE-33A.2 ●	TYPE II TRAFFIC SIGNAL STANDARD	05/31/07
TE-34 ●	LOOP DETECTOR DETAILS	05/31/07
TE-35 ●	LOOP DETECTORS & DUCT DETAILS	05/31/07
TE-36 ●	TRAFFIC SIGNAL DETAILS	05/31/07
TE-37 ●	PULLBOX & COVER DETAILS	05/31/07
TE-37A ●	TYPE "A" TRAFFIC PULLBOX	05/31/07
TE-37B ●	TYPE "A" TRAFFIC PULLBOX REINFORCING	05/31/07
TE-37C ●	TYPE "B" TRAFFIC PULLBOX	05/31/07
TE-37D ●	TYPE "B" TRAFFIC PULLBOX REINFORCING	05/31/07
TE-37E ●	TYPE "B" TRAFFIC PULLBOX FOUNDATION	05/31/07
TE-37F ●	TYPE "C" TRAFFIC PULLBOX	05/31/07
TE-37G ●	TYPE "C" TRAFFIC PULLBOX REINFORCING	05/31/07
TE-37H ●	TYPE "C" TRAFFIC PULLBOX FOUNDATION	05/31/07
TE-37J ●	TRAFFIC PULLBOX COVER AND DETAILS	05/31/07
TE-38	TYPE III TRAFFIC SIGNAL STANDARD	05/31/07
TE-38A.1	TYPE III TRAFFIC SIGNAL STANDARD	05/31/07
TE-38A.2	TYPE III TRAFFIC SIGNAL STANDARD	05/31/07
TE-39 ●	METAL GUARDRAIL CONNECTION TO CONCRETE BARRIER	05/31/07
TE-40	CONCRETE BARRIER TRANSITION	05/31/07
TE-40A	CONCRETE BARRIER TRANSITION SECTIONS	05/31/07
TE-41	GUARDRAIL TYPE 4 (RIGID BARRIER)	05/31/07
TE-42 ●	PORTABLE CONCRETE BARRIER	05/31/07
TE-43 ●	PORTABLE CONCRETE BARRIER	05/31/07
TE-44	GUARDRAIL TYPE 4 MISCELLANEOUS DETAILS	05/31/07
TE-45	BARRICADES	05/31/07
TE-46	DELINEATION & PAVEMENT MARKINGS AT NARROW BRIDGES	05/31/07
TE-47 ●	HIGHWAY LIGHT STANDARD	05/31/07

STANDARD PLAN NO.	TITLE	DATE

STANDARD PLAN NO.	TITLE	DATE

NOTE:

STANDARD PLANS APPLICABLE TO THIS PROJECT ARE INDICATED BY A " " ● NEXT TO THE STANDARD PLAN NO.
(FOR EXAMPLE: D-07) ●

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD PLANS SUMMARY

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: Date: July 2019

SHEET No. TT3 OF 3 SHEETS

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

ADD.3

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.4	244

GENERAL NOTES

1. The project includes widening Kuhio Highway between Kuamoo Road and Temporary Kapaa Bypass Road from three lanes to four lanes. The project also includes extending the right turn lane along Kuamoo Road and installing a right turn lane from Kuhio Highway to Kuamoo Road. Associated work includes installing guardrails, sidewalks, curb ramps, pavement markings, signs, culvert extensions, water line relocation, landscaping, and traffic control. The project also includes relocating overhead utility lines along Kuhio Highway from the vicinity of Kuamoo Road to the vicinity of Temporary Kapaa Bypass Road.

2. The Contractor is reminded of the requirements of Subsection 105.16 (A) - Subcontract Requirements, which requires him to perform work amounting to not less than 30 percent of the total contract cost less deductible items. Non-compliance with this Subsection may be grounds for rejection of bid.

3. The Contractor's attention is directed to the following Sections of the Standard Specifications: Subsection 107.06 - Contractor Duty Regarding Public Convenience; Subsection 104.11 - Utilities And Services; 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, buried railroad tracks, and concrete pavements, and other structures as shown on the plans are from the latest available data but the accuracy is not guaranteed. The Contractor shall make an independent check on the ground by probing and/or with the various utility companies and governmental agencies to verify the exact locations and depths of the existing utilities and obstructions. The Contractor shall exercise proper care in excavating in the area. Whenever connections of new utilities to existing utilities are shown on the plans, the Contractor shall expose the existing lines at the proposed connection to verify their location and depth prior to excavating for the new lines. 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 Contractor shall notify the Engineer in writing, two (2) weeks prior to starting paving operations.

7. Existing drainage system will be functional at all times during construction. The Contractor is to furnish material, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to the various contract items.

8. The Contractor shall provide and maintain for access to and from all existing driveways, sidewalks and ADA access routes, and side streets and cross streets at all times. This work shall be considered incidental to the various contract items and will not be paid for separately.

9. All slurry and cutting water shall be vacuumed up immediately during saw cutting work. All saw cutting work shall be considered incidental to Roadway Excavation.

10. Design criteria for extension to existing reinforced concrete box culverts:

I. Loads:

A. Superimposed Dead Loads:
1. Highway Area:
a. Soil: 125 pcf
b. Pavements: 6"t (max) asphalt concrete

B. Live Loads:
1. Vehicle Loads: AASHTO HL93

II. Materials:

A. Poured-in-Place Concrete:
1. Headwall, Misc.: f'c=3,000 psi

B. Precast Concrete:
1. Precast Concrete - Box Culvert: f'c=4,000 psi

C. Reinforcing Steel:
1. ASTM A615, Grade 60 (Typical)

III. References:

A. American Association of State Highway and Transportation Officials (AASHTO) LFRD Bridge Design Specifications, 3rd Edition (2004).

B. ACI 318.

11. Smooth riding connections shall be constructed at all times on the project, including the beginning and end of the project, connecting approaches, side streets, walkways and driveways as shown on the plans and/or as directed by the Engineer.

12. The Contractor shall be solely responsible for the protection of adjacent properties, utilities and existing structures from the damages due to construction. Repairing of any damage shall be at the Contractor's own expense, to the satisfaction of the owner.

13. The Contractor shall clean and remove all accumulation of aggregates along the roadside within 10 feet of the edge of pavement. This work shall be considered incidental to the various contract items and will not be paid for separately.

14. Removal and disposal of existing curb and gutter, curb, sidewalk and any debris shall be considered incidental to Roadway Excavation and will not be paid for separately. Cold plane material shall be retained as property of the state. Contractor shall deliver these materials to the HDOT Highways baseyard stockpile area. This work shall be considered incidental to the various contract items and will not be paid for separately.

15. Concrete sidewalk shall be reinforced with 6x6 W1.4xW1.4 welded wire fabric. Welded wire fabric shall be supported on concrete blocks.

16. Dressing of sidewalk shall consist of clearing and grubbing, grading, reshaping and compacting with suitable material the area adjacent to the improvement as shown on the plans and/or as directed by the Engineer and shall be considered incidental to sidewalk.

17. Provide smooth transition where new sidewalk construction meets the existing grade or sidewalk.

18. All curb angle points within the curb ramps shall be rounded with R=6".

19. The Contractor shall provide and maintain a temporary pedestrian-safe and easily accessible route or detour with barricades in or near the work zone. This temporary route or detour shall be stable, firm and slip-resistant and shall be Americans With Disabilities Act compliant (This only applies if existing surface is non-ADA compliant). This work shall be incidental to all contract items and will not be paid for separately.

20. The Contractor shall remove and dispose of all existing raised pavement markers, thermo line markings, traffic tapes, and epoxy adhesives prior to the overlaying of Asphalt Pavement, Mix No. IV and will not be paid for separately. These work items shall be considered incidental to Roadway Excavation.

21. Removal of existing crosswalk marking shall be incidental to Crosswalk Marking.

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NOTES

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: Date: July 2019

SHEET No. N1 OF 9 SHEETS

ADD.4

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.5	244

GENERAL NOTES (Cont.)

22. All curb ramp transitions (walkways, curbs, gutter) shall be considered incidental to Concrete for Sidewalk for Kuhio Highway.
23. The Contractor shall adjust flush to finish grade all manhole, valve, pull box, and handhole frames and covers, including those not shown on the plans, if there is a change in grade due to construction of the project. If the proposal does not show a contract item, the Engineer will consider them incidental to the various contract items.
24. No material and/or equipment shall be stockpiled or otherwise stored within the highway right-of-way except at locations designated in writing and approved by the Engineer.
25. After the project is completed, the Contractor shall restore grades and ground cover disturbed as a result of the project to a condition equal or better than existing before such damage or injury was done.
26. Existing utilities shall remain in service and in place at all times. If relocation of the existing utilities is required by the Contract Documents or for the Contractor's convenience, interruption of service shall be kept to a minimum and shall be done at the Contractor's expense with the approval of the affected utility company.
27. The Contractor shall verify all dimensions and details shown on the drawings prior to the start of construction. Any discrepancy shall be immediately brought to the attention of the Engineer.
28. All construction work shall be done in accordance with the standards and specifications of the HDOT as amended, unless otherwise specified by the contract plans and specifications.
29. 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 County 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.
30. Tack coat shall be incidental to the various asphalt concrete pavement items.
31. The Contractor shall be held liable for any damages incurred to the existing landscaping as a result of his operations.
32. Contractor shall notify the State construction inspector before commencement of work on any site with trees in close proximity (20'±).
33. Contractor shall comply with conditions as stated in the project NPDES Notice of General Permit Coverage (NGPC), or NPDES Individual Permit.
34. The Contractor must notify the Cadastral Section prior to removal of any State Survey Monument (Brass Disk) so that Cadastral can reference the monument prior to demolition of the existing monument. The Contractor shall bear all costs involved in restoring the State Survey Monuments which are affected by their work.
△3 35. Work may be performed only between the hours of 8:00 p.m. and 4:30 a.m., Monday through Friday, except holidays, unless otherwise permitted by the Engineer. The Contractor is responsible for obtaining Noise Variance Permit from State DOH prior to conducting Night Work operations. Day work will be allowed Monday-Friday, excluding Holidays from 8:30am-3:00pm as long as there are no lane closures. Any deviations from this condition will need the Engineer's approval in writing.
36. All necessary permits including road permit for work within the jurisdiction of the County of Kauai shall be obtained by the Contractor at his own cost.
37. All work of toning, probing, hand digging and all other means of utility verification for the Sandwich Isles Communications (SIC) fiber-optic duct lines shall not be paid for separately, but shall be considered incidental to the various contract items. Contractor shall contact SIC Customer Service Center at 524-8400 or toll free at 1-888-995-7274.
38. All cold planing work shall be followed immediately with paving, temporary striping and re-establishment of the traffic loops before reopening the lanes to traffic. The Contractor may use temporary pole mounted presence detectors to replace any loops taken out of service. The cost for temporary detector shall be considered incidental to pavement work.

LEGEND

- New Pavement Areas - (See Typical Sections for Pavement Structures)
- New P.C.C.
- E — New Electrical Line
- e — Existing Electrical Line
- JP — Relocated Joint Pole
- jp — Existing Joint Pole
- PP — Relocated Power Pole
- pp — Existing Power Pole
- emh — Existing Electrical Manhole
- t — Existing Telephone Line
- tp — Existing Telephone Pole
- tmh — Existing Telephone Manhole
- SC — New Signal Corps Line
- sc — Existing Signal Corps Line
- sic — Existing Sandwich Isles Communication Line
- sicmh — Existing Sandwich Isles Communication Manhole
- cpb — Existing Cable TV Pullbox
- c — Existing Cable TV Line
- w12 — Existing 12" Water Line
- wmh — Existing Water Manhole
- av — Existing Water Air Valve
- wv — Existing Water Valve Box
- wm — Existing Water Meter
- fh — Existing Fire Hydrant
- New Guard Rail
- Existing Guard Rail
- New Right-of-Way
- Existing Right-of-Way
- S12 — New 12" Sewer Line
- s12 — Existing Sewer Line And Size
- smh — Existing Sewer Manhole
- g6 — Existing 6" Gas Line
- gv — Existing Gas Valve Box
- gmh — Existing Gas Manhole
- MON. — New Monument
- mon. — Existing Monument
- 24" RCP — New 24" RCP Drain Line
- d24 — Existing 24" Drain Line
- SDMH — New Storm Drain Manhole Frame ⊄ Cover
- sdmh — Existing Storm Drain Manhole
- GDI — New Grated Drop Inlet
- gdi — Existing Grated Drop Inlet
- CB — New Catch Basin
- cb — Existing Catch Basin
- New Traffic Sign
- Existing Traffic Sign
- New Highway Lighting Standard
- Existing Highway Lighting Standard
- New Traffic Signal Pullbox
- Existing Traffic Signal Pullbox
- Existing Traffic Signal Control Box
- Existing Traffic Signal Pole
- New Loop Detector
- Existing Loop Detector
- 14.50 / New Pavement Grade
- 14.50± / Existing Pavement Grade

ABBREVIATIONS

A.C., a.c.	Asphalt Concrete
℄	Baseline
E.P.	New Edge Of Pavement
E.S.	New Edge of Shoulder
e.p.	Existing Edge Of Pavement
e.s.	Existing Edge of Shoulder
N.B., n.b.	Northbound
P.C.	Point Of Curvature
P.C.C.	Point Of Compound Curvature
P.C.C.	Portland Cement Concrete
P.I.	Point Of Intersection
P.O.C.	Point on Curvature
P.T.	Point Of Tangency
R	Radius
S.B., s.b.	Southbound
S.E.	Superelevation

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

BRIAN A. LOCK — LICENSED PROFESSIONAL ENGINEER — No. 9867-C — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

DATE	REVISION
11/12/19	△3 Reissuing plan for legibility; revised Note 35
9/20/19	△1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NOTES

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: Date: July 2019

SHEET No. N2 OF 9 SHEETS

ADD.5

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.6	244

WATER CONSTRUCTION NOTES

1. Unless otherwise specified, all materials and construction of water facilities and appurtenances shall be in accordance with the "Water System Standards, 2002" as adopted by the Department of Water, County of Kauai, including all subsequent amendments and additions.
2. All required project submittals (materials, shop drawings, chlorination plan, etc.) shall be approved by the Department Construction Management Division before a pre-construction conference can be scheduled. Once all project submittals have been approved by DOW Construction Engineer, the DOW Construction Engineer will notify the Contractor that a pre-construction conference can be arranged. The Contractor shall arrange a pre-construction conference at least ten (10) calendar days before construction and shall notify the Department of Water at least three (3) working days prior to start of construction.
3. The Contractor shall submit the names and telephone numbers of its authorized job superintendent and at least three (3) additional persons to contact in case of an emergency during non-working hours.
4. The Contractor shall notify the Department of Water at least 24 hours prior to any trenching, pipe laying, backfilling, testing or disinfection activities to ensure that inspection services will be available.
5. All materials (pipe, lubricants, paints, sealants, form oil, concrete admixtures, etc.) in direct contact with the potable water shall have national sanitation foundation (NSF) certifications. The Contractor shall submit these certifications to the Department of Water for review and approval prior to its application.
6. The location of existing water mains and appurtenances shown on the plans are approximate only. The Contractor shall verify the exact locations in the field. Excavation around any existing water main shall be done by hand.
7. The Contractor shall provide unobstructed access to existing hydrants, valves, and water meters at all times.
8. The Contractor shall secure all excavations in accordance with OSHA regulations.
9. There shall be no physical connection between a public or private potable water system and a non-potable water system, sewer, or appurtenance thereto which could permit the passage of any sewage or polluted water into the potable water supply.
10. Trench excavation, backfilling in lifts, and repaving shall conform to the "Hawaii Standard Specifications for Road and Bridge Construction, 2005" as amended.
11. Warning tape shall be in accordance with Division 200, Section 212.08 of the "Water System Standards". The warning tape shall be four mil thick, non-metallic, acid and alkali resistant polyethylene, and 6-inches wide with minimum strength of 1,750 psi lengthwise and 1,500 psi crosswise. Tape color shall be "safety precaution blue" and shall bear a continuous printed inscription "CAUTION WATER LINE BURIED BELOW". Inscription shall be 2-inches high, black text.
12. All hydrants shall receive a minimum SSPC SP3 surface preparation and coated in accordance with Division 200, Section 206.01 of the "Water System Standards".
13. Unless otherwise directed, prior to the connection of any pipelines and/or laterals to the existing main, the pipelines/laterals installed shall be cleaned, pressure tested, chlorinated, flushed, and sampled in accordance with Division 300, Sections 302.27 to 302.29 of the "Water System Standards".
    Water samples shall be tested for total coliforms by a laboratory certified by the State of Hawaii to perform coliform analysis. Presence of coliform bacteria is unacceptable.
    In addition to the test for coliforms, a separate test for heterotrophic plate count (HPC) shall be conducted. The HPC count shall be less than 300 CFU/mL.
    Prior to chlorination, a water chlorination and sanitation contractor with a C-37D license shall submit a chlorination plan with water source, injection points, sampling points, and procedure clearly defined for approval by the DOW.
    The tested pipelines and/or laterals must be connected to the existing DOW system within 14 calendar days of pulling the first disinfection sample tested by a certified laboratory. The Department of Water will require the Contractor to redo the cleaning, pressure testing, and/or disinfection of the pipelines and/or laterals at the Contractor's expense if the connection is not completed within these 14 calendar days.
14. Polyurethane foam "pigs" shall be "pushed" through the length of the installed pipeline using pressurized water.
15. All connections shall be scheduled in coordination with the Department of Water.
    A. An advance deposit is required for operating valves, flushing lines, and notifying consumers affected by a water shutdown during connections. The Contractor will be charged the actual cost.
    B. The Contractor shall place the deposit prior to scheduling the connection date.
    C. Shutdown connections shall be scheduled on Tuesdays through Thursdays. No connections shall be scheduled on Mondays, Fridays, weekends, and holidays, or from December 18 - January 8 of each year.
    D. All materials shall be on hand and approved by the Engineer prior to scheduling the connection date.
    E. Pumps used to de-water the connection area shall be operated in the presence of the engineer prior to scheduling the connection date.
    F. All connections shall be performed in the presence of the Engineer.
    G. No live taps shall be scheduled from December 24 - December 31 of each year.
16. In order to prevent damage to the polyethylene encasement from excessive handling, the polyethylene encasement shall be installed around the barrel of the ductile iron pipe at its final location along the trenchline. The polyethylene encased pipe shall be lifted using a fabric type sling or a suitably padded cable or chain to prevent damage to the polyethylene.
17. The Contractor shall take all necessary compaction tests while the waterline trench is being backfilled and while the subbase/basecourse is being placed. If the test results indicate that additional compaction is required, the corrective work shall be completed before any additional trench excavation or placing of subbase/basecourse is allowed.
    The Contractor shall retain the services of a registered Geotechnical Engineer for quality control. The compaction test results shall be certified by the Geotechnical Engineer and submitted to the Department of Water, State Highways Division (for work done within State R/W), and the Department of Public Works (for work done within County R/W). The Geotechnical Engineer shall certify that the compaction results meet the requirements of the current Standard Specifications for Road and Bridge Construction.
18. The Contractor shall connect all existing consumer piping to the new service laterals. The Department of Water will transfer the existing water meters only.
19. All fittings shall be mechanical joint (MJ) at each end unless otherwise noted. "Megalug" retainer glands shall be used with all mechanical joint fittings and valves used in connecting new water mains to existing water mains unless otherwise noted.
20. All water valves that will be abandoned in place shall be placed in the "closed" position. Remove top section of valve box and concrete settlement slab. Fill remainder of valve box with concrete. Place backfill and repair pavement section to applicable State or County Standards. Backfill to finish grade in road shoulder area.
21. The Contractor shall obtain all applicable Department of Health permits prior to the start of construction. Permits include, but are not limited to, National Pollution Discharge Elimination System (NPDES) permits for storm water, hydrostatic test, dewatering, and for construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area.
    The Contractor shall be responsible for the proper disposal of storm water discharges and effluent associated with construction activities including hydrotesting and disinfection operations, to safeguard public health and safety in accordance with applicable Department of Health requirements. All permits and licenses for storm water and construction water disposal, including all application, charges, fees, and taxes, are the responsibility of the Contractor.
22. The Contractor is responsible for dewatering trench as necessary where groundwater is encountered. All associated costs for dewatering shall be borne by the Contractor.

* For Water Notes Cont., See Sht. N4

APPROVED

Manager and Chief Engineer — Date
Department of Water,
County of Kauai

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NOTES

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: Date: July 2019

SHEET No. N3 OF 9 SHEETS

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

ADD.6

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.7	244

WATER CONSTRUCTION NOTES (CONT.)

23. The use of known sewer pump trucks is prohibited for DOW projects for any use, including but not limited to dewatering and testing of new facilities.

24. The Contractor shall verify outside diameter of all existing asbestos- cement (AC) waterlines to be connected. Contractor shall verify use of proper gaskets prior to connection. AC pipe and gasket information shall be submitted to Engineer for approval.

25. All removal, disposal, and connection work that involves asbestos pipe/material shall be done in the presence of or by a licensed asbestos Contractor. The licensed asbestos Contractor shall submit their plan for all associated removal, disposal, and connection work for the project to DOW for review and approval prior to conducting the work.

26. All connections to existing AC pipe shall be at the nearest AC pipe joint. AC pipe shall be removed by entire length(s) to facilitate the connection. Cutting of AC pipe is prohibited.

27. The Contractor shall follow all applicable OSHA, HIOSH, and Federal regulations in handling and disposal of asbestos-cement pipe. Disposal of the pipe shall be at an approved asbestos material disposal site.

28. All waterworks brass fittings shall be in compliance with the amended Section 1417 of Safe Drinking Water Act (SDWA) which takes effect on January 4, 2014. The amendment includes a change to the definition of "lead-free" by reducing lead content from 8% to a weighted average of not more than 0.25% in the wetted surface material. All waterworks brass fittings installed for potable water service on January 4, 2014 and beyond shall conform to the amended definition of "lead-free".
As indicated in Section 211 of Water System Standards - Brass Products, all brass fittings shall conform to NSF Standard 61 and Section 1417 of the Safe Drinking Water Act (SDWA), in addition, all brass fittings shall conform to NSF Standard 372.

29. The Contractor shall install water facilities only after reaching final subgrade or higher. The Department of Water will not allow installation of any water facilities until the final subgrade layer at minimum has been achieved.

30. Prior to installation of new water lines and/or facilities, the Contractor shall have all facilities surveyed and staked out by a licensed Surveyor and the Contractor shall expose, verify, and backfill all existing underground utilities and structures in close proximity to crossings and connections prior to excavation of pipeline trench. The Contractor shall provide the licensed Surveyor cut sheet and the probing information to the DOW Construction Engineer for review and approval before moving forward with installation via the submittal review process.

31. The Department shall be provided twenty (20) working days for all submittal reviews from the time of submission by the Contractor.

32 Unless otherwise specified, all ductile iron pipes, valves, and fittings shall be encased in one layer of 8 mil minimum thickness polyethylene material in accordance with ANSI A-21.5 and AWWA C105. The polyethylene encasement film shall be manufactured from virgin polyethylene and shall consist of three layers of co-extruded linear low density polyethylene (LLDPE), fused into a single thickness of not less than 8 mils. The inside surface of the polyethylene wrap to be in contact with the pipe exterior shall be infused with a blend of an antimicrobial to mitigate microbiologically influenced corrosioin and a volatile corrosion inhibitor to control galvanic corrosion. Polyethylene material shall have permanent markings per AWWA C105.

Copper service laterals shall be encased with polyethylene wrap from the connection to ductile iron pipes to the angle ball valve located in the water meter box.

NOTES FOR CONSTRUCTION WITHIN COUNTY RIGHT-OF-WAY

1. All pavement shall be restored to its original condition in accordance with Hawaii Standard Specifications For Road and Bridge Construction (2005), and its amendments with 2" asphalt concrete and 8" base course and the "Standard Details For Public Works Construction, September 1984 and its amendments of the Department of Public Works, City and County of Honolulu and the Counties of Kaua'i, Maui and Hawai'i."

2. The contractor shall provide, install, maintain all necessary signs, lights, flares, barricades, markers, cones and other protective facilities and shall take all necessary precautions for the protection and for the convenience and safety of the public traffic. All such protective facilities and precautions to be taken shall conform with rules and regulations governing the use of traffic control devices at work sites on or adjacent to public streets and highways adopted by the highway safety coordinator and US Federal Highway Administration manual on uniform traffic control devices for streets and highways dated 2003 and its amendments.

3. The contractor shall, whenever necessary, properly sheet and brace all excavations to render it secure and shall remove all such sheeting and bracing before completion of the backfill for water mains. The minimum cover requirements (from top of pipe to finished grade over pipe) is three (3) feet.

4. A. A permit shall be obtained by the contractor from the Department of Public Works, at the contractor's expense.

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

   C. All work including repair of damaged pavement and shoulders shall be inspected and approved by the Department of Public Works. All unapproved work shall be considered unacceptable and shall be reworked and corrected as directed by the Department of Public Works, at the contractor's expense.

   D. Damaged shoulders shall be restored to a condition equal to or better than existing condition.

   E. Work on a public street area may be performed only between the hours of 8:00 a.m. to 3:30 p.m. Monday through Friday, except on holidays recognized by the county of Kauai, unless otherwise permitted by the Department of Public Works, County of Kauai.

   F. During non-working hours, all trenches shall be covered with a safe non-skid bridging material and all lanes shall be opened to public vehicular and pedestrian traffic.

   G. No material and/or equipment shall be stockpiled or otherwise stored within county right-of-way except at locations designated in writing and approved by the county engineer.

   H. The contractor shall conduct his operations so as to offer the least possible obstructions and inconvenience to the public and he shall have under construction no greater length or amount of work that he can execute properly with due regard to the rights of the public.

   I. All existing drainage flow conditions shall be maintained.

5. The contractor shall hold a pre-construction meeting with the construction-design section of the Department of Public Works before commencing any work.

33. All design consultant and construction contractor staffing will be required to utilize the Department of Water's PMWEB platform during construction management of the project.

SANDWICH ISLES COMMUNICATIONS, INC NOTES

1. The locations of existing utilities are approximate only. The contractor shall exercise caution and shall maintain proper clearances whenever construction crosses or is in close proximity to sandwich isles communications, inc. (SIC) facilities.

2. Prior to excavating the contractor shall call into Hawaii's one call center and shall comply with Hawaii Revised Statues Chapter 269e. Contact Hawaii one call ay 1-866-423-7287.

3. If required, adjustment shall be made to new construction to provide required clearances from SIC facilities.

4. A SIC inspector or designated representative is required to be present during a breakage into or entry into any structre or conduit system that contain SIC facilities. Temporary duct or cable support shall be provided wherever necessary or required by SIC inspector.

5. The contractor shall notify SIC customer service at least 72 hours prior to excavation, bracing or backfilling, of SIC facilities. Contact SIC customer service at 1-888-995-7274.

6. When excavation is adjacent to, above or below SIC facilities, the contractor shall:

   A. Sheet and/or brace the excavation to provide slides, cave-ins, or settlements to ensure no movement or impact to SIC facilities.

   B. Support existing structures and/or facilities with beams, struts, or underpinning while excavating around or beneath them to prevent any movement

APPROVED

County Engineer — Date
County Of Kaua'i
(For Work Within the County Right of Way)

Chief, Division of Wastewater Management — Date
(For Work Involving Sewer Lines and Appurtenances)

Manager and Chief Engineer — Date
Department of Water,
County of Kauai

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; revised note number.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NOTES

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: Date: July 2019

SHEET No. N4 OF 9 SHEETS

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

ADD.7

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.8	244

SEWER NOTES

1. In the event that any changes in alignment or grade for the proposed sewer mains and laterals are required due to unforeseen conflicts, the Contractor shall notify the Owner's Representative who in turn will be responsible for the required changes.

2. Minimum slope for all sewer laterals shall be 1.00 percent unless otherwise specified on the plans. As-built drawings showing lateral location, vertically and horizontally shall be provided.

3. The Contractor shall verify the location and invert of all existing utilities whether shown or not shown as required.

4. Pipeline inverts shall be installed at a constant slope and on a straight line connecting the invert elevations at manholes.

5. Crushed rock cradle shall be required for all sewer lines, except in area of unsuitable soils, the Owner's Representative will determine the pipe support required.

6. For the construction and installation of sewer lines, sewer laterals, sewer manholes, and sewer connections, the Contractor shall refer to the County of Kauai's Sewer Design Standards dated June 1973, Standard Details for Public Works Construction dated Sept. 1984 as amended by the Department Public Works , City and County of Honolulu, and the Counties of Kauai, Maui, and Hawaii, and the "Hawaii Standard Specifications for Road and Bridge Construction, 2005" and its amendments.

7. Plastic sewer pipes and fittings shall be PVC (polyvinyl-chloride), extra strength bell and spigot, and conform to ASTM Designation D3034.73 with an SDR of 35.

8. Section 706.09 PVC Pipe for Sewer System of the "2005 Standard Specifications for Road and Bridge Construction" is the specifications for the pipe with modifications as follows:

   A. Bedding and the first lift of backfill from the bottom of the pipe to 6 inches above the pipe barrel shall be crushed rock ASTM Gradation No. 67. The minimum thickness of the bedding below the pipe shall be 4 inches. Bedding shall be compacted to a relative compaction of not less than 90 percent.

   B. The trench shall be backfilled only to a height of 6 inches above the crown of the pipe. Further backfilling of the trench will only be permitted after the alignment and grade of the pipe has been inspected and passed. The Contractor will provide proper facilities for access and inspection, including clearing the pipe of all dirt, joint compound, and superfluous or foreign material.

   C. No base course for roadways shall be placed until sewer line within said roadway has been inspected and passed. The Contractor shall provide proper facilities for access and inspection, including clearing the pipe of all dirt, joint compound, and superfluous or foreign material.

   D. Maximum allowable vertical pipe deflection (reduction in vertical inside diameter) shall be 5 percent. Deflection shall be checked by the Contractor in the presence of the Inspector by using an approved Deflectometer, calibrated television, properly sized "Go, No-Go" mandrel or sewer ball. For the purpose of deflection measures, the base inside diameter without deflection are provided as follows:

SIZE	BASE I.D.
6"	5.9125"
8"	7.92"
10"	9.90"
12"	11.78"

   E. Locations with excessive deflection shall have the pipe replaced and retested.

   F. PVC pipe connection to manholes shall be made with elastomeric water seal stop or seal.

CONSTRUCTION NOTES FOR TRAFFIC CONTROL PLAN

1. The permittee shall make minor adjustments at intersections, driveways, ramps, bridges, 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 shall be placed first. The others shall then be placed progressively toward the work area.

4. Regulatory and warnings signs within the construction zone that are in conflict with the Traffic Control Plans shall be removed or covered. All signs shall be restored upon completion of the work.

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. Sign spacing (D), taper lengths (T) and spacing of cones or delineators shall be as shown in Table 1, unless otherwise noted on the Traffic Control Plans.

8. All traffic lanes shall be a minimum of 10 feet wide.

9. All construction warning signs shall be promptly removed or covered whenever the message is not applicable or not in use.

10. The backs of all signs used for traffic control shall be promtly removed or covered to preclude the display of inapplicable sign messages (i.e., when signs have messages on both faces), whenever the messages are not applicable or not in use.

11. At the end of each day's work or as soon as the 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 reverse order of installation.

12. Replace permanent pavement markings and traffic signs upon completion of each phase of work.

13. Police Officer/Flaggers shall be present at all times.

14. Contractor to provide access and/or directional signs to reroute pedestrian traffic.

15. When required by the County of Kaua'i, and advertisement shall be placed in the newspaper by the Contractor for any lane closure. The advertisement shall be made one (1) week before any lane closure and shall contain the following information:

   A) Map of the Traffic Change Limits;
   B) Notice of starting and ending dates, times and duration;
   C) Map to show Lane Closure;
   D) Explanation of the Lane Closure, "NOTICE TO MOTORISTS AND PEDESTRIANS".

16. The Contractor shall be required to have any lane closure announced daily over the radio two (2) days before starting date until the work is completed. Both advertisements in the newspaper and over the radio shall be paid for by the Contractor. The Contractor shall also notify the hospitals, police, fire and ambulatory services of the lane closure.

17. All workers within the County Right of Way who are exposed to either vehicles using the roadway or to construction equipment shall wear high visibility safety apparel that meets the performance Class 2 or 3 requirements of ANSI/ISEA 107-2004. "Workers" are defined as people on foot whose duties place them with the County R/W, such as but not limited to construction and maintenance forces, equipment operators, survey crew, utility crews, responders to incidents (eg. EMT and firemen), and law enforcement personnel directing traffic, investigating accidents, handling land closures and installing water service connections (roadway construction).

18. The Contractor shall make every effort to minimize the use and duration of steel plates. All steel plates shall have a non-skid surfacing. The County may require the backfilling and patching fo the trench due to the excessive use of steel plates.

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

20. 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.

APPROVED

County Engineer — Date
County Of Kaua'i
(For Work Within the County Right of Way)

Chief, Division of Wastewater Management — Date
(For Work Involving Sewer Lines and Appurtenances)

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

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

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NOTES

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: Date: July 2019

SHEET No. N5 OF 9 SHEETS

ADD.8

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.9	244

CONSTRUCTION NOTES FOR TRAFFIC CONTROL PLAN (Cont.)

21. Contractors shall provide safe passage to all motorists turning out of entrance to adjacent properties at all times. Further, the Contractor shall provide a flagger/police officer to direct traffic at the intersections.

22. The Contractor shall contact businesses located at adjacent properties at least 10 days prior to the start of construction to inform them of changes in traffic patterns on affected roadways due to the construction.

23. The contractor shall make a flyer showing the changes in traffic patterns and estimated times of use. Sufficient copies of the flyer shall be provided to each business for distribution to its employees and guests.

TABLE 1

POSTED SPEED LIMIT (MPH)	SIGN SPACING (D) FEET	TAPER LENGTH (T) FEET		LONGITUDINAL BUFFER SPACE (B) FEET	SPACING OF CONES OF DELINEATORS (FEET)		
		*W=12' OR LESS	*W= GREATER THAN 12'		TAPER	TANGENT	WORK AREA
20	250	200	W X 17	35	20	20	10
25	250	200	W X 17	55	25	25	10
30	250	250	W X 20	85	30	30	10
35	250	250	W X 20	120	35	35	10
40	500	350	W X 30	170	40	40	10
45	500	550	W X 45	220	45	45	10
50	1000	600	W X 50	280	50	50	10
55	1000	700	W X 55	335	55	55	10

*W = Width of Lane, Shoulder, or Offset

24. If work occurs in consecutive blocks along the highway, the temporary closures shall be in line with each other instead of staggered to minimize the weaving of traffic.

25. If multiple work areas are implemented along Kuhio Highway, any required temporary lane closures shall be coordinated to ensure that simultaneous detours are not required.

GRADING NOTES

1. All grading work shall conform to Sediment and Erosion Control Ordinance No. 808, County of Kaua'i and State laws.

2. No contractor shall perform any grading operation so as to cause falling rocks, soil or debris in any form to fall, slide or flow onto adjoining properties, streets or natural watercourses. Should such violations occur, the costs incurred for any remedial action by the County Engineer shall be payable by the contractor.

3. The contractor, at his own expense, shall keep the project and surrounding area free from dust nuisance. The work shall be in conformance with The Air Pollution Control Standards and Regulations of the State Department of Health and The Sediment and Erosion Control Ordinance of the County of Kaua'i.

4. The underground pipes, cables or ductlines 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 are shown on the plans, the contractor shall expose the existing lines at the proposed connections to verify their locations and depths depths prior to excavation for the new lines.

5. Adequate provisions shall be made to prevent surface waters from damaging the cut face of an excavation or the sloped surfaces of a fill. Furthermore, adequate provisions shall be made to prevent sediment-laden runoff from leaving the site.

6. All grading work shall conform to Sediment and Erosion Control Ordinance No. 808, County of Kaua'i and State laws.

7. No contractor shall perform any grading operation so as to cause falling rocks, soil or debris in any form to fall, slide or flow onto adjoining properties, streets or natural watercourses. Should such violations occur, the costs incurred for any remedial action by the County Engineer shall be payable by the contractor.

8. The contractor, at his own expense, shall keep the project and surrounding area free from dust nuisance. The work shall be in conformance with The Air Pollution Control Standards and Regulations of the State Department of Health and The Sediment and Erosion Control Ordinance of the County of Kaua'i.

9. The underground pipes, cables or ductlines 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 are shown on the plans, the contractor shall expose the existing lines at the proposed connections to verify their locations and depths depths prior to excavation for the new lines.

10. Adequate provisions shall be made to prevent surface waters from damaging the cut face of an excavation or the sloped surfaces of a fill. Furthermore, adequate provisions shall be made to prevent sediment-laden runoff from leaving the site.

11. All slopes and exposed areas shall be sodded or planted as soon as final grades have been established. Planting shall not be delayed until all grading work has been completed. Grading to final grade shall be continuous, and any area within which work has been interrupted or delayed shall be planted. All bare areas shall be covered with an erosion control device/method within 3 days.

12. The county shall be informed of the location of the borrow/disposal site for the project when the application for a grading permit is made. The borrow/disposal site must also fulfill the requirements of the Sediment and Erosion Control Ordinance No. 808 and State Laws.

13. The contractor shall remove all vegetation before placing fills on natural ground surface.

14. Fills shall be compacted to 90 percent (90%) of the maximum density per ASTM D-1557 test.

15. No grading between 7 pm to 7 am on any given day or on Saturdays, Sundays and holidays without prior written permission from the County Engineer and the State Department of Health.

16. The limits of the area to be graded shall be flagged before the commencement of the grading work.

17. All grading operations shall be performed in conformance with the applicable provisions of the Water Pollution Control and Water Quality Standards contained in Hawai'i Administrative Rules, Chapter 11-55, "Water Pollution Control" and Chapter 11-54, "Water Quality Standards" and if applicable, the NPDES permit for the project.

18. If the grading work involves contaminated soil, then all grading work shall be done in conformance with applicable state and federal requirements.

19. Non-compliance to any of the above requirements shall mean immediate suspension of all work, and remedial work shall commence immediately. All costs incurred shall be billed to the contractor and/or grading permit applicant. Furthermore, violators shall be subjected to administrative, civil and/or criminal penalties.

20. Fill slope banks shall not exceed 2:1 and cut slope banks shall not exceed 2:1 unless otherwise noted.

21. A separate grading permit may be required for the site receiving the excess wasted excavated material. The disposal sites needs to be identified by the contractor. The disposal sites shall also fulfill the County's Sediment and Erosion Control ordinance No. 808.

22. The Contractor shall notify the Department of Public Works five (5) business days prior to commencing any grading work. When completed and ready for final inspection; notify the Department of Public Works Construction Inspection Section.

23. The Contractor shall remove all silt and debris resulting from his work and deposited in drainage facilities, roadways and other areas. The cost incurred for any remedial action by the County Engineer shall be payable by the Contractor.

24. During cleaning operations, the Contractor shall supply a water truck for dust control purposes until vegetation has re-established itself. Excess water, including silt and dirt shall not be allowed to run-off the property.

25. Best Management Practices (BMP's) shall be provided at all times to the maximum extent practicable to prevent damage by sedimentation, erosion or dust to streams, watercourses, natural areas and the property of others.

APPROVED

County Engineer Date
County Of Kaua'i
(For Work Within the County Right of Way)

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NOTES

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: Date: July 2019

SHEET No. N6 OF 9 SHEETS

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

ADD.9

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.10	244

CURB RAMP AND SIDEWALK NOTES

1. These typical details are intended as curb ramp guidelines for design and construction.
2. A 2% maximum cross slope shall be maintained in the direction of pedestrian traffic.
3. Subject to field conditions, the Engineer shall determine the final location of curb ramps.
4. All pullboxes shall be installed away from the curb ramp and within the sidewalk/unpaved area to the maximum extent feasible.
5. Where necessary, existing pullboxes, handholes, manholes, etc. shall be adjusted to match curb ramp grade. Adjustments shall not be paid for separately but shall be considered incidental to the various curb ramp items unless indicated otherwise.
6. Transitions from ramps to gutters and roadways shall be flush.
7. Curb ramps and sidewalks shall be constructed to eliminate ponding to the maximum extent feasible.
8. The pedestrian push button shall meet operational and reach requirements of Section 308.3.1 of the American with Disabilities Act Accessibility Guidelines (ADAAG):
   A. Forward Reach. The maximum height for forward reach shall be 48".
   B. Side Reach. The maximum height for side reach shall be 48" and the minimum height shall be 15 inches above the finished ground.
   C. Operation. Controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate controls shall be no greater than 5 lbf.
9. The maximum slopes of adjoining gutters or road surface immediately fronting the curb ramp shall not exceed 5% for Type A, B, C, D, E, and Combination ramps.
10. There shall be a 30"x48" level ground surface (2% max. cross slope, both directions) for a forward or side approach, as appropriate, to a pedestrian push button.
11. Construction joints are required to join curb ramps with sidewalks.
12. Unless otherwise noted, new gutters are required as shown.
13. All curb ramps shall be reinforced with 6x6 W1.4/W1.4 welded wire fabric.
14. Surface of sidewalks and curb ramps shall be firm, stable, and slip-resistant. This includes the surfaces of pullboxes, valve covers, manhole covers, etc.
15. Bed course material is required for curb ramps, sidewalks, and gutters.
16. All sidewalks shall provide a minimum clear width of 3'-0" (excluding curb) for pedestrian circulation. If this cannot be met, a minimum 32-inch clear width is allowed for a distance of 24-inches.
17. Passing spaces along new sidewalks with 5' clear width or less shall be provided at maximum 200' intervals as required by Section 403.5.3 of the Americans with Disabilities Act Accessibility Guidelines (ADAAG). The passing area shall be a minimum 5' wide by 5' long as feasible.
18. If possible, install utility poles, fire hydrants, light poles, sign posts, pullboxes, etc. off of sidewalk but within the right-of-way.
19. Objects protruding from utility poles and walls adjacent to the sidewalks (i.e. wall mounted fire hydrants, telephones, meters on poles, etc.) shall be mounted to meet the requirements of Section 307.2 of the American with Disabilities Act Accessibility Guidelines (ADAAG) and will be subject to Engineer's approval.
20. If a curb ramp is not constructed according to the plans, the Contractor shall reconstruct the curb ramp at no cost to the State. Construction tolerance for Portland Cement Concrete shall be based on 1/4 inch per 10 ft. (0.2%). Remedial measures will not be accepted.
21. Additional information is available from:
   A. American with Disabilities Act Accessibility Guidelines (ADAAG), Jan. 1998, The Access Board.
   B. Accessible Rights-of-Way: A Design Guide, Nov. 1999, The Access Board.
   C. Designing Sidewalks and Trails for Access, Part 1, July 1999, FHWA.
   D. Designing Sidewalks and Trails for Access, Part 2, Sept. 2001, FHWA.
22. Pay limits for the various types of curb ramps are as shown on these typical details.
23. For curb ramps at curb returns, install Construction Joints per Standard Detail D-15 (Detail C), full width sidewalk at curb return.
24. When directed by the Engineer, sidewalk transition area shall be extended beyond shown plan limits to match the nearest scoreline.

HISTORICAL PRESERVATION NOTE

1. Should historic remains such as artifacts, burials, concentrations of shell or charcoal be encountered during construction activities, work shall cease immediately in the immediate vicinity of the find and the find shall be protected from further damage. The Contractor shall immediately notify the DOT Engineer, the County of Kauai, Planning Department at (808) 241-4050 and the State Historic Preservation Division at (808) 652-1560 and/or (808) 651-1510.

SPECIAL NOTES TO DEVELOPER

Certification of Completion for these water system facilities will not be issued until:

1. All water improvements are complete and dedicated to the Department of Water.
2. As-built tracings are submitted to the Department of Water.
3. Final cost breakdown for the water improvements are submitted and approved by the Department of Water. The developer shall certify costs.
4. Roadway and pipeline easements are conveyed to the Department of Water, if applicable.
5. Payment of all applicable fees for the development have been received by the Department of Water. These fees include but are not limited to:
   a. Facilities Reserve Charge
6. Other required conditions are completed, if applicable.

APPROVED

County Engineer Date
County Of Kaua'i
(For Work Within the County Right of Way)

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION APRIL 30, 2020 LIC. EXP. DATE

ORIGINAL PLAN
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DATE	REVISION
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STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NOTES

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: Date: July 2019

SHEET No. N7 OF 9 SHEETS

ADD.10

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.11	244

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 HOOT 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 Standards 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 gauge prior to any field work including the installation of any site-specific best management practices. The rain gauge shall have a tolerance of at least 0.05 inches of rainfall. Install the rain gauge on the project site in an area that will not deter rainfall from entering the gauge opening. Do not install in a location where rain water may splash into rain gauge. The rain gauge installation shall be stable and plumbed. Do not begin field work until the rain gauge 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 for Construction Sites 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 an 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 an 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 1 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 material 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.

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.

* For Water Pollution and Erosion Control Notes Cont., See Sht. N9.

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BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION APRIL 30, 2020 LIC. EXP. DATE

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11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NOTES

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: Date: July 2019

SHEET No. N8 OF 9 SHEETS

ADD.11

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.12	244

WATER POLLUTION AND EROSION CONTROL NOTES: (Cont.)

13. For projects with an 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 projects 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:

1. 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	Cleaning Solvents
Detergents	Wood
Paints (enamel and latex)	Masonry Block
Metal Studs	Herbicides and Pesticides
Tar	Curing Compounds
Fertilizers	Adhesives
Petroleum Based Products	

   b. Use 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 labels and Safety 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.

14. 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 the 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.
   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. system or State waters.

E. PERMIT REQUIREMENTS:

1. A National Pollutant Discharge Elimination System (NPDES) Permit for Construction Activities has been approved for this project, Permit No. HI S000142, and terms and conditions are available for viewing at the Contract Office. The Contractor shall submit to the Engineer six sets of the Water Pollution and Erosion Control Submittals as detailed in Subsection 209.03 of the specifications.

2. If an NPDES Permit for Construction Dewatering is required, the Contractor shall be responsible to obtain the permit from the Department of Health, Clean Water Branch.

3. The Contractor shall comply with all applicable State and Federal Permit conditions. Permits may include but not limited to the following:
   a. NPDES Permit for Construction Activities
   b. NPDES Permit for Construction Dewatering

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NOTE BOOK — No.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠ Reissuing plan for legibility only. No design changes have been made.
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NOTES

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

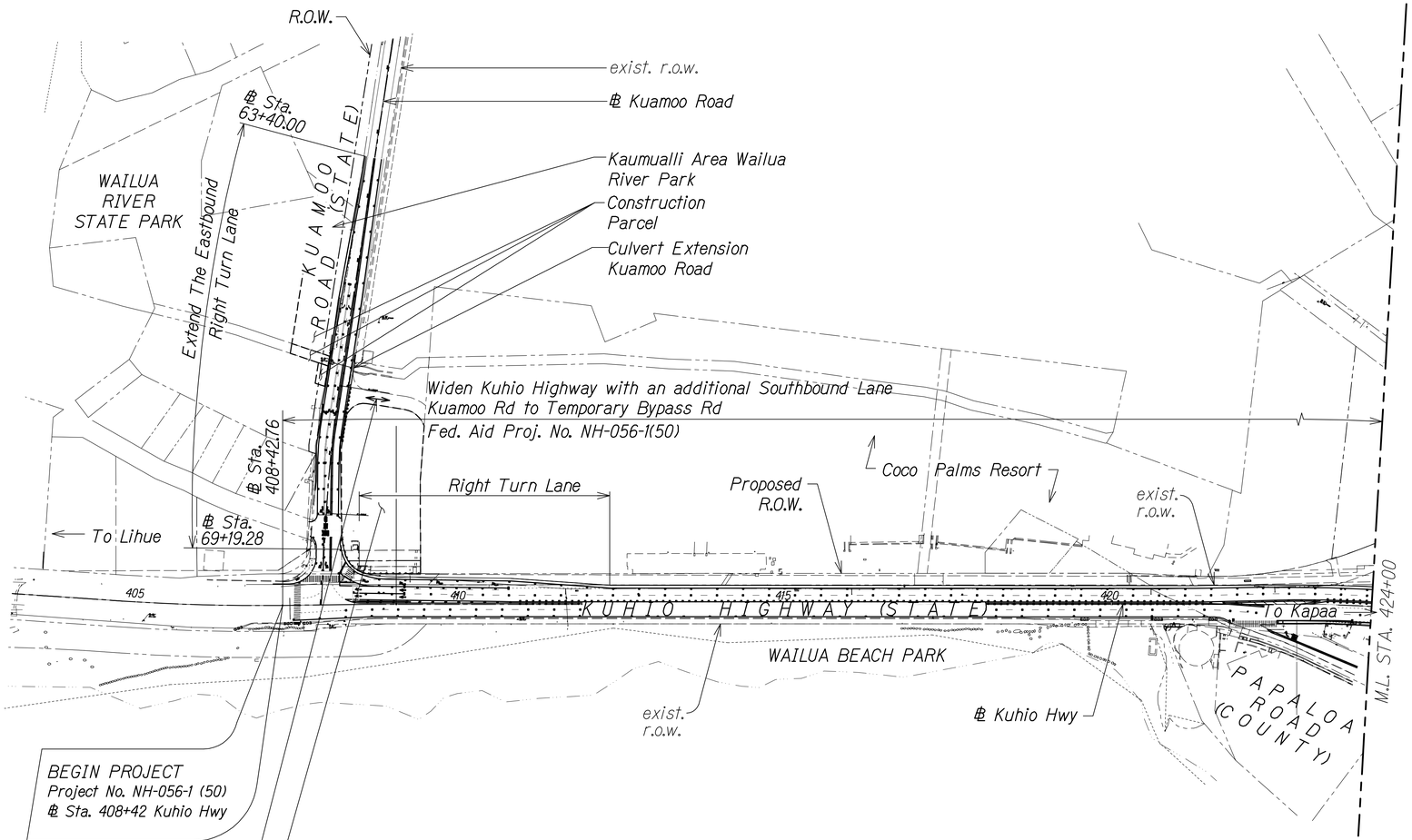
Scale: Date: July 2019

SHEET No. N9 OF 9 SHEETS

ADD.12

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.13	244

True North
Scale: 1"=100'



GRAPHIC SCALE:

100' 50' 0 100' 200'
Scale: 1" = 100'

APPROVED

County Engineer Date
County of Kaua'i
(For Work Within the County Right-of-Way)

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STATE OF HAWAI'I
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HIGHWAYS DIVISION

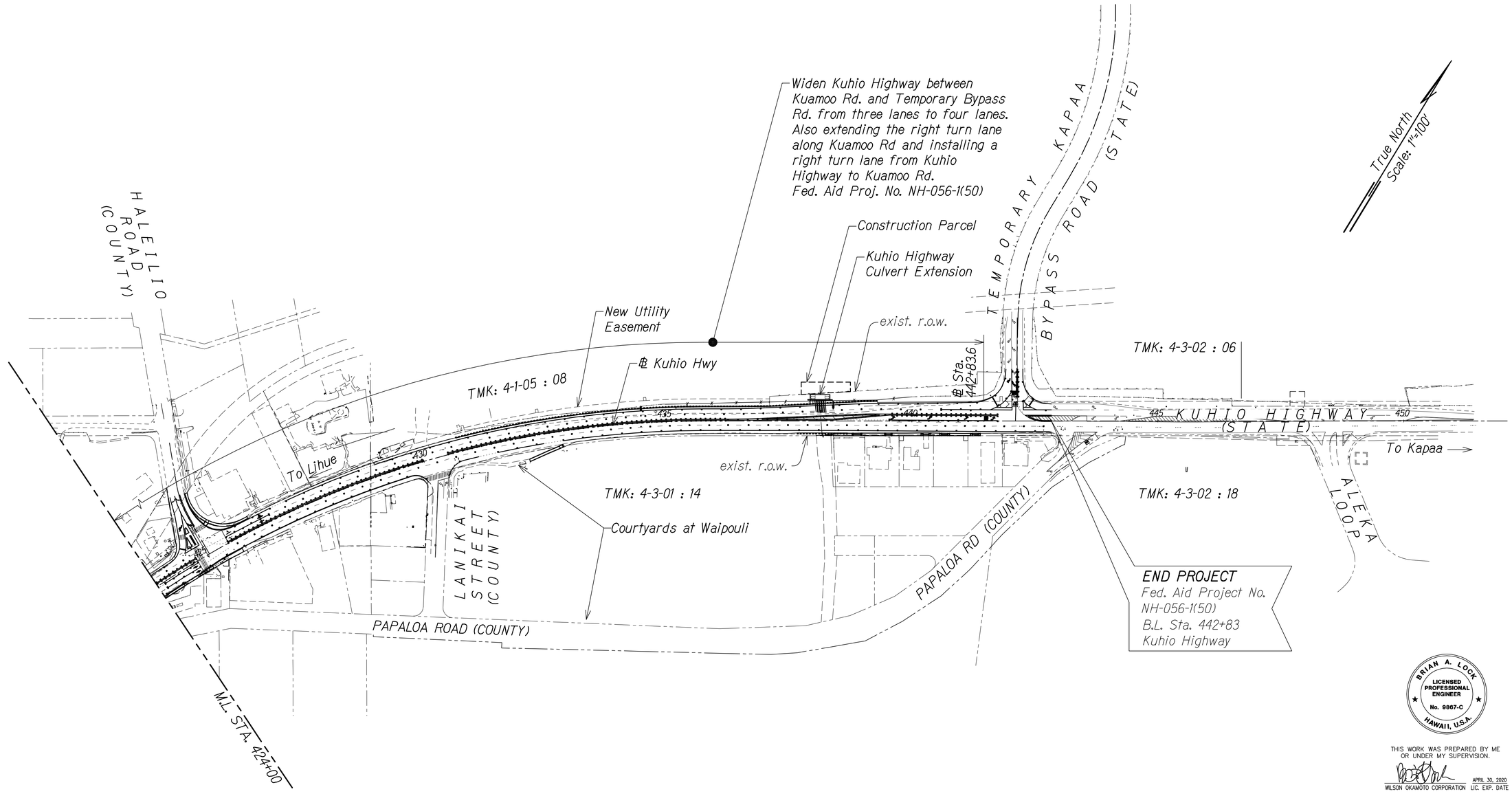
GENERAL PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 100' Date: July 2019

SHEET No. C1 OF 2 SHEETS

ADD.13

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.14	244



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

GRAPHIC SCALE:

100' 50' 0 100' 200'
Scale: 1" = 100'

APPROVED

County Engineer Date
County of Kaua'i
(For Work Within the County Right-of-Way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

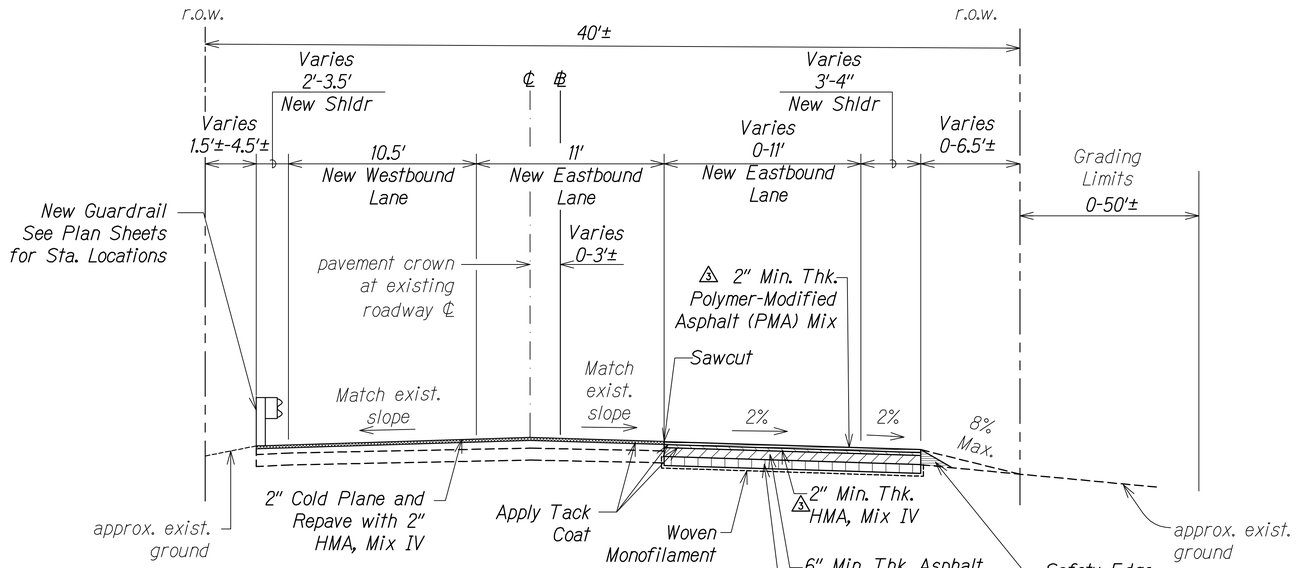
GENERAL PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 100' Date: July 2019

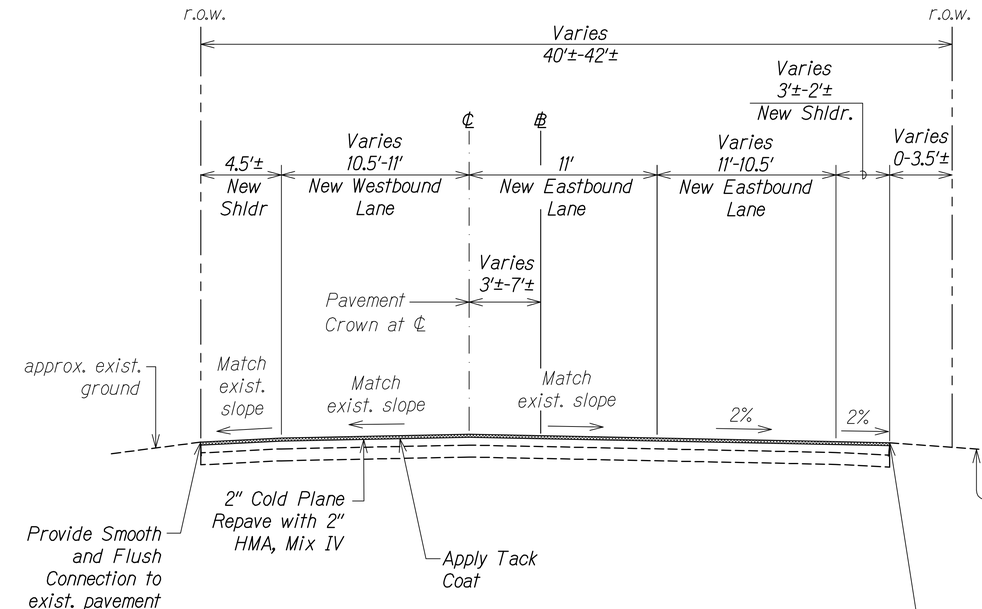
SHEET No. C2 OF 2 SHEETS

ADD.14

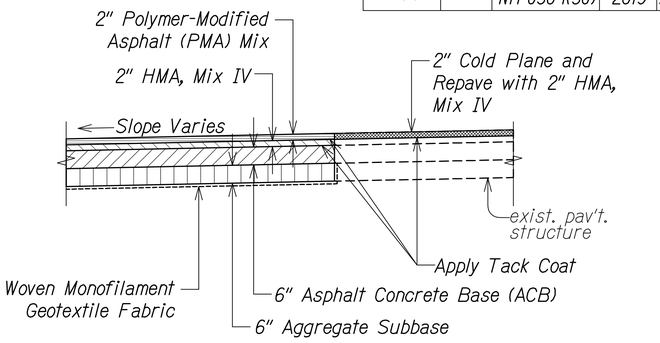
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.15	244



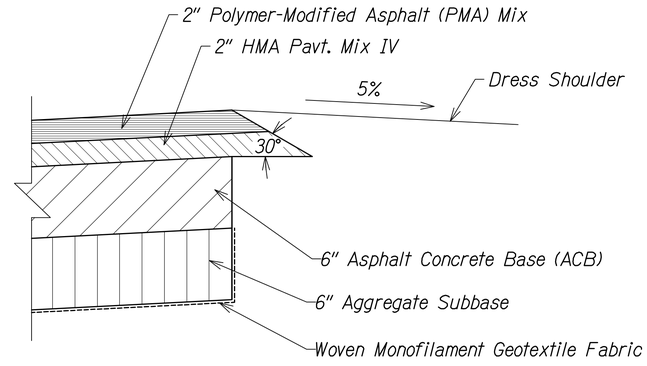
Sta. 63+40 TO Sta. 67+28.14
KUAMOO ROAD
Scale: 1/4" = 1'-0"



Sta. 67+28.14 TO Sta. 68+79.41
KUAMOO ROAD
Scale: 1/4" = 1'-0"



HMA PAVEMENT
LONGITUDINAL TRANSITION DETAIL
Scale: 1/2" = 1'-0"



SAFETY EDGE DETAIL FOR ③
KUAMOO ROAD AND KUHIO HIGHWAY
Not to Scale

Notes:

1. Recompact Subgrade To 95% RC Before Placing New Pavement Structure.
2. See Roadway Paving Plans For Additional Paving Location and Instruction.
3. Install Safety Edge Where Edge of Shoulder is Higher Elevation Than the exist. ground. See Det., This Sht.
4. If Softer Soils Are Encountered, Add a Biaxial or Triaxial Geogrid (BCR of 0.5 To 0.6) On Top of Woven Geotextile.

DATE	REVISION
11/12/19	③ Reissuing plan for legibility; revised callouts and detail title.
9/20/19	⚠ Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK LICENSED PROFESSIONAL ENGINEER No. 9867-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL ROADWAY SECTIONS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

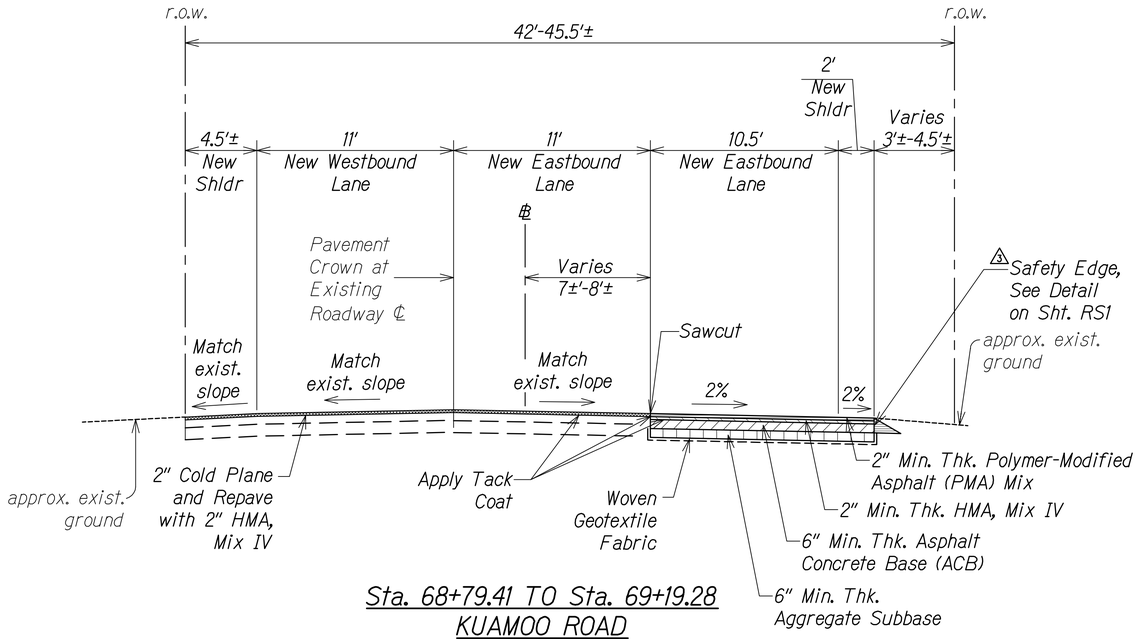
Scale: As Noted Date: July 2019

SHEET No. RS1 OF 9 SHEETS

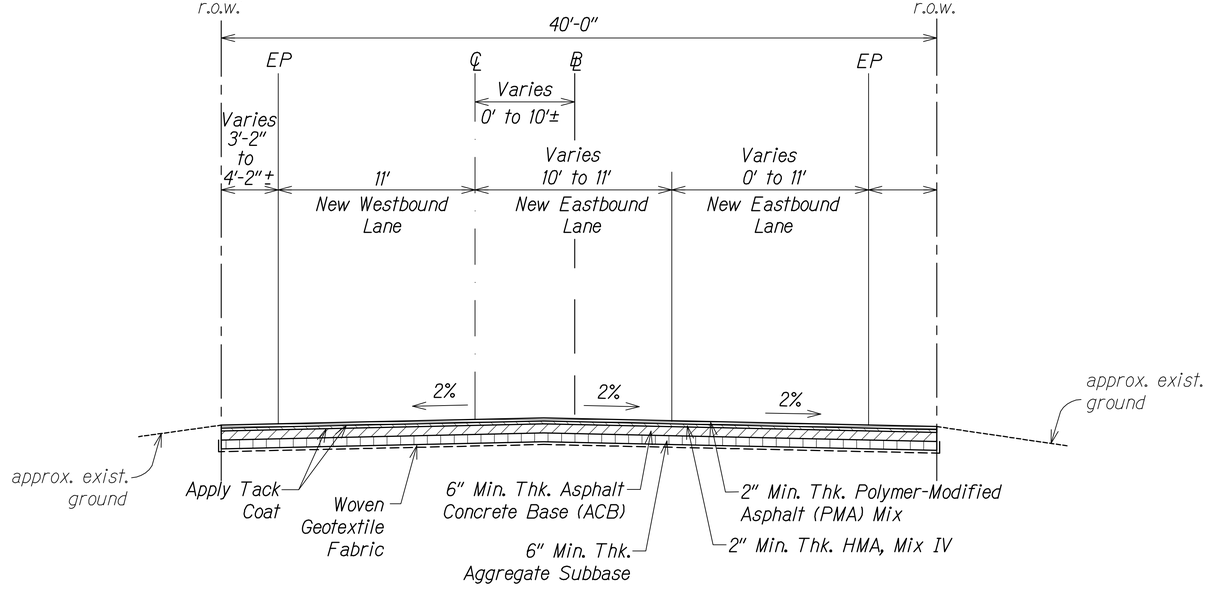
ADD.15

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.16	244



Sta. 68+79.41 TO Sta. 69+19.28
KUAMOO ROAD
Scale: 1/4" = 1'-0"



Sta. 69+19.28 TO Sta. 69+48.21
KUAMOO ROAD
TYPICAL NORMAL CROWN SECTION
Scale: 1/4" = 1'-0"

Notes:

1. Recompact Subgrade To 95% RC Before Placing New Pavement Structure.
2. See Roadway Paving Plans For Additional Paving Location and Instruction.
3. Install Safety Edge Where Edge of Shoulder is Higher Elevation Than the exist. ground. See Det., Sht. RS1
4. If Softer Soils Are Encountered, Add a Biaxial or Triaxial Geogrid (BCR of 0.5 To 0.6) On Top of Woven Geotextile.

BRIAN A. LOCK LICENSED PROFESSIONAL ENGINEER No. 9867-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

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

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; added safety edge callouts.
9/20/19	⚠3 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL ROADWAY SECTIONS

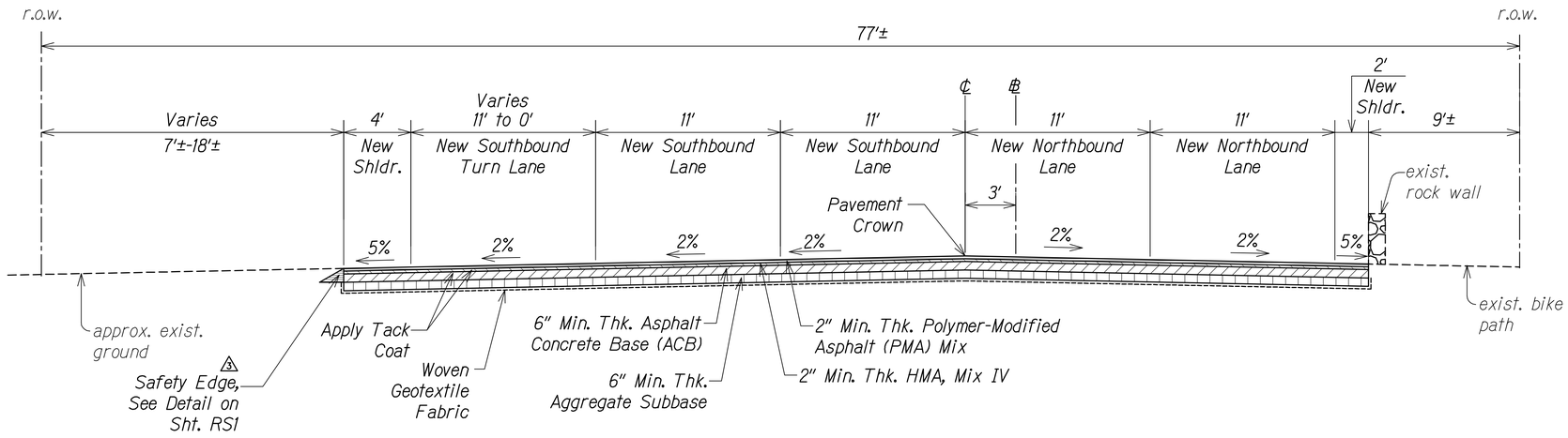
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. RS2 OF 9 SHEETS

ADD.16

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.17	244



Sta. 408+32.8 TO Sta. 412+30.1
KUHIO HIGHWAY

Scale: 1/4" = 1'-0"

Notes:

1. Recompact Subgrade To 95% RC Before Placing New Pavement Structure.
2. See Roadway Paving Plans For Additional Paving Location and Instruction.
3. Install Safety Edge Where Edge of Shoulder is Higher Elevation Than the exist. ground. See Det., Sht. RS1
4. If Softer Soils Are Encountered, Add a Biaxial or Triaxial Geogrid (BCR of 0.5 To 0.6) On Top of Woven Geotextile.

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

DATE	REVISION
11/12/19	3 Reissuing plan for legibility; added safety edge callouts.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL ROADWAY SECTIONS

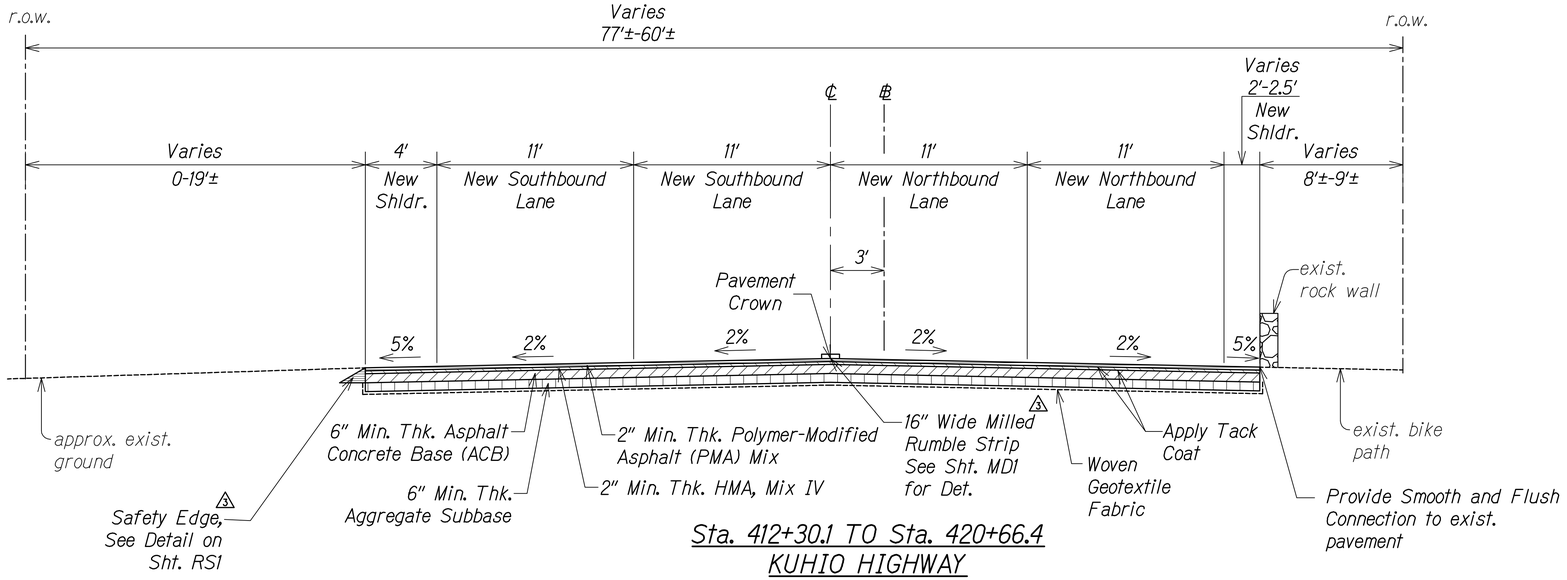
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. RS3 OF 9 SHEETS

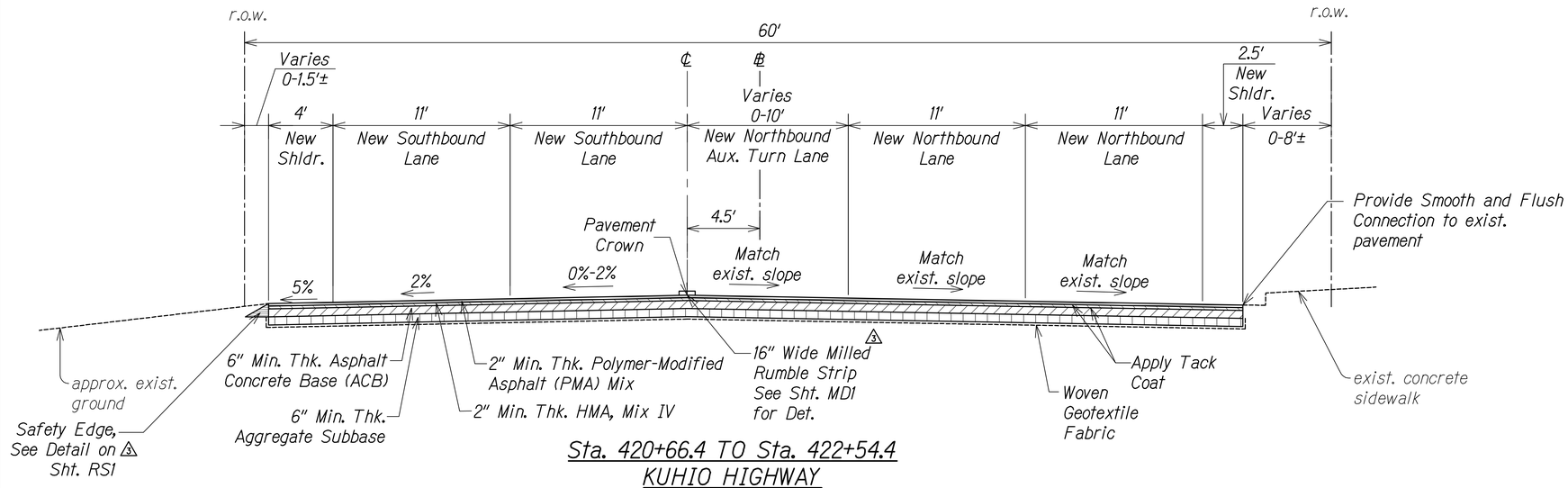
ADD.17

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.18	244



Sta. 412+30.1 TO Sta. 420+66.4
KUHIO HIGHWAY
TYPICAL NORMAL CROWN SECTION

Scale: 1/4" = 1'-0"



Sta. 420+66.4 TO Sta. 422+54.4
KUHIO HIGHWAY

Scale: 1/4" = 1'-0"

Notes:

1. Recompact Subgrade To 95% RC Before Placing New Pavement Structure.
2. See Roadway Paving Plans For Additional Paving Location and Instruction.
3. Install Safety Edge Where Edge of Shoulder is Higher Elevation Than the exist. ground. See Det., Sht. RS1
4. If Softer Soils Are Encountered, Add a Biaxial or Triaxial Geogrid (BCR of 0.5 To 0.6) On Top of Woven Geotextile.

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; revised callouts; added safety edge callouts
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL ROADWAY SECTIONS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

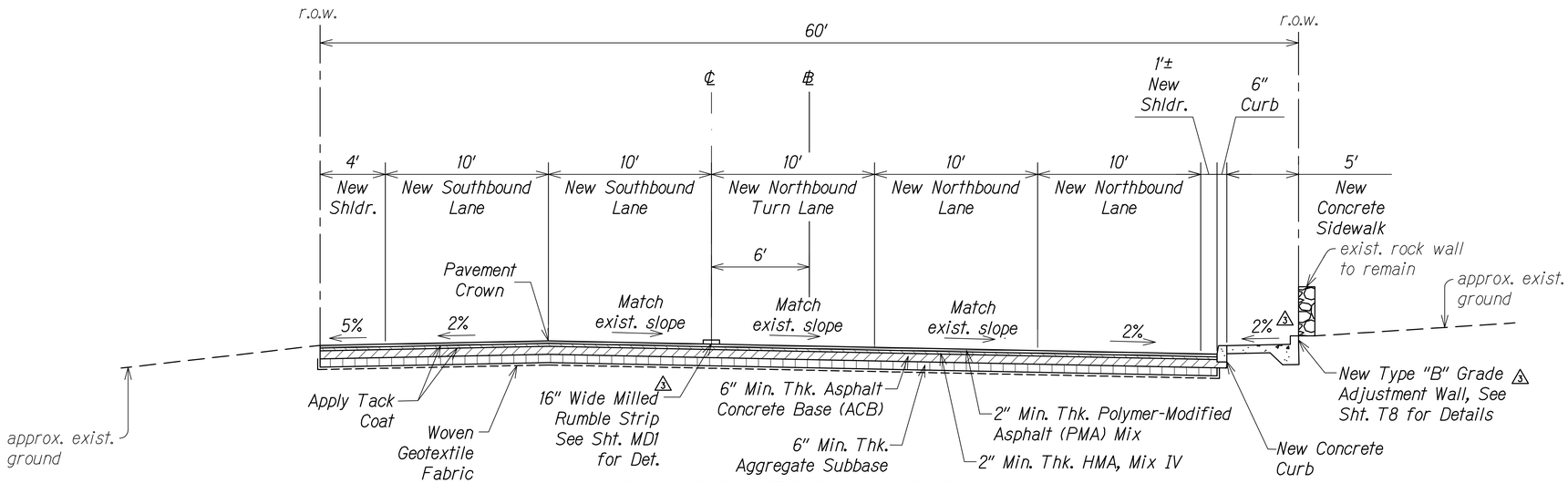
Scale: As Noted Date: July 2019

SHEET No. RS4 OF 9 SHEETS

ADD.18

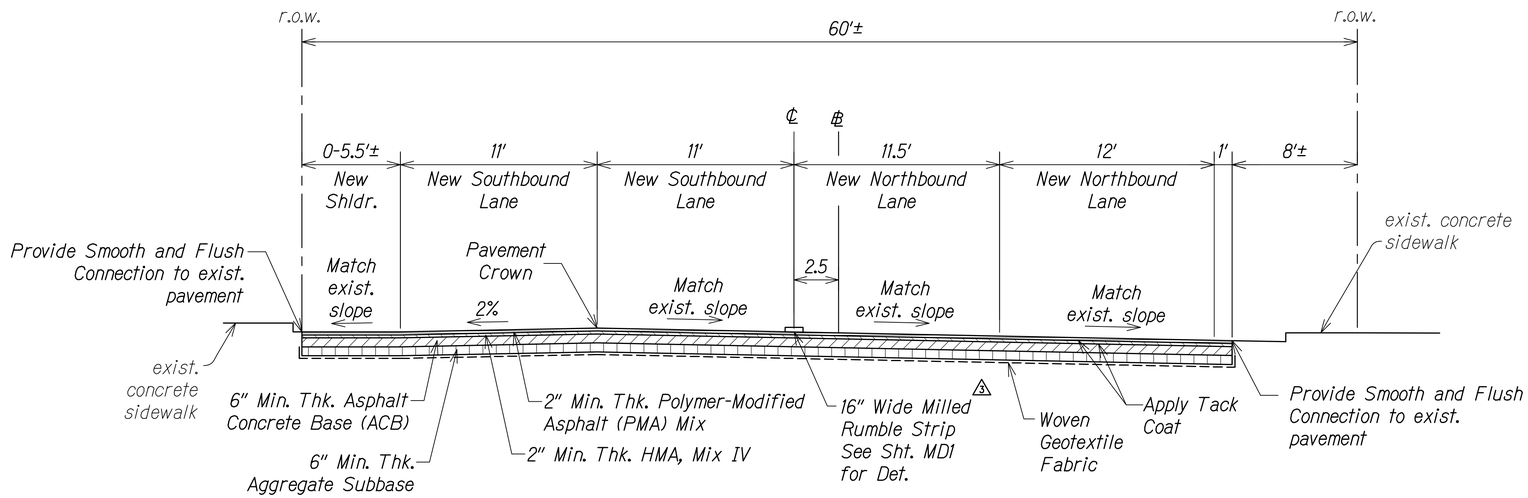
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE
NOTE BOOK | No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.19	244



Sta. 422+54.4 TO Sta. 424+66.8
KUHIO HIGHWAY

Scale: 1/4" = 1'-0"



Sta. 426+26.3 TO Sta. 429+67.5
KUHIO HIGHWAY

Scale: 1/4" = 1'-0"

Notes:

1. Recompact Subgrade To 95% RC Before Placing New Pavement Structure.
2. See Roadway Paving Plans For Additional Paving Location and Instruction.
3. Install Safety Edge Where Edge of Shoulder is Higher Elevation Than the exist. ground. See Det., Sht. RS1
4. If Softer Soils Are Encountered, Add a Biaxial or Triaxial Geogrid (BCR of 0.5 To 0.6) On Top of Woven Geotextile.

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

BRIAN A. LOCK LICENSED PROFESSIONAL ENGINEER No. 9867-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; revised callouts; added slope
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL ROADWAY SECTIONS

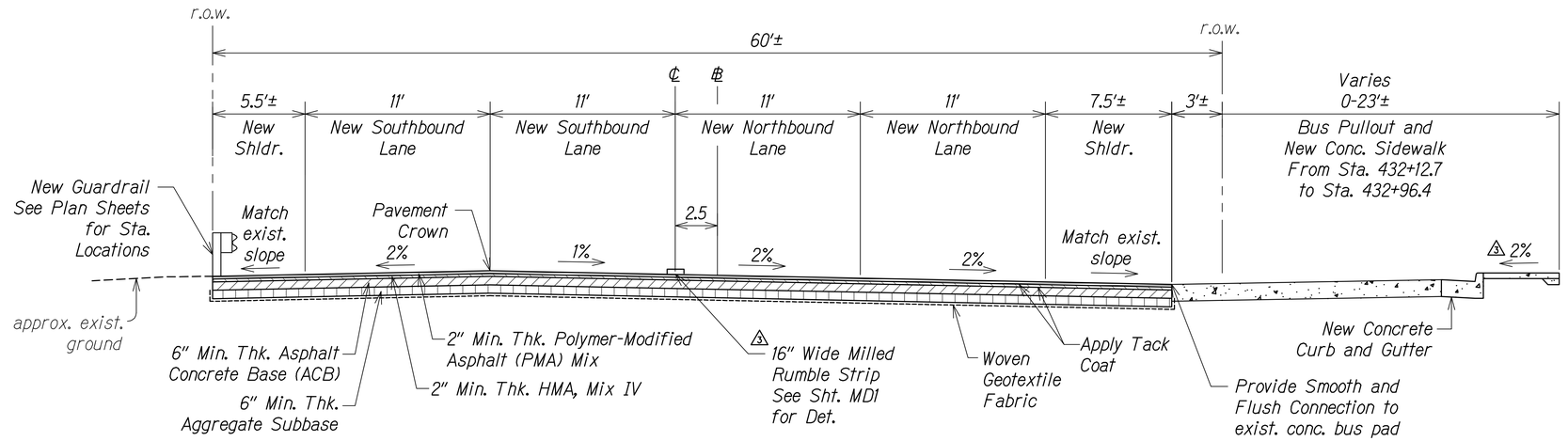
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. RS5 OF 9 SHEETS

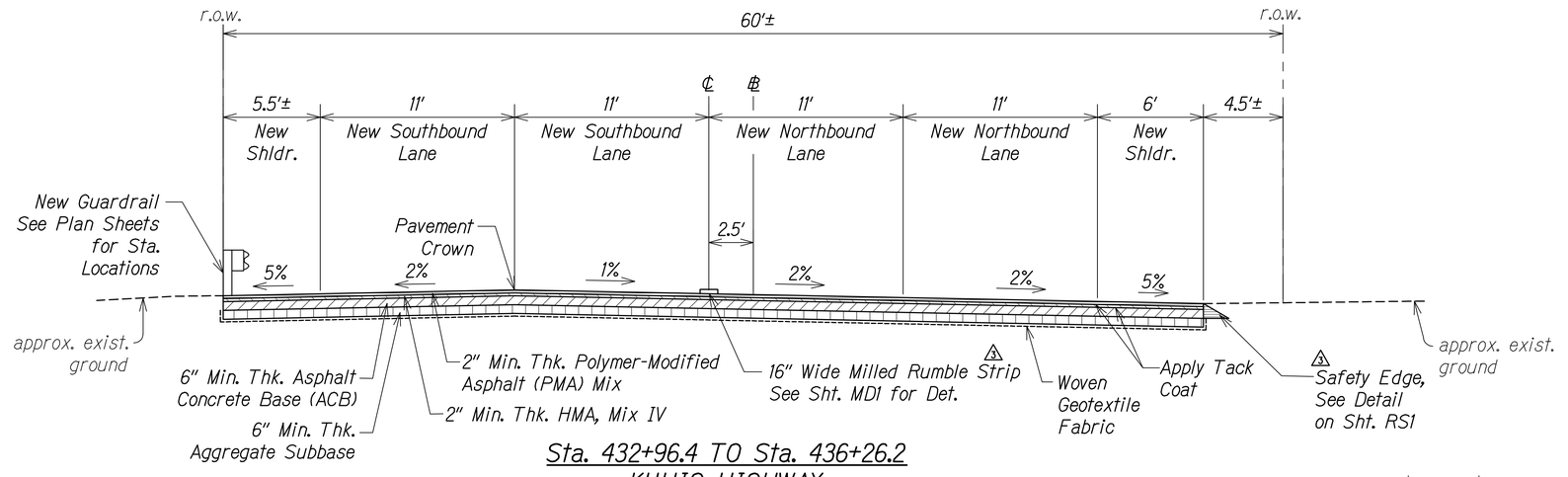
ADD.19

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.20	244



Sta. 430+79.4 TO Sta. 432+96.4
KUHIO HIGHWAY

Scale: 1/4" = 1'-0"



Sta. 432+96.4 TO Sta. 436+26.2
KUHIO HIGHWAY

Scale: 1/4" = 1'-0"

Notes:

1. Recompact Subgrade To 95% RC Before Placing New Pavement Structure.
2. See Roadway Paving Plans For Additional Paving Location and Instruction.
3. Install Safety Edge Where Edge of Shoulder is Higher Elevation Than the exist. ground. See Det., Sht. RS1
4. If Softer Soils Are Encountered, Add a Biaxial or Triaxial Geogrid (BCR of 0.5 To 0.6) On Top of Woven Geotextile.

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; added slope and callouts; revised callouts.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK LICENSED PROFESSIONAL ENGINEER No. 9867-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL ROADWAY SECTIONS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

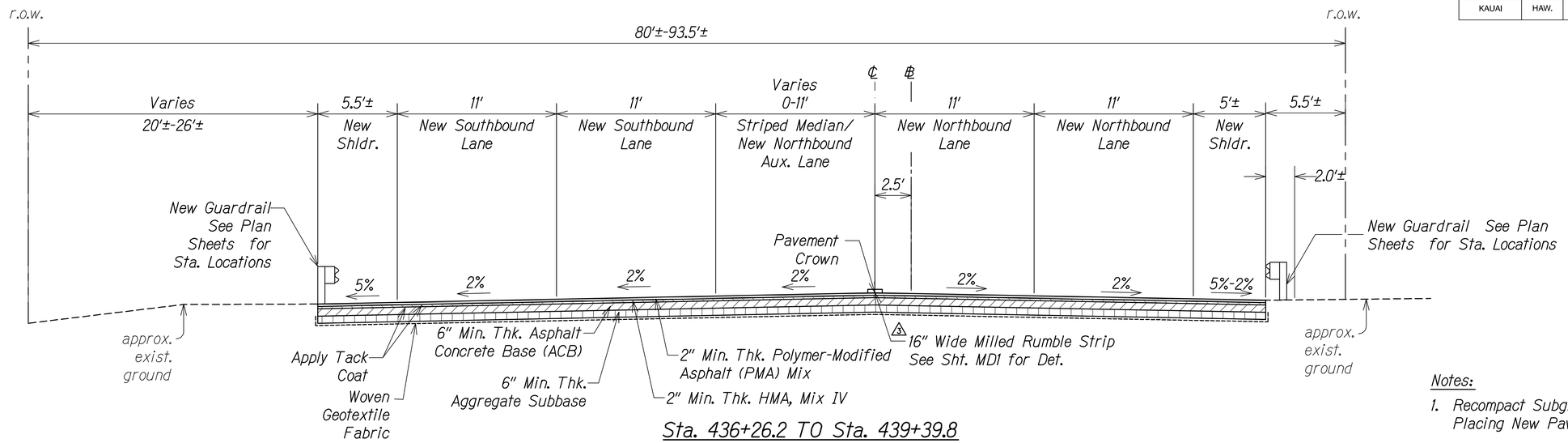
Scale: As Noted Date: July 2019

SHEET No. RS6 OF 9 SHEETS

ADD.20

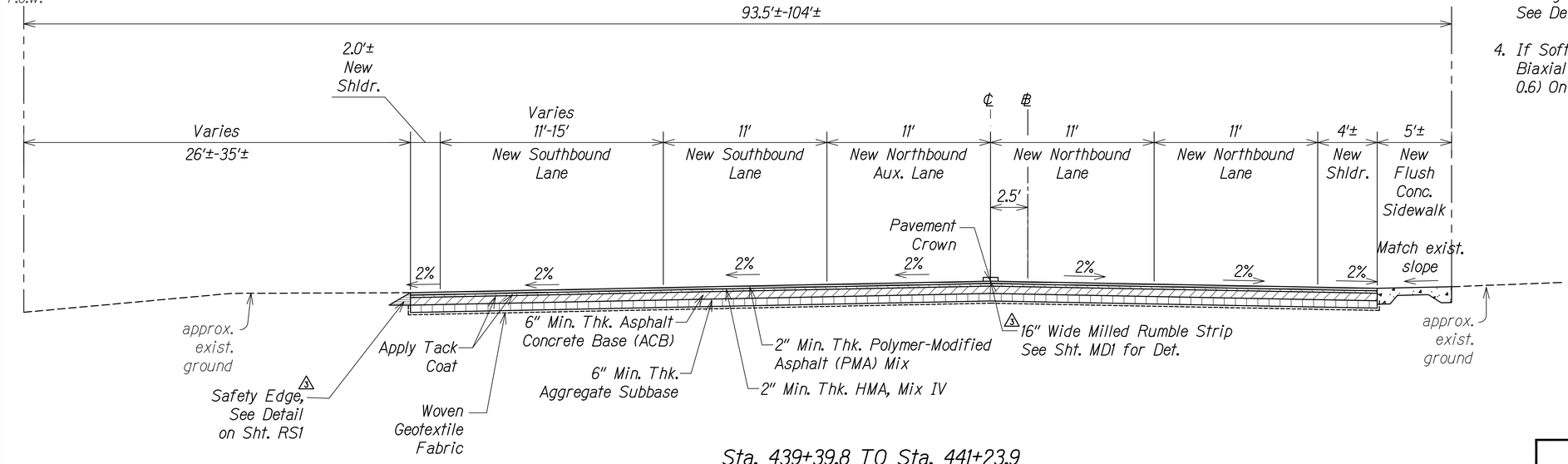
ORIGINAL PLAN — SURVEY PLOTTED BY — DRAWN BY — TRACED BY — DESIGNED BY — QUANTITIES BY — CHECKED BY — DATE — NOTE BOOK — No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.21	244



Sta. 436+26.2 TO Sta. 439+39.8
KUHIO HIGHWAY

Scale: 1/4" = 1'-0"



Sta. 439+39.8 TO Sta. 441+23.9
KUHIO HIGHWAY

Scale: 1/4" = 1'-0"

Notes:

1. Recompact Subgrade To 95% RC Before Placing New Pavement Structure.
2. See Roadway Paving Plans For Additional Paving Location and Instruction.
3. Install Safety Edge Where Edge of Shoulder is Higher Elevation Than the exist. ground. See Det., Sht. RS1
4. If Softer Soils Are Encountered, Add a Biaxial or Triaxial Geogrid (BCR of 0.5 To 0.6) On Top of Woven Geotextile.

DATE	REVISION
11/12/19	3 Reissuing plan for legibility; revised callouts; added safety edge callout
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

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

BRIAN A. LOCK — LICENSED PROFESSIONAL ENGINEER — No. 9867-C — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL ROADWAY SECTIONS

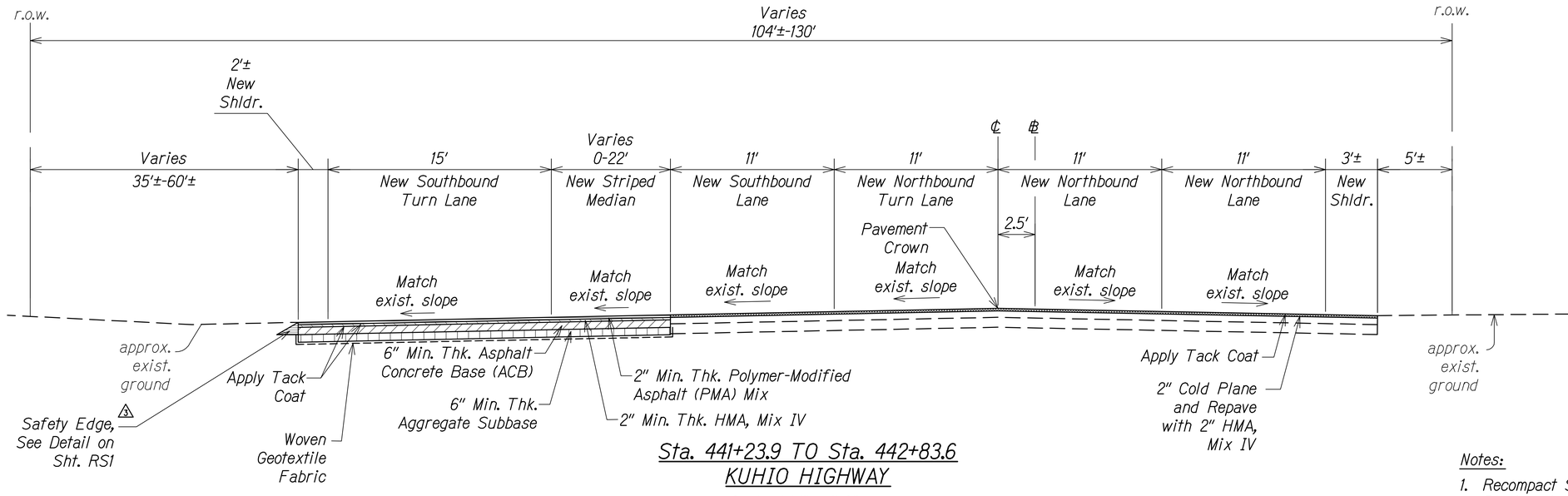
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted — Date: July 2019

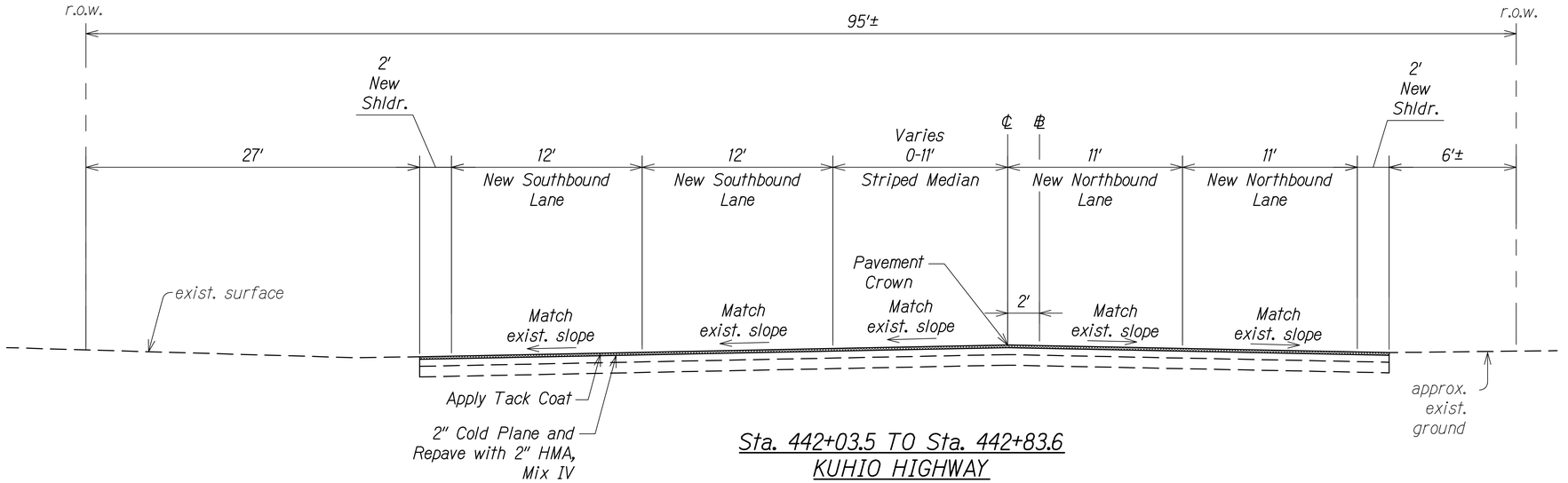
SHEET No. RS7 OF 9 SHEETS

ADD.21

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.22	244



Sta. 441+23.9 TO Sta. 442+83.6
KUHIO HIGHWAY
Scale: 1/4" = 1'-0"



Sta. 442+03.5 TO Sta. 442+83.6
KUHIO HIGHWAY
Scale: 1/4" = 1'-0"

Notes:

1. Recompact Subgrade To 95% RC Before Placing New Pavement Structure.
2. See Roadway Paving Plans For Additional Paving Location and Instruction.
3. Install Safety Edge Where Edge of Shoulder is Higher Elevation Than the exist. ground. See Det., Sht. RS1
4. If Softer Soils Are Encountered, Add a Biaxial or Triaxial Geogrid (BCR of 0.5 To 0.6) On Top of Woven Geotextile.

APPROVED

County Engineer — Date
County of Kaua'i
(For Work Within the County Right-of-Way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; added safety edge callout
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL ROADWAY SECTIONS

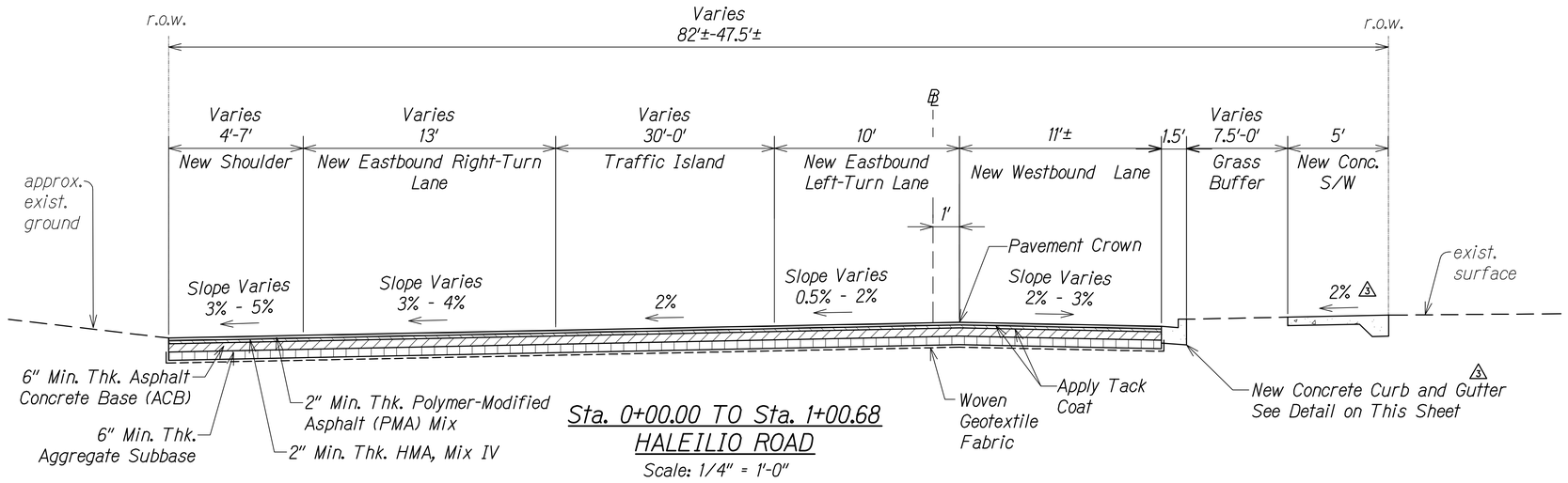
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted — Date: July 2019

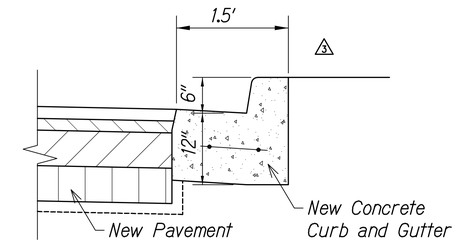
SHEET No. RS8 OF 9 SHEETS

ADD.22

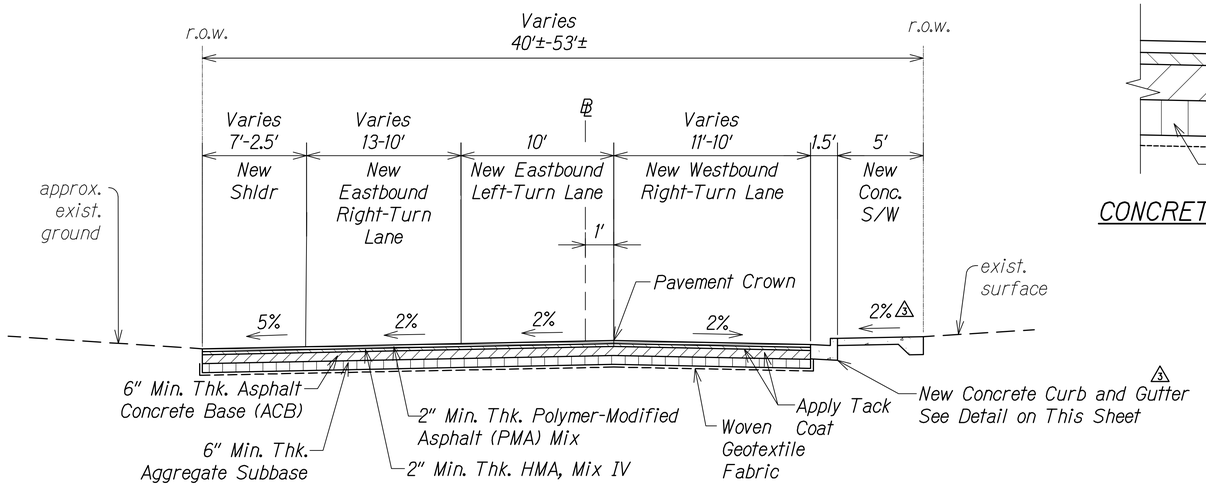
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.23	244



Sta. 0+00.00 TO Sta. 1+00.68
HALEILIO ROAD
Scale: 1/4" = 1'-0"



CONCRETE CURB AND GUTTER DETAIL
Not to Scale



Sta. 1+00.68 TO Sta. 1+34.9
HALEILIO ROAD
Scale: 1/4" = 1'-0"

Notes:

1. Recompact Subgrade To 95% RC Before Placing New Pavement Structure.
2. See Roadway Paving Plans For Additional Paving Location and Instruction.
3. Install Safety Edge Where Edge of Shoulder is Higher Elevation Than the exist. ground. See Det., Sht. RS1
4. If Softer Soils Are Encountered, Add a Biaxial or Triaxial Geogrid (BCR of 0.5 To 0.6) On Top of Woven Geotextile.

APPROVED

County Engineer — Date
County of Kaua'i
(For Work Within the County Right-of-Way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; added new detail, callouts, and slopes
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

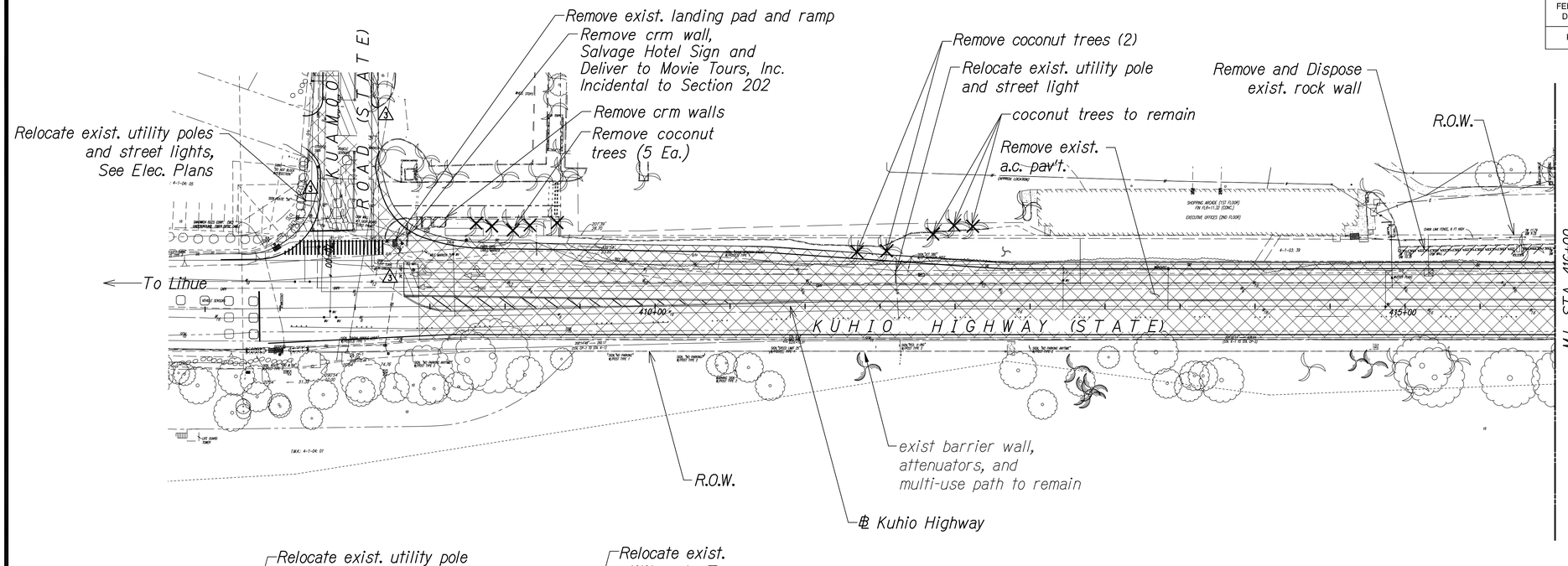
TYPICAL ROADWAY SECTIONS

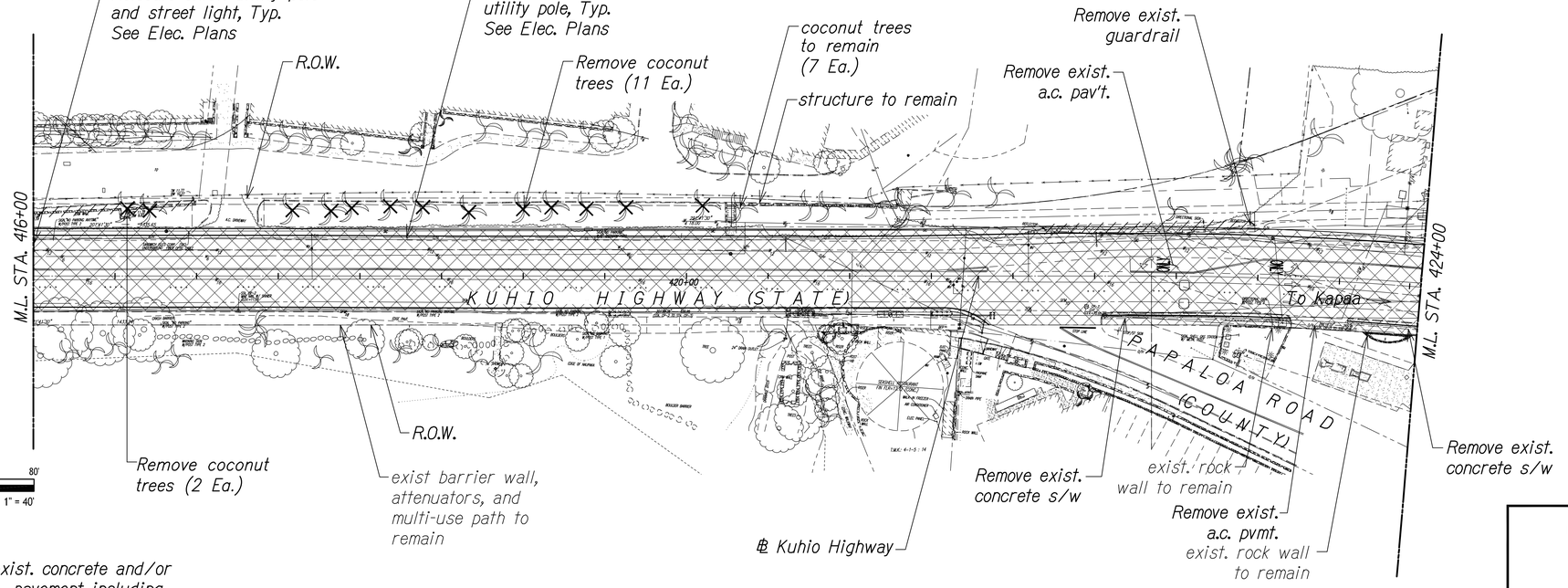
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: As Noted Date: July 2019

SHEET No. RS9 OF 9 SHEETS

ADD.23

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.24	244





True North
Scale: 1"=40'

Note:

1. Within 15 days after NTP, the contractor shall consult with the Engineer. Clean and grub vegetation along mauka right-of-way between ℄ Sta. 409+40± to ℄ Sta. 420+30± to allow DOT's archaeological consultant to conduct additional inventory survey. The contractors clearing and grubbing work shall be incidental to Section 201.
2. See Paving Plans For Pavement Removal Limits.

GRAPHIC SCALE
40' 20' 0 40' 80'
SCALE: 1" = 40'

Legend:

- Remove exist. concrete and/or exist. a.c. pavement including asphalt base and aggregate subbase
- ⚠3 2" Cold Plane Repave with 2" HMA, Mix IV

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

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; revised cold plane hatch
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

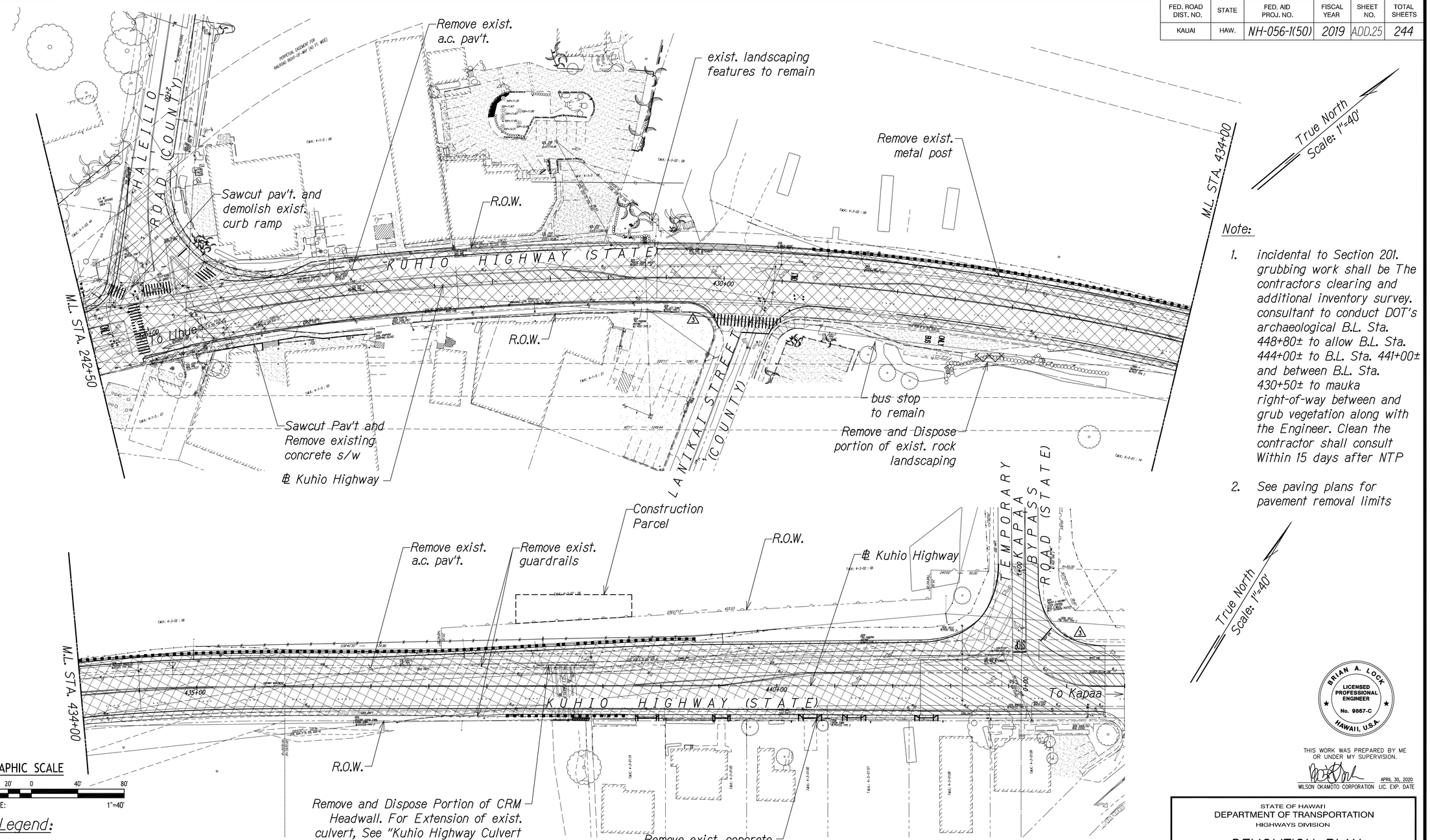
DEMOLITION PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: July 2019

SHEET No. DP1 OF 2 SHEETS

ADD.24

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.25	244



Note:

1. incidental to Section 201. grubbing work shall be The contractors clearing and additional inventory survey. consultant to conduct DOT's archaeological B.L. Sta. 448+80± to allow B.L. Sta. 444+00± to B.L. Sta. 441+00± and between B.L. Sta. 430+50± to mauka right-of-way between and grub vegetation along with the Engineer. Clean the contractor shall consult Within 15 days after NTP
2. See paving plans for pavement removal limits

GRAPHIC SCALE

40' 20' 0 40' 80'

SCALE: 1"=40'

Legend:

- Remove exist. concrete and/or exist. a.c. pavement including asphalt base and aggregate subbase
- ③ 2" Cold Plane Repave with 2" HMA, Mix IV

APPROVED

County Engineer Date
County of Kaua'i
(For Work Within the County Right-of-Way)

DATE	REVISION
11/12/19	③ Reissuing plan for legibility; revise callout and hatches
9/20/19	① Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DEMOLITION PLAN

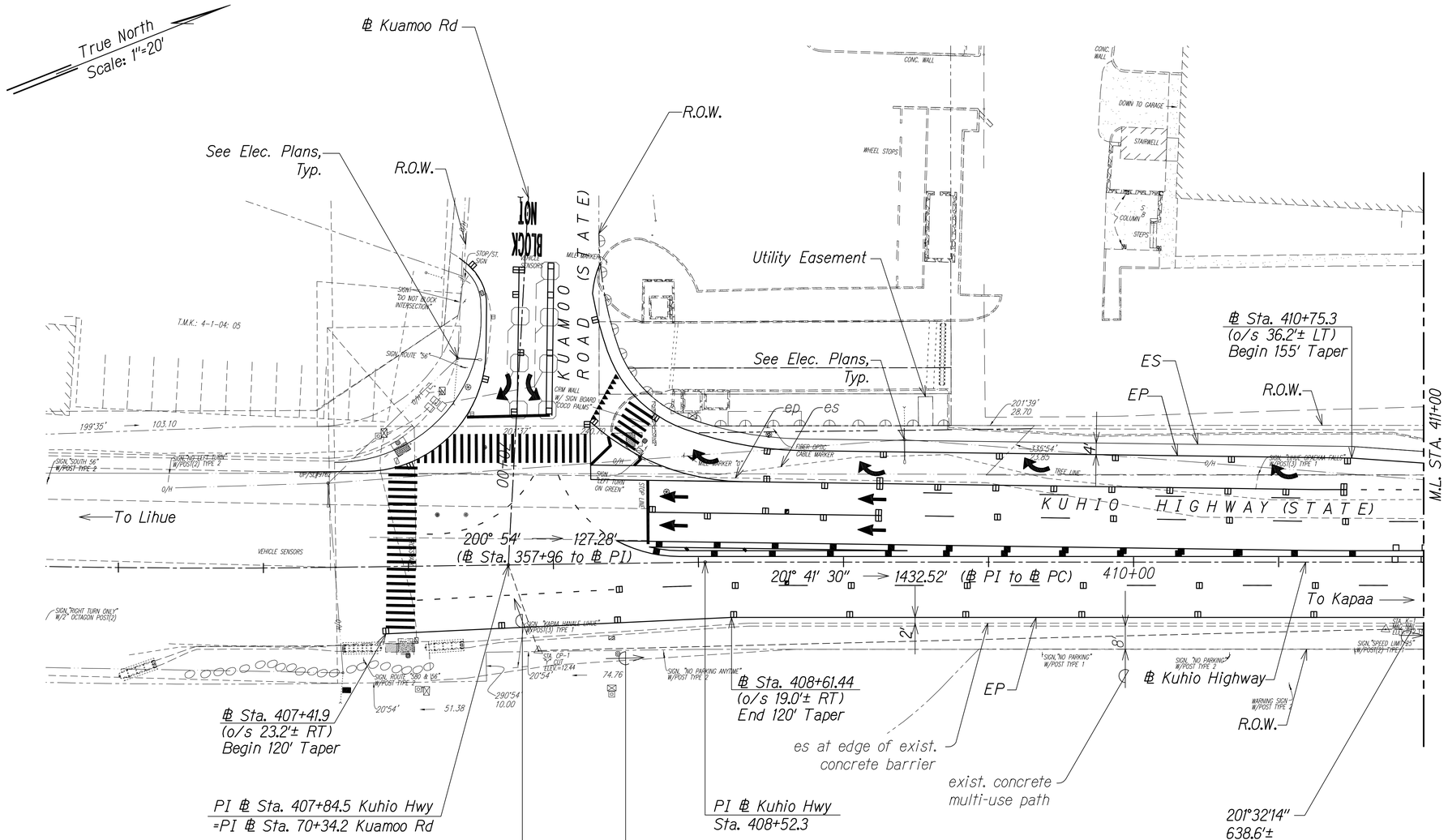
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: July 2019

SHEET No. DP2 OF 2 SHEETS

ADD.25

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.26	244



Notes:

1. *See "Traffic Signal Plans" for Adjustments/Relocation of Traffic Signal System*
2. *See "Roadway Paving Plans" for Additional Roadway Geometrics*

GRAPHIC SCALE:

20' 10' 0 20' 40'
Scale: 1" = 20'

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

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

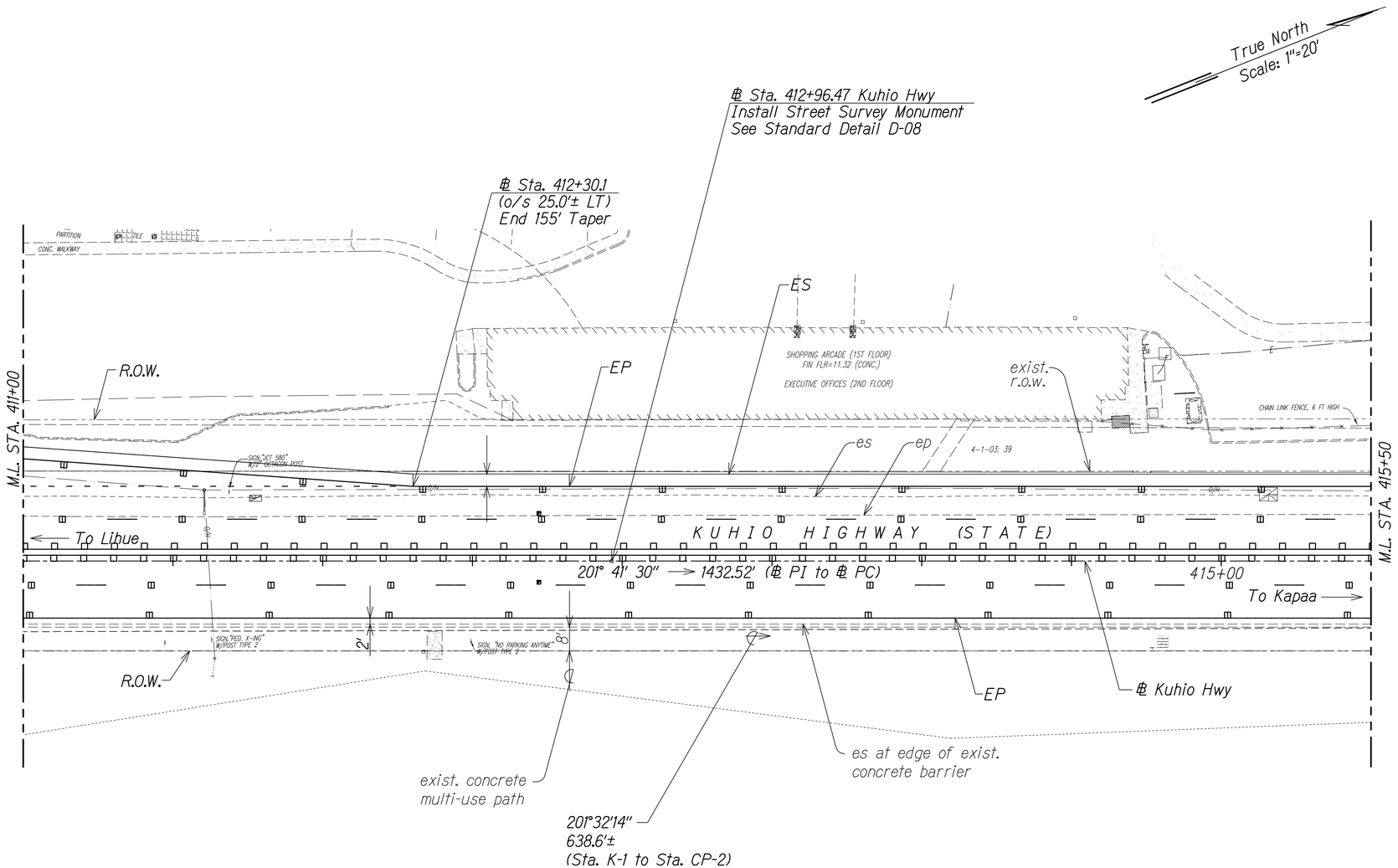
ROADWAY PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 20' Date: July 2019

SHEET No. RP1 OF 16 SHEETS

ADD.26

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.27	244



Notes:

1. *See "Traffic Signal Plans" for Adjustments/Relocation of Traffic Signal System*

2. *See "Roadway Paving Plans" for Additional Roadway Geometrics*

GRAPHIC SCALE

20' 10' 0 20' 40'

Scale: 1" = 20'

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

ORIGINAL PLAN
NOTE BOOK
No.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

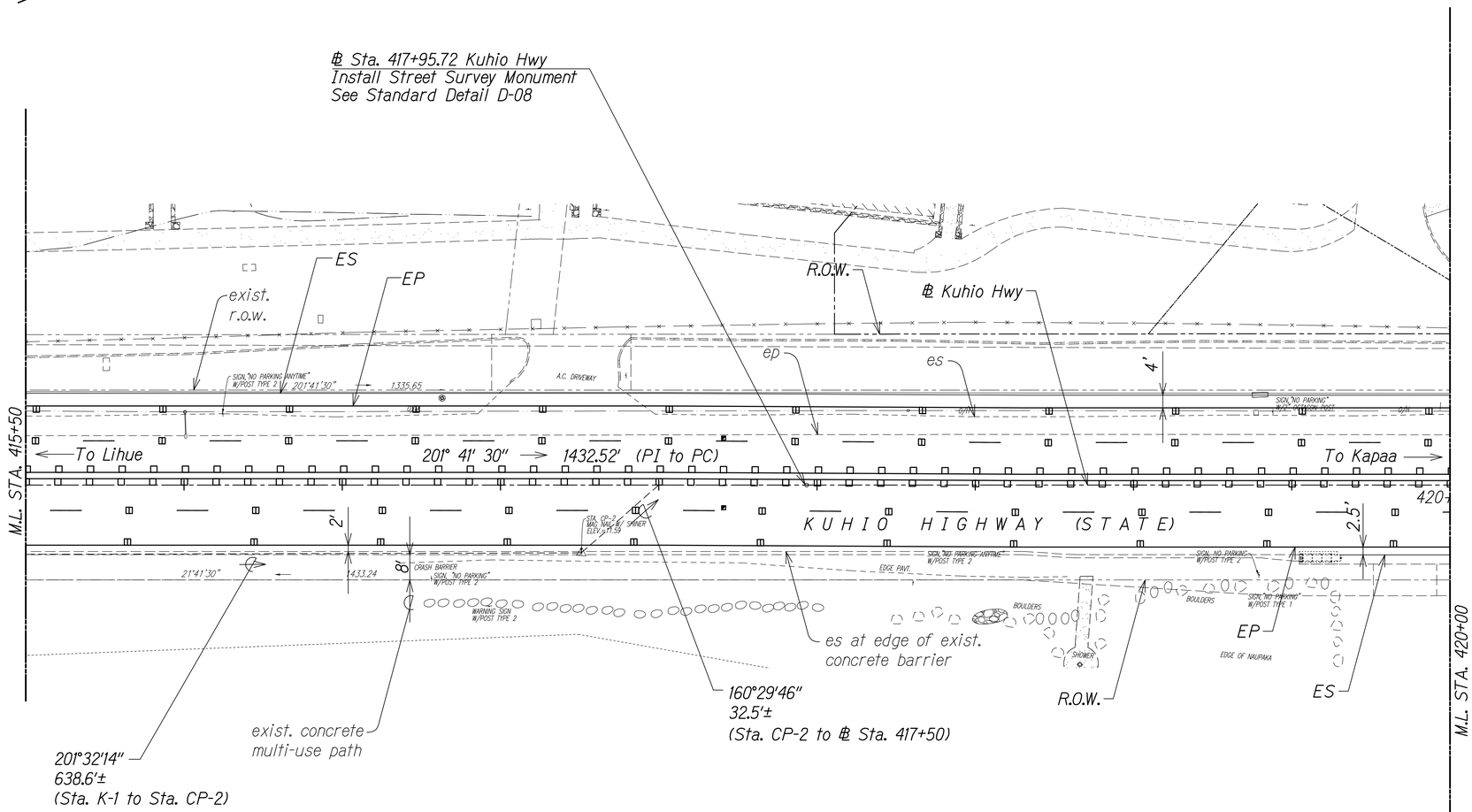
Scale: 1" = 20' Date: July 2019

SHEET No. RP2 OF 16 SHEETS

ADD.27

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.28	244

True North
Scale: 1"=20'



Notes:

1. *See "Traffic Signal Plans" for Adjustments/Relocation of Traffic Signal System*

2. *See "Roadway Paving Plans" for Additional Roadway Geometrics*

GRAPHIC SCALE:

20' 10' 0 20' 40'
Scale: 1" = 20'

ORIGINAL PLAN
STUFF PLOTTED BY ____ DATE
PLAN PREPARED BY
TRACED BY
NOTE BOOK DESIGNED BY
No. QUANTITIES BY
CHECKED BY

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 20' Date: July 2019

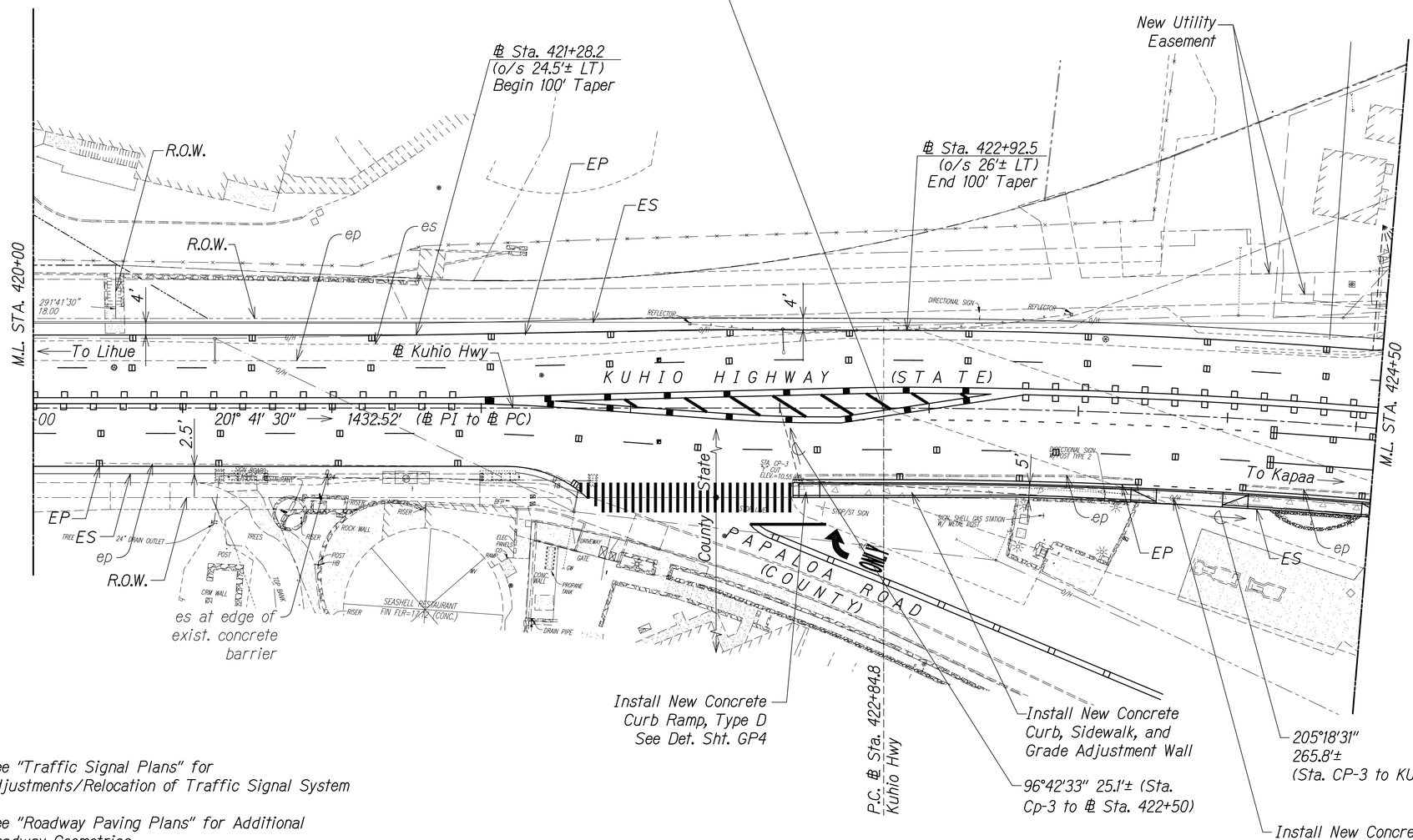
SHEET No. RP3 OF 16 SHEETS

ADD.28

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.29	244

True North
Scale: 1"=20'

℄ Sta. 422+84.8 Kuhio Hwy
Install Street Survey Monument
See Standard Detail D-08



℄ Kuhio Highway
Curve Data

△	=	36°59' 00"
△/2	=	18°29' 30"
R	=	2000.00
T	=	668.87
Ch	=	1268.67
Lc	=	1290.96

Notes:

1. See "Traffic Signal Plans" for Adjustments/Relocation of Traffic Signal System
2. See "Roadway Paving Plans" for Additional Roadway Geometrics
3. See "Detectable Warning Details" on Sheet T5

GRAPHIC SCALE:

20' 10' 0 20' 40'
Scale: 1" = 20'

APPROVED

County Engineer Date
County of Kauai
(For Work Within the County Right-of-Way)

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

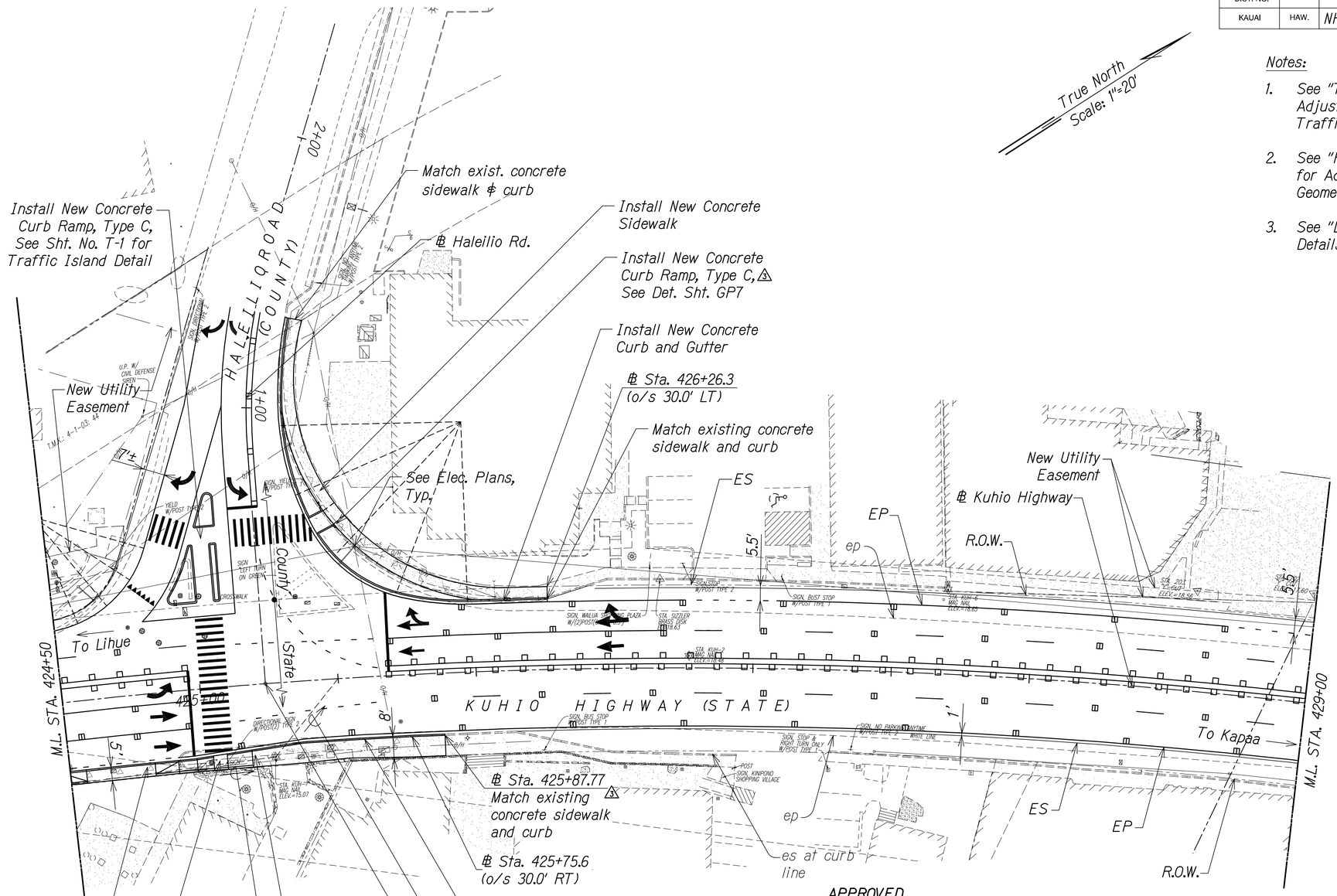
ROADWAY PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 20' Date: July 2019

SHEET No. RP4 OF 16 SHEETS

ADD.29

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.30	244



Notes:

1. See "Traffic Signal Plans" for Adjustments/Relocation of Traffic Signal System
2. See "Roadway Paving Plans" for Additional Roadway Geometrics
3. See "Detectable Warning Details" on Sheet T5

℄ Kuhio Highway Curve Data

△	=	36° 59' 00"
△/2	=	18°29' 30"
R	=	2000.00
T	=	668.87
Ch	=	1268.67
Lc	=	1290.96

GRAPHIC SCALE:

20' 10' 0 20' 40'

Scale: 1" = 20'

ORIGINAL PLAN

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

APPROVED

County Engineer Date
County of Kauai
(For Work Within the County Right-of-Way)

DATE	REVISION
11/12/19	3 Reissuing plan for legibility; revised callouts
9/20/19	2 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK LICENSED PROFESSIONAL ENGINEER No. 9867-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

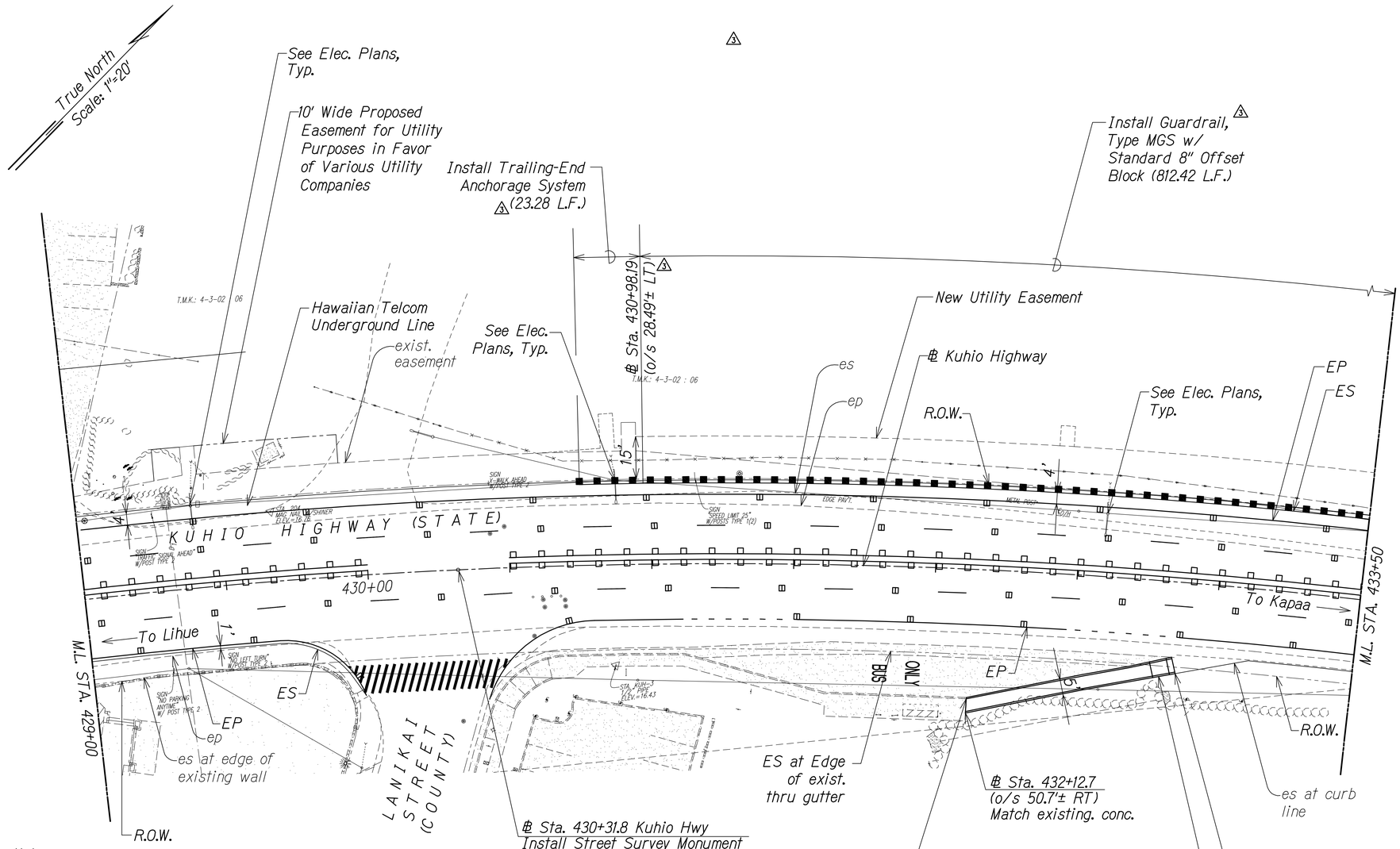
ROADWAY PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 20' Date: July 2019

SHEET No. RP5 OF 16 SHEETS

ADD.30

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.31	244



℄ Kuhio Highway
Curve Data

△	=	36° 59' 00"
△/2	=	18° 29' 30"
R	=	2000.00
T	=	668.87
Ch	=	1268.67
Lc	=	1290.96

Notes:

1. See "Traffic Signal Plans" for Adjustments/Relocation of Traffic Signal System
2. See "Roadway Paving Plans" for Additional Roadway Geometrics
3. See "Detectable Warning Details" on Sheet T5
4. Contractor shall submit shop drawings of MSKT-SP-MGS TL-2 End Treatment

GRAPHIC SCALE:

20' 10' 0 20' 40'
Scale: 1" = 20'

APPROVED

County Engineer Date
County of Kaua'i
(For Work Within the County Right-of-Way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; revised guardrail lengths
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

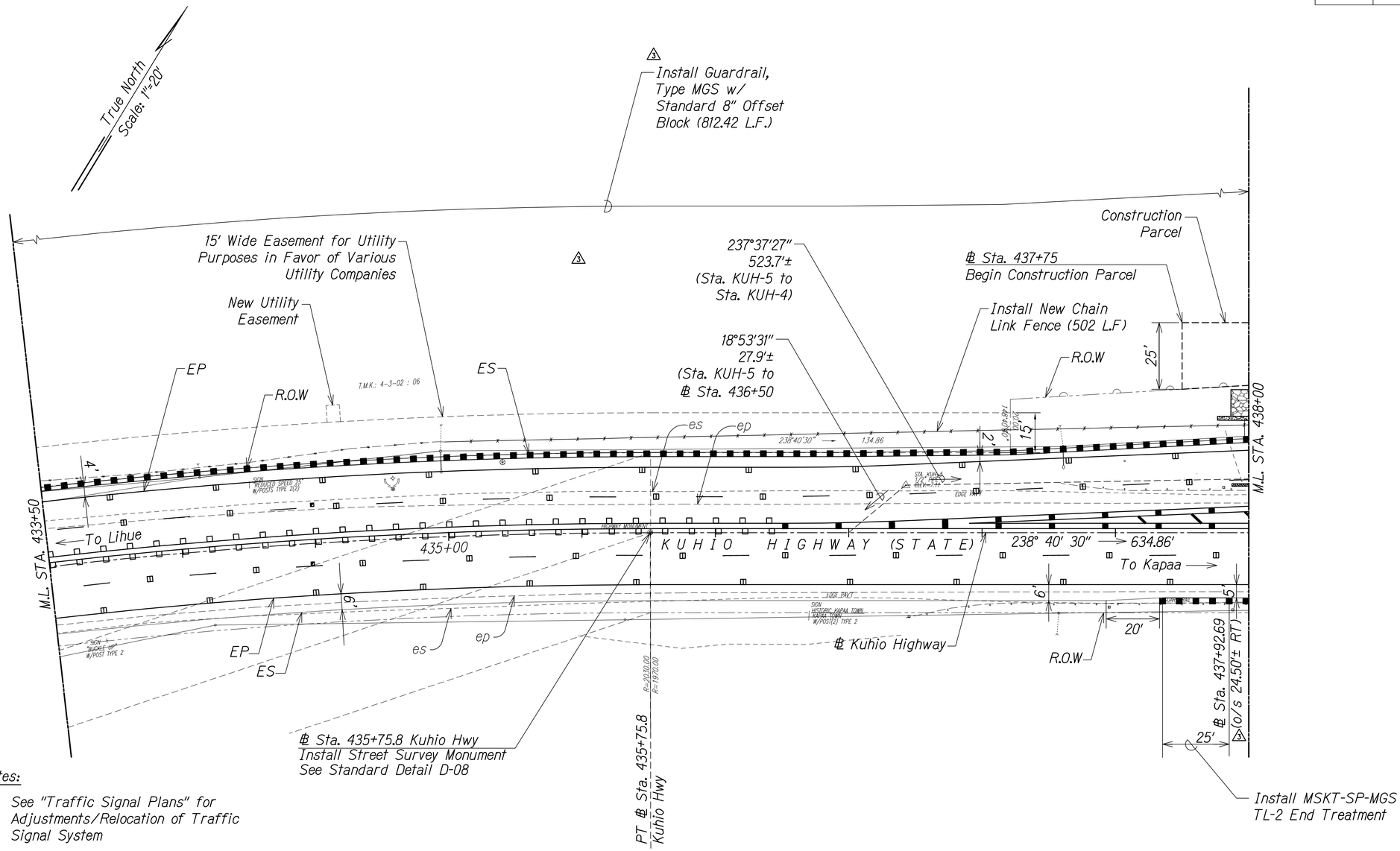
ROADWAY PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 20' Date: July 2019

SHEET No. RP6 OF 16 SHEETS

ADD.31

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.32	244



Notes:

1. See "Traffic Signal Plans" for Adjustments/Relocation of Traffic Signal System
2. See "Roadway Paving Plans" for Additional Roadway Geometrics
3. Contractor shall provide shop drawings for MSKT-SP-MGS TL-2 End Treatment

B.L. Kuhio Highway Curve Data

△	=	36°59' 00"
△/2	=	18°29' 30"
R	=	2000.00
T	=	668.87
Ch	=	1268.67
Lc	=	1290.96

GRAPHIC SCALE:

20' 10' 0 20' 40'
Scale: 1" = 20'

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

DATE	REVISION
11/12/19	⚠5 Reissuing plan for legibility; deleted callout; revised guardrail lengths
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLAN

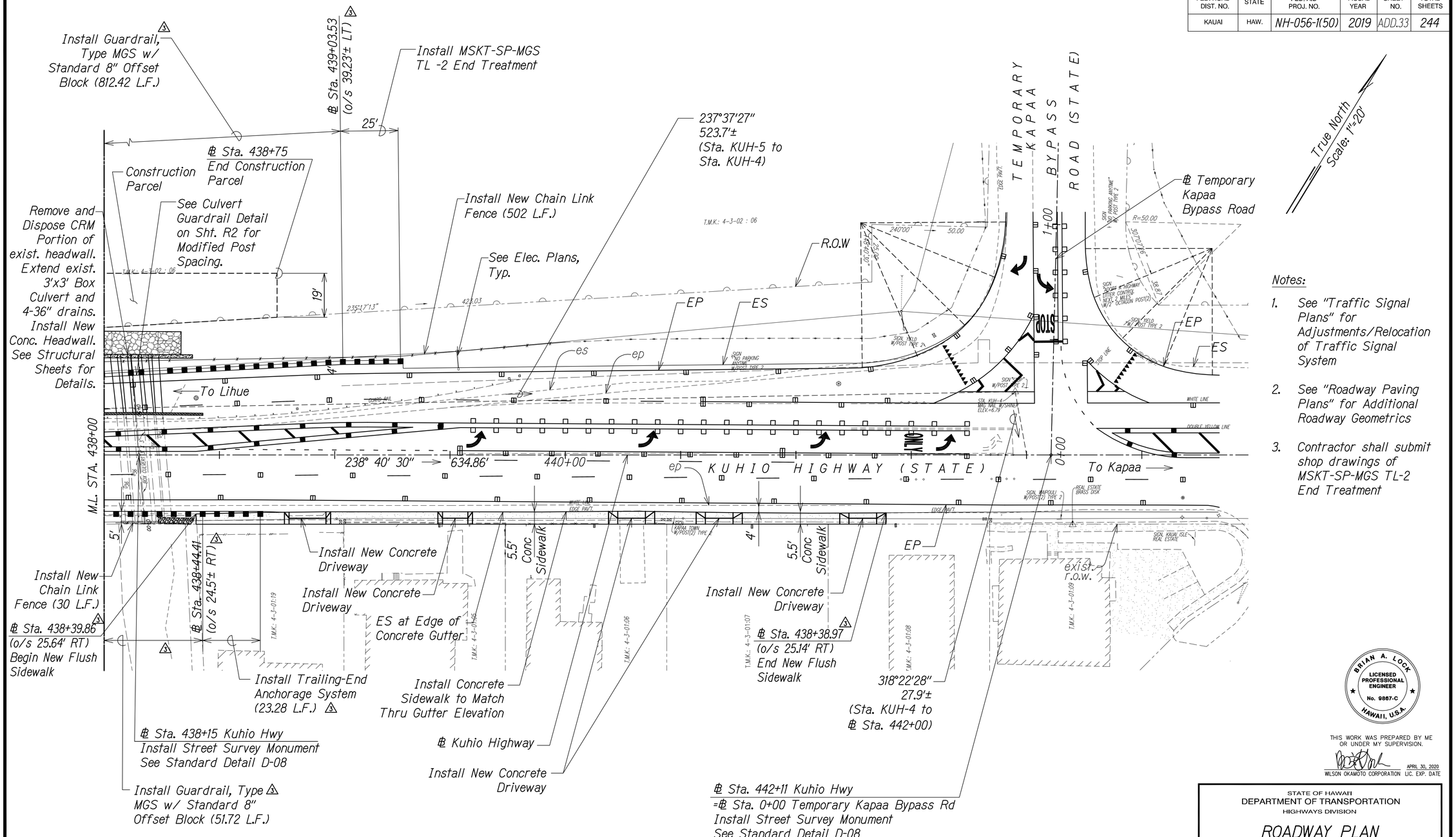
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 20' Date: July 2019

SHEET No. RP7 OF 16 SHEETS

ADD.32

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.33	244



Notes:

1. See "Traffic Signal Plans" for Adjustments/Relocation of Traffic Signal System
2. See "Roadway Paving Plans" for Additional Roadway Geometrics
3. Contractor shall submit shop drawings of MSKT-SP-MGS TL-2 End Treatment

GRAPHIC SCALE:

20' 10' 0 20' 40'

Scale: 1" = 20'

DATE	REVISION
11/12/19	3 Reissuing plan for legibility; revised lengths; added sidewalk callouts
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLAN

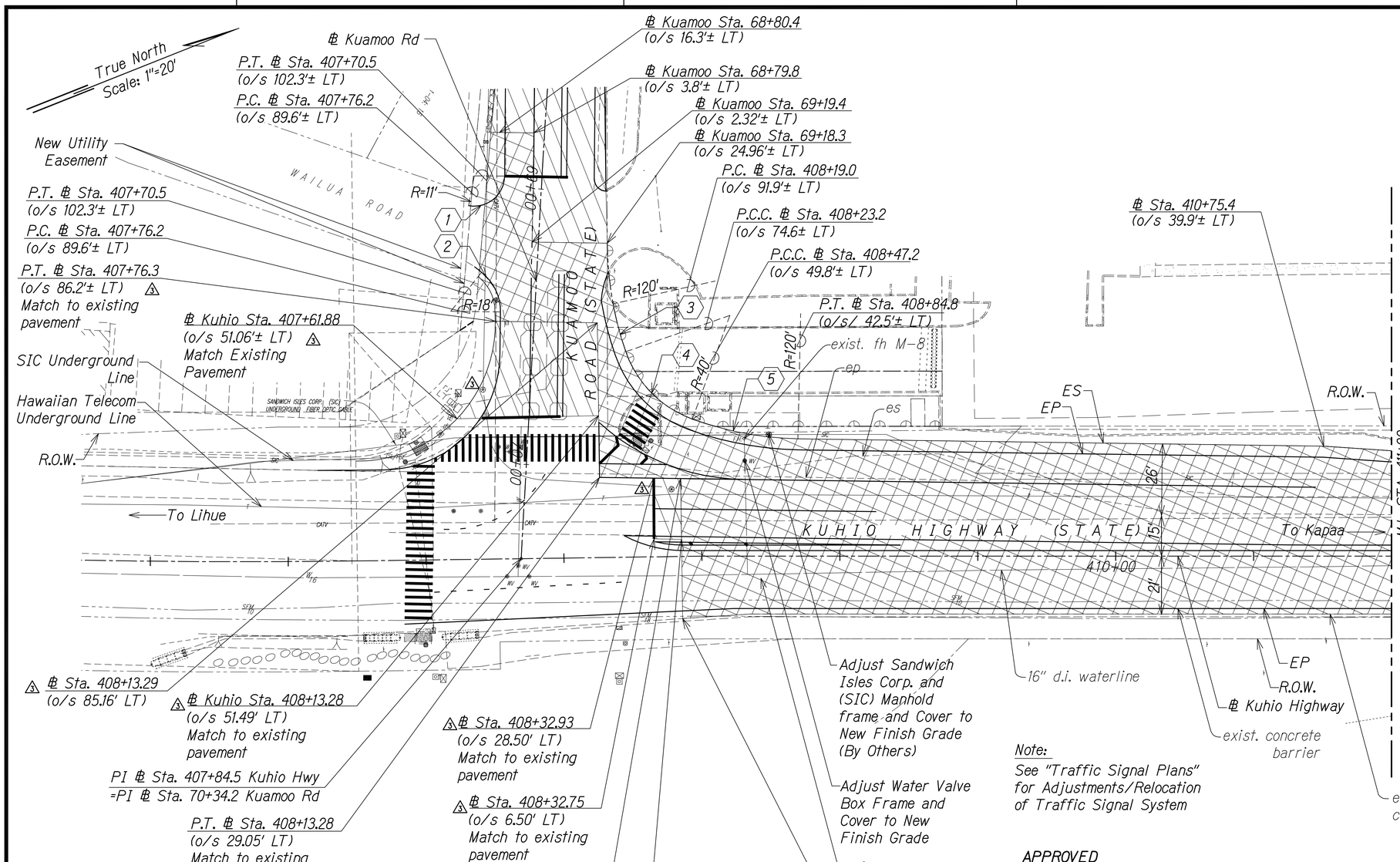
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 20' Date: July 2019

SHEET No. RP8 OF 16 SHEETS

ADD.33

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.34	244



GRAPHIC SCALE:

20' 10' 0 20' 40'

Scale: 1" = 20'

Legend:

- New Pavement Structure
- 3 2" Cold Plane Repave with 2" HMA, Mix IV

CURVE DATA

	1	2	3	4	5
△	63° 1' 9"	51° 40' 11"	8° 34' 20"	50° 49' 52"	18° 41' 2"
△/2	31° 30' 34"	25° 50' 5"	4° 17' 10"	25° 24' 56"	9° 20' 31"
R	11.00'	18.00'	120.00'	40.00'	120.00'
T	5.52'	7.75'	8.99'	19.01'	19.74'
Ch	9.41'	13.94'	17.94'	34.33'	38.96'
Lc	9.9'	14.43'	7.95'	35.49'	39.13'

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

WATER NOTES FOR EXISTING WATER FACILITIES

1. Prior to commencing his operations, the Contractor shall contact the County of Kaua'i, Department of Water Operations Division (phone no. 245-5444) and make arrangements for the Department to "tone" and mark the existing water facilities located within the project limits, such as waterlines, valve boxes, water meter boxes, and manhole frame/covers, etc., shall be adjusted to match the new finished grades noted on the construction plans.
2. When adjustment of valve boxes and manhole frame/covers are required, it shall be the Contractor's responsibility to offset and record the location of the valve boxes and manhole frame/covers as marked by the Department of Water for the purposes of adjusting to the new finish grade. The Contractor shall preserve all of their offset stakes marking locations of the valve boxes and manhole frame/covers. If offset stakes are damaged or lost, it shall be the Contractor's sole responsibility to survey and re-stake the locations of the valve boxes and manhole frame/covers at their expense.
3. Adjusting Water Meter Boxes - If necessary, existing service lateral piping shall be adjusted to maintain a spacing of 10" from the centerline of the piping in the meter box to the bottom of the meter box cover. In new sidewalk areas, replace the Type "B" meter box and cover with Type "X" meter box and cover. The top of all water meter boxes shall be flush with the new sidewalk surface.

Note:
See "Traffic Signal Plans" for Adjustments/Relocation of Traffic Signal System

APPROVED

Manager and Chief Engineer
Department of Water,
County of Kauai

Date

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

DATE	REVISION
11/12/19	3 Reissuing plan for legibility; revised hatch; added callouts
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PAVING PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

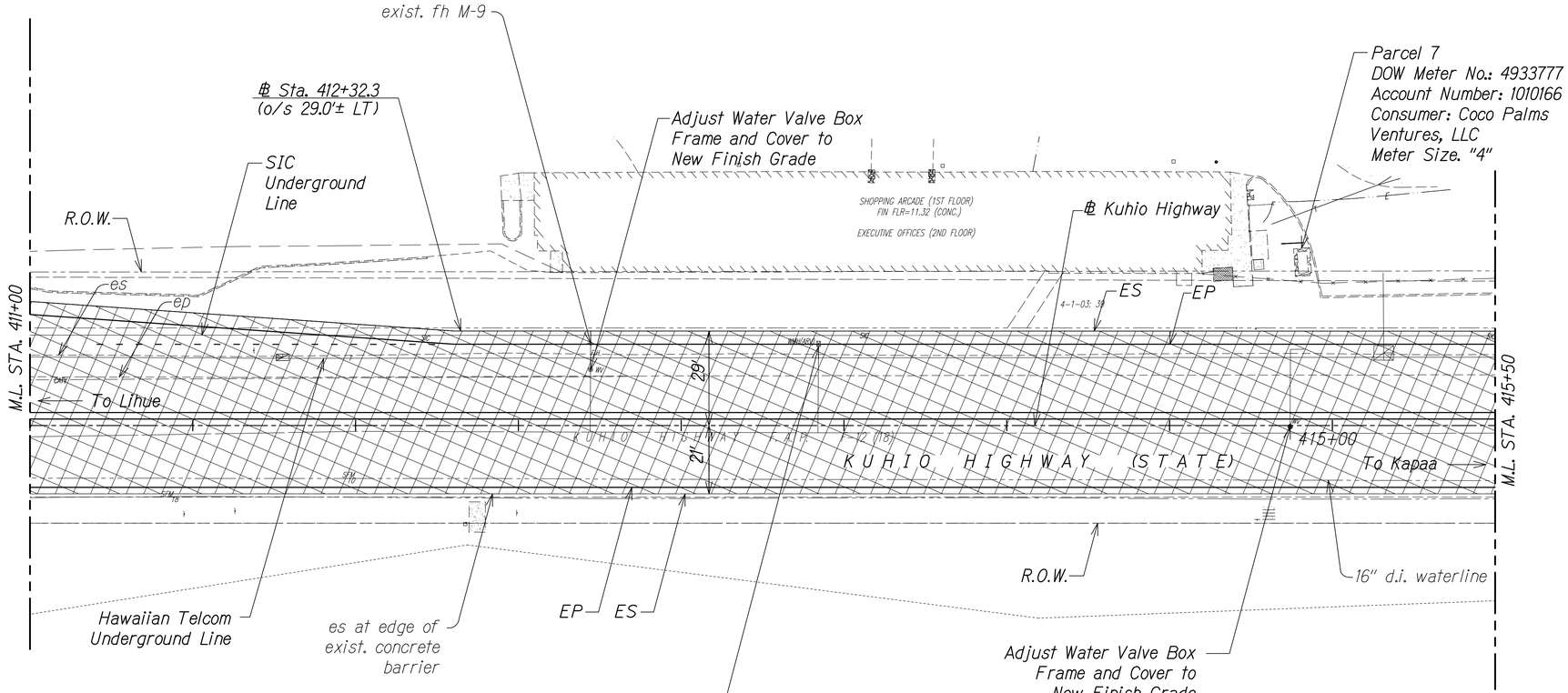
Scale: 1" = 20' Date: July 2019

SHEET No. RP9 OF 16 SHEETS

ADD.34

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.35	244

True North
Scale: 1"=20'



GRAPHIC SCALE:

20' 10' 0 20' 40'
Scale: 1" = 20'

Legend:

- New Pavement Structure
- 2" Cold Plane Repave with 2" HMA, Mix IV

APPROVED

Manager and Chief Engineer — Date
Department of Water,
County of Kauai

WATER NOTES FOR EXISTING WATER FACILITIES

1. Prior to commencing his operations, the Contractor shall contact the County of Kaua'i, Department of Water Operations Division (phone no. 245-5444) and make arrangements for the Department to "tone" and mark the existing water facilities located within the project limits, such as waterlines, valve boxes, water meter boxes, and manhole frame/covers, etc., shall be adjusted to match the new finished grades noted on the construction plans.
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3. Adjusting Water Meter Boxes - If necessary, existing service lateral piping shall be adjusted to maintain a spacing of 10" from the centerline of the piping in the meter box to the bottom of the meter box cover. In new sidewalk areas, replace the Type "B" meter box and cover with Type "X" meter box and cover. The top of all water meter boxes shall be flush with the new sidewalk surface.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PAVING PLAN

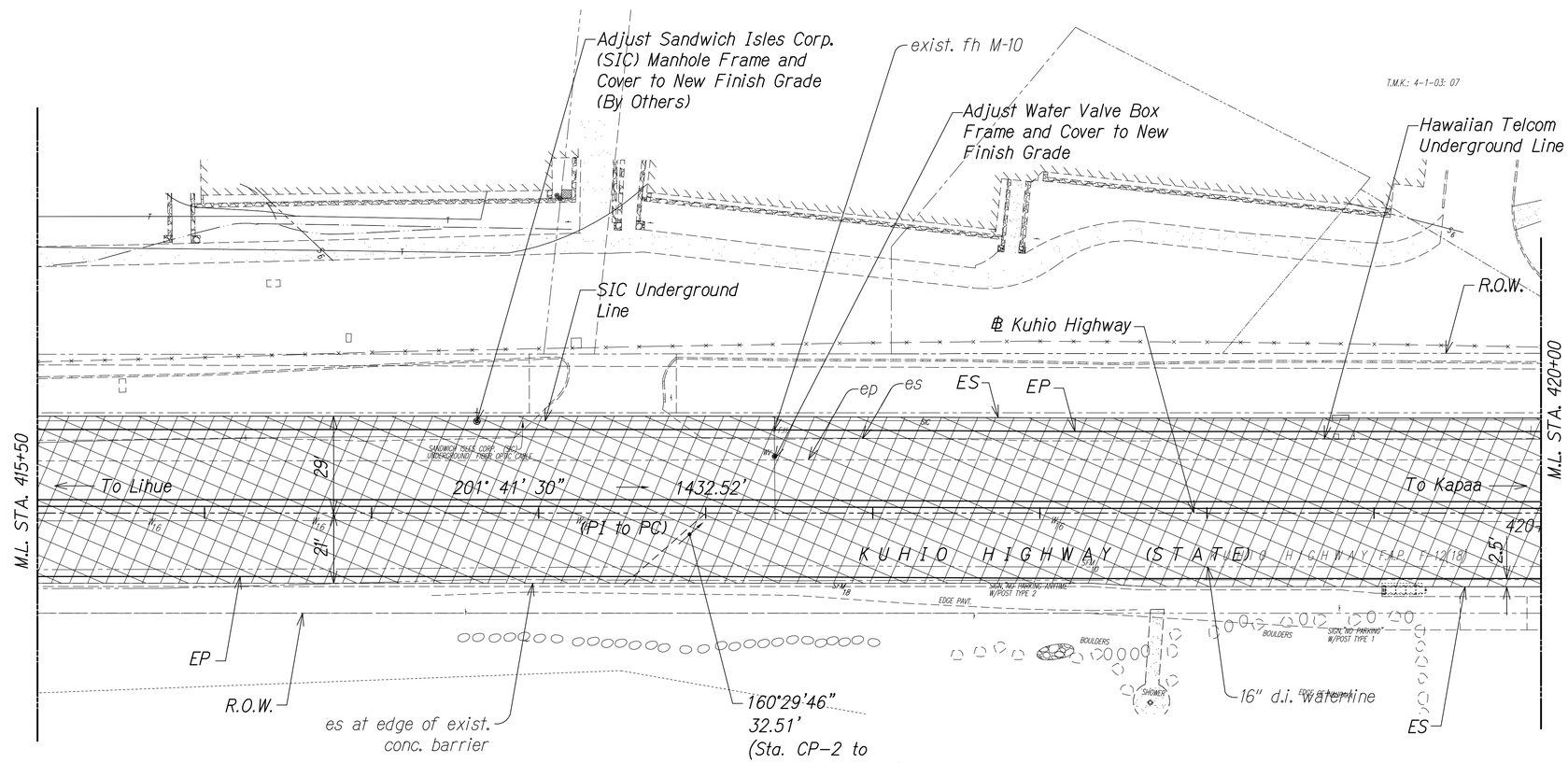
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 20' Date: July 2019

SHEET No. RP10 OF 16 SHEETS

ADD.35

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.36	244

True North
Scale: 1"=20'



WATER NOTES FOR EXISTING WATER FACILITIES

1. Prior to commencing his operations, the Contractor shall contact the County of Kaua'i, Department of Water Operations Division (phone no. 245-5444) and make arrangements for the Department to "tone" and mark the existing water facilities located within the project limits, such as waterlines, valve boxes, water meter boxes, and manhole frame/covers, etc., shall be adjusted to match the new finished grades noted on the construction plans.

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3. Adjusting Water Meter Boxes - If necessary, existing service lateral piping shall be adjusted to maintain a spacing of 10" from the centerline of the piping in the meter box to the bottom of the meter box cover. In new sidewalk areas, replace the Type "B" meter box and cover with Type "X" meter box and cover. The top of all water meter boxes shall be flush with the new sidewalk surface.

GRAPHIC SCALE:

20' 10' 0 20' 40'
Scale: 1" = 20'

Legend:

- New Pavement Structure
- 2" Cold Plane Repave with 2" HMA, Mix IV

APPROVED

Manager and Chief Engineer
Department of Water,
County of Kauai
Date

DATE	REVISION
11/12/19	⚠ Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠ Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PAVING PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

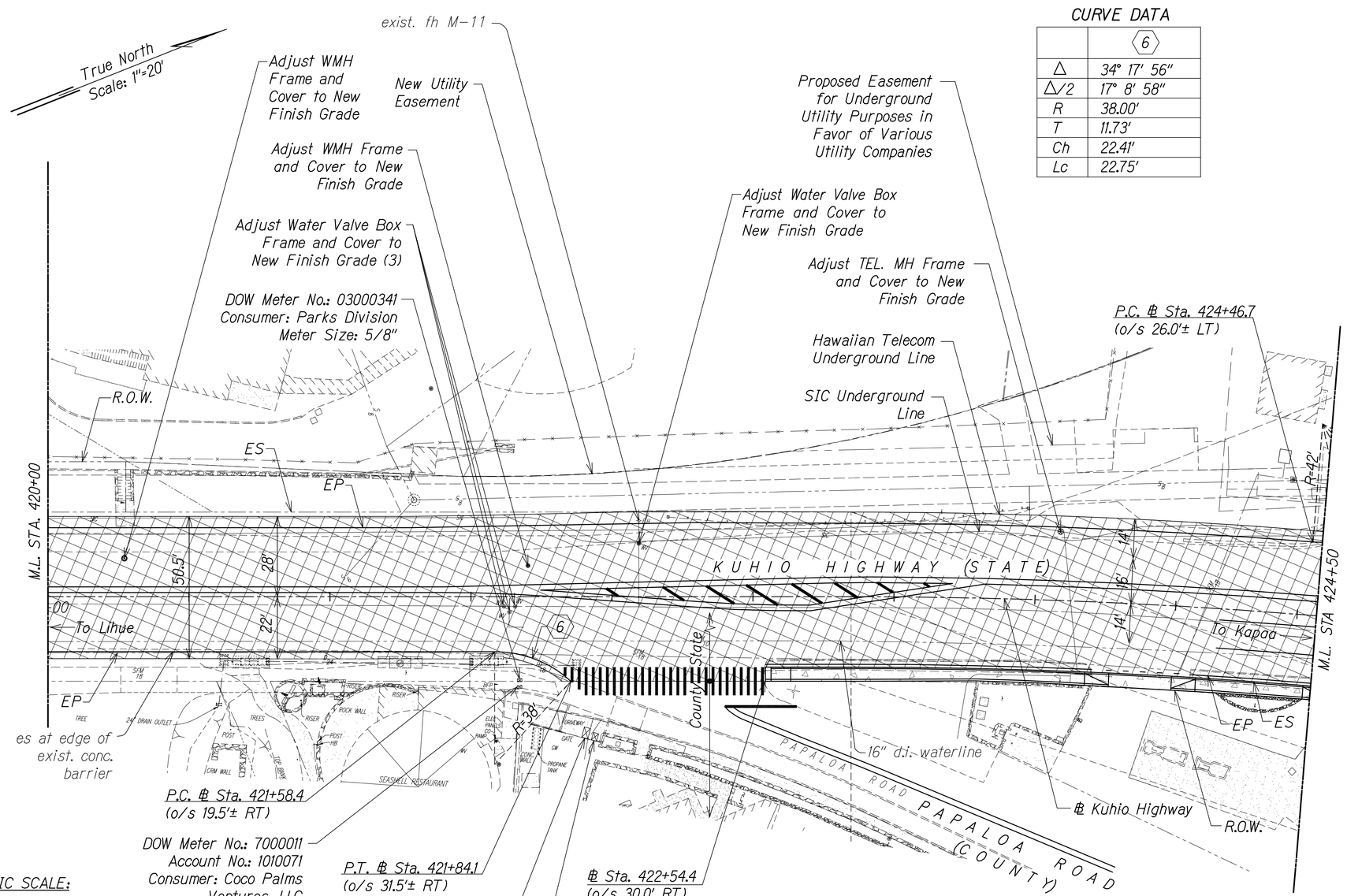
Scale: 1" = 20' Date: July 2019

SHEET No. RP11 OF 16 SHEETS

ADD.36

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.37	244



CURVE DATA

	⟨6⟩
△	34° 17' 56"
△/2	17° 8' 58"
R	38.00'
T	11.73'
Ch	22.41'
Lc	22.75'

WATER NOTES FOR EXISTING WATER FACILITIES

1. Prior to commencing his operations, the Contractor shall contact the County of Kaua'i, Department of Water Operations Division (phone no. 245-5444) and make arrangements for the Department to "tone" and mark the existing water facilities located within the project limits, such as waterlines, valve boxes, water meter boxes, and manhole frame/covers, etc., shall be adjusted to match the new finished grades noted on the construction plans.
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GRAPHIC SCALE:

20' 10' 0 20' 40'
Scale: 1" = 20'

Legend:

- New Pavement Structure
- 2" Cold Plane Repave with 2" HMA, Mix IV

APPROVED

Manager and Chief Engineer — Date
Department of Water,
County of Kauai

County Engineer — Date
County of Kaua'i
(For Work Within the County Right-of-Way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PAVING PLAN

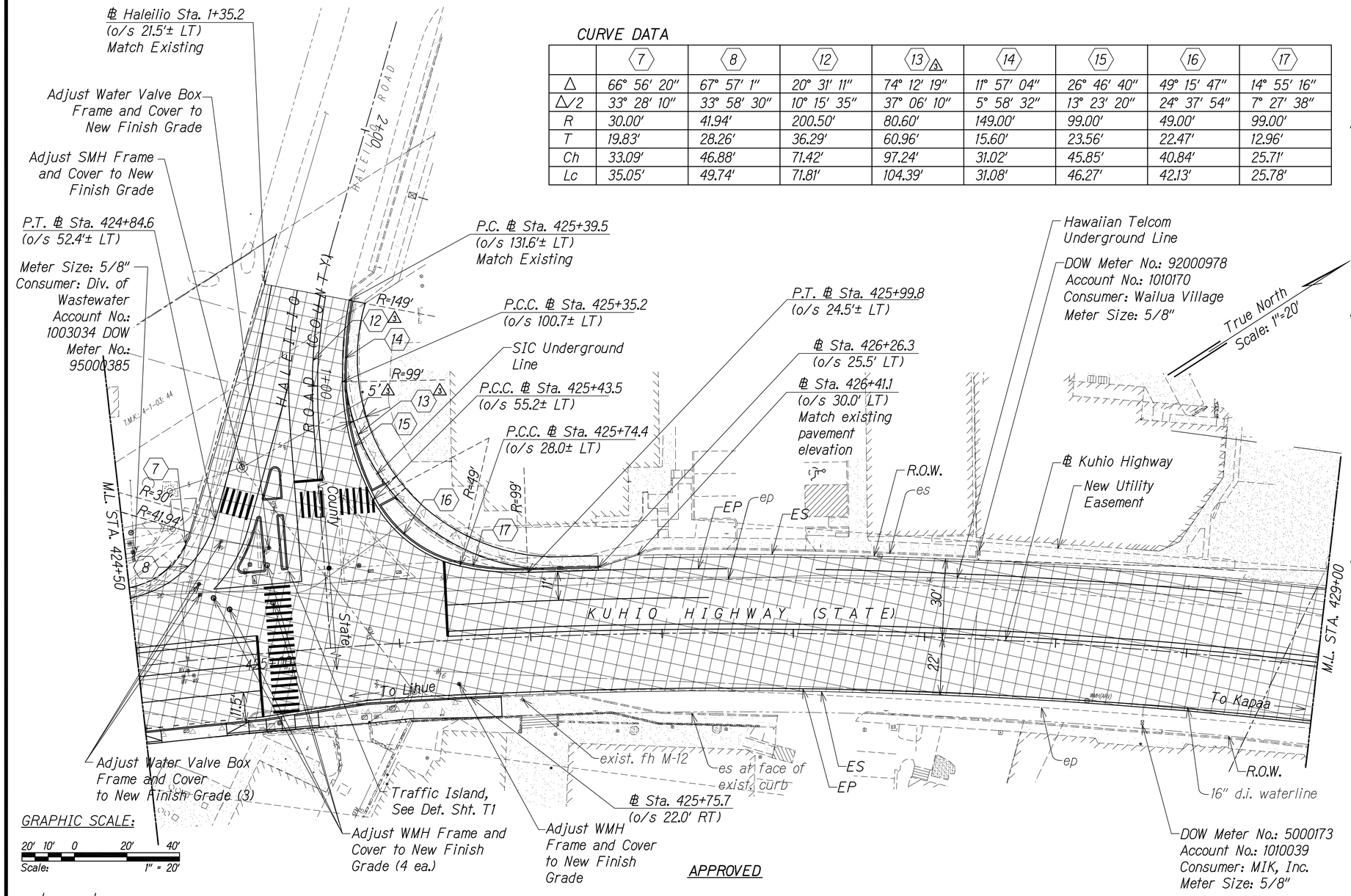
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 20' Date: July 2019

SHEET No. RP12 OF 16 SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.38	244



CURVE DATA

	7	8	12	13 △3	14	15	16	17
△	66° 56' 20"	67° 57' 1"	20° 31' 11"	74° 12' 19"	11° 57' 04"	26° 46' 40"	49° 15' 47"	14° 55' 16"
△/2	33° 28' 10"	33° 58' 30"	10° 15' 35"	37° 06' 10"	5° 58' 32"	13° 23' 20"	24° 37' 54"	7° 27' 38"
R	30.00'	41.94'	200.50'	80.60'	149.00'	99.00'	49.00'	99.00'
T	19.83'	28.26'	36.29'	60.96'	15.60'	23.56'	22.47'	12.96'
Ch	33.09'	46.88'	71.42'	97.24'	31.02'	45.85'	40.84'	25.71'
Lc	35.05'	49.74'	71.81'	104.39'	31.08'	46.27'	42.13'	25.78'

WATER NOTES FOR EXISTING WATER FACILITIES

1. Prior to commencing his operations, the Contractor shall contact the County of Kaua'i, Department of Water Operations Division (phone no. 245-5444) and make arrangements for the Department to "tone" and mark the existing water facilities located within the project limits, such as waterlines, valve boxes, water meter boxes, and manhole frame/covers, etc., shall be adjusted to match the new finished grades noted on the construction plans.
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GRAPHIC SCALE:

20' 10' 0 20' 40'

Scale: 1" = 20'

Legend:

- New Pavement Structure
- 2" Cold Plane Repave with 2" HMA, Mix IV

Notes:

See "Traffic Signal Plans" for Adjustments/Relocation of traffic Signal System

APPROVED

County Engineer — Date
County of Kauai
(For Work Within the County Right-of-Way)

Manager and Chief Engineer — Date
Department of Water,
County of Kauai

DATE	REVISION
11/12/19	△3 Reissuing plan for legibility; added curve data and dimension; revised curve labels
9/20/19	△1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PAVING PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

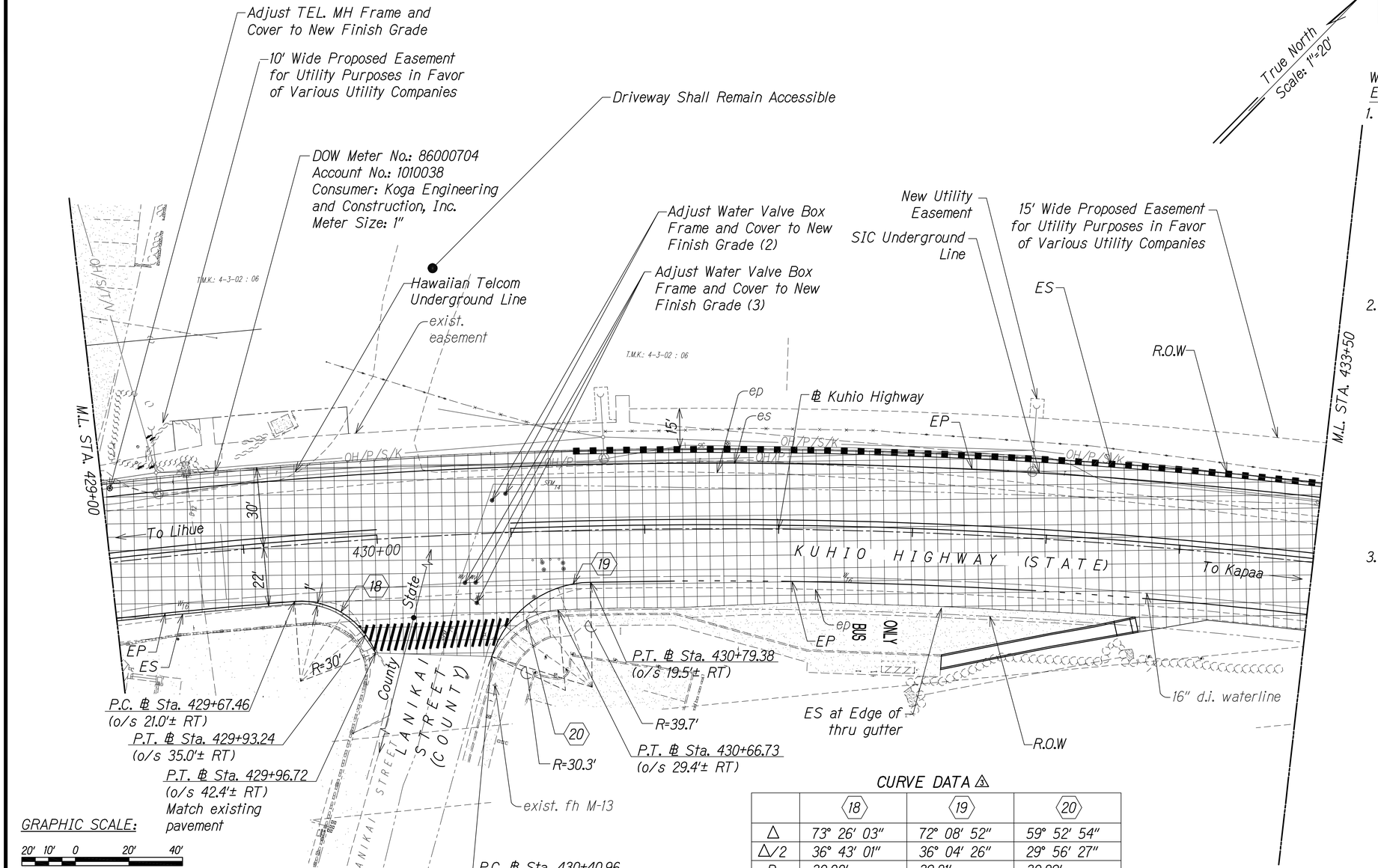
Scale: 1" = 20' Date: July 2019

SHEET No. RP13 OF 16 SHEETS

ADD.38

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.39	244



GRAPHIC SCALE:

20' 10' 0 20' 40'

Scale: 1" = 20'

Legend:

- New Pavement Structure
- 2" Cold Plane Repave with 2" HMA, Mix IV

CURVE DATA ⚠3

	18	19	20
△	73° 26' 03"	72° 08' 52"	59° 52' 54"
△/2	36° 43' 01"	36° 04' 26"	29° 56' 27"
R	30.00'	39.21'	30.29'
T	22.38'	28.56'	17.45
Ch	35.87'	46.18'	30.24'
Lc	38.45'	49.37'	31.66'

WATER NOTES FOR EXISTING WATER FACILITIES

1. Prior to commencing his operations, the Contractor shall contact the County of Kaua'i, Department of Water Operations Division (phone no. 245-5444) and make arrangements for the Department to "tone" and mark the existing water facilities located within the project limits, such as waterlines, valve boxes, water meter boxes, and manhole frame/covers, etc., shall be adjusted to match the new finished grades noted on the construction plans.
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APPROVED

Manager and Chief Engineer Date
Department of Water,
County of Kauai

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; revised curve data table
9/20/19	⚠ Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9857-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PAVING PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 20' Date: July 2019

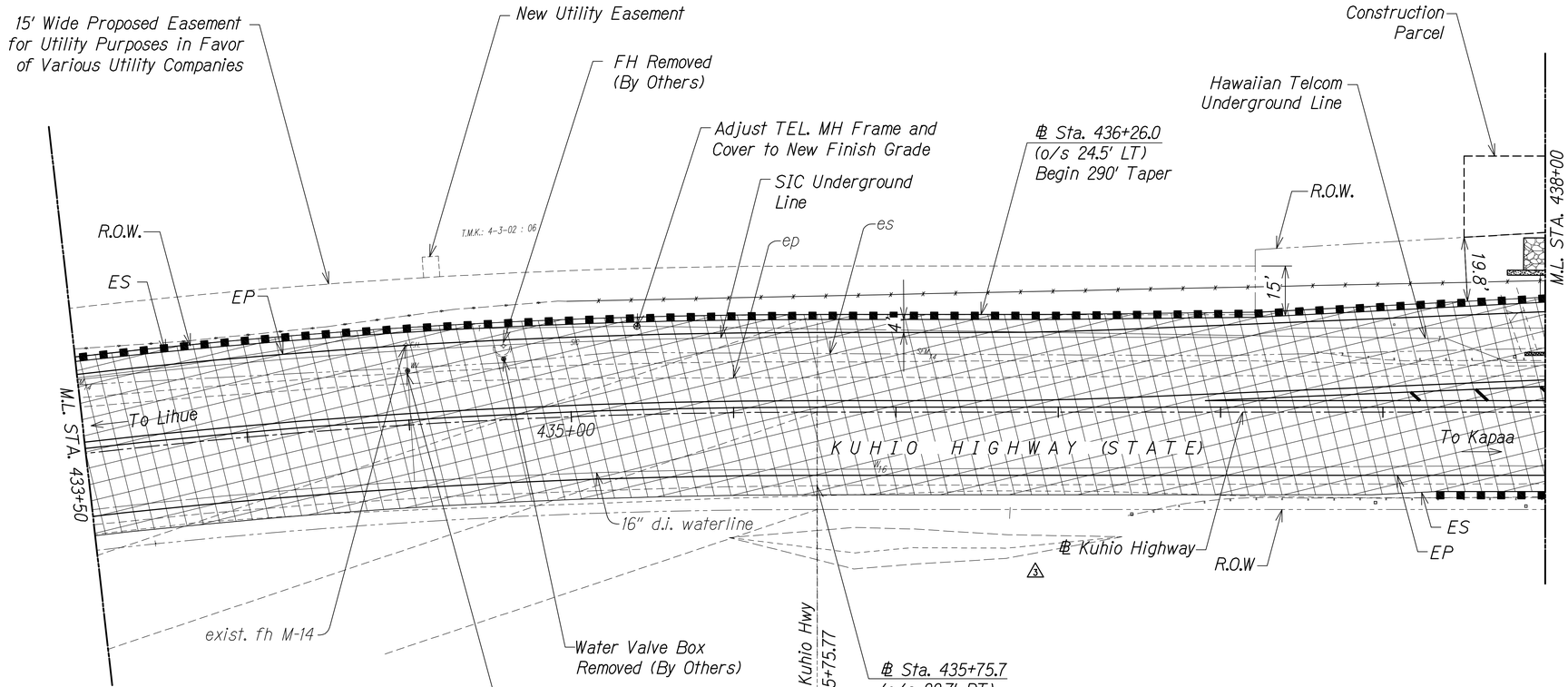
SHEET No. RP14 OF 16 SHEETS

ADD.39

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.40	244

True North
Scale: 1"=20'



GRAPHIC SCALE:

20' 10' 0 20' 40'
Scale: 1" = 20'

Legend:

- New Pavement Structure
- 2" Cold Plane Repave with 2" HMA, Mix IV

APPROVED

Manager and Chief Engineer
Department of Water,
County of Kauai

Date

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; deleted callout
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

WATER NOTES FOR EXISTING WATER FACILITIES

1. Prior to commencing his operations, the Contractor shall contact the County of Kaua'i, Department of Water Operations Division (phone no. 245-5444) and make arrangements for the Department to "tone" and mark the existing water facilities located within the project limits, such as waterlines, valve boxes, water meter boxes, and manhole frame/covers, etc., shall be adjusted to match the new finished grades noted on the construction plans.
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BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PAVING PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 20' Date: July 2019

SHEET No. RP15 OF 16 SHEETS

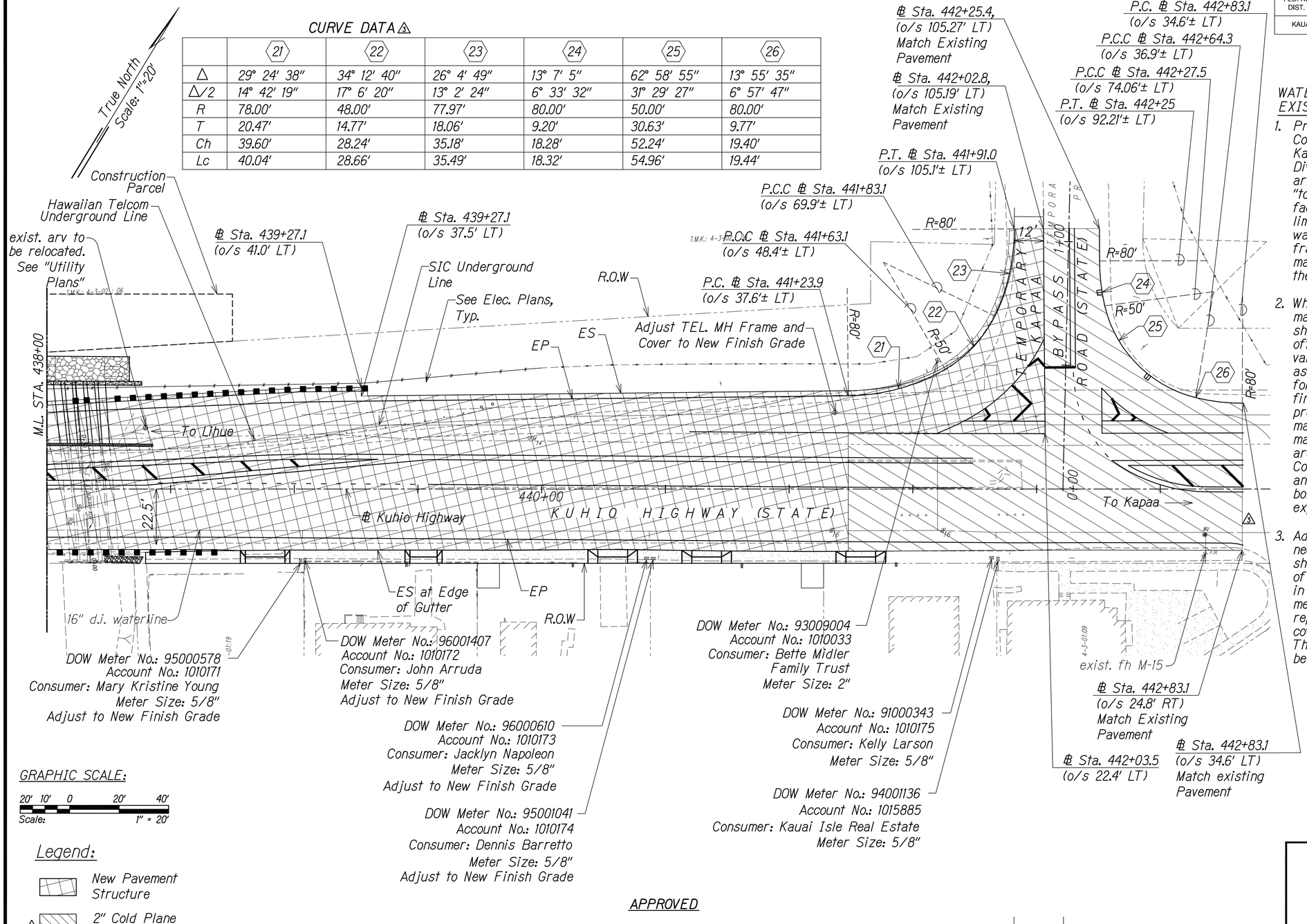
ADD.40

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.41	244

CURVE DATA ⚠3

	21	22	23	24	25	26
△	29° 24′ 38″	34° 12′ 40″	26° 4′ 49″	13° 7′ 5″	62° 58′ 55″	13° 55′ 35″
△/2	14° 42′ 19″	17° 6′ 20″	13° 2′ 24″	6° 33′ 32″	31° 29′ 27″	6° 57′ 47″
R	78.00′	48.00′	77.97′	80.00′	50.00′	80.00′
T	20.47′	14.77′	18.06′	9.20′	30.63′	9.77′
Ch	39.60′	28.24′	35.18′	18.28′	52.24′	19.40′
Lc	40.04′	28.66′	35.49′	18.32′	54.96′	19.44′



GRAPHIC SCALE:

20′ 10′ 0 20′ 40′
Scale: 1" = 20′

Legend:

New Pavement Structure

⚠3 2" Cold Plane Repave with 2" HMA, Mix IV

APPROVED

Manager and Chief Engineer, Department of Water, County of Kauai — Date

WATER NOTES FOR EXISTING WATER FACILITIES

1. Prior to commencing his operations, the Contractor shall contact the County of Kaua'i, Department of Water Operations Division (phone no. 245-5444) and make arrangements for the Department to "tone" and mark the existing water facilities located within the project limits, such as waterlines, valve boxes, water meter boxes, and manhole frame/covers, etc., shall be adjusted to match the new finished grades noted on the construction plans.
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DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; revised curve data and hatch
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

BRIAN A. LOCK LICENSED PROFESSIONAL ENGINEER No. 9867-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PAVING PLAN

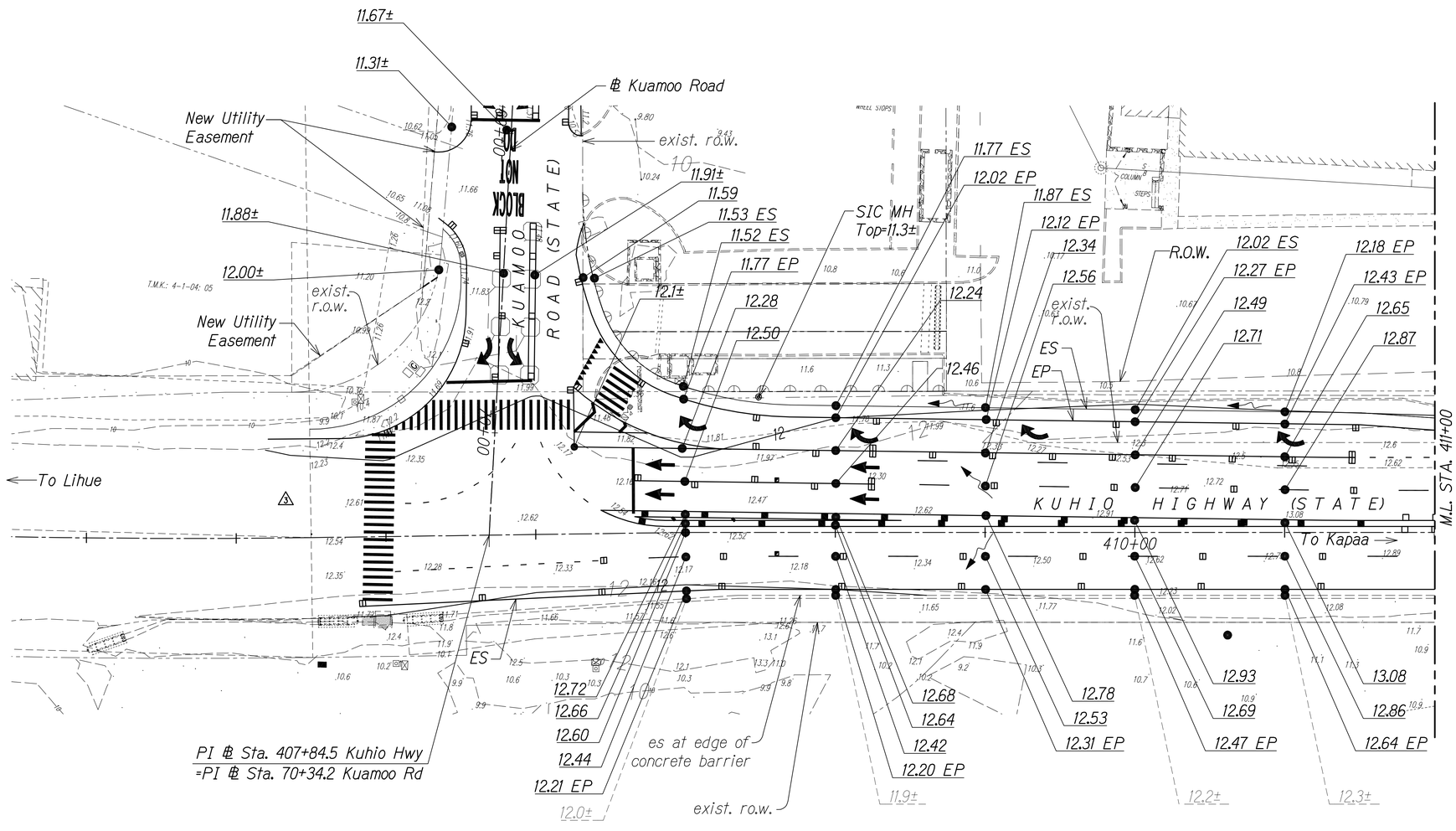
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 20′ Date: July 2019

SHEET No. RP16 OF 16 SHEETS

ADD.41

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.42	244

True North
Scale: 1"=20'



GRAPHIC SCALE:

20' 10' 0 20' 40'
Scale: 1" = 20'

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; deleted elevation labels
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

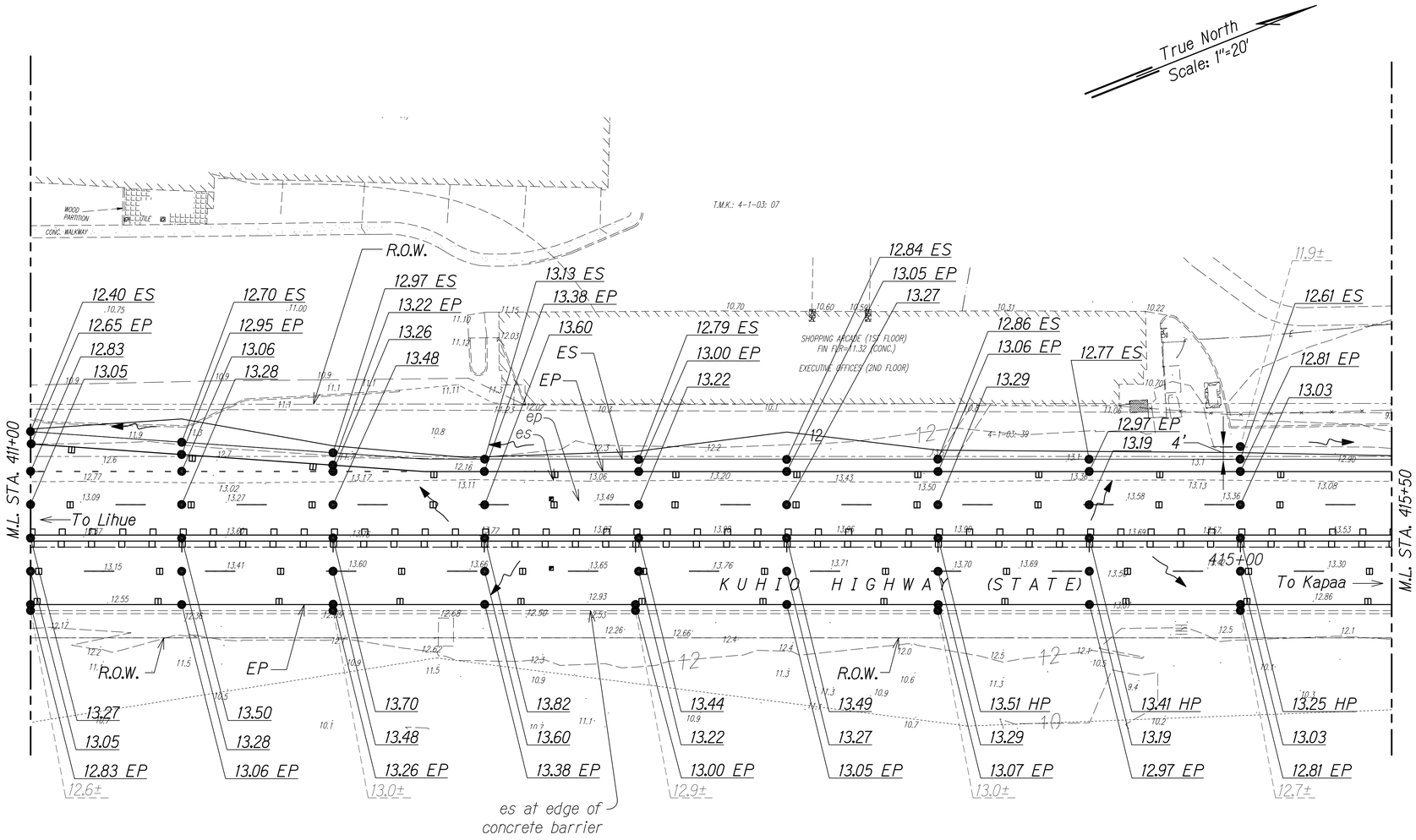
GRADING PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 20' Date: July 2019

SHEET No. GP1 OF 10 SHEETS

ADD.42

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.43	244



GRAPHIC SCALE:

20' 10' 0 20' 40'

Scale: 1" = 20'

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

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GRADING PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

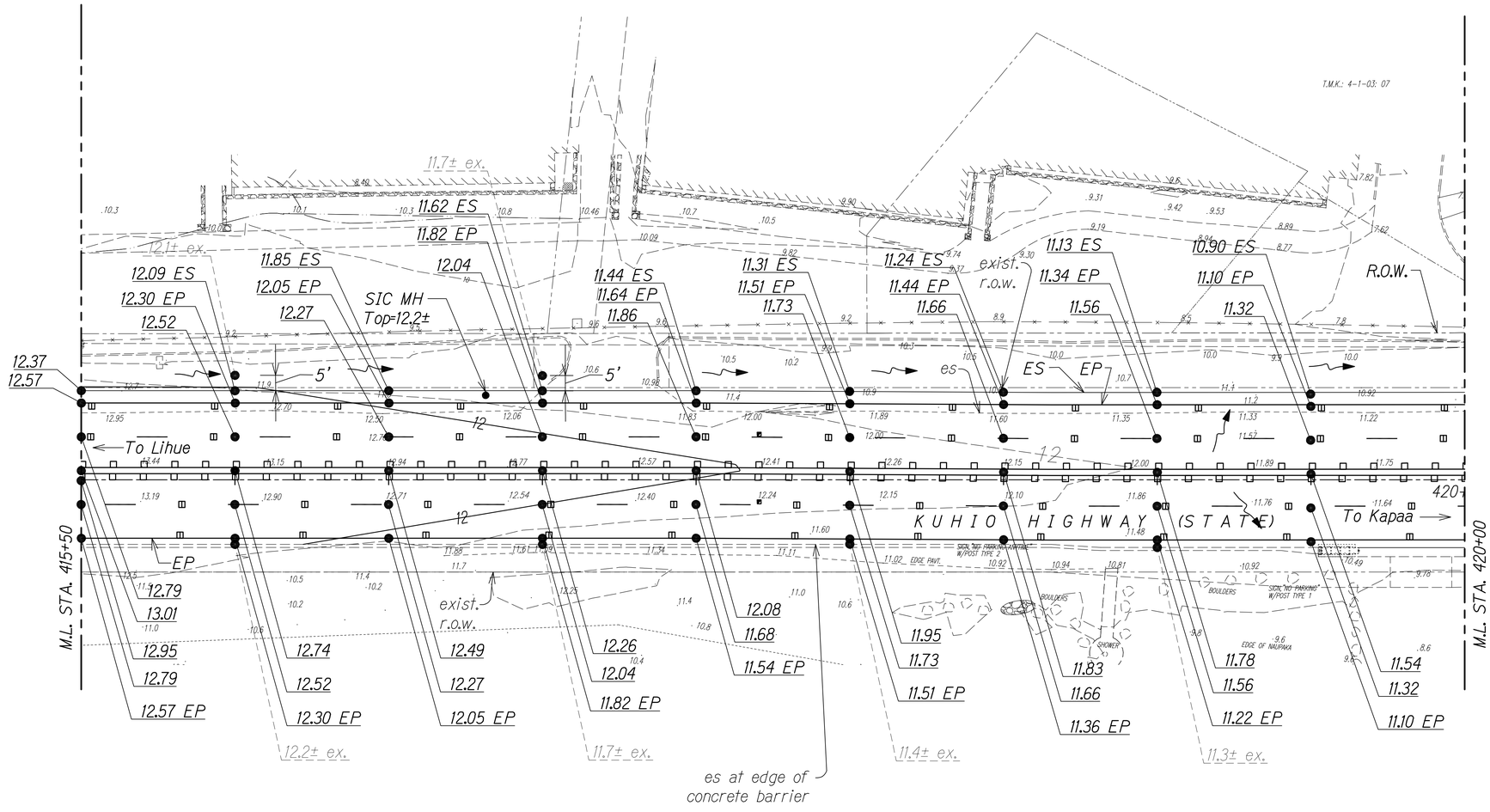
Scale: 1" = 20' Date: July 2019

SHEET No. GP2 OF 10 SHEETS

ADD.43

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.44	244

True North
Scale: 1"=20'



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

GRAPHIC SCALE:

20' 10' 0 20' 40'
Scale: 1" = 20'

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GRADING PLAN

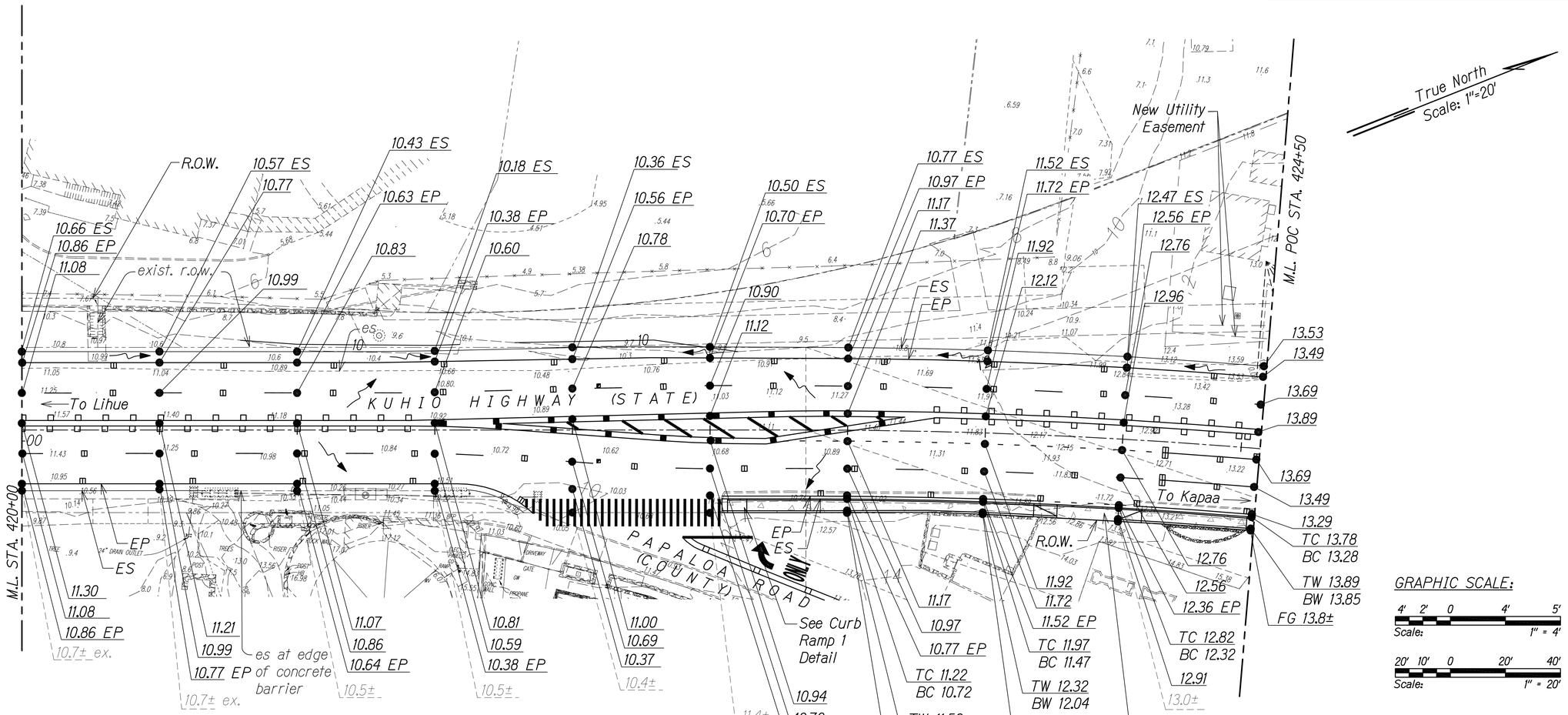
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

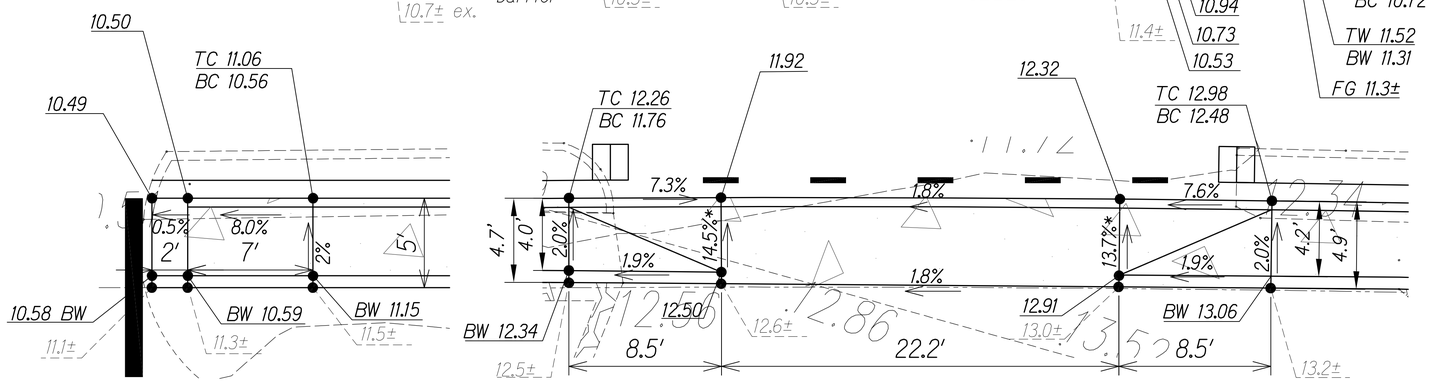
Scale: 1" = 20' Date: July 2019

SHEET No. GP3 OF 10 SHEETS

ADD.44

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.45	244





CURB RAMP 1 DETAIL
Scale : 1"=4'

DRIVEWAY 1 DETAIL
Scale : 1"=4'

* Technical Infeasibility Statement Filed

APPROVED

County Engineer Date
County of Kaua'i
(For Work Within the County Right-of-Way)

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION APRIL 30, 2020 LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GRADING PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 20' Date: July 2019

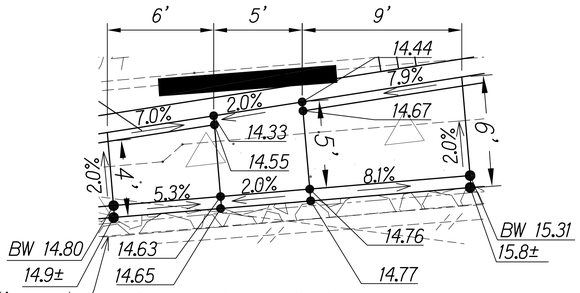
SHEET No. GP4 OF 10 SHEETS

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

ADD.45

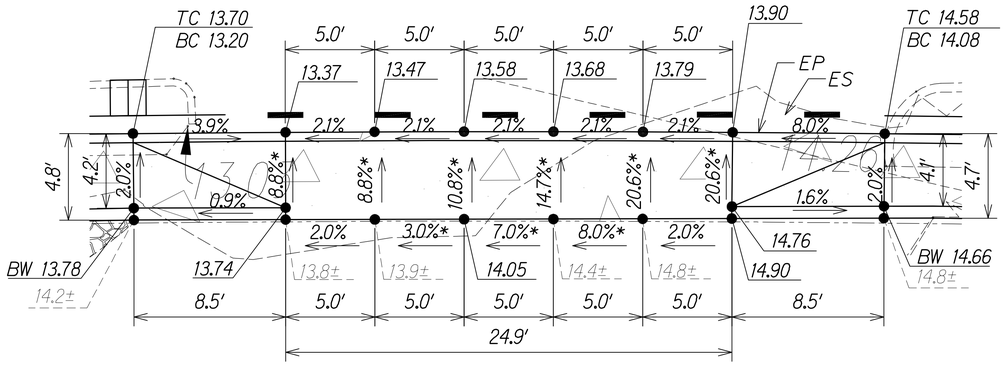
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.46	244

True North
Scale: 1"=20'



CURB RAMP 2 DETAIL

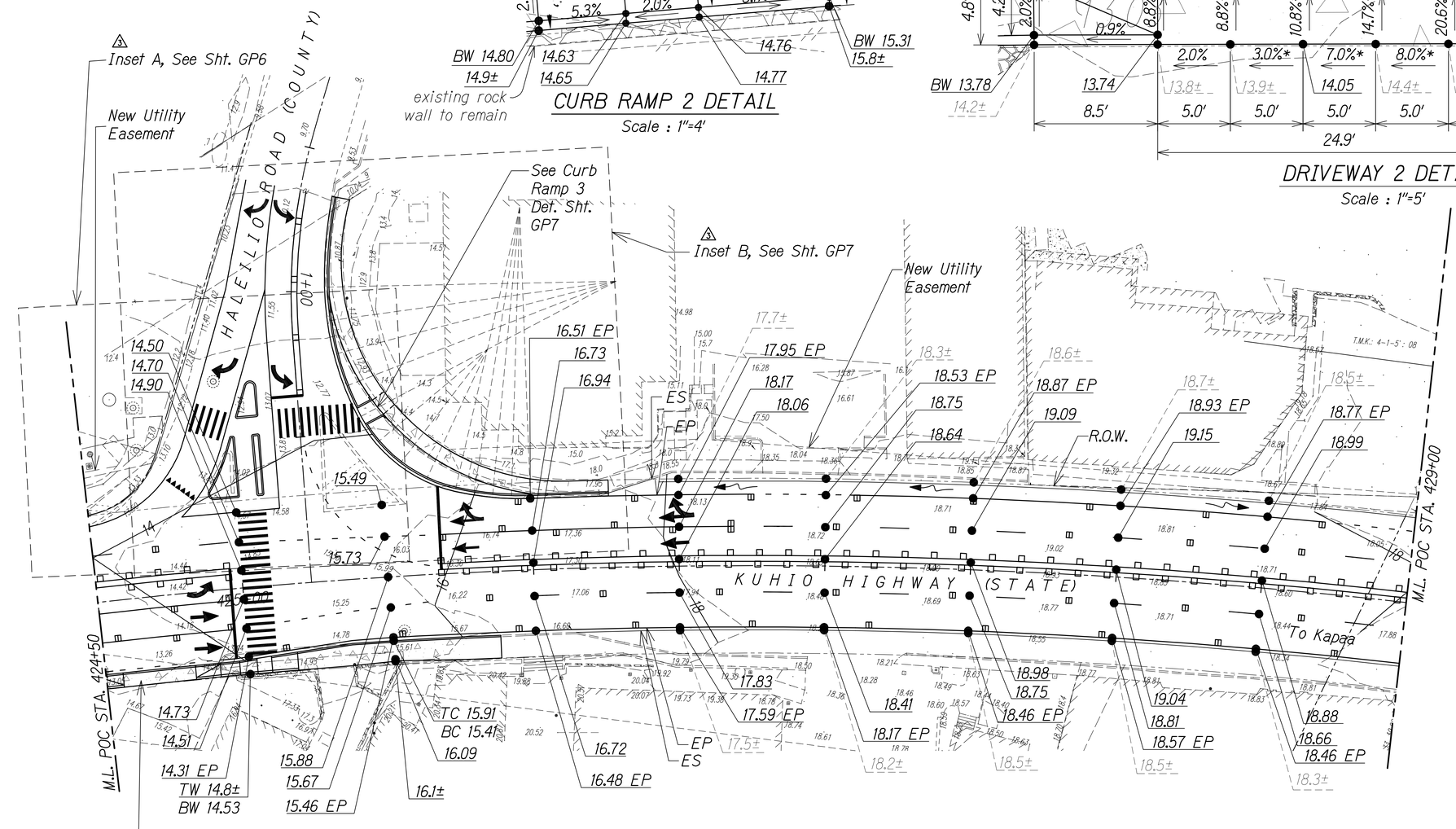
Scale : 1"=4'



DRIVEWAY 2 DETAIL

Scale : 1"=5'

* Technical Infeasibility Statement Filed



GRAPHIC SCALE:

4' 2' 0 4' 5'
Scale: 1" = 4'

20' 10' 0 20' 40'
Scale: 1" = 20'

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GRADING PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. GP5 OF 10 SHEETS

APPROVED

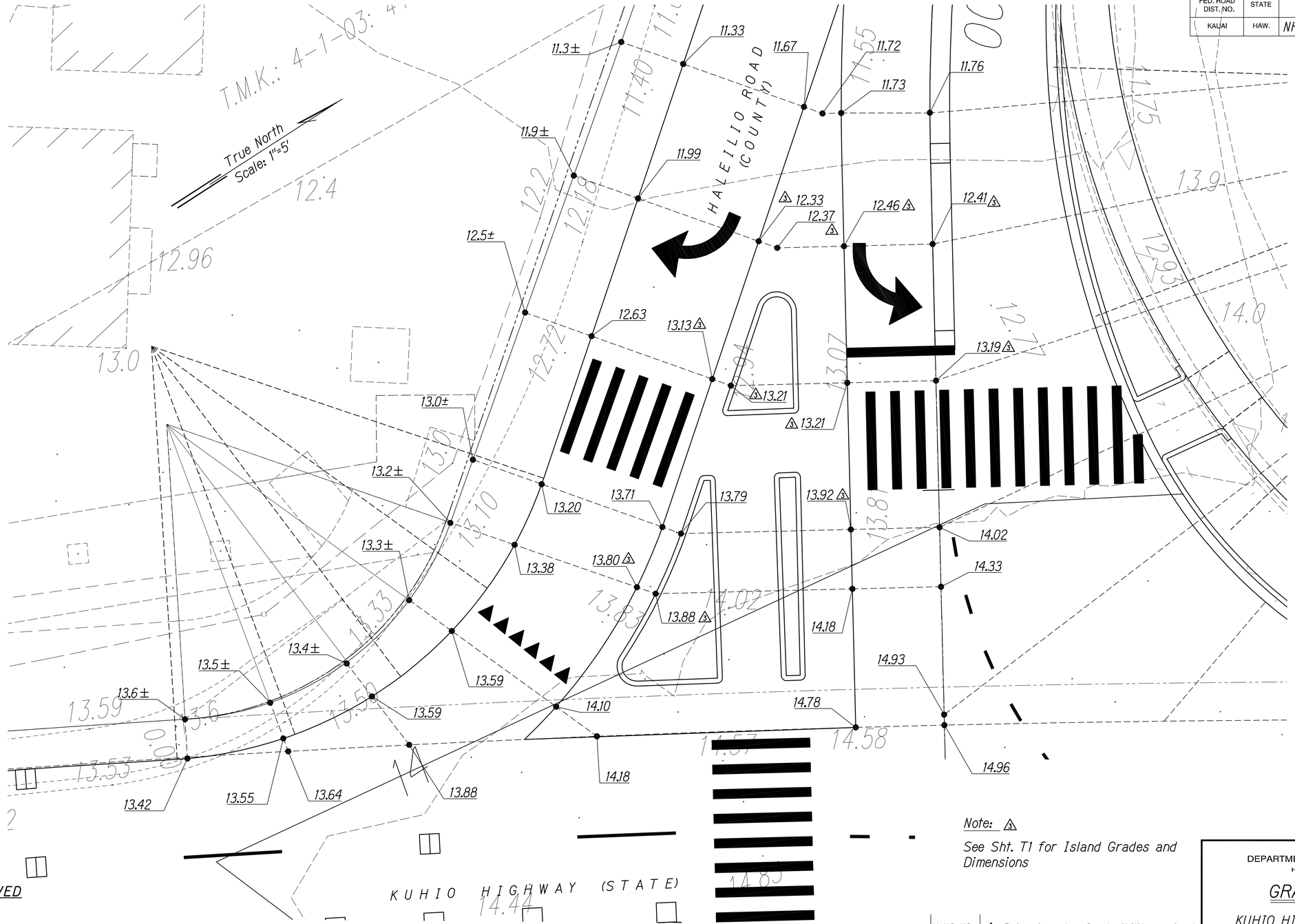
County Engineer Date
County of Kaua'i
(For Work Within the County Right-of-Way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; revised inset callouts
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

ADD.46

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.47	244



APPROVED

County Engineer Date
County of Kaua'i
(For Work Within the County Right-of-Way)

GRAPHIC SCALE:

5' 2.5' 0 5' 10'
Scale: 1" = 5'

INSET A - GRADING PLAN OF HALEILIO INTERSECTION

Scale : 1"=5'

Note: ⚠3
See Sht. T1 for Island Grades and Dimensions

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; revised grades; added note
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GRADING PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

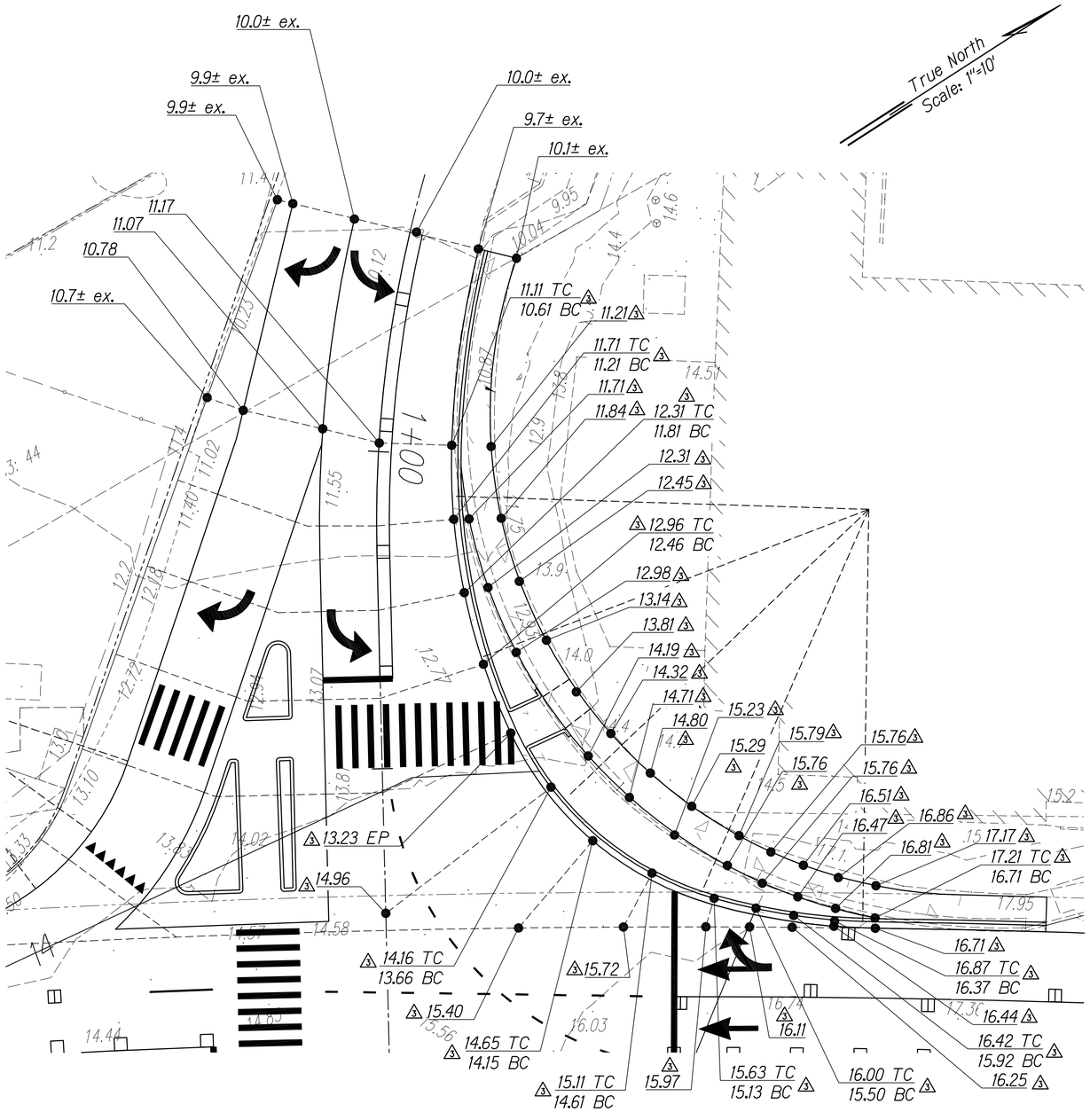
Scale: As Noted Date: July 2019

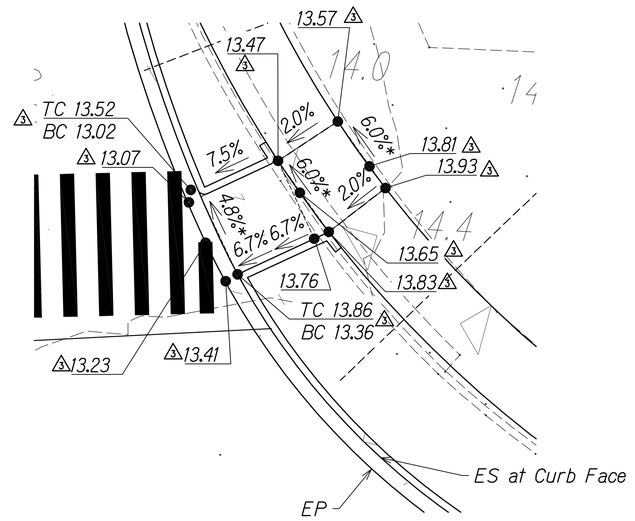
SHEET No. GP6 OF 10 SHEETS

ADD.47

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.48	244

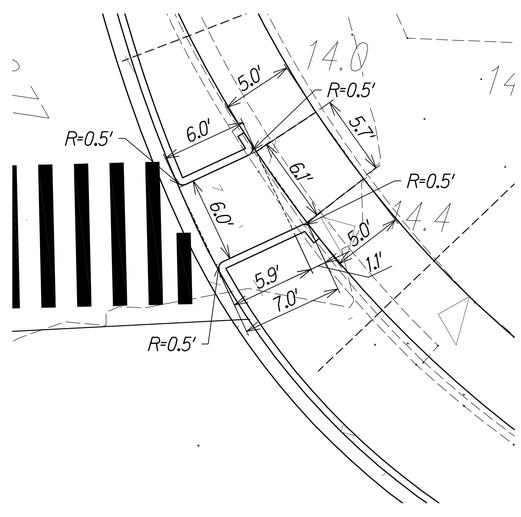




CURB RAMP 3 GRADING DETAIL

Scale : 1"=5'

* Technical Infeasibility Statement Filed



CURB RAMP 3 GEOMETRIC DETAIL

Scale : 1"=5'

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

APPROVED

County Engineer Date
County of Kaua'i
(For Work Within the County Right-of-Way)

INSET A - GRADING PLAN OF HALEILIO INTERSECTION

Scale : 1"=10'

GRAPHIC SCALE:

5' 2.5' 0 5' 10'
Scale: 1" = 5'

10' 5' 0 10' 20'
Scale: 1" = 10'

DATE	REVISION
11/12/19	3 Reissuing plan for legibility; revised grades; added detail
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GRADING PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

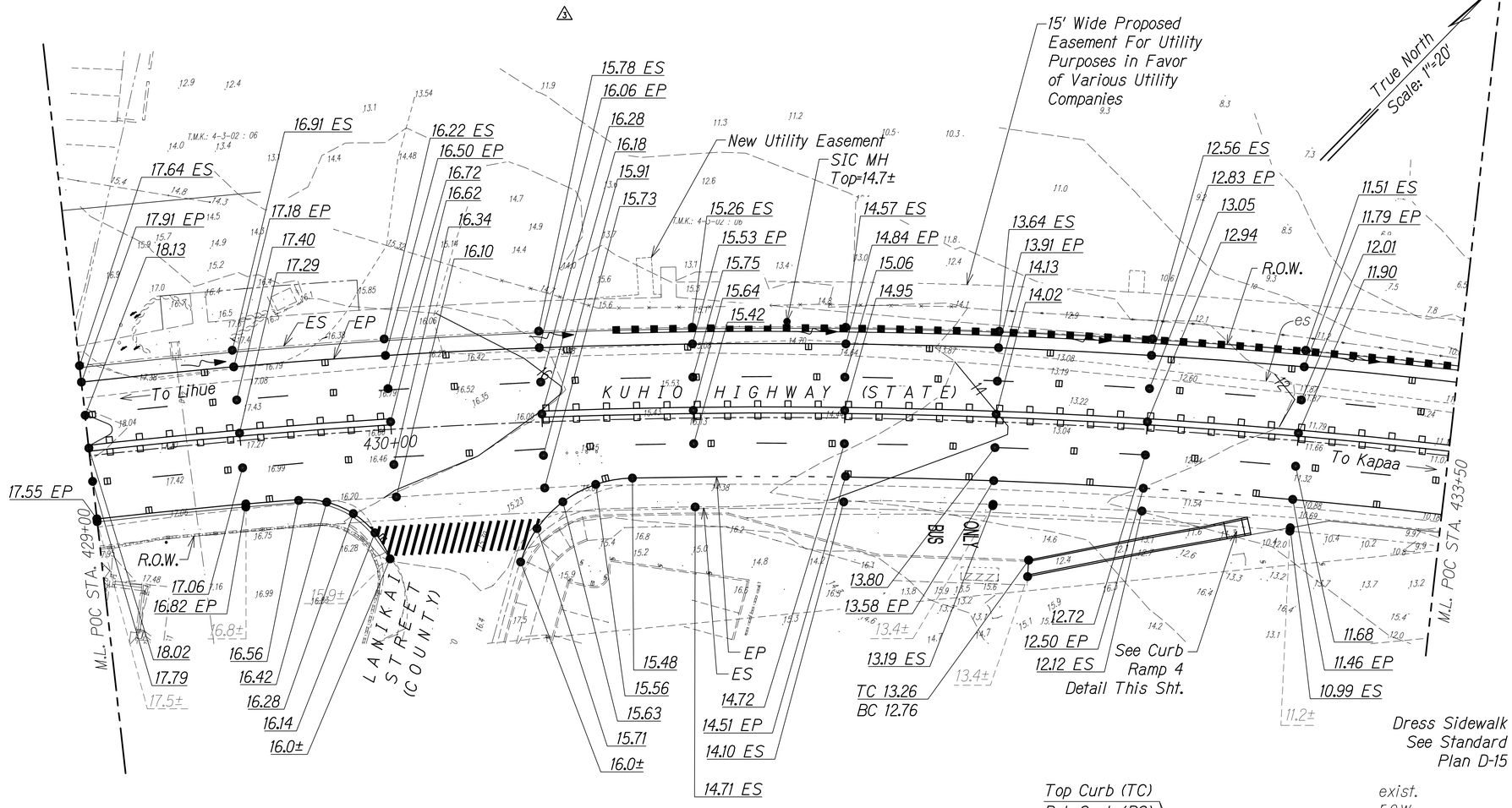
Scale: As Noted Date: July 2019

SHEET No. GP7 OF 10 SHEETS

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

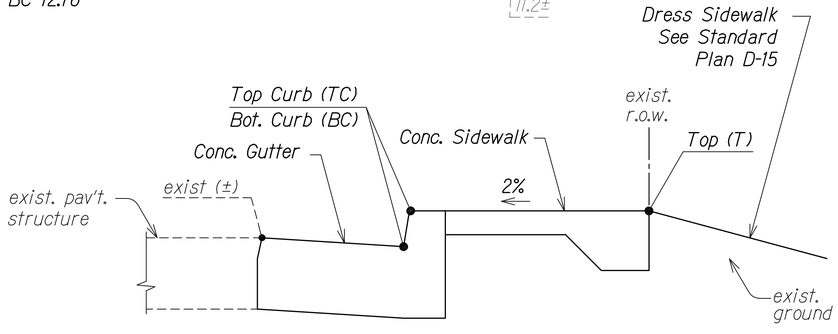
ADD.48

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.49	244



CURB RAMP 4 DETAIL

Scale : 1"=4'



SIDEWALK GRADE LOCATIONS STATION 432+13 TO 432+87

Not to Scale

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

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

GRAPHIC SCALE:

4' 2' 0 4' 5'
Scale: 1" = 4'

20' 10' 0 20' 40'
Scale: 1" = 20'

APPROVED

County Engineer Date
County of Kaua'i
(For Work Within the County Right-of-Way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; deleted callout
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GRADING PLAN

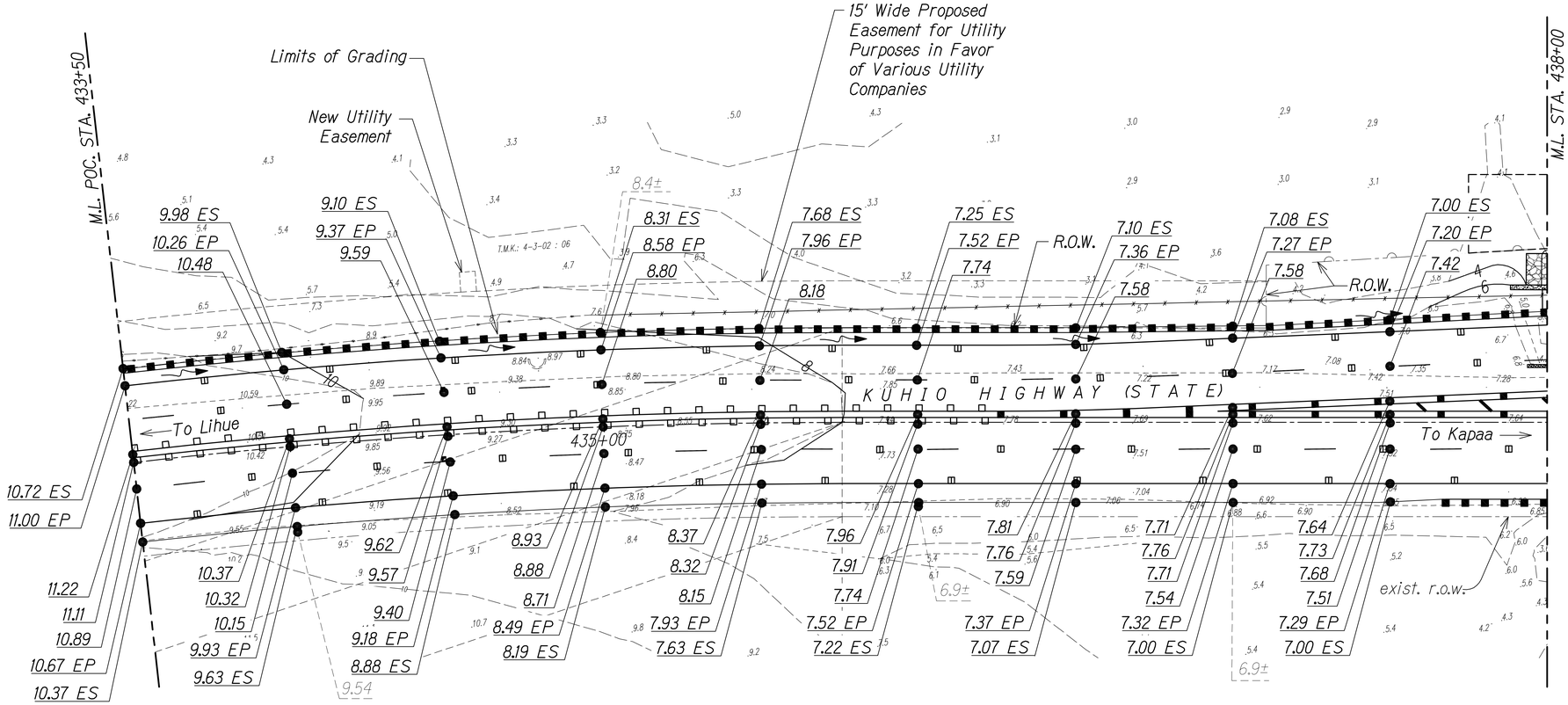
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. GP8 OF 10 SHEETS

ADD.49

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.50	244



True North
Scale: 1"=20'

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

GRAPHIC SCALE:

20' 10' 0 20' 40'
Scale: 1" = 20'

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

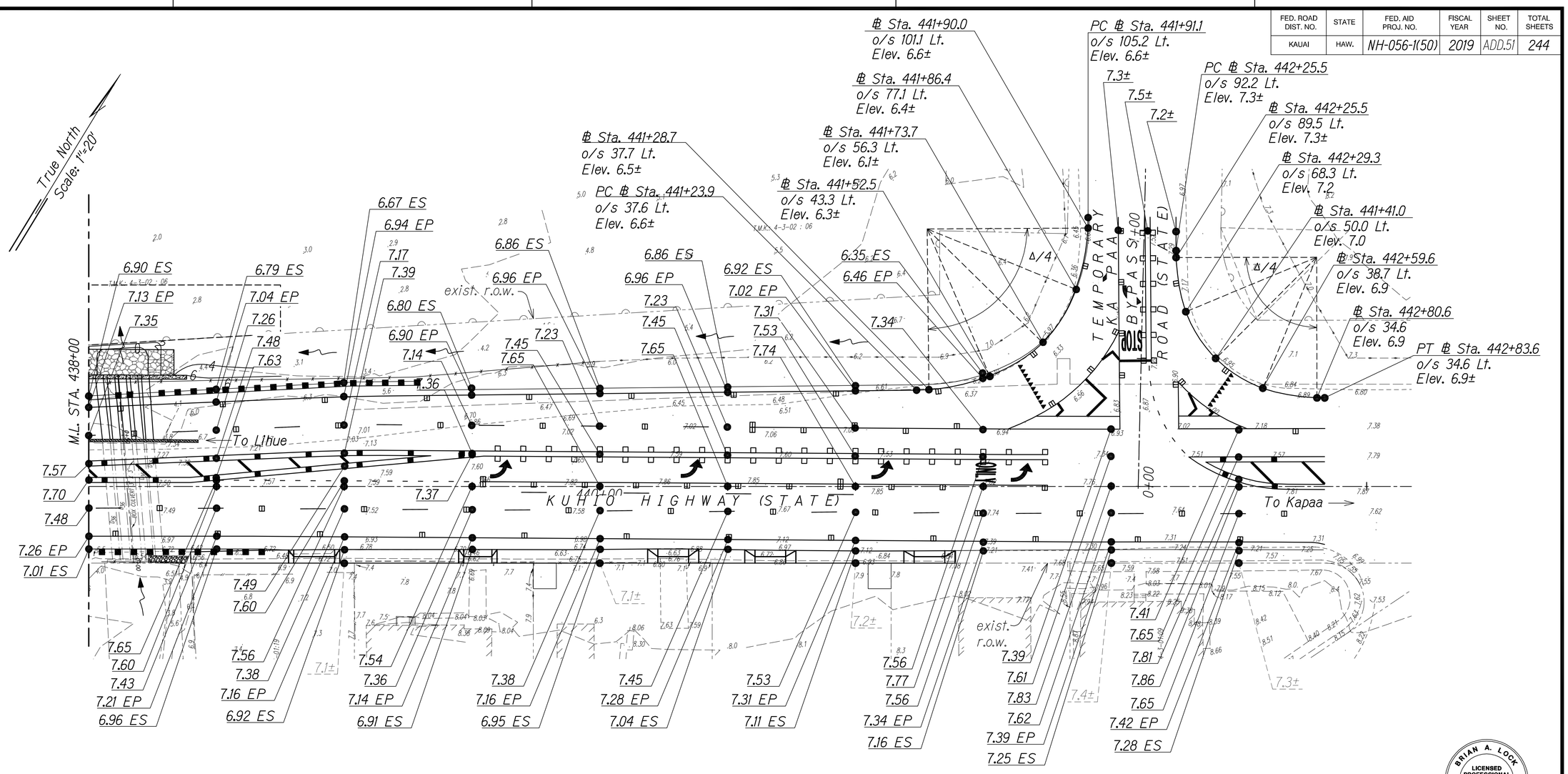
GRADING PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 20' Date: July 2019

SHEET No. GP9 OF 10 SHEETS

ADD.50

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.51	244



SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

ORIGINAL PLAN
NOTE BOOK
No.

GRAPHIC SCALE:

20' 10' 0 20' 40'
Scale: 1" = 20'

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GRADING PLAN

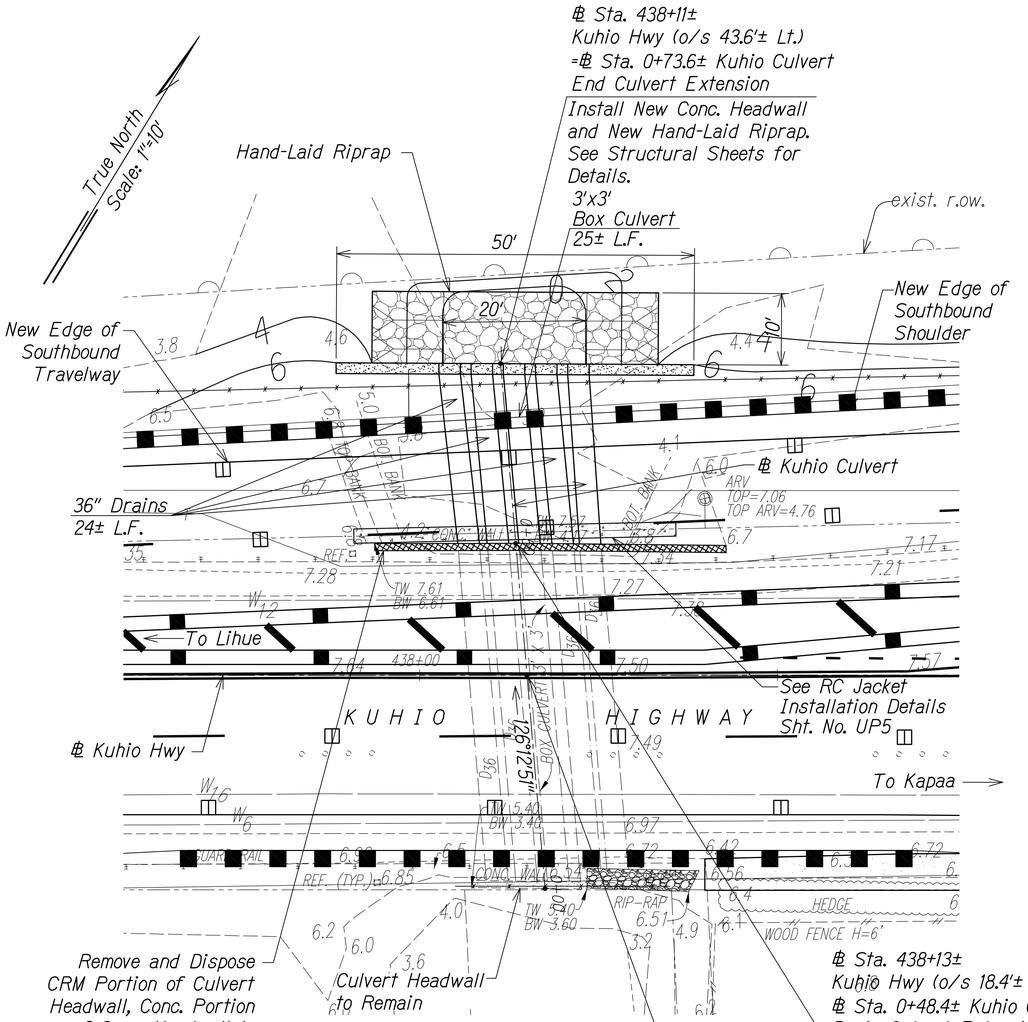
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. GP10 OF 10 SHEETS

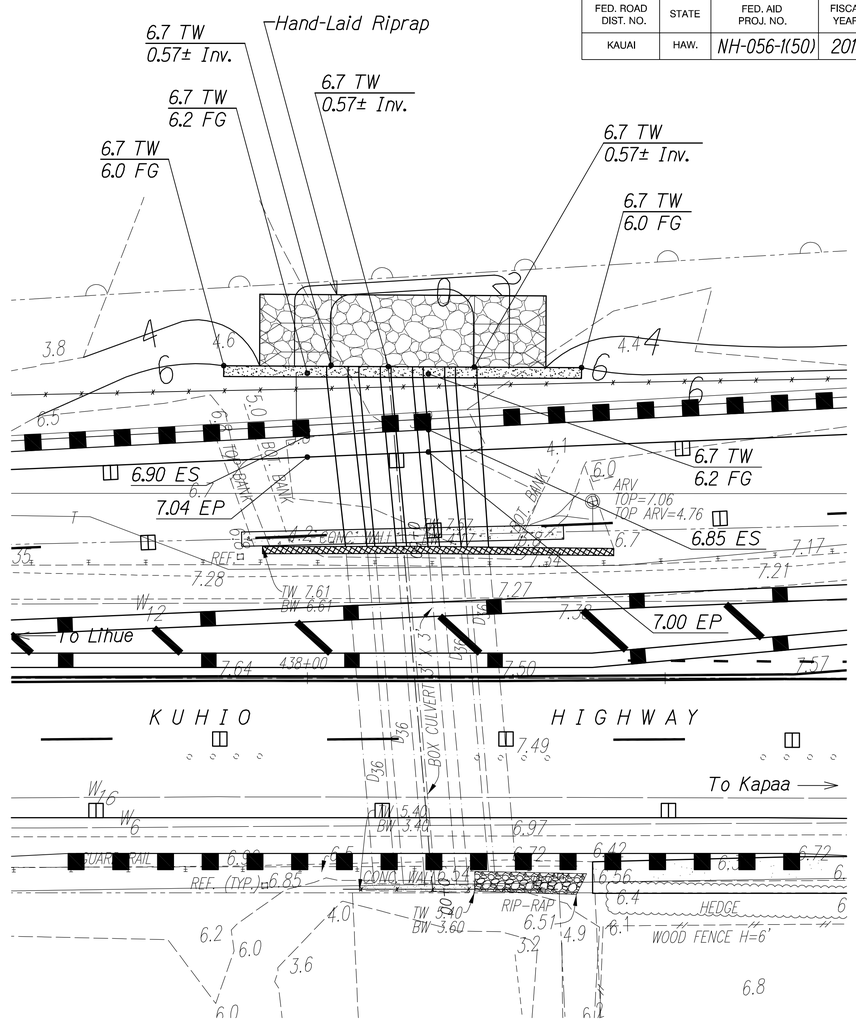
ADD.51

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.52	244



LAYOUT PLAN
EXTENSION OF EXISTING BOX CULVERT
AT STA. 438+15

Scale: 1" = 10'



GRADING PLAN
EXTENSION OF EXISTING BOX CULVERT
AT STA. 438+15

Scale: 1" = 10'

Notes:

1. Concrete or debris from demolition work shall be removed and not allowed to fall into water way.
2. Contractor shall utilize water proof form work for cast-in-place concrete headwall foundation and collar. Contractor shall not use chemical treated wood for waterproof form work. Contractor shall keep foundation dry by draining, bailing, pumping, driving sheathings; or by constructing cofferdams and cribs.
3. Contractor shall clean existing culverts.
4. Contractor shall protect 14" sewer force main during culvert installation.

GRAPHIC SCALE:

10' 5' 0 10' 20'
Scale: 1" = 10'

APPROVED

Chief, Division of Wastewater Management (For Work Involving Sewer Lines and Appurtenances) — Date

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION — LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KUHIO HIGHWAY
CULVERT EXTENSION

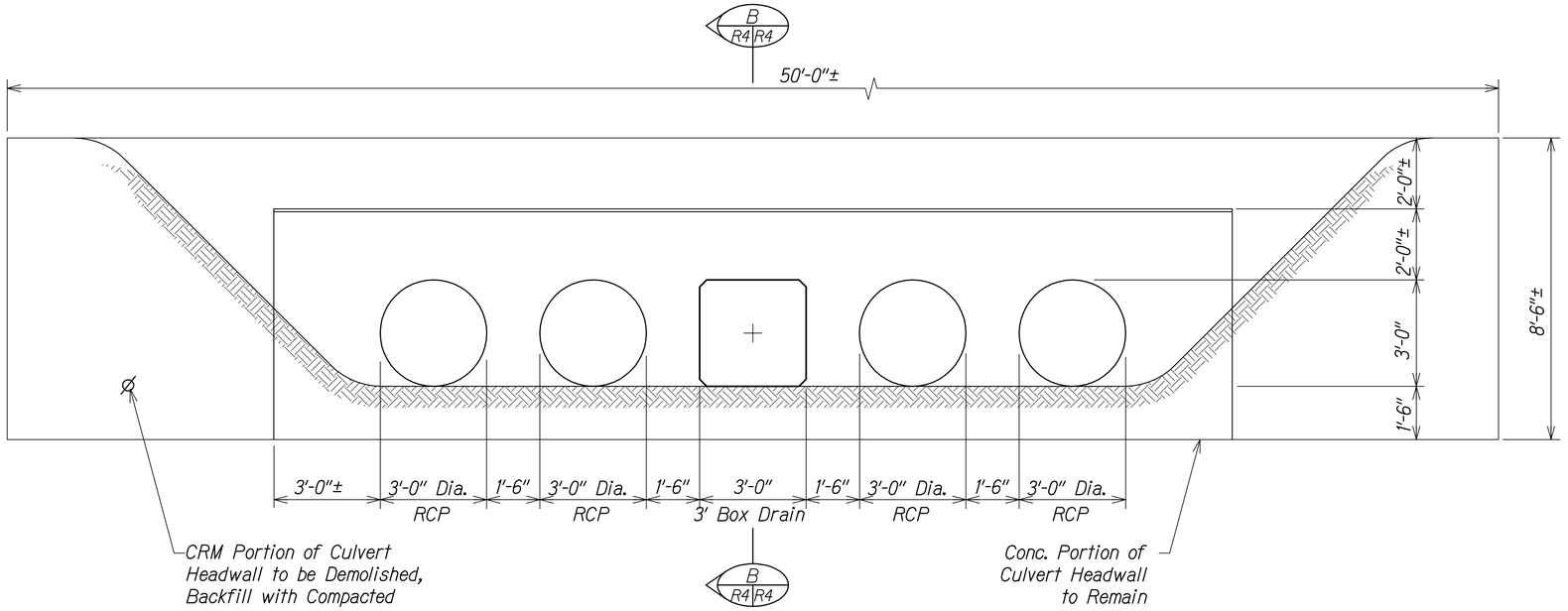
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 10' Date: July 2019

SHEET No. R1 OF 3 SHEETS

ADD.52

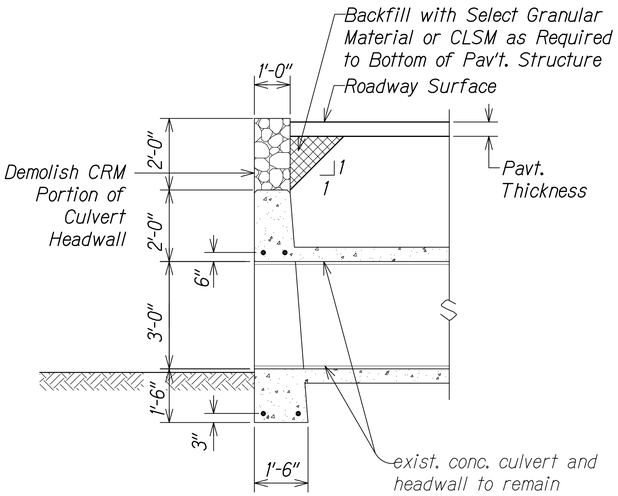
ORIGINAL PLAN — SURVEY PLOTTED BY — DRAWN BY — TRACED BY — DESIGNED BY — QUANTITIES BY — CHECKED BY — DATE — NOTE BOOK — No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.53	244



EXISTING CULVERT HEADWALL DEMOLITION ELEVATION

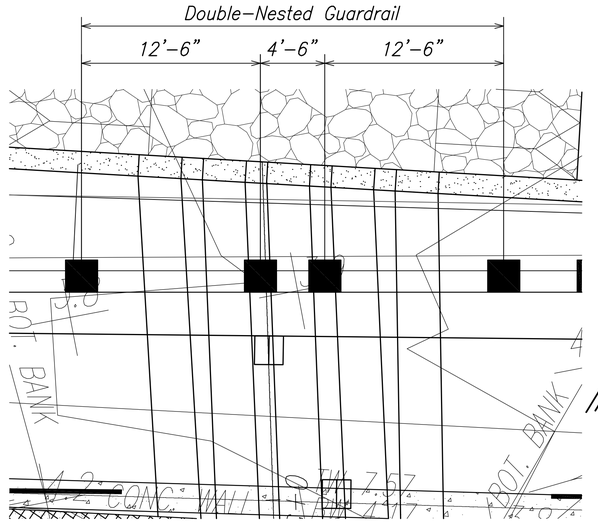
Not to Scale



SECTION

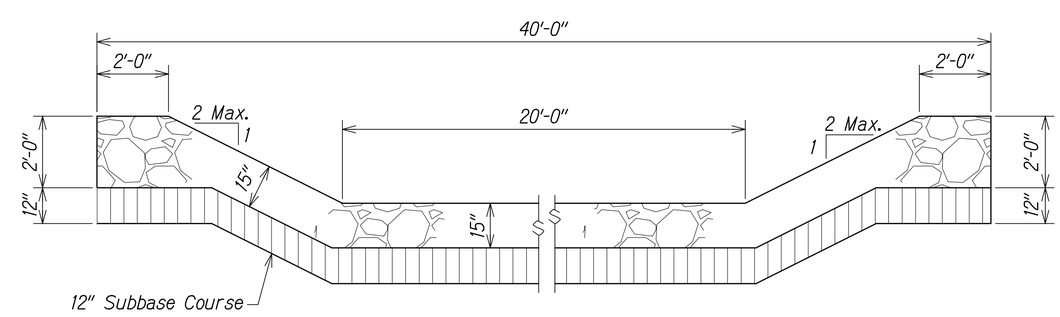
Not to Scale

B R4 R4



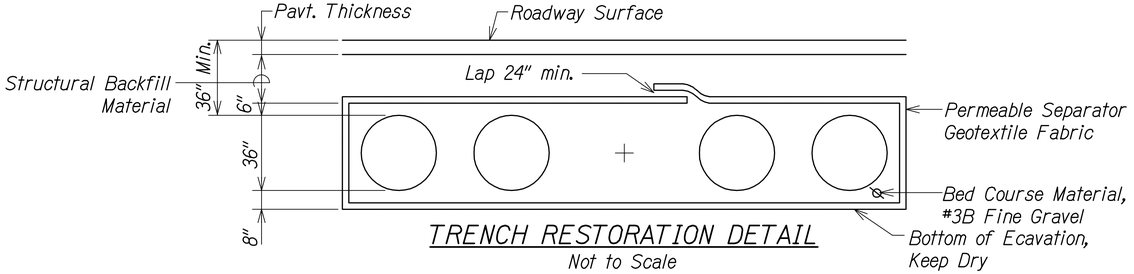
CULVERT GUARDRAIL DETAIL

Scale: 1" = 5'



HAND-LAID RIPRAP DETAIL

Not to Scale



TRENCH RESTORATION DETAIL

Not to Scale

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KUHIO HIGHWAY
CULVERT EXTENSION DETAILS

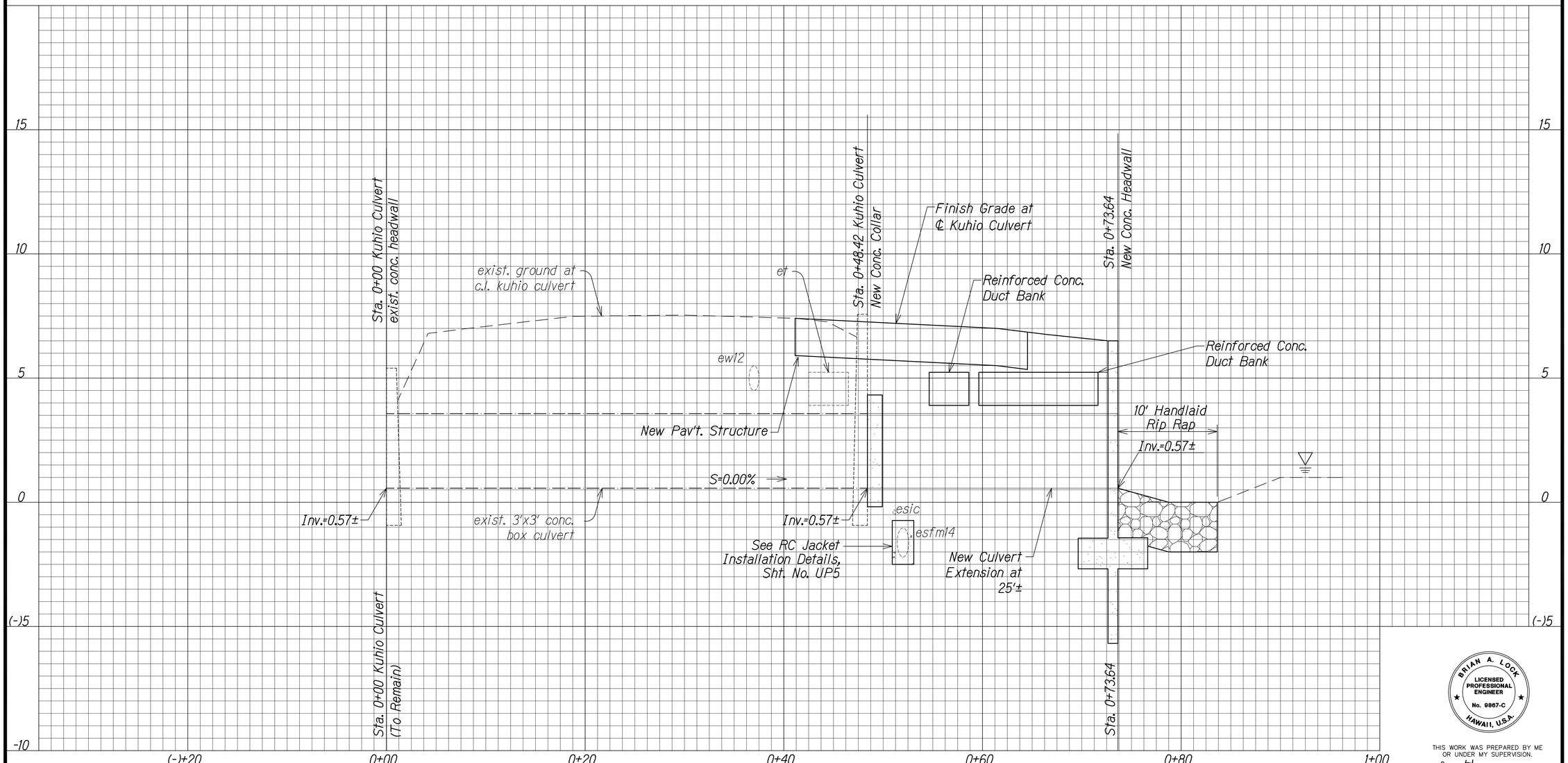
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted — Date: July 2019

SHEET No. R2 OF 3 SHEETS

ADD.53

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.54	244



PROFILE – 3'x3' BOX CULVERT

Scale : Horiz. 1" = 5'
Vert. 1" = 2'

Note:

1. Protect Sandwich Isles communication and sewer force main from damange during construction.
2. Pipe culverts follow box culvert profile

DATE	REVISION
11/12/19	⚠ Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠ Reissuing plan for legibility only. No design changes have been made.

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

GRAPHIC SCALE:

5' 2.5' 0 5' 10'
Scale: 1" = 5'

2' 1' 0 2' 10'
Scale: 1" = 2'

APPROVED

Chief, Division of Wastewater Management (For Work Involving Sewer Lines and Appurtenances) Date

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PROFILE - KUHIO HIGHWAY
CULVERT EXTENSION
KUHIO HIGHWAY SHORT-TERM
IMPROVEMENTS KUAMOO ROAD
TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

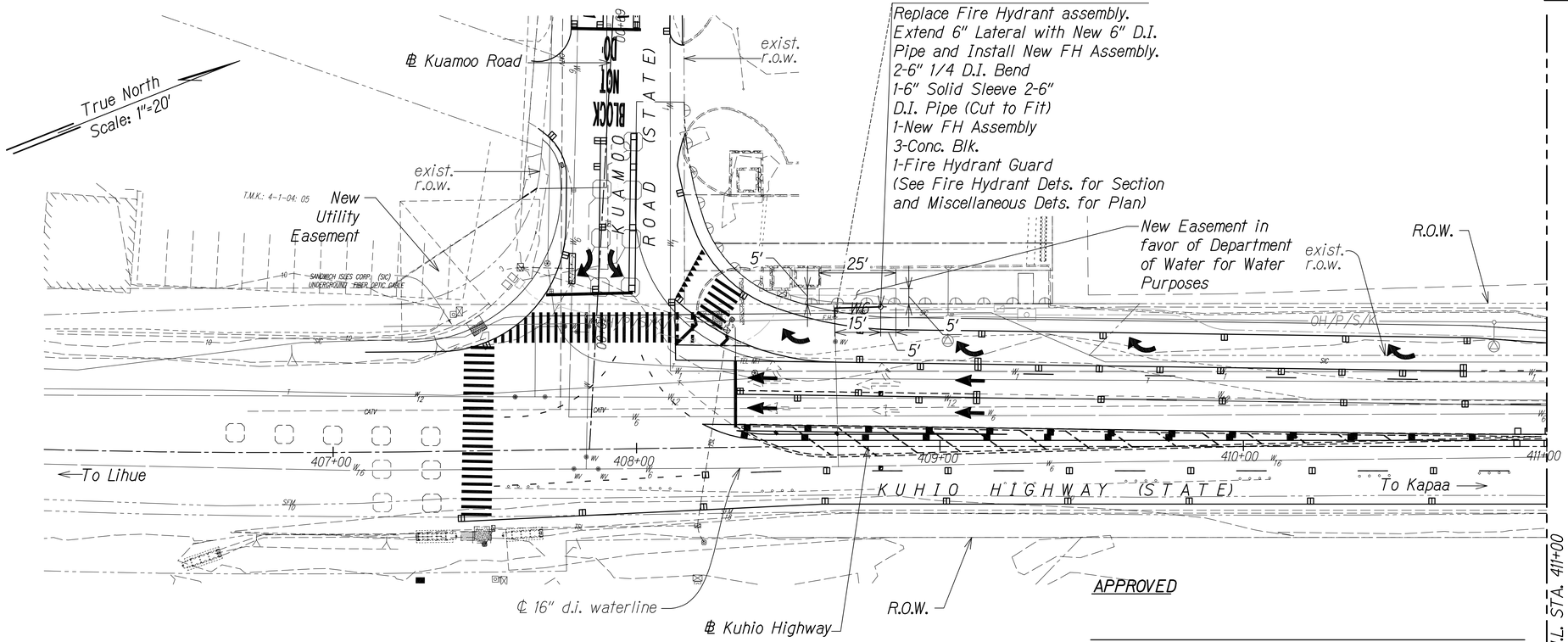
SHEET No. R3 OF 3 SHEETS

ADD.54

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.55	244

℄ Sta. 408+80.47
Kuhio Highway (o/s 37' Lt.)

Replace Fire Hydrant assembly.
Extend 6" Lateral with New 6" D.I. Pipe and Install New FH Assembly.
2-6" 1/4 D.I. Bend
1-6" Solid Sleeve 2-6" D.I. Pipe (Cut to Fit)
1-New FH Assembly
3-Conc. Blk.
1-Fire Hydrant Guard
(See Fire Hydrant Dets. for Section and Miscellaneous Dets. for Plan)



Notes:

1. D.I. pipe and fittings shall be double wrapped with polyethylene.
2. Contractor shall abandon pipe in place. All unused pipe shall be removed and disposed and trench shall be backfilled and restored.
3. Contractor shall maintain water service at all times except for scheduled shutdowns for connections.
4. Existing Fire Hydrants shall be removed, cleaned, and returned to Department of Water's baseyard in Lihue.
4. The Fire Department shall be notified whenever a fire hydrant is placed out of and returned to service.
5. Install "Megalug" retainer glands at all MJ end fittings.
6. The Right-of-Way and all relevant property corners at the service lateral and fire hydrant locations shall be surveyed and marked by a licensed surveyor prior to construction. Incidental to Section 624.

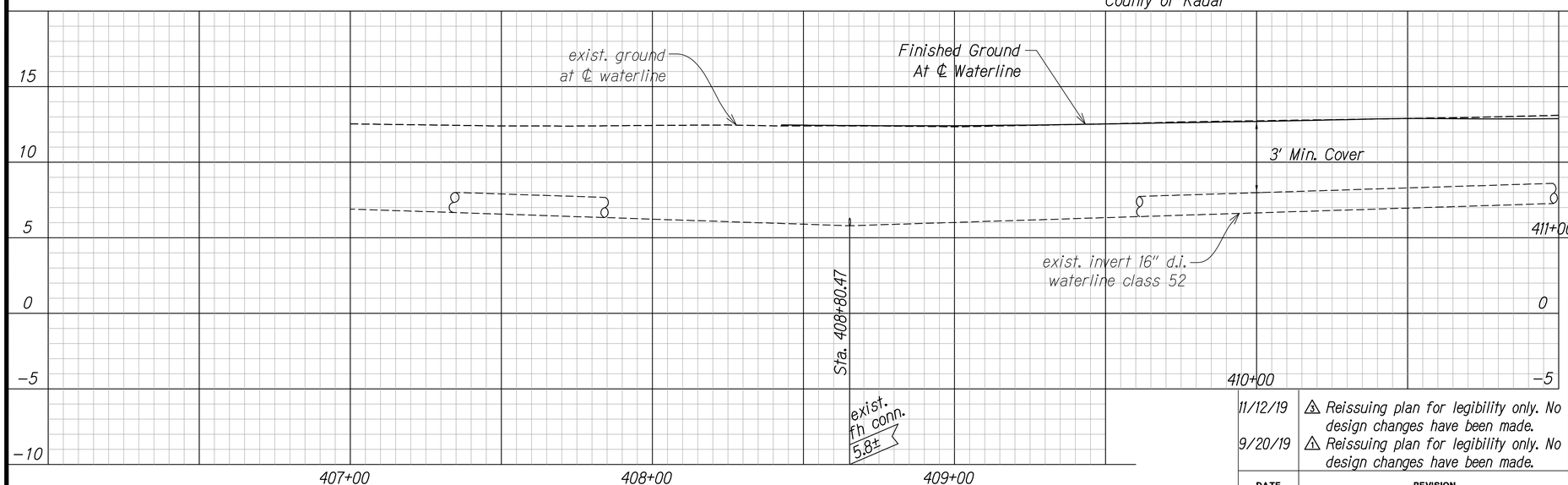
GRAPHIC SCALES:

4' 2' 0 4' 8'
VERTICAL SCALE: 1" = 4'
20' 10' 0 20' 40'
HORIZONTAL SCALE: 1" = 20'

APPROVED

Manager and Chief Engineer
Department of Water,
County of Kauai

Date



DATE	REVISION
11/12/19	③ Reissuing plan for legibility only. No design changes have been made.
9/20/19	① Reissuing plan for legibility only. No design changes have been made.

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

UTILITY PLAN

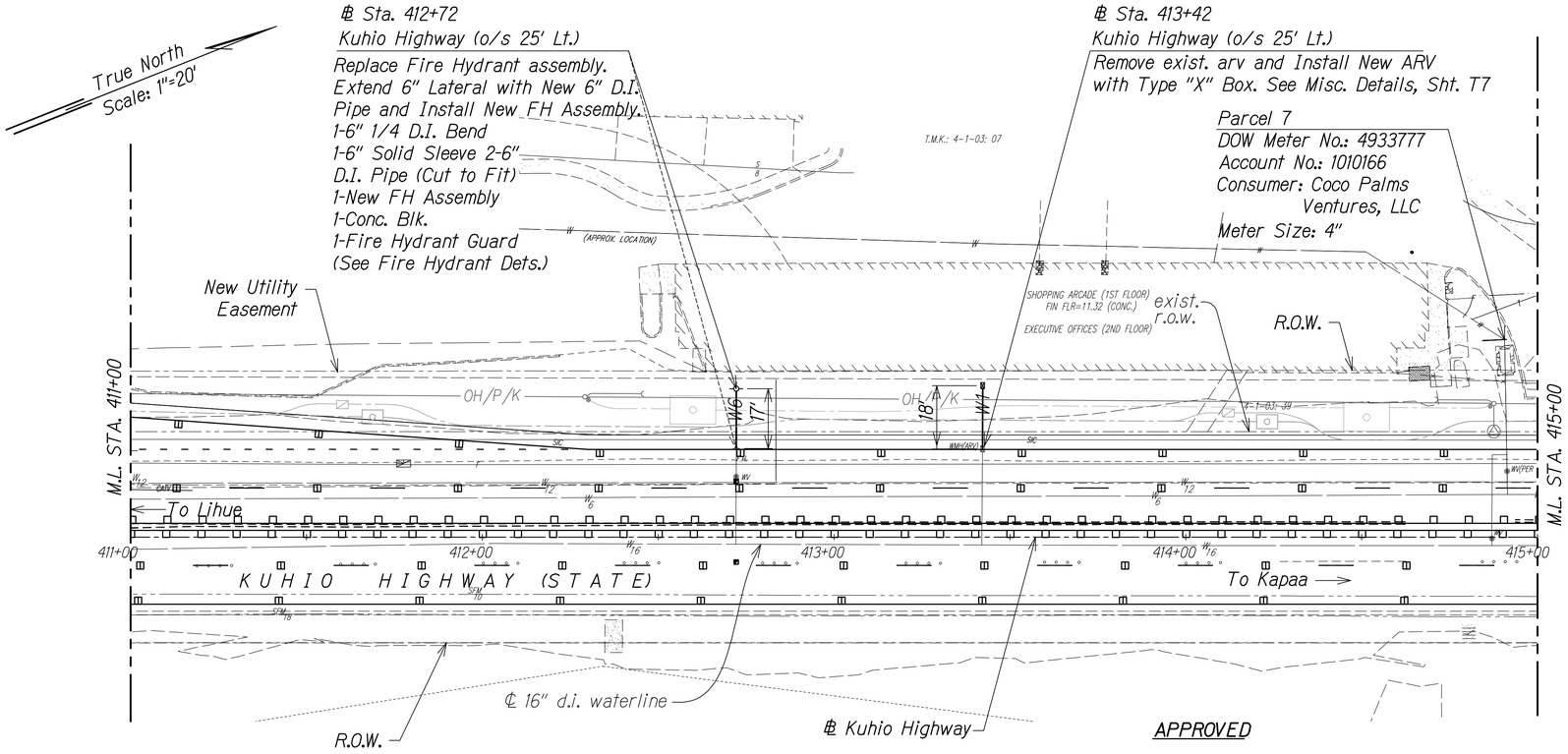
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. UP1 OF 11 SHEETS

ADD.55

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.56	244



APPROVED

Manager and Chief Engineer
Department of Water,
County of Kauai

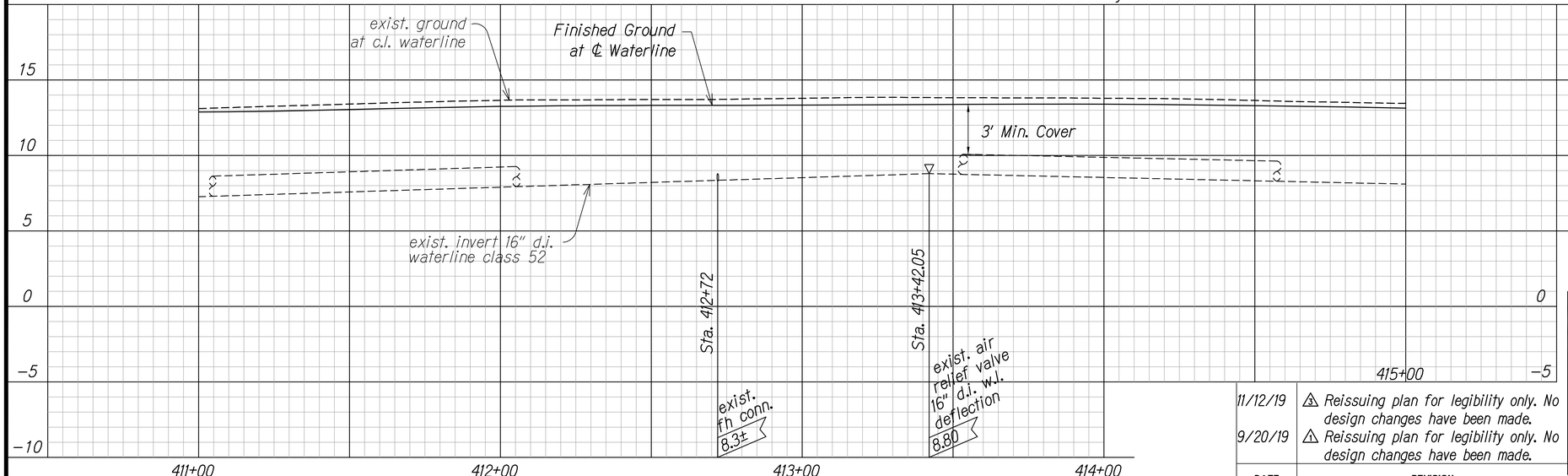
Date

Notes:

1. D.I. pipe and fittings shall be double wrapped with polyethylene.
2. Contractor shall abandon pipe in place. All unused pipe shall be removed and disposed and trench shall be backfilled and restored.
3. Contractor shall maintain water service at all times except for scheduled shutdowns for connections.
4. Existing Fire Hydrants shall be removed, cleaned, and returned to Department of Water's baseyard in Lihue.
4. The Fire Department shall be notified whenever a fire hydrant is placed out of and returned to service.
5. Install "Megalug" retainer glands at all MJ end fittings.
6. The Right-of-Way and all relevant property corners at the service lateral and fire hydrant locations shall be surveyed and marked by a licensed surveyor prior to construction. Incidental to Section 624.

GRAPHIC SCALES:

4' 2' 0 4' 8'
VERTICAL SCALE: 1" = 4'
20' 10' 0 20' 40'
HORIZONTAL SCALE: 1" = 20'



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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

UTILITY PLAN

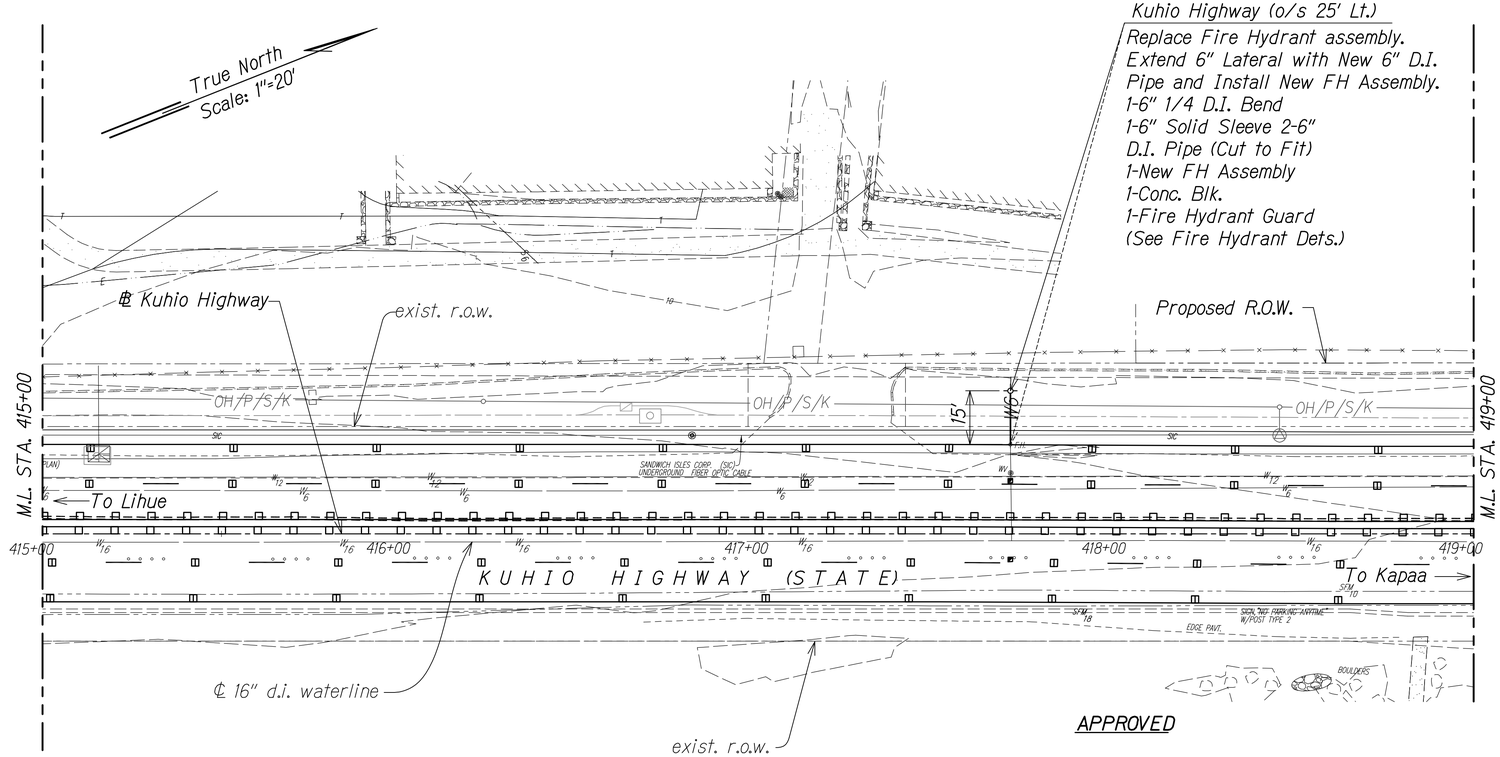
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. UP2 OF 11 SHEETS

ADD.56

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.57	244



APPROVED

Manager and Chief Engineer
Department of Water,
County of Kauai

Date

Notes:

1. D.I. pipe and fittings shall be double wrapped with polyethylene.
2. Contractor shall abandon pipe in place. All unused pipe shall be removed and disposed and trench shall be backfilled and restored.
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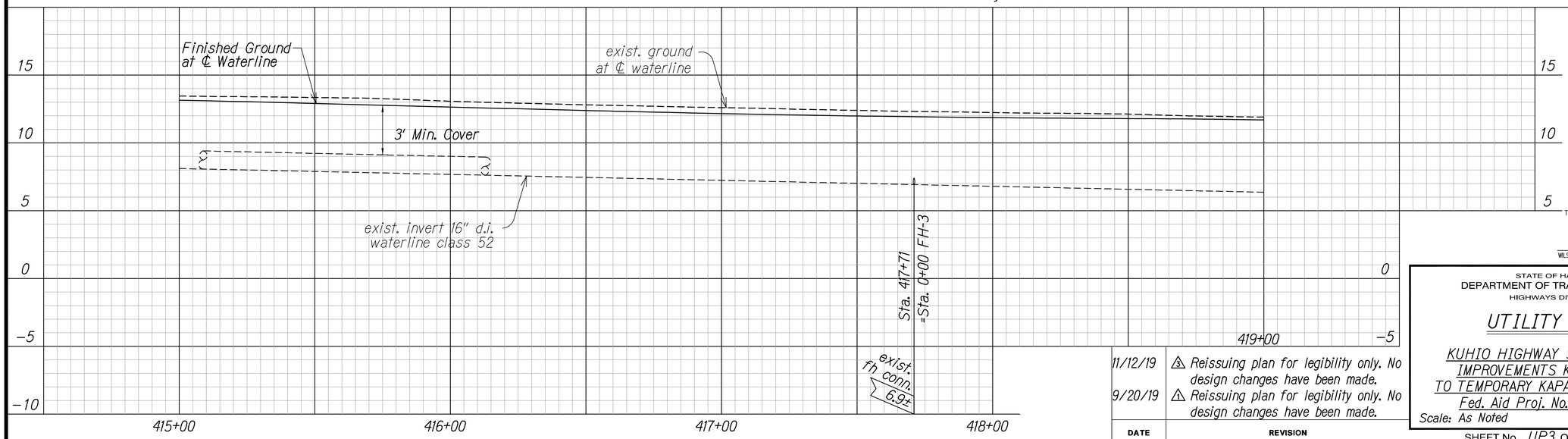
GRAPHIC SCALES:

4' 2' 0 4' 8'
VERTICAL SCALE: 1" = 4'
20' 10' 0 20' 40'
HORIZONTAL SCALE: 1" = 20'



SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

ORIGINAL PLANS
NOTE BOOK
No.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

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WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

UTILITY PLAN

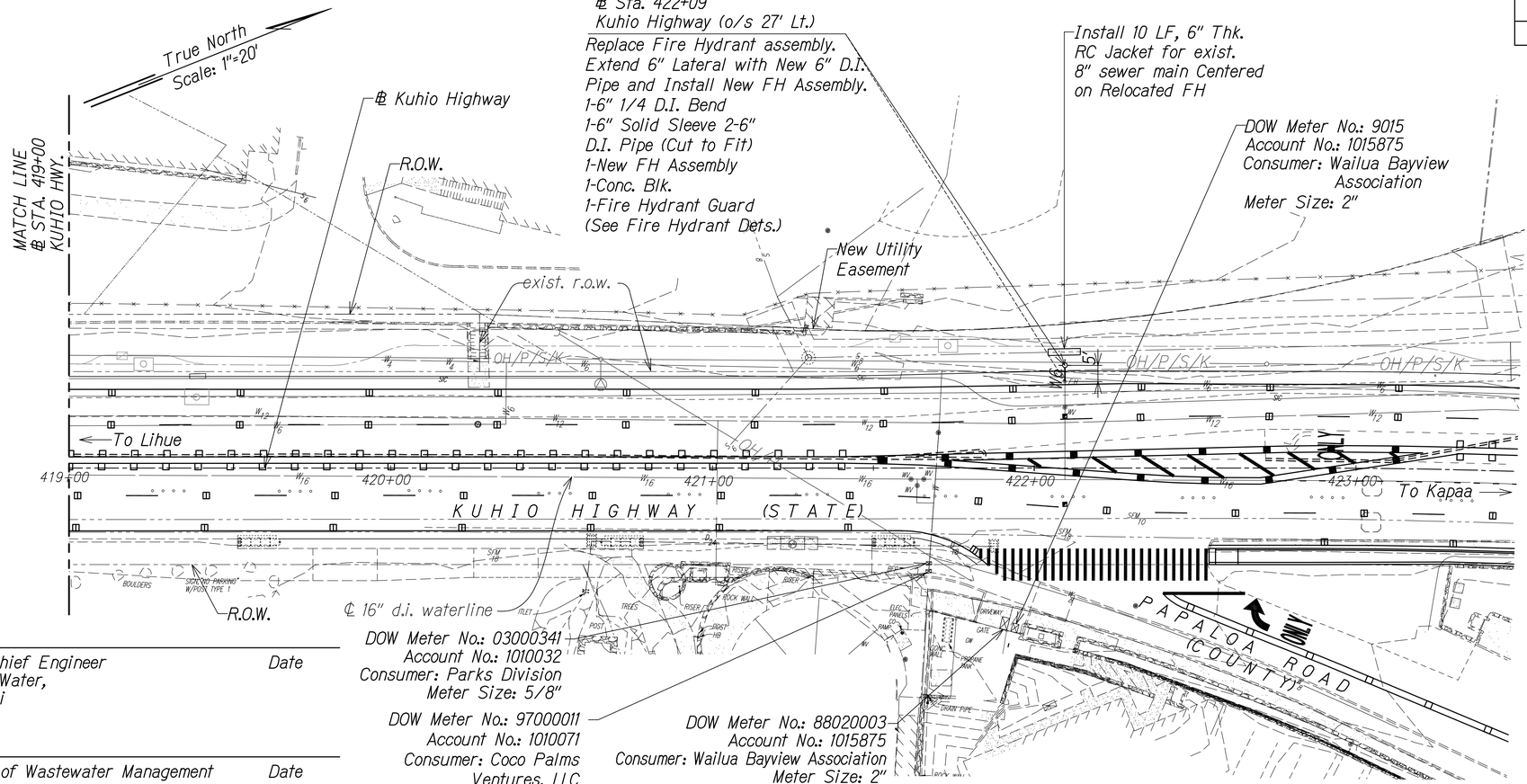
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

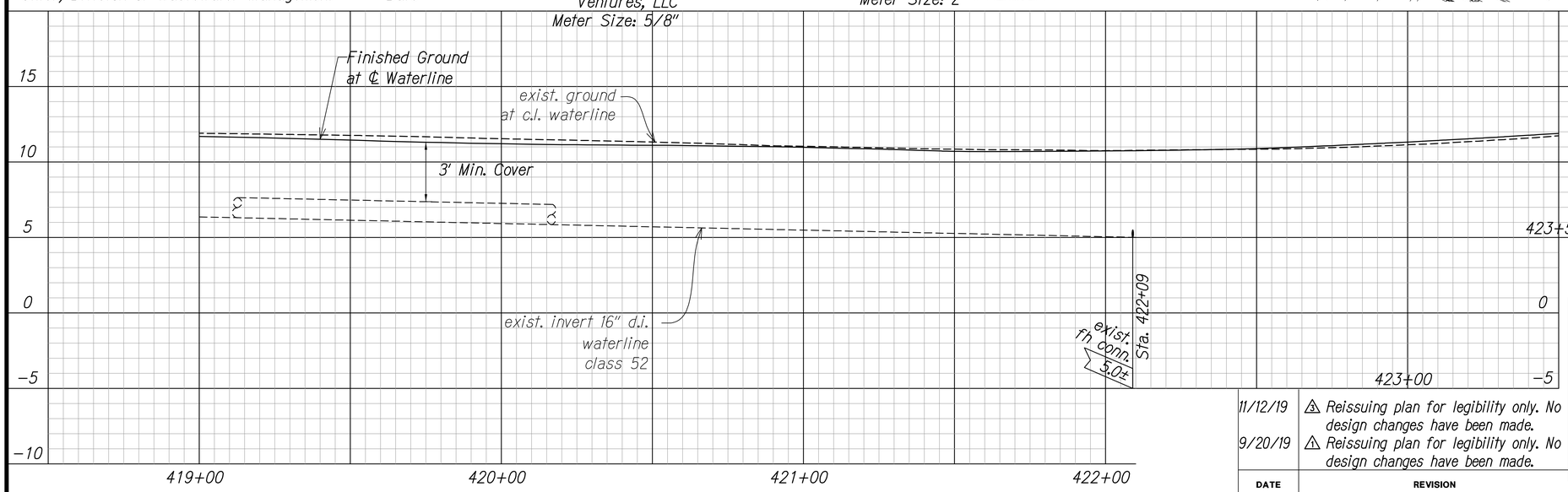
Scale: As Noted Date: July 2019

SHEET No. UP3 OF 11 SHEETS

ADD.57

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.58	244





APPROVED

Manager and Chief Engineer *Date*
Department of Water,
County of Kauai

Chief, Division of Wastewater Management *Date*

Notes:

1. *D.I. pipe and fittings shall be double wrapped with polyethylene.*
2. *Contractor shall abandon pipe in place. All unused pipe shall be removed and disposed and trench shall be backfilled and restored.*
3. *Contractor shall maintain water service at all times except for scheduled shutdowns for connections.*
4. *Existing Fire Hydrants shall be removed, cleaned, and returned to Department of Water's baseyard in Lihue.*
4. *The Fire Department shall be notified whenever a fire hydrant is placed out of and returned to service.*
5. *Install "Megalug" retainer glands at all MJ end fittings.*
6. *The Right-of-Way and all relevant property corners at the service lateral and fire hydrant locations shall be surveyed and marked by a licensed surveyor prior to construction. Incidental to Section 624.*

GRAPHIC SCALES:

4' 2' 0 4' 8'
VERTICAL SCALE: 1" = 4'
20' 10' 0 20' 40'
HORIZONTAL SCALE: 1" = 20'

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9887-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

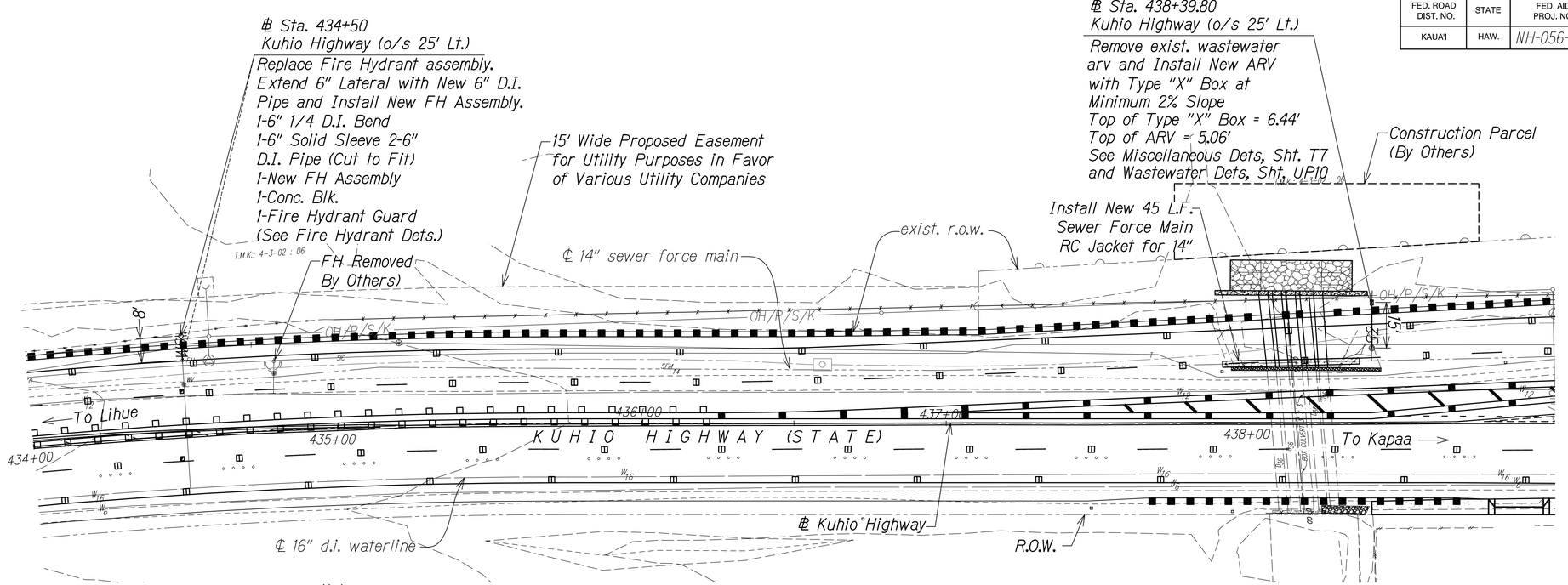
UTILITY PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: As Noted *Date: July 2019*

SHEET No. *UP4* OF *11* SHEETS

ADD.58

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.59	244



APPROVED

Manager and Chief Engineer — Date
Department of Water,
County of Kauai

Chief, Division of Wastewater Management — Date

Notes:

1. D.I. pipe and fittings shall be double wrapped with polyethylene.
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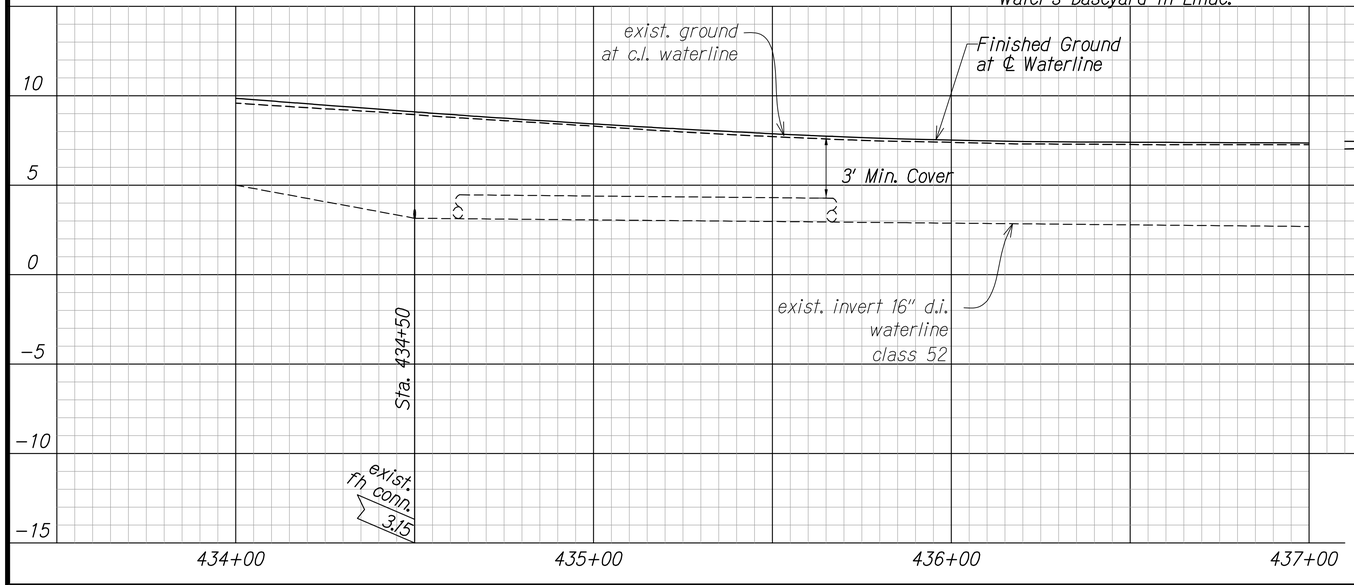

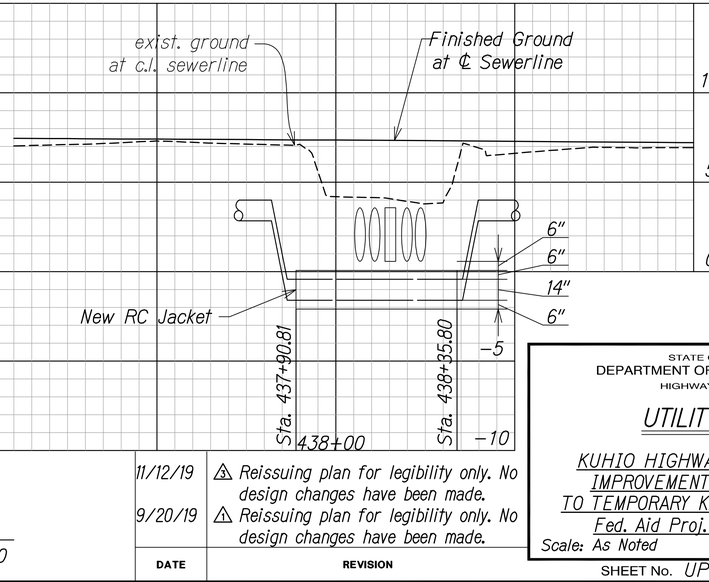

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DESIGNED BY
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CHECKED BY
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ORIGINAL PLANS
NOTE BOOK
No.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

UTILITY PLAN

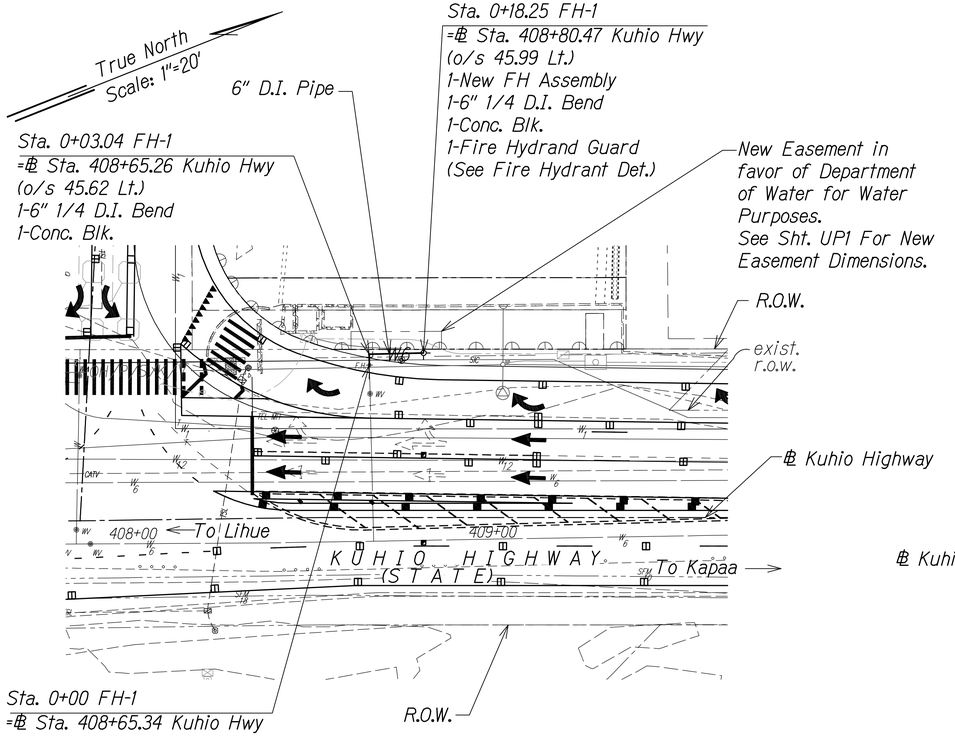
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

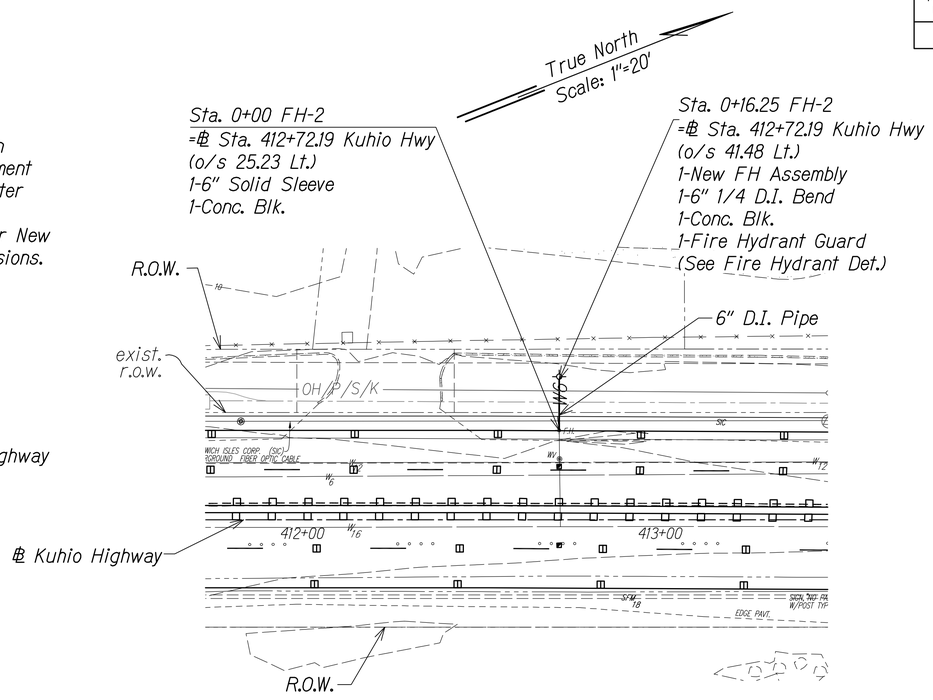
Scale: As Noted Date: July 2019

SHEET No. UP5 OF 11 SHEETS

ADD.59

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.60	244





APPROVED

Manager and Chief Engineer
Department of Water,
County of Kauai

Date

Notes:

1. D.I. pipe and fittings shall be double wrapped with polyethylene.
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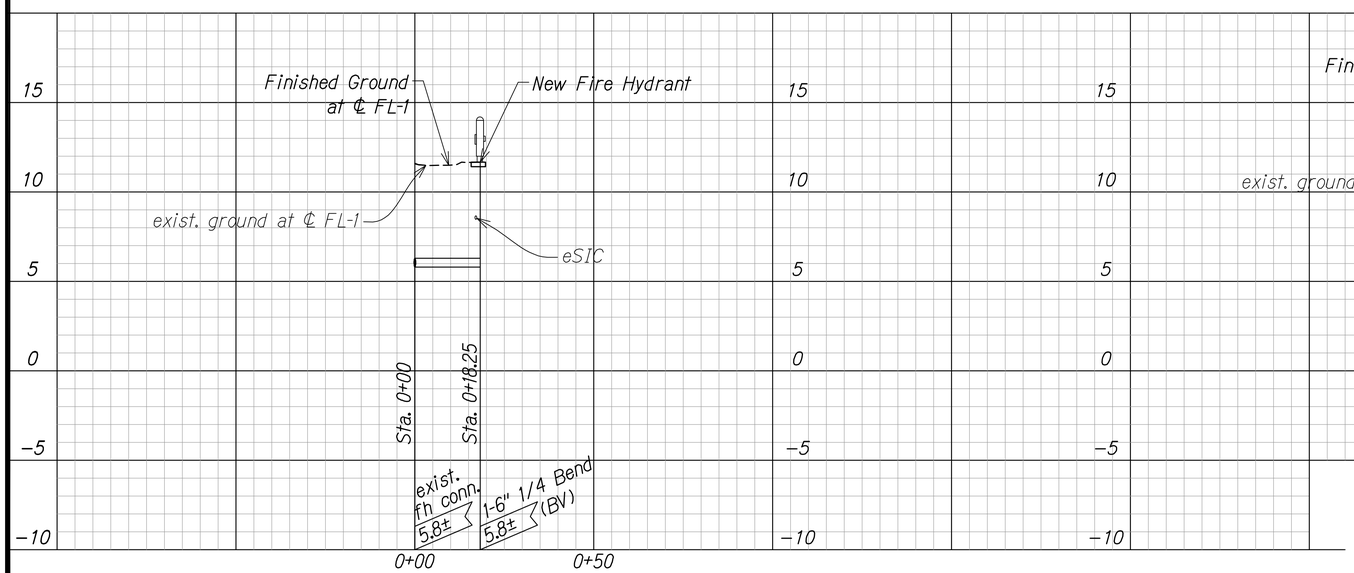

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

UTILITY PLAN

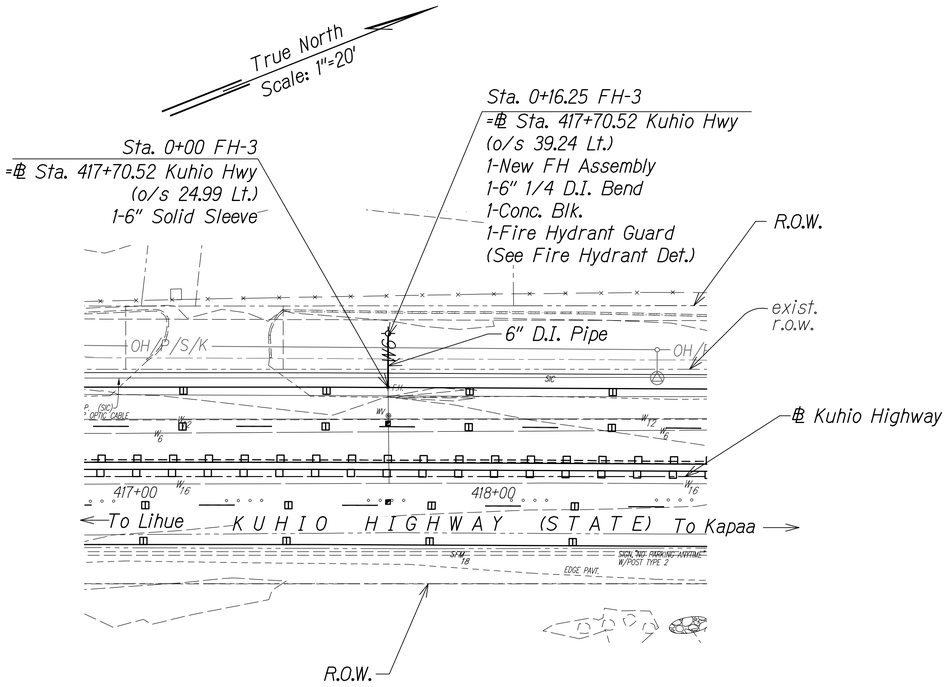
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: As Noted Date: July 2019

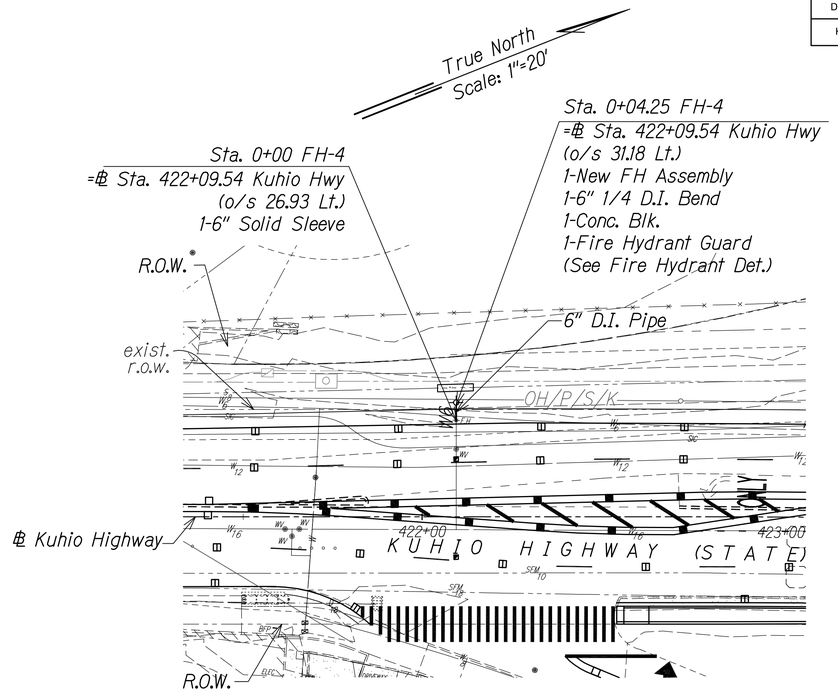
SHEET No. UP6 OF 11 SHEETS

ADD.60

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.61	244





APPROVED

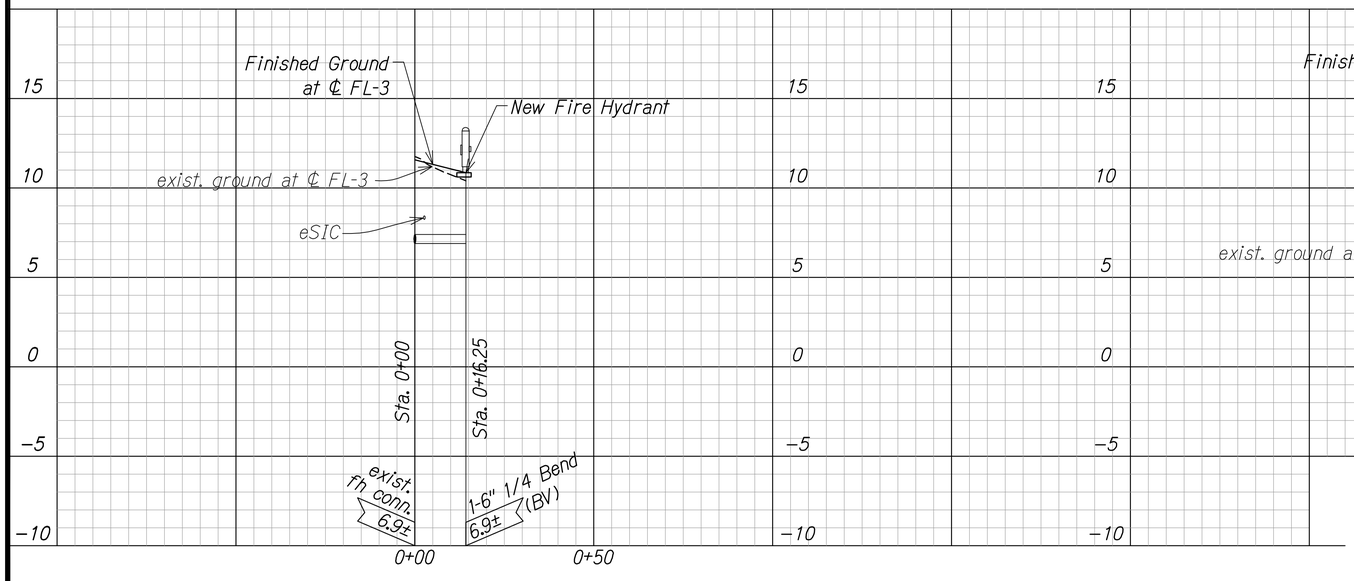
Manager and Chief Engineer
Department of Water,
County of Kauai — Date

Notes:

1. D.I. pipe and fittings shall be double wrapped with polyethylene.
2. Contractor shall abandon pipe in place. All unused pipe shall be removed and disposed and trench shall be backfilled and restored.
3. Contractor shall maintain water service at all times except for scheduled shutdowns for connections.
4. Existing Fire Hydrants shall be removed, cleaned, and returned to Department of Water's baseyard in Lihue.
4. The Fire Department shall be notified whenever a fire hydrant is placed out of and returned to service.
5. Install "Megalug" retainer glands at all MJ end fittings.
6. The Right-of-Way and all relevant property corners at the service lateral and fire hydrant locations shall be surveyed and marked by a licensed surveyor prior to construction. Incidental to Section 624.

GRAPHIC SCALES:

4' 2' 0 4' 8'
VERTICAL SCALE: 1" = 4'
20' 10' 0 20' 40'
HORIZONTAL SCALE: 1" = 20'



DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

UTILITY PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

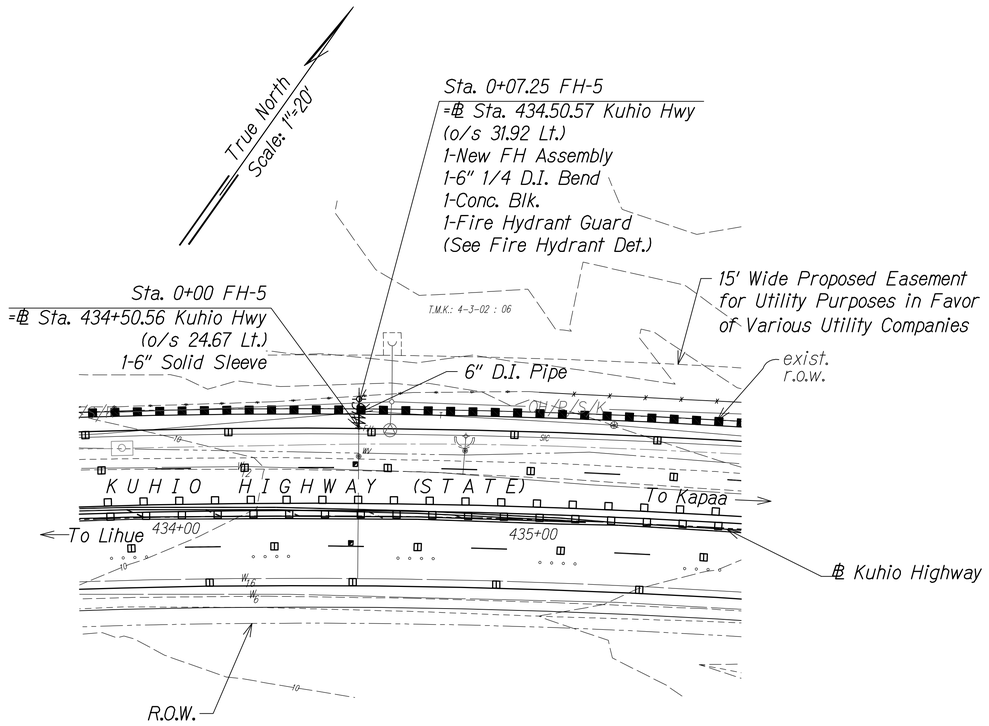
Scale: As Noted Date: July 2019

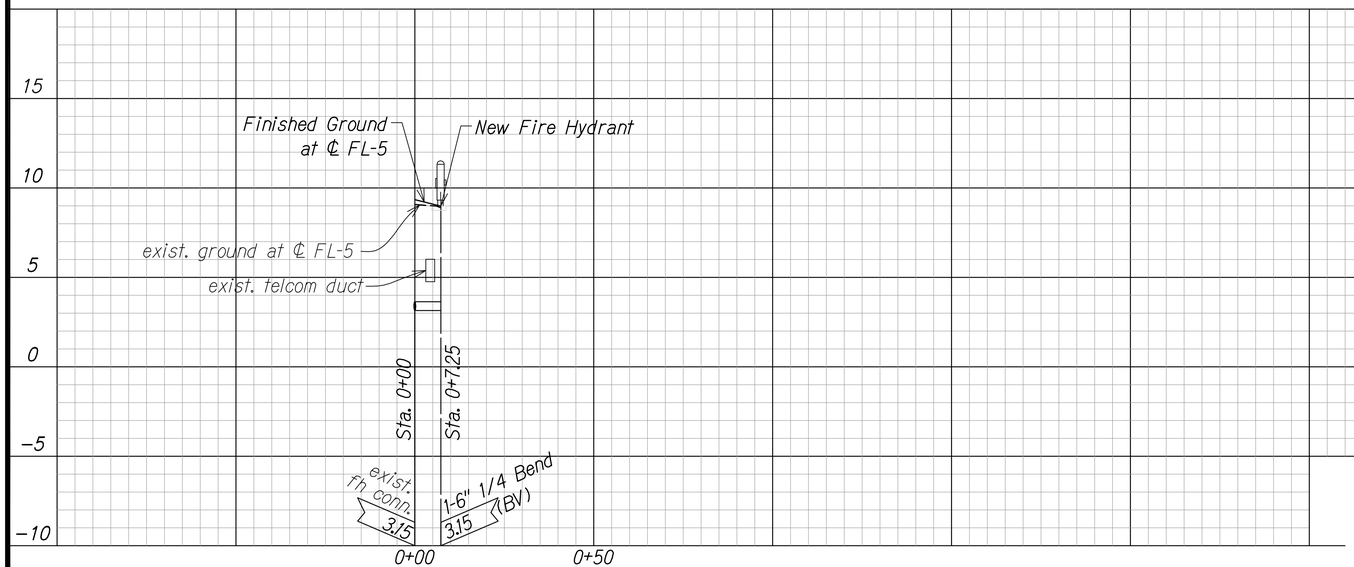
SHEET No. UP7 OF 11 SHEETS

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

ADD.61

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.62	244





APPROVED

Manager and Chief Engineer *Date*
Department of Water,
County of Kauai

Notes:

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GRAPHIC SCALES:

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VERTICAL SCALE: 1" = 4'
20' 10' 0 20' 40'
HORIZONTAL SCALE: 1" = 20'

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

UTILITY PLAN

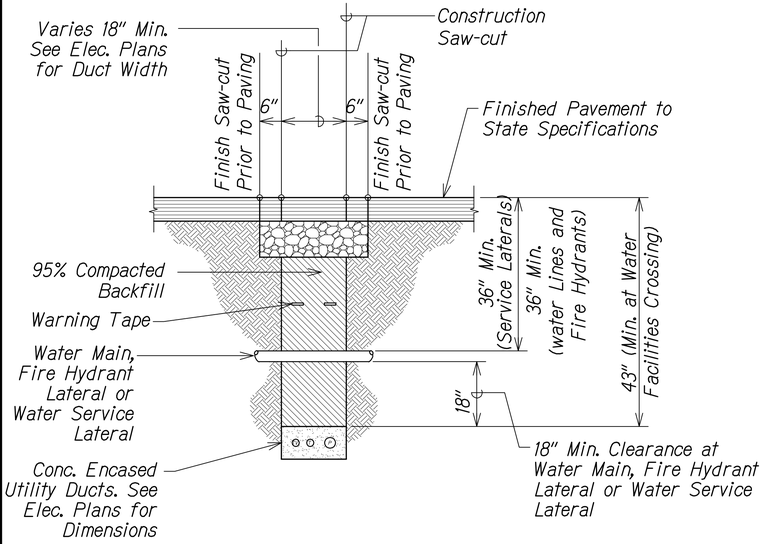
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: *As Noted* Date: *July 2019*

SHEET No. *UP8* OF *11* SHEETS

ADD.62

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.63	244

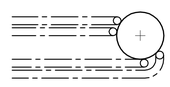


Water Notes:

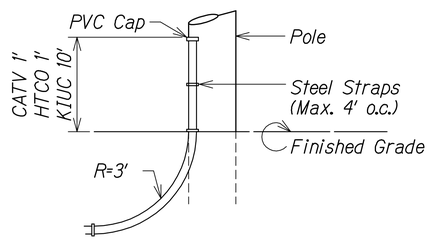
1. The contractor shall verify in the field the location of the existing water facilities prior to trenching. Excavation around existing water facilities shall be done by hand.
2. Material used for back filling at the water facilities crossings shall not contain any stones, rocks, or other similar material and shall not contain vegetable matter or debris of any kind. No "Adobe" or similar material shall be used.
3. Provide concrete encasement for the conduits at all waterline, service lateral and fire hydrant crossings. The contractor shall notify the Department of Water at least 24-hours prior to scheduling back filling operations at the water facilities crossings.

DETAIL AT WATER FACILITIES CROSSINGS

Not to Scale



PLAN

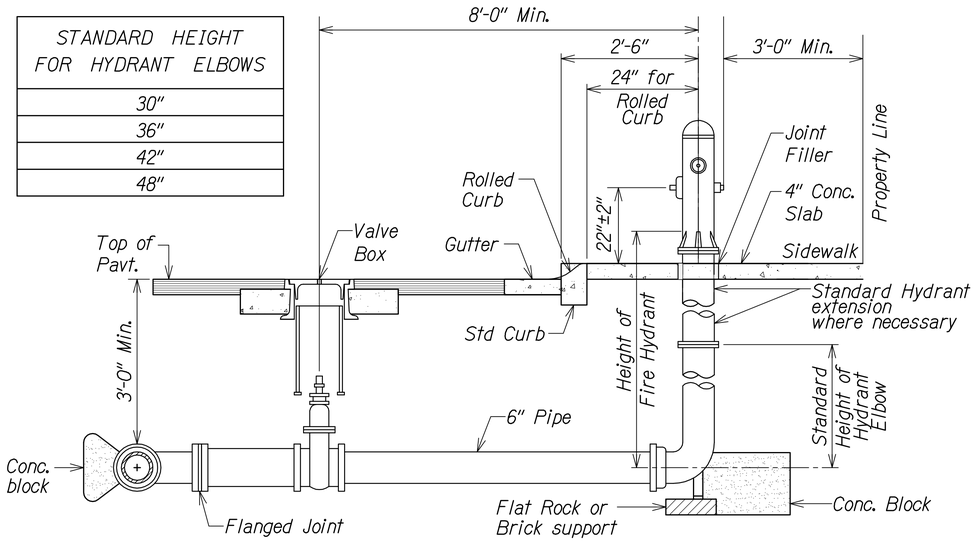


ELEVATION

POLE RISER DETAIL

Not to Scale

STANDARD HEIGHT FOR HYDRANT ELBOWS
30"
36"
42"
48"



If multiple hydrant extensions are used, a minimum of the top 3 flange joints shall use break-off bolts.

Standard Hydrant extensions are available in the following lengths: 6 to 30 inches long in increments of 6 inches

SECTION

PLAN

(STRAIGHT RUN) FIRE HYDRANT CONNECTION DETAIL

Not to Scale

Notes:

1. Painting of the new fire hydrants shall be in accordance with Division 200, Section 206.01 of the Water System Standards.
2. The Contractor shall etch onto the 4" thick concrete slab for the hydrant curb guard (or onto the 4" thick concrete slab between the curb and gutter and sidewalk) the measured distance from the fire hydrant to the 6" hydrant gate valve. The etched numbers shall be 2-inches tall.

Notes:

1. Gaskets for flanged joints shall be 1/8" duck-inserted rubber packing garlock no. 19.
2. Bolts shall be break-off type, 5/8" dia. x 3" long machine bolts with cut threads, American Standard coarse hexagon heads, hot dipped galvanized steel or silicon bronze. Install bolt with threads facing up.
3. Nuts shall be American Standard heavy cold punched hexagon nuts, hot dipped galvanized steel or silicon bronze.
4. Concrete shall be DWS 2500.
5. Refer to plate FH11 for fire hydrant installation with curb guard. (Oahu and Kauai only). For Maui, refer to plate FH9 where no street curbing.
6. Flanged outlet for the tee is optional for Oahu; mandatory for Kauai and Maui.
7. Tapping sleeve with tapping valve assembly may be used for connection to exist main.
8. Lubricate hydrant nozzle threads with non-toxic grease.
9. Provide slotted flanged riser for hydrant as needed to align 4-1/2" nozzle perpendicular to curb. (For Maui only)
10. Install hydrant markers. (See plates FH12 and FH13)

BRIAN A. LOCK LICENSED PROFESSIONAL ENGINEER No. 9867-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

APPROVED

Manager and Chief Engineer Date
Department of Water,
County of Kauai

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FIRE HYDRANT DETAILS

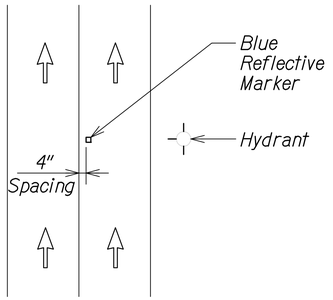
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

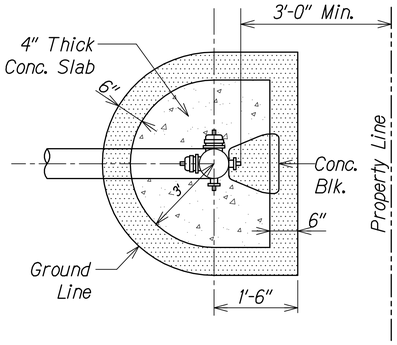
SHEET No. UP9 OF 11 SHEETS

ADD.63

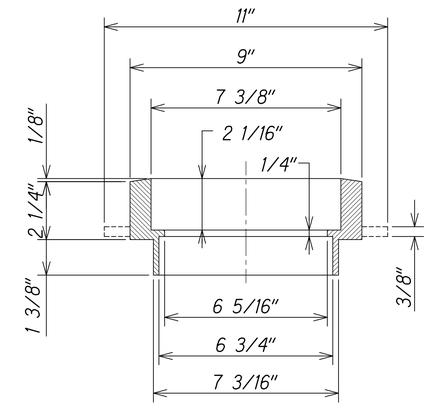
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.64	244



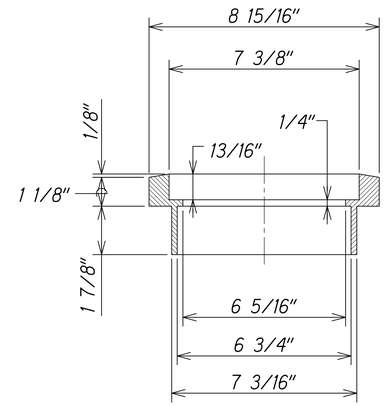
HYDRANT MARKER LOCATION
Not to Scale



Notes:
1. Concrete shall be DWS 2500.
2. Slope slab 1/4" per foot away from hydrant.



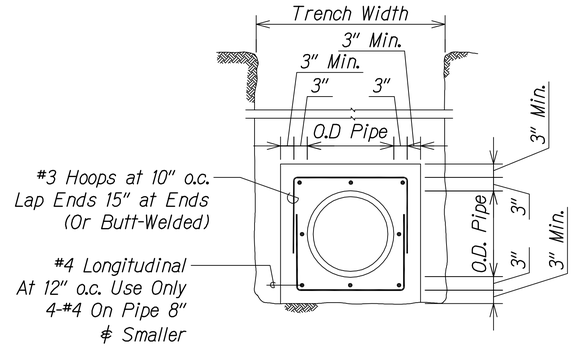
5 1/4" x 2 1/4" RISER
USES STANDARD 5 1/4" DROP LID
Not to Scale



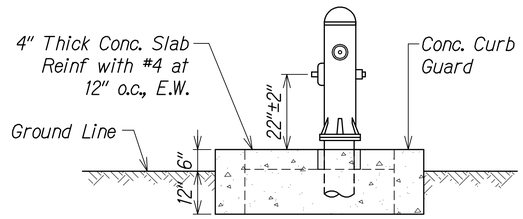
5 1/4" x 1 1/8" RISER
REQUIRES 1 1/8" RISER LID
Not to Scale

TYLER/UNION RISERS

Item/Description	UPCode 670610	Height Increase	Weight
5 1/4 x 1 1/8 Slip-In*	145554	1 1/8"	8
5 1/4 x 2 1/4 Slip-In	145547	2 1/4"	14
*Use with 1 1/8" Lid Only			



CONCRETE JACKET DETAIL
Not to Scale



HYDRANT CURB GUARD
(NON-SIDEWALK AREA)
Not to Scale

Notes:
1. Tack weld cast iron riser to existing cast iron valve box.
2. Valve boxes shall be adjusted to match finish grade by physically raising or lowering the existing valve box frame and cover and reconstructing the concrete settlement slab and valve box riser (if necessary). For road resurfacing projects, the top of three piece valve boxes with 5 1/4" shafts may be adjusted to match the new finish grade by installing fixed cast iron risers tack welded to the existing cast iron valve box.

FIXED CAST IRON RISER FOR ALL 5-1/4" SHAFT VALVE BOX
Not to Scale

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

APPROVED

Manager and Chief Engineer — Date
Department of Water,
County of Kauai

Chief, Division of Wastewater Management — Date

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BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

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WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FIRE HYDRANT & WASTEWATER DETAILS

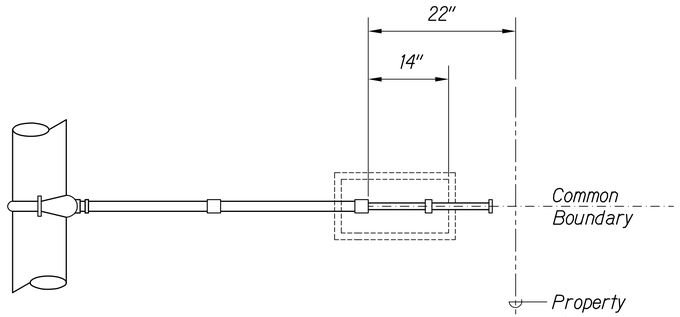
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted — Date: July 2019

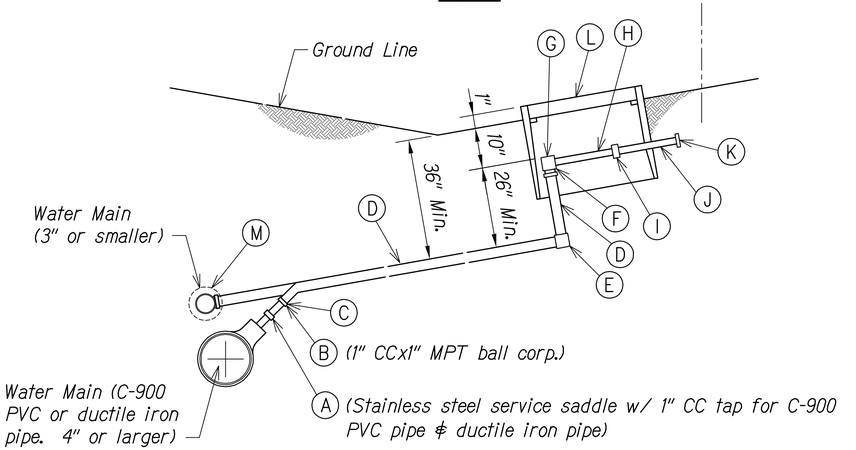
SHEET No. UP10 OF 11 SHEETS

ADD.64

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.65	244



PLAN



PROFILE

	Schedule of Fittings	
Item	Description	Single Service
A	Stainless steel service saddle w/ 1" CC tap for C-900 PVC pipe & D.I. pipe	1
B	1" CC x 1" MPT ball corporation	1
C	Pack joint couplings (Ford C14-44 or approved equal)	1
D	1" copper tube, Type "K" soft	1
E	1" 90° copper elbow, S x S	1
F	1" copper male adapter, SXT	1
G	Angle ball valve, 1" female IPT inlet x 3/4" meter coupling nut outlet (Ford BA13-342W or approved equal)	1
H	Meter spacing, supplied by Dept. of Water & installed by contractor	1
I	Ball valve w/ handle, 3/4" meter coupling but inlet x 1" female IPT outlet (Ford B13-342 w/ HT-34 handle or approved equal)	1
J	Linesetter, 1" copper tube, Type "K" soft, 12" long (see Std. Det. L3)	1
K	1" plastic thread protector	1
L	Type "B" concrete meter box w/ cast iron cover	1
M	Tee w/ 1" bushing (when connecting to 3" or smaller pipe)	1

Note:

Install Type "X" conc. meter box w/ cast iron cover in sidewalk or paved areas. Top of meter box to be flushed with finished grade.

General Note:

All laterals in State ROW will need a minimum 36" cover to finish grade.

SINGLE SERVICE DETAIL

Not to Scale

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

APPROVED

Manager and Chief Engineer
Department of Water,
County of Kauai

Date

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HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FIRE HYDRANT & WASTEWATER DETAILS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD

Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. UP11 OF 11 SHEETS

ADD.65

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.66	244

PAVEMENT MARKING LEGEND

4" White Profiled Thermoplastic Stripe 10 LF at 40'-0" o.c. with Type "C" RPM at 40'-0" o.c. See Profiled Thermoplastic Striping Details, Sheet No. T7, Typ.

8" White Stripe with Type C Raised Pavement Markers (RPM) at 20'-0" o.c. (Thermoplastic Extrusion)

4" Double Solid Yellow with Type D Raised Pavement Markers (RPM) at 20'-0" o.c. (Thermoplastic Extrusion)

4" Double Solid Yellow with Type D Raised Pavement Markers (RPM) at 10'-0" o.c. (Thermoplastic Extrusion)

4" Double Solid Yellow Stripe with Type H Raised Pavement Markers (RPM) at 20'-0" o.c. (Thermoplastic Extrusion)

4" Double Solid White Stripes with Type C Raised Pavement Markers (RPM) at 20'-0" o.c. (Thermoplastic Extrusion)

4" Yellow Edge Stripe with Type H Raised Pavement Markers (RPM) at 40'-0" o.c., unless otherwise noted (Thermoplastic Extrusion)

4" or 8" White Edge Stripe with Type C Raised Pavement Markers (RPM) at 40'-0" o.c. (Thermoplastic Extrusion)

4" White Guide Lines (Thermoplastic Extrusion), 2'-0" at 6' o.c.

4" Yellow Guide Lines (Thermoplastic Extrusion), 2'-0" at 6' o.c.

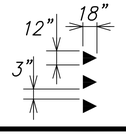
Transverse Median Marking (Thermoplastic Extrusion)

Transverse Shoulder Marking (Thermoplastic Extrusion)

Channelizing Island or Deceleration Lane Gore (Thermoplastic Extrusion)

4" White Stripe 10 LF at 20'-0" o.c.
Type D Raised Pavement Markers at 20'-0" o.c
Type H Raised Pavement Markings at 20'-0" o.c
(Reflective Surface Facing No-Passing Direction)
4" Single Solid White Stripe
(Thermoplastic Extrusion)

Lane Change Restriction Marking
4" White Stripe 10 LF at 40'-0" o.c.
Type C Raised Pavement Markings at 20'-0" o.c
4" Single Solid White Stripe
(Thermoplastic Extrusion)



Yield Line White Triangle

SIGNING AND PAVEMENT MARKING NOTES

1. Layout of pavement markings and striping shall be done by the Contractor and approved by the Engineer prior to any installation work.
2. Existing pavement markings not incorporated in the final traffic pattern shall be removed as directed by the Engineer. The removal of existing pavement markings shall not be paid for separately but shall be considered incidental to the various pavement marking items.
3. Raised pavement markers shall not be installed within crosswalks.
4. Final locations of all signs shall be approved by the Engineer prior to any installation work.
5. Existing signs not shown on these plans shall remain as posted unless othrewise directed by the Engineer. Removal and disposal of existing signs and/or posts as designated on these plans shall be incidental to the various signing items.
6. Final locations of all Stop Lines shall be approved by the Engineer prior to installation.
7. All pavement striping shall be as noted on the legend or plans.
8. All preformed pavement marking tapes over existing pavement shall be applied with an approved primer as recommended by the tape manufactuer and as approved by the Engineer. The primer shall be allowed to dry to the tacky stage prior to tape application.
9. Removal of Existing Delineators and Posts as directed by the Engineer shall be considered incidental to the various signing items.
10. Existing signs that are to be replaced shall not be removed until new signs are installed as replacements, or the messages are no longer necessary. Removal of existing signs and posts to be replaced shall be considered incidental to the various sign items.
11. Backing for all new regulatory and warning signs shall not be spliced.
12. All sign panels shall conform to Section 630 of Special Provisions and the latest editions and amendments of the following FHWA publications:
    a. "Manual on Uniform Traffic Control Devices for Street and Highways" (MUTCD)
    b. "Standard Highway Signs"
    c. "Standard Alphabets for Highways Signs"
13. All new and relocated signs and markers installed on pipe post or light standard are to be mounted with stainless steel band brackets and stainless steel braces. Stainless steel fastener shall be Type 316.
14. The Contractor shall erect at the beginning of the project and at the end of the project advance construction warning signs as indicated on the plans or as directed by the Engineer for the duration of the highway project and shall be maintained by the Contractor. These signs shall be replaced in addition to the required traffic control signs called for in Section 645-Traffic Control. The advance construction warning signs shall be new and become the property of the State. The Contractor shall remove, clean and deliver the signs and posts to the Kauai District Baseyard or as directed by the Engineer at the end of the project.
15. The Contractor shall install new Type II Object Markers on all utility poles that are within the State Highway Right-of-way as directed by the Engineer. This shall be considered incidental to the various sign items.
16. All traffic control devices including: signs, barricades, vertical panels, warning lights, arrow boards, changeable message signs, cones and tubular markers that meet the requirements of American Traffic Safety Services Association (ATSSA), "Quality Standard for Work Zone Traffic Control Devices, 1992" shall be used on this project. Compliance with this requirement will be considered incidental to the contract and no extra compensation will be allowed.
17. The Contractor shall install new mile post markers (bi-directional) at one-half mile increment alternating along the Northbound and Southbound lanes. Mile post marker shall begin at mile post 5.5 and end at mile post 6.5 Final location of all mile post markers shall be approved by the Engineer.
18. Install state route marker signs (M1-6) according to standard plan TE-11.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PAVEMENT MARKING LEGEND DETAILS AND NOTES

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: Date: July 2019

SHEET No. PM1 OF 9 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.67	244

Remove and Replace exist. "do not block intersection" sign and post — DO NOT BLOCK INTERSECTION — R10-7 24x30

Remove and Replace exist. "56" and direction arrow sign and post — 56 — M1-6(56) 24x24 — M6-4 21x15

Install New Sign and Post — RIGHT TURN ON RED AFTER STOP — R10-9 24x30

℄ Sta. 407+93.6 (o/s 30.6'± LT)
End 4" Wide Dashed Yellow Guide Stripe 2' Long at 6' o.c.

4" Wide Solid White Edge Stripe with Type "C" RPM at 40' o.c.

℄ Sta. 407+11.0 (o/s 33.0'± LT)

To Lihue

12" Wide Solid White Crosswalk Striping

℄ Kuhio Highway

℄ Sta. 407+56.6 (o/s 11.0'± LT)
Begin 4" Wide Dashed Yellow Guide Stripe 2' Long at 6' o.c.

M1-6(580) 24x24 — 580 — 56 — M1-6 (56) 24x24

M6-1(L) 24x15 — M6-3 21x15

Remove and Replace exist. "580" and "56" signs and post

Custom 42x72, See Det. Sht. T9

KAPA'A 3
HANALEI 24
LIHU'E 5

Remove and Replace exist. Kapa'a Hanalei Lihu'e sign

GRAPHIC SCALE:
20' 10' 0 20' 40'
Scale: 1" = 20'

℄ Sta. 407+89.6 (o/s 102.7'± LT)

8" Wide Solid White Stripe with Type "C" RPM at 20' o.c.

12" Wide Solid White Stop Bar Striping

4" Wide Solid Double Yellow Stripe with Type "D" RPM at 20' o.c.

Solid White Triangles

YIELD — R1-2 36"x36"36"

Install New Sign and Post

12" Wide Solid White Crosswalk Striping

LEFT TURN YIELD ON GREEN — remove exist. left turn yield on green sign

RIGHT LANE MUST TURN RIGHT — remove exist. right lane must turn right sign

KUAMOO ROAD (STATE)

PI ℄ Sta. 407+84.5 Kuhio Hwy
=PI ℄ Sta. 70+34.2 Kuamoo Rd

℄ Sta. 408+04.0 (o/s 30.3'± LT)
Begin 4" Wide Dashed Yellow Guide Stripe

8" Wide Solid White Stripe with Type "C" RPM at 20' o.c.

12" Wide Solid White Channelized Striping

6" Wide Solid White Stripe for Bike Shelter

℄ Sta. 408+20.8 (o/s 09.0'± LT)
End 4" Wide Dashed White Guide Stripe 2' Long at 6' o.c.

4" Wide Solid Double Yellow Stripe with Type "H" RPM at 20' o.c.

12" Wide Diagonal Yellow Median Striping

12" Wide Solid White Stop Bar Striping

4" Wide Solid White Edge Stripe with Type "C" RPM at 40' o.c.

℄ Sta. 408+20.8 (o/s 09.0'± RT)
End 4" Wide Dashed Yellow Guide Stripe 2' Long at 6' o.c.

8" Wide Solid White Stripe with Type "C" RPM at 20' o.c.

℄ Sta. 409+12.5 (o/s 27.1'± RT)

℄ Sta. 409+13.1 (o/s 16.1'± RT)

4" Wide Solid White Edge Stripe with Type "C" RPM at 40' o.c.

4" Wide Solid White Stripe with Type "C" RPM at 20' o.c. and 4" White Stripe 10 LF at 40' o.c.

R.O.W.

exist. r.o.w.

Standard White Pav't Arrow, Typ.

4" White Profiled Thermoplastic Stripe 10 LF at 40' o.c. with Type "C" RPM at 40' o.c., See Profiled Thermoplastic Striping Details, Sht. No. T6, Typ.

4" White Profiled Thermoplastic Stripe 10 LF at 40' o.c. with Type "C" RPM at 40' o.c., See Profiled Thermoplastic Details, Sht. No. T6, Typ.

Lihue 5 mi 8 km
Opaekaa Falls 2 mi 3 km

Remove exist. Lihue Opaekaa Falls sign with post

EMERGENCY EVACUATION ROUTE — EM-1 24x24

remove exist. emergency evacuation route sign

END CENTERLINE RUMBLE STRIP — W8-14b 36"x36"

Install New Sign and Post

℄ Sta. 410+73.5 (o/s 25.0'± RT)
Begin 4" Wide Dashed White Stripe 2' Long at 6' o.c.

To Kapaa

℄ Sta. 410+75.5 (o/s 3.0'± LT)
Begin 4" Wide Solid Double Yellow Stripe with Type "D" RPM at 10' o.c.

BEGIN CENTERLINE RUMBLE STRIP — W8-14b 36"x36"

Install New Sign and Post

410+00

M.L. STA. 411+00

KUHIO HIGHWAY (STATE)

exist. r.o.w.

R=40' R=45'

11' 11' 11' 11'

6' 5'

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

ORIGINAL PLAN
NOTE BOOK
No.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PAVEMENT MARKING AND SIGNING PLAN

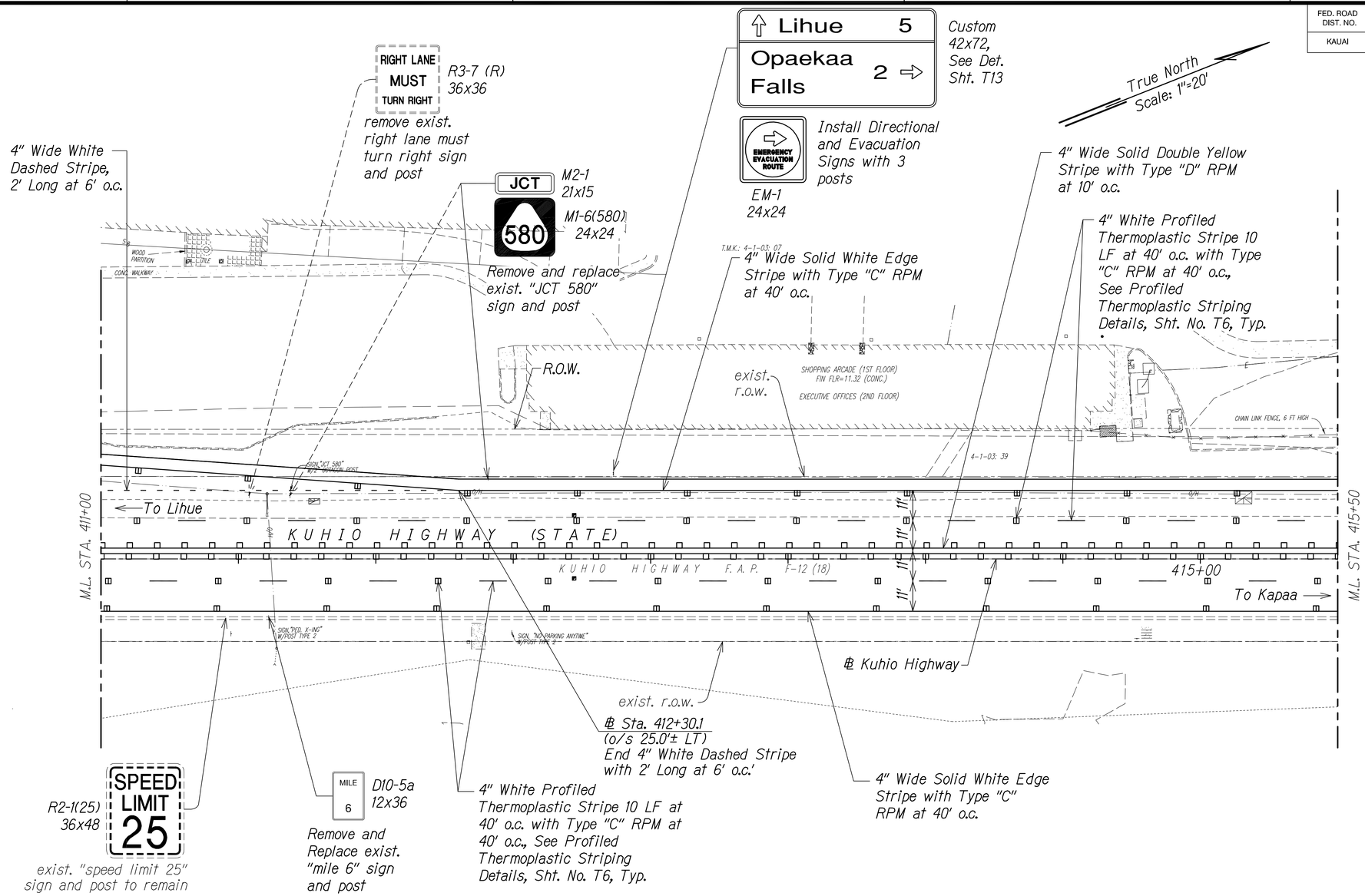
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 20' Date: July 2019

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

SHEET No. PM2 OF 9 SHEETS

ADD.67

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.68	244



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

GRAPHIC SCALE:

20' 10' 0 20' 40'

Scale: 1" = 20'

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PAVEMENT MARKING AND SIGNING PLAN

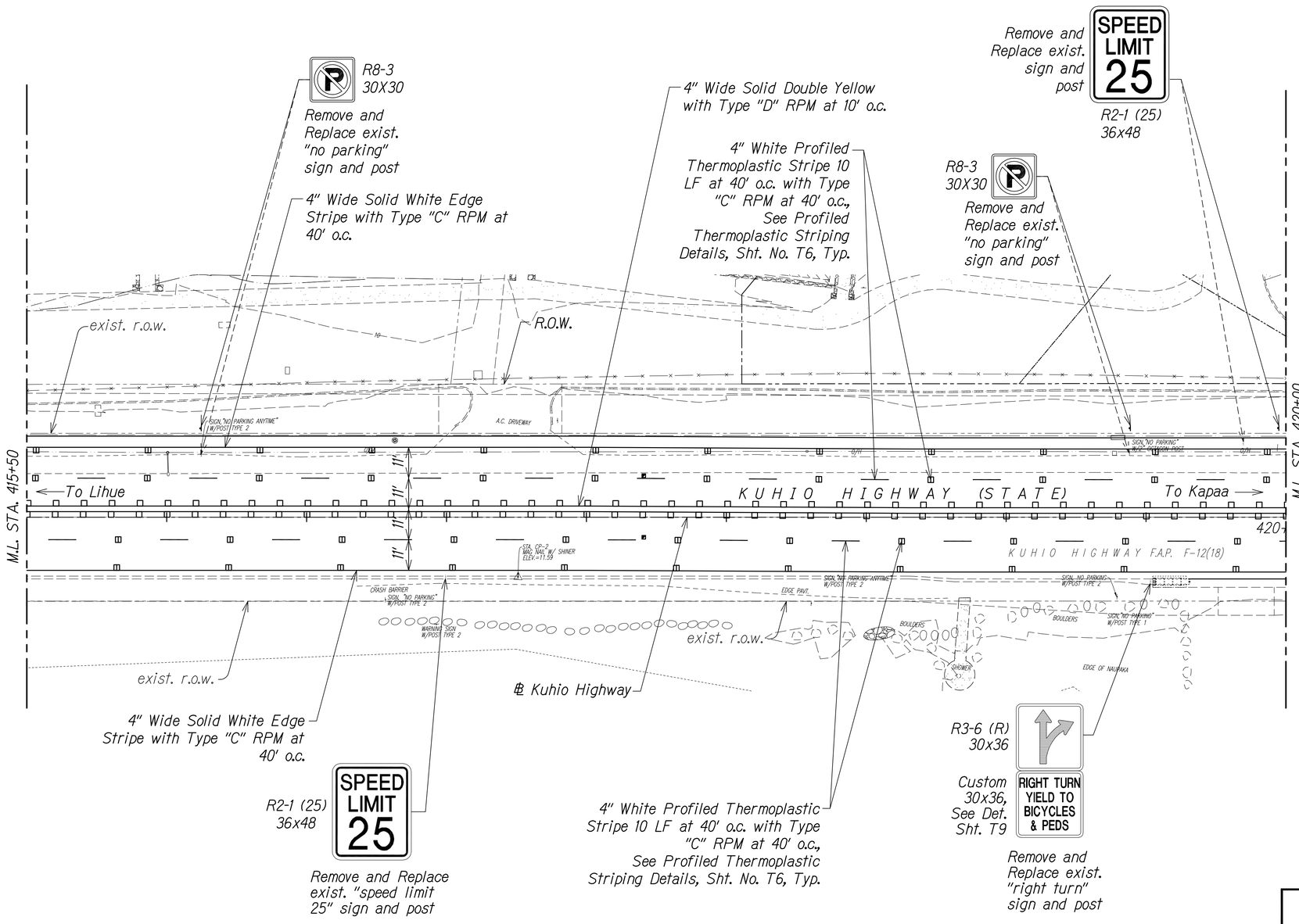
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1' = 20" Date: July 2019

SHEET No. PM3 OF 9 SHEETS

ADD.68

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.69	244



True North
Scale: 1"=20'

GRAPHIC SCALE:

20' 10' 0 20' 40'
Scale: 1" = 20'

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

DATE	REVISION
11/12/19	③ Reissuing plan for legibility only. No design changes have been made.
9/20/19	① Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
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APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PAVEMENT MARKING AND SIGNING PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD

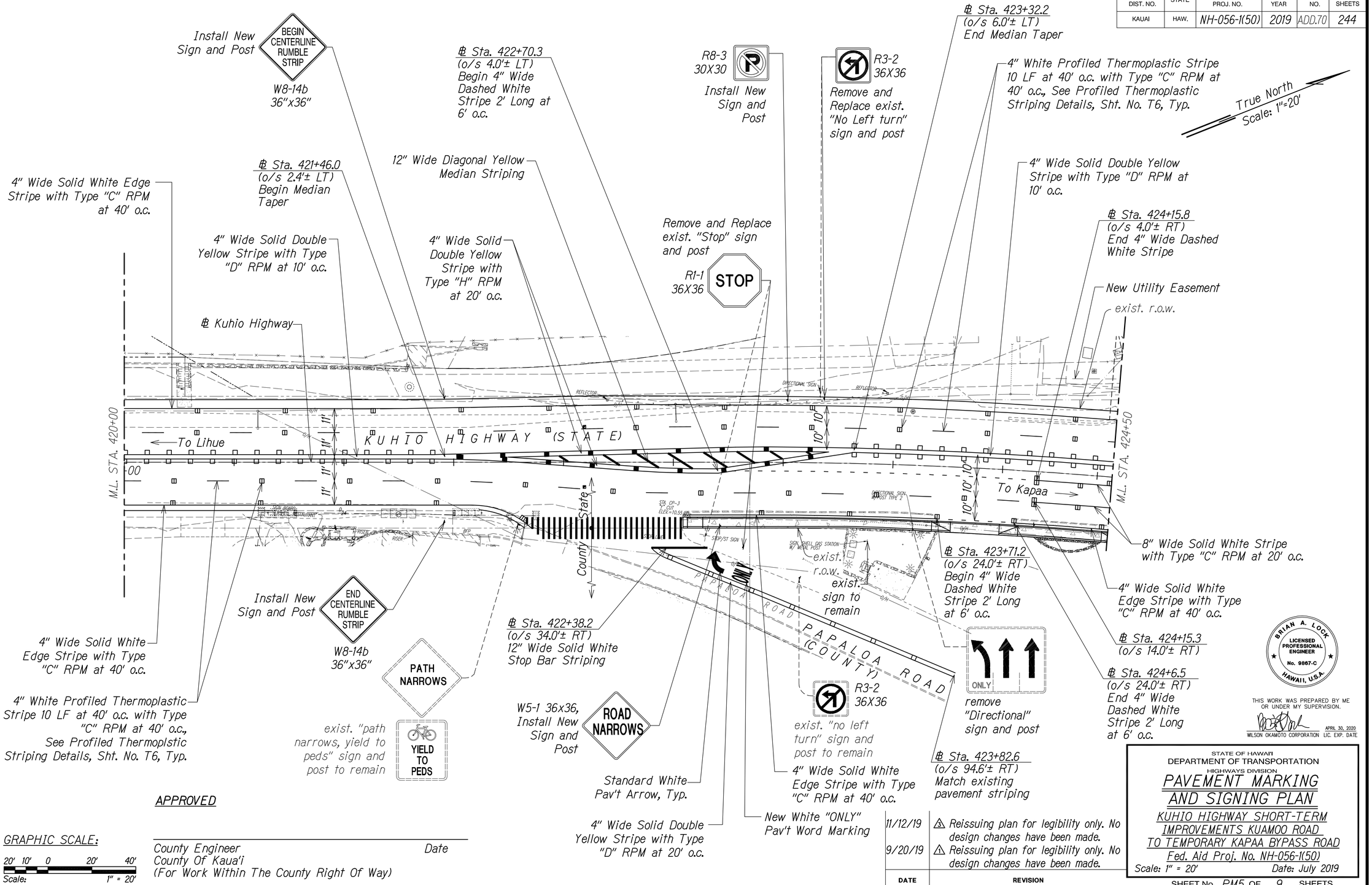
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 20' Date: July 2019

SHEET No. PM4 OF 9 SHEETS

ADD.69

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.70	244



APPROVED

GRAPHIC SCALE:

20' 10' 0 20' 40'

Scale: 1" = 20'

County Engineer Date
County Of Kaua'i
(For Work Within The County Right Of Way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PAVEMENT MARKING AND SIGNING PLAN

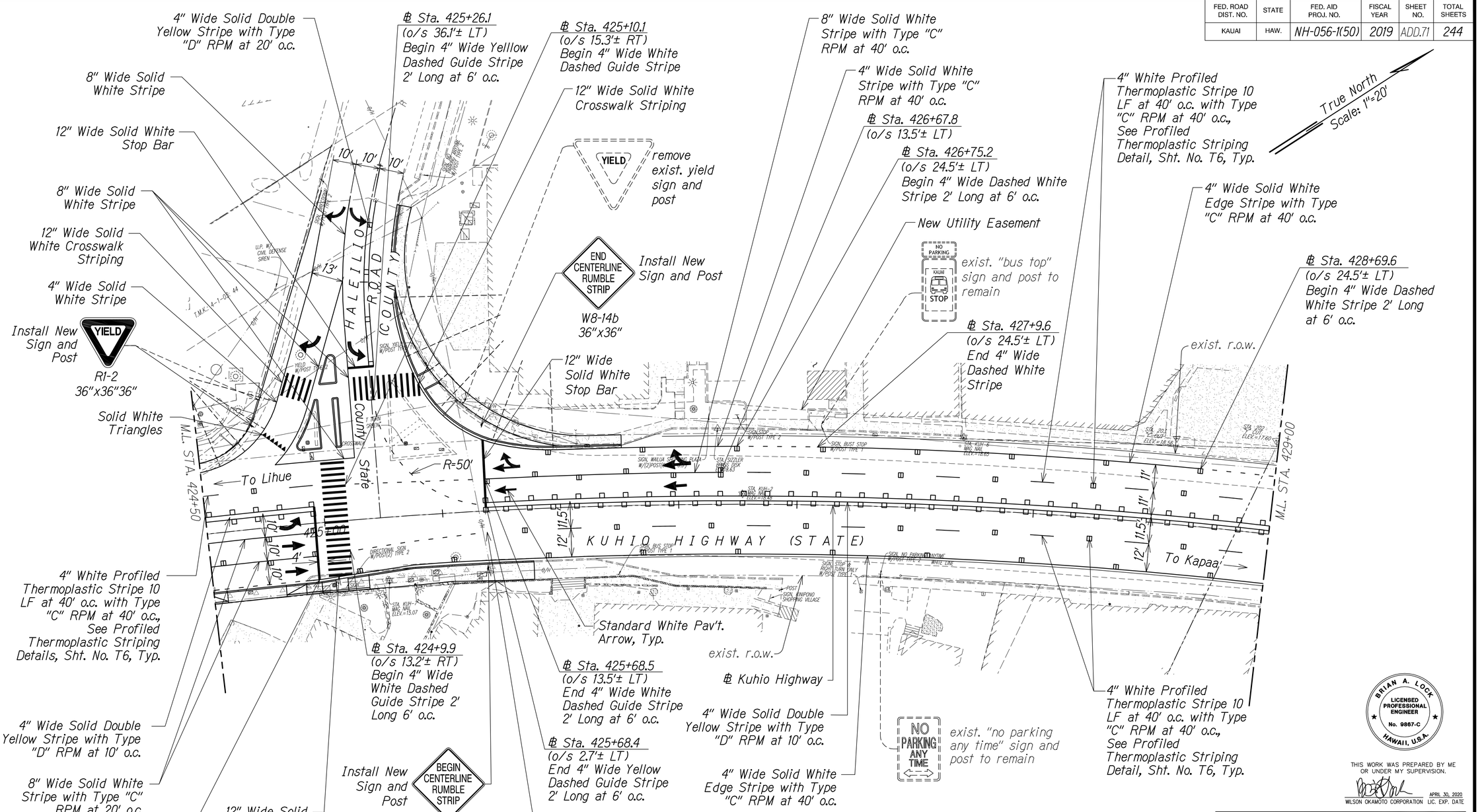
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 20' Date: July 2019

SHEET No. PM5 OF 9 SHEETS

ADD.70

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.71	244



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

GRAPHIC SCALE:

20' 10' 0 20' 40'

Scale: 1" = 20'

APPROVED

County Engineer Date
County of Kaua'i
(For Work Within the County Right-of-Way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PAVEMENT MARKING AND SIGNING PLAN

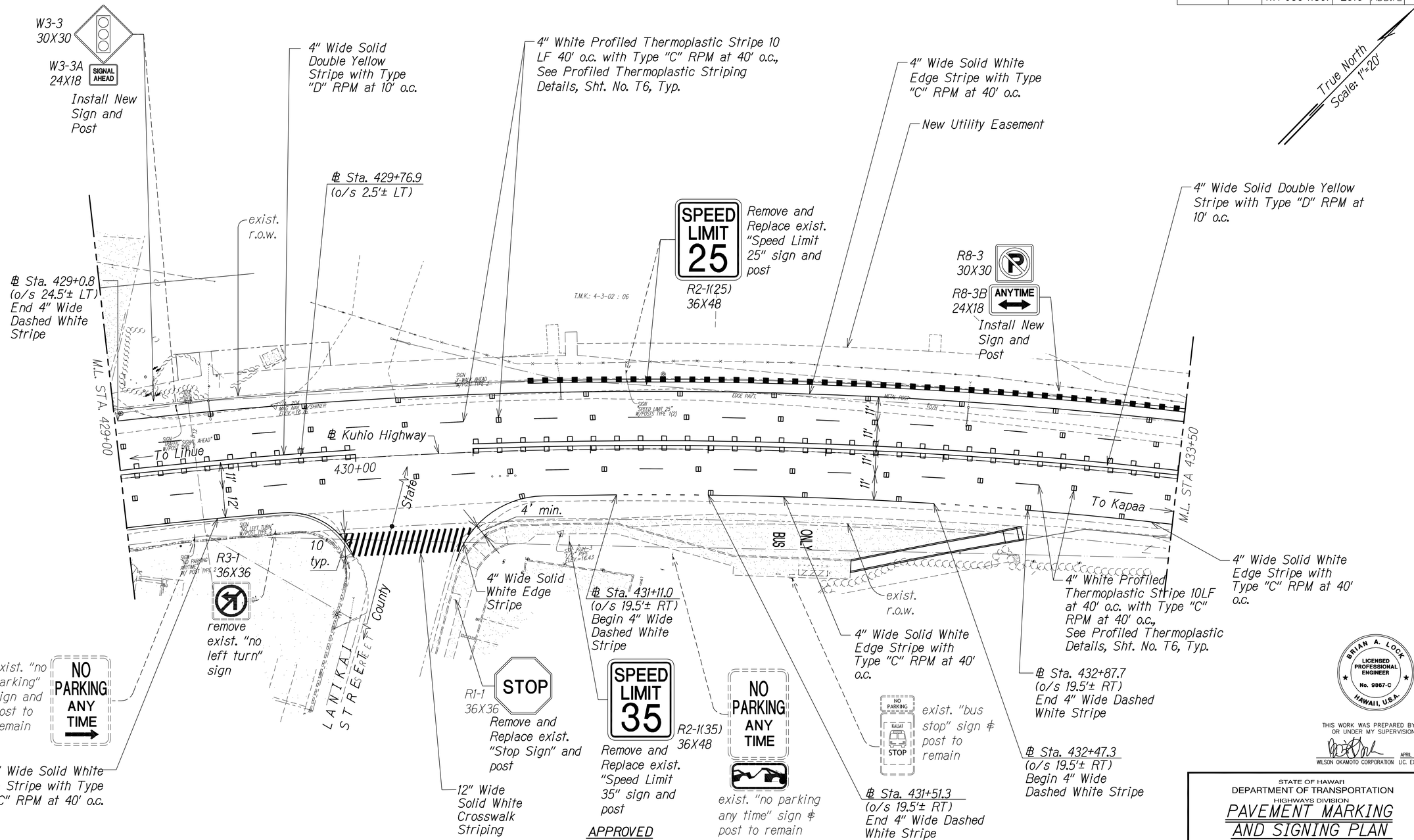
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 20' Date: July 2019

SHEET No. PM6 OF 9 SHEETS

ADD.71

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.72	244



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

GRAPHIC SCALE:

20' 10' 0 20' 40'

Scale: 1" = 20'

APPROVED

County Engineer
County Of Kaua'i
(For Work Within The County Right Of Way)

Date

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PAVEMENT MARKING AND SIGNING PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD

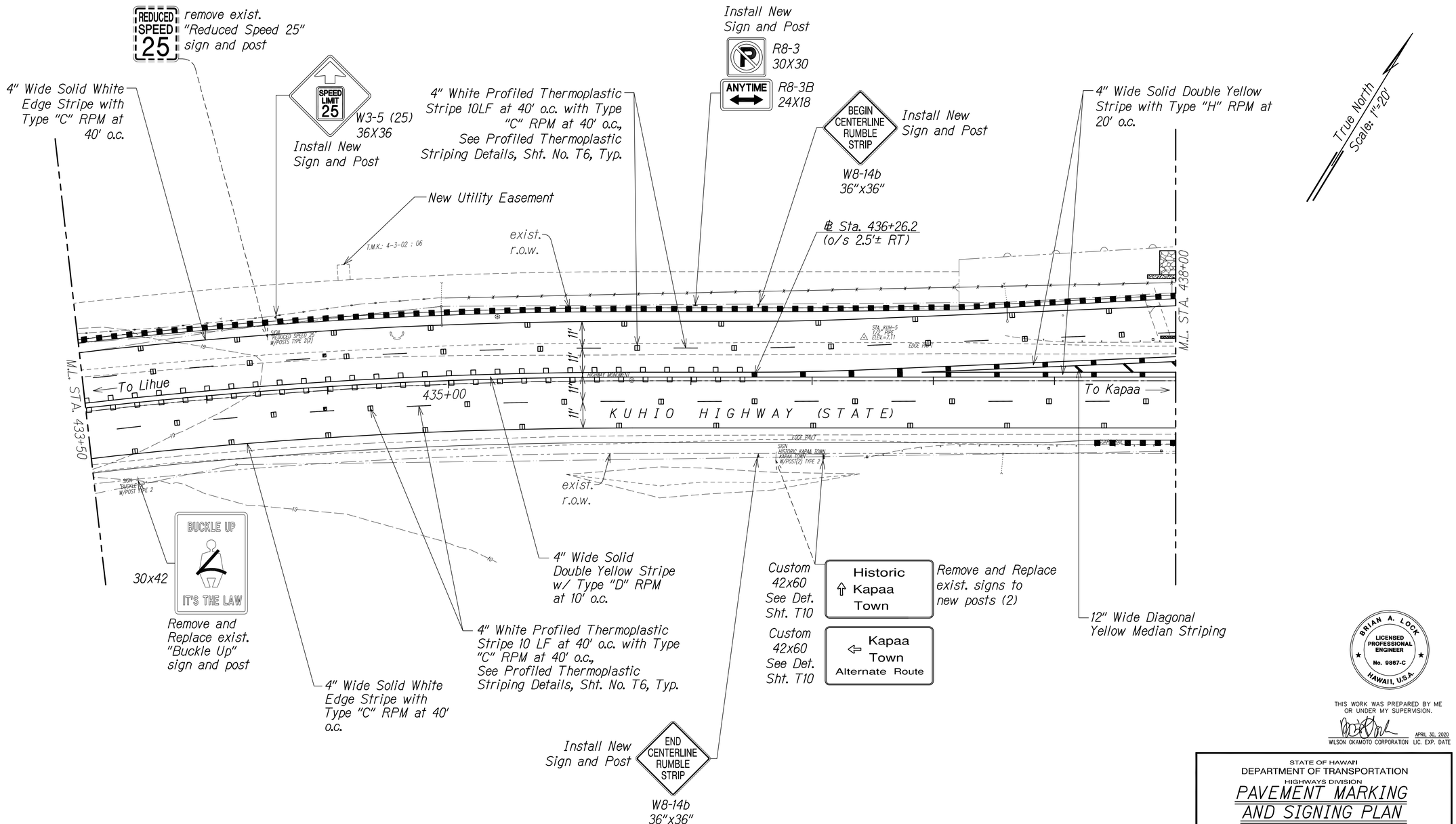
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 20' Date: July 2019

SHEET No. PM7 OF 9 SHEETS

ADD.72

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.73	244



GRAPHIC SCALE:

20' 10' 0 20' 40'

Scale: 1" = 20'

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

NOTE BOOK | No.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

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WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PAVEMENT MARKING AND SIGNING PLAN

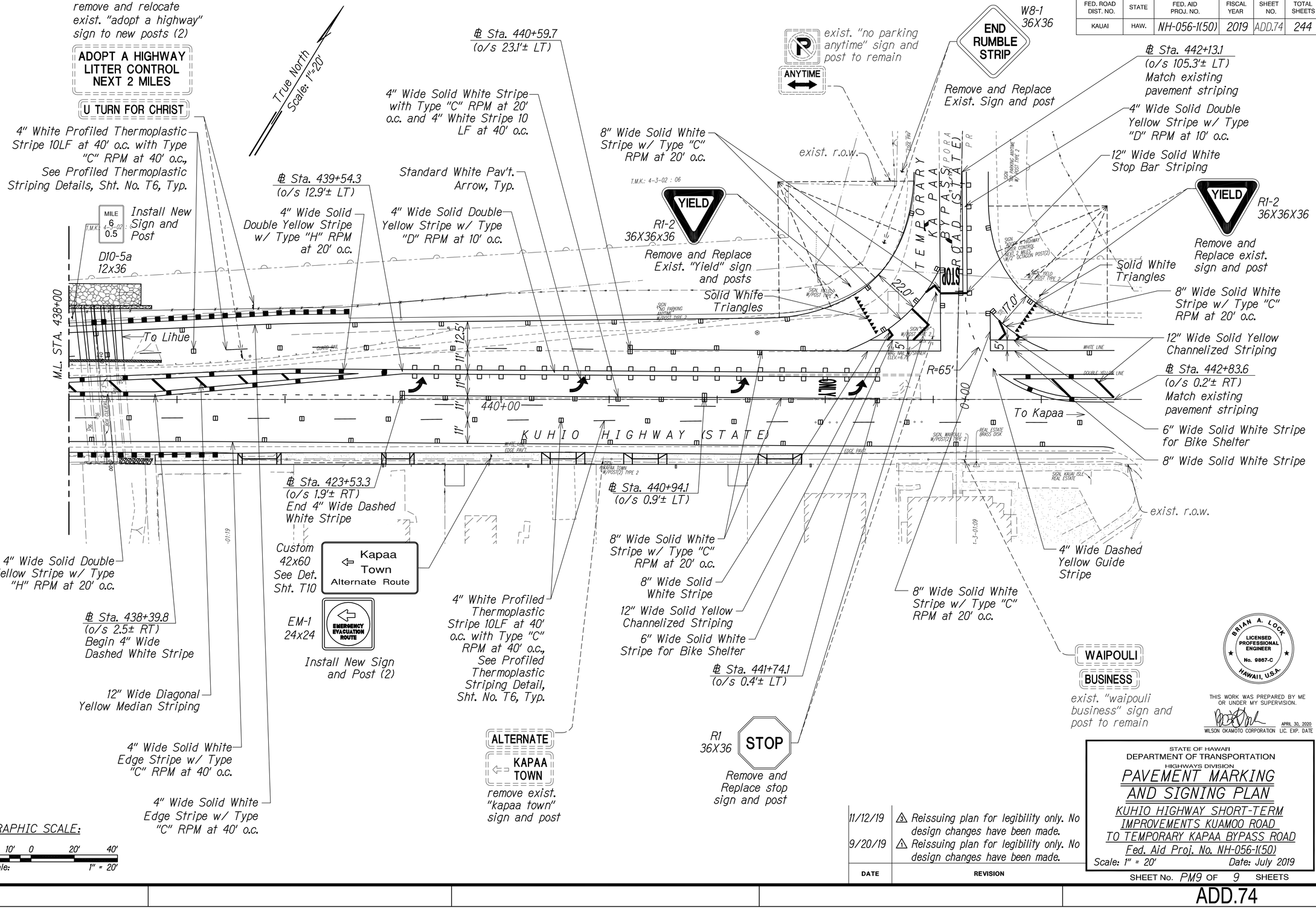
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 20' Date: July 2019

SHEET No. PM8 OF 9 SHEETS

ADD.73

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.74	244



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

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PAVEMENT MARKING AND SIGNING PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD

Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 20' Date: July 2019

SHEET No. PM9 OF 9 SHEETS

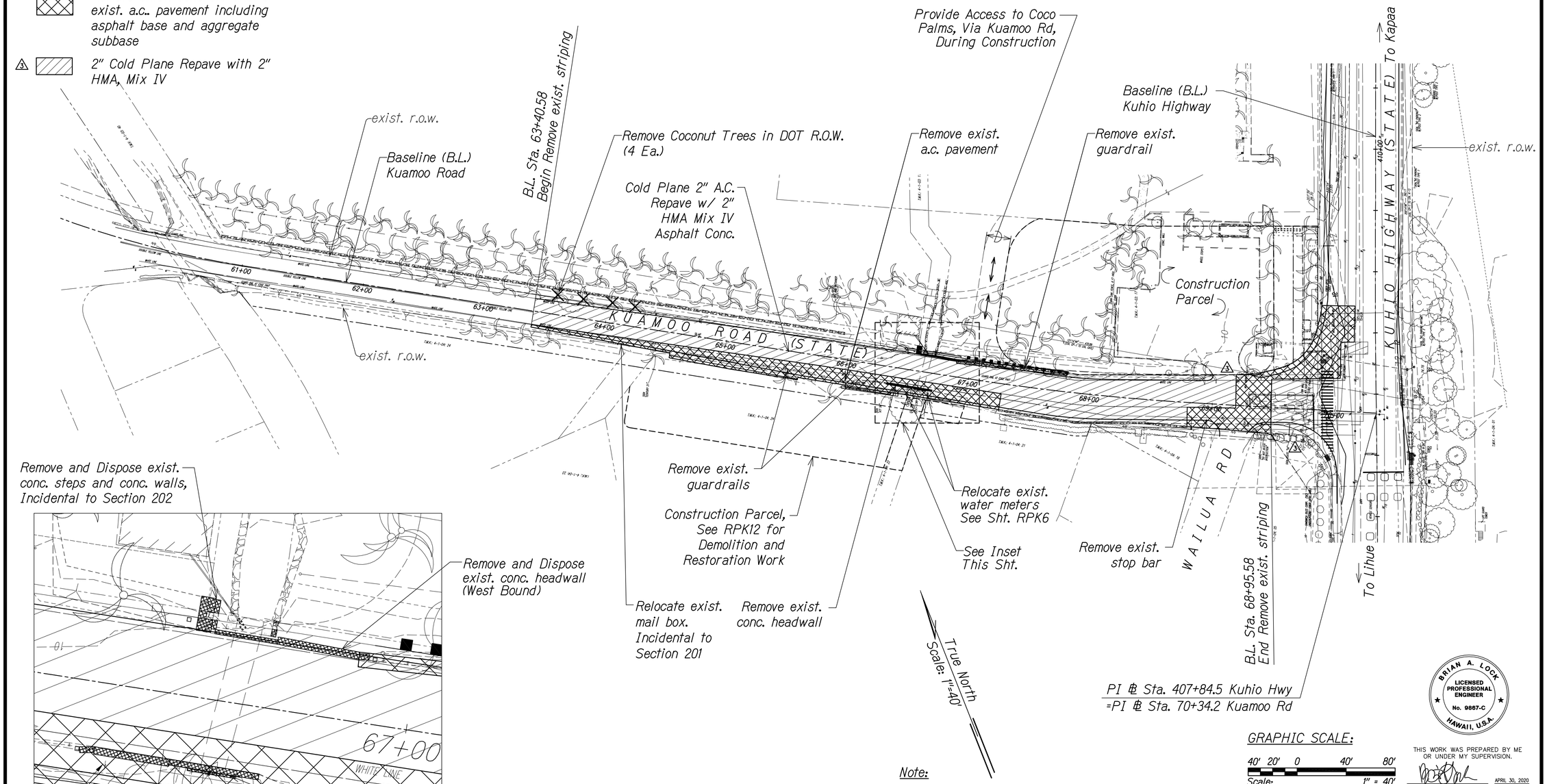
ADD.74

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.75	244

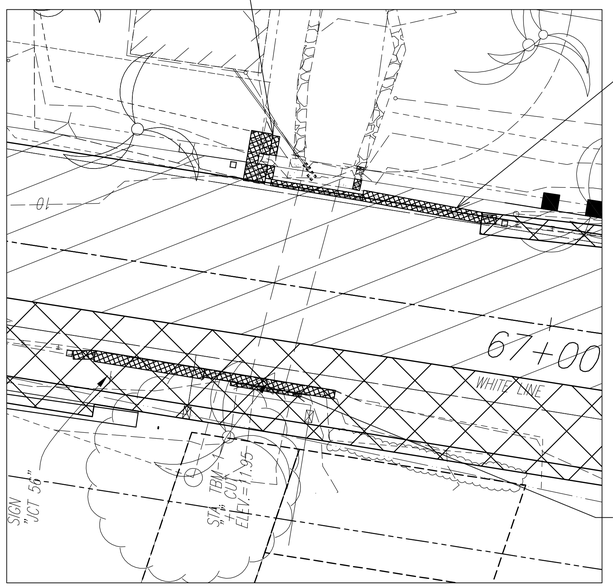
Legend:

Remove exist. concrete and/or exist. a.c.. pavement including asphalt base and aggregate subbase

△3 2" Cold Plane Repave with 2" HMA, Mix IV



Remove and Dispose exist. conc. steps and conc. walls, Incidental to Section 202



Remove and Dispose exist. conc. headwall (West Bound)

Remove and Dispose Portion of exist. conc. headwall (East Bound). Extend exist. 3'x3' box culvert. See Structural Sheets for Details.

INSET
Scale - 1" = 10'

PI ℄ Sta. 407+84.5 Kuhio Hwy
=PI ℄ Sta. 70+34.2 Kuamoo Rd

True North
Scale: 1"=40'

Note:

In order to provide uninterrupted water service to our customers, the existing water meters shall not be removed until the new single service laterals are installed and the consumer piping connected to the new service laterals.

APPROVED

Manager and Chief Engineer
Department of Water,
County of Kauai

Date

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

DATE	REVISION
11/12/19	△3 Reissuing plan for legibility; revised cold plane hatch
9/20/19	△1 Reissuing plan for legibility only. No design changes have been made.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

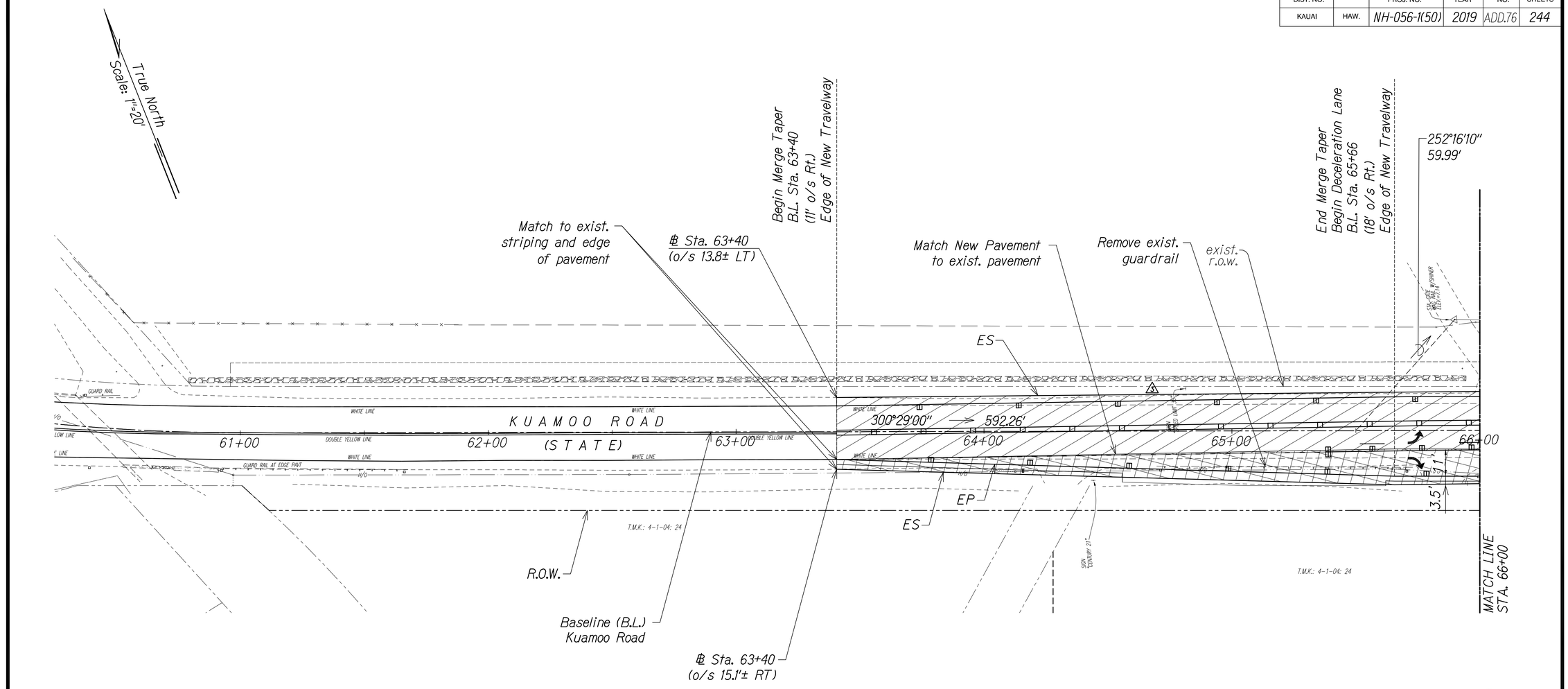
DEMOLITION PLAN
KUAMOO ROAD

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: July 2019

SHEET No. RPK1 OF 13 SHEETS

ADD.75

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.76	244



Legend:

- New Pavement Structure
- ⚠3 Cold Plane

GRAPHIC SCALE:

20' 10' 0 20' 40'
Scale: 1" = 20'

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibiliy; revised cold plane hatch
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLAN
KUAMOO ROAD

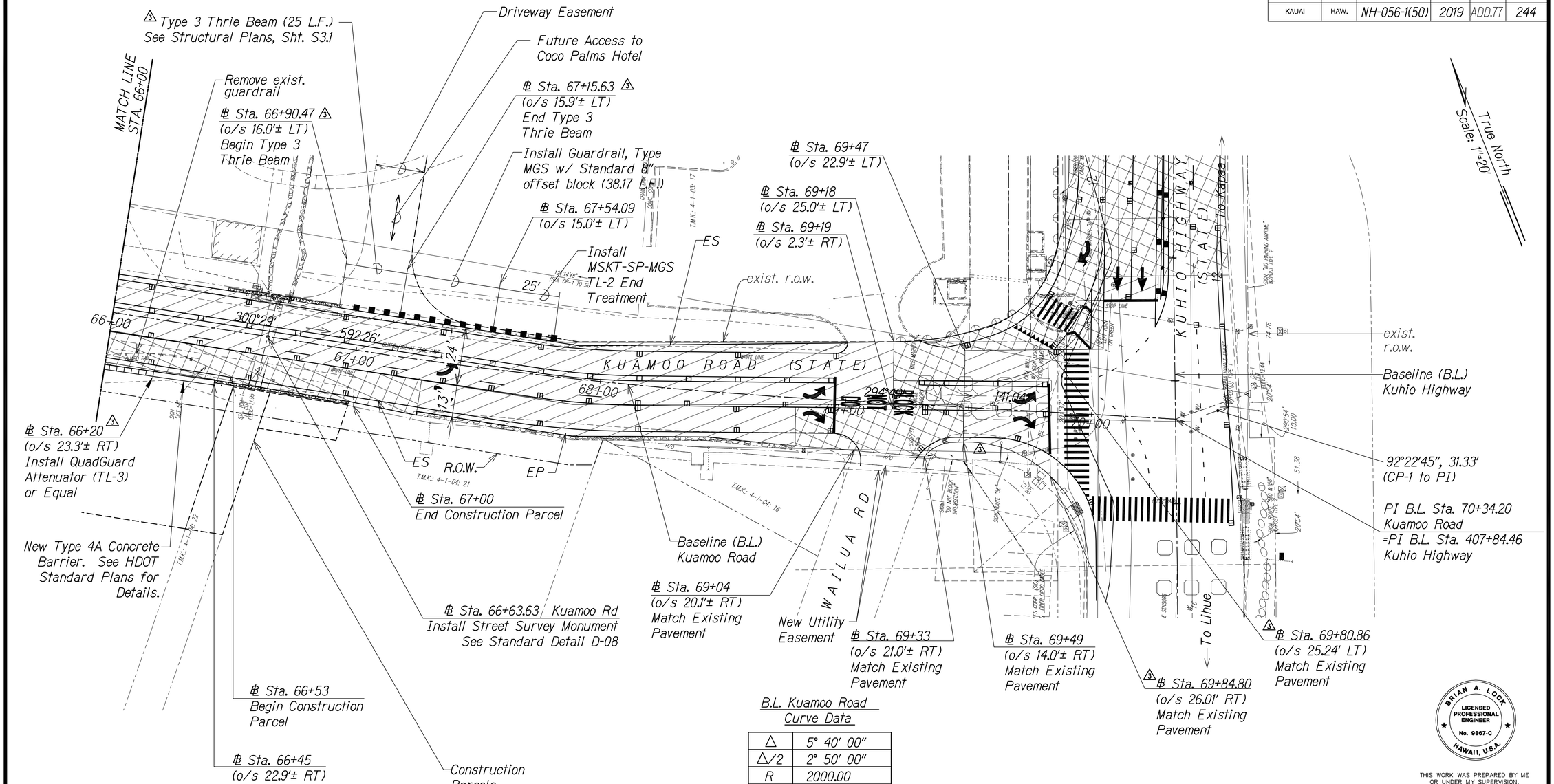
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 20' Date: July 2019

SHEET No. RPK2 OF 13 SHEETS

ADD.76

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.77	244



B.L. Kuamoo Road
Curve Data

△	5° 40' 00"
△/2	2° 50' 00"
R	2000.00
T	98.98
Ch	197.72
Lc	197.80

Legend:

New Pavement Structure

3 Cold Plane

GRAPHIC SCALE:

20' 10' 0 20' 40'
Scale: 1" = 20'

DATE	REVISION
11/12/19	3 Reissuing plan for legibility; added cold plane hatches; revised callouts
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

ORIGINAL PLAN
NOTE BOOK
No.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLAN
KUAMOO ROAD

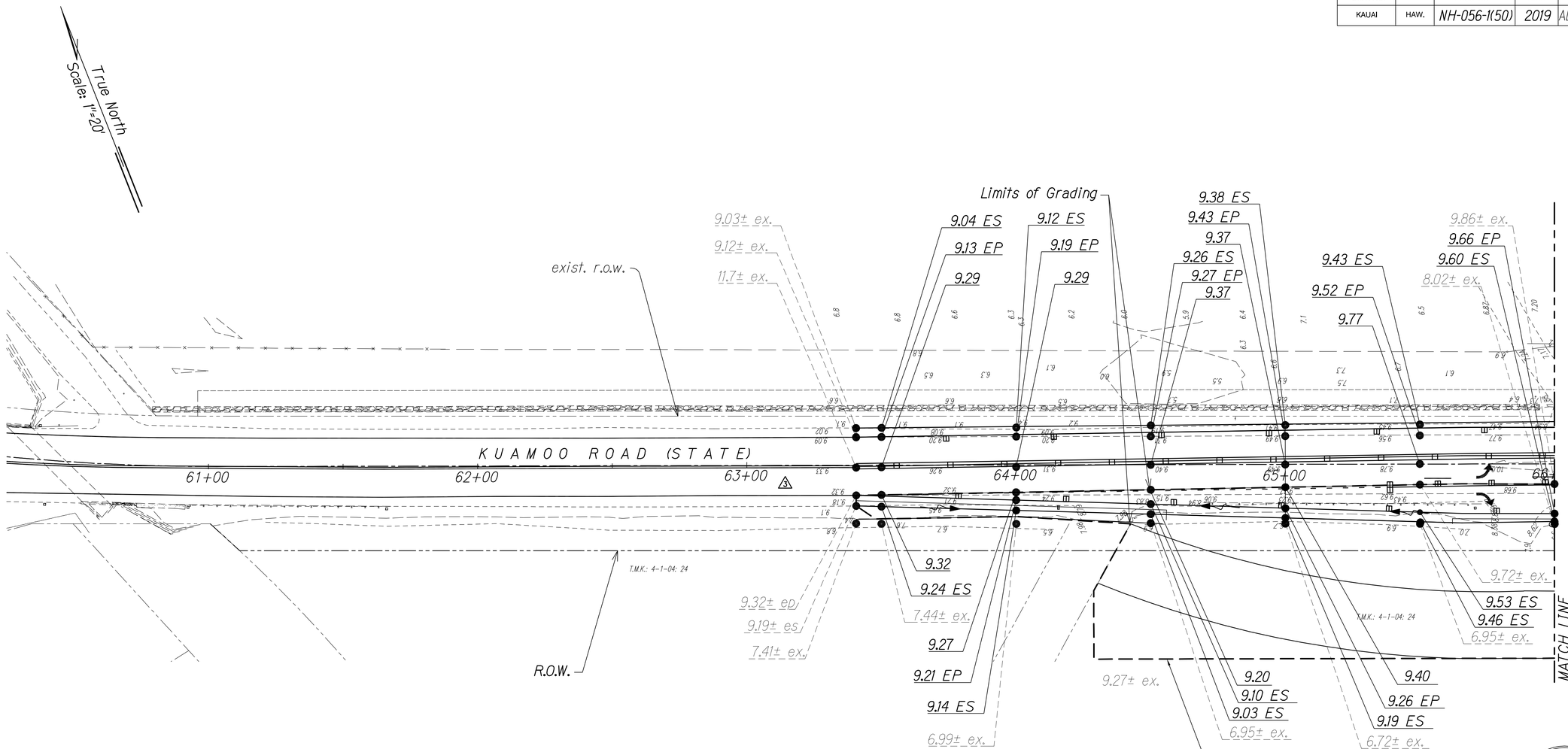
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 20' Date: July 2019

SHEET No. RPK3 OF 13 SHEETS

ADD.77

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.78	244



GRAPHIC SCALE:

20' 10' 0 20' 40'

Scale: 1" = 20'

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; deleted elevation labels
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

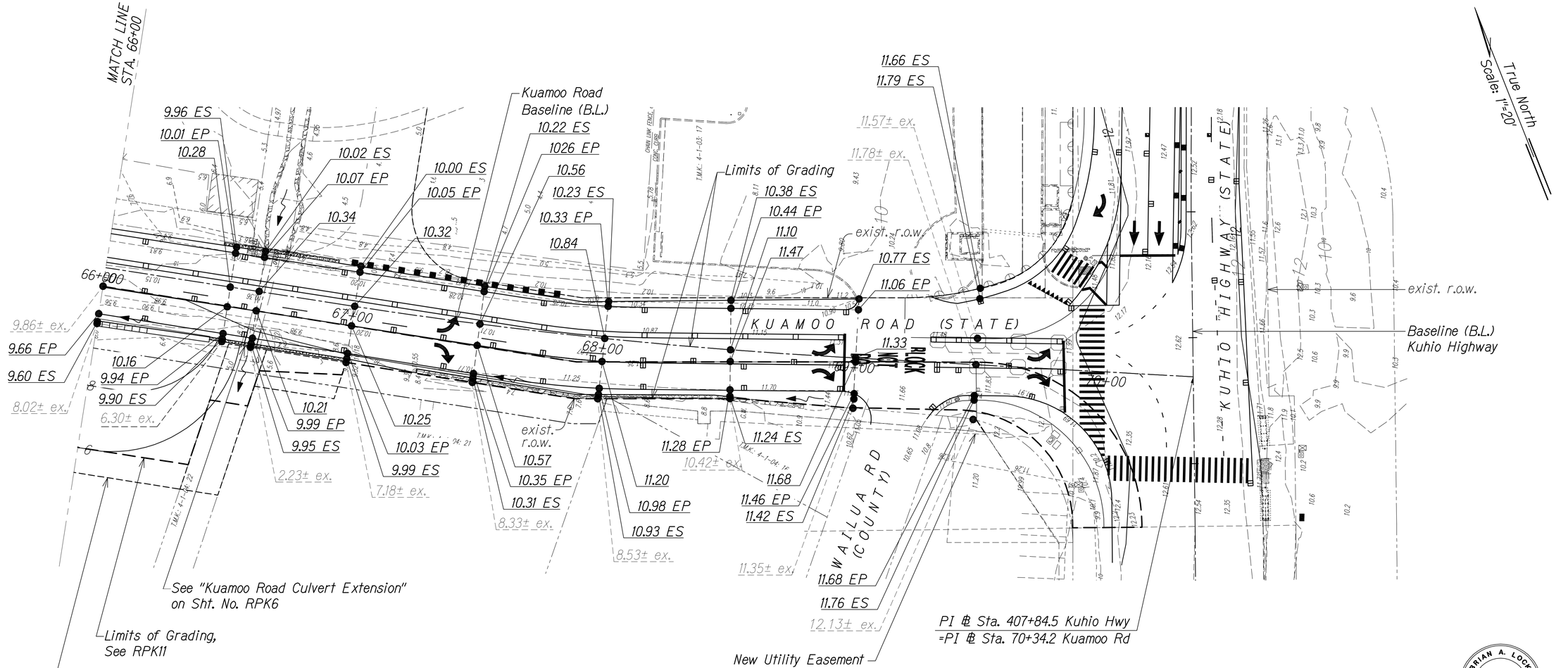
GRADING PLAN
KUAMOO ROAD

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 20' Date: July 2019

SHEET No. RPK4 OF 13 SHEETS

ADD.78

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.79	244



SURVEY PLOTTED BY ____ DATE
DRAWN BY ____
TRACED BY ____
DESIGNED BY ____
QUANTITIES BY ____
CHECKED BY ____

ORIGINAL PLAN
NOTE BOOK
No.

GRAPHIC SCALE:

20' 10' 0 20' 40'
Scale: 1" = 20'

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GRADING PLAN
KUAMOO ROAD

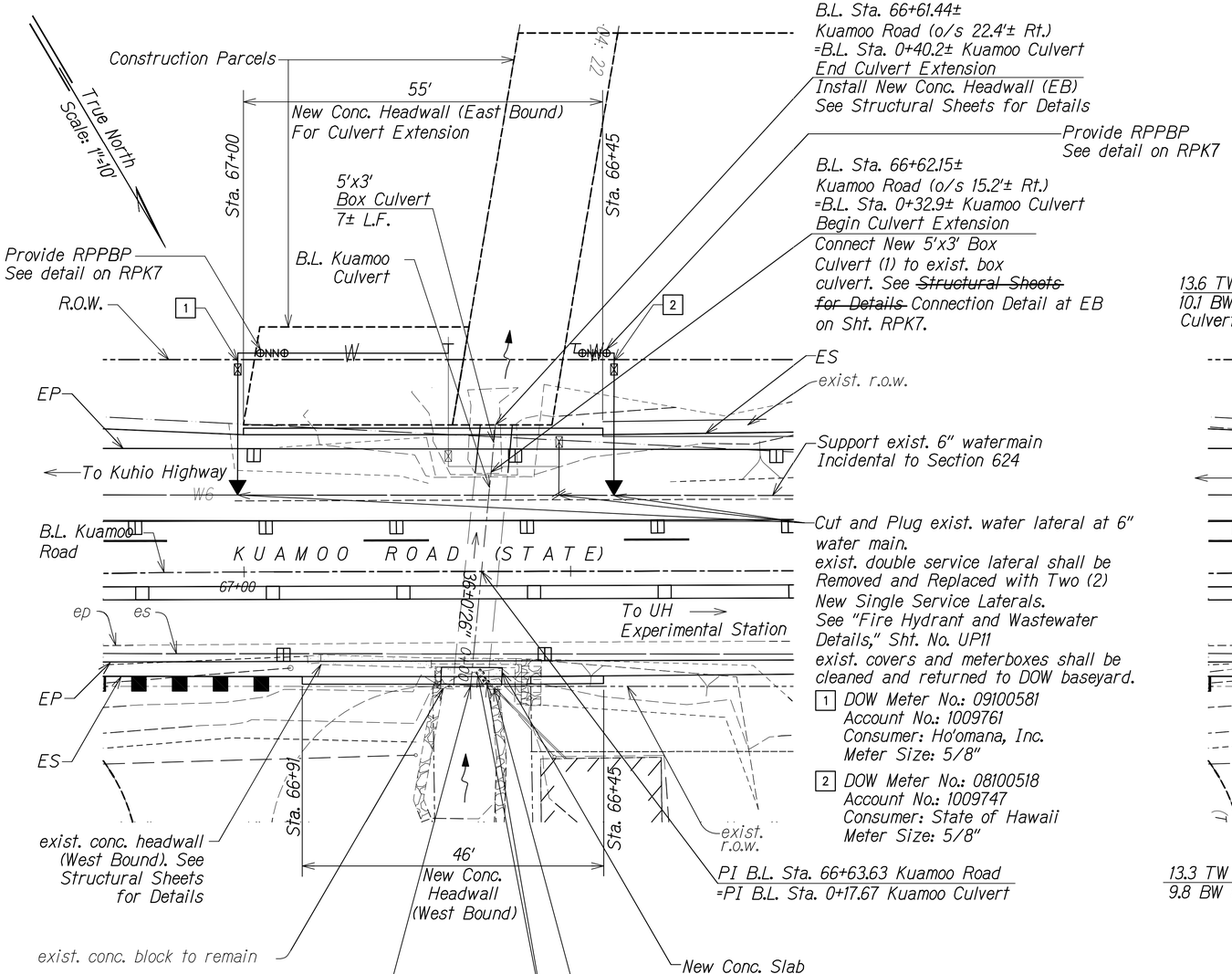
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

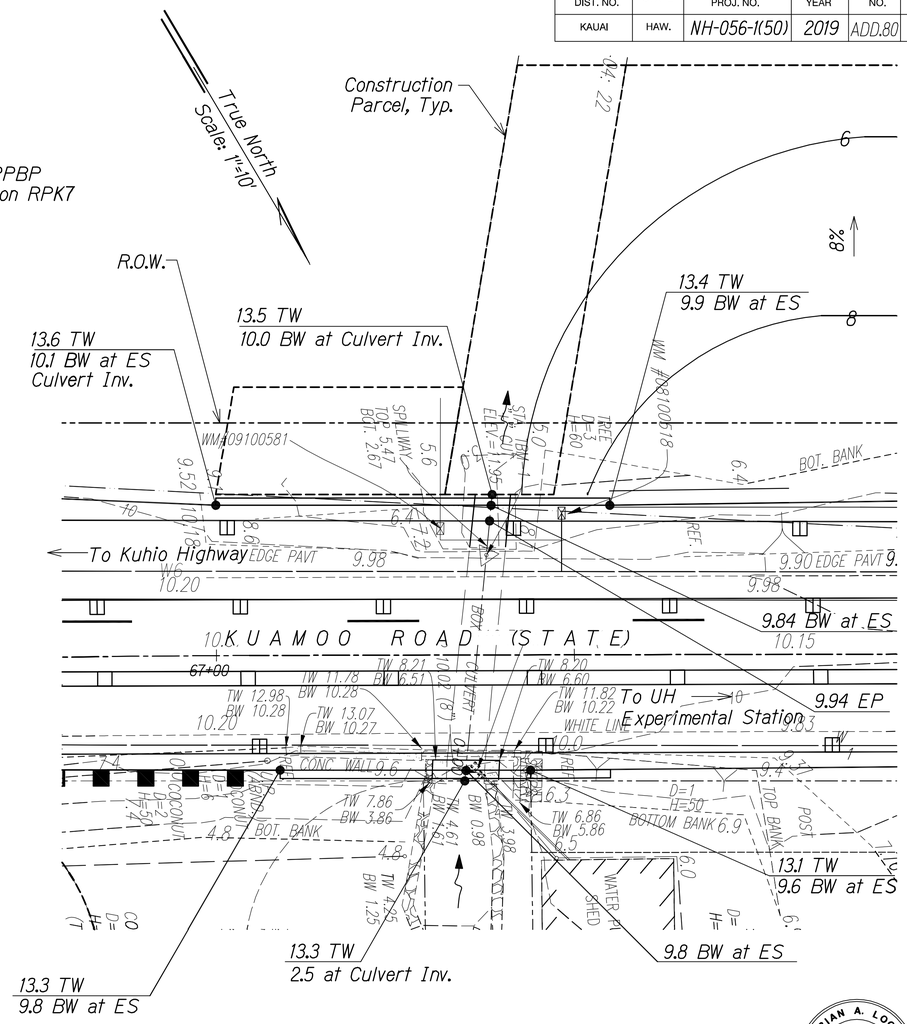
Scale: 1" = 20' Date: July 2019

SHEET No. RPK5 OF 13 SHEETS

ADD.79

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.80	244





Notes:

1. Contractor shall provide two 10' min. wide travel lanes, one lane in each direction, during peak hours, along Kuamoo Road.
2. New service laterals installed within the State R/W shall have 36" min. cover

GRADING PLAN
EXTENSION OF EXISTING BOX CULVERT AT STA. 66+64
Scale: 1" = 10'

LAYOUT PLAN
EXTENSION OF EXISTING BOX CULVERT AT STA. 66+64
Scale: 1" = 10'

GRAPHIC SCALE:
10' 5' 0 10' 20'
Scale: 1" = 10'

APPROVED

Manager and Chief Engineer — Date
Department of Water,
County of Kauai

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

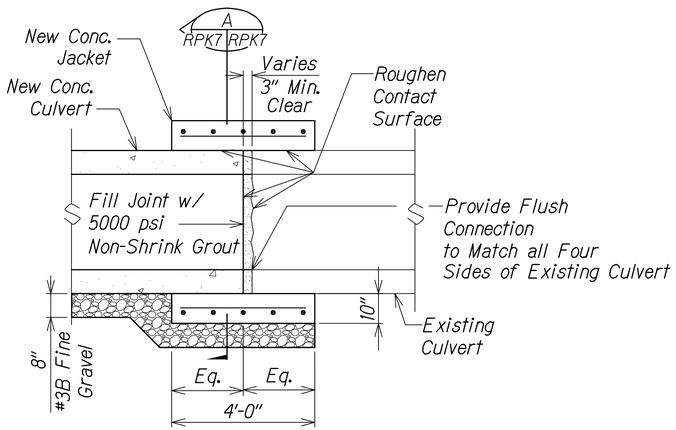
STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
KUAMOO ROAD
CULVERT EXTENSION
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 10' Date: July 2019

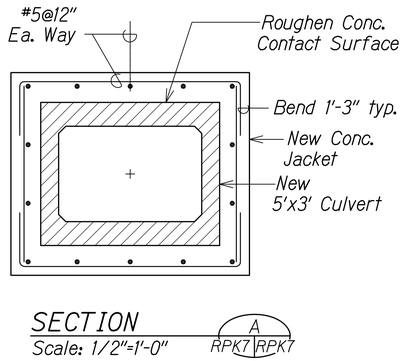
SHEET No. RPK6 OF 13 SHEETS

ORIGINAL PLANS — SURVEY PLOTTED BY / DRAWN BY / TRACED BY / DESIGNED BY / QUANTITIES BY / CHECKED BY / DATE
NOTE BOOK ..... No. .....

ADD.80

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.81	244

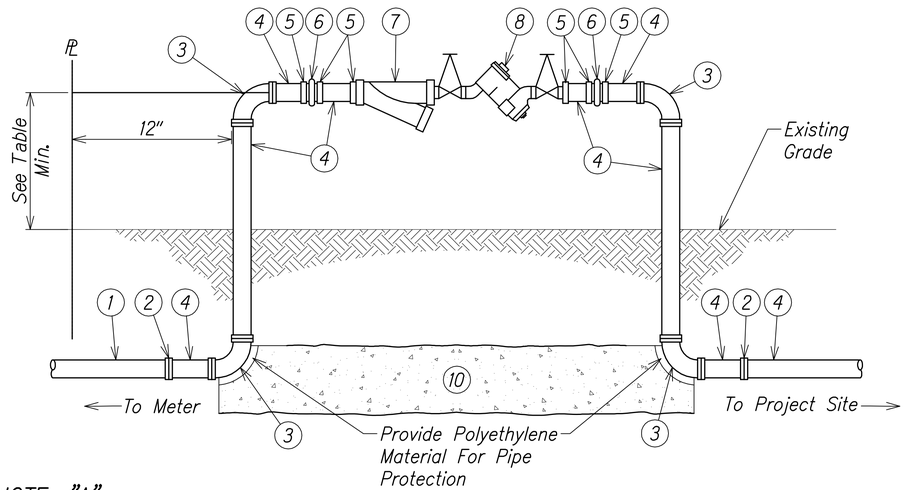




SECTION
Scale: 1/2"=1'-0"
A
RPK7 RPK7

CONNECTION DETAIL AT EB

Scale: 1/2"=1'-0"



MATERIALS LIST 1" BFP

1. New 1" Waterline
2. Adapters and Bushings as necessary
3. 1" 90° Copper Elbow
4. 1" Copper Nipple, Type K
5. 1" Copper Male Adapter
6. 1" Bronze Union, F.P.T.
7. 1" Bronze Strainer
8. 1" Reduce Pressure Principle Backflow Prevention Device (See NOTE: "A")
9. New 1" Waterline
10. Concrete Reaction Block 1' Thick and 1' Wide

Size (inches)	H (inches)
¾ to 1-½	18
2 to 3	24
4 to 6	30
8 to 10	36

NOTE: "A"

1. Contractor shall submit shop drawings to the Department of Water for approval prior to ordering device.
2. The backflow device shall be installed on the property and as close to the water meter as physically possible.
3. Delete the strainer for seldom-used emergency waterlines if recommended by the manufacturer of the backflow preventer.
4. Strainer is required on all backflow preventers on domestic waterline.
5. Whenever backflow prevention assembly is located 5' or more from the water meter, install a concrete jacket between water meter and backflow prevention assembly to avoid potential cross connection.
6. At no time shall the bottom of the backflow prevention assembly be less than 12" above ground, floor, or flood level nor more than 48" above aforementioned grades.
7. The backflow prevention assembly shall be installed after the water meter prior to any tees and branches.
8. Refer to Division 100, Section 107.01 for additional requirements and type of backflow prevention needed.

REDUCED PRESSURE PRINCIPLE 1" BACKFLOW PREVENTION DEVICE

Not to Scale

APPROVED

Manager and Chief Engineer, Department of Water, County of Kauai — Date

DATE	REVISION
11/12/19	⚠ Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠ Reissuing plan for legibility only. No design changes have been made.

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

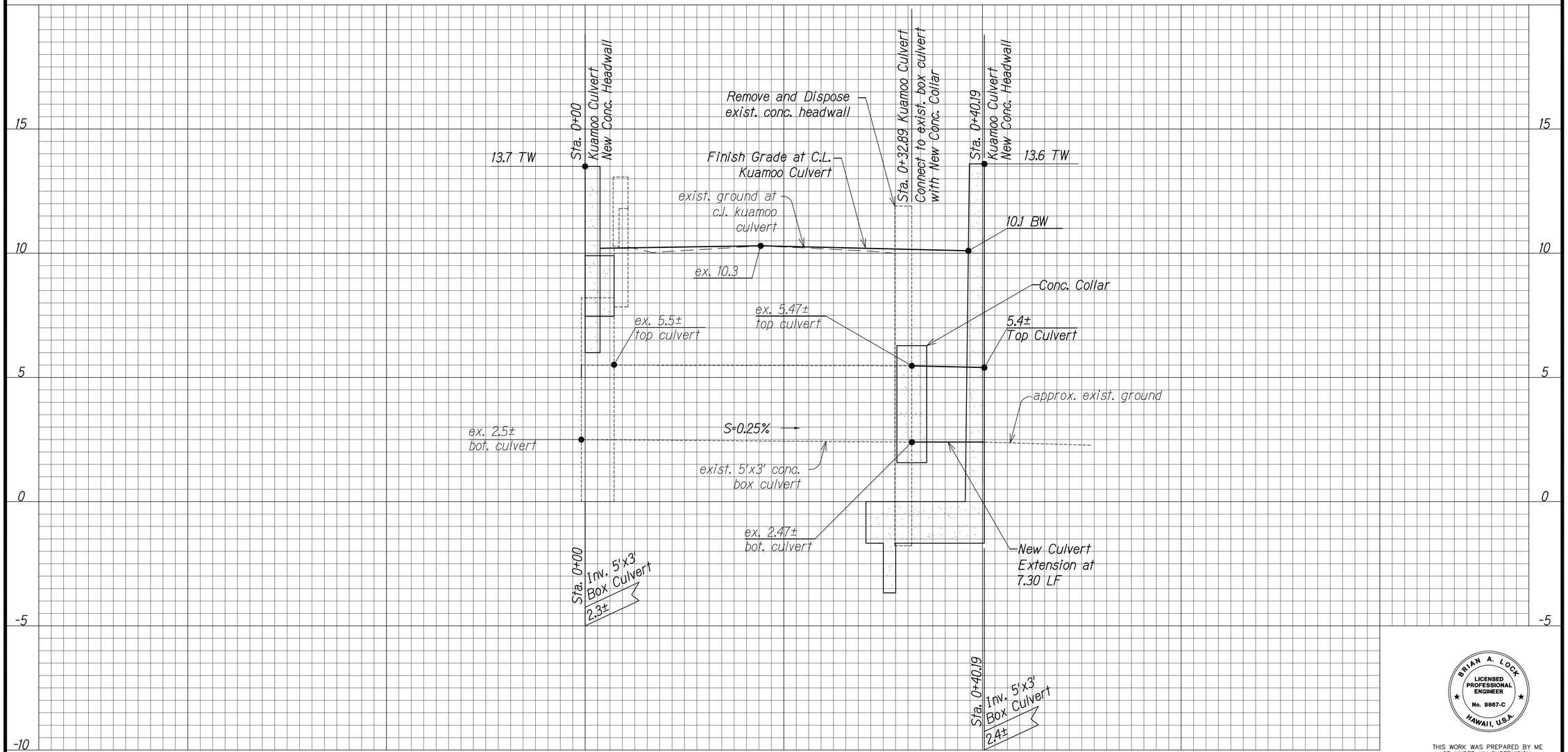
KUAMOO ROAD CULVERT EXTENSION DETAILS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: As Noted — Date: July 2019

SHEET No. RPK7 OF 13 SHEETS

ADD.81

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.82	244



PROFILE - 5'x3' BOX CULVERT

Scale : Horiz. 1" = 5'
Vert. 1" = 2'

GRAPHIC SCALE:

5' 2.5' 0 5' 10'
Scale: 1" = 5'

2' 1' 0 2' 10'
Scale: 1" = 2'

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

DATE	REVISION
11/12/19	③ Reissuing plan for legibility only. No design changes have been made.
9/20/19	② Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PROFILE - KUAMOO ROAD CULVERT EXTENSION

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD

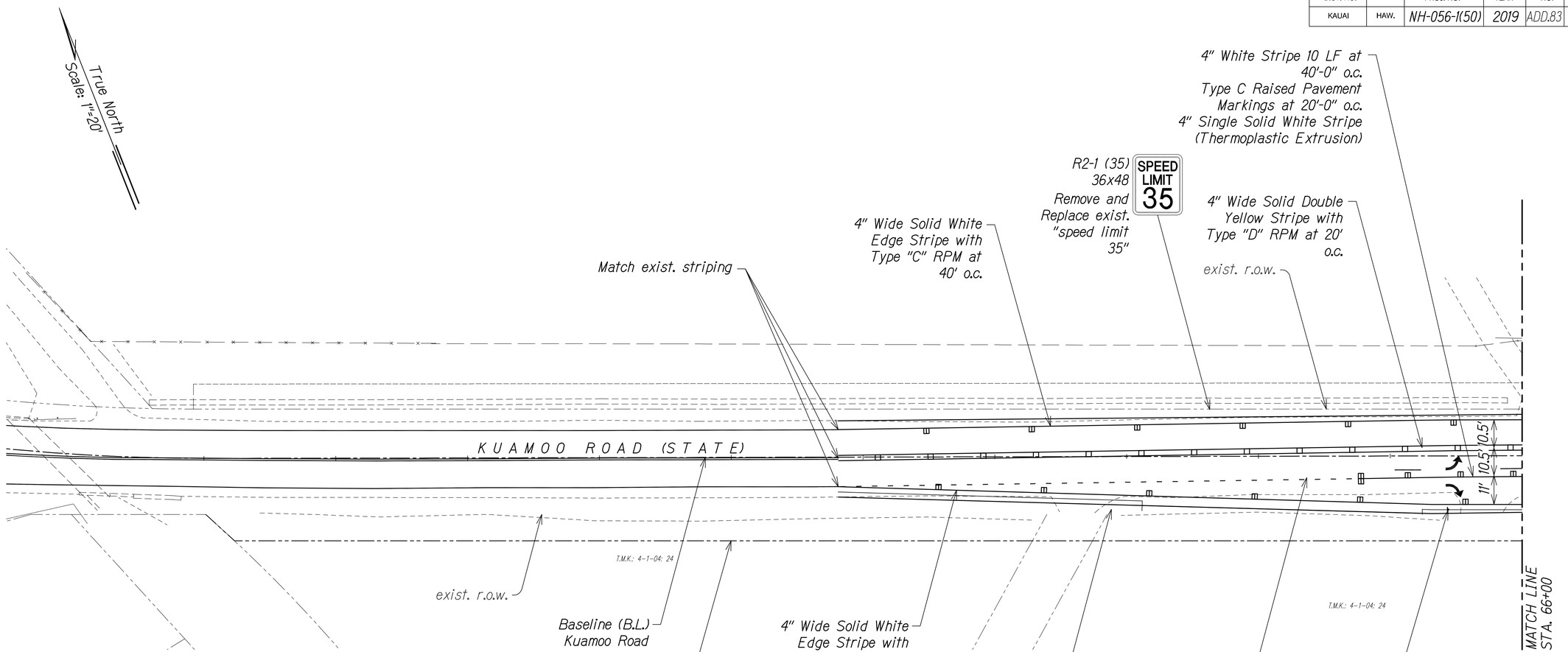
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. RPK8 OF 13 SHEETS

ADD.82

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.83	244



Note:

All pavement markings shall be thermoplastic extrusion/markings or pavement marking tape. Painting is not acceptable.

GRAPHIC SCALE:

20' 10' 0 20' 40'

Scale: 1" = 20'

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PAVEMENT MARKING AND SIGNING PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD

Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 20' Date: July 2019

SHEET No. RPK9 OF 13 SHEETS

ADD.83

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.84	244

4" White Stripe 10 LF at 40'-0" o.c.
Type "C" Raised Pavement Markings at 20'-0" o.c.
4" Single Solid White Stripe (Thermoplastic Extrusion)

Baseline (B.L.) Kuamoo Road

OM3-1(L) Object Marking and Post

OM3-1(R) Object Marking and Post

Type "C" RPM at 40' o.c.

4" Wide Solid Double Yellow Stripe w/ Type "D" RPM at 20' o.c.

4" Wide Solid White Edge Stripe w/ Type "C" RPM at 40' o.c.

12" Wide Solid White Stop Bar

4" Wide Dashed White Guide Stripe 2' Long at 6' o.c.

Standard Pavement Arrows

exist. r.o.w.

8" Wide Solid White Lane Stripe w/ Alternating Type "C" RPM at 20' o.c.

4" Wide Solid Double Yellow Stripe w/ Type "D" RPM at 20' o.c.

True North
Scale: 1"=20'

KUAMOO ROAD (STATE)

T.M.K.: 4-1-03: 17

CHAIN LINK FENCE

12"14'48" — 470.89
(STA. CP-1 TO STA. CAT.E)

10.5' 11' 11'

BLOCK NOT PART OF

T.M.K.: 4-1-04: 21

R.O.W.

exist. r.o.w.

T.M.K.: 4-1-04: 22

T.M.K.: 4-1-04: 16

WAILUA ROAD

KUHIO HIGHWAY (STATE)

4F.H.

10

12

12

10

exist. r.o.w.

Baseline (B.L.) Kuhio Highway

12" Wide Solid White Stop Bar

MATCH LINE STA. 66+00

OM3-1(L) Object Marking and Post

New Utility Easement

R3-8LR 30x30

ONLY ONLY

Install New Directional Sign and Post

JCT

580

M2-1 21x15

M1-6 (56) 24x24

Remove and Replace exist. "jct 56" sign

OM3-1(R) Object Marking and Post

8" Wide Solid White Lane Stripe w/ Alternating Type "C" RPM at 20' o.c.

4" Wide Solid White Edge Stripe w/ Type "C" RPM at 40' o.c.

exist. sign to remain

Install New Directional Sign (2) and Post (1)

ONLY ONLY

R3-8 30x30

RIGHT TURN ON RED AFTER STOP

R10-9 18x24

Standard Pavement Arrow

4" Wide Solid White Edge Stripe w/ Type "C" RPM at 40' o.c.

Match exist. striping

Note:

All pavement markings shall be thermoplastic extrusion/markings or pavement marking tape. Painting is not acceptable.

GRAPHIC SCALE:

20' 10' 0 20' 40'
Scale: 1" = 20'

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

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PAVEMENT MARKING AND SIGNING PLAN

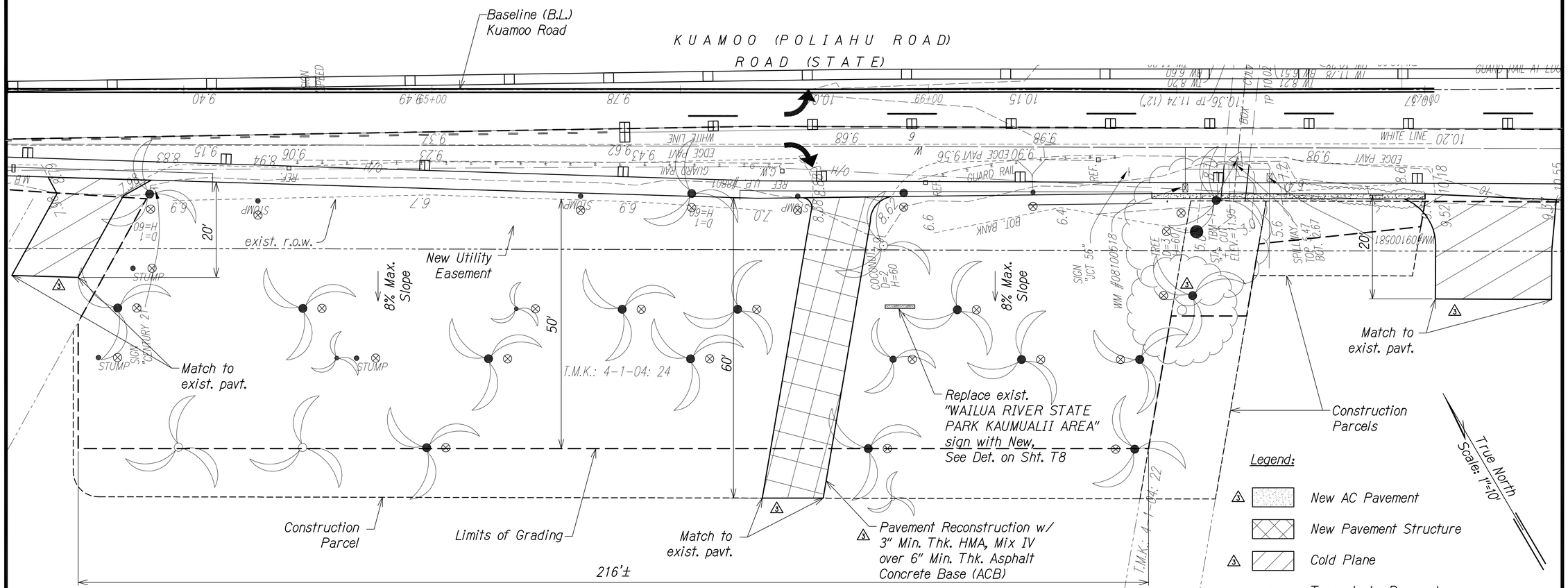
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

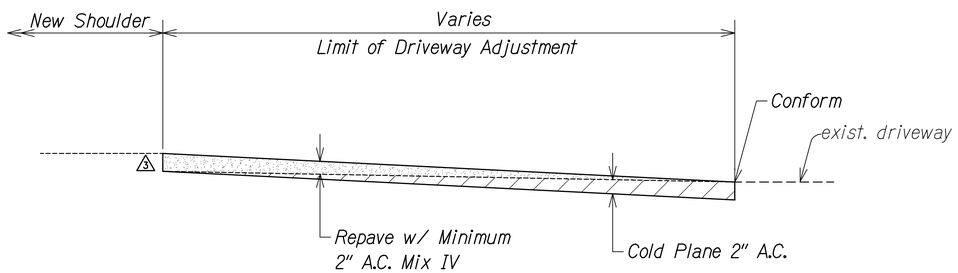
Scale: 1" = 20' Date: July 2019

SHEET No. RPK10 OF 13 SHEETS

ADD.84

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.85	244





LONGITUDINAL CONFORM TAPER
Not to Scale

GRAPHIC SCALE:
10' 5' 0 10' 20'
Scale: 1" = 10'

Notes:

1. Trees to be removed within Wailua River State Park or along Kumaoo Road right-of-way shall be cut at the base and ground down flush to surface level to minimize soil disturbance. Removed trees shall be replaced near the same location.
2. Use of the Wailua River State Park cannot exceed 180 days. The Contractor shall notify State Parks at (808) 587-0287, at least seven day prior to start of work in the State Park. The Contractor shall provide the start and end dates of the 180 day period prior to start of work in the State Park. Any use of the park property for construction beyond 180 days will be considered a conversion of that property and will be subject to appropriate actions by the state.

DATE	REVISION
11/12/19	③ Reissuing plan for legibility; revised hatches, detail and tree markings
9/20/19	① Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KAUMUALII - WAILUA RIVER STATE PARK
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

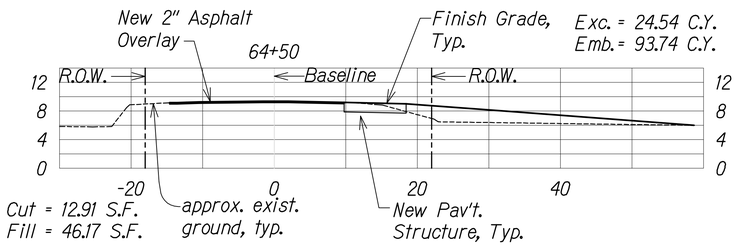
SHEET No. RPK11 OF 13 SHEETS

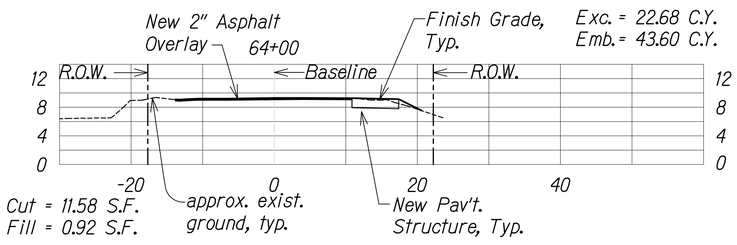
ADD.85

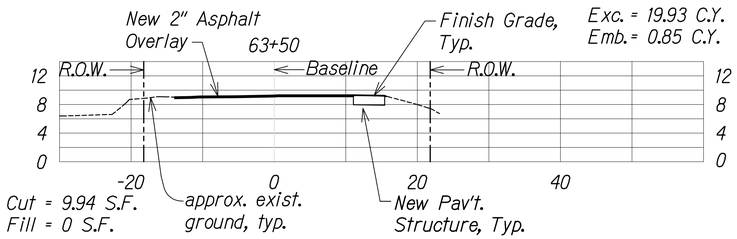
ORIGINAL PLAN
SURVEY PLOTTED BY ____ DATE
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
NOTE BOOK
No.

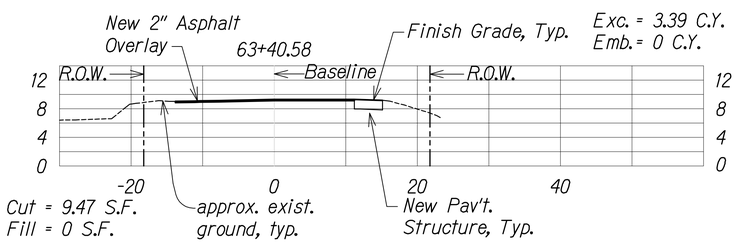
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.86	244

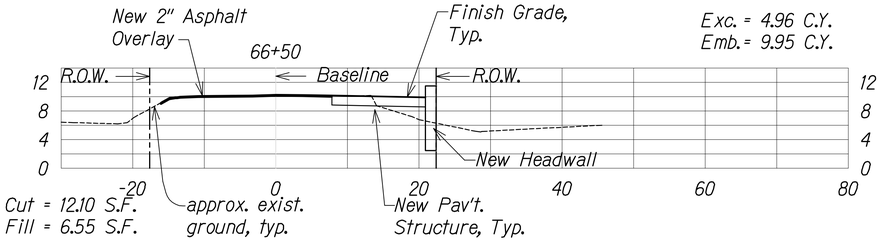
Sheet Total
Exc. = 157.22 C.Y.
Emb. = 412.18 C.Y.

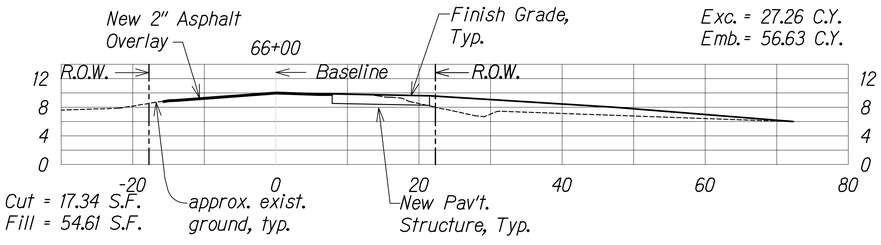


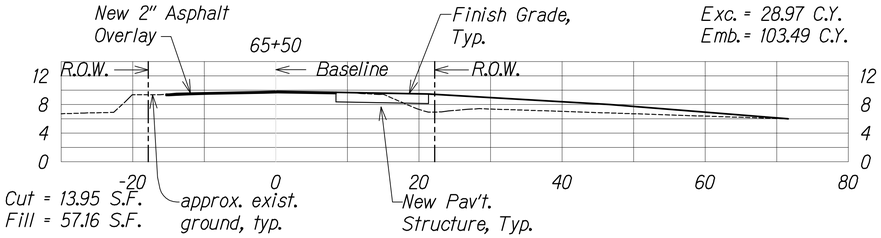


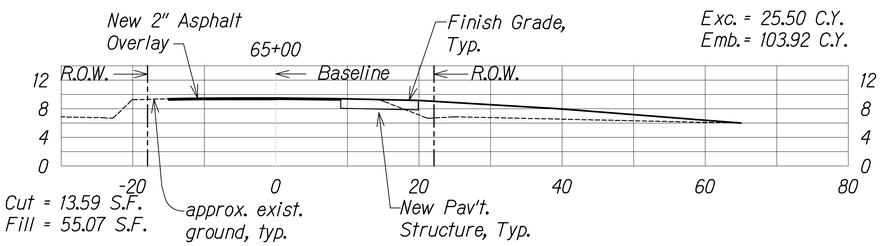












GRAPHIC SCALE:

10' 5' 0 10' 20'
Scale: 1" = 10'

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

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

Kuamoo Road Improvements
ROADWAY CROSS SECTIONS
Scale: 1" = 10'

DATE	REVISION
11/12/19	③ Reissuing plan for legibility only. No design changes have been made.
9/20/19	② Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY CROSS SECTIONS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 10' Date: July 2019

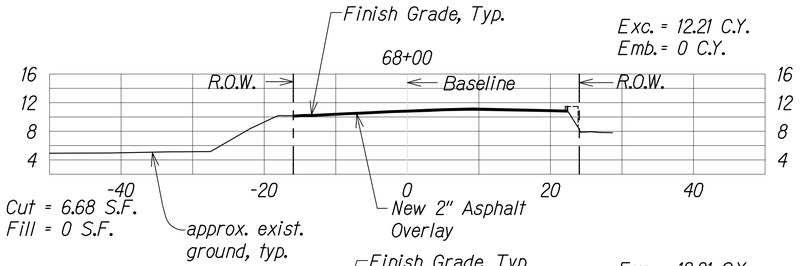
SHEET No. RPK12 OF 13 SHEETS

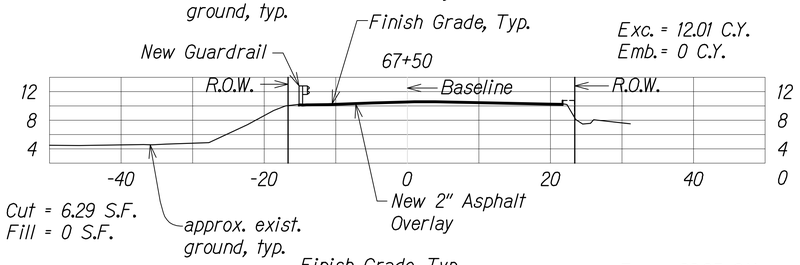
ADD.86

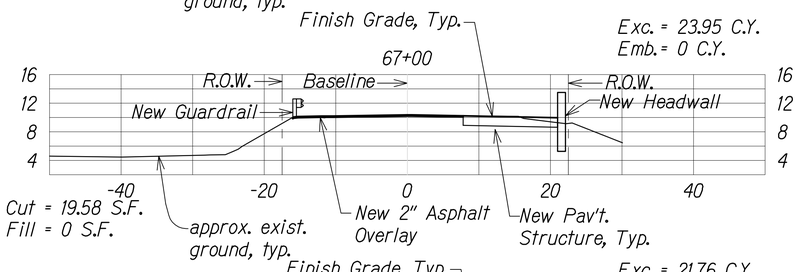
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.87	244

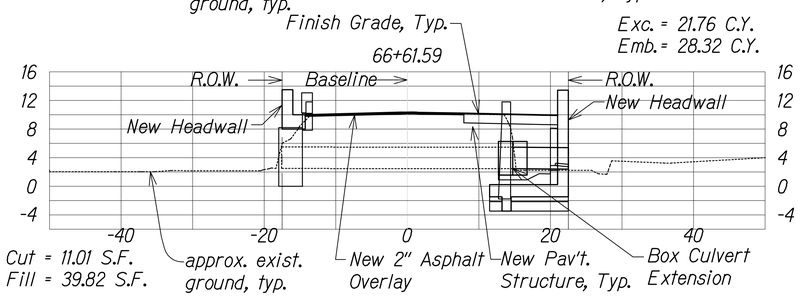
Sheet Total ③
Exc. = 183.93 C.Y.
Emb. = 28.32 C.Y.

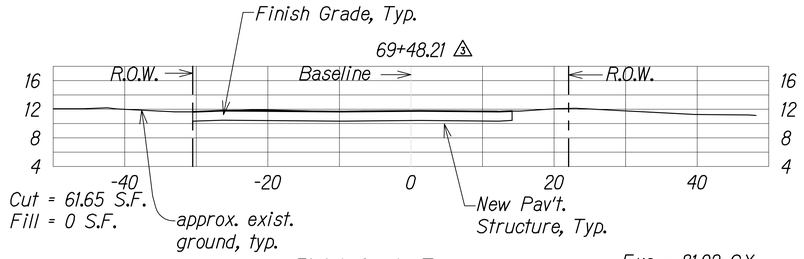
Roadway Total ③
Total Exc. = 341.14 C.Y.
Total Emb. = 440.51 C.Y.

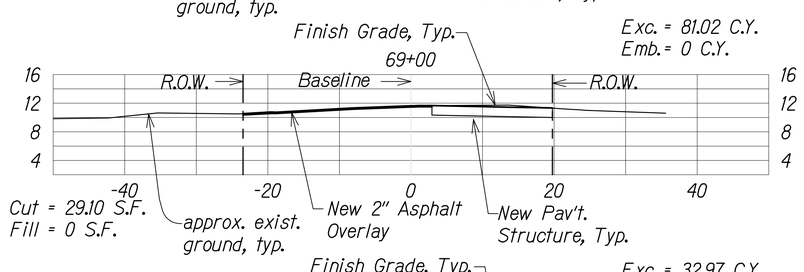


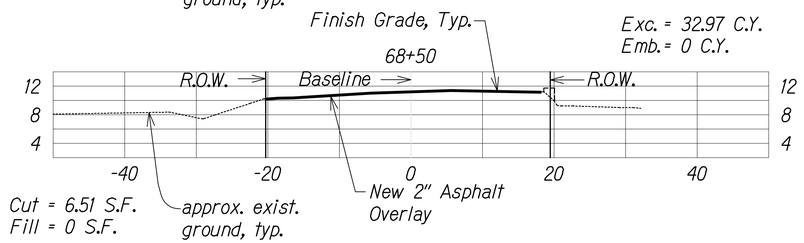












GRAPHIC SCALE:
10' 5' 0 10' 20'
Scale: 1" = 10'

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

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

Kuamoo Road Improvements
ROADWAY CROSS SECTIONS
Scale: 1" = 10'

DATE	REVISION
11/12/19	③ Reissuing plan for legibility; revised cross section and sheet totals
9/20/19	① Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

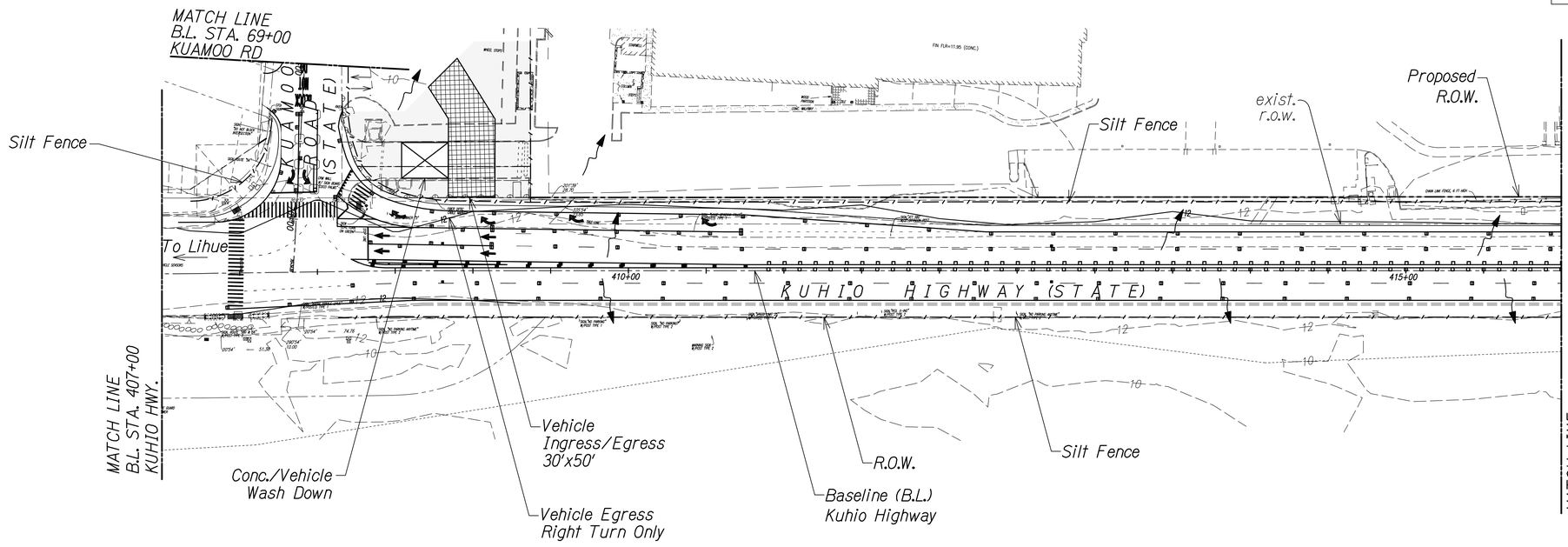
ROADWAY CROSS SECTIONS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 10' Date: July 2019

SHEET No. RPK13 OF 13 SHEETS

ADD.87

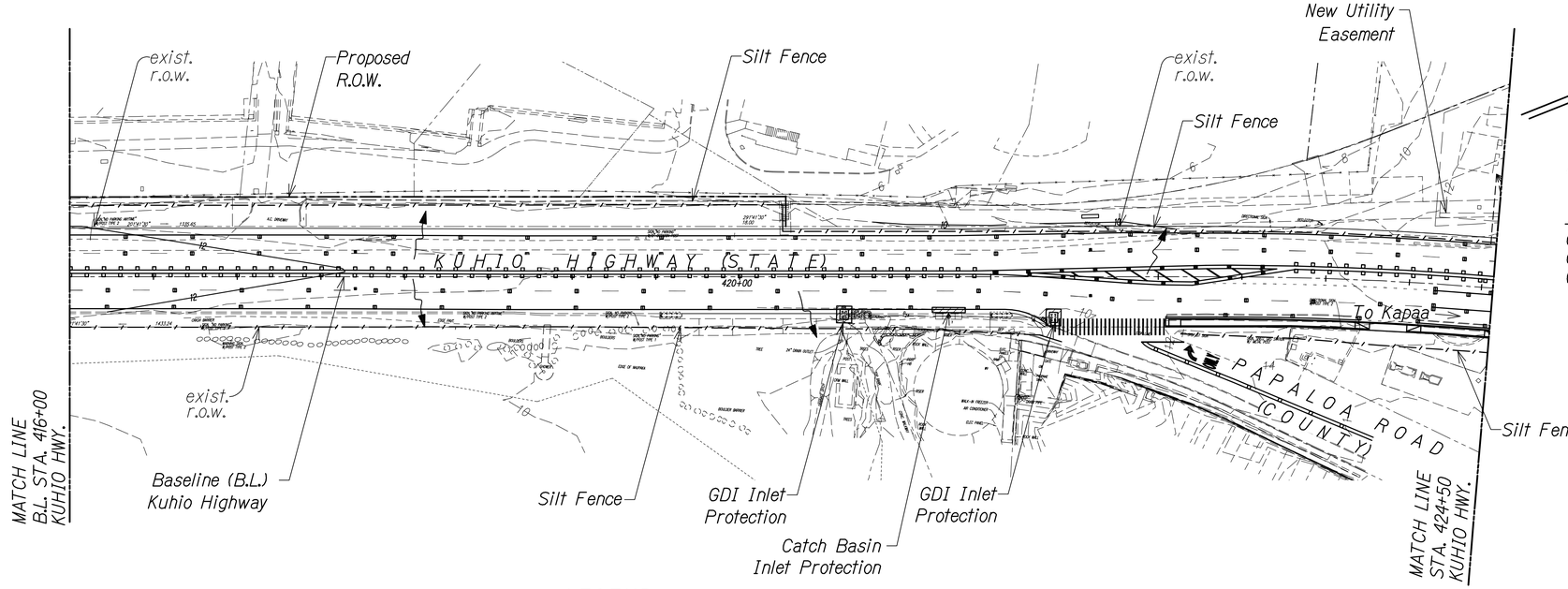
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.88	244



True North
Scale: 1"=40'

NOTE:

Contractor may substitute compost filter berm or aggregate filter pouch for silt fence in paved areas only.



True North
Scale: 1"=40'

APPROVED

County Engineer Date
County of Kaua'i
(For Work Within the County Right-of-Way)

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EROSION CONTROL PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 40' Date: July 2019

SHEET No. ECP1 OF 5 SHEETS

ADD.88

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; deleted callout
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

LEGEND:

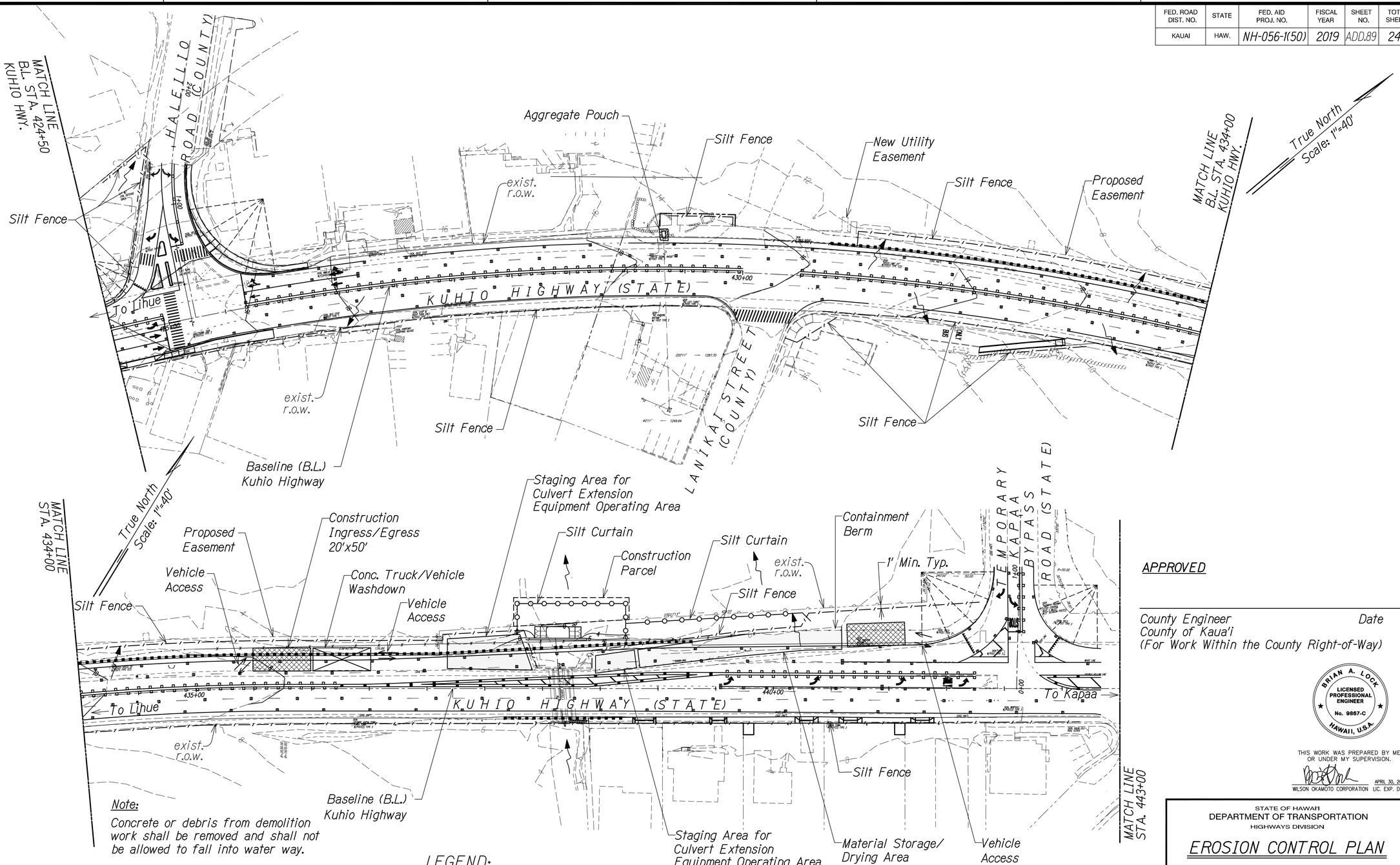
- Silt Fence/Filter Sock
- Silt Curtain
- Inlet Protection
- Vehicle Washdown
- Construction Ingress/Egress
- Staging Area

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.89	244



Note:
Concrete or debris from demolition work shall be removed and shall not be allowed to fall into water way.

GRAPHIC SCALE:
40' 20' 0 40' 80'
Scale: 1" = 40'

LEGEND:
- Silt Fence/Filter Sock
- Silt Curtain
- Inlet Protection
- Vehicle Washdown
- Construction Ingress/Egress
- Staging Area

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; deleted Water Quality Monitoring Station
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

APPROVED

County Engineer Date
County of Kaua'i
(For Work Within the County Right-of-Way)

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EROSION CONTROL PLAN

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

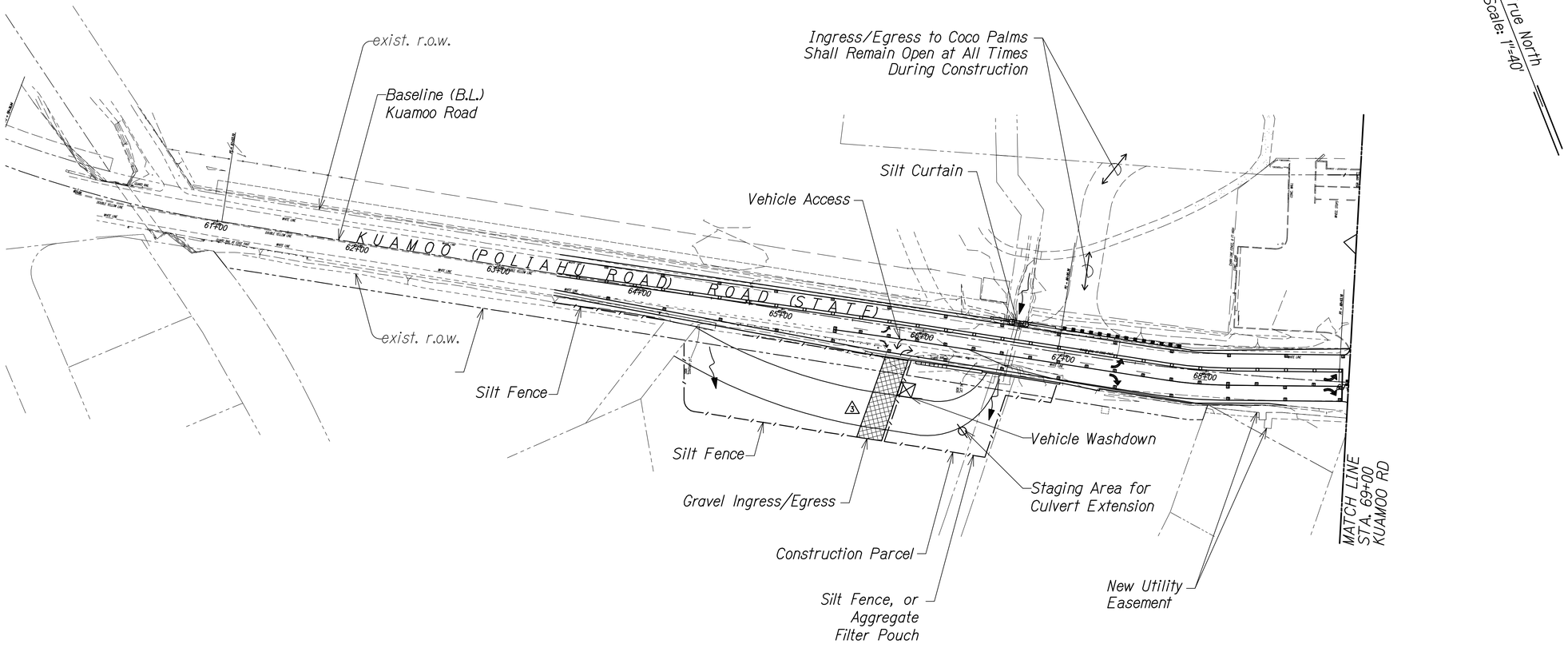
Scale: 1" = 40' Date: July 2019

SHEET No. ECP2 OF 5 SHEETS

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

ADD.89

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.90	244



True North
Scale: 1"=40'

Notes:

1. *Contractor may substitute compost filter berm or aggregate filter pouch for silt fence in paved areas only.*
2. *Concrete or debris from demolition work shall be removed and shall not be allowed to fall into water way.*

LEGEND:

Silt Fence
Silt Curtain
Inlet Protection
Vehicle Washdown
Construction Ingress/Egress

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; added hatch
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EROSION CONTROL PLAN

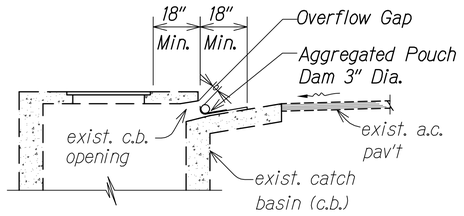
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 40' Date: July 2019

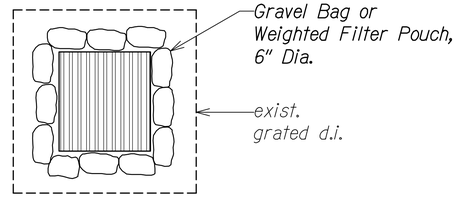
SHEET No. ECP3 OF 5 SHEETS

ADD.90

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.91	244

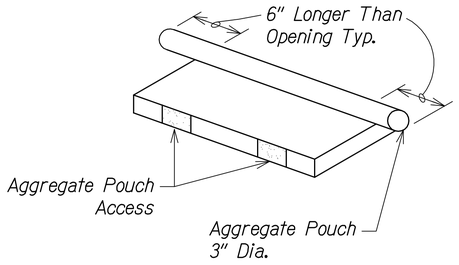


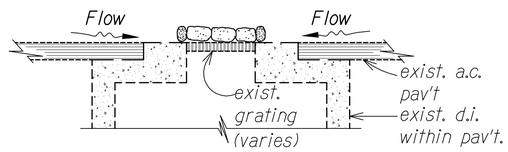
ELEVATION



PLAN VIEW

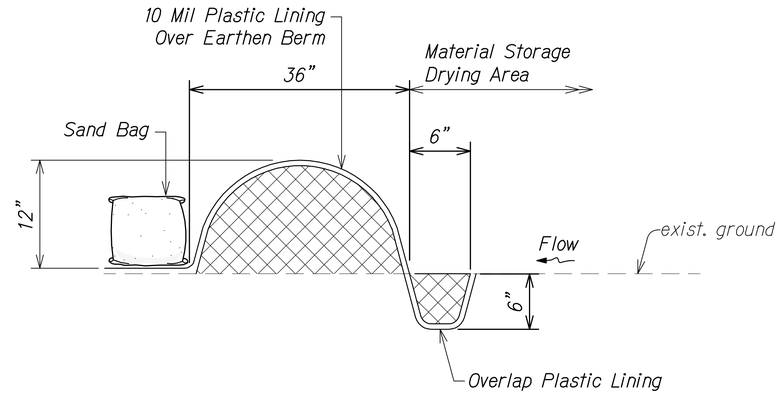
AGGREGATE POUCH
Not to Scale





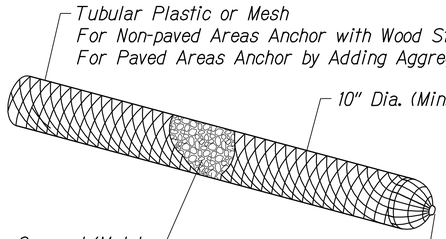
SECTION

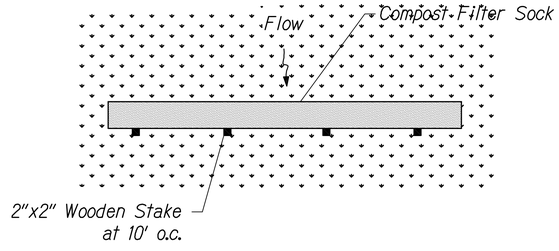
SAND OR GRAVEL BAGS AT GRATED DRAIN INLET
Not to Scale



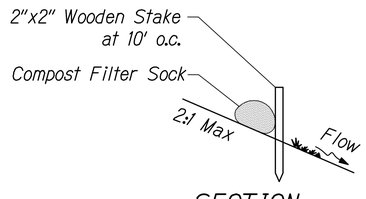
CONTAINMENT BERM
Not to Scale

AGGREGATE POUCH AT CATCH BASIN OPENING
Not to Scale





PLAN



SECTION

COMPOST FILTER SOCK
Not to Scale

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9887-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EROSION CONTROL DETAILS

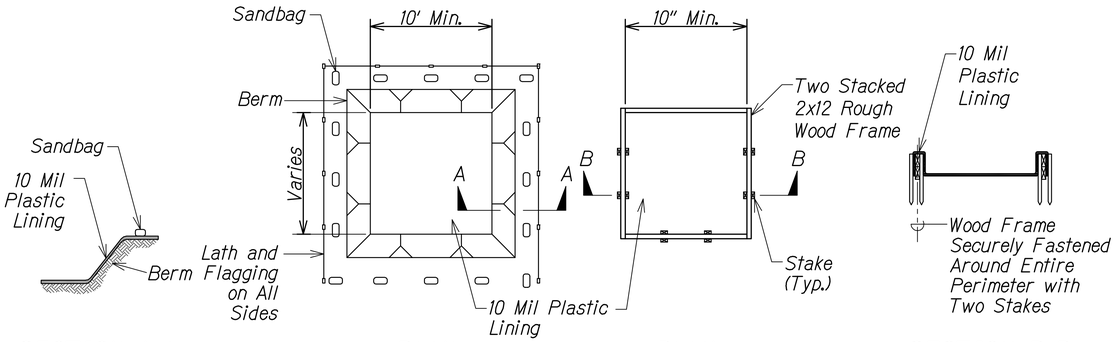
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. ECP4 OF 5 SHEETS

ADD.91

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.92	244



SECTION A-A | PLAN | PLAN | SECTION B-B

Notes:

1. Actual layout determined in field.
2. The concrete washout sign shall be installed within 30 feet of the temporary concrete washout facility.

CONCRETE VEHICLE WASH AREA (BELOW GRADE)

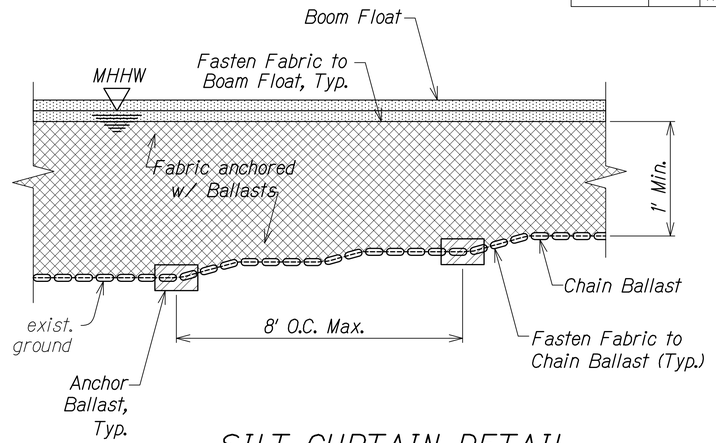
Notes:

1. Actual layout determined in field.
2. The concrete washout sign shall be installed within 30 feet of the temporary concrete washout facility.

CONCRETE VEHICLE WASH AREA (ABOVE GRADE)

WASHDOWN BASIN DETAIL

Not to Scale

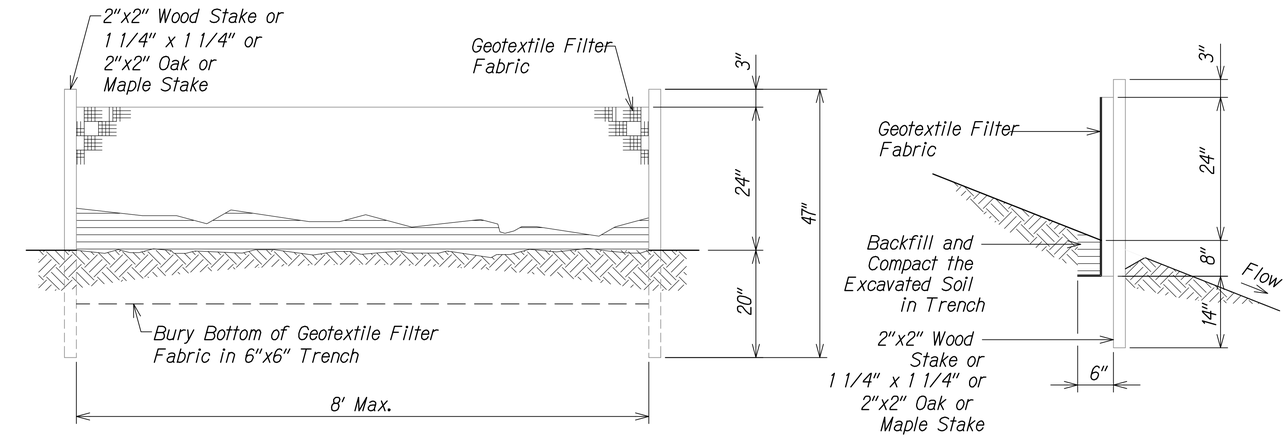


SILT CURTAIN DETAIL

Not to Scale

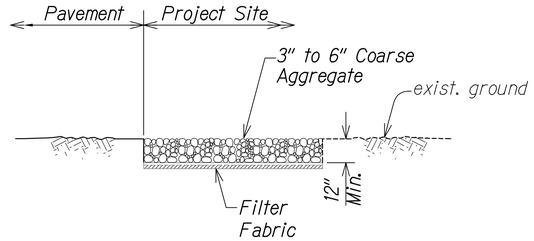
NOTES:

1. Fabric shall be high strength nylon reinforced vinyl high visibility yellow, 22 oz/yd weight.
2. Chain ballast shall 5/16" galvanized chain (min. 1.1 lbs/ft)
3. Anchor ballast shall be minimum 50 lbs at 8' o.c.
4. Silt curtain shall be installed prior to start of construction in water which might result in discharges to state waters.
5. The Contractor shall notify the Engineer and water quality monitor two weeks prior to installation of silt curtain.



SILT FENCE DETAIL

Not to Scale



TEMPORARY STABILIZED CONSTRUCTION INGRESS/EGRESS

Not to Scale

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

APPROVED

County Engineer Date
County of Kaua'i
(For Work Within the County Right-of-Way)

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	2 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK LICENSED PROFESSIONAL ENGINEER No. 9867-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EROSION CONTROL DETAILS

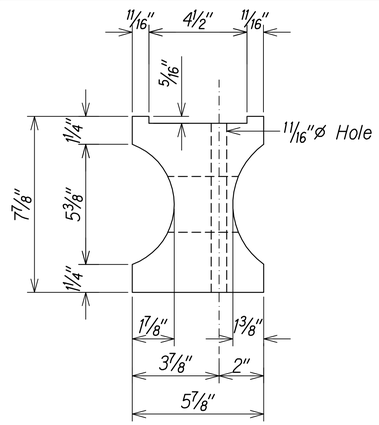
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

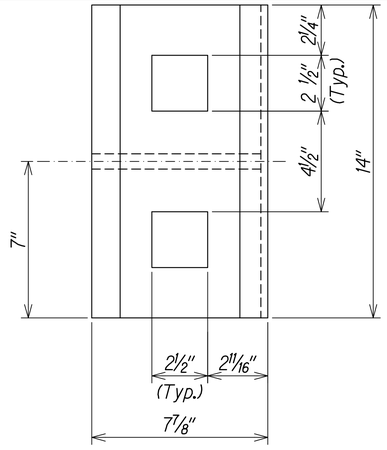
SHEET No. ECP5 OF 5 SHEETS

ADD.92

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.93	244

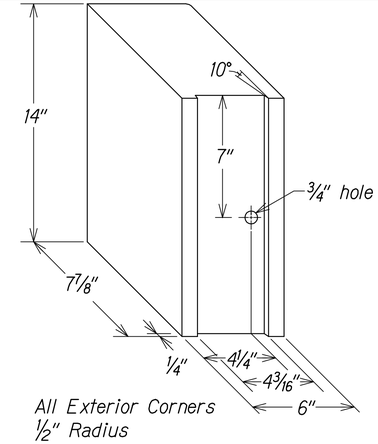


TOP

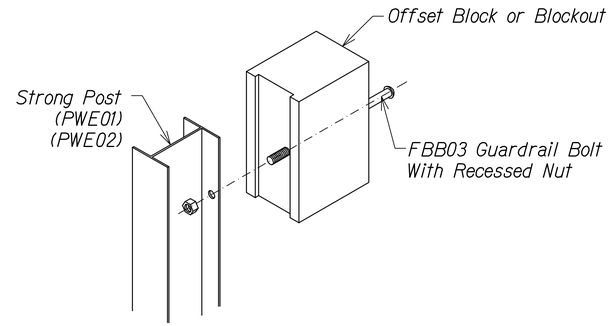


SIDE

RECYCLED PLASTIC BLOCKOUT (TYPE I)

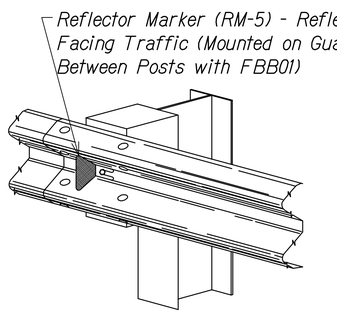


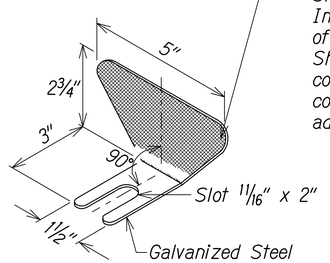
RECYCLED POLYETHYLENE OFFSET BLOCK (TYPE II)



Exploded View
(Rail and Washer Not Shown)

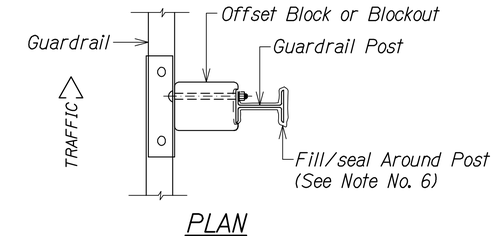
STEEL POST AND BLOCK DETAIL



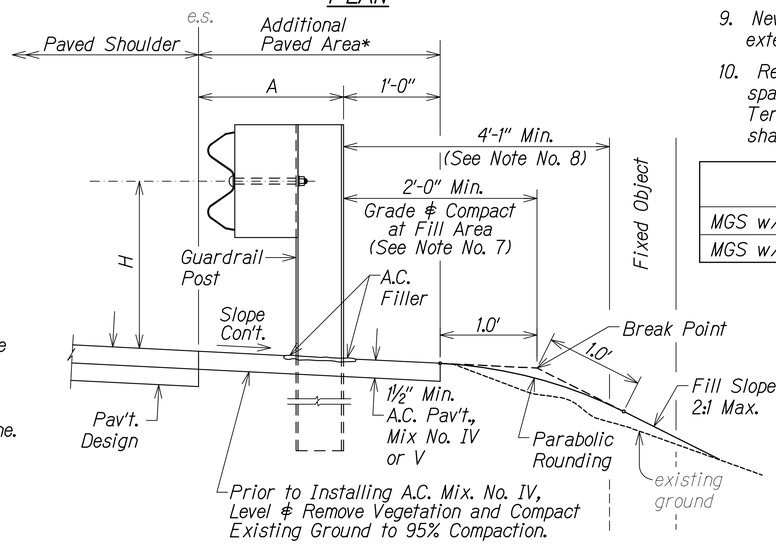


Type III or IV Retroreflective Sheeting (High Intensity); Color of Retroreflective Sheeting shall conform to the color of the adjacent edge line.

REFLECTOR MARKER (RM-5) DETAIL AND TYPICAL INSTALLATION



PLAN



ELEVATION

TYPICAL GUARDRAIL INSTALLATION

GENERAL NOTES

1. All hardware, posts and fasteners shall be hot-dip zinc coated galvanized after fabrication. No punching, drilling or cutting will be permitted after galvanizing.
2. Where conditions require, special post lengths in increments of 6 inches may be specified.
3. All fasteners, posts, and rail elements (i.e. FBB03, PWE01, RWM04b, etc.) shall conform to the latest edition and amendments of "A Guide to Standardized Highway Barrier Rail Hardware", a report prepared and approved by the AASHTO-AGC-ARTBA Joint Cooperative Committee, Subcommittee On New Highway Materials, Task Force 13 Report. Dimensions of fastners, posts and rail elements have been converted from metric units into their present form.
4. The Blockout or Offset Block shall be approved by the State.
5. All new guardrail systems (system consists of total length of guardrail including both end treatments) shall include the Additional Paved Area.
6. After the guardrail posts are installed in the paved area, the Contractor shall fill/seal around each guardrail post and all cracks in the paved area caused during the guardrail post installation. If required by the inspector/engineer, the Contractor shall tamper the paved area around the guardrail post prior to filling/sealing. All costs associated with this work shall not be paid for separately, but shall be considered incidental to the various guardrail items.
7. When standards for the fill slope area cannot be met, a site specific, engineer approved design may be used.
8. Minimum working width (clear distance) between back of MGS post to any fixed object is 4'-1" (49").
9. New Hot Mix Asphalt (HMA) pavement at guardrails shall extend 6 feet longitudinally beyond terminal ends.
10. Reflector Markers (RM-5) mounted on guardrails shall be spaced every 25 feet. RM-5's shall not be installed on Terminal Sections. Furnishing and installing of each RM-5 shall be considered incidental to the guardrail system.

GUARDRAIL TYPE	DIMENSION	
	H	A
MGS w/ Standard 8" Offset Block	2'-1"	1'-6"
MGS w/ No Blockout	2'-7 7/8"	9 1/4"

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WILSON OKAMOTO CORPORATION APRIL 30, 2020 LIC. EXP. DATE

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GUARDRAIL DETAILS AND NOTES

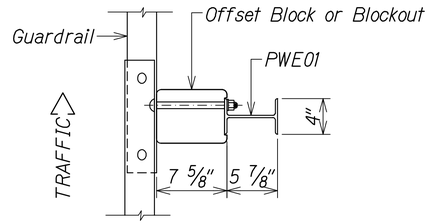
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

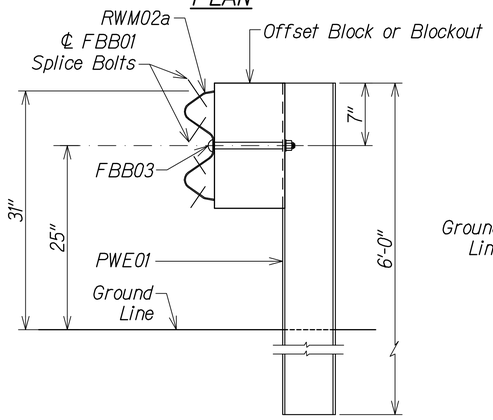
SHEET No. GRD1 OF 6 SHEETS

ADD.93

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.94	244

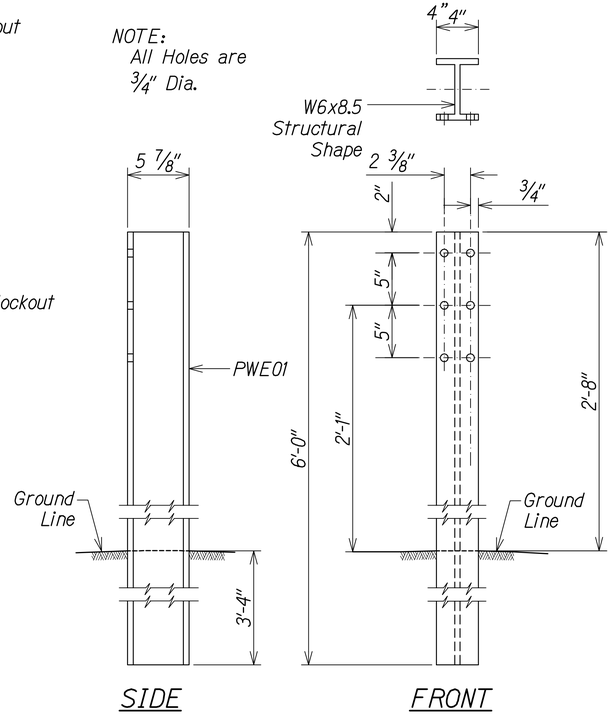


PLAN



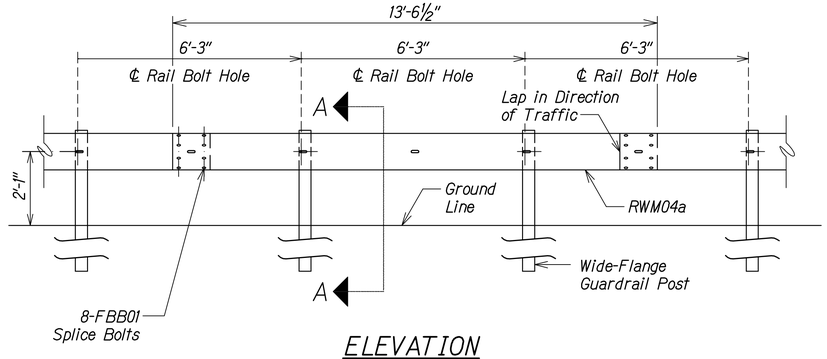
SECTION A-A

NOTE:
All Holes are
¾" Dia.



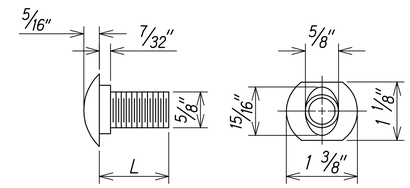
SIDE FRONT

W-BEAM STRONG POST (PWE01)

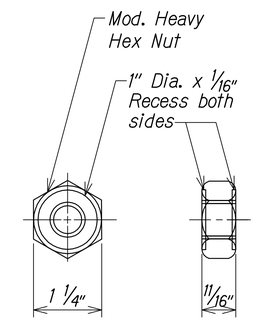


ELEVATION

MIDWEST GUARDRAIL SYSTEM WITH STANDARD 8" OFFSET BLOCK (SGR47)

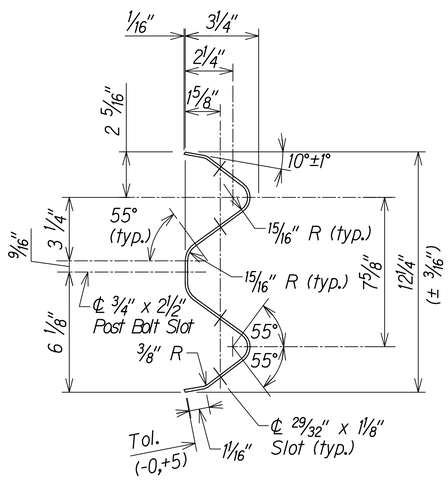


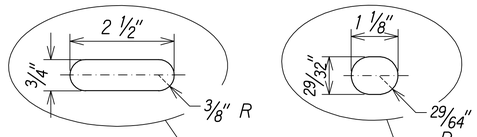
DESIGNATOR	L
FBB01	1 3/8"
FBB02	2"
FBB03	10"

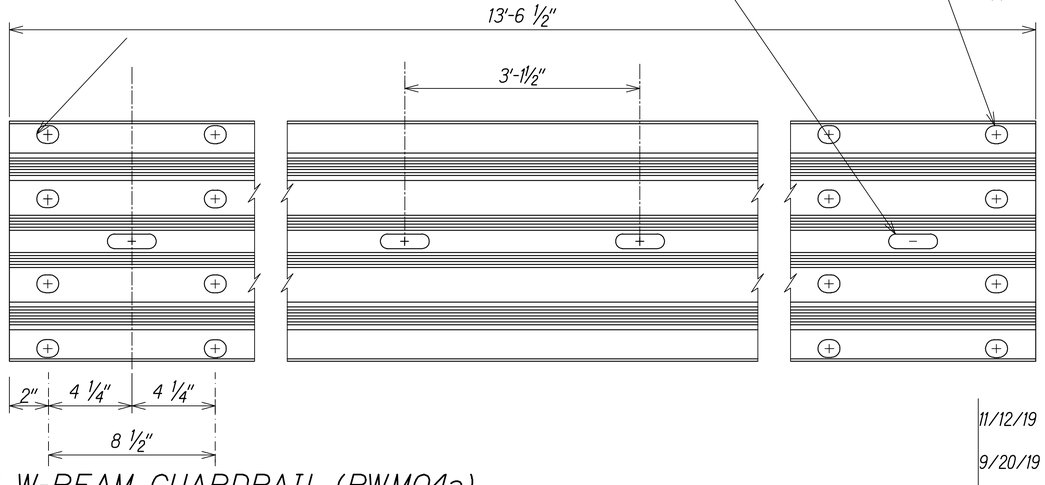


GUARDRAIL BOLTS AND RECESSED NUT

DESIGNATOR	BASE METAL THICKNESS
RWM02a	12 Gauge







4 SPACE W-BEAM GUARDRAIL (RWM04a)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

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LICENSED PROFESSIONAL ENGINEER
No. 9867-C
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WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

31" W-BEAM GUARDRAIL WITH STANDARD 8" OFFSET BLOCK

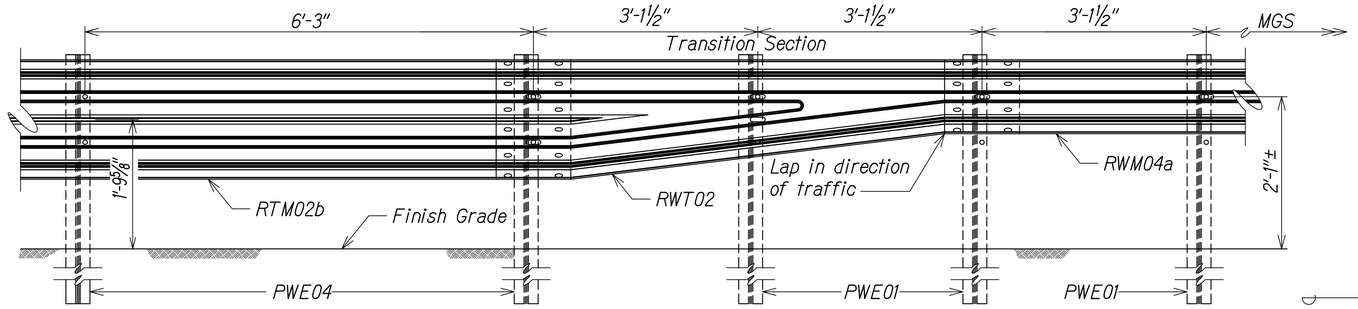
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. GRD2 OF 6 SHEETS

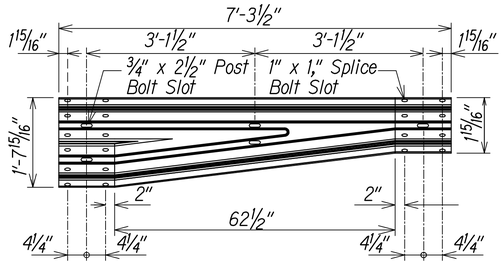
ADD.94

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.95	244

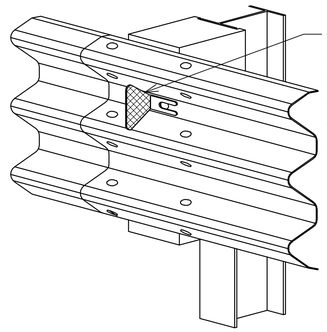


* Not to be used for Thrie Beam connection to structures.

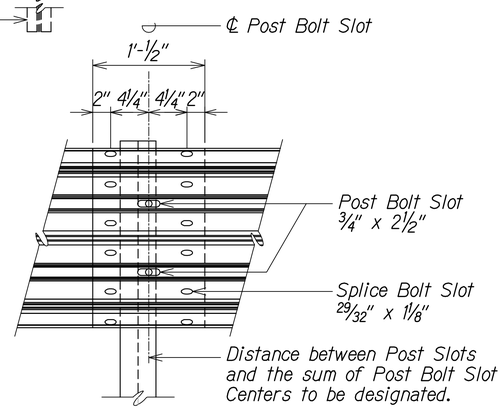
TRANSITION SECTION *



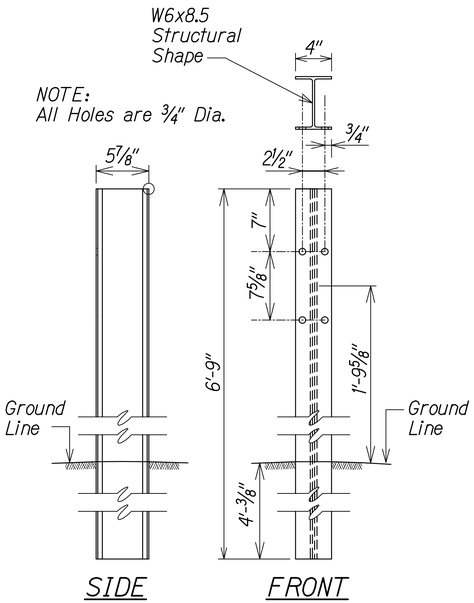
TRANSITION SECTION (RWT02)



TYPICAL INSTALLATION OF REFLECTOR MARKER (RM-5)

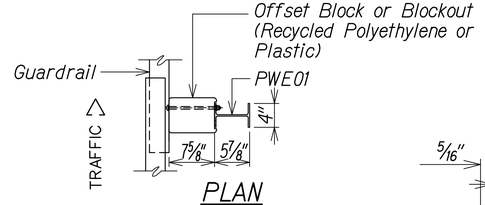


RAIL SPLICE

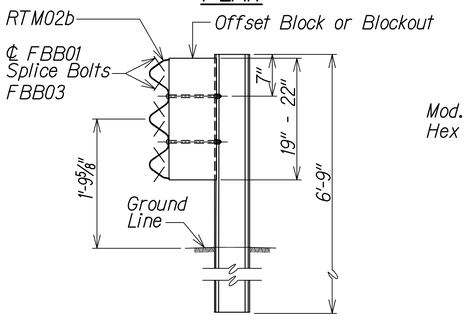


SIDE FRONT

THRIE-BEAM STRONG POST FOR PLASTIC SPACER BLOCKS PWE04

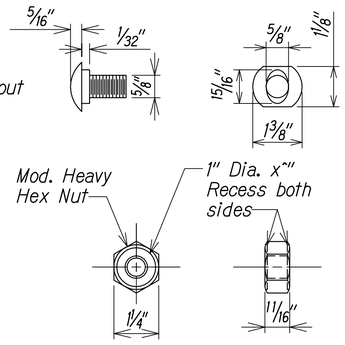


PLAN



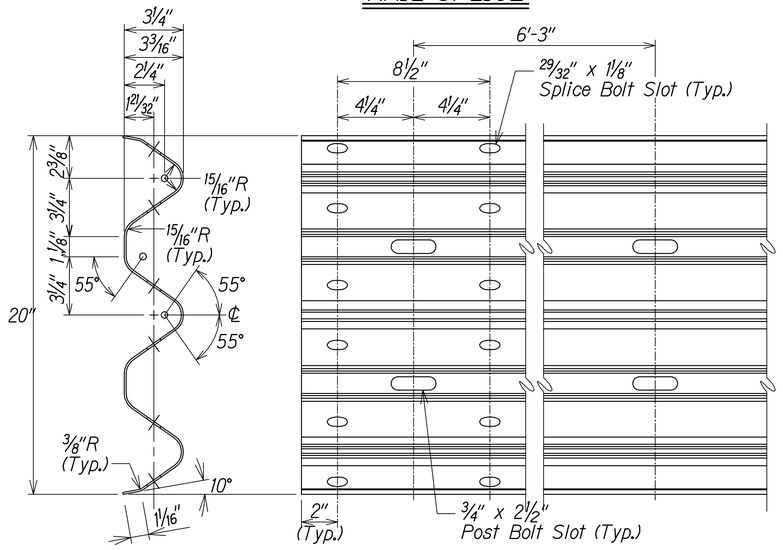
ELEVATION

STRONG POST THRIE-BEAM GUARDRAIL (SGR09a)



DESIGNATOR	L
FBB01	1⅜"
FBB02	2"
FBB03	10"

GUARDRAIL BOLTS AND RECESSED NUT



1 & 2 SPACE THRIE-BEAM GUARDRAIL (RTM02b)

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

ORIGINAL PLAN
NOTE BOOK
No.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

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WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; replaced sheet with new details
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRONG POST THRIE-BEAM GUARDRAIL

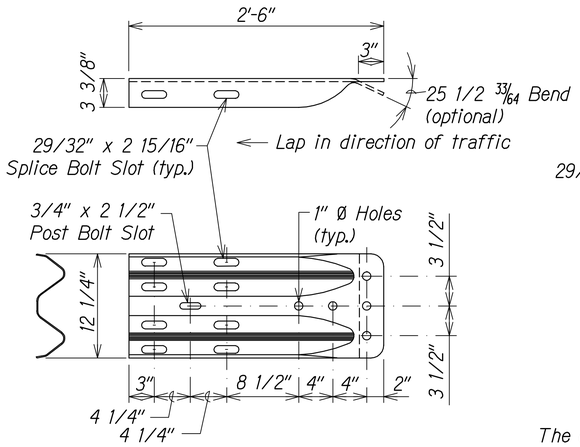
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. GRD3 OF 6 SHEETS

⚠3 ADD.95

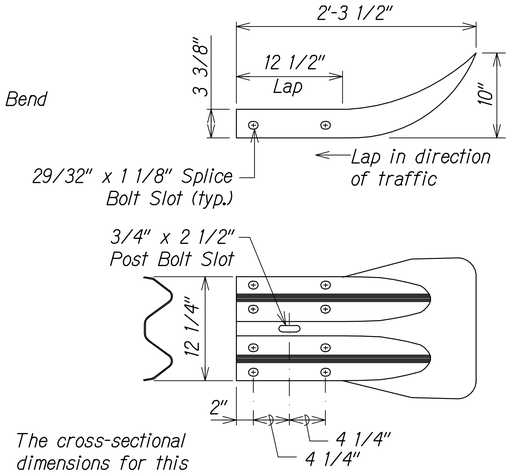
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.96	244



The cross-sectional dimensions for this part are to fit over part RWM02a on the approach end and under part RWM02a on the trailing end.

DESIGNATOR	BASE METAL THICKNESS
RWE02b	10 Gauge

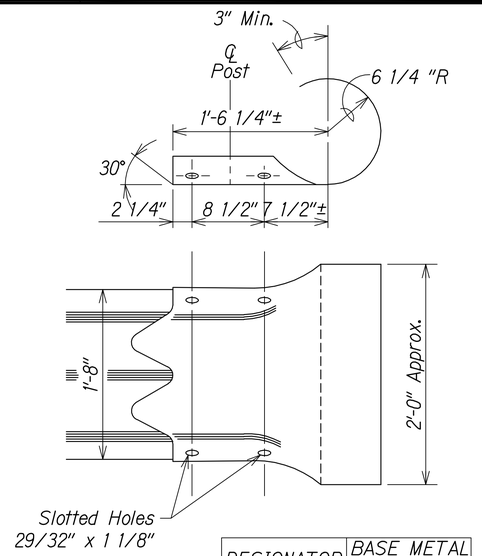
W-BEAM TERMINAL CONNECTOR (RWE02b)



The cross-sectional dimensions for this part are to fit over part RWM02a on the approach end and under part RWM02a on the trailing end.

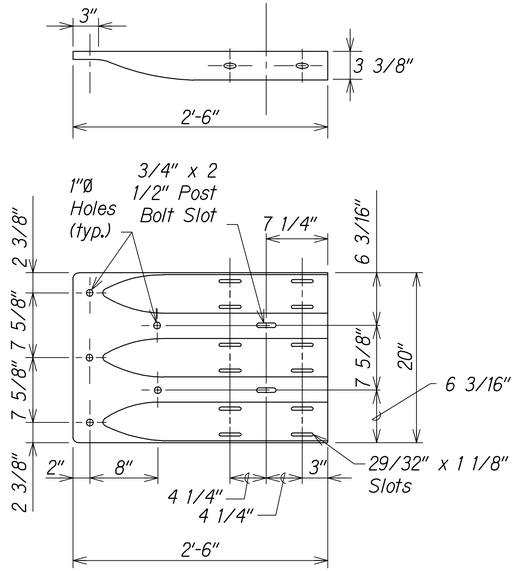
DESIGNATOR	BASE METAL THICKNESS
RWE01a	12 Gauge

W-BEAM END SECTION (FLARED RWE01a)



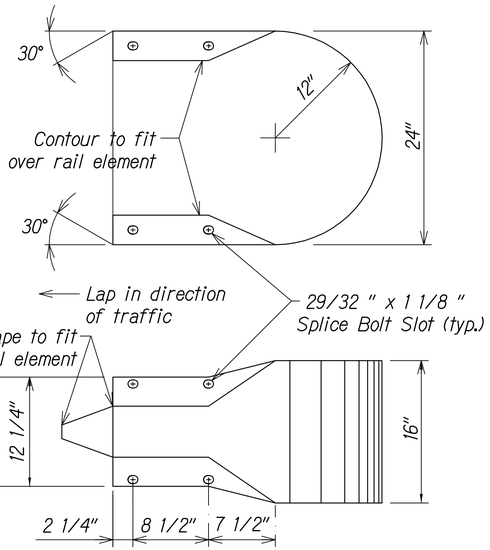
DESIGNATOR	BASE METAL THICKNESS
RWE02b	10 Gauge

THRIE-BEAM SECTION (ROUNDED) (RTE02b)



DESIGNATOR	BASE METAL THICKNESS
RTE01b	10 Gauge

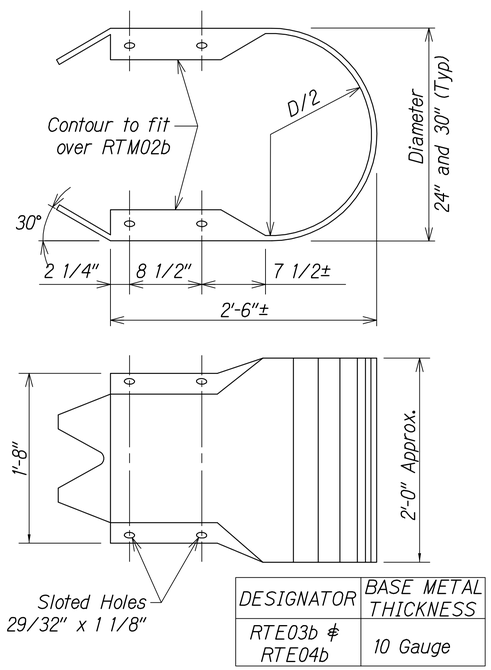
THRIE-BEAM TERMINAL CONNECTOR (RTE01b)



The cross-sectional dimensions for this part are to fit over part RWM02a

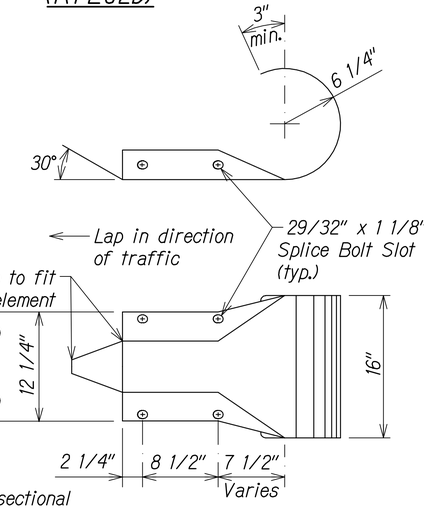
DESIGNATOR	BASE METAL THICKNESS
RWE06a	12 Gauge

W-BEAM END SECTION (BUFFER RWE06a)



DESIGNATOR	BASE METAL THICKNESS
RTE03b & RTE04b	10 Gauge

THRIE-BEAM END SECTION (BUFFER RTE03b or RTE04b)



The cross-sectional dimensions for this part are to fit over part RWM02a

DESIGNATOR	BASE METAL THICKNESS
RWE03a	12 Gauge

W-BEAM END SECTION (ROUNDED RWE03a)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK LICENSED PROFESSIONAL ENGINEER No. 9867-C HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GUARDRAIL TERMINAL CONNECTORS AND END SECTIONS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

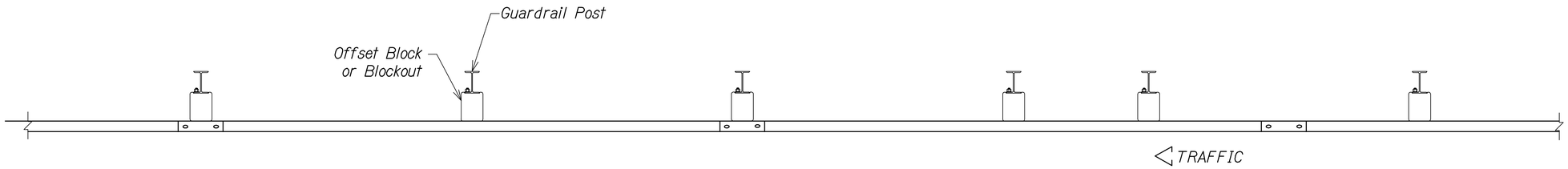
Scale: As Noted Date: July 2019

SHEET No. GRD4 OF 6 SHEETS

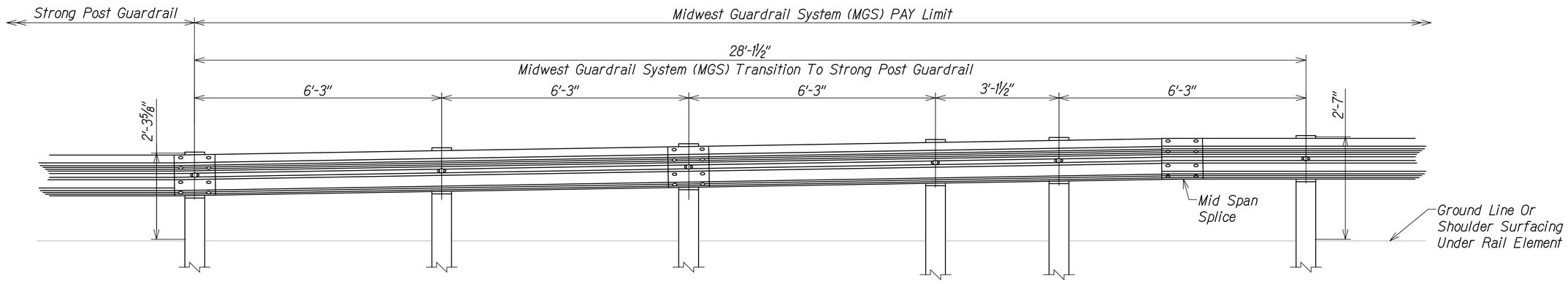
ADD.96

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.97	244



PLAN



ELEVATION

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

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HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

DATE	REVISION
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9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MGS TRANSITION TO STRONG POST GUARDRAIL

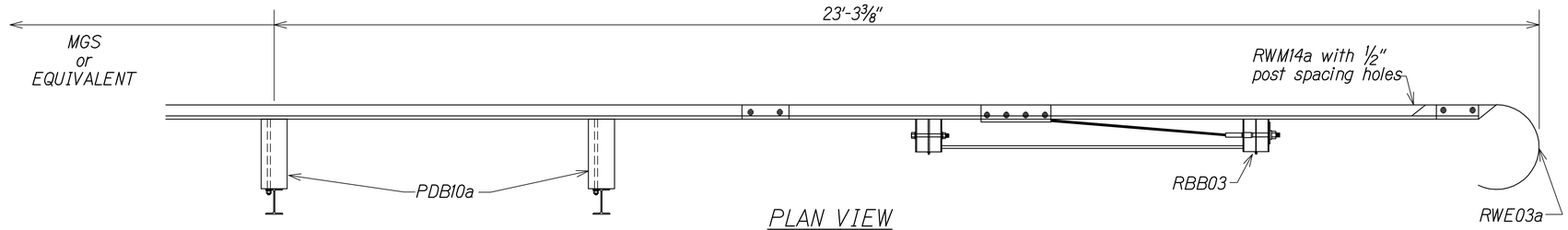
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

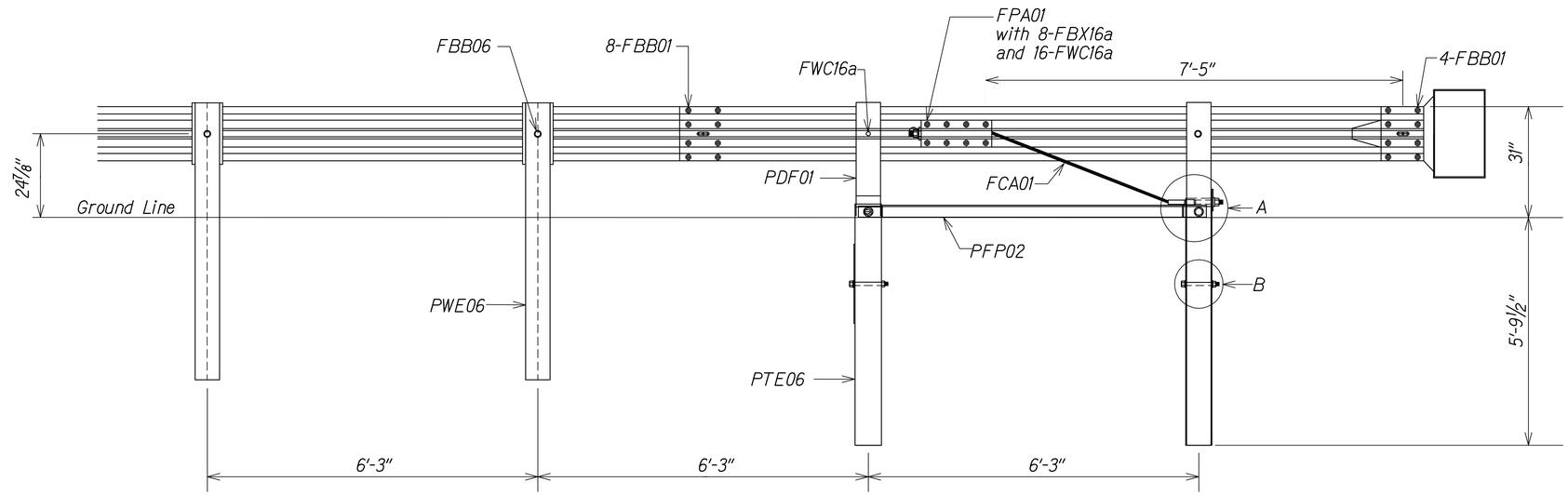
SHEET No. GRD5 OF 6 SHEETS

ADD.97

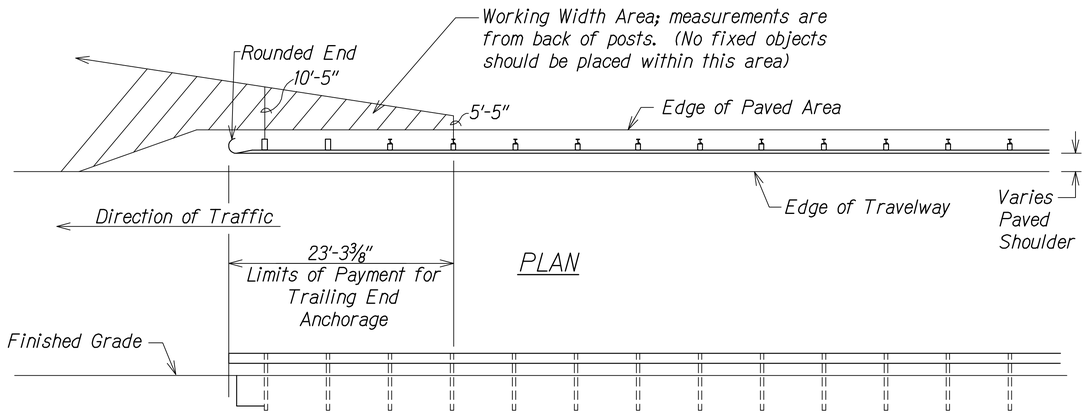
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.98	244



PLAN VIEW

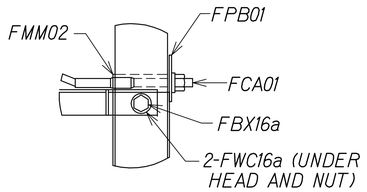


ELEVATION VIEW
NON TRAFFIC SIDE

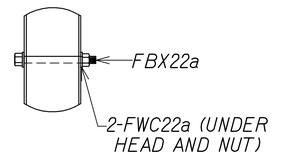


PLAN

ELEVATION



DETAIL A



DETAIL B

ITEM NO.	QTY	COMPONENTS
FBB01	12	Guardrail Bolt and Nut
FBB03	2	Guardrail Bolt and Nut
FBB06	1	Guardrail Bolt and Nut
FBX16a	2	Hex Head Bolt (10") and Nut
FBX16a	8	Hex Head Bolt (1 1/2") and Nut
FBX22a	2	Hex Head Bolt (7 1/2") and Nut
FCA01	1	BCT Anchor Cable Assembly
PDB10a	2	MGS Timber Blockout
PFP02	1	Strut and Yoke Assembly
PWE06	1	Wide-Flange Guardrail Post
FMM02	1	BCT Post Sleeve
FPA01	1	Anchor Bracket Assembly
FPB01	1	BCT Bearing Plate
FWC16a	22	Circular Washer
FWC22a	4	Circular Washer
PDF01	2	BCT Timber Post
PTE06	2	Foundation Tube
RWE03a	1	W-Beam Rounded End Section
RWM14a	1	W-Beam MGS End Section

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; replaced sheet with new details
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LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

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WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GUARDRAIL DETAILS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

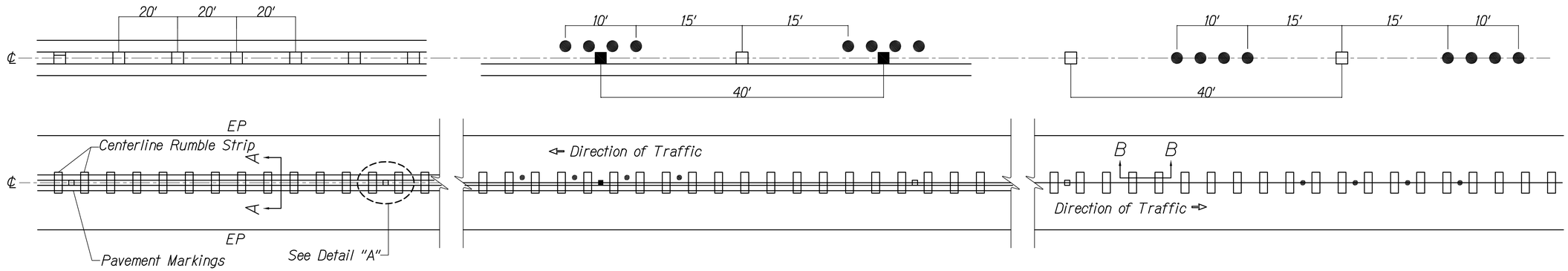
Scale: As Noted Date: July 2019

SHEET No. GRD6 OF 6 SHEETS

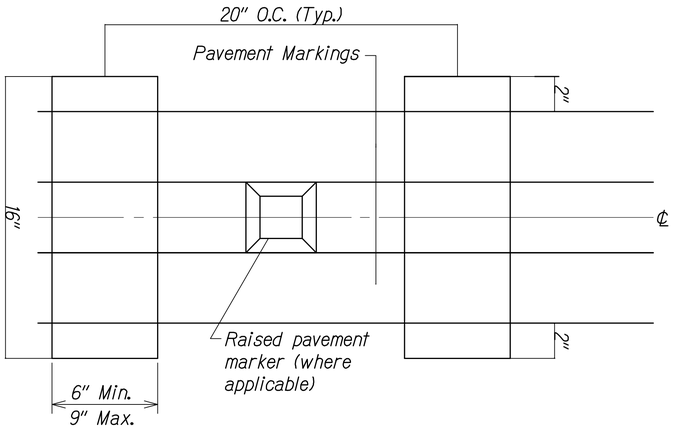
⚠3 ADD.98

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

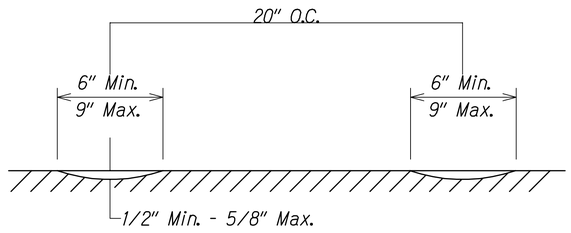
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.99	244



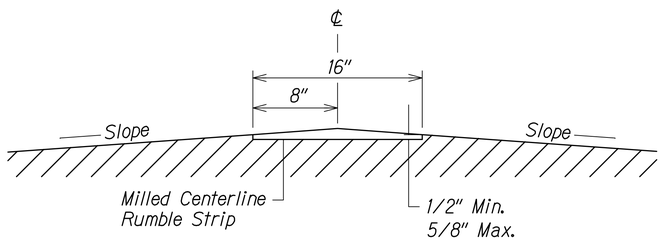
PLAN - CENTERLINE MILLED RUMBLE STRIP



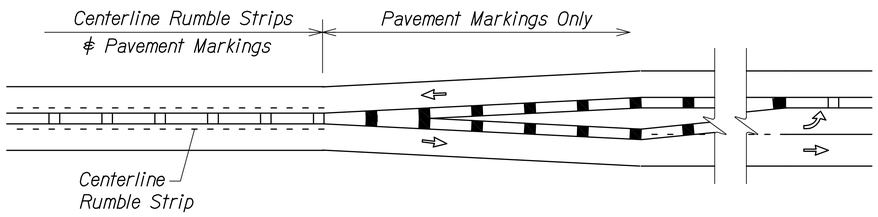
DETAIL "A"



SECTION B-B - CENTERLINE MILLED RUMBLE STRIP



SECTION A-A - CENTERLINE MILLED RUMBLE STRIP



CENTERLINE MILLED RUMBLE STRIP INSTALLATION LIMIT

NOTES:

1. The method of constructing the centerline milled rumble strip shall be submitted to the Engineer for acceptance prior to the actual work.
2. Dimensions shown are approximate. Adjust rumble strip spacing to coordinate with pavement markings prior to installation.
3. Raised pavement markers shall be installed on level surface between the rumble strips. Do not install raised pavement markers inside the milled area.
4. The construction of the centerline milled rumble strip shall be paid for under Item No. 615.1000 – Milled Rumble Strip, Centerline . The milling apparatus and removal of existing pavement markings will not be paid for separately and shall be considered incidental to Item 615.1000.
5. Do not install centerline rumble strips on bridge decks.
6. Where at–grade bridges are present, rumble strips shall end/begin 20 L.F. beyond the existing bridge deck joints/concrete approach slab.
7. Pre–formed pavement striping tape shall be used for solid line markings within the milled centerline rumble strip area.

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MILLED RUMBLE STRIP DETAILS AND NOTES

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD

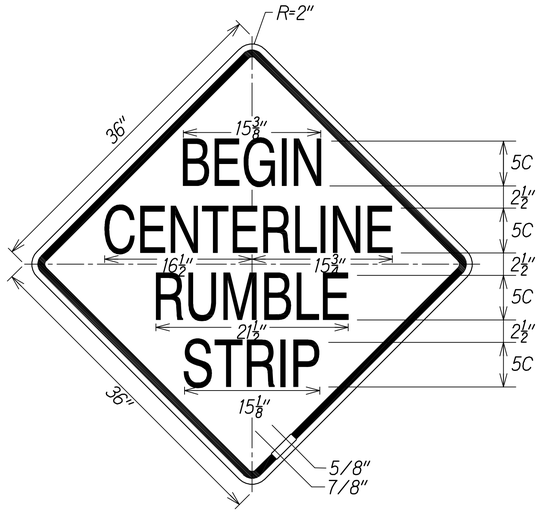
Fed. Aid Proj. No. NH-056-1(50)

Scale: NOT TO SCALE Date: July 2019

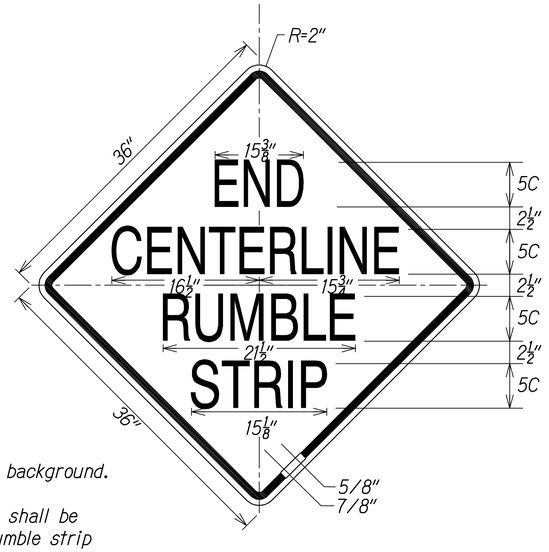
SHEET No. MDI OF 2 SHEETS

ADD.99

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.100	244



W8-14a



W8-14b

NOTES:

1. Black legend on reflectorized yellow background.
2. Begin Centerline Rumble Strip signs shall be installed 50 feet before the first rumble strip depression. End Centerline Rumble Strip signs shall be installed 50 feet beyond the last rumble strip depression.

SIGN NOTES

1. All signs shall conform to Section 621 of the Special Provisions and the latest editions and amendments of the following FHWA publications:
   a. "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD)
   b. "Standard Highway Signs"
   c. "Standard Alphabets for Highway Signs"
2. Borders, messages, arrows, symbols and shield shall conform to details as shown on the plans and as specified in the MUTCD.
3. Sign messages shall be as indicated on the plan, or as directed by the Engineer.
4. Backing for all new Regulatory and Warning Signs shall not be spliced.
5. Final locations of all signs shall be accepted by the Engineer prior to any installation work.
6. Existing signs that are to be replaced, shall not be removed until new signs are installed as replacements, or the messages are no longer necessary.
7. Existing signs not shown on these plans shall remain as posted unless otherwise directed by the Engineer. Removal and disposal of existing signs and/or posts as designated on these plans shall be incidental to the various signing items.
8. All signs shall be installed on square tube posts, unless otherwise noted.
9. Sign posts shall be painted with yellow reflective paint, except where located behind guardrails. Such paint work shall be considered incidental to sign items.
10. Contractor shall mark the back of all signs using labels and equipment provided by the State. Payment to be incidental to various contract items.

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

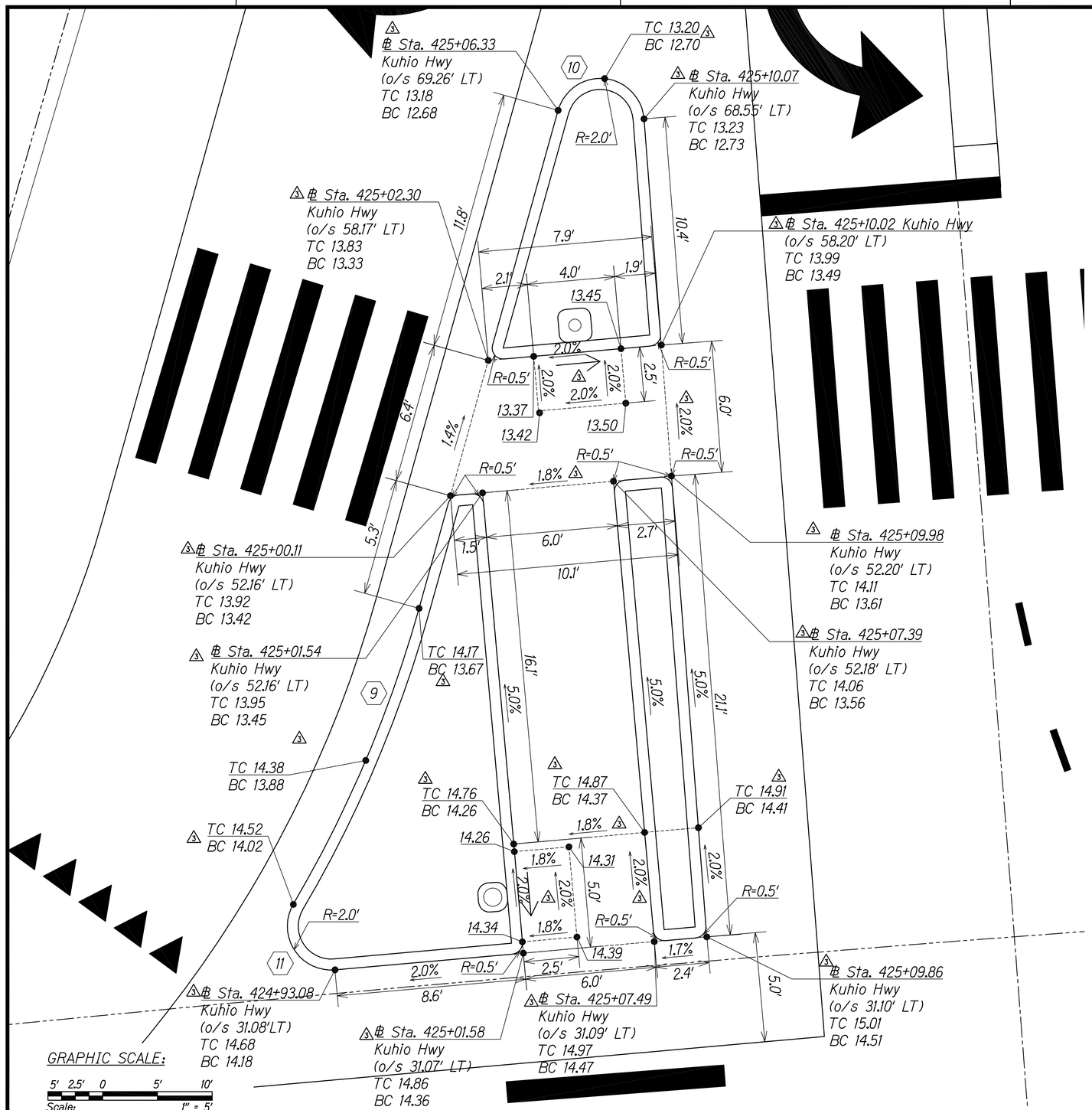
MILLED RUMBLE STRIP DETAILS AND NOTES

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: NOT TO SCALE Date: July 2019

SHEET No. MD2 OF 2 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.101	244



Note:

See "Detectable Warning Details" on Sheet T5

℄ CURVE DATA

	9	10	11
△	14° 48' 00"	159° 59' 29"	125° 28' 56"
△/2	7° 24' 00"	79° 59' 44"	62° 44' 30"
R	57.00'	2.00'	2.00'
T	7.40'	11.34'	3.88'
Ch	14.68'	3.94'	3.56'
Lc	14.72'	5.58'	4.38

APPROVED

County Engineer Date
County Of Kaua'i
(For Work Within the County Right of Way)

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION APRIL 30, 2020 LIC. EXP. DATE

DATE	REVISION
11/12/19	℄ Reissuing plan for legibility; revised grades and curve data
9/20/19	⚠ Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC ISLAND DETAILS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

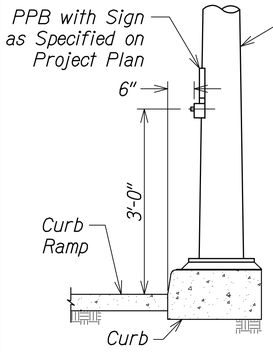
Scale: 1" = 10' Date: July 2019

SHEET No. T1 OF 11 SHEETS

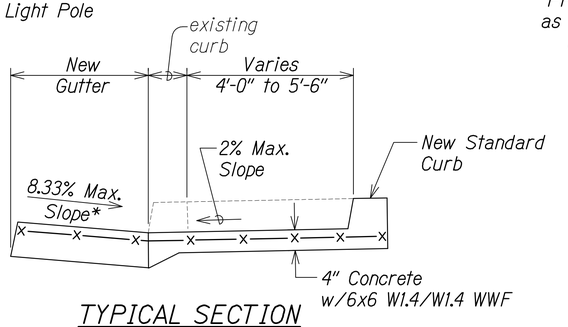
ADD.101

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

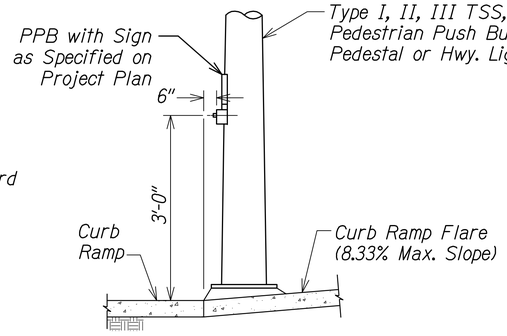
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.102	244



DETAIL "B"



TYPICAL SECTION



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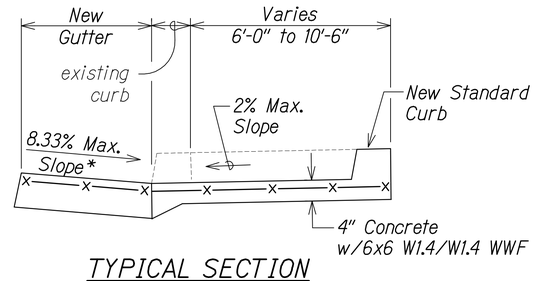

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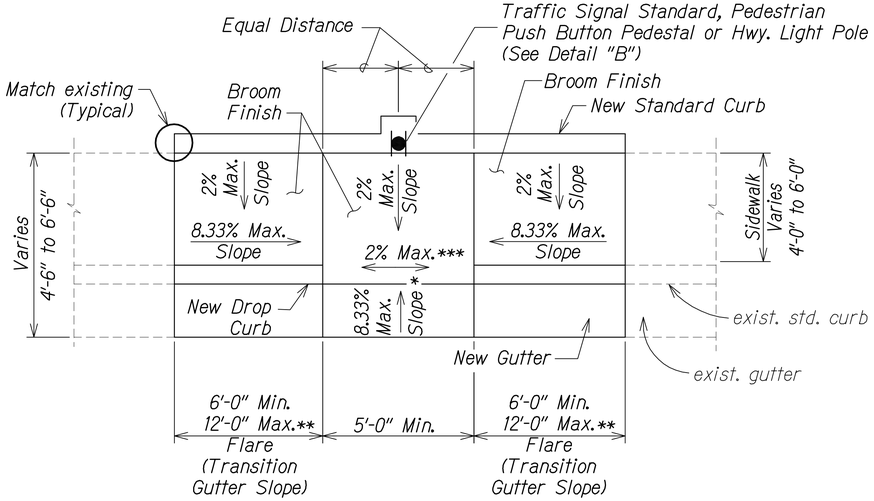
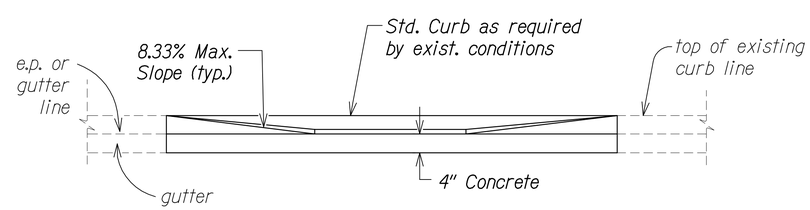


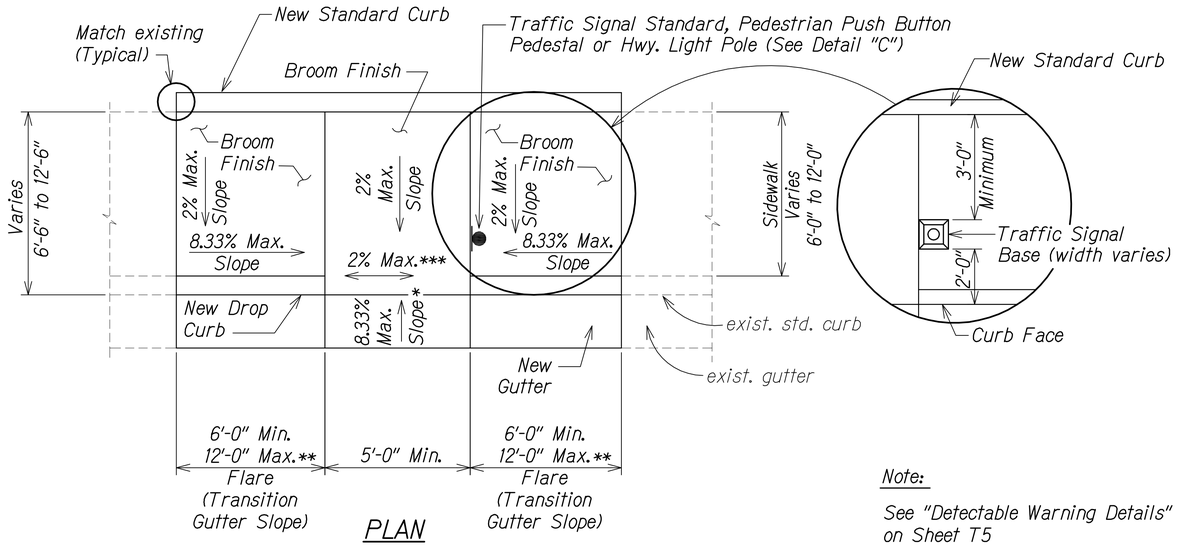
PLAN



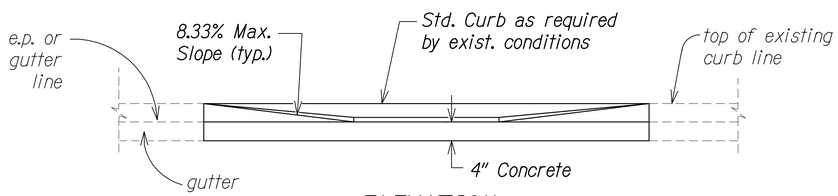
ELEVATION

CURB RAMP - TYPE "B"

SIDEWALK WIDTH 4'-0" OR GREATER
BUT LESS THAN 6'-0" WIDTH



PLAN



ELEVATION

CURB RAMP - TYPE "B" MODIFIED

SIDEWALK WIDTH 6'-0" OR GREATER
BUT LESS THAN 12'-0" WIDTH

* See Curb Ramp and Sidewalk Note No. 9

** The slope of the ramp shall take precedence over the length of the ramp. If the maximum slope of a ramp cannot be met within a length of 12 feet, then the slope of the ramp shall be set when the length of the ramp is set at the maximum of 12 feet.

*** If Roadway Slope >2% Conform to Roadway Slope and File Technical Infeasibility (TI) Statement

Note:

See "Detectable Warning Details" on Sheet T5

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	2 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAILS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

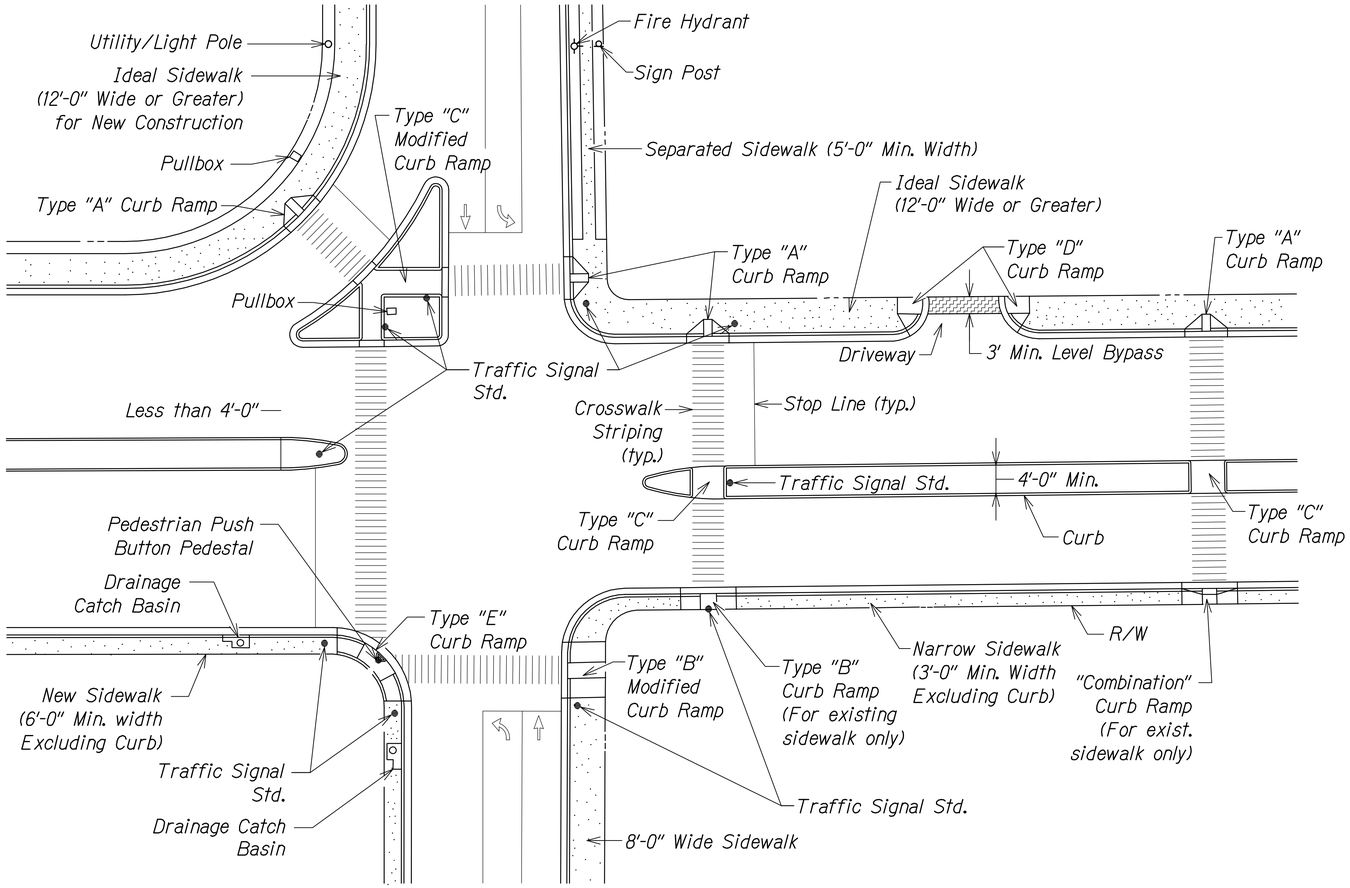
Scale: As Noted Date: July 2019

SHEET No. T2 OF 11 SHEETS

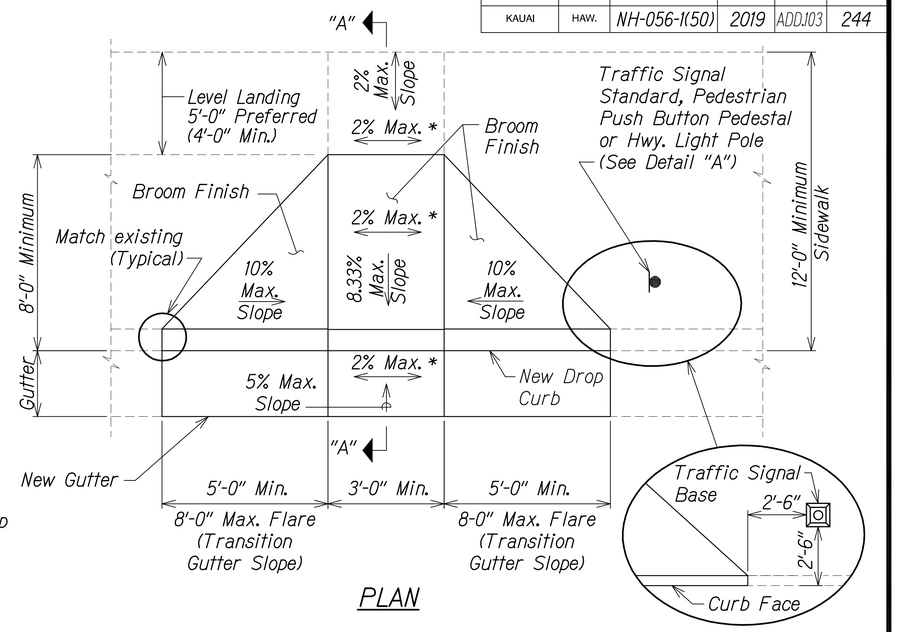
ADD.102

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

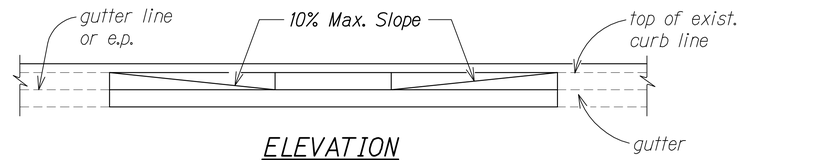
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.103	244



TYPICAL CURB RAMPS



PLAN



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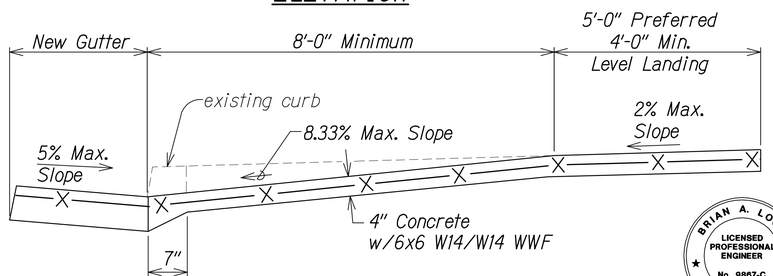
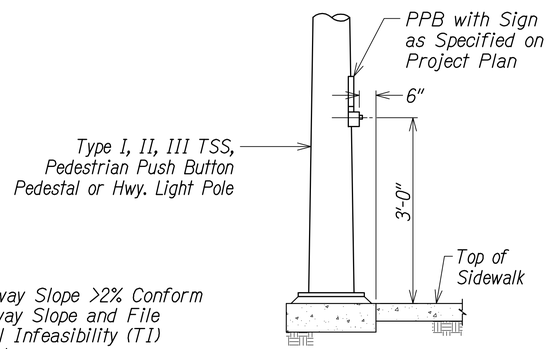


SECTION "A-A"



DETAIL "A"

CURB RAMP - TYPE "A"

SIDEWALK WIDTH 12'-0" OR GREATER

Note:

See "Detectable Warning Details" on Sheet T5

* If Roadway Slope >2% Conform to Roadway Slope and File Technical Infeasibility (TI) Statement

BRIAN A. LOCK LICENSED PROFESSIONAL ENGINEER No. 9867-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP A DETAILS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

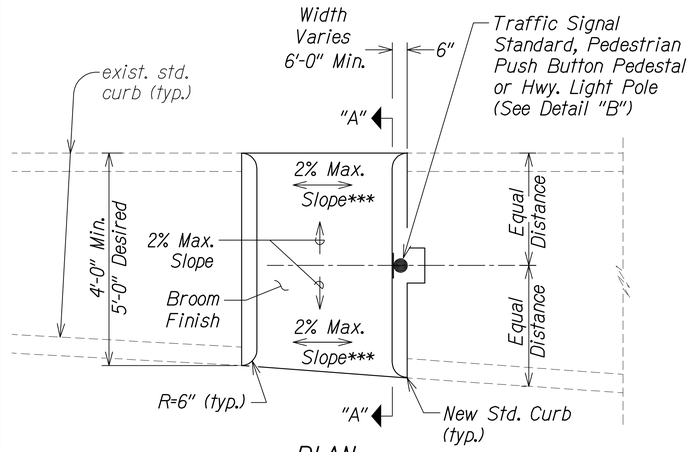
SHEET No. T3 OF 11 SHEETS

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

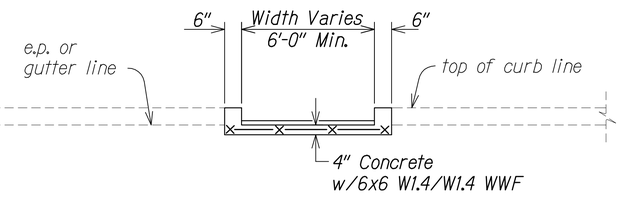
ORIGINAL PLAN
NOTE BOOK
No.
SURVEY PLOTTED BY DATE
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY

ADD.103

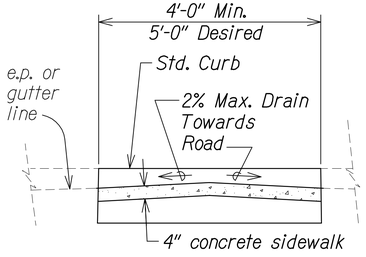
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.104	244



PLAN



ELEVATION



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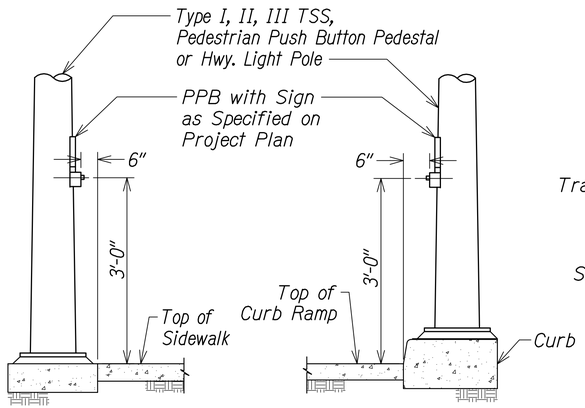
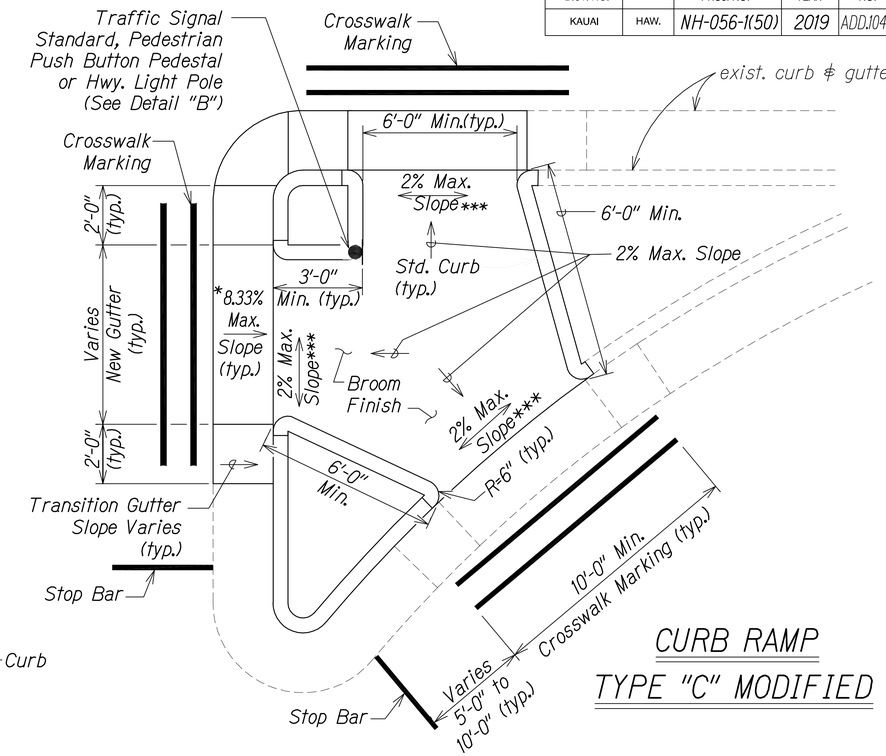
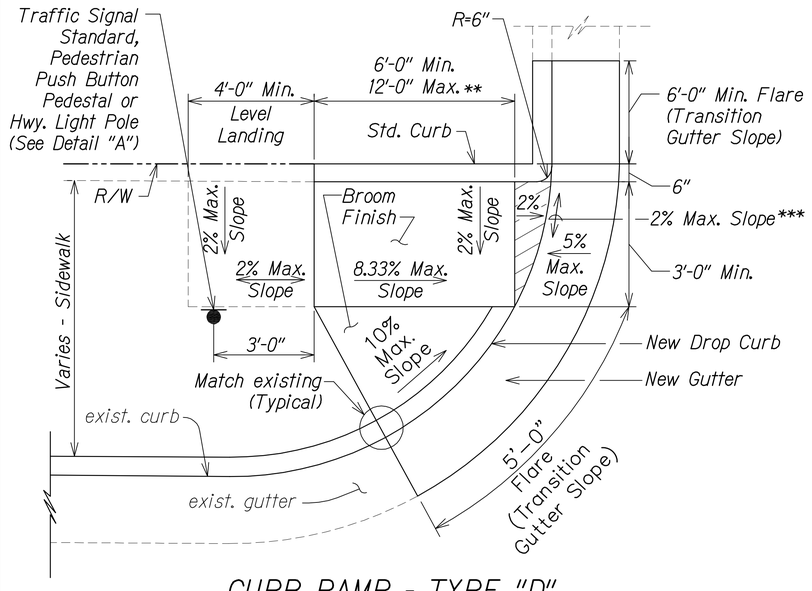


DETAIL "A" DETAIL "B"



CURB RAMP
TYPE "C" MODIFIED

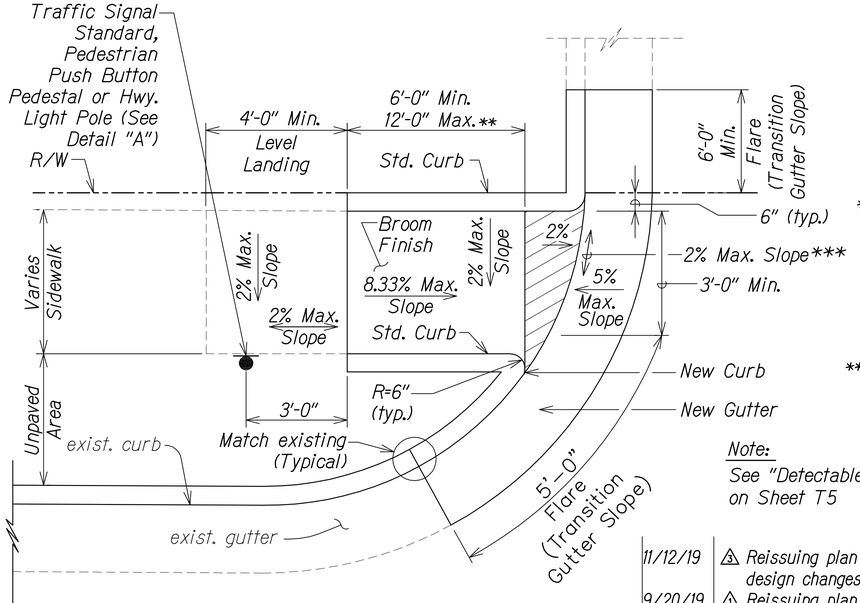
APPROVED



CURB RAMP - TYPE "C"

USE AT MEDIAN CROSSINGS, ISLANDS

CURB RAMP - TYPE "D"



CURB RAMP - TYPE "D" MODIFIED

Note:
See "Detectable Warning Details" on Sheet T5

County Engineer Date
County Of Kaua'i
(For Work Within the County Right of Way)

* See Curb Ramp and Sidewalk Note No. 9 .

** The slope of the ramp shall take precedence over the length of the ramp. If the maximum slope of a ramp cannot be met within a length of 12 feet, then the slope of the ramp shall be set when the length of the ramp is set at the maximum of 12 feet.

*** If Roadway Slope >2% Conform to Roadway Slope and File a Technical Infeasibility (TI) Statement

BRIAN A. LOCK LICENSED PROFESSIONAL ENGINEER No. 9867-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP C DETAILS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

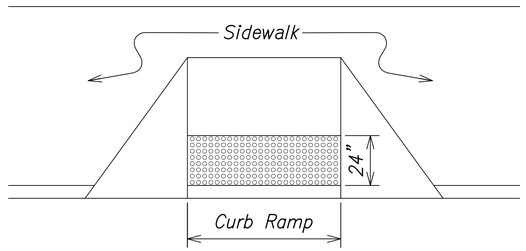
Scale: As Noted Date: July 2019

SHEET No. T4 OF 11 SHEETS

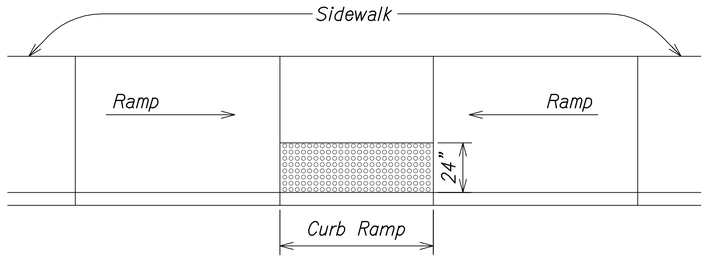
ADD.104

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

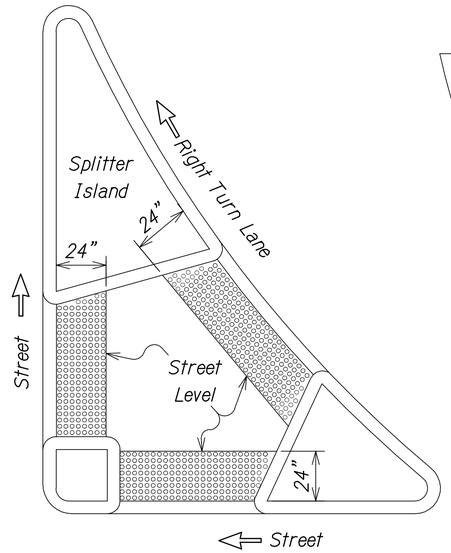
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.105	244



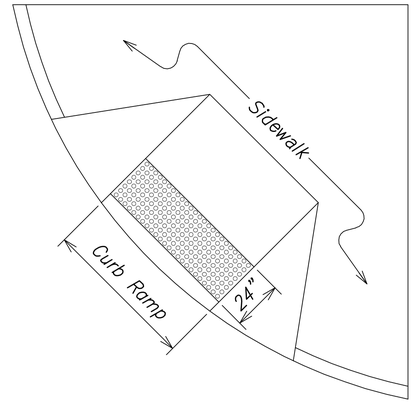
DETECTABLE WARNING AT CURB RAMP



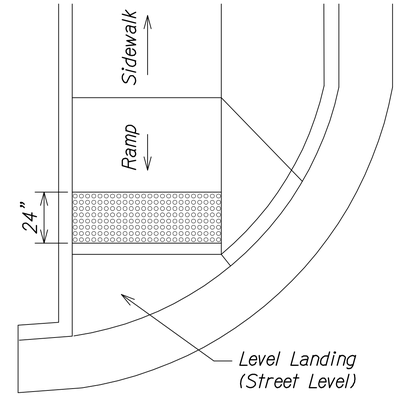
TRANSITION RAMP WITH DETECTABLE WARNING



REFUGE ISLAND WITH DETECTABLE WARNING



SHARED CURB RAMP WITH DETECTABLE WARNING



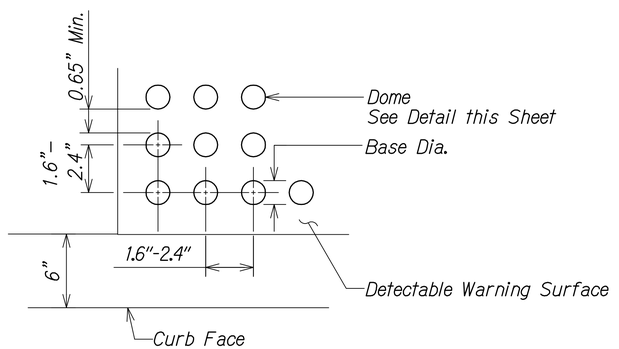
END OF SIDEWALK CURB RAMP WITH DETECTABLE WARNING

TYPICAL INSTALLATION OF DETECTABLE WARNINGS

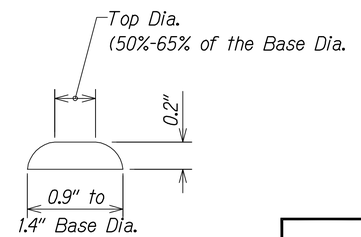
Not to Scale

NOTES:

1. Detectable warnings shall be 24 inches in the direction of travel and extend The full width of the curb ramp or flush surface (does not include flares).
2. Truncated domes shall have a diameter of 0.9 to 1.4 inch at the bottom, a diameter of 50%-65% of the base diameter at the top, a height of 0.2 inch and a center-to-center spacing of 1.6 to 2.4 inches measured along one side of a square arrangement.
3. Domes shall be aligned on a square grid in the predominant direction of travel to permit wheels to roll between the domes.
4. There shall be a minimum of 70% contrast in light reflectance between the detectable warning and an adjoining surface, or the detectable warning shall be "safety yellow".
5. The material used to provide visual contrast shall be an integral part of the detectable warning surface.
6. The detectable warning shall be located so that the edge nearest the curb line or other potential hazard is 6 to 8 inches from the curb line.
7. "Cast and Tack" or equal material shall be used for the truncated dome where the ties are cast in place with the concrete ramp.



ENLARGEMENT



DOME SECTION

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETECTABLE WARNING DETAILS

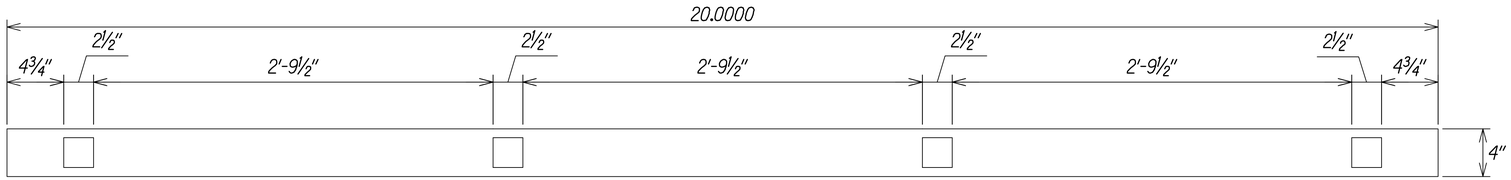
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. T5 OF 11 SHEETS

ADD.105

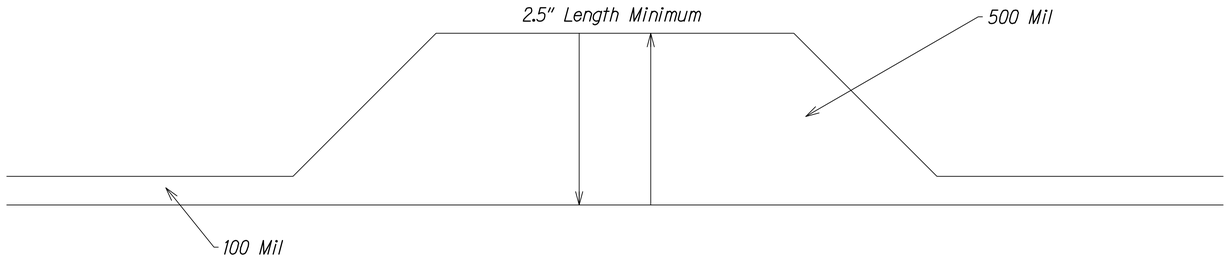
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.106	244



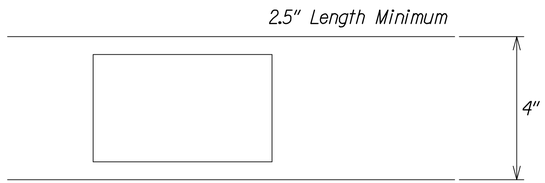
TOP VIEW
LANE LINE

Notes:

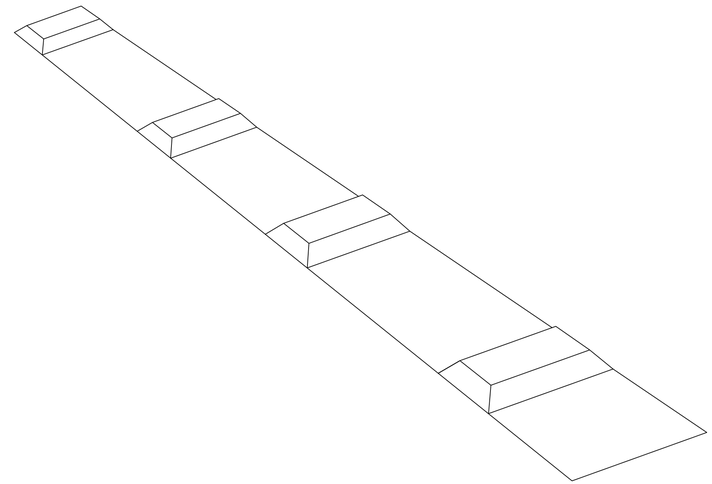
1. Profiles placed on 36" o.c.
2. 500 mil height, including 100 mil baseline.
3. Width equal to approximately baseline width.



SIDE VIEW



TOP VIEW



PERSPECTIVE VIEW

PROFILED THERMOPLASTIC STRIPING DETAILS

Not to Scale

DATE	REVISION
11/12/19	③ Reissuing plan for legibility only. No design changes have been made.
9/20/19	① Reissuing plan for legibility only. No design changes have been made.

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS

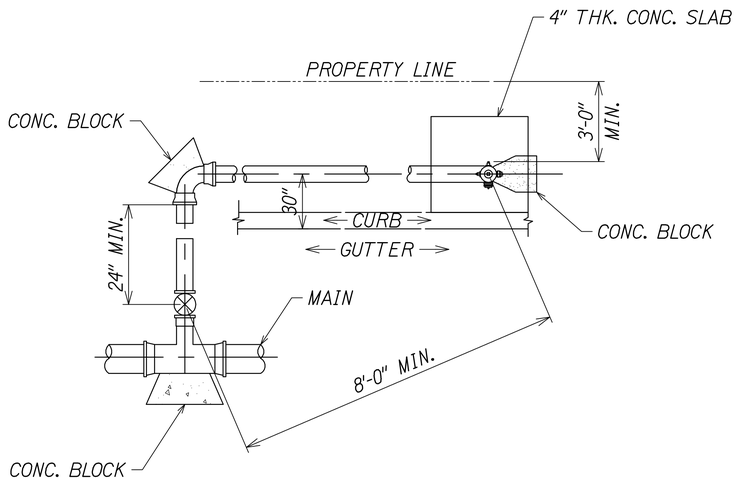
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. T6 OF 11 SHEETS

ADD.106

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.107	244

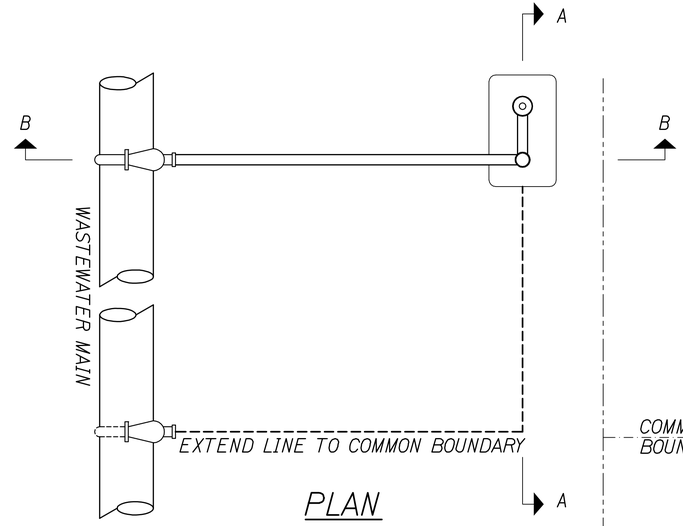


Notes:

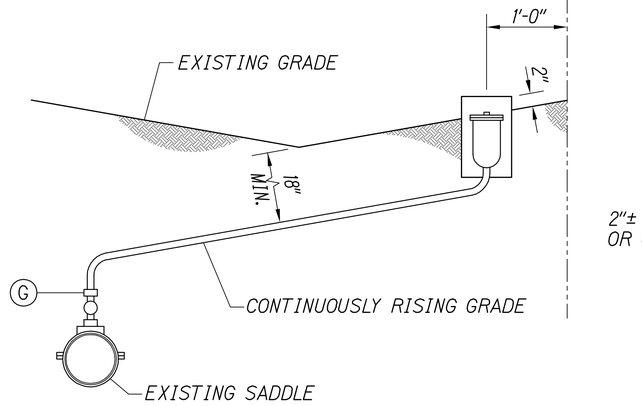
1. Minimum direct distance from fire hydrant to gate valve shall be 8'-0".
2. Concrete shall be DWS 2500.
3. Flanged Outlet for the tee is optional for Oahu; mandatory for Kauai.
4. Refer to Plate FH4 for dimensions of 4" concrete sbal around fire hydrant.
5. Tapping sleeve with valve may be used. (See note on Plate FH8)
6. Lubricate hydrant nozzle threads with non-toxic grease.
7. Install FH markers (See Plates FH12 and FH13)
8. The 4-1/2" nozzle should face perpendicular to the curb/road.
9. If multiple hydrant extensions are used, a minimum of the top 3 flange joints shall use break-off bolts.

HYDRANT CONNETION WITH ELBOW

NOT TO SCALE



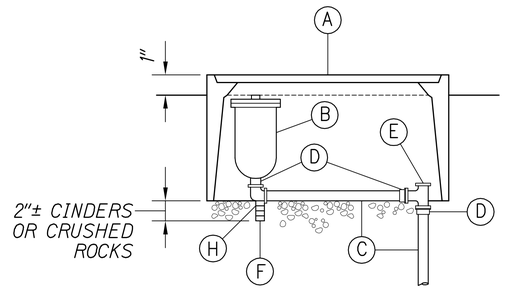
PLAN



SECTION B-B

MATERIAL LIST

- (A) TYPE "X" METER BOX W/ CAST IRON COVER
- (B) 2" COMBINATION AIR & VACUUM VALVE FOR WASTEWATER, 250 PSI WP
- (C) 2" PVC (TYPE 'K', SOFT)
- (D) 2" PVC MALE ADAPTER
- (E) ANGLE BALL VALVE
- (F) 2" X 4" X 8" BRICK SADDLE
- (G) CONNECT TO EXISTING JOINT COUPLING
- (H) ELBOWS AND SCREEN



SECTION A-A

AIR PRESSURE RELIEF VALVE

NOT TO SCALE

APPROVED

Manager and Chief Engineer — Date
Department of Water,
County of Kauai

Chief, Division of Wastewater Management — Date

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

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WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

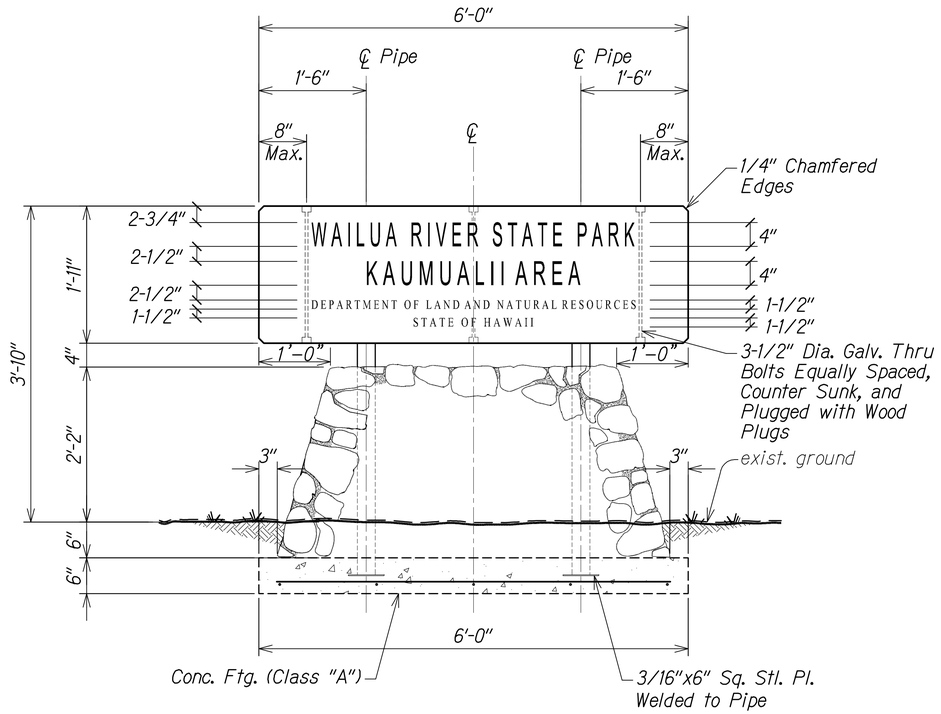
Scale: As Noted — Date: July 2019

SHEET No. 77 OF 11 SHEETS

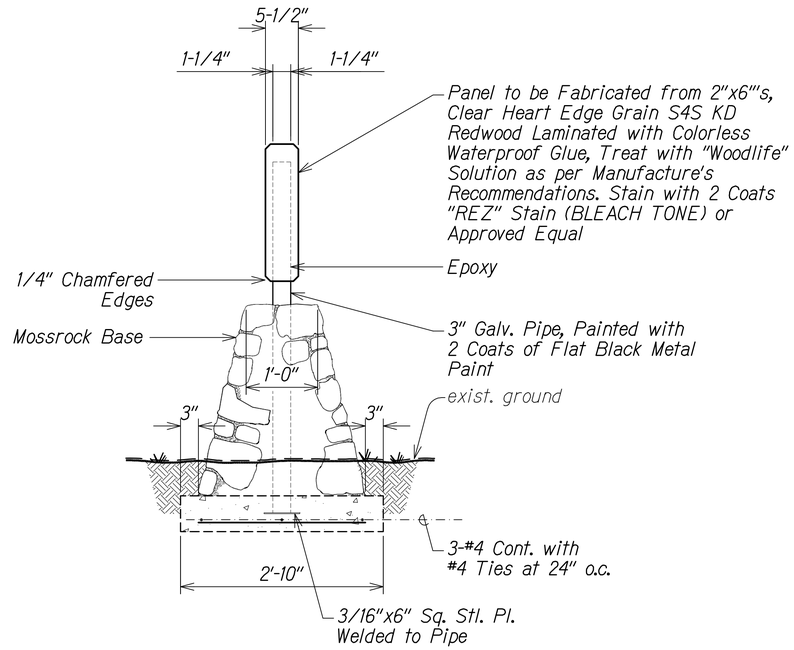
ADD.107

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

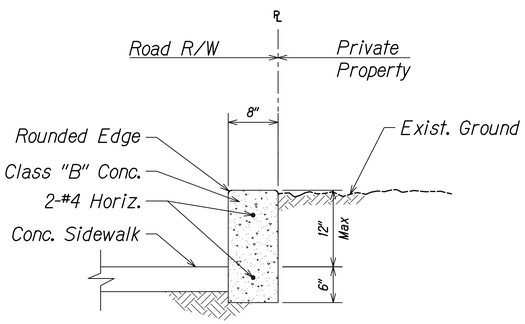
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.108	244



FRONT ELEVATION (A | KR12 | DT-2)
Not to Scale



SIDE ELEVATION (B | DT-2 | DT-2)
Not to Scale



TYPE "B" GRADE ADJUSTMENT WALL
NOT TO SCALE

PARK NAME SIGN DETAIL
Not to Scale

NOTES:

1. The exact location of the park name sign shall be as directed by the Engineer.
2. Letters to be sandblasted 1/4" into wood for 4" high letters and 3/16" into wood for 1-1/2" letters and sprayed with black lithochrome before removing rubber mask. Letter style shall be "OPTIMA" and in caps.
3. Submit two (2) sets of shop drawings for signs (1/2) size for approval.
4. Contractor shall set up a 2'x2'x2' sample of mossrock base for approval by Engineer before completion of base.

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS

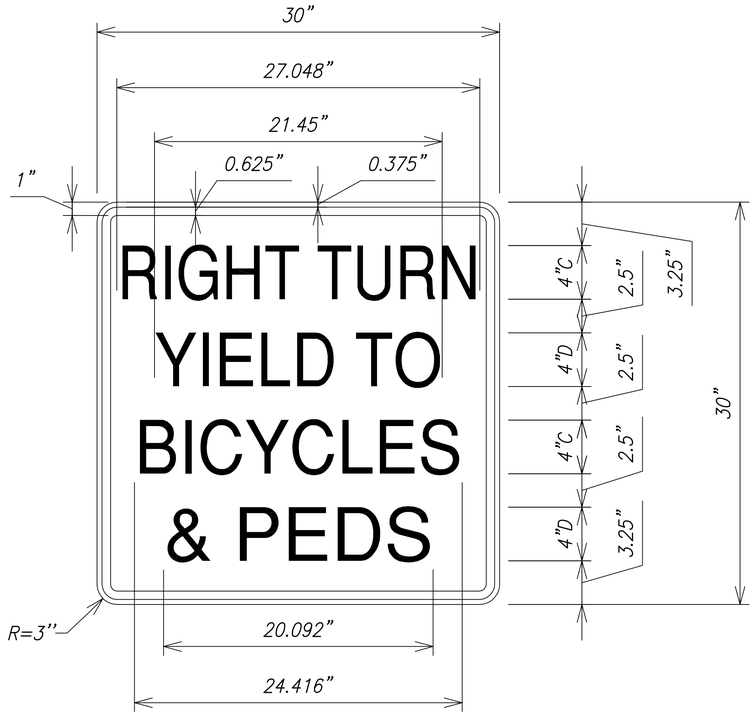
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

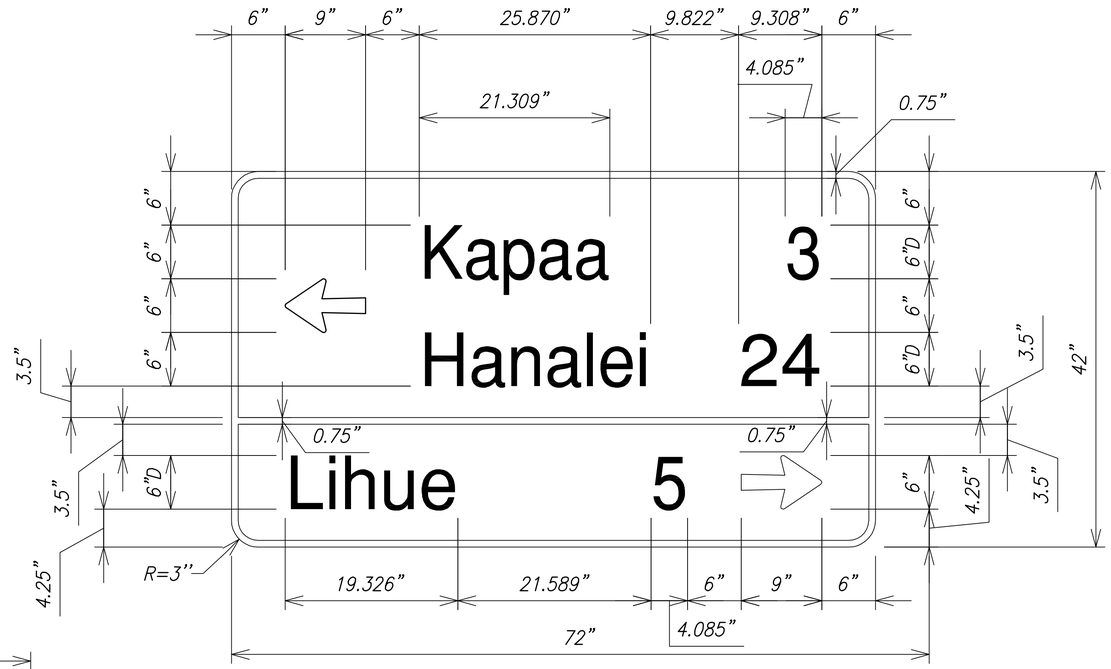
Scale: As Noted Date: July 2019

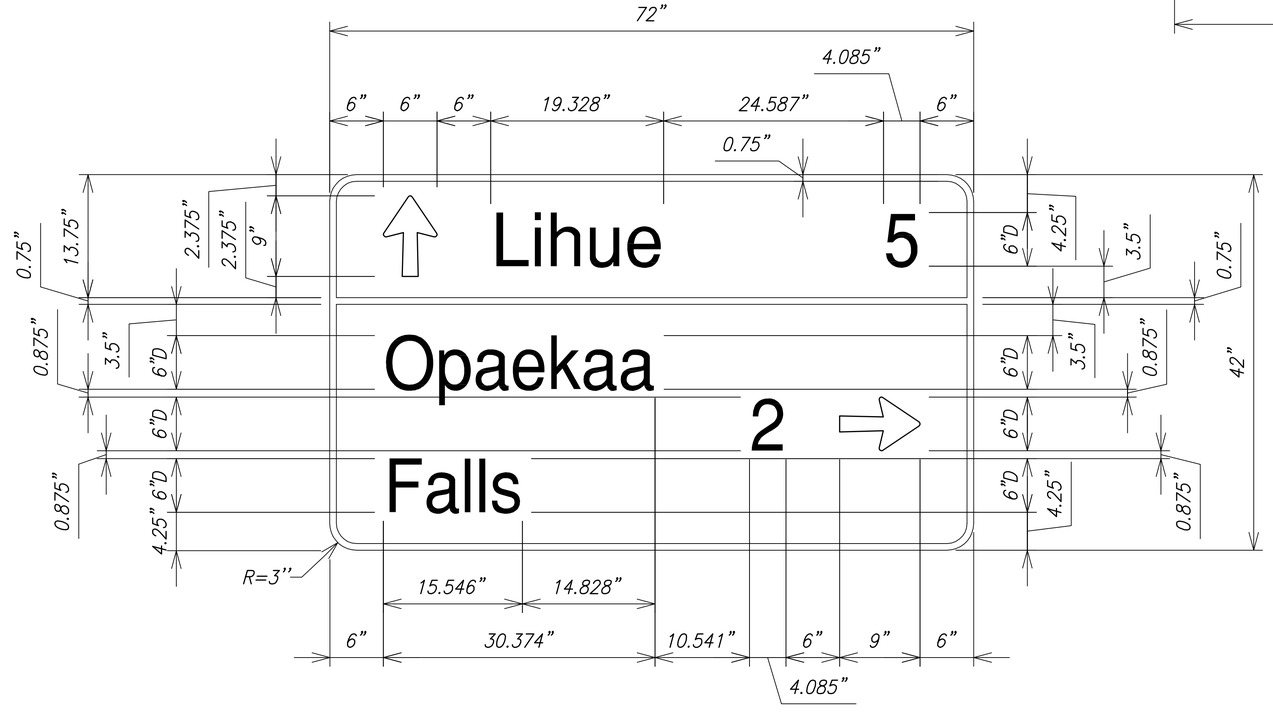
SHEET No. T8 OF 11 SHEETS

ADD.108

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.109	244







NOTES:

1. Street Name Signs Shall be in Accordance with State Standard Plan TE-13.
2. All Sign Faces Shall be Completely Reflecterized with Type "B" Reflective Sheeting.

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

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGN DETAILS

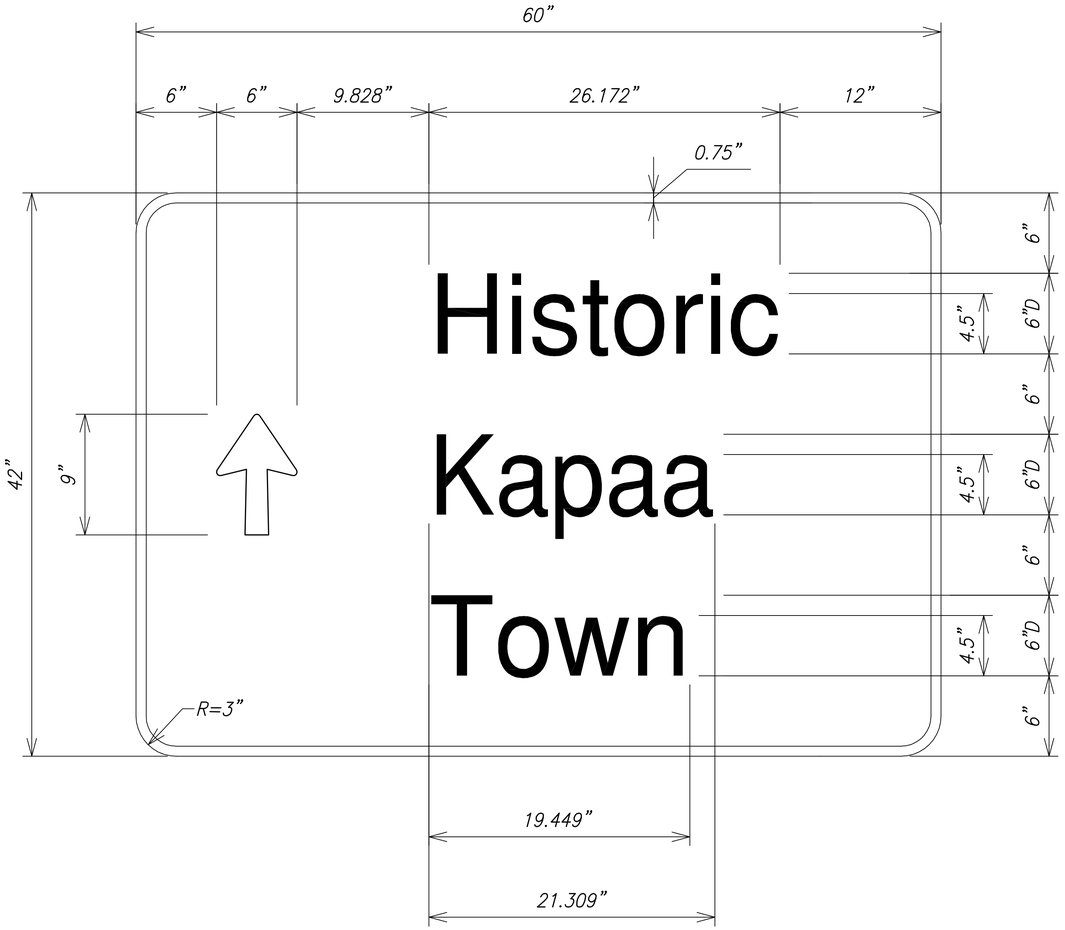
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

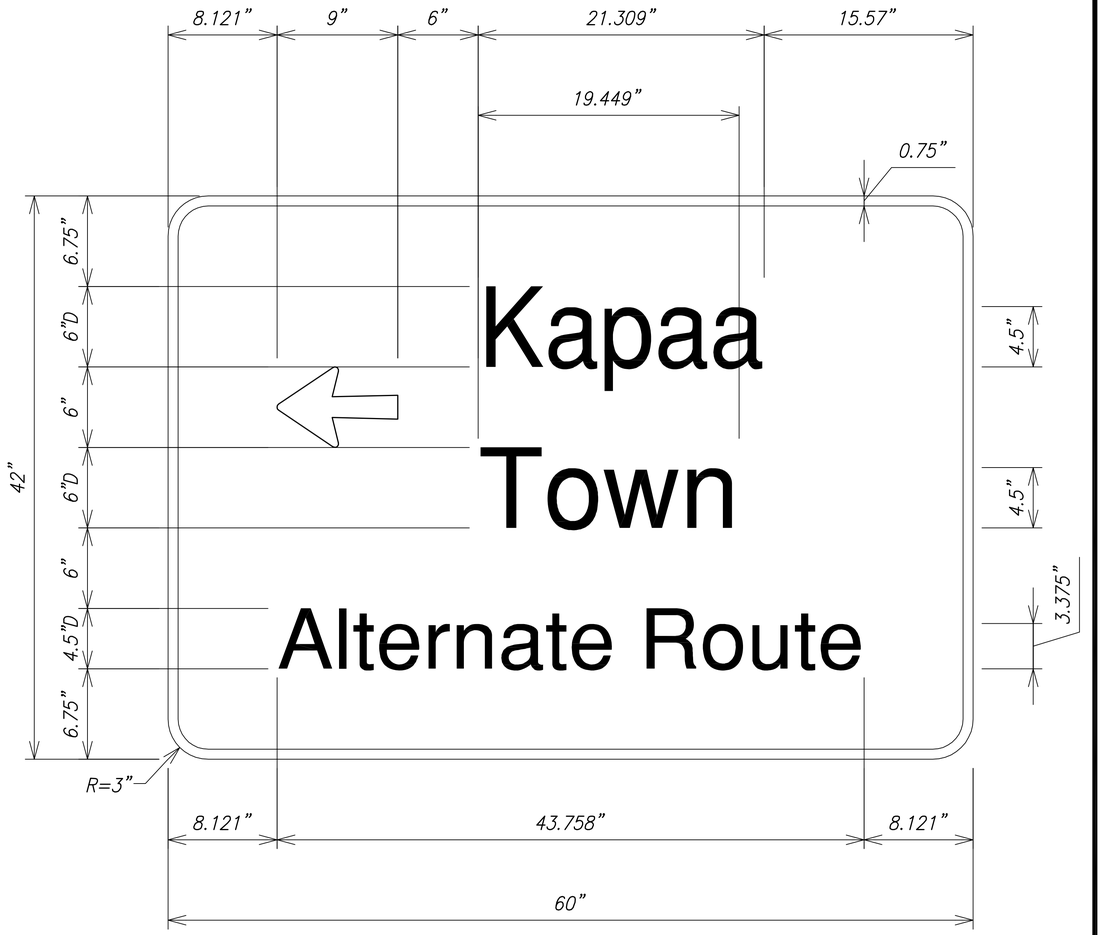
Scale: NOT TO SCALE Date: July 2019

SHEET No. T9 OF 11 SHEETS

ADD.109

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.110	244





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

NOTES:

1. Street Name Signs Shall be in Accordance with State Standard Plan TE-13.
2. All Sign Faces Shall be Completely Reflecterized with Type “B” Reflective Sheeting.

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGN DETAILS

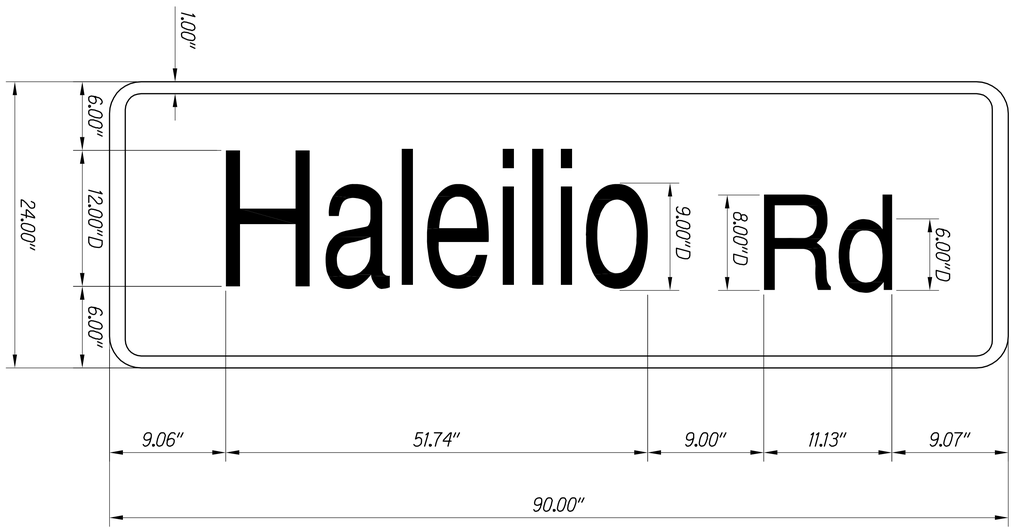
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: NOT TO SCALE Date: July 2019

SHEET No. T10 OF 11 SHEETS

ADD.110

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.111	244



NOTES:

1. Street Name Signs Shall be in Accordance with State Standard Plan TE-13.

2. All Sign Faces Shall be Completely Reflecterized with Type "B" Reflective Sheeting.

DATE	REVISION
10/30/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGN DETAILS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: NOT TO SCALE Date: JULY 2019

SHEET No. T11 OF 11 SHEETS

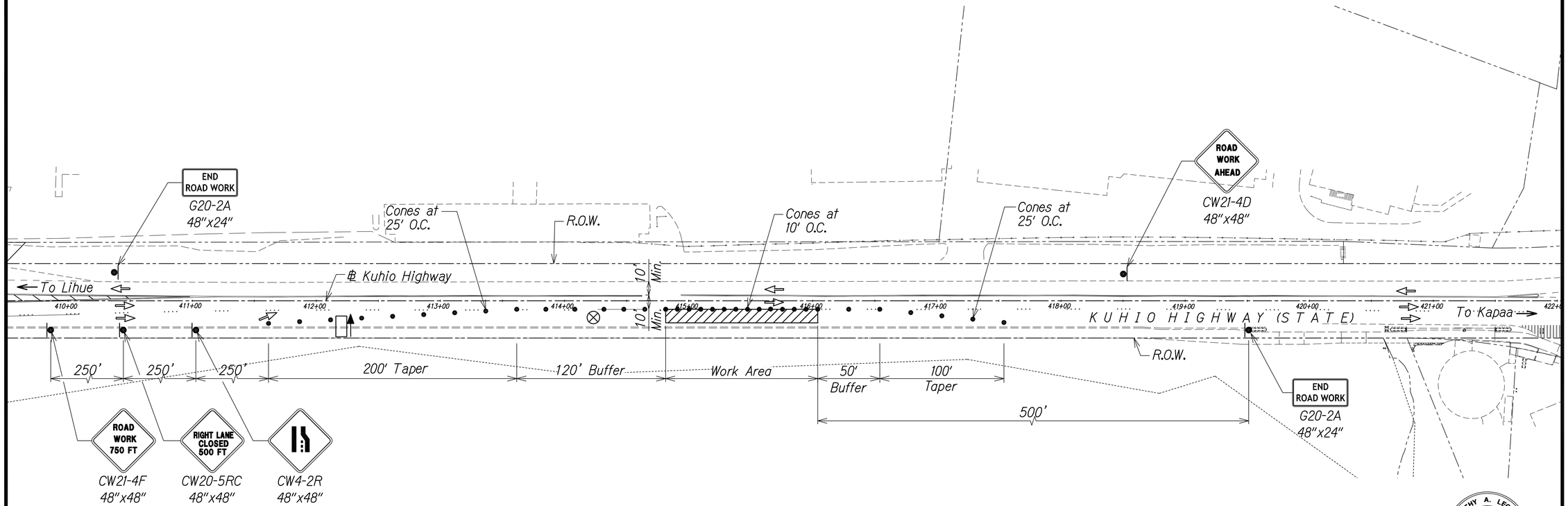
ADD.111

ORIGINAL PLAN
NOTE BOOK
No.

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.112	244

TRUE NORTH
SCALE: 1 In. = 40 Ft.



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- ● Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - TYPICAL 1

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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

APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

DATE	REVISION
11/12/19	③ Reissuing plan for legibility only. No design changes have been made.
9/20/19	① Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 01

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 40' Date: JULY 2019

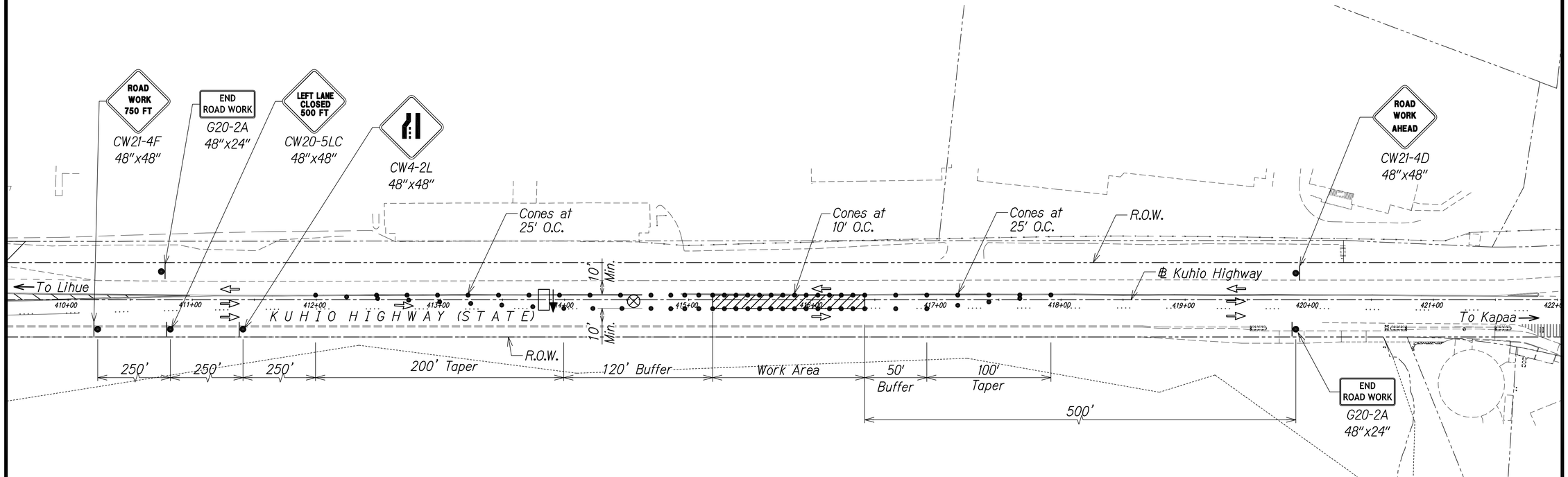
SHEET No. TC01 OF 63 SHEETS

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

ADD.112

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.113	244

TRUE NORTH
SCALE: 1 In. = 40 Ft.



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- ● Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - TYPICAL 2

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

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

DATE	REVISION
11/12/19	2 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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

APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

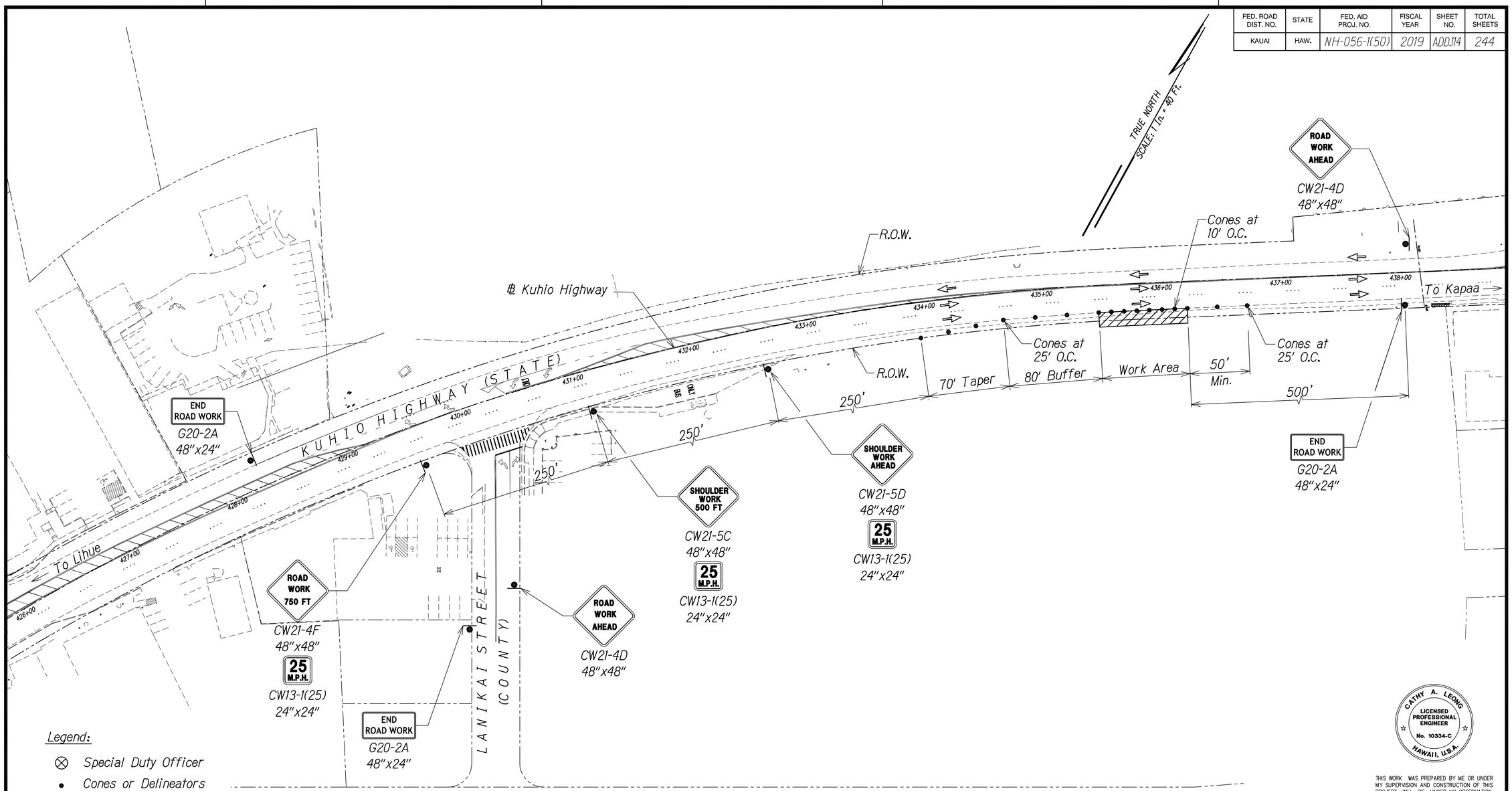
TRAFFIC CONTROL PLAN 02

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC02 OF 63 SHEETS

ADD.113

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.114	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN -TYPICAL 3

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Approved

County Engineer — Date
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 03

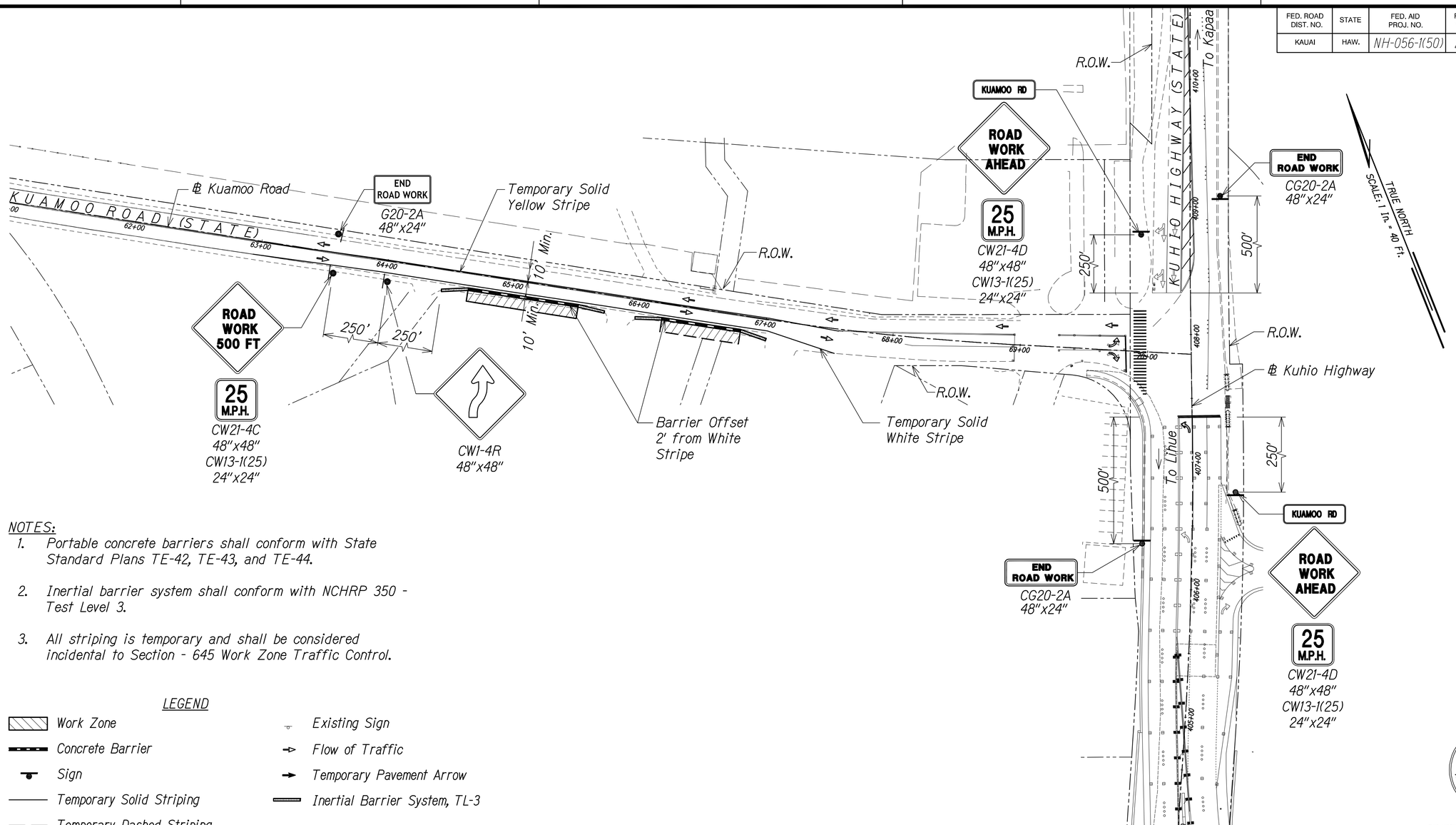
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 40' Date: JULY 2019

SHEET No. TC03 OF 63 SHEETS

ADD.114

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.115	244



NOTES:

1. Portable concrete barriers shall conform with State Standard Plans TE-42, TE-43, and TE-44.
2. Inertial barrier system shall conform with NCHRP 350 - Test Level 3.
3. All striping is temporary and shall be considered incidental to Section - 645 Work Zone Traffic Control.

LEGEND

- Work Zone
- Concrete Barrier
- Sign
- Temporary Solid Striping
- Temporary Dashed Striping
- Temporary White Guideline
- Existing Sign
- Flow of Traffic
- Temporary Pavement Arrow
- Inertial Barrier System, TL-3

TRAFFIC CONTROL PLAN - PHASE 1

24-HOUR CLOSURE
SCALE: 1" = 40'

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

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

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP., LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

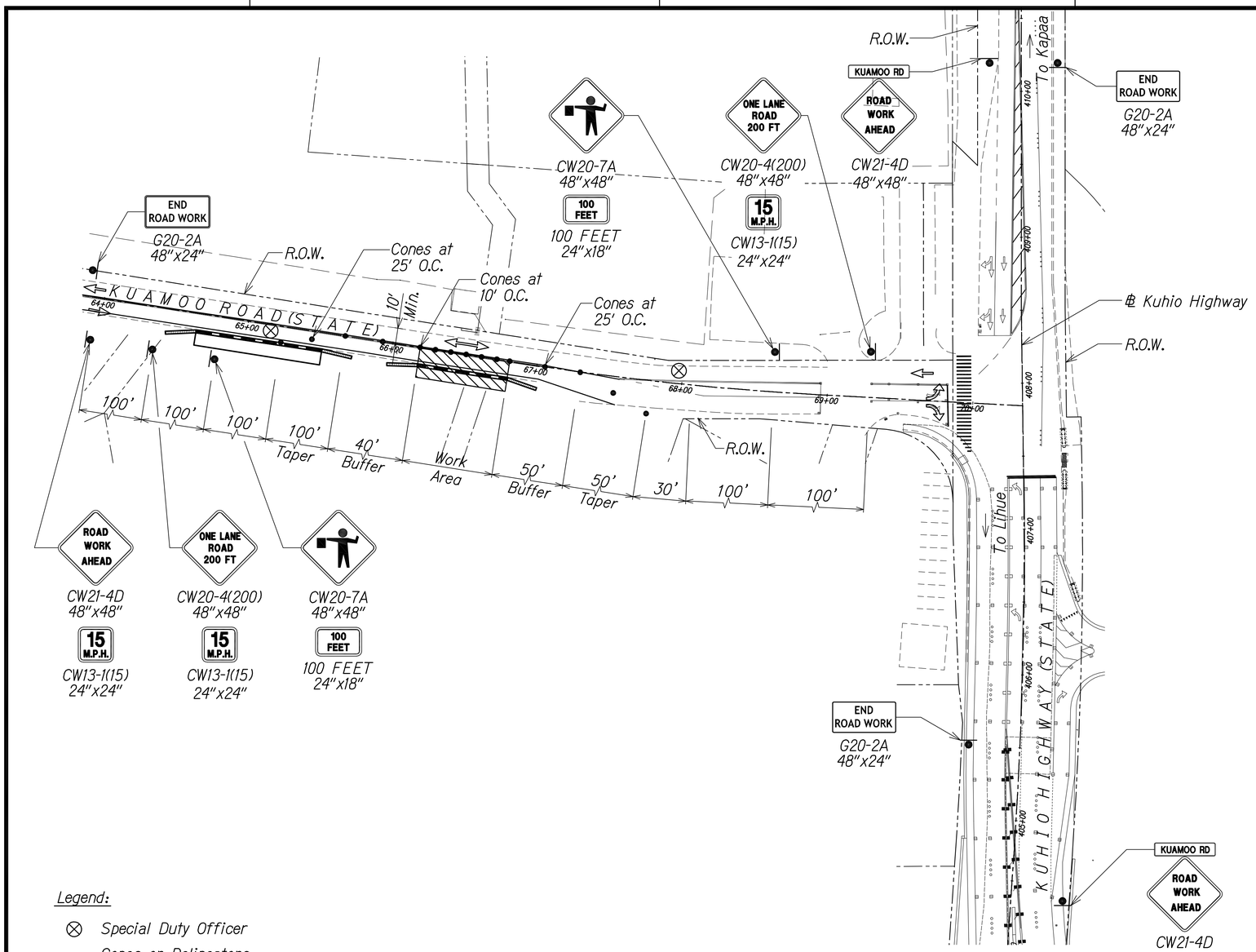
TRAFFIC CONTROL PLAN
KUAMOO ROAD
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD

Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC04 OF 63 SHEETS

ADD.115

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.116	244



TRAFFIC CONTROL PLAN - PHASE 1

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

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

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

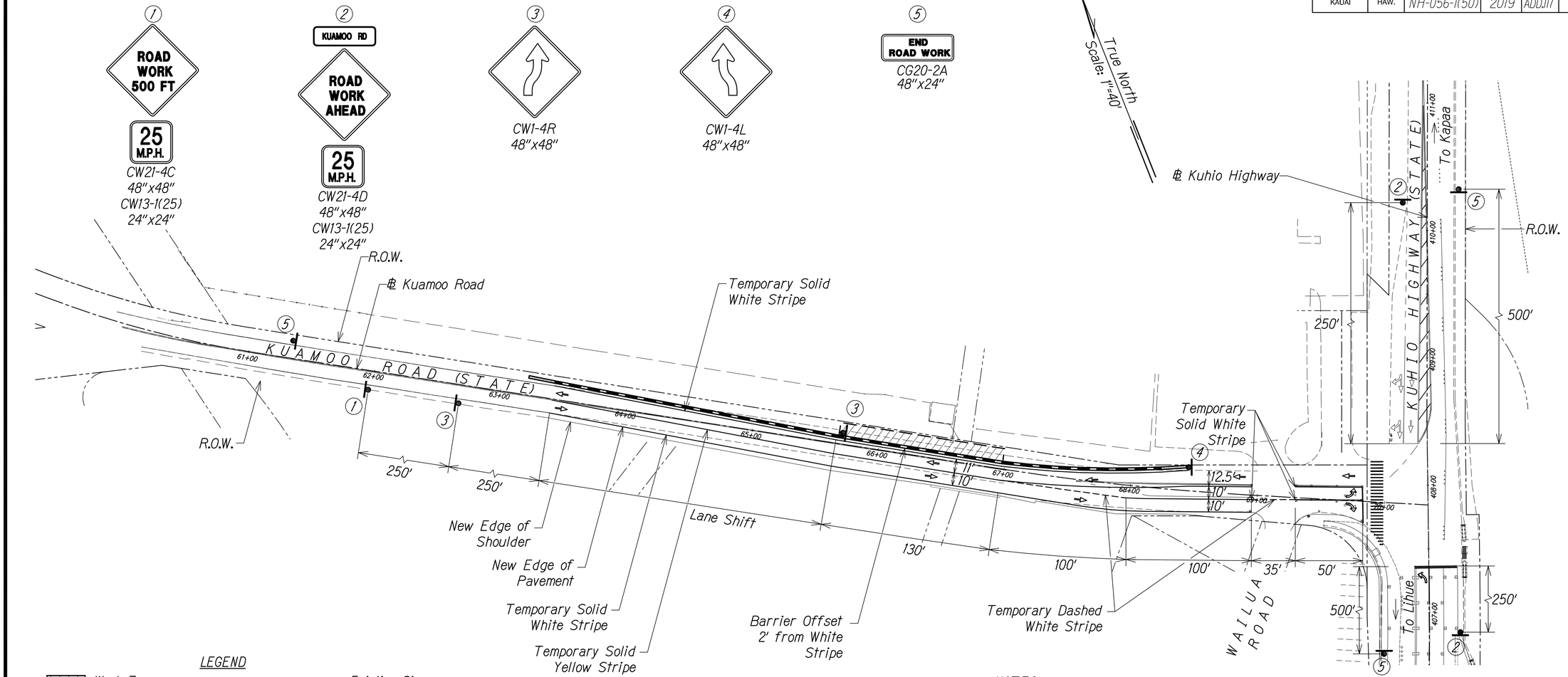
TRAFFIC CONTROL PLAN 04

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC05 OF 63 SHEETS

ADD.116

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.117	244



LEGEND

- Work Zone
- Concrete Barrier
- Sign
- Temporary Solid Striping
- Temporary Dashed Striping
- Temporary White Guideline
- Existing Sign
- Flow of Traffic
- Temporary Pavement Arrow
- Inertial Barrier System, TL-3

TRAFFIC CONTROL PLAN - PHASE 2

24-HOUR CLOSURE
SCALE: 1" = 40'

NOTES:

1. Portable concrete barriers shall conform with State Standard Plans TE-42, TE-43, and TE-44.
2. Inertial barrier system shall conform with NCHRP 350 - Test Level 3.
3. All striping is temporary and shall be considered incidental to Section - 645 Work Zone Traffic Control.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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WILSON OKAMOTO CORP. LIC. EXP. DATE

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

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN
KUAMOO ROAD

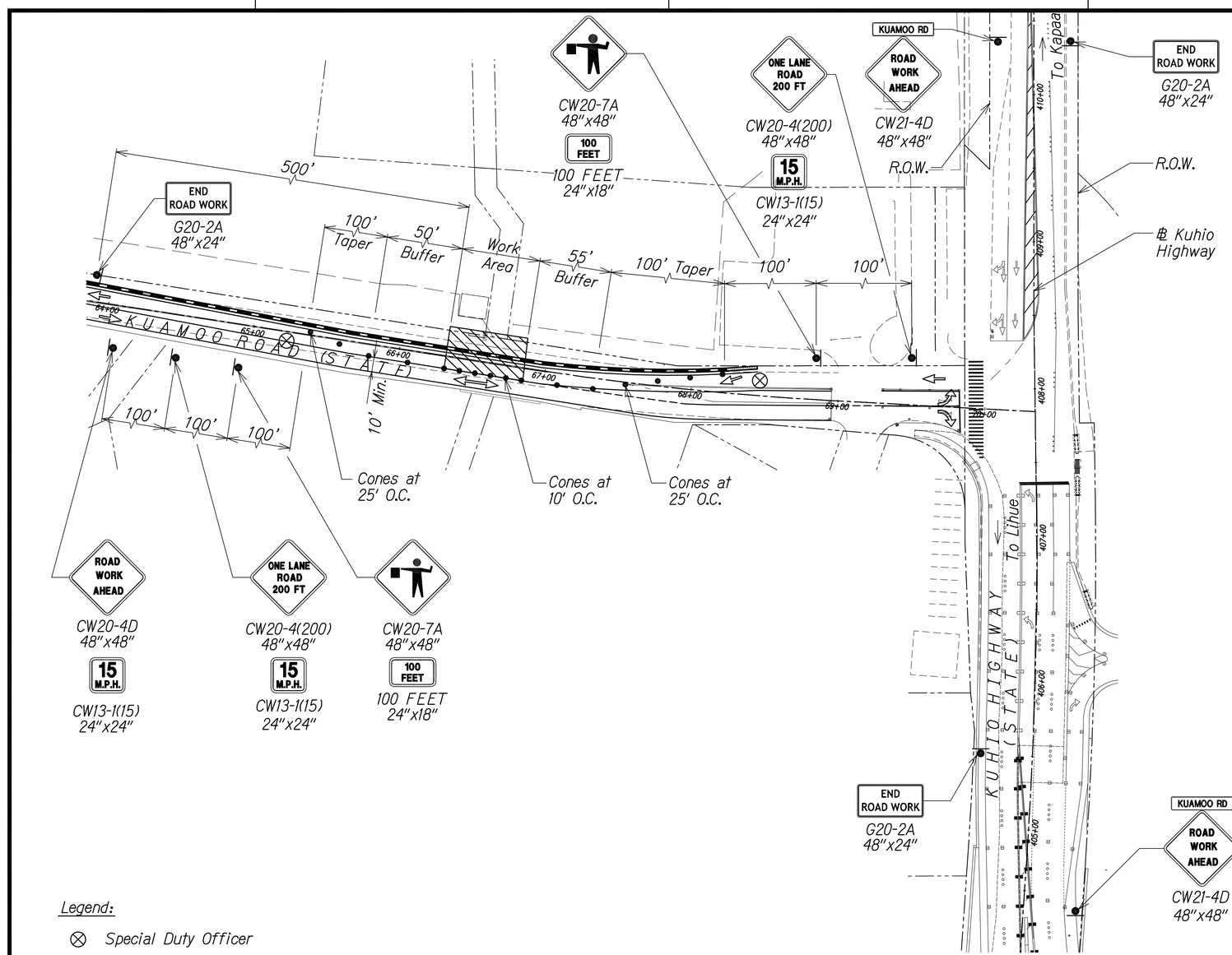
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

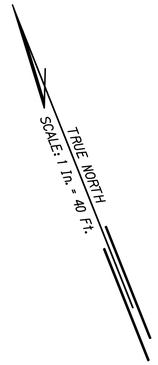
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC06 OF 63 SHEETS

ADD.117

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.118	244





Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- ● Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 2

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

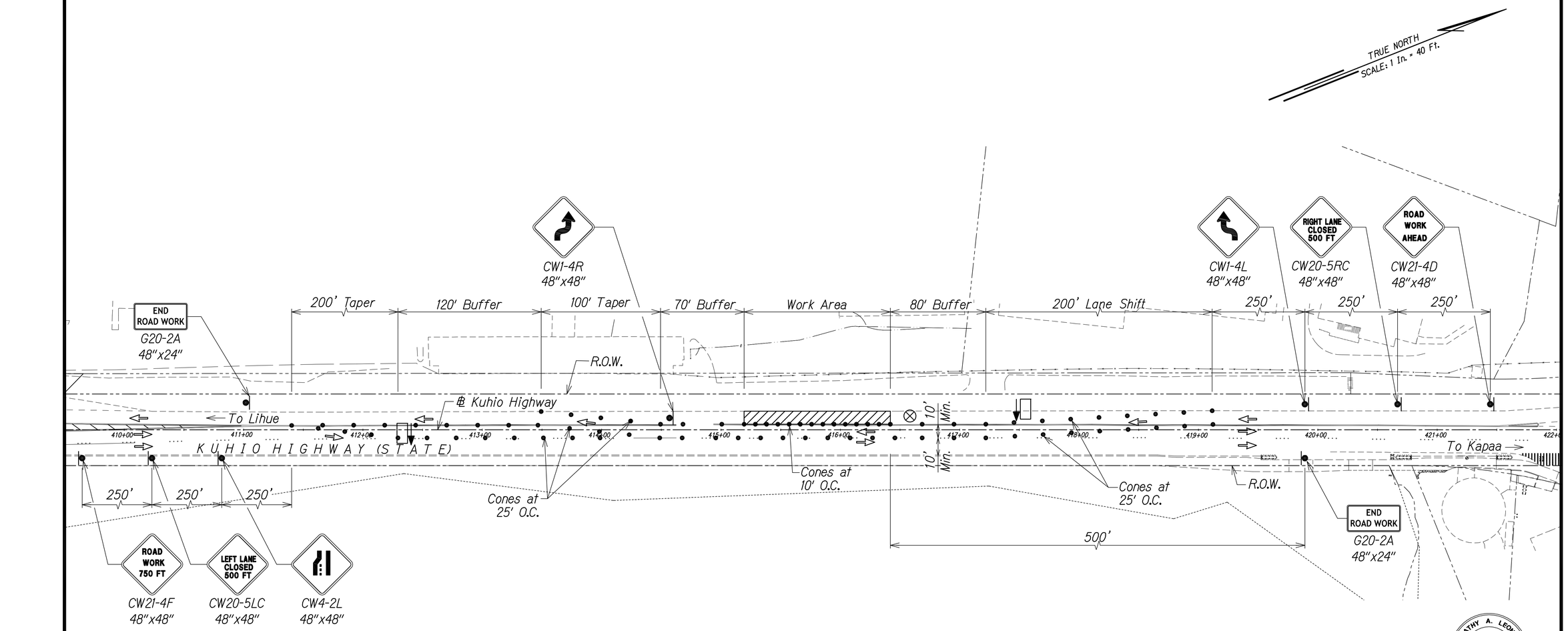
TRAFFIC CONTROL PLAN 05

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC07 OF 63 SHEETS

ADD.118

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.119	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN -PHASE 3

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

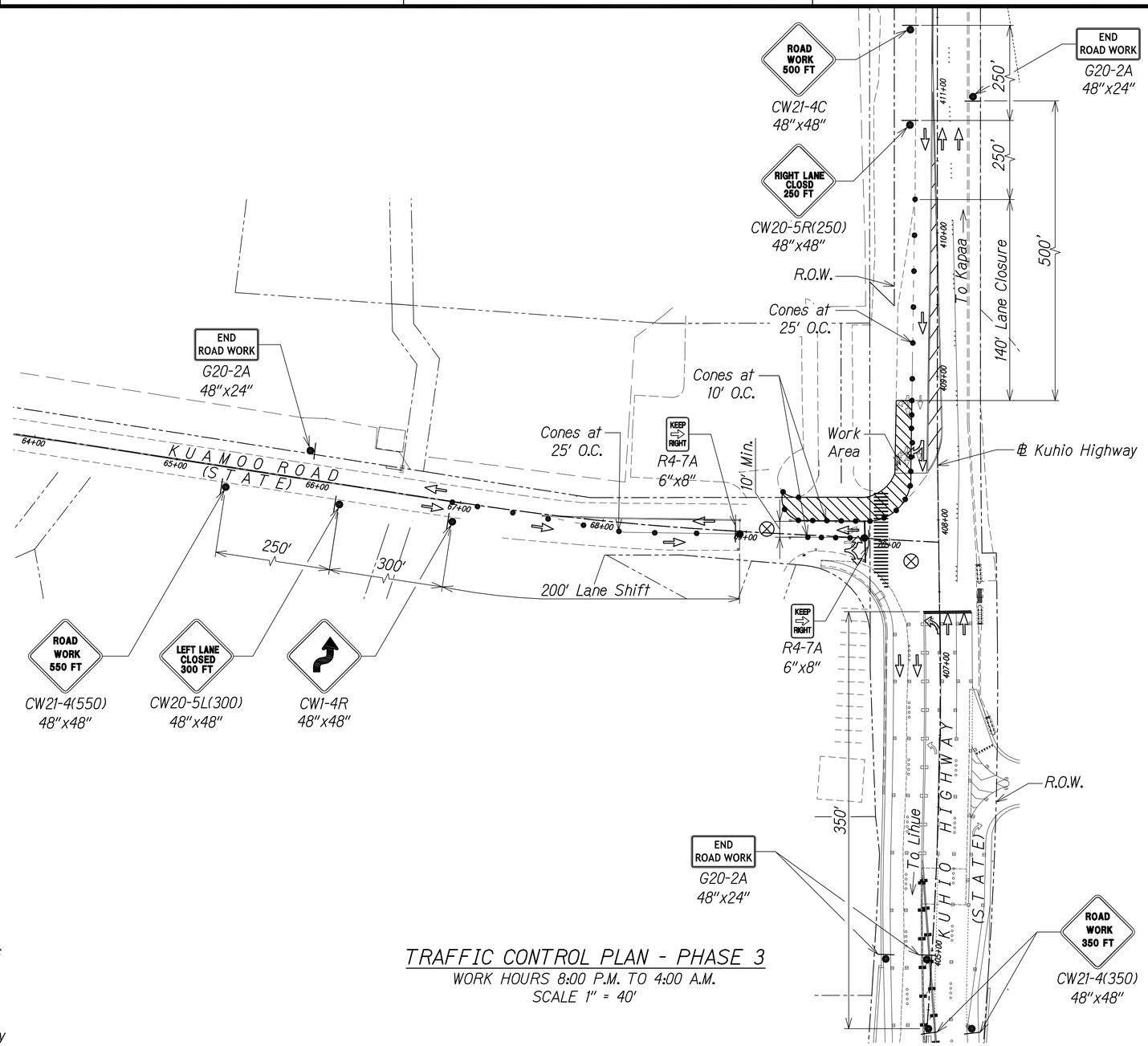
TRAFFIC CONTROL PLAN 06

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC08 OF 63 SHEETS

ADD.119

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.120	244



TRAFFIC CONTROL PLAN - PHASE 3

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

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

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
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No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

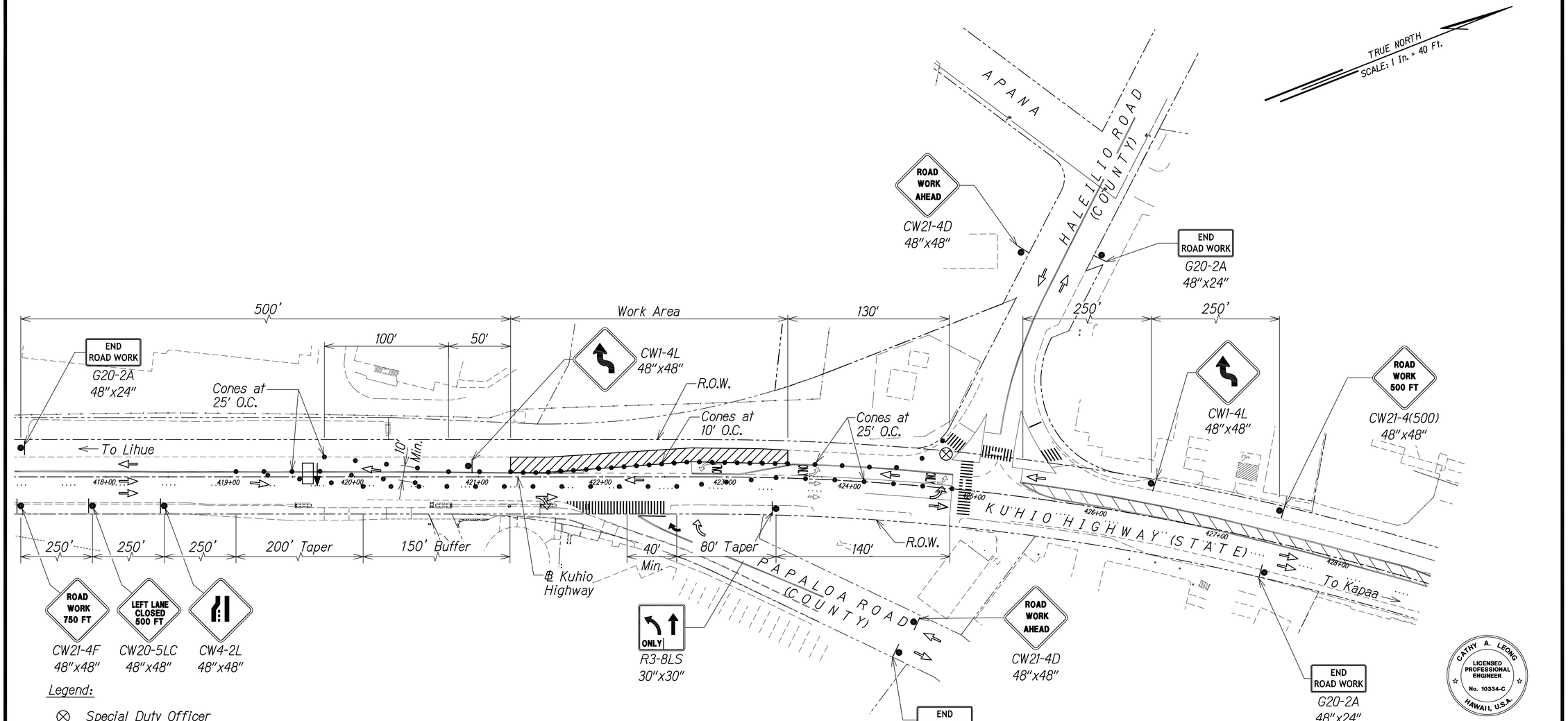
TRAFFIC CONTROL PLAN 07

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC09 OF 63 SHEETS

ADD.120

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD121	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- ● Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 3

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Approved

County Engineer — Date
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	③ Reissuing plan for legibility only. No design changes have been made.
9/20/19	② Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 08

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 40' Date: JULY 2019

SHEET No. TC10 OF 63 SHEETS

ADD.121

ORIGINAL PLAN
NOTE BOOK
No.

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

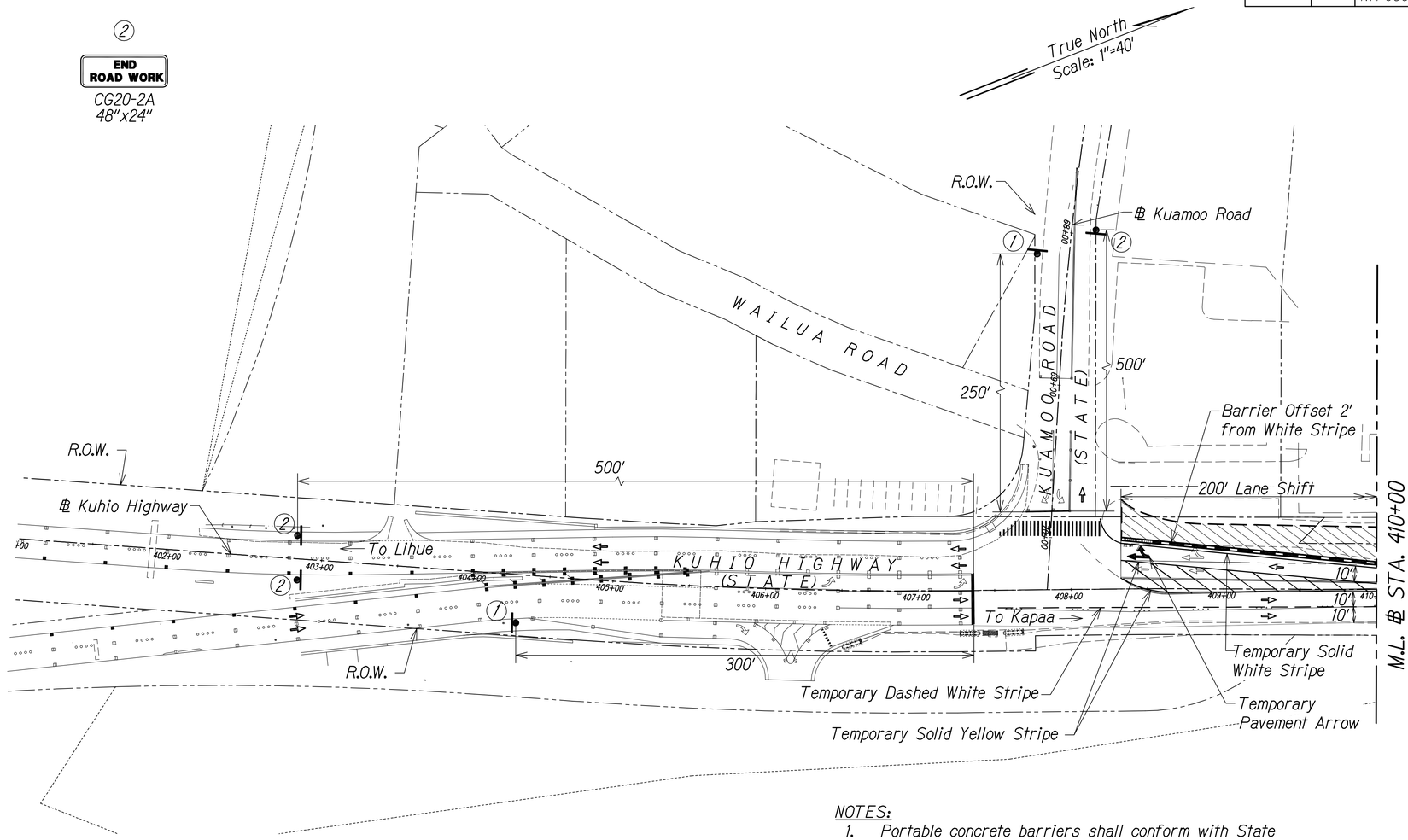
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.122	244

(1)

CW21-4D
48"x48"
CW13-1(25)
24"x24"

(2)

CG20-2A
48"x24"



LEGEND

- Work Zone
- Concrete Barrier
- Sign
- Temporary Solid Striping
- Temporary Dashed Striping
- Temporary White Guideline
- Existing Sign
- Flow of Traffic
- Temporary Pavement Arrow
- Inertial Barrier System, TL-3

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 4

24-HOUR CLOSURE
SCALE: 1" = 40'

NOTES:

1. Portable concrete barriers shall conform with State Standard Plans TE-42, TE-43, and TE-44.
2. Inertial barrier system shall conform with NCHRP 350 - Test Level 3.
3. All striping is temporary and shall be considered incidental to Section - 645 Work Zone Traffic Control.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

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

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN
KUHIO HIGHWAY WIDENING

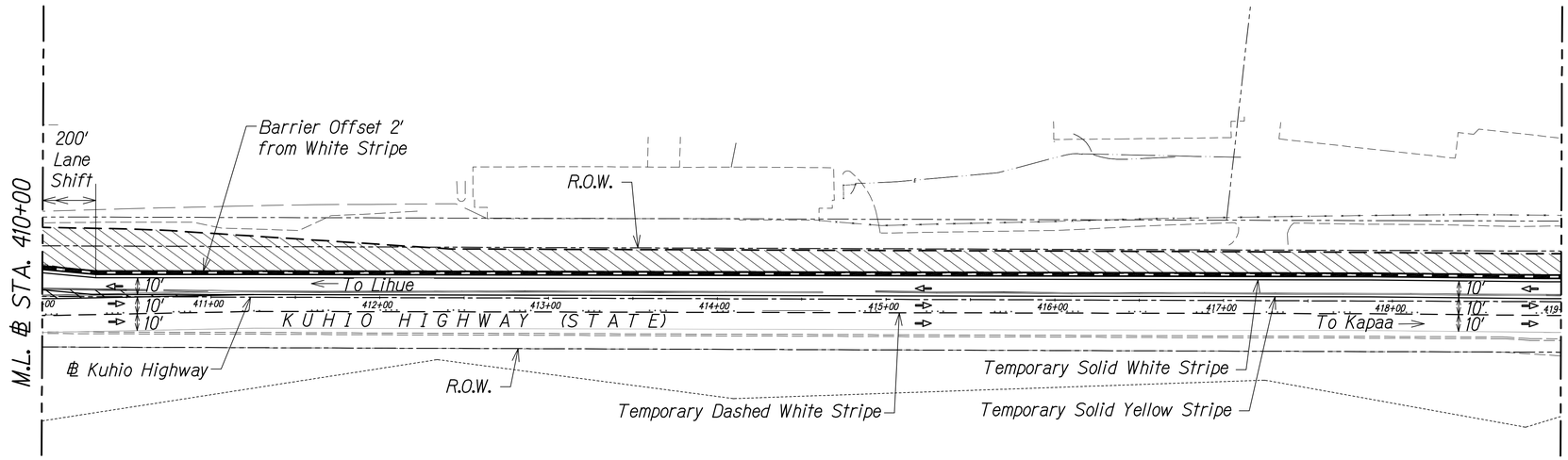
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC11 OF 63 SHEETS

ADD.122

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.123	244

True North
Scale: 1"=40'



LEGEND

- Work Zone
- Concrete Barrier
- Sign
- Temporary Solid Striping
- Temporary Dashed Striping
- Temporary White Guideline
- Existing Sign
- Flow of Traffic
- Temporary Pavement Arrow
- Inertial Barrier System, TL-3

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 4

24-HOUR CLOSURE
SCALE: 1" = 40'

NOTES:

1. Portable concrete barriers shall conform with State Standard Plans TE-42, TE-43, and TE-44.
2. Inertial barrier system shall conform with NCHRP 350 - Test Level 3.
3. All striping is temporary and shall be considered incidental to Section - 645 Work Zone Traffic Control.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

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

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN
KUHIO HIGHWAY WIDENING

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC12 OF 63 SHEETS

ADD.123

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.124	244

① ROAD WORK AHEAD
25 M.P.H.
CW21-4D
48"x48"
CW13-1(25)
24"x24"

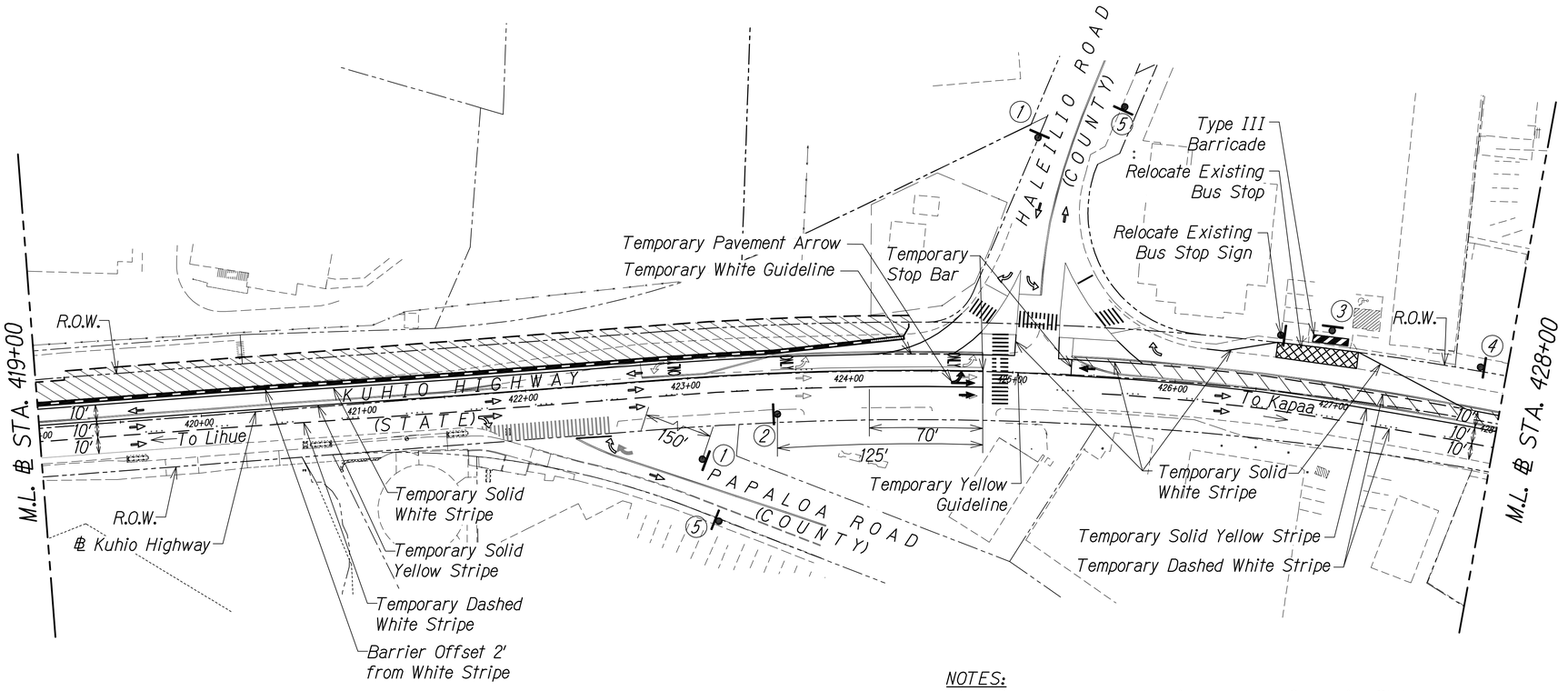
② R3-8LSS
30"x30"

③ ROAD CLOSED
R11-2
48"x30"

④ NO PARKING ANY TIME CONSTRUCTION AREA
R7-1
12"x18" CONS

⑤ END ROAD WORK
CG20-2A
48"x24"

True North
Scale: 1"=40'



LEGEND

- Work Zone
- Concrete Barrier
- Sign
- Temporary Solid Striping
- Temporary Dashed Striping
- Temporary White Guideline
- Existing Sign
- Flow of Traffic
- Temporary Pavement Arrow
- Inertial Barrier System, TL-3
- Type III Barricade

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 4

24-HOUR CLOSURE
SCALE: 1" = 40'

NOTES:

1. Portable concrete barriers shall conform with State Standard Plans TE-42, TE-43, and TE-44.
2. Inertial barrier system shall conform with NCHRP 350 - Test Level 3.
3. All striping is temporary and shall be considered incidental to Section - 645 Work Zone Traffic Control.

APPROVED

County Engineer Date
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	⑤ Reissuing plan for legibility only. No design changes have been made.
9/20/19	① Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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

APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN
KUHIO HIGHWAY WIDENING

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 40' Date: JULY 2019

SHEET No. TC13 OF 63 SHEETS

ADD.124

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.125	244

① ROAD WORK AHEAD

25 M.P.H.

CW21-4D
48"x48"
CW13-1(25)
24"x24"

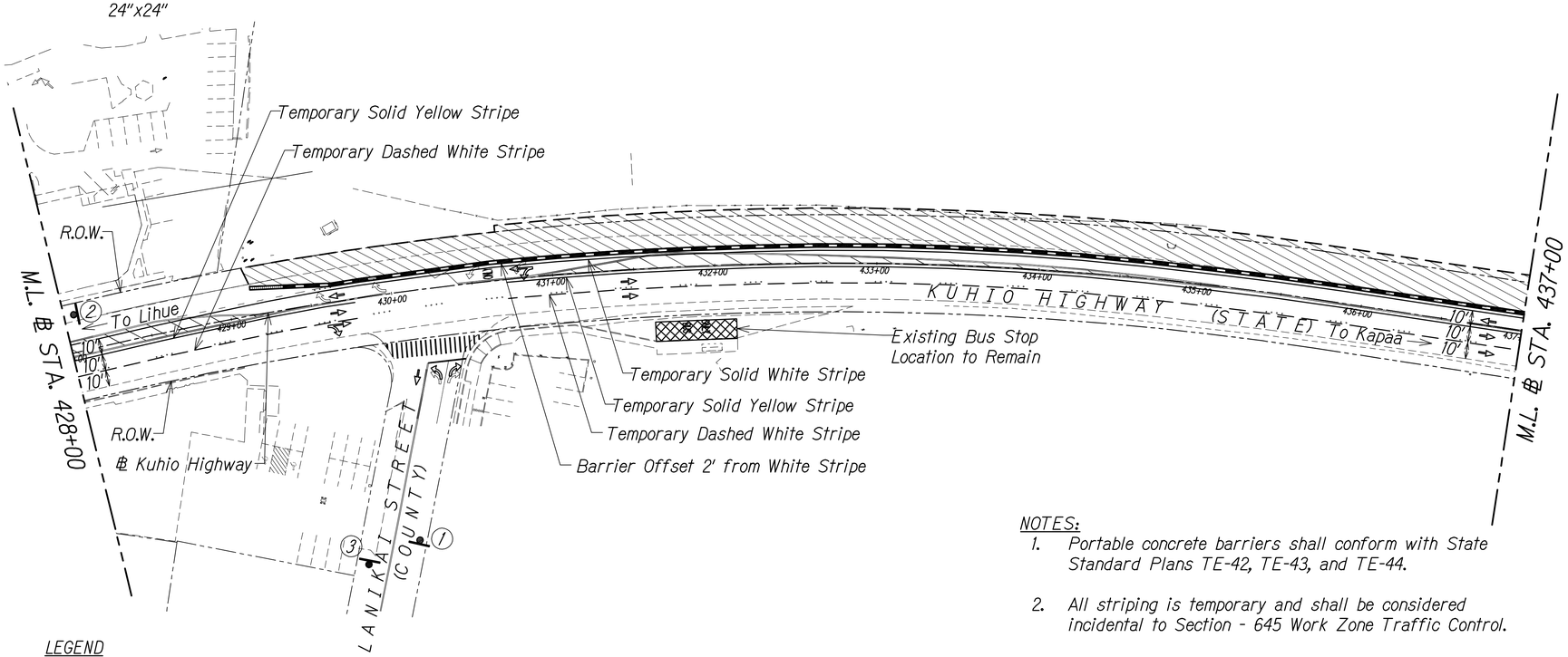
② NO PARKING ANY TIME CONSTRUCTION AREA

R7-1
12"x18" CONS

③ END ROAD WORK

CG20-2A
48"x24"

True North
Scale: 1"=40'



NOTES:

1. Portable concrete barriers shall conform with State Standard Plans TE-42, TE-43, and TE-44.
2. All striping is temporary and shall be considered incidental to Section - 645 Work Zone Traffic Control.

LEGEND

- Work Zone
- Concrete Barrier
- Sign
- Temporary Solid Striping
- Temporary Dashed Striping
- Temporary White Guideline
- Existing Sign
- Flow of Traffic
- Temporary Pavement Arrow
- Inertial Barrier System, TL-3

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 4

24-HOUR CLOSURE
SCALE: 1" = 40'

APPROVED

County Engineer Date
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN
KUHIO HIGHWAY WIDENING

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC14 OF 63 SHEETS

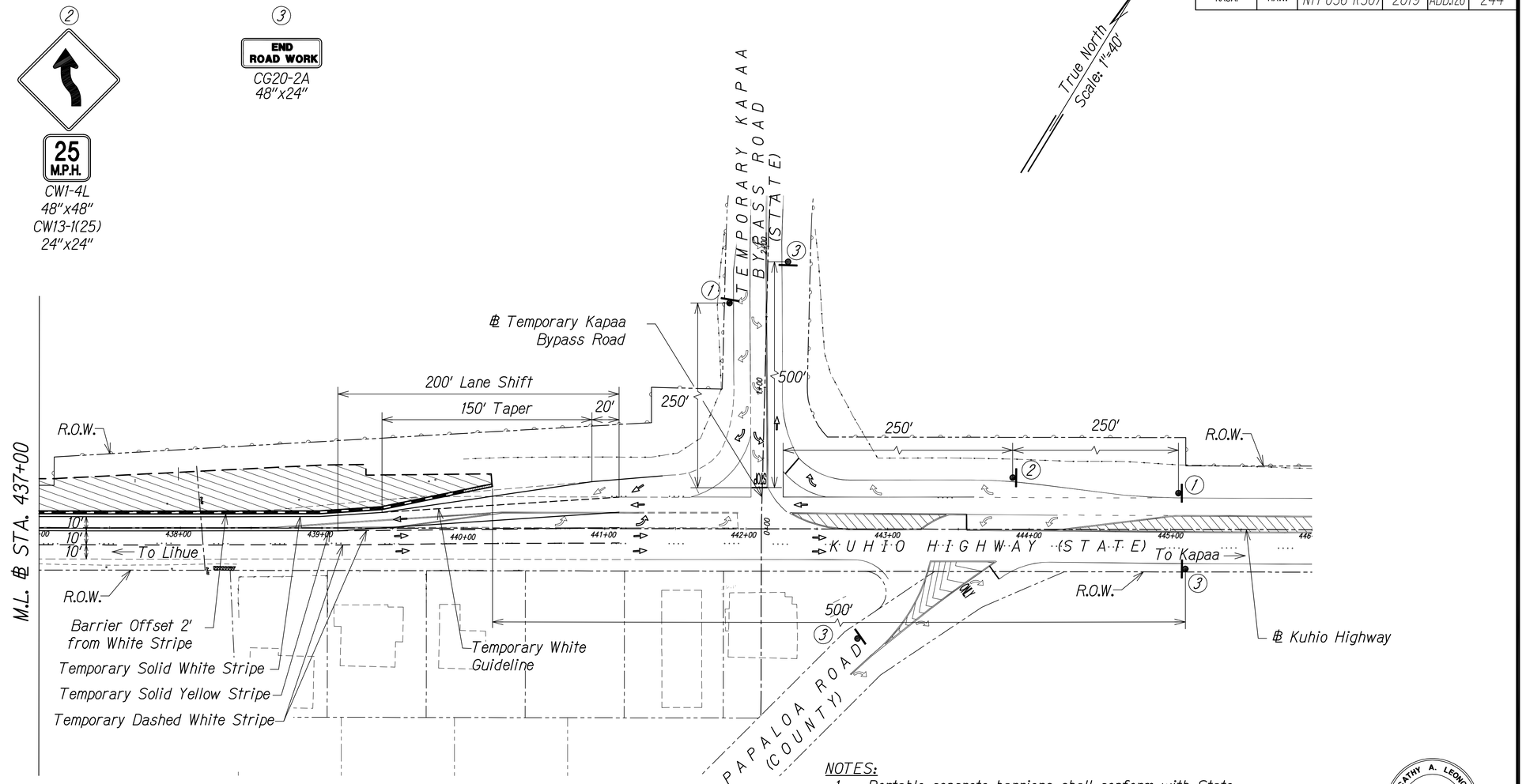
ADD.125

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.126	244

① ROAD WORK 500 FT / 25 M.P.H.
CW21-4C
48"x48"
CW13-1(25)
24"x24"

② 25 M.P.H.
CW1-4L
48"x48"
CW13-1(25)
24"x24"

③ END ROAD WORK
CG20-2A
48"x24"



LEGEND

- Work Zone
- Concrete Barrier
- Sign
- Temporary Solid Striping
- Temporary Dashed Striping
- Temporary White Guideline
- Existing Sign
- Flow of Traffic
- Temporary Pavement Arrow
- Inertial Barrier System, TL-3

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 4

24-HOUR CLOSURE
SCALE: 1" = 40'

NOTES:

1. Portable concrete barriers shall conform with State Standard Plans TE-42, TE-43, and TE-44.
2. Inertial barrier system shall conform with NCHRP 350 - Test Level 3.
3. All striping is temporary and shall be considered incidental to Section - 645 Work Zone Traffic Control.

CATHY A. LEONG
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HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

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

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

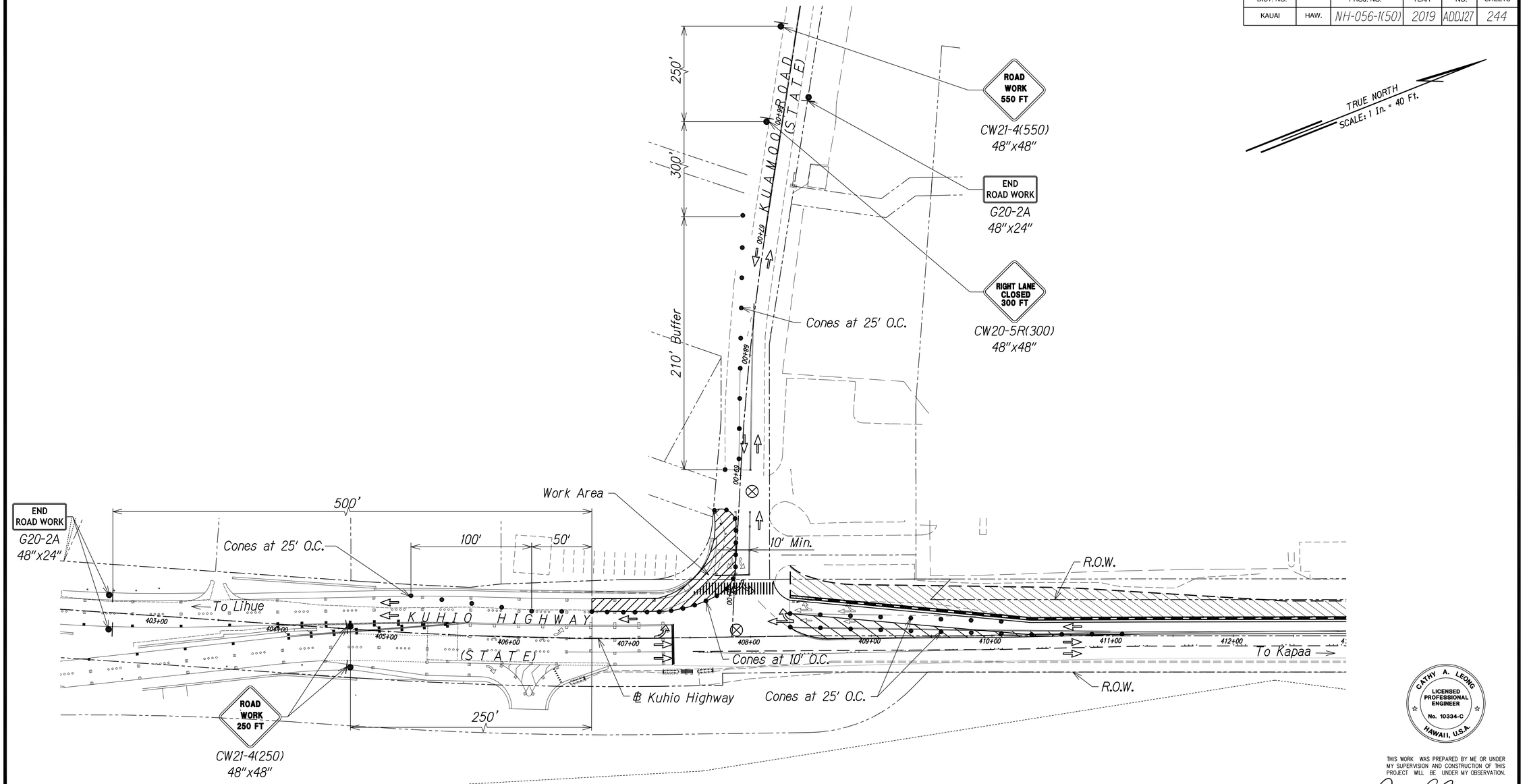
TRAFFIC CONTROL PLAN
KUHIO HIGHWAY WIDENING

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC15 OF 63 SHEETS

ADD.126

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.127	244



TRAFFIC CONTROL PLAN - PHASE 4

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- ● Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

DATE	REVISION
11/12/19	⚠ Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠ Reissuing plan for legibility only. No design changes have been made.

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

CATHY A. LEONG
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No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

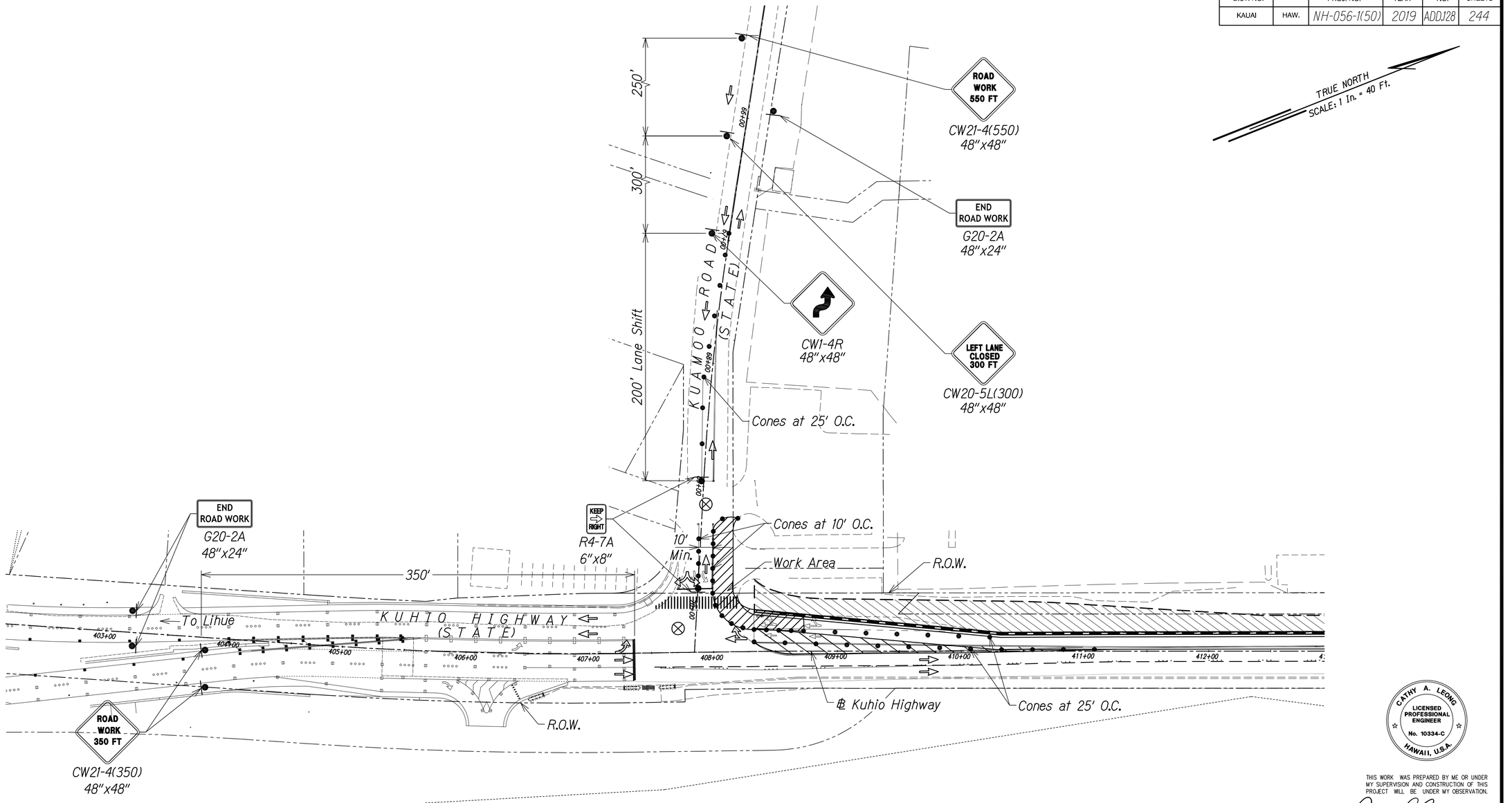
TRAFFIC CONTROL PLAN 09

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC16 OF 63 SHEETS

ADD.127

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.128	244



TRUE NORTH
SCALE: 1 In. = 40 Ft.

TRAFFIC CONTROL PLAN - PHASE 4

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- ● Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

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

DATE	REVISION
11/12/19	⚠ Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠ Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

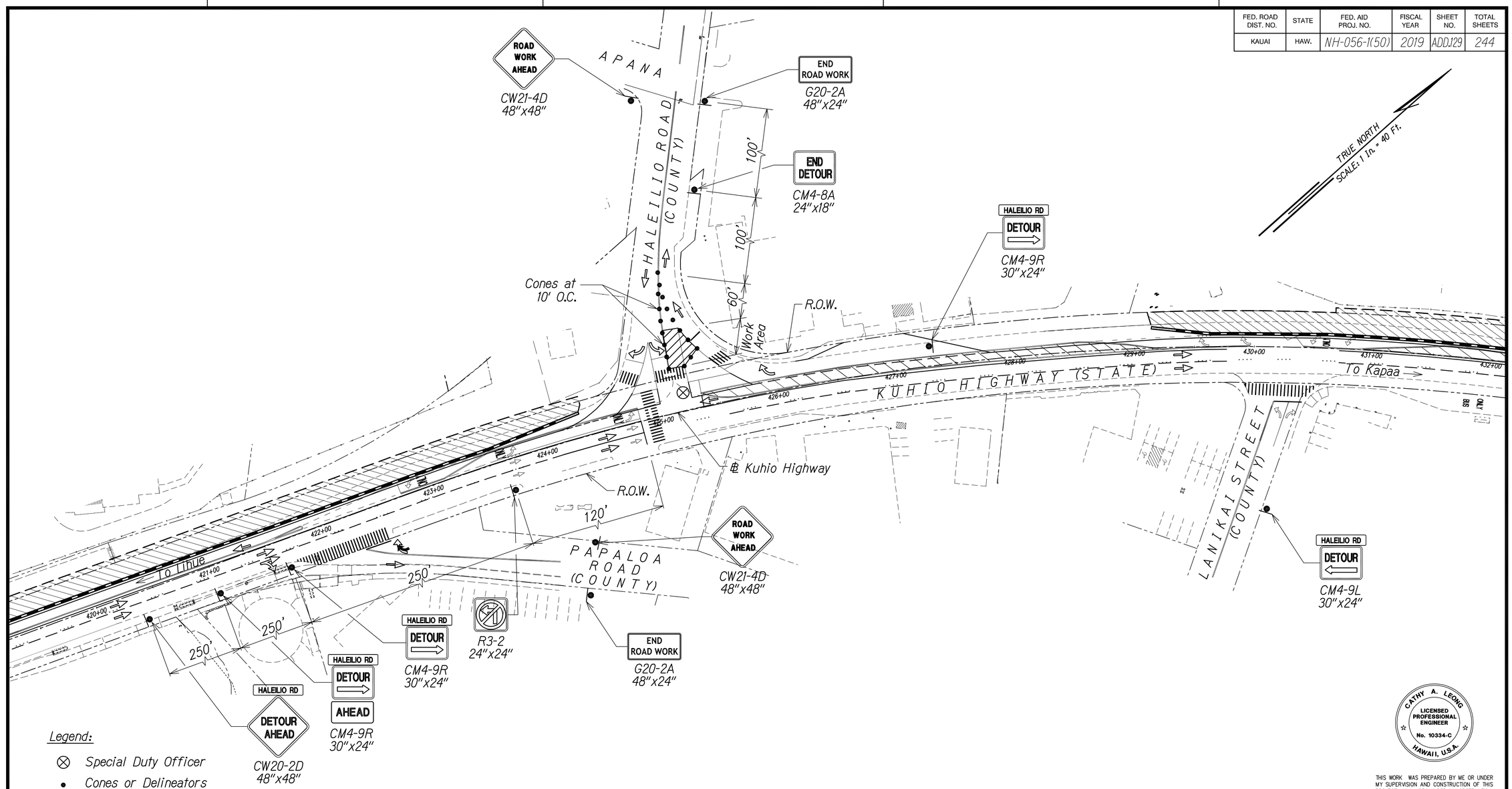
TRAFFIC CONTROL PLAN 10

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC17 OF 63 SHEETS

ADD.128

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.129	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 4

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'
SEE TD4 FOR DETOUR ROUTE

Approved

County Engineer *Date*
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
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No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 11

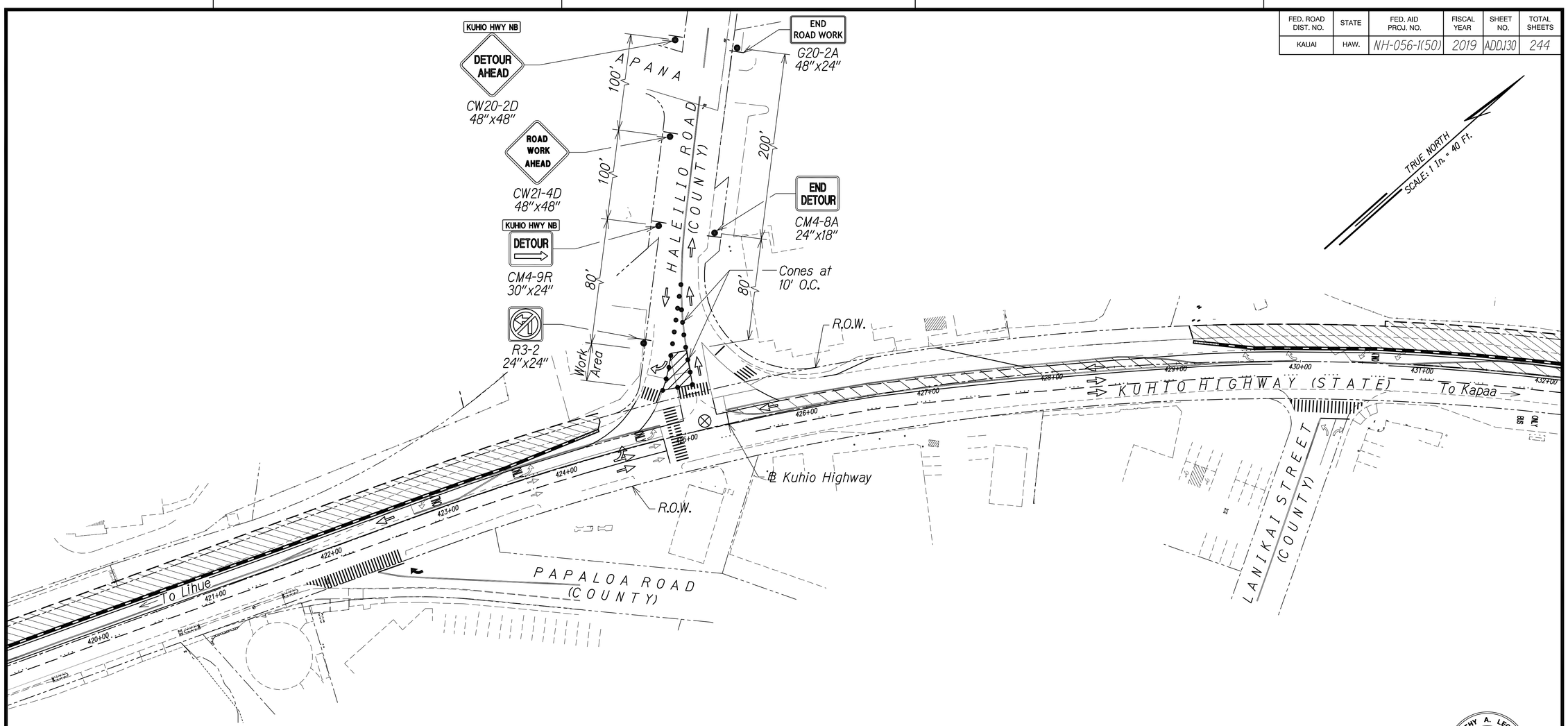
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' *Date: JULY 2019*

SHEET No. *TC18* OF *63* SHEETS

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

ADD.129

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.130	244



Legend:

- ⊗ *Special Duty Officer*
- • *Cones or Delineators*
- ●| *Sign*
- ⇨ *Direction of Traffic*
- *Arrowboard Assembly*

GRAPHIC SCALE:

40' 20' 0 40' 80'

Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 4

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'
SEE TD3 FOR DETOUR ROUTE

Approved

County Engineer *Date*
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

CATHY A. LEONG
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No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

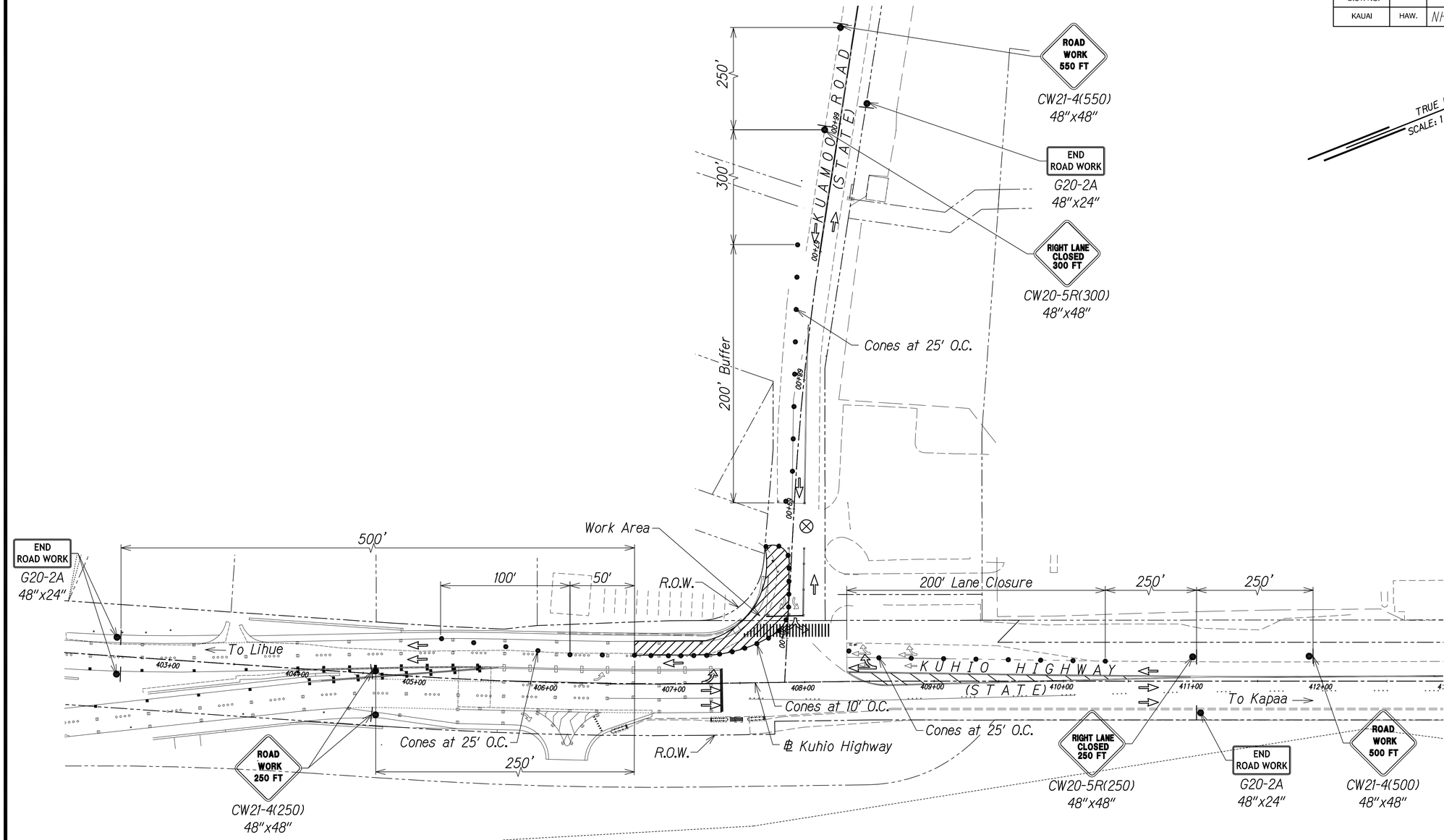
TRAFFIC CONTROL PLAN 12

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' *Date: JULY 2019*

SHEET No. TC19 OF 63 SHEETS

ADD.130

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADDJ31	244



TRUE NORTH
SCALE: 1 In. = 40 Ft.

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- ● Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

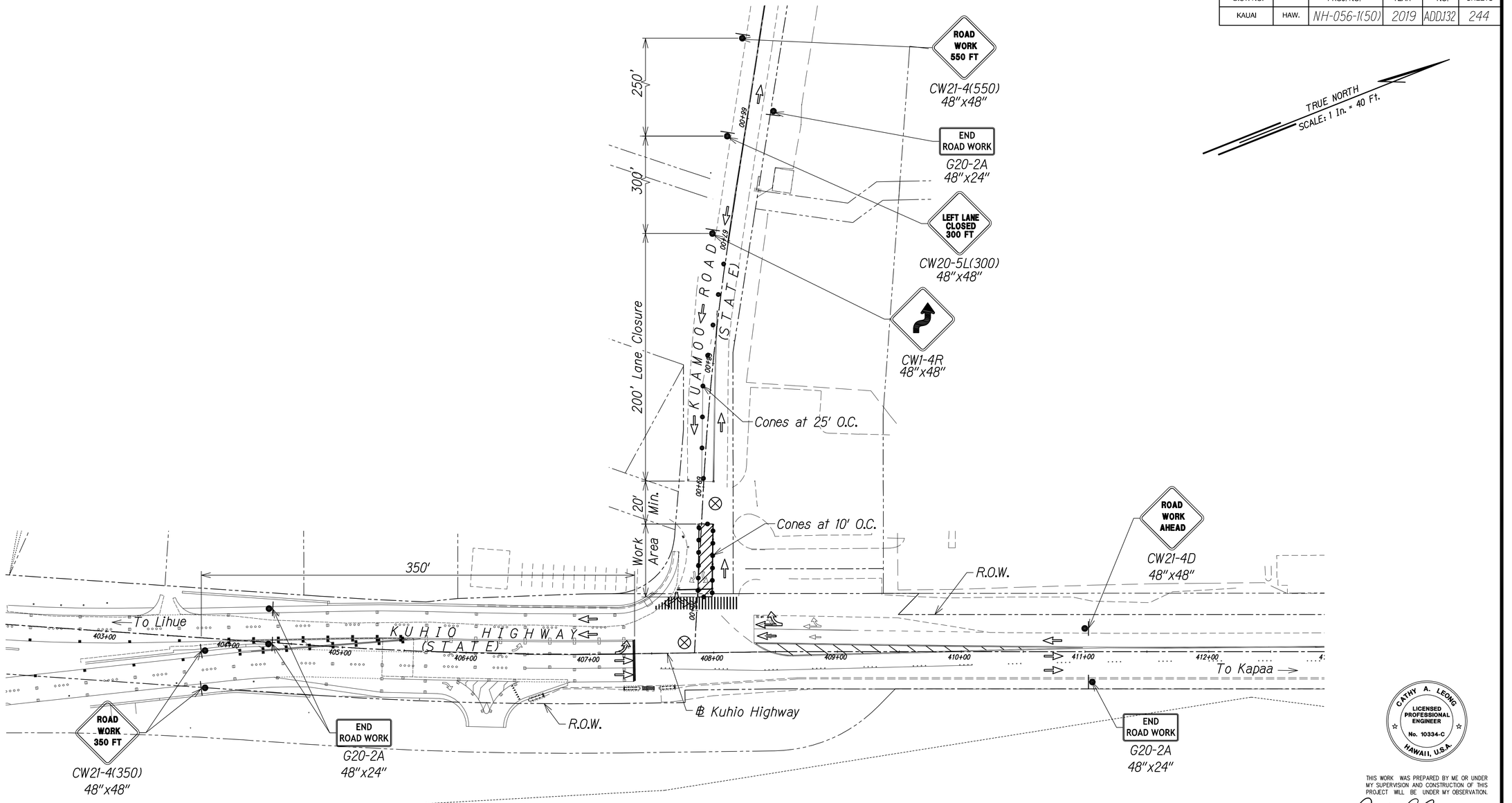
TRAFFIC CONTROL PLAN 13

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC20 OF 63 SHEETS

ADD.131

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.132	244



TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- ● Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

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

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
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No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 14

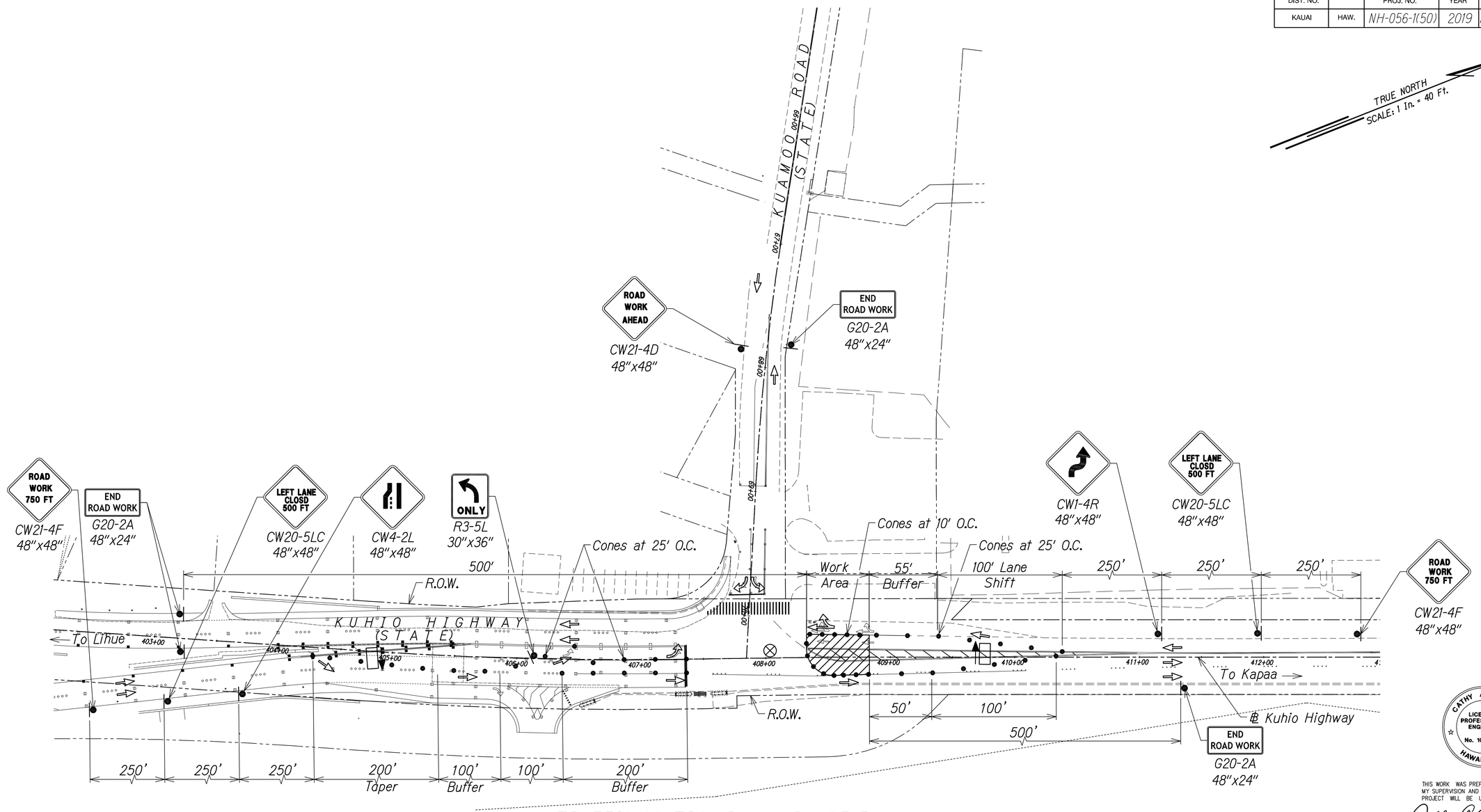
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC21 OF 63 SHEETS

ADD.132

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.133	244

TRUE NORTH
SCALE: 1 In. = 40 Ft.



TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- ● Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

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

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 15

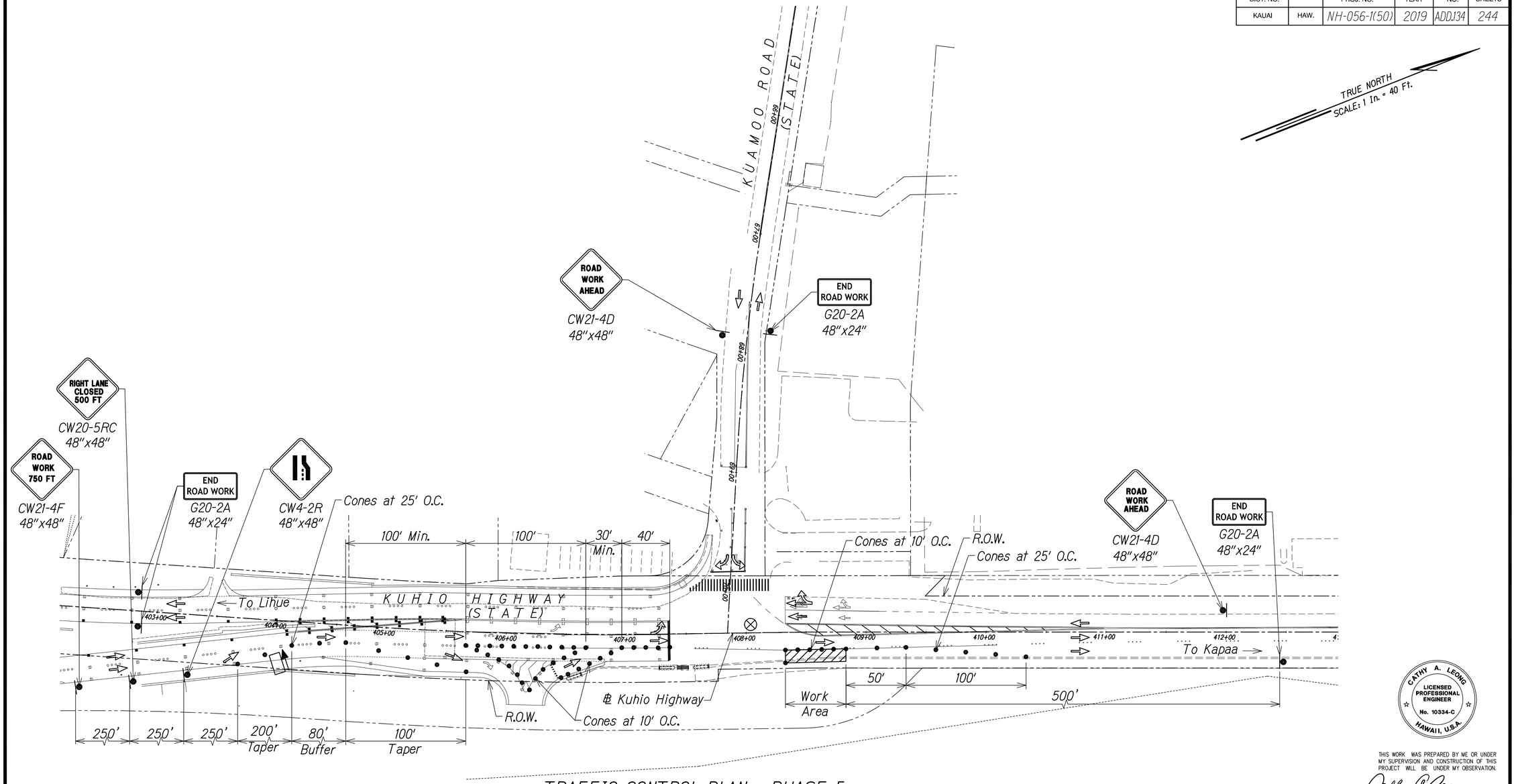
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC22 OF 63 SHEETS

ADD.133

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.134	244

TRUE NORTH
SCALE: 1 In. = 40 Ft.



TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- ● Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

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

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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WILSON OKAMOTO CORP. APRIL 30, 2020
LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

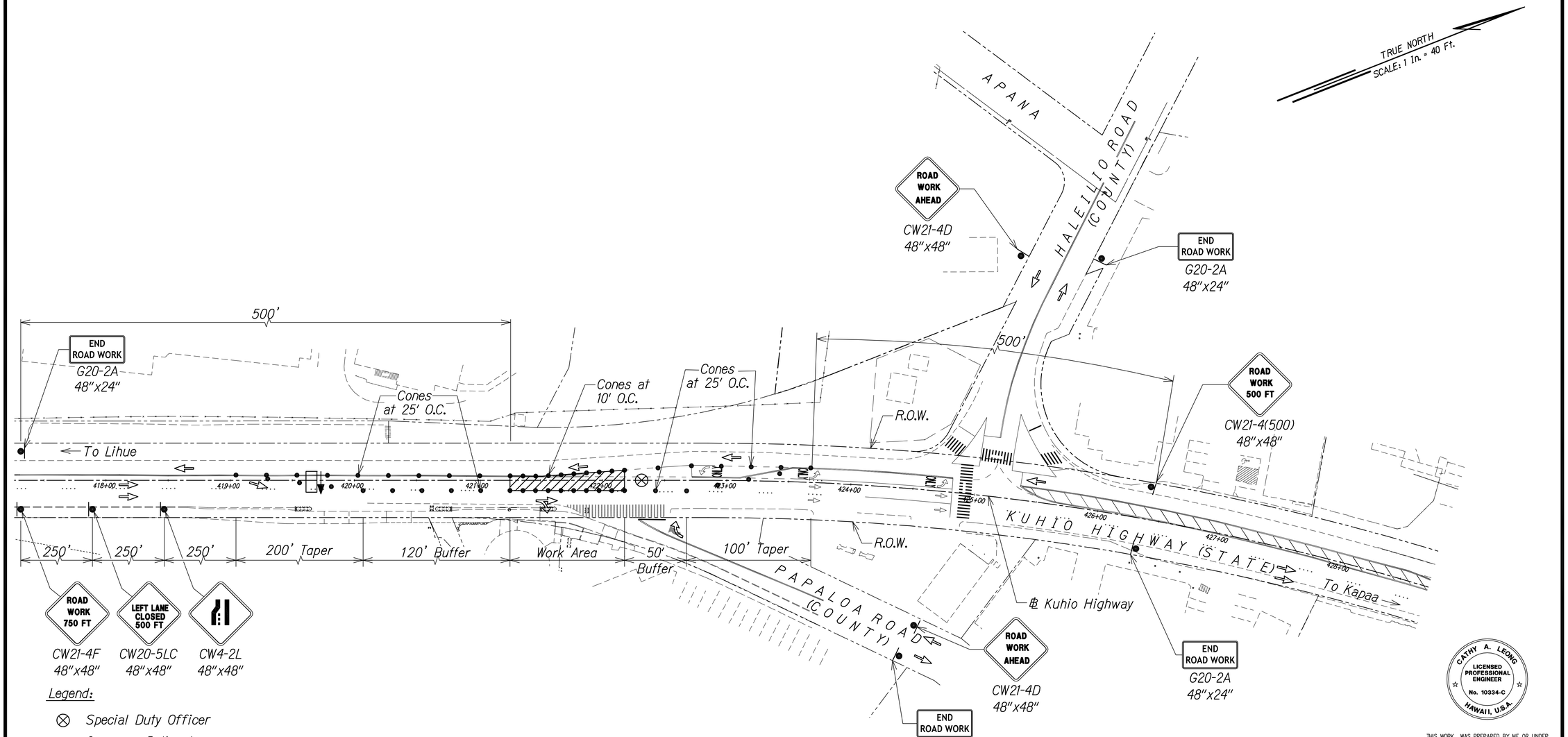
TRAFFIC CONTROL PLAN 16

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC23 OF 63 SHEETS

ADD.134

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.135	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Approved

County Engineer Date
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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

APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 17

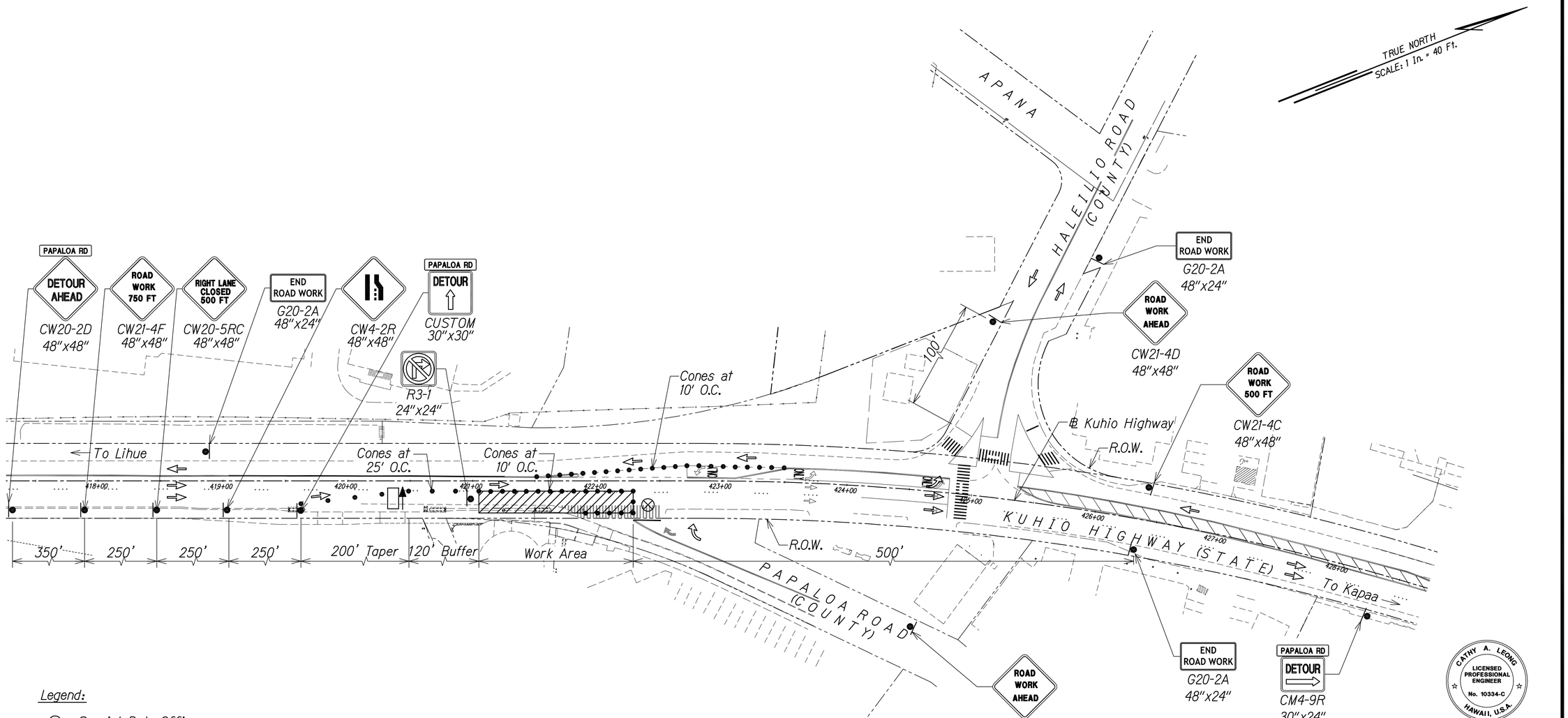
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC24 OF 63 SHEETS

ADD.135

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.136	244



Legend:

- ⊗ *Special Duty Officer*
- • *Cones or Delineators*
- ●| *Sign*
- ⇨ *Direction of Traffic*
- *Arrowboard Assembly*

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'
SEE TDI FOR DETOUR ROUTE

Approved

County Engineer *Date*
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	③ Reissuing plan for legibility only. No design changes have been made.
9/20/19	② Reissuing plan for legibility only. No design changes have been made.

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

CATHY A. LEONG LICENSED PROFESSIONAL ENGINEER No. 10334-C HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

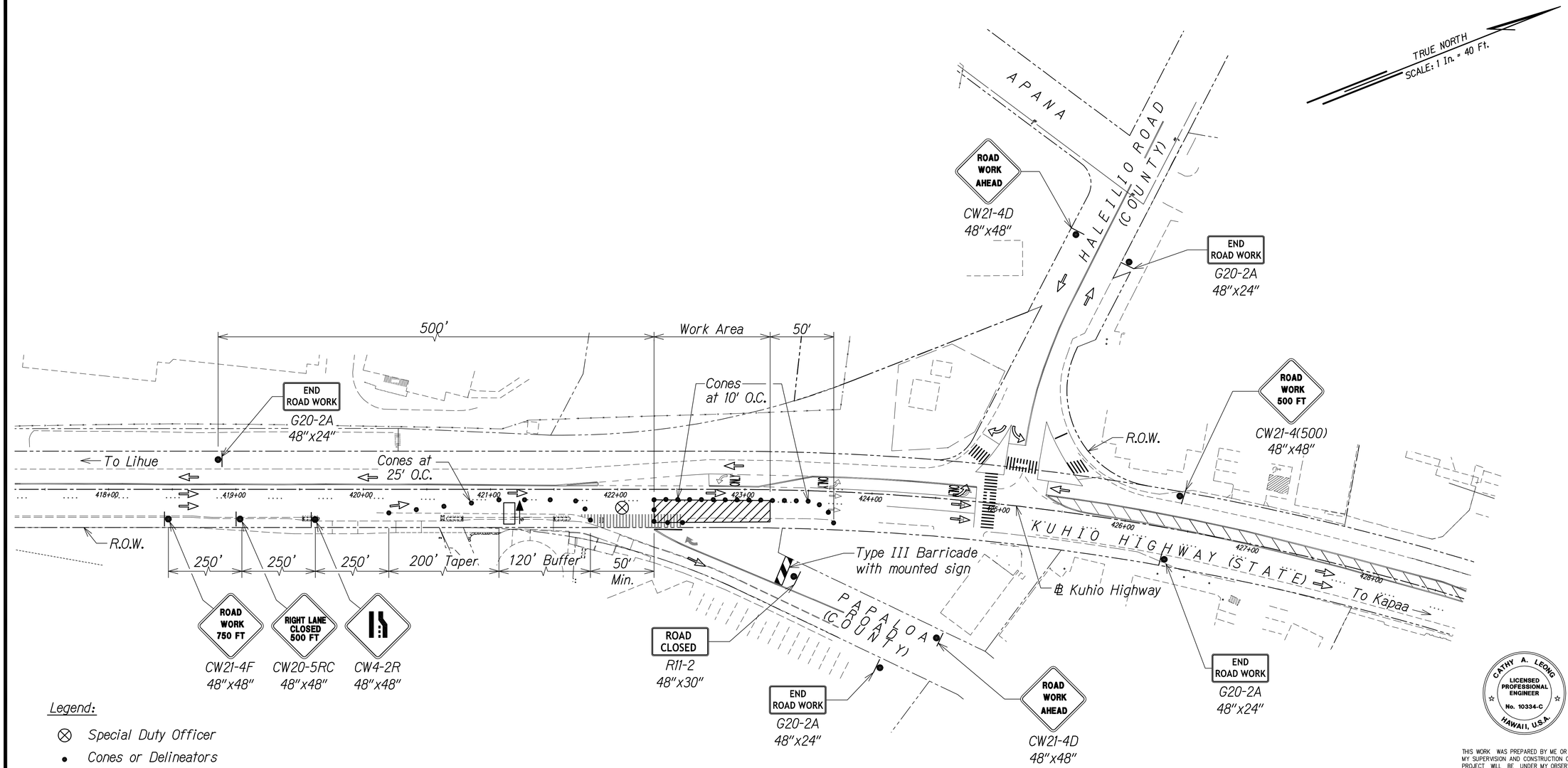
TRAFFIC CONTROL PLAN 18

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' *Date: JULY 2019*

SHEET No. TC25 OF 63 SHEETS

ADD.136

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.137	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- •| Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly
- Barricade

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

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

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'
SEE TD2 FOR DETOUR ROUTE

Approved

County Engineer — Date
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG LICENSED PROFESSIONAL ENGINEER No. 10334-C HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

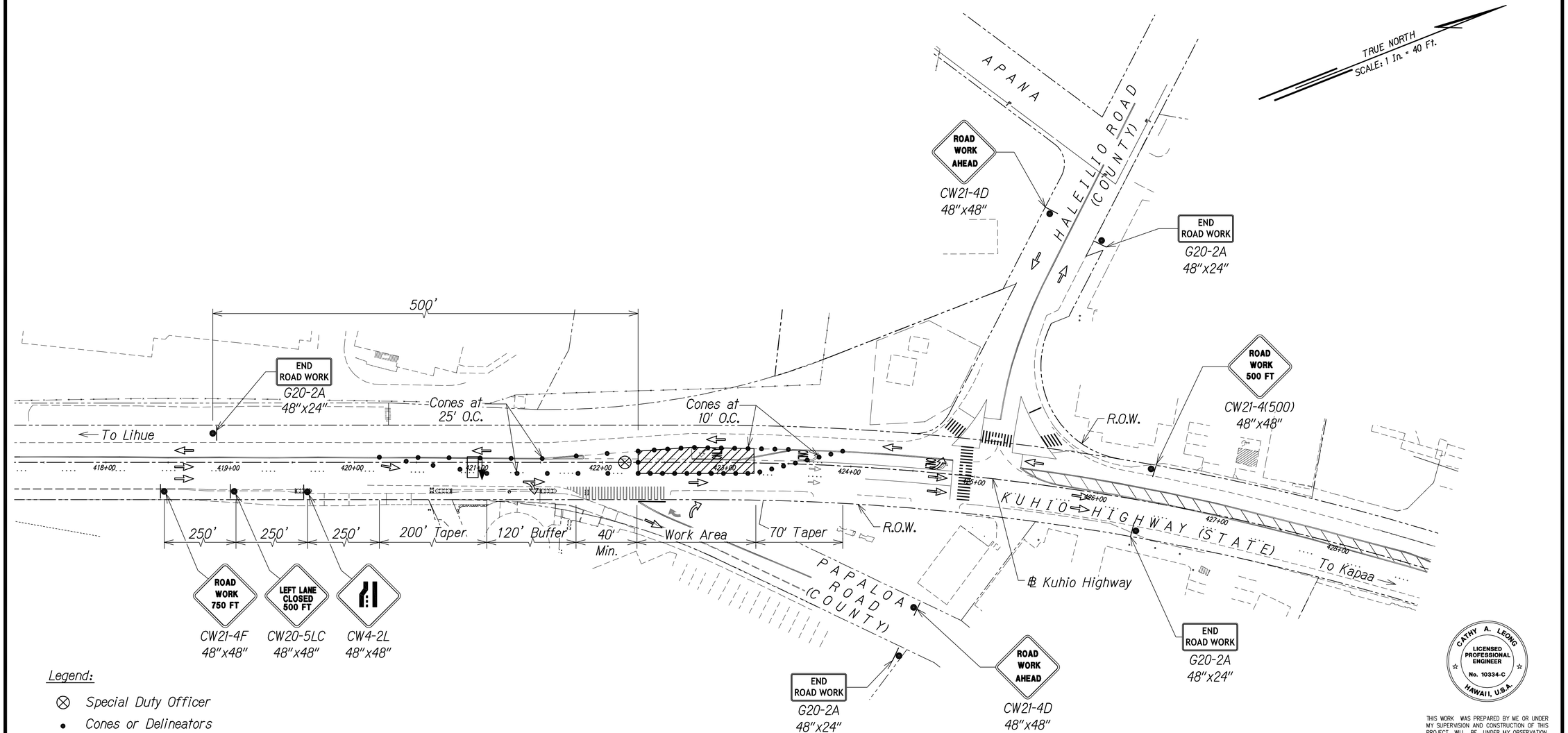
TRAFFIC CONTROL PLAN 19

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC26 OF 63 SHEETS

ADD.137

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.138	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- •| Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Approved

County Engineer Date
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	③ Reissuing plan for legibility only. No design changes have been made.
9/20/19	② Reissuing plan for legibility only. No design changes have been made.

ORIGINAL PLANS — NOTE BOOK — No.

SURVEY PLOTTED BY — DATE
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

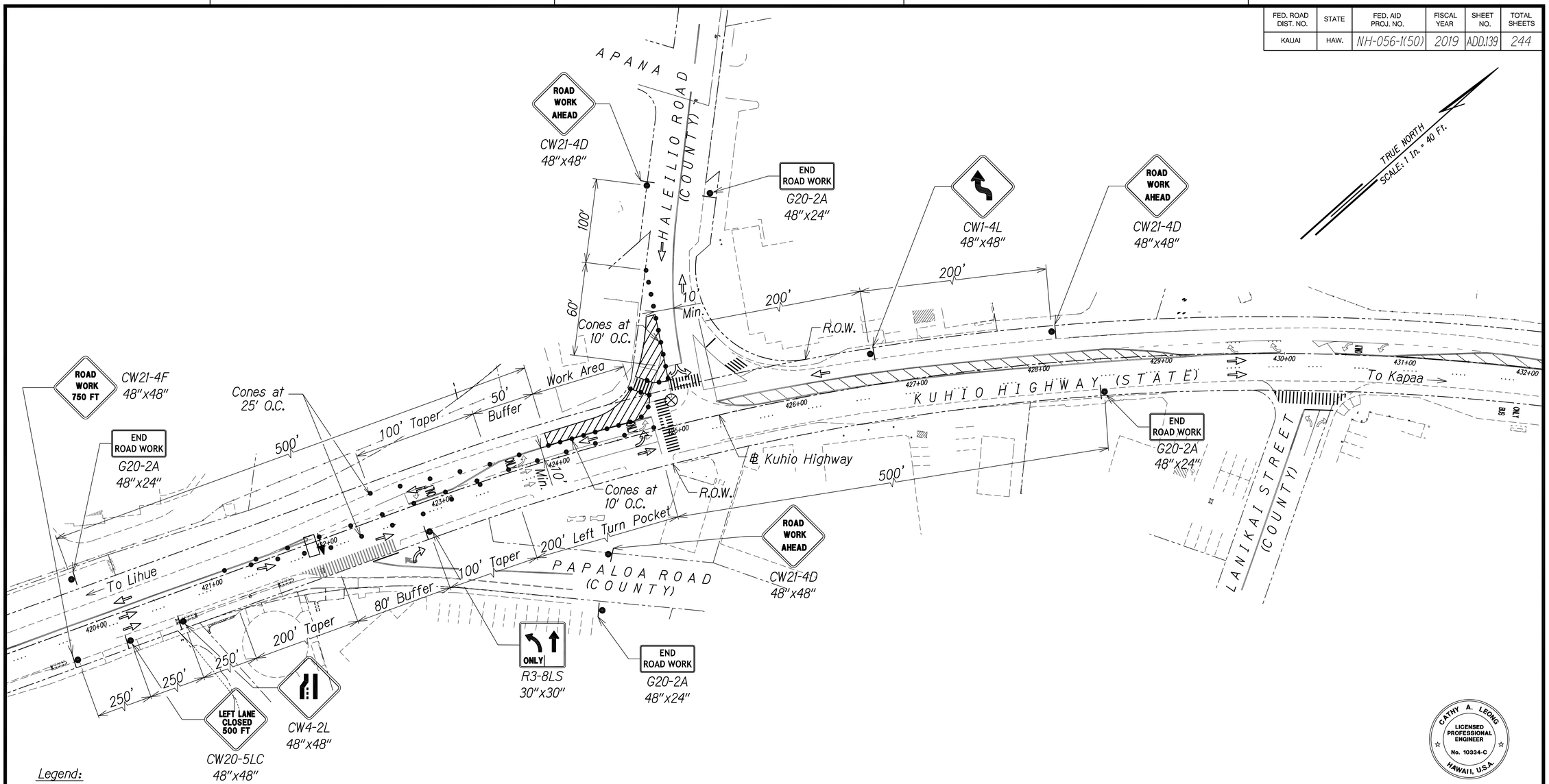
TRAFFIC CONTROL PLAN 20

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC27 OF 63 SHEETS

ADD.138

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.139	244



Legend:

- Special Duty Officer
- Cones or Delineators
- Sign
- Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Approved

County Engineer Date
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

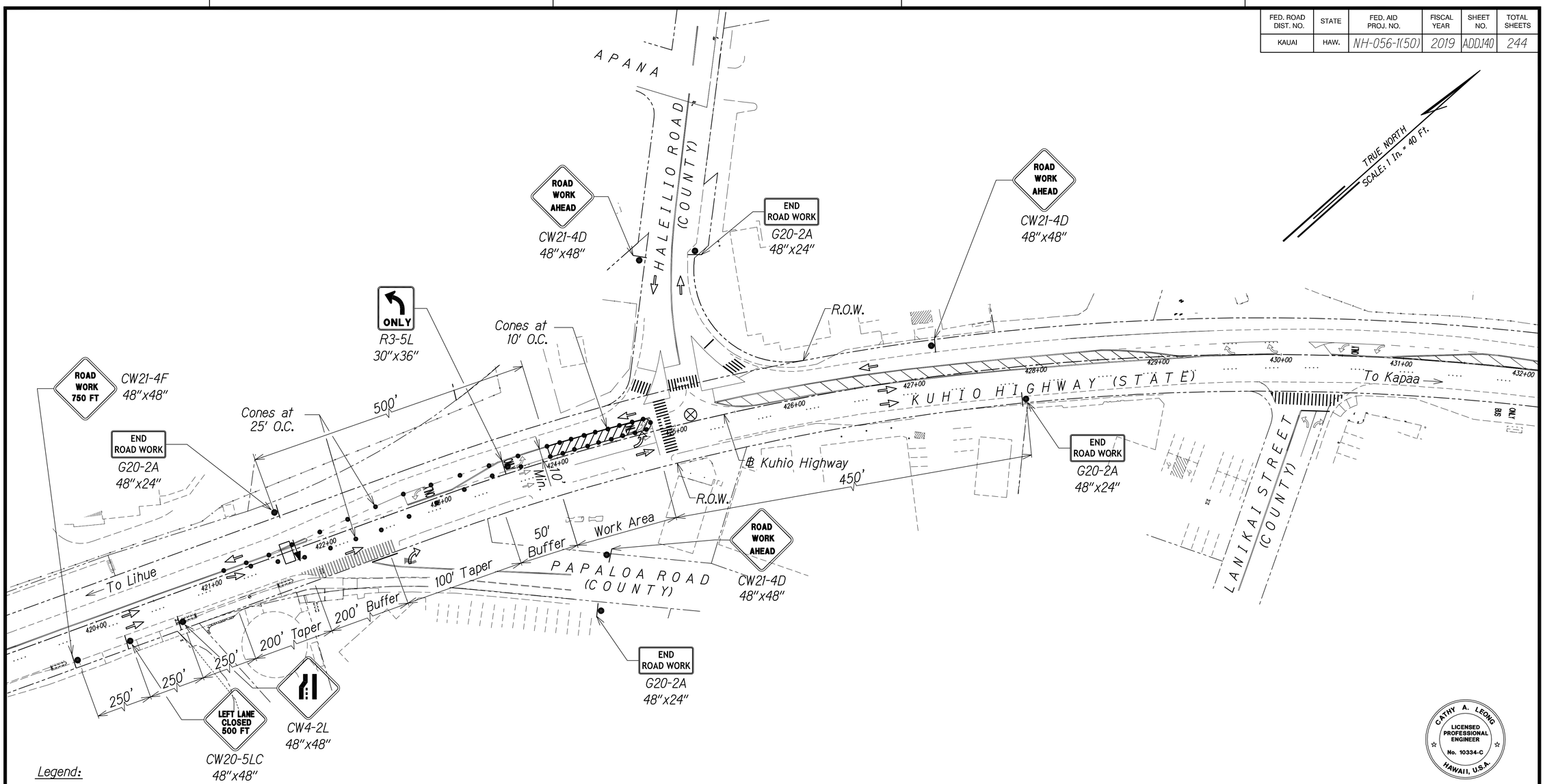
TRAFFIC CONTROL PLAN 21

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC28 OF 63 SHEETS

ADD.139

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.140	244



Legend:

- ⊗ *Special Duty Officer*
- • *Cones or Delineators*
- ● *Sign*
- ⇨ *Direction of Traffic*
- *Arrowboard Assembly*

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Approved

County Engineer *Date*
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

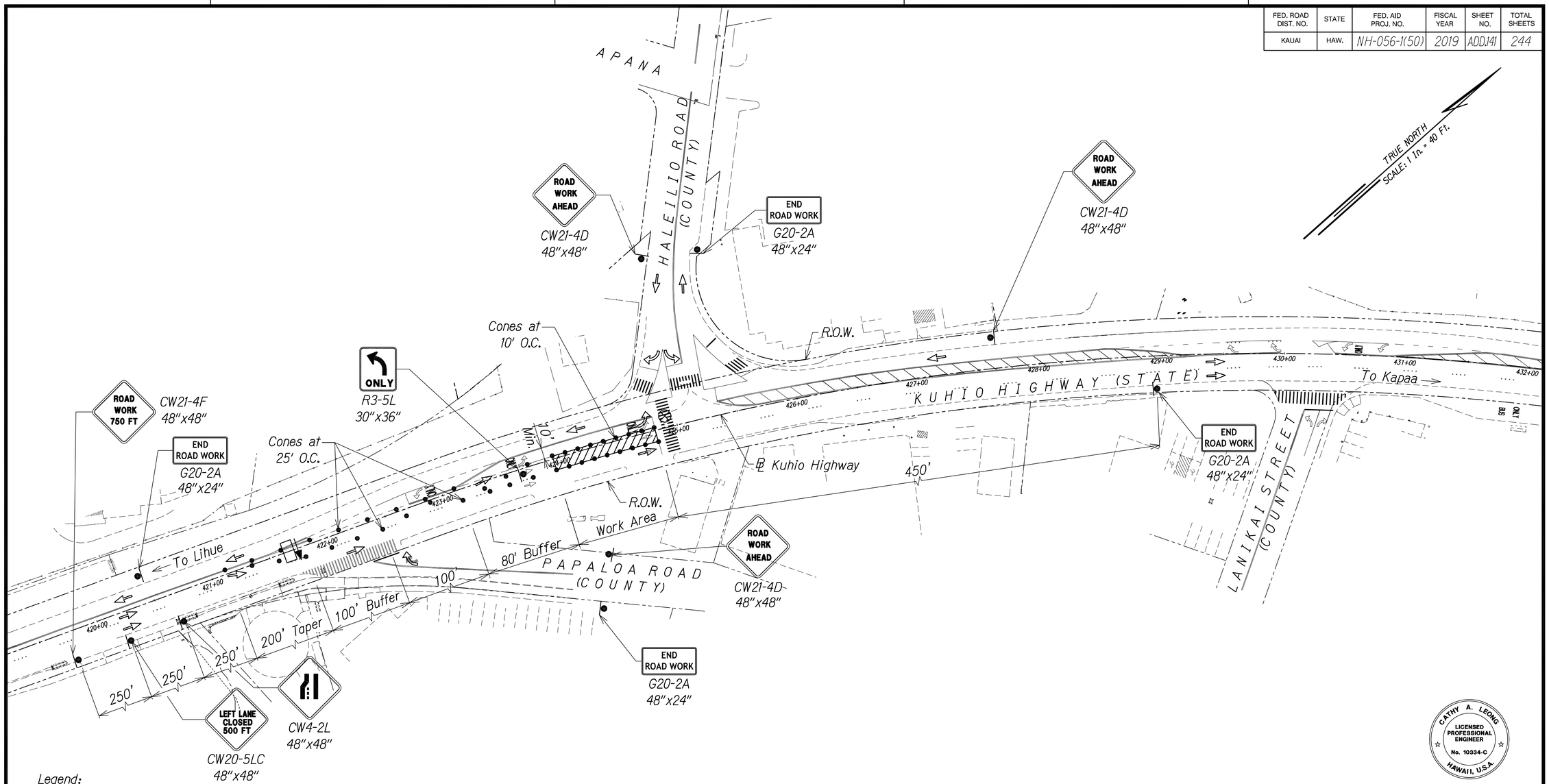
TRAFFIC CONTROL PLAN 22

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' *Date: JULY 2019*

SHEET No. *TC29* OF *63* SHEETS

ADD.140

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.141	244



Legend:

- Special Duty Officer
- Cones or Delineators
- Sign
- Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Approved

County Engineer
County of Kauai
(For work within the County right-of-way)

Date

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

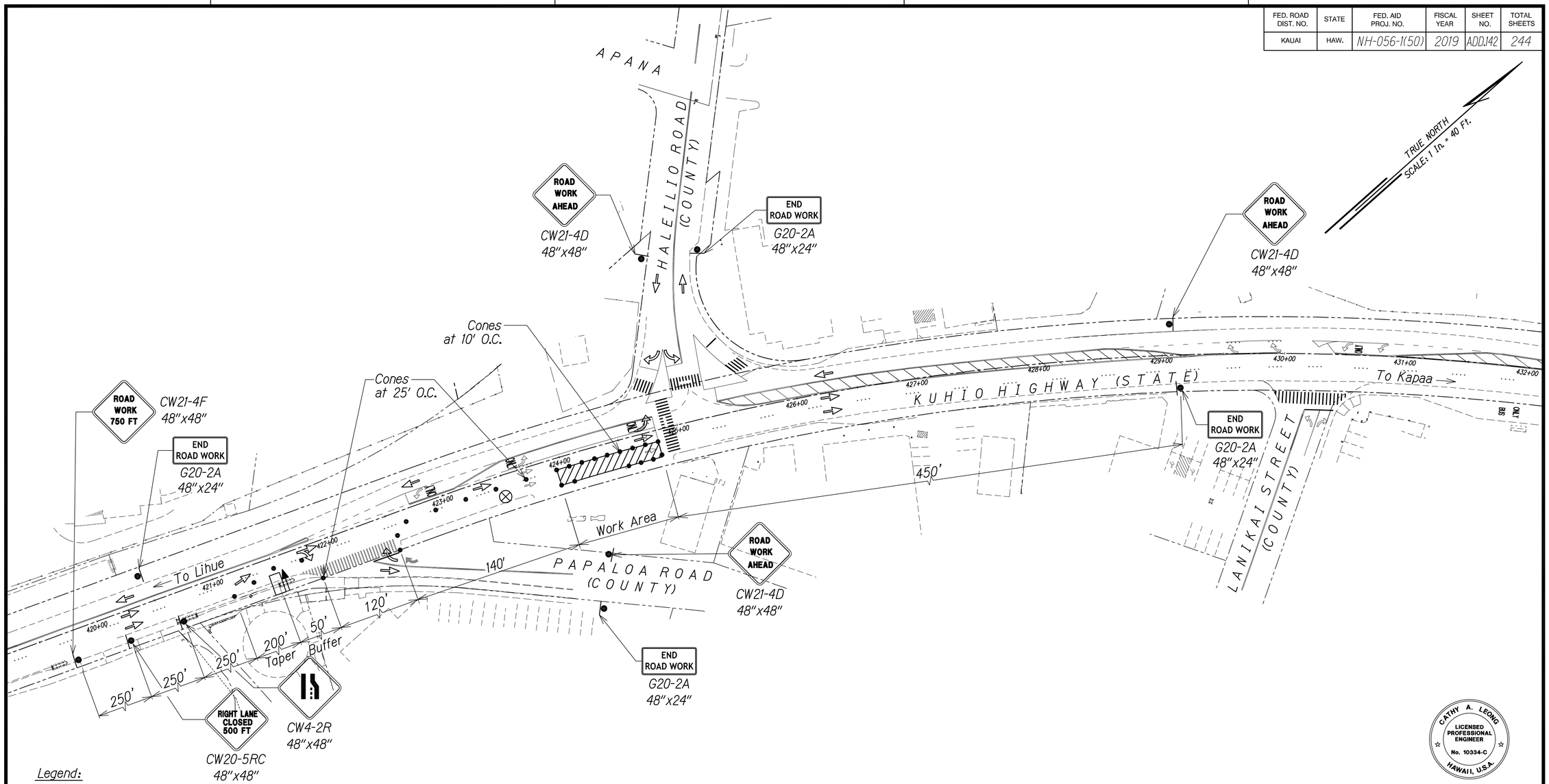
TRAFFIC CONTROL PLAN 23

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC30 OF 63 SHEETS

ADD.141

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.142	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- ● Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Approved

County Engineer — Date
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

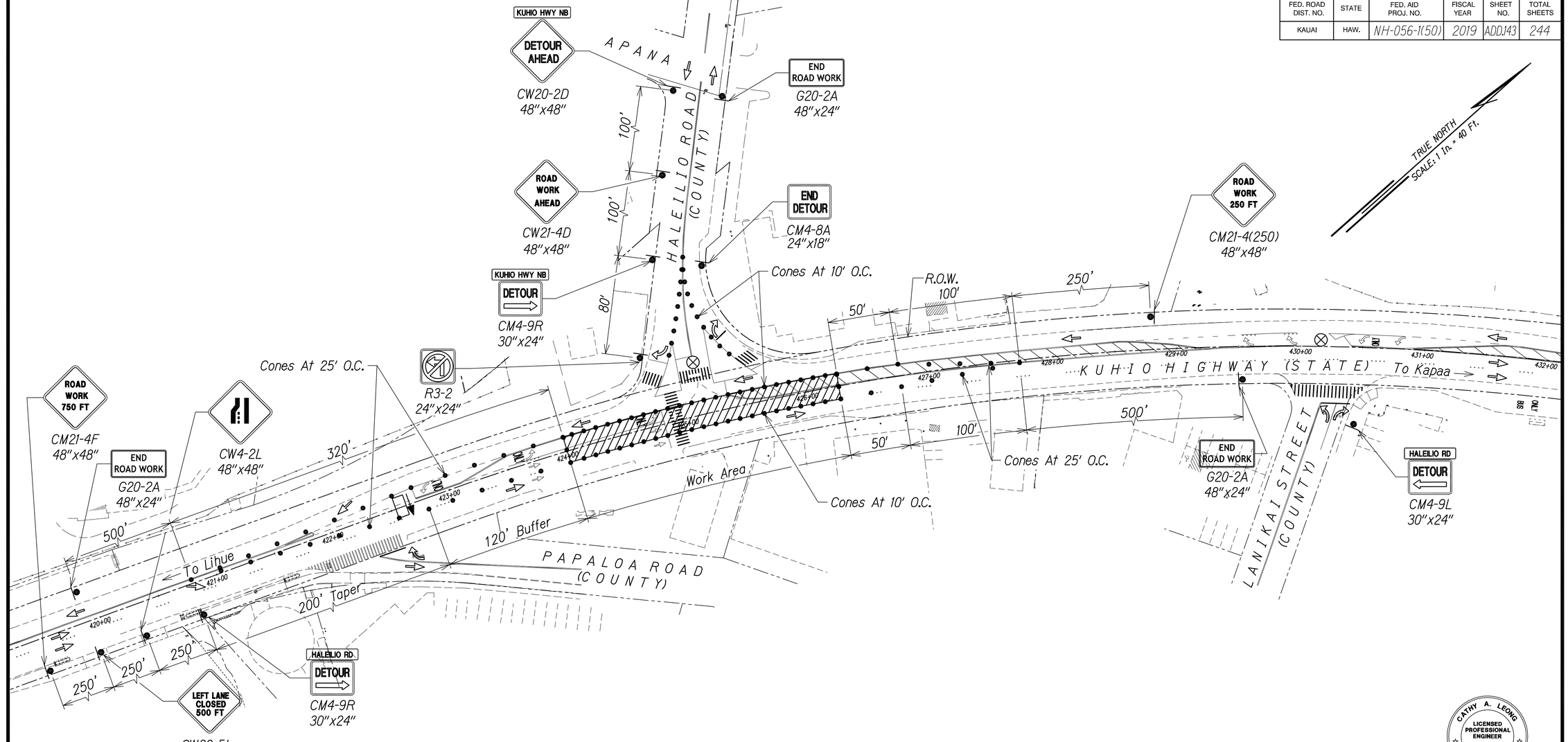
TRAFFIC CONTROL PLAN 24

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC31 OF 63 SHEETS

ADD.142

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.143	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- Sign
- Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

ORIGINAL PLANS
NOTE BOOK
No.

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'
SEE TD6 FOR DETOUR ROUTE

Approved

County Engineer
County of Kauai
(For work within the County right-of-way)
Date

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

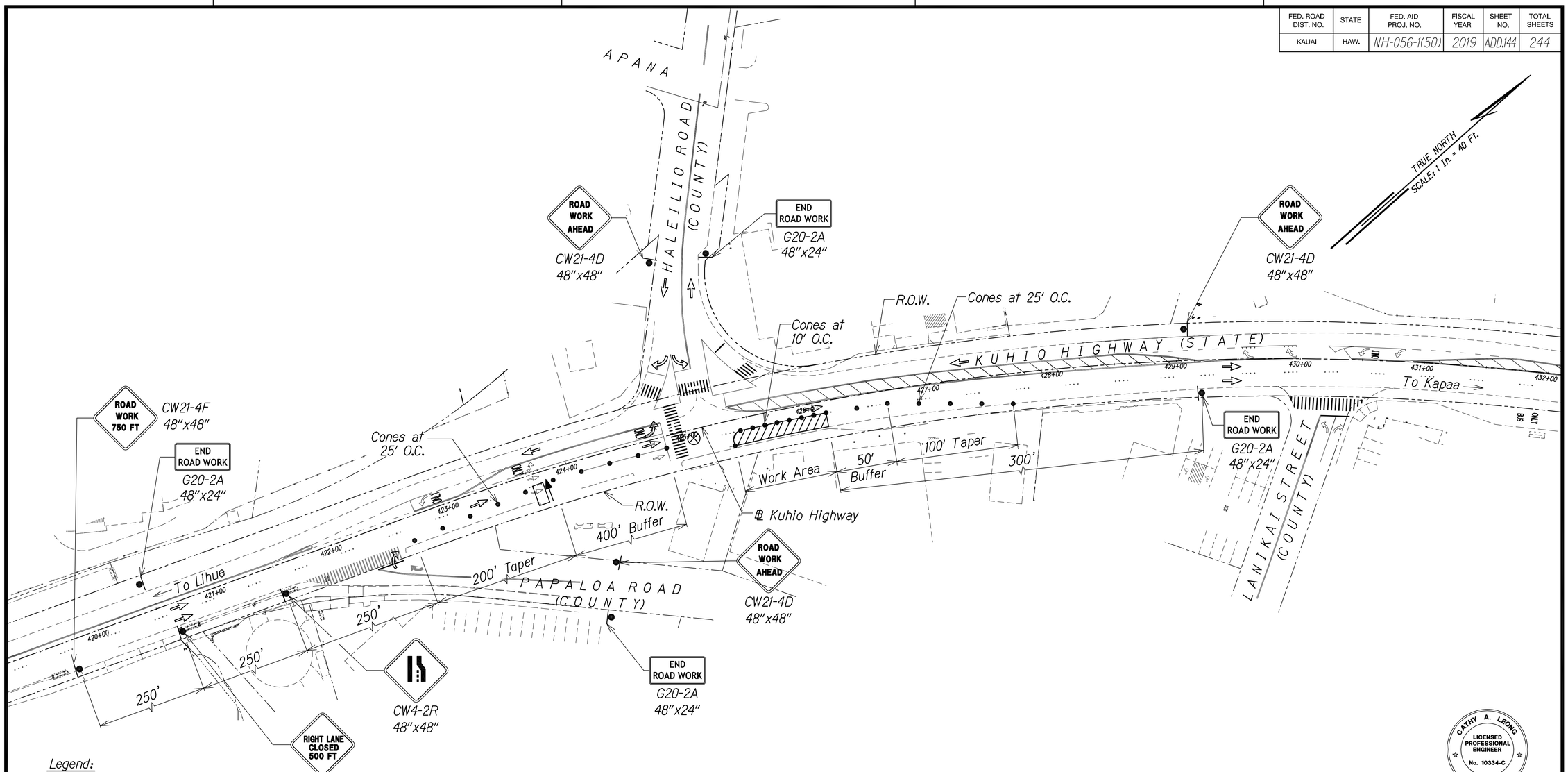
TRAFFIC CONTROL PLAN 25

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC32 OF 63 SHEETS

ADD.143

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.144	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

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

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Approved

County Engineer Date
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
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HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 26

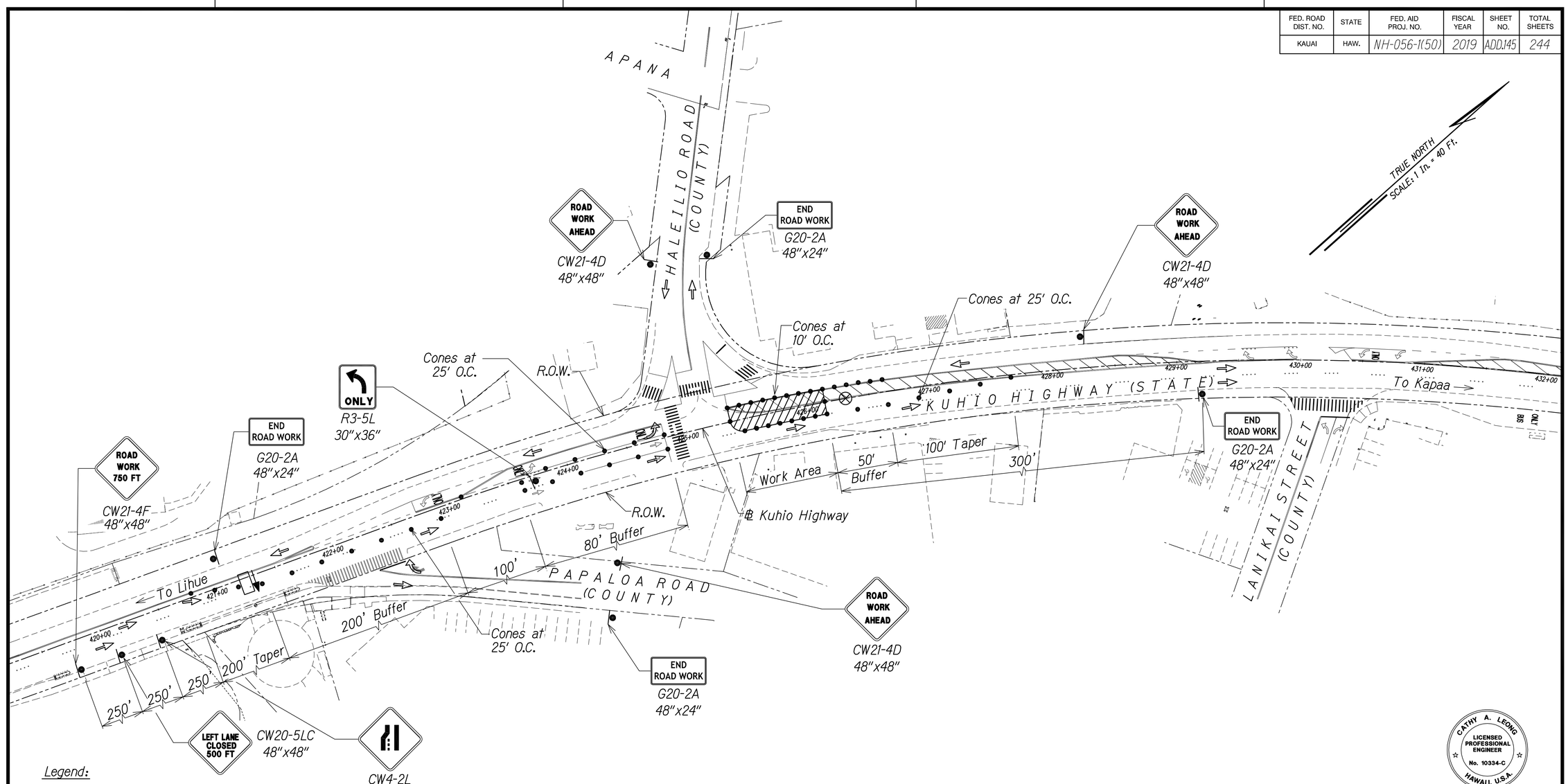
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 40' Date: JULY 2019

SHEET No. TC33 OF 63 SHEETS

ADD.144

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.145	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Approved

County Engineer *Date*
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 27

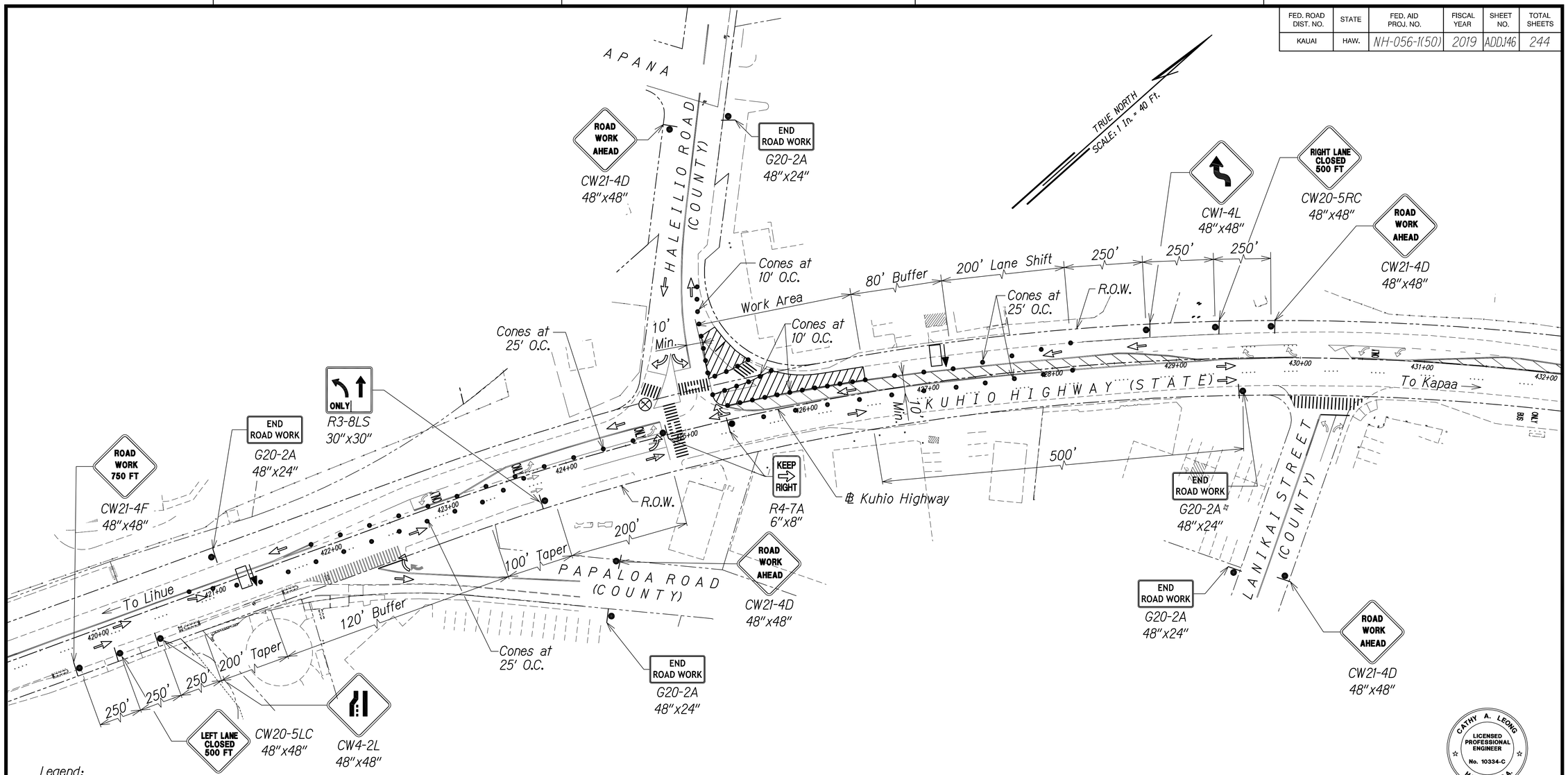
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' *Date: JULY 2019*

SHEET No. TC34 OF 63 SHEETS

ADD.145

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.146	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- ● Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Approved

County Engineer Date
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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

APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

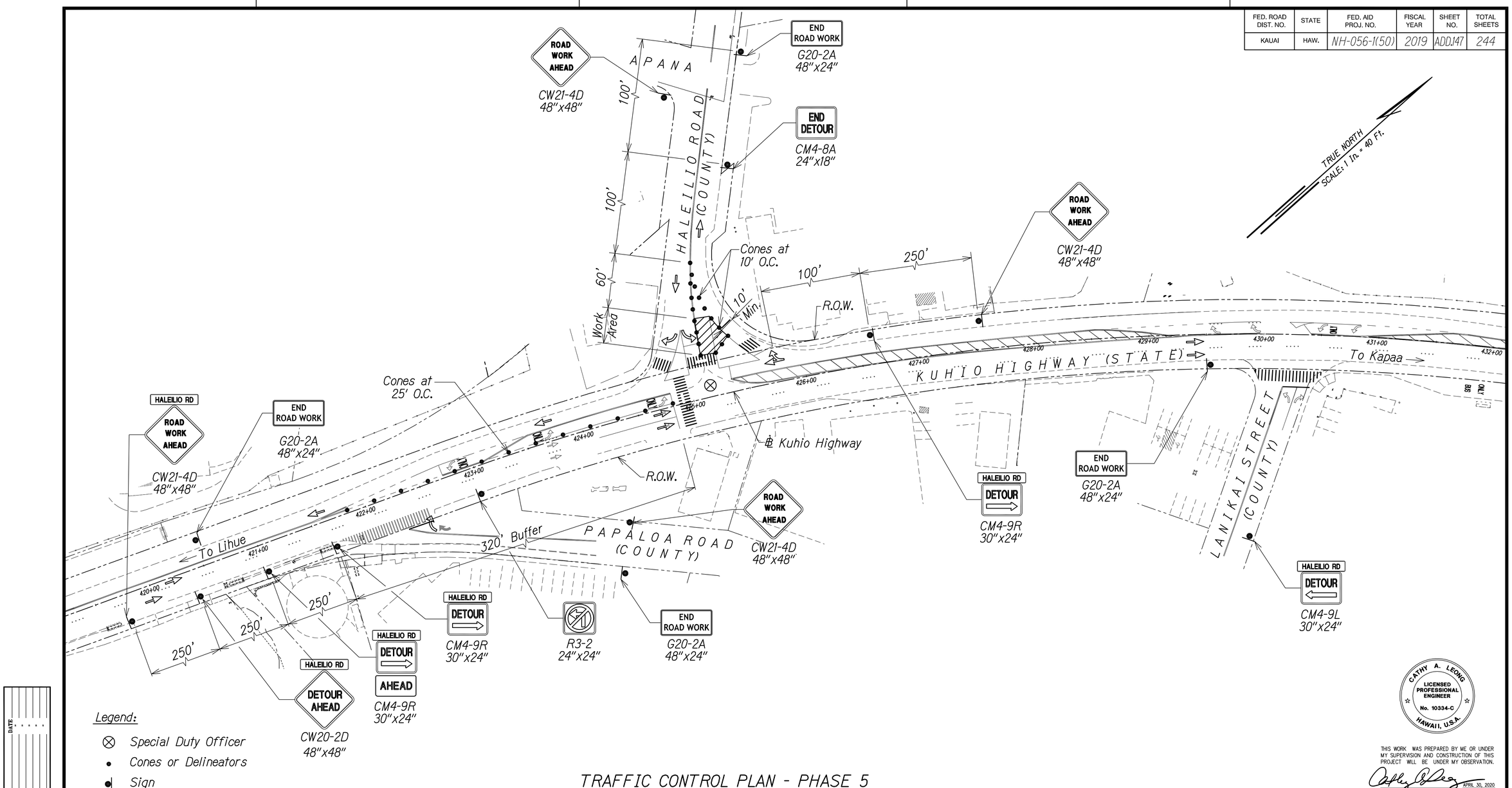
TRAFFIC CONTROL PLAN 28

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC35 OF 63 SHEETS

ADD.146

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.147	244



Legend:

- ⊗ *Special Duty Officer*
- • *Cones or Delineators*
- ● *Sign*
- ⇨ *Direction of Traffic*
- *Arrowboard Assembly*

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

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

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'
SEE TD4 FOR DETOUR ROUTE

Approved

County Engineer *Date*
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	③ Reissuing plan for legibility only. No design changes have been made.
9/20/19	② Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

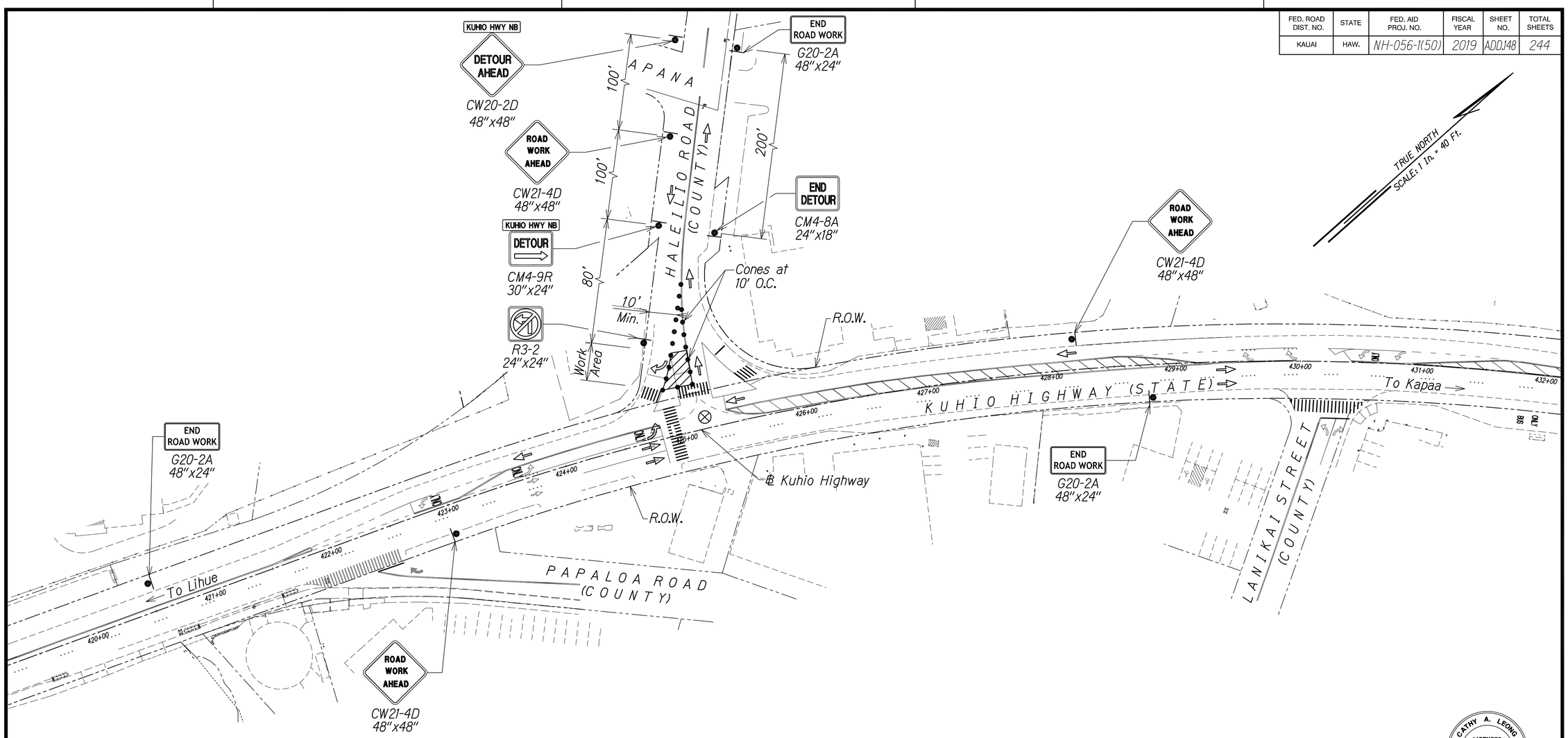
TRAFFIC CONTROL PLAN 29

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC36 OF 63 SHEETS

ADD.147

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.148	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- ●| Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'

Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'
SEE TD3 FOR DETOUR ROUTE

Approved

County Engineer
County of Kauai
(For work within the County right-of-way)

Date

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 30

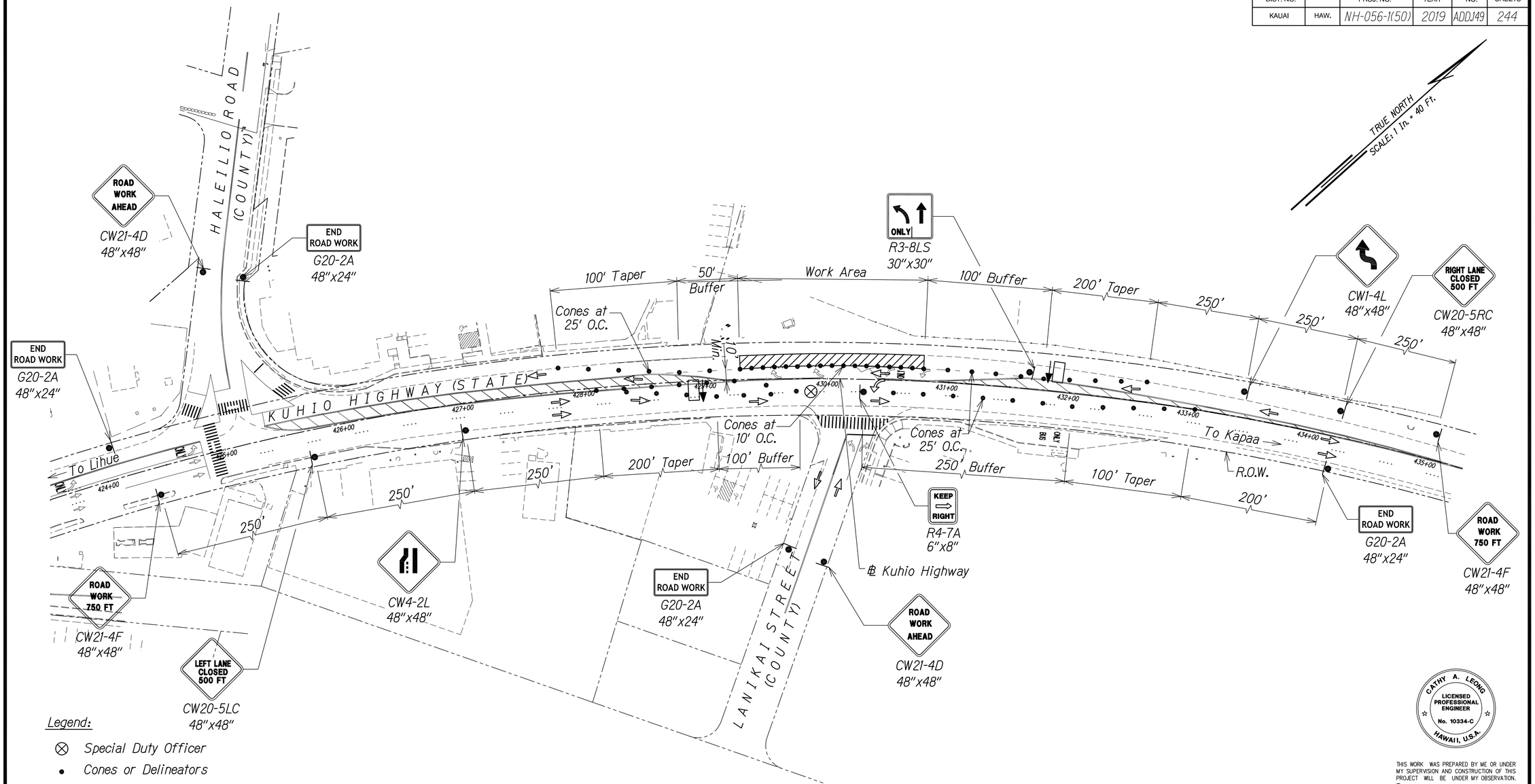
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 40' Date: JULY 2019

SHEET No. TC37 OF 63 SHEETS

ADD.148

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.149	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'

Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Approved

County Engineer
County of Kauai
(For work within the County right-of-way)

Date

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

ORIGINAL PLAN
NOTE BOOK
No.

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 31

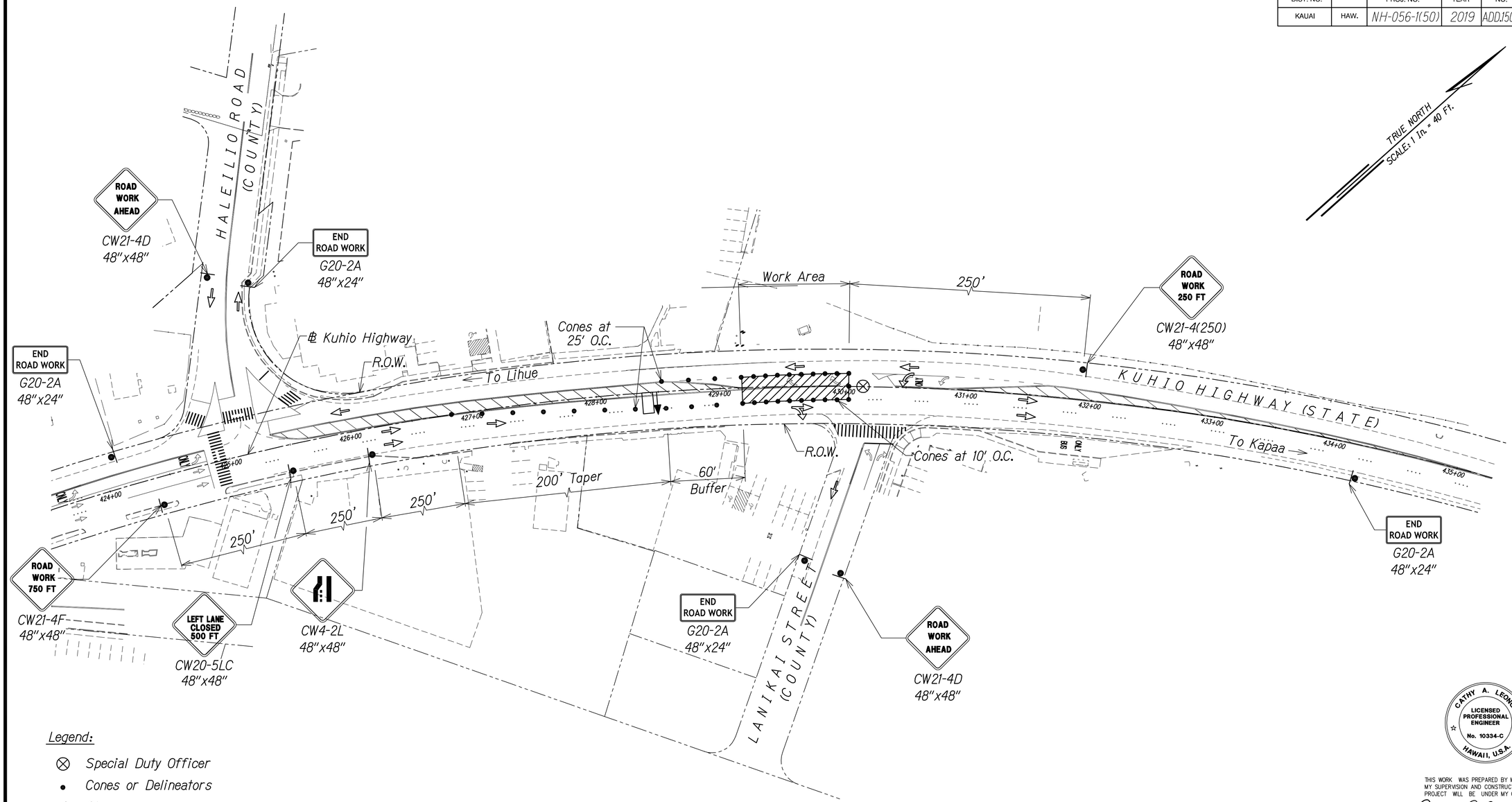
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 40' Date: JULY 2019

SHEET No. TC38 OF 63 SHEETS

ADD.149

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.150	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- •| Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Approved

County Engineer
County of Kauai
(For work within the County right-of-way)

Date

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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WILSON OKAMOTO CORP. APRIL 30, 2020
LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 32

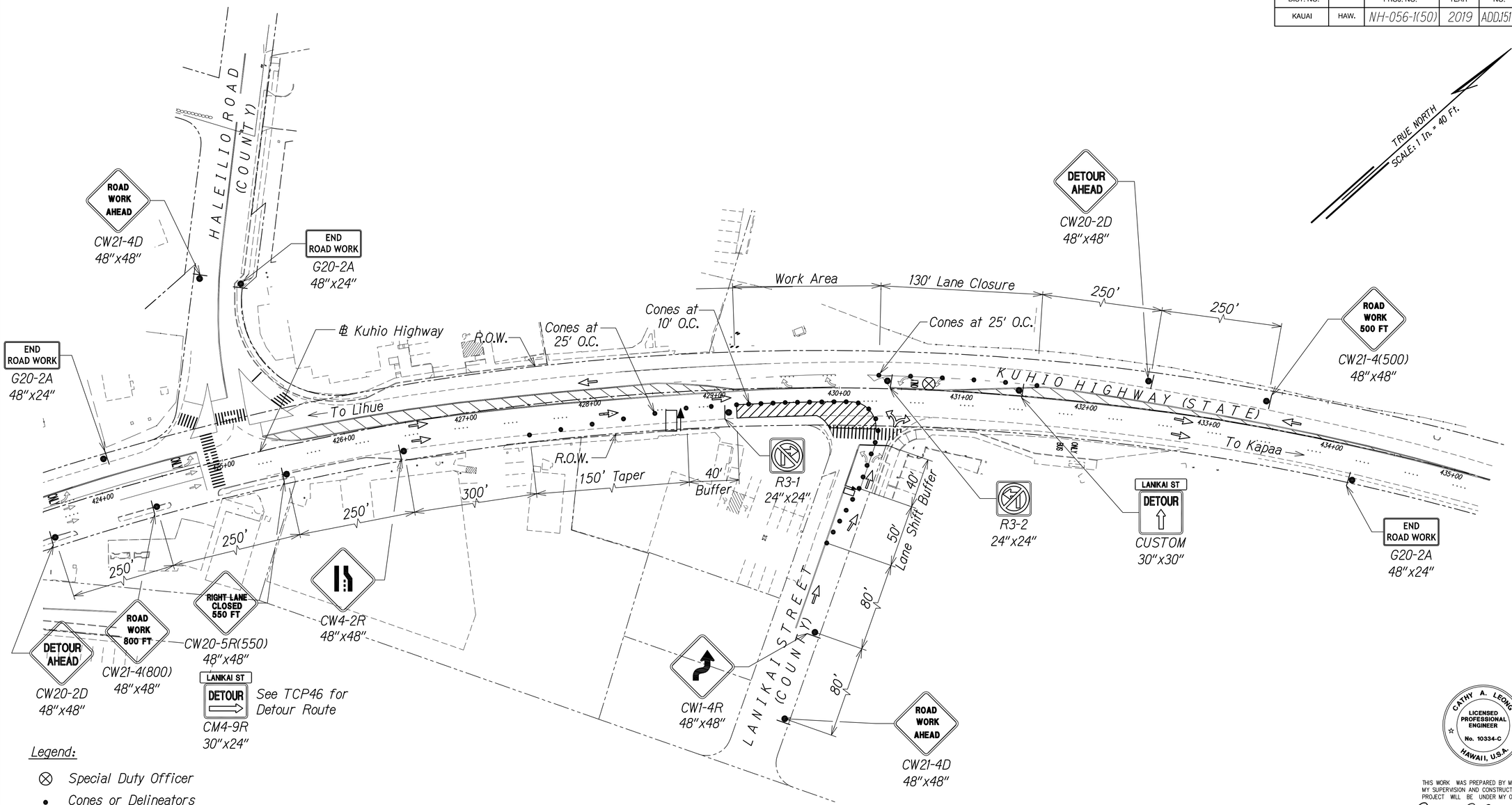
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC39 OF 63 SHEETS

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

ADD.150

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.151	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- ● Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'
SEE TD5 FOR DETOUR ROUTE

Approved

County Engineer — Date
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

CATHY A. LEONG — LICENSED PROFESSIONAL ENGINEER — No. 10334-C — HAWAII, U.S.A.

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

WILSON OKAMOTO CORP. — APRIL 30, 2020 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

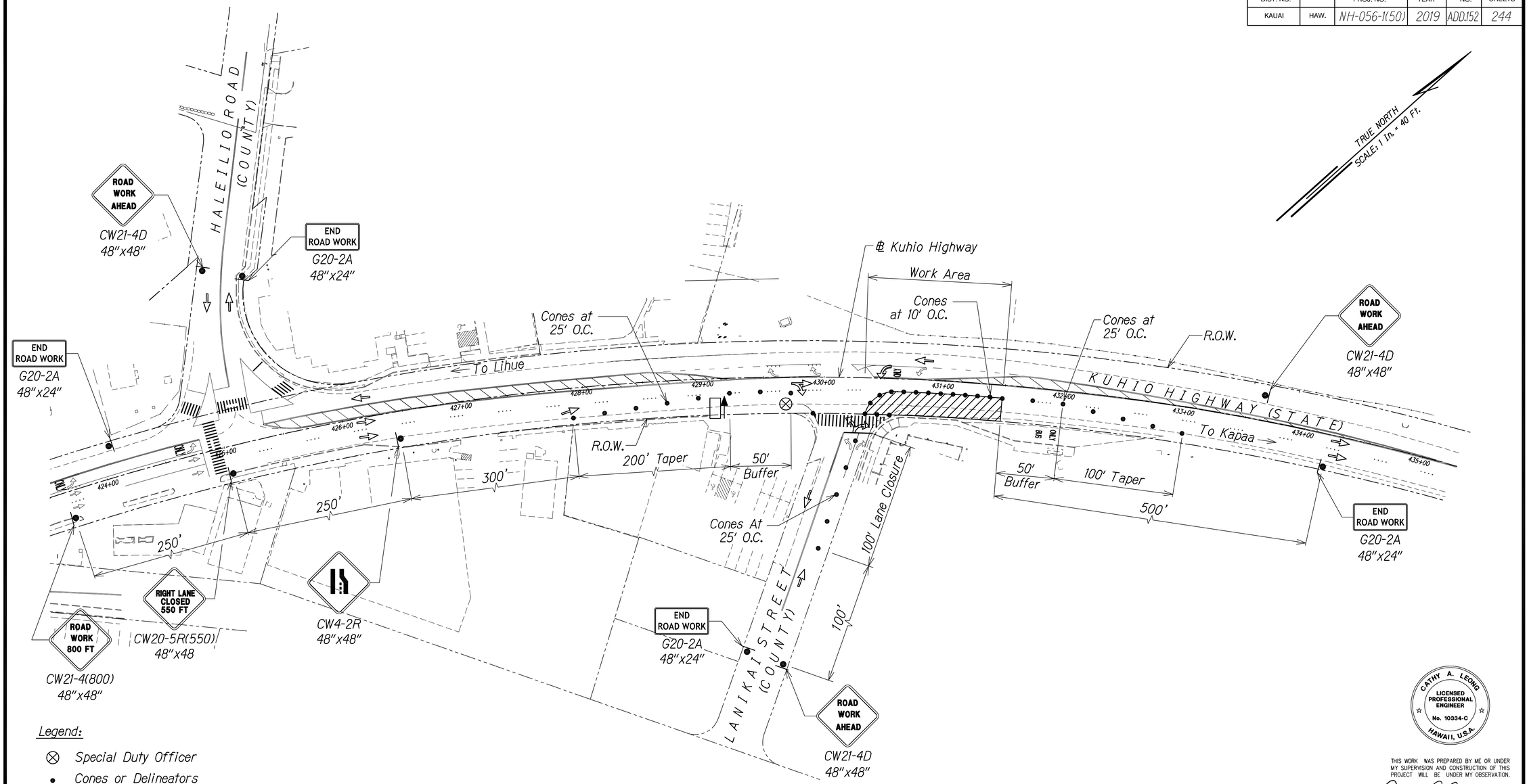
TRAFFIC CONTROL PLAN 33

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC40 OF 63 SHEETS

ADD.151

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.152	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- ● Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Approved

County Engineer
County of Kauai
(For work within the County right-of-way)

Date

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 34

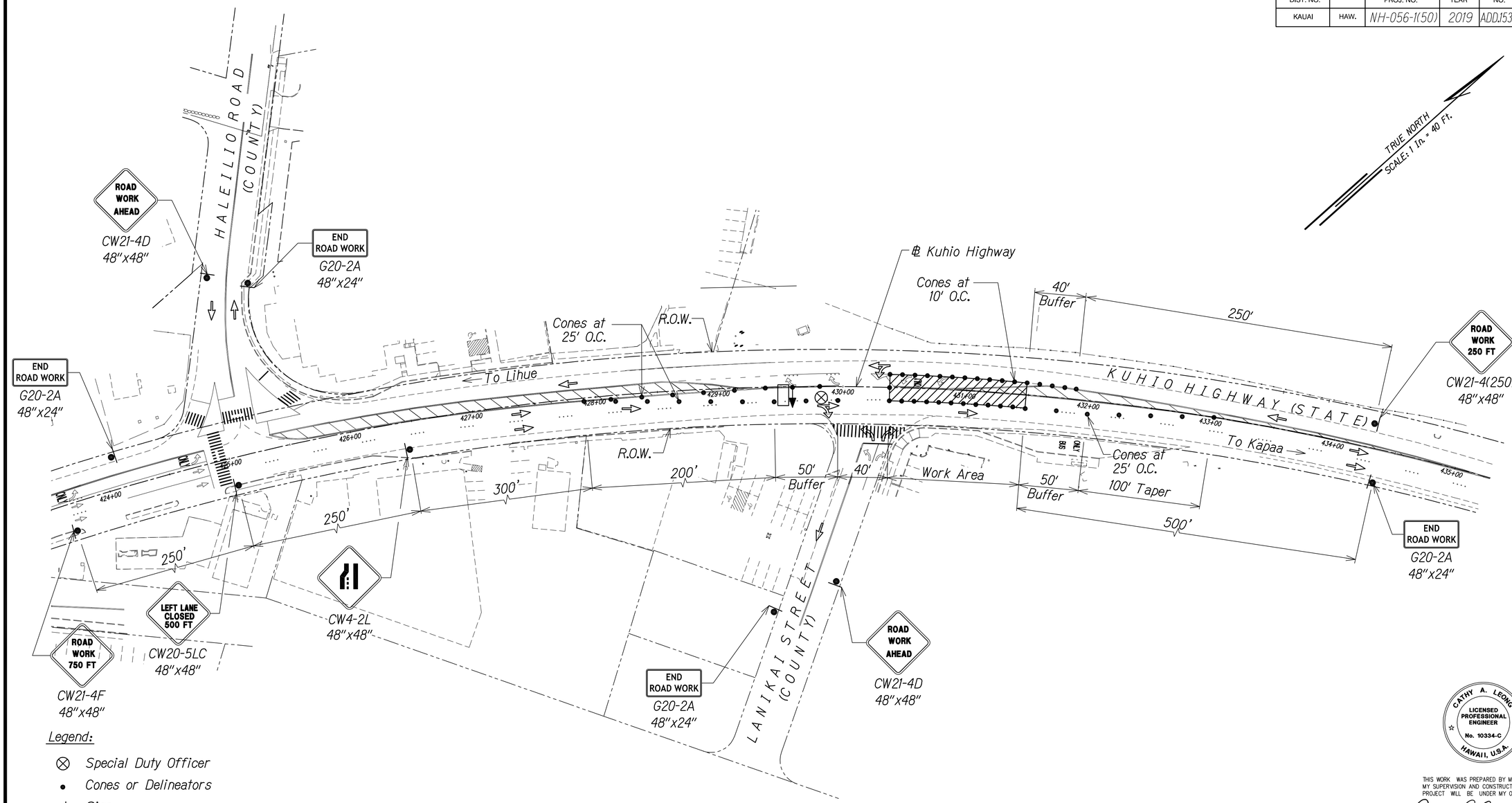
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC41 OF 63 SHEETS

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

ADD.152

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.153	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Approved

County Engineer Date
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 35

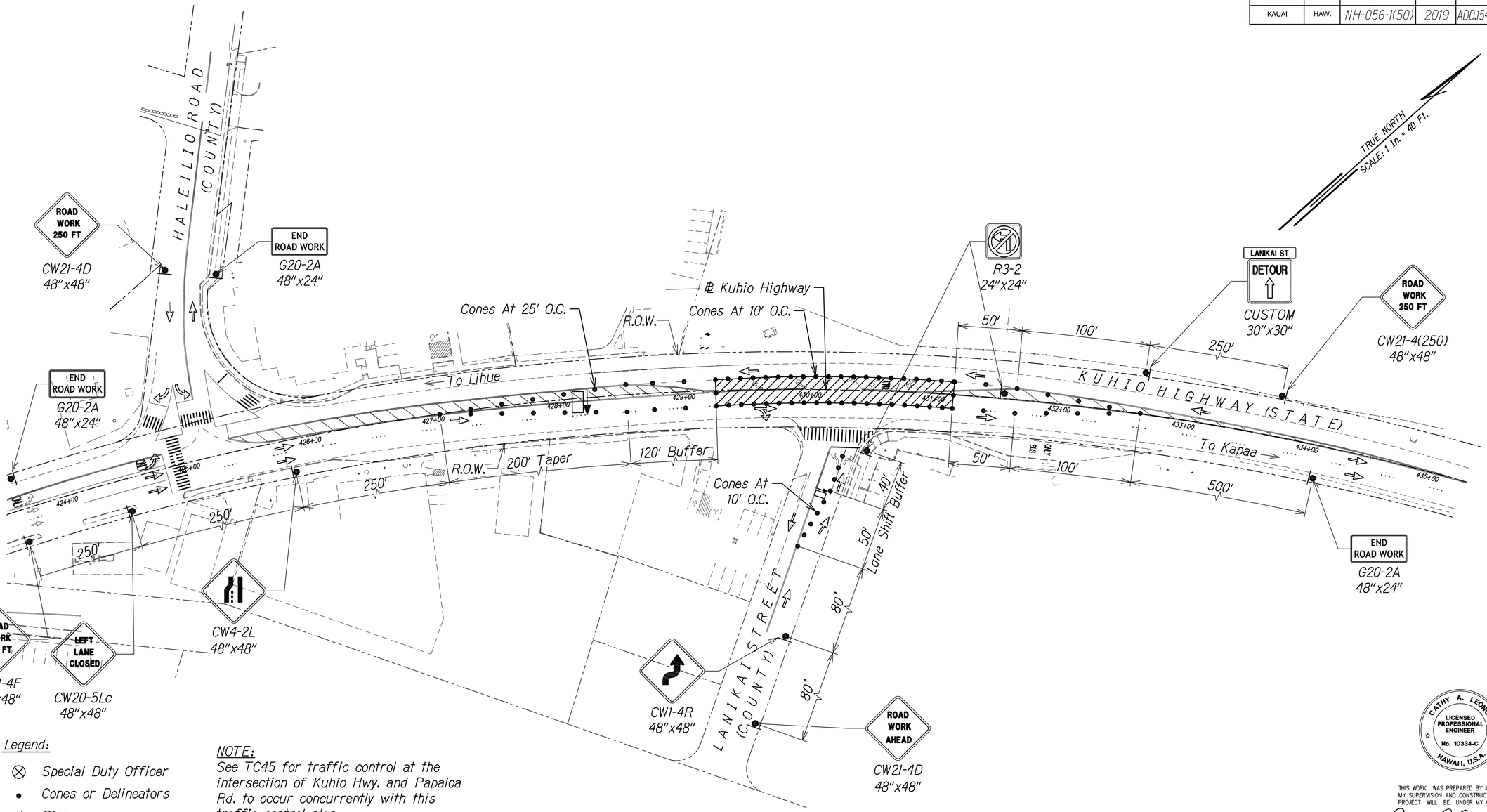
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC42 OF 63 SHEETS

ADD.153

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.154	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- •| Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

NOTE:
See TC45 for traffic control at the intersection of Kuhio Hwy. and Papaloa Rd. to occur concurrently with this traffic control plan.

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'
SEE TD7 FOR DETOUR ROUTE

Approved

County Engineer
County of Kauai
(For work within the County right-of-way)

Date

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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WILSON OKAMOTO CORP. APRIL 30, 2020
LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 36

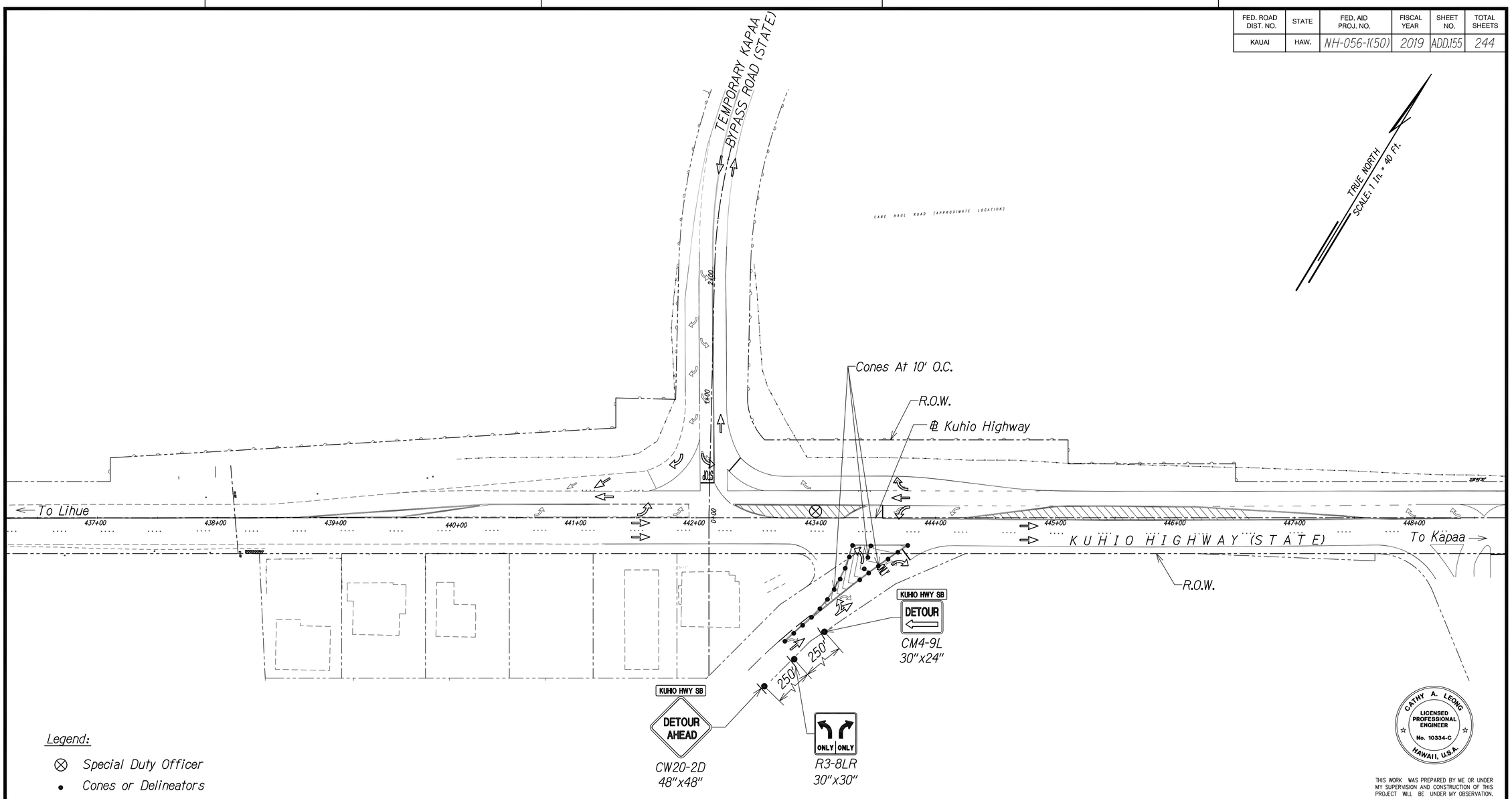
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 40' Date: JULY 2019

SHEET No. TC43 OF 63 SHEETS

ADD.154

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.155	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'

Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'
SEE TD7 FOR DETOUR ROUTE

Approved

County Engineer
County of Kauai
(For work within the County right-of-way)

Date

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 37

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

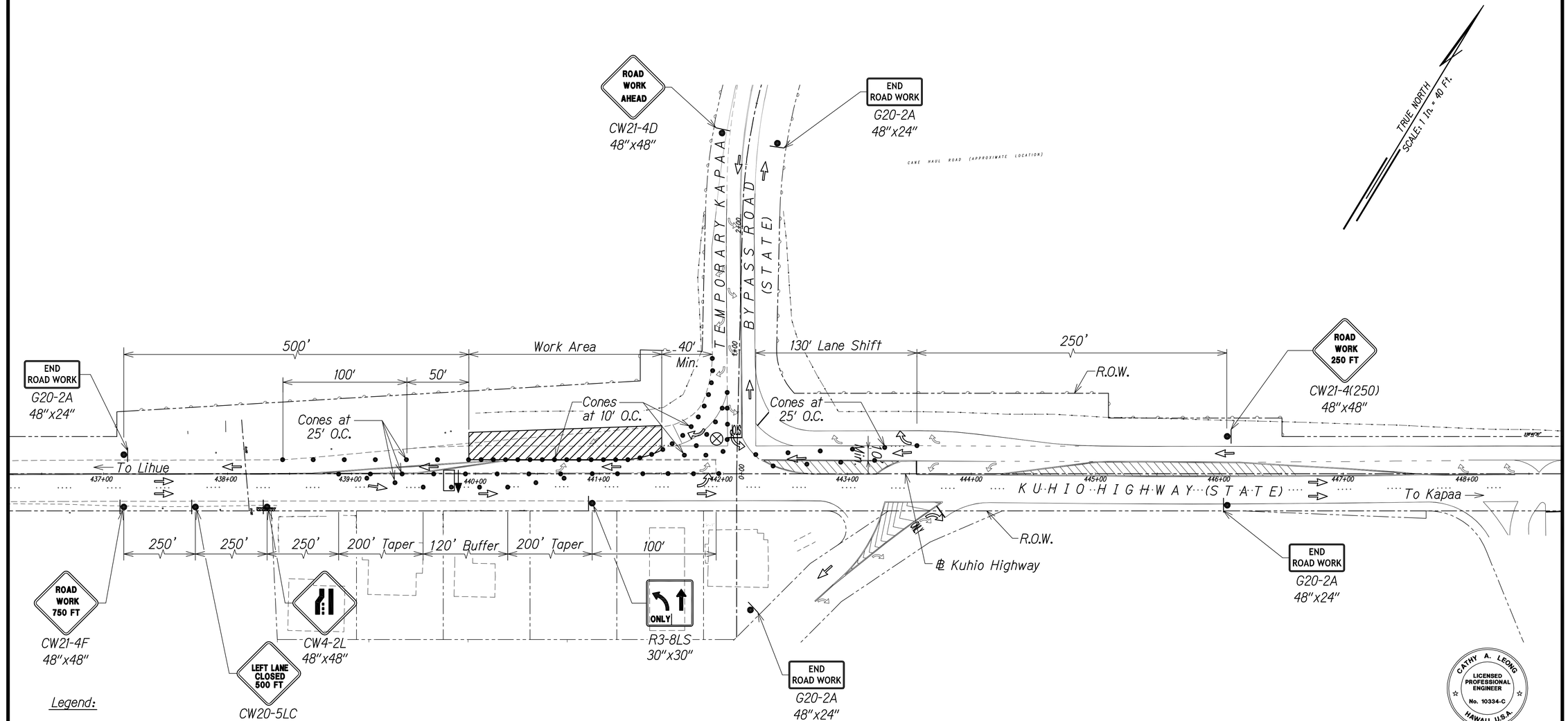
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC44 OF 63 SHEETS

ADD.155

ORIGINAL PLANS — SURVEY PLOTTED BY / DRAWN BY / TRACED BY / DESIGNED BY / QUANTITIES BY / CHECKED BY — DATE
NOTE BOOK — No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.156	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- ●| Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Approved

County Engineer — Date
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	③ Reissuing plan for legibility only. No design changes have been made.
9/20/19	② Reissuing plan for legibility only. No design changes have been made.

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HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 38

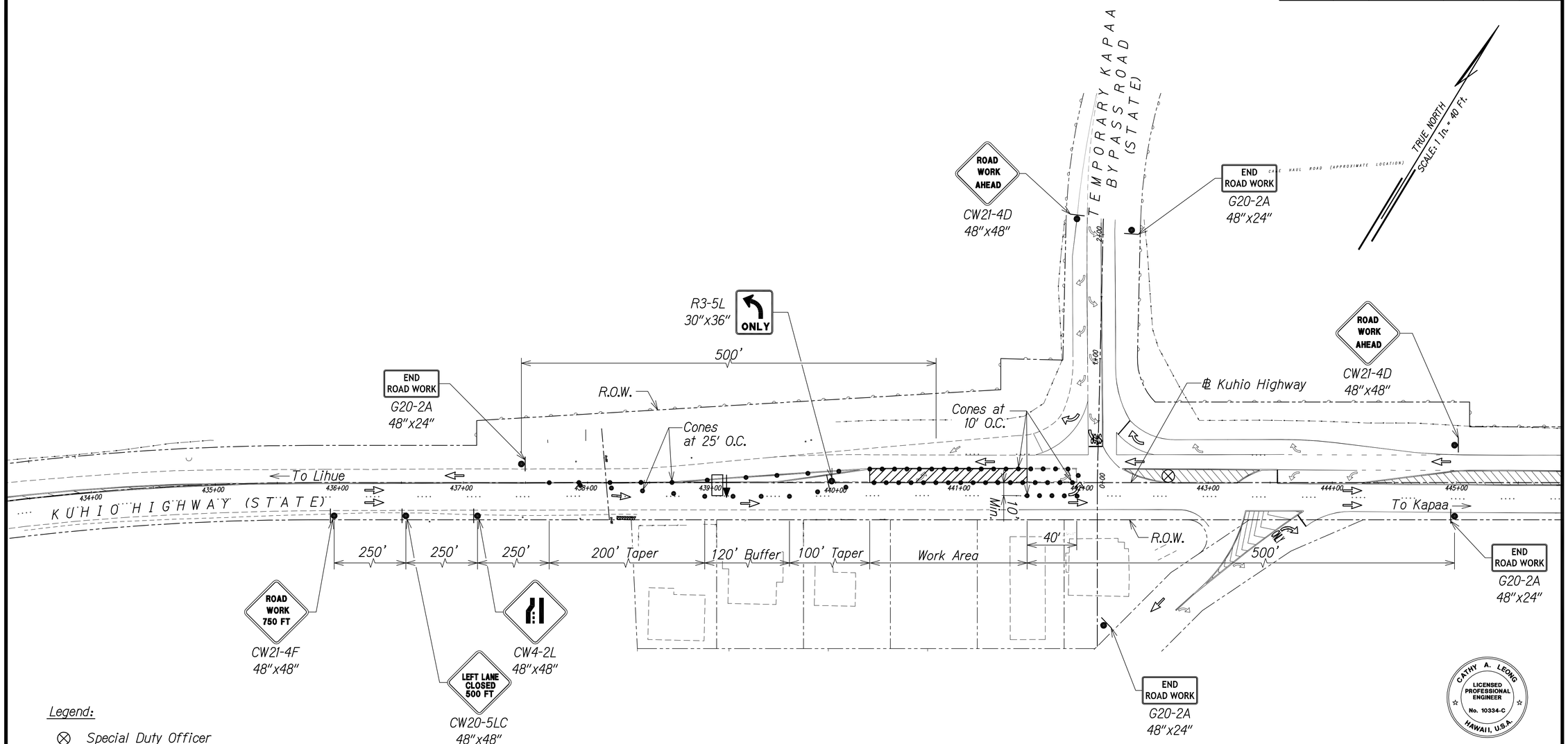
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC45 OF 63 SHEETS

ADD.156

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.157	244



Legend:

- Special Duty Officer
- Cones or Delineators
- Sign
- Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Approved

County Engineer Date
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

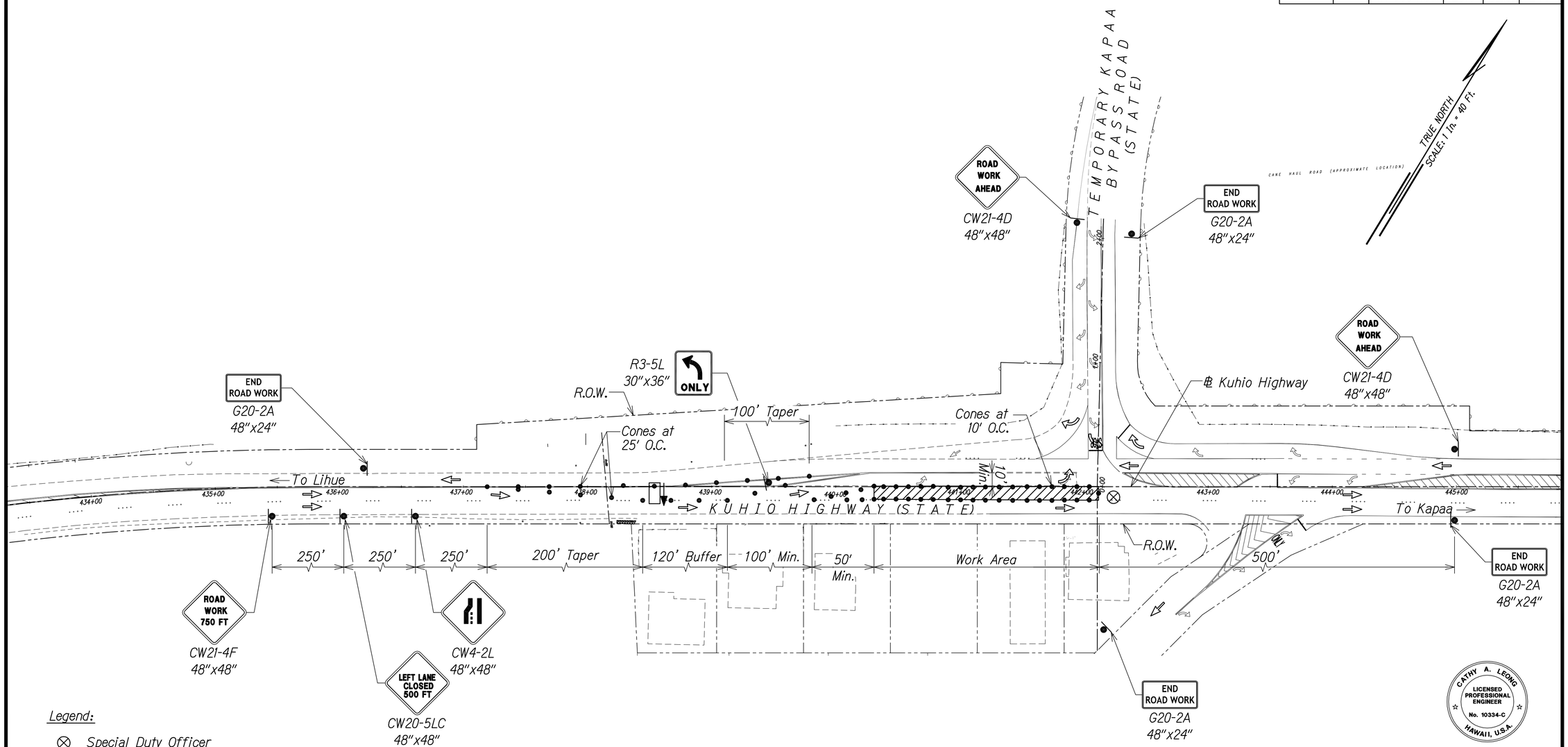
TRAFFIC CONTROL PLAN 39

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC46 OF 63 SHEETS

ADD.157

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.158	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Approved

County Engineer Date
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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

APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 40

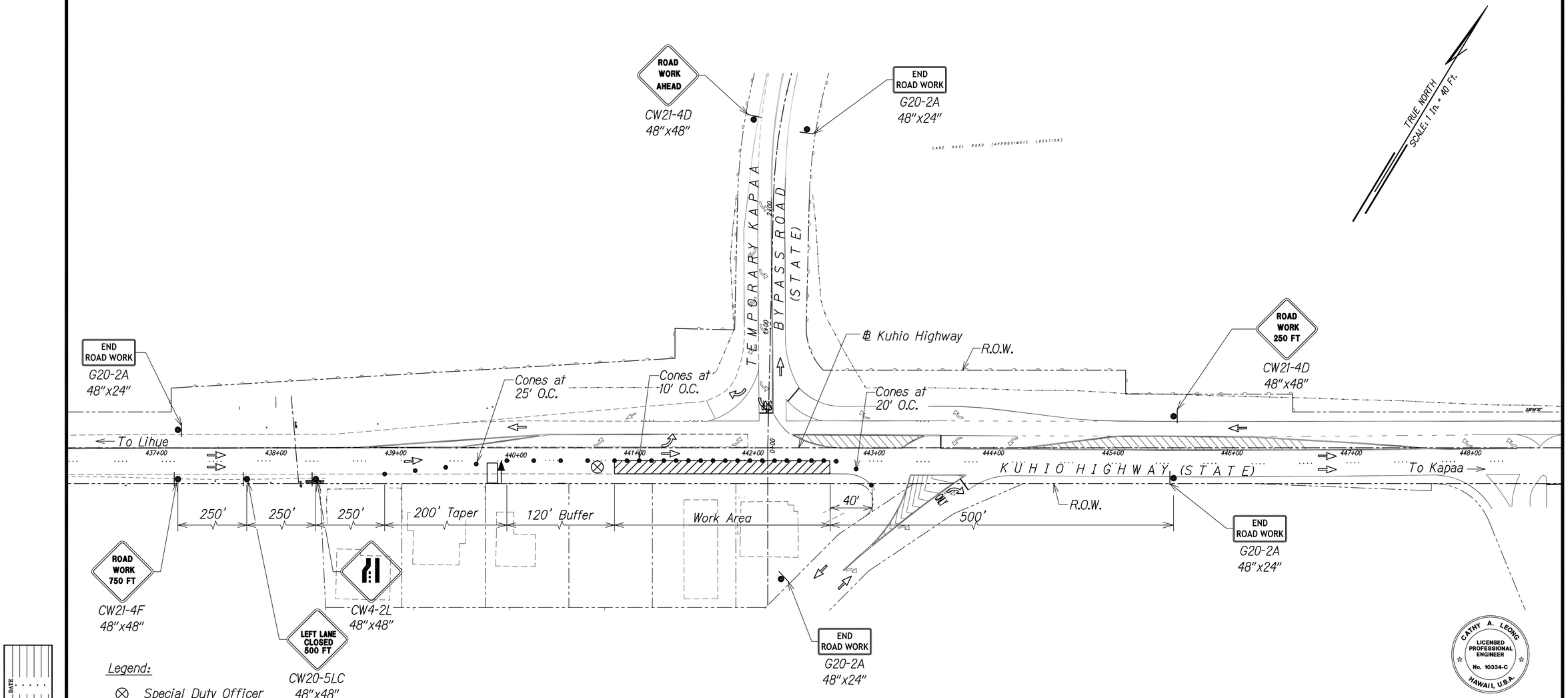
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC47 OF 63 SHEETS

ADD.158

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.159	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

Approved

County Engineer — Date
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	⚠ Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠ Reissuing plan for legibility only. No design changes have been made.

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

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

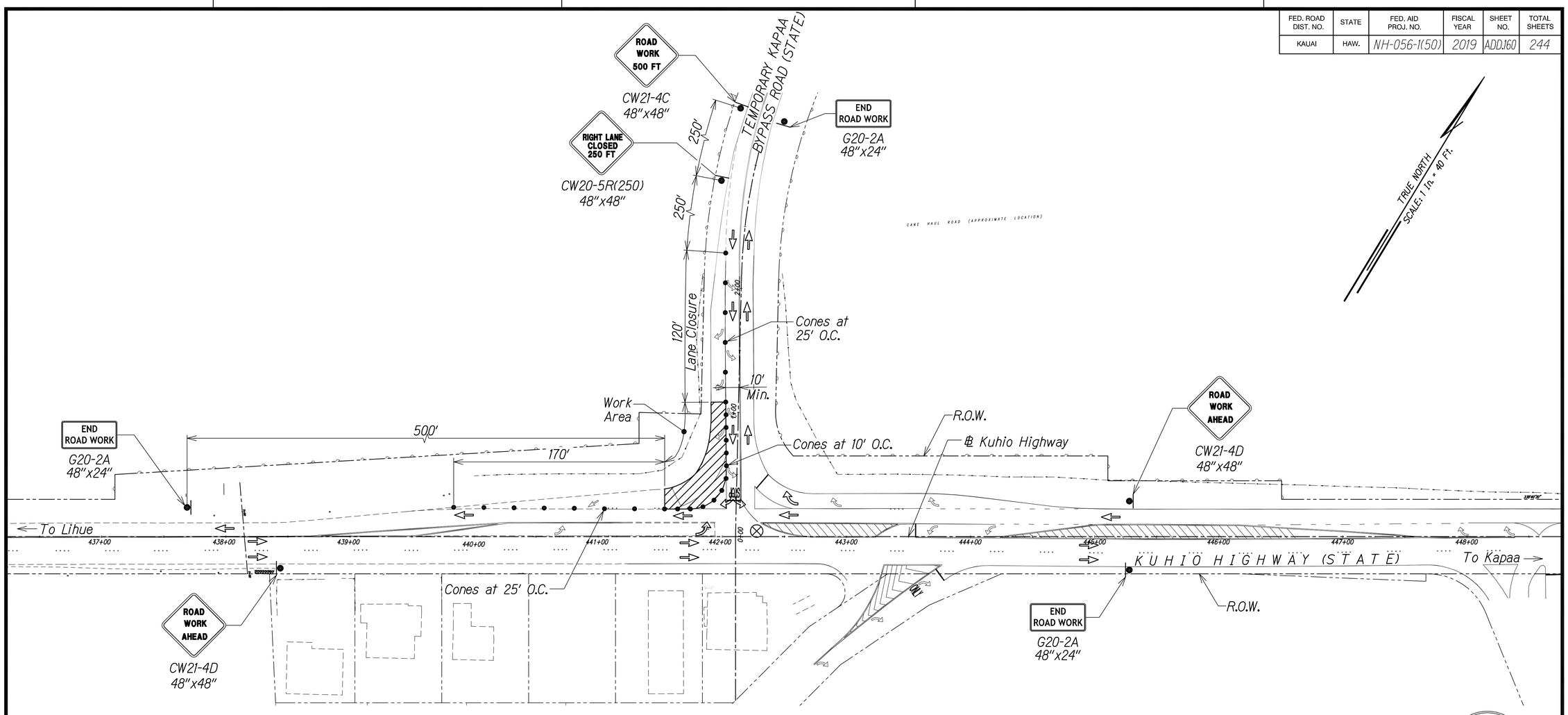
TRAFFIC CONTROL PLAN 41

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC48 OF 63 SHEETS

ADD.159

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.160	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

DATE	REVISION
11/12/19	③ Reissuing plan for legibility only. No design changes have been made.
9/20/19	① Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 42

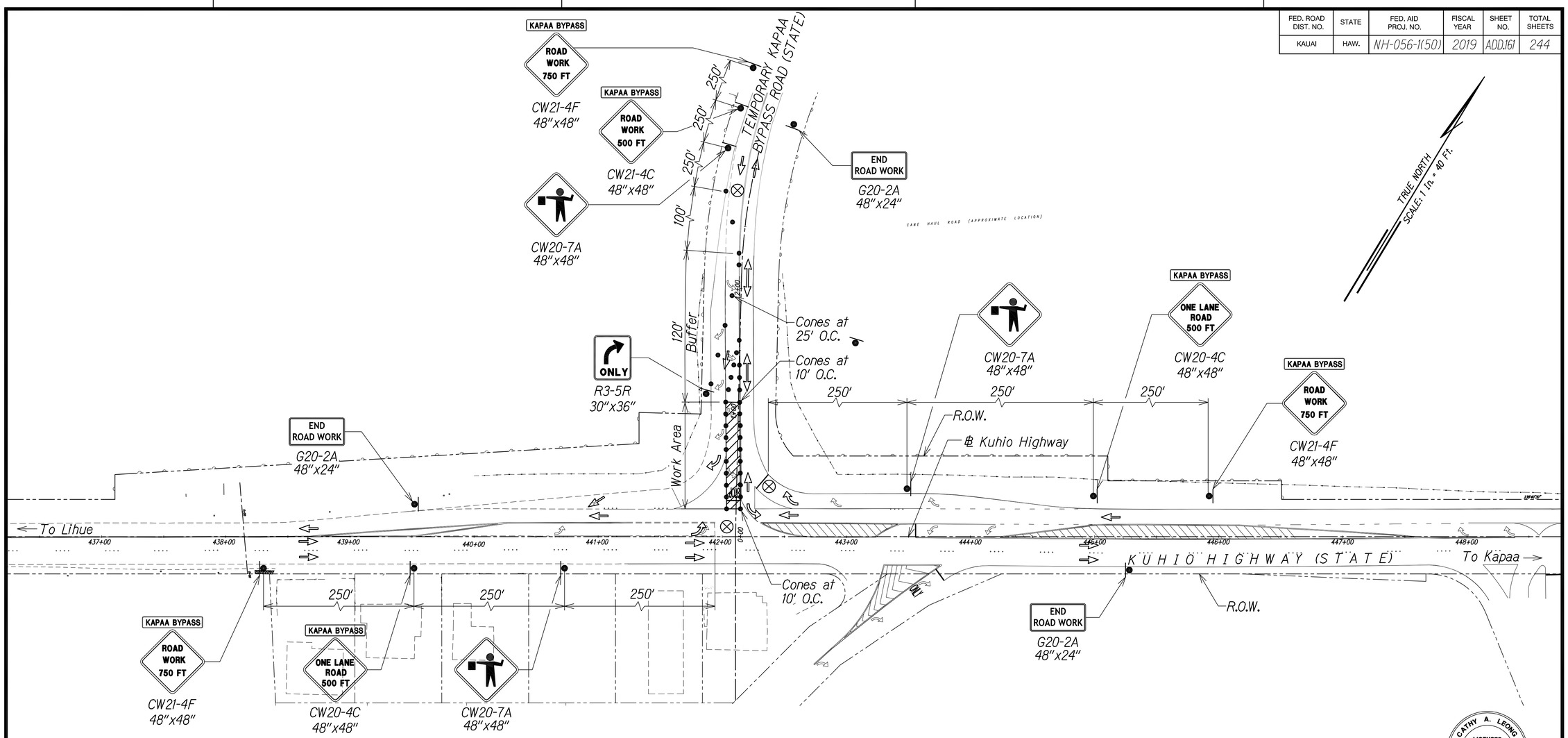
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC49 OF 63 SHEETS

ADD.160

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.161	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- •| Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

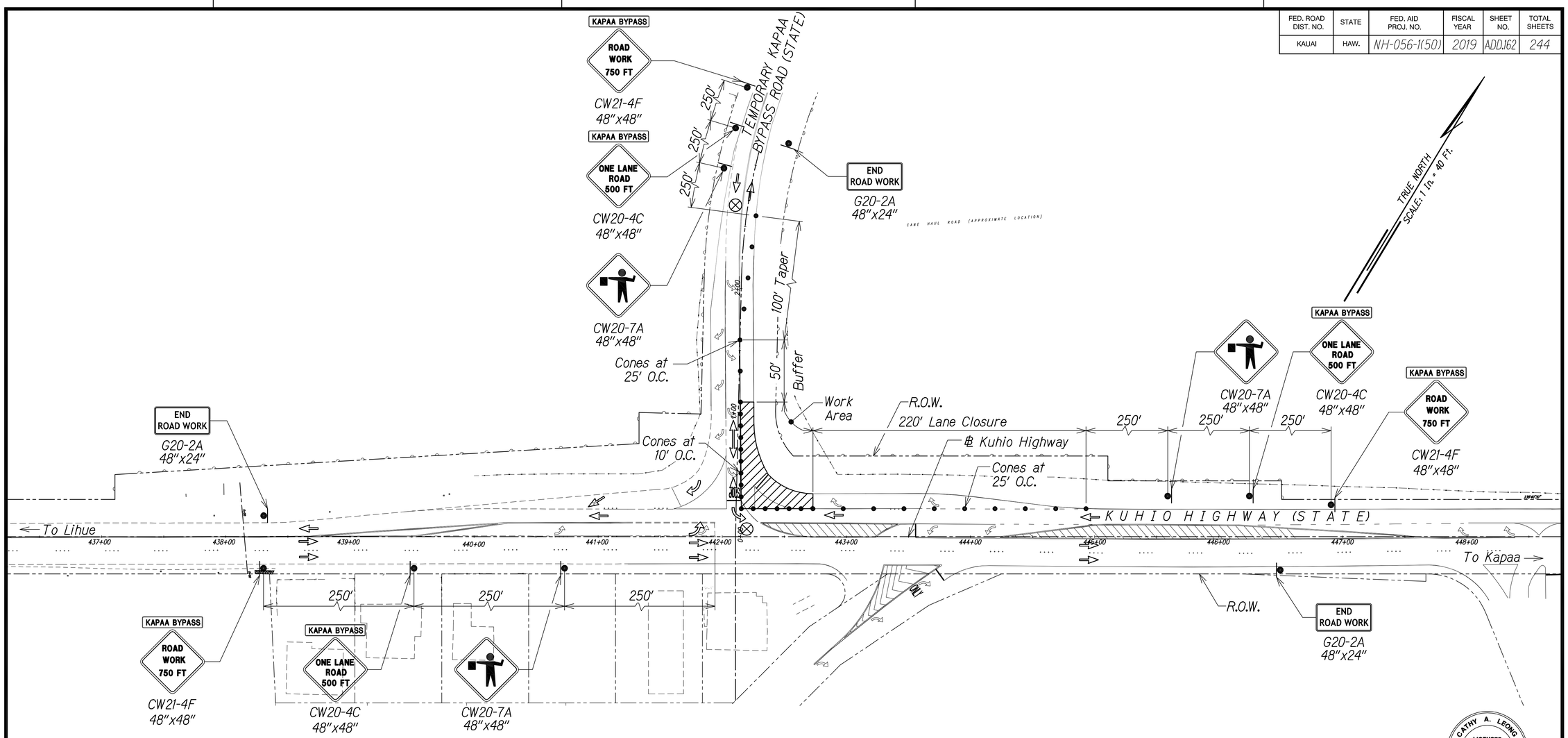
TRAFFIC CONTROL PLAN 43

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC50 OF 63 SHEETS

ADD.161

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.162	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'

Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.

SCALE 1" = 40'

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

ORIGINAL PLAN
NOTE BOOK
No.

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 44

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD

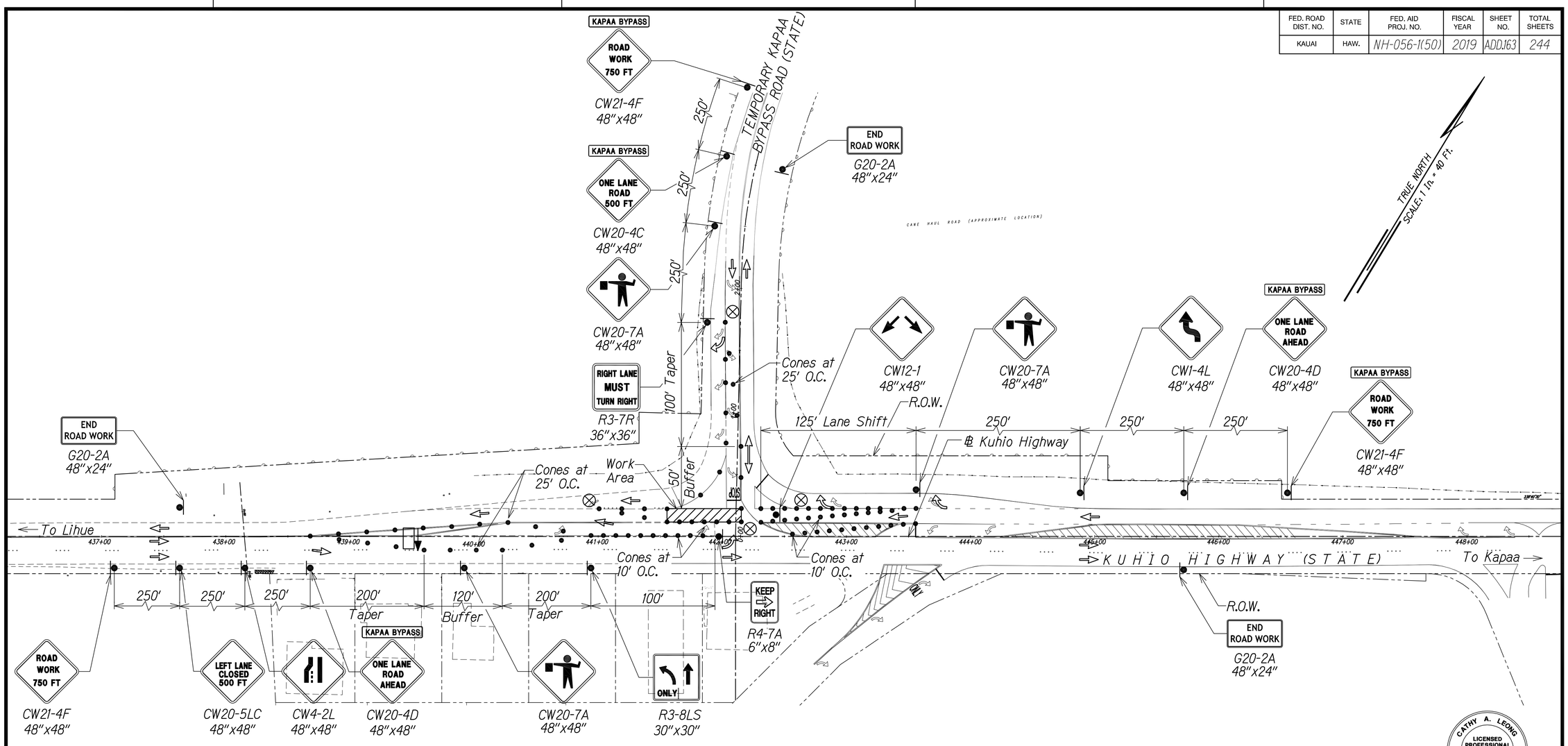
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 40' Date: JULY 2019

SHEET No. TC51 OF 63 SHEETS

ADD.162

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.163	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- •| Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'

Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.

SCALE 1" = 40'

DATE	REVISION
11/12/19	⚠ Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠ Reissuing plan for legibility only. No design changes have been made.

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

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 45

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD

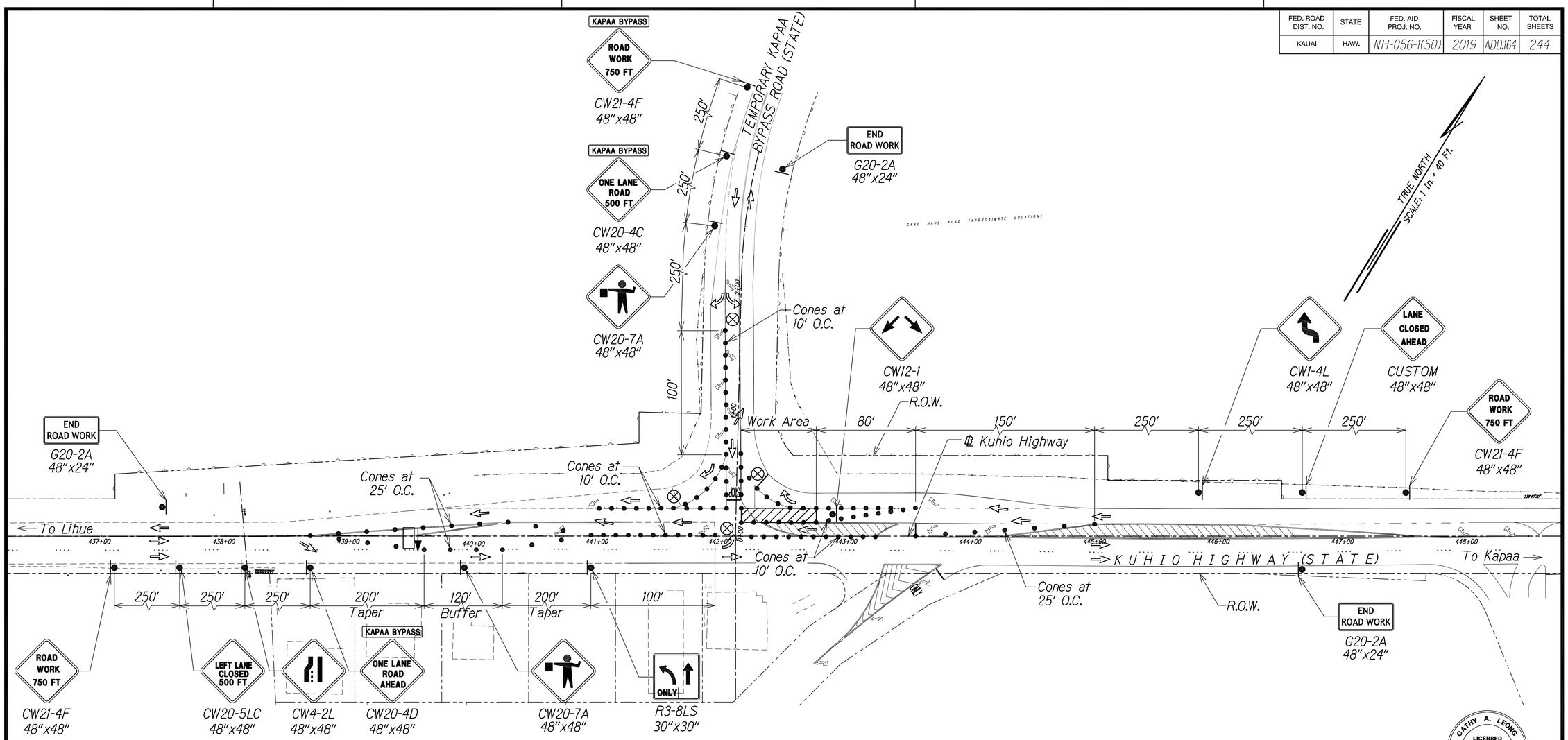
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 40' Date: JULY 2019

SHEET No. TC52 OF 63 SHEETS

ADD.163

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.164	244



Legend:

- ⊗ *Special Duty Officer*
- • *Cones or Delineators*
- •| *Sign*
- ⇨ *Direction of Traffic*
- *Arrowboard Assembly*

GRAPHIC SCALE:

40' 20' 0 40' 80'

Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.

SCALE 1" = 40'

DATE	REVISION
11/12/19	③ Reissuing plan for legibility only. No design changes have been made.
9/20/19	① Reissuing plan for legibility only. No design changes have been made.

ORIGINAL PLAN — SURVEY PLOTTED BY — DRAWN BY — TRACED BY — DESIGNED BY — QUANTITIES BY — CHECKED BY — DATE

NOTE BOOK — No.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 46

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD

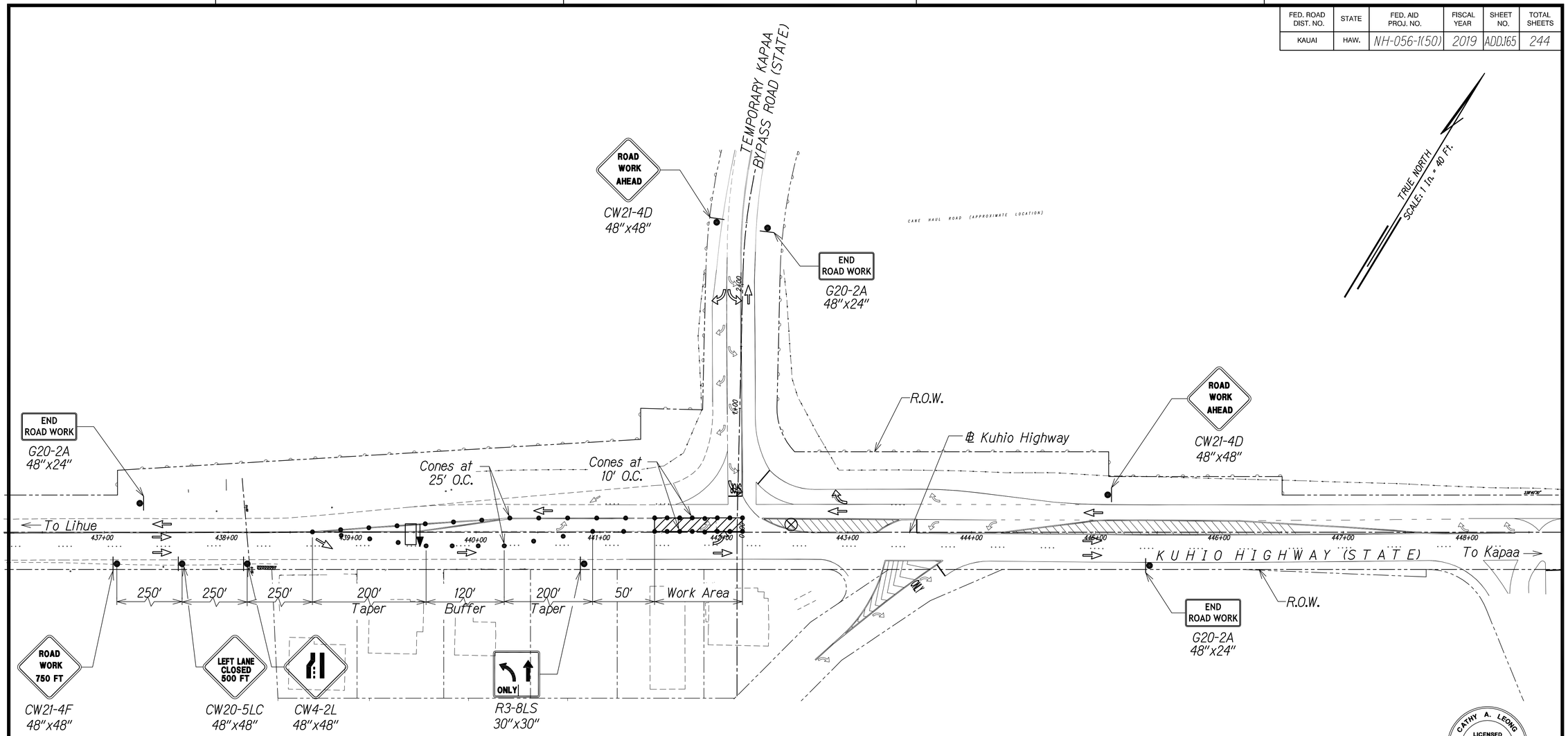
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 40' Date: JULY 2019

SHEET No. TC53 OF 63 SHEETS

ADD.164

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.165	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

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

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
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No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

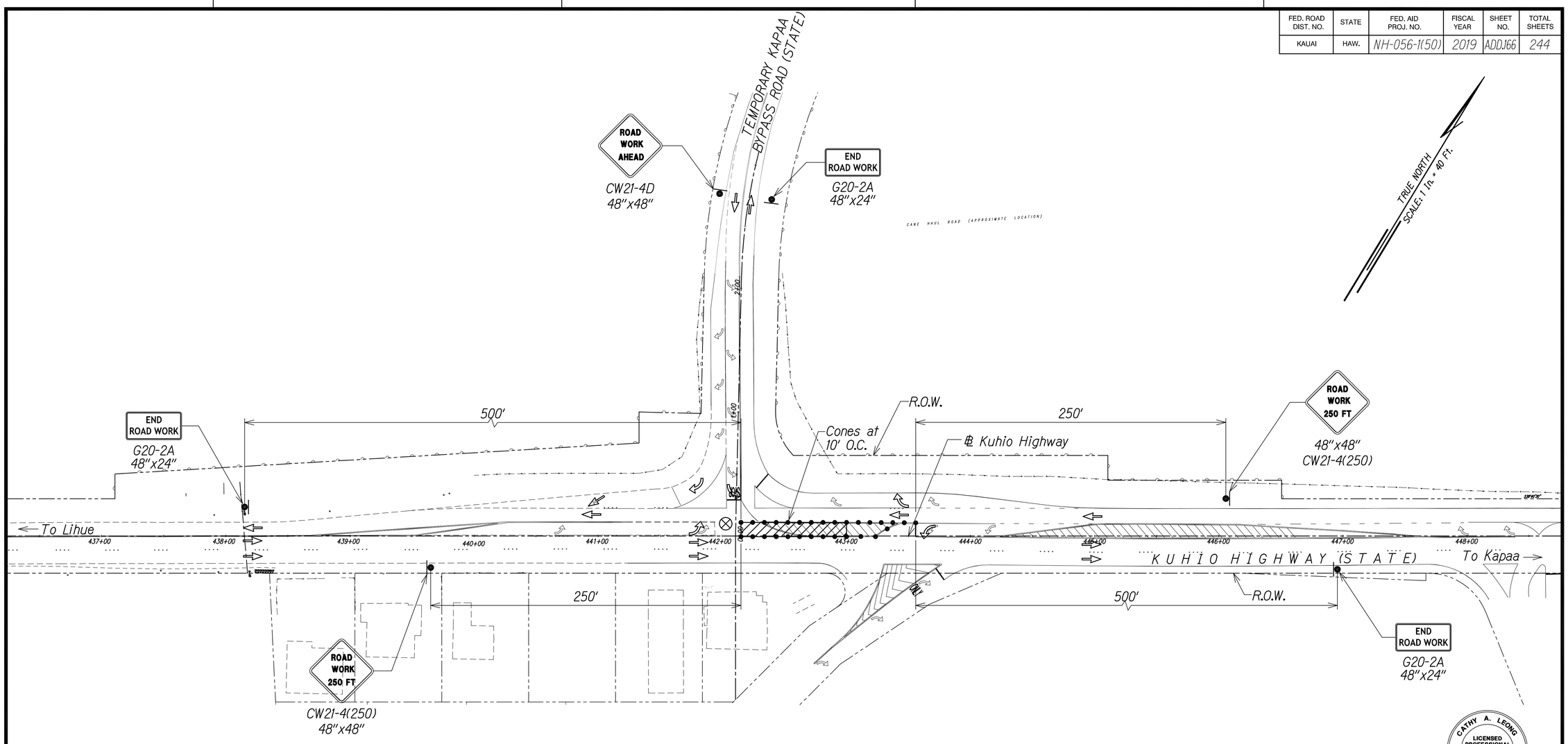
TRAFFIC CONTROL PLAN 47

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC54 OF 63 SHEETS

ADD.165

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.166	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
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No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 48

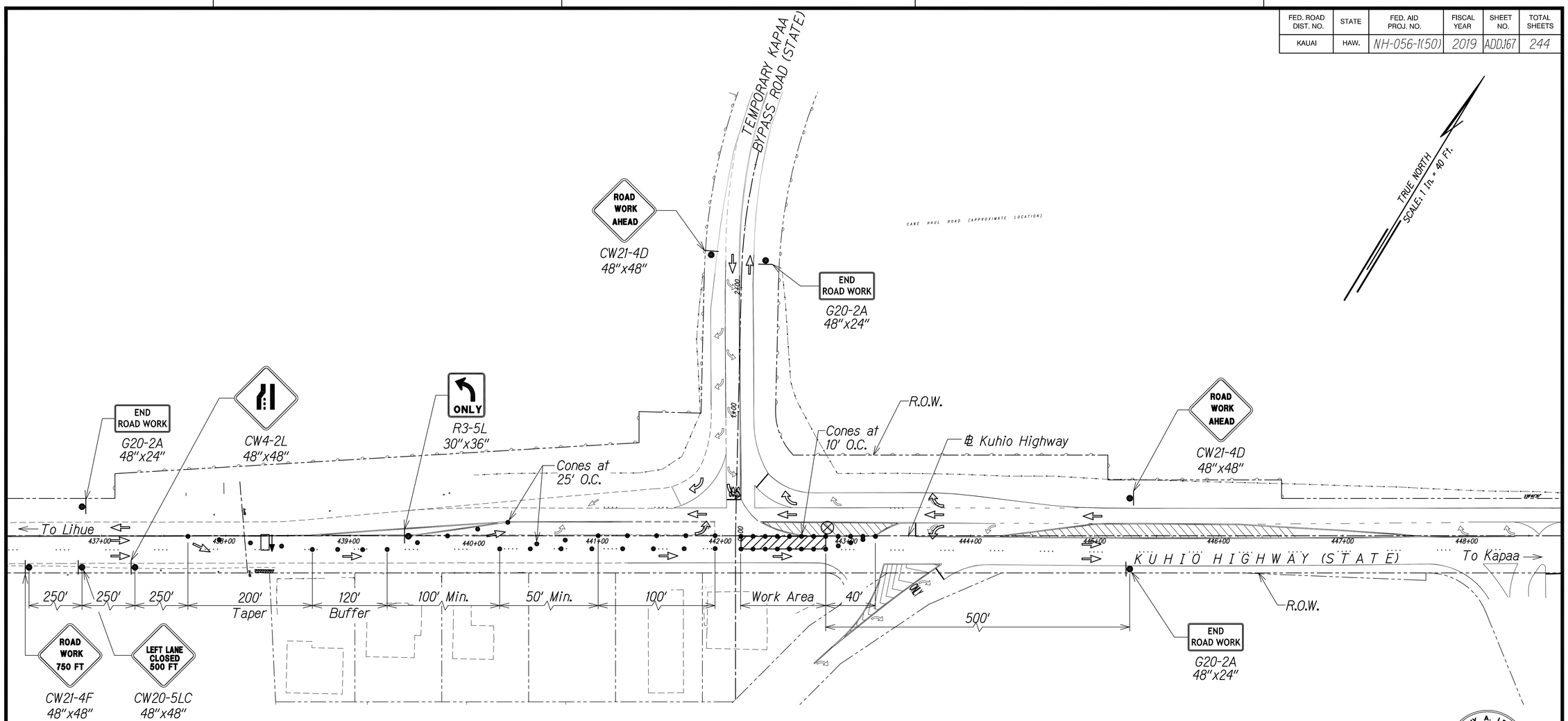
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC55 OF 63 SHEETS

ADD.166

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.167	244



Legend:

- ⊗ Special Duty Officer
- • Cones or Delineators
- Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly

GRAPHIC SCALE:

40' 20' 0 40' 80'
Scale: 1" = 40'

TRAFFIC CONTROL PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 40'

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

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

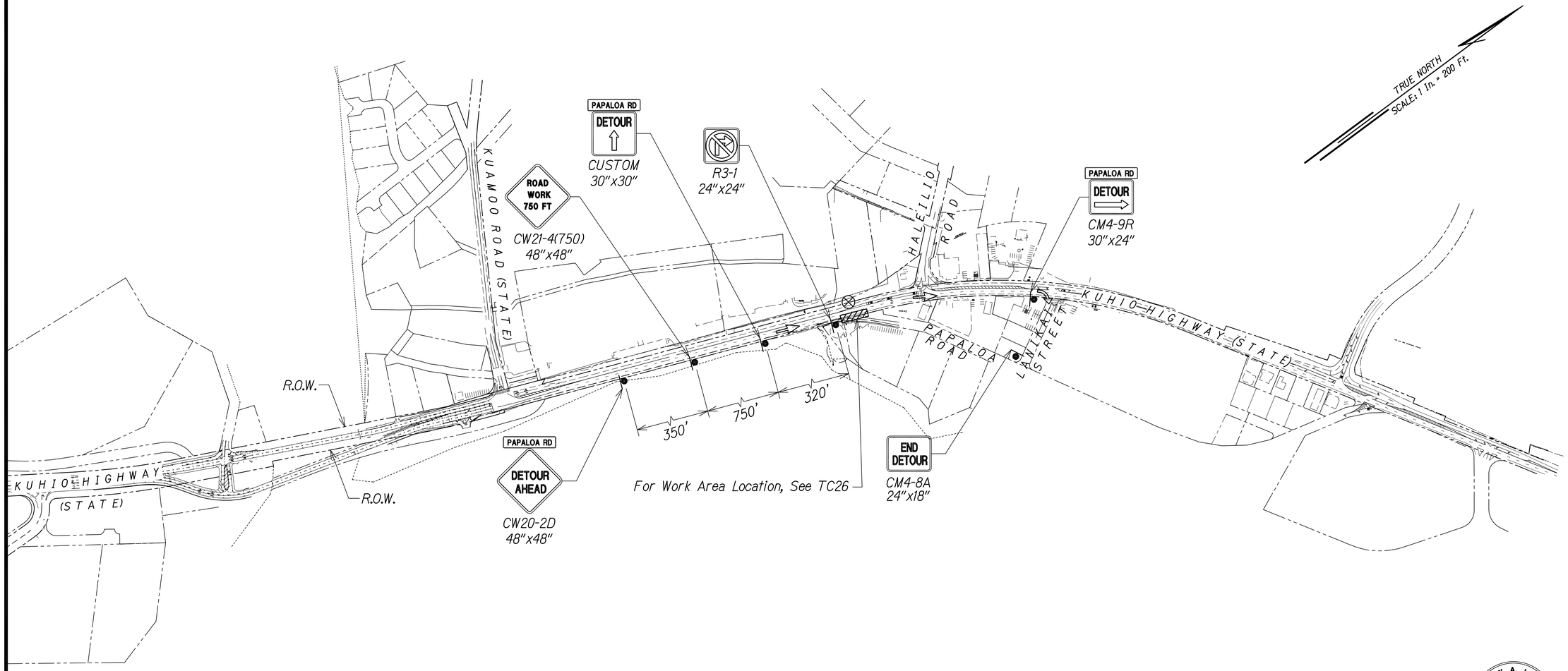
TRAFFIC CONTROL PLAN 49

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 40' Date: JULY 2019

SHEET No. TC56 OF 63 SHEETS

ADD.167

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.168	244



Legend:

- Special Duty Officer
- Cones or Delineators
- Sign
- Direction of Traffic
- Arrowboard Assembly
- Work Area

GRAPHIC SCALE:

100' 50' 0 100' 200'

SCALE: 1" = 200'

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

DETOUR PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 200'
SEE TC25 FOR TRAFFIC CONTROL PLAN

Approved

County Engineer
County of Kauai
(For work within the County right-of-way)

Date

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETOUR PLAN 01

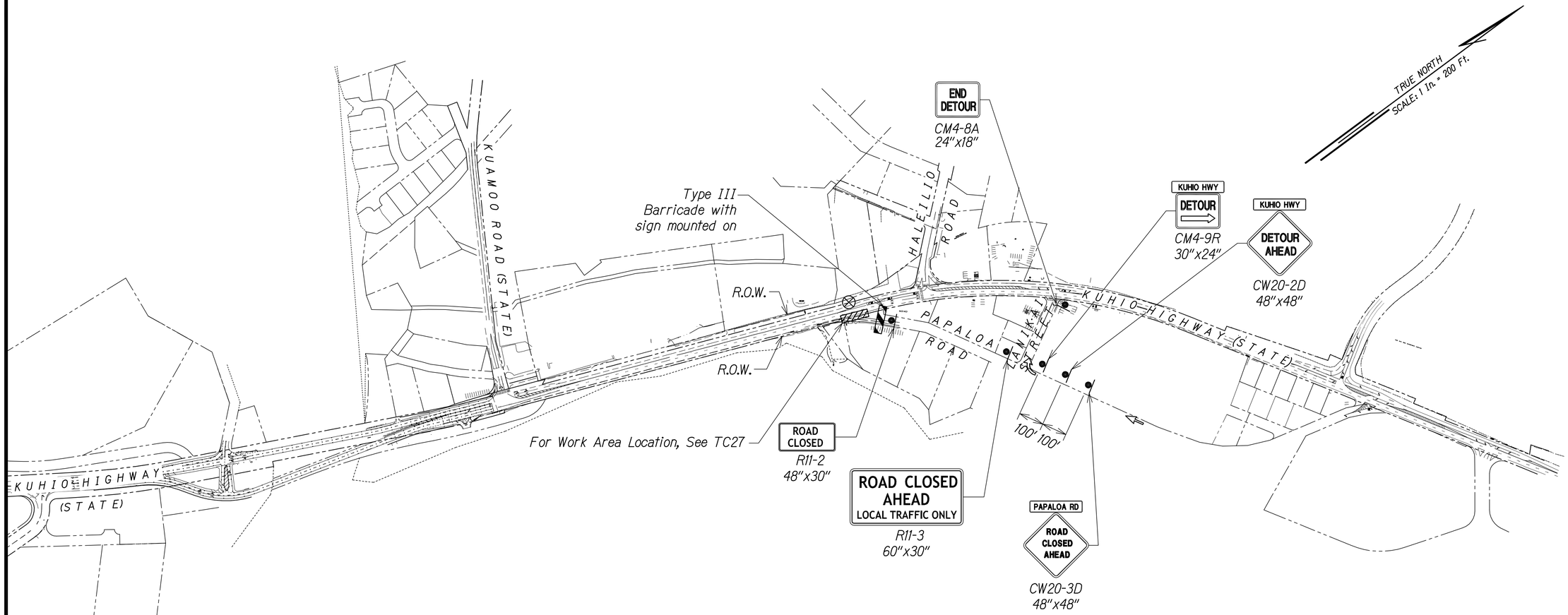
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 200' Date: JULY 2019

SHEET No. TD1 OF 63 SHEETS

ADD.168

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.169	244



Legend:

- ⊗ *Special Duty Officer*
- ● *Cones or Delineators*
- ●| *Sign*
- ⇨ *Direction of Traffic*
- *Arrowboard Assembly*
- *Type III Barricade*
- *Work Area*

GRAPHIC SCALE:

100' 50' 0 100' 200'

SCALE: 1" = 200'

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

ORIGINAL PLAN
NOTE BOOK
No.

DETOUR PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 200'
SEE TC26 FOR TRAFFIC CONTROL PLAN

Approved

County Engineer *Date*
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETOUR PLAN 02

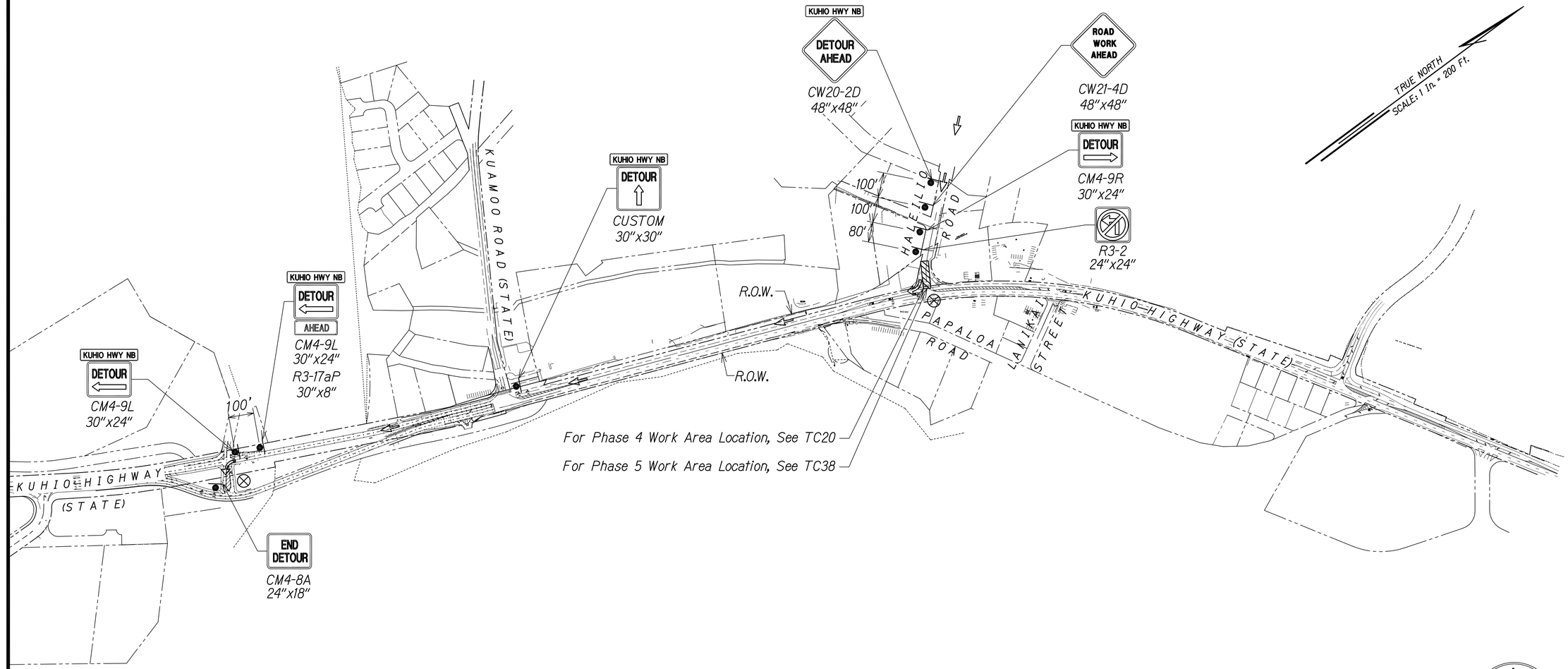
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 200' *Date: JULY 2019*

SHEET No. TD2 OF 63 SHEETS

ADD.169

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.170	244



Legend:

- ⊗ *Special Duty Officer*
- ● *Cones or Delineators*
- ●| *Sign*
- ⇨ *Direction of Traffic*
- *Arrowboard Assembly*
- *Work Area*

GRAPHIC SCALE:

100' 50' 0 100' 200'

SCALE: 1" = 200'

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

ORIGINAL PLANS
NOTE BOOK
No.

DETOUR PLAN - PHASE 4 AND 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 200'
SEE TC19 FOR PHASE 4 TRAFFIC CONTROL PLAN,
AND TC37 FOR PHASE 5 TRAFFIC CONTROL PLAN

Approved

County Engineer *Date*
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	③ Reissuing plan for legibility only. No design changes have been made.
9/20/19	① Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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

APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

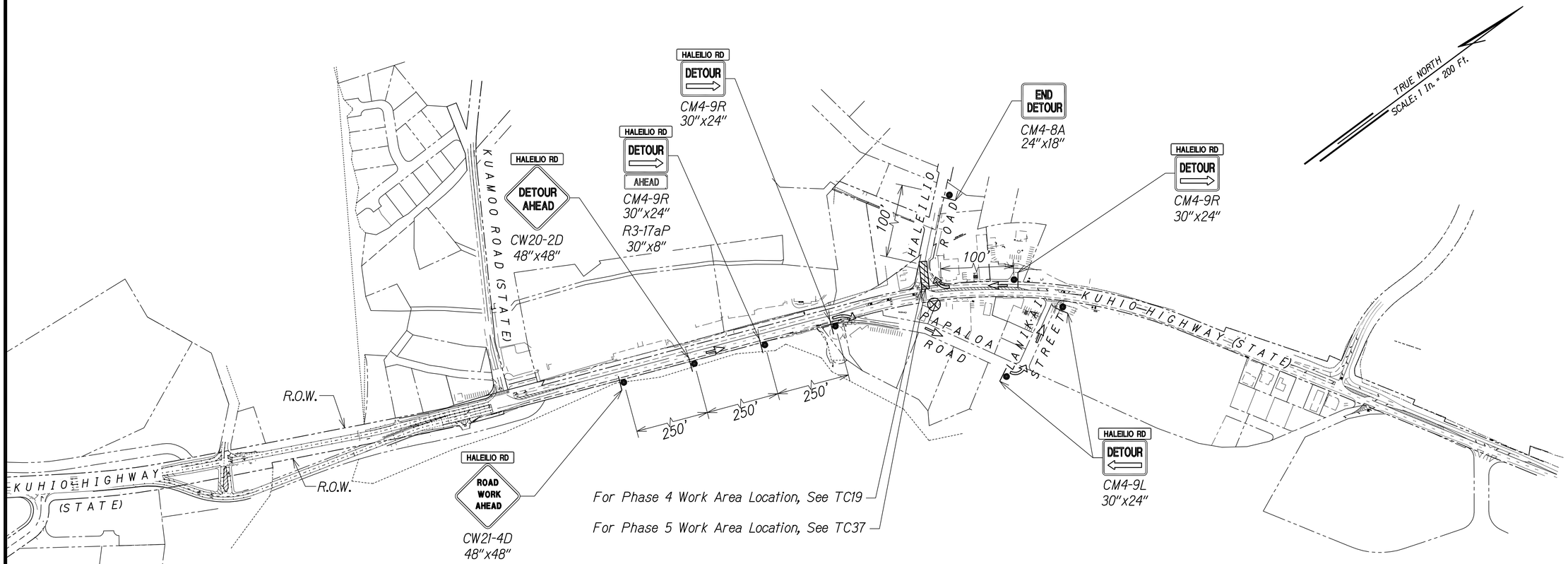
DETOUR PLAN 03

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 200' *Date: JULY 2019*

SHEET No. TD3 OF 63 SHEETS

ADD.170

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.171	244



Legend:

- ⊗ Special Duty Officer
- ● Cones or Delineators
- ●| Sign
- ⇨ Direction of Traffic
- Arrowboard Assembly
- Work Area

GRAPHIC SCALE:

100' 50' 0 100' 200'

SCALE: 1" = 200'

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

DETOUR PLAN - PHASE 4 AND 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 200'
SEE TC18 FOR PHASE 4 TRAFFIC CONTROL PLAN,
AND TC36 FOR PHASE 5 TRAFFIC CONTROL PLAN

Approved

County Engineer Date
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

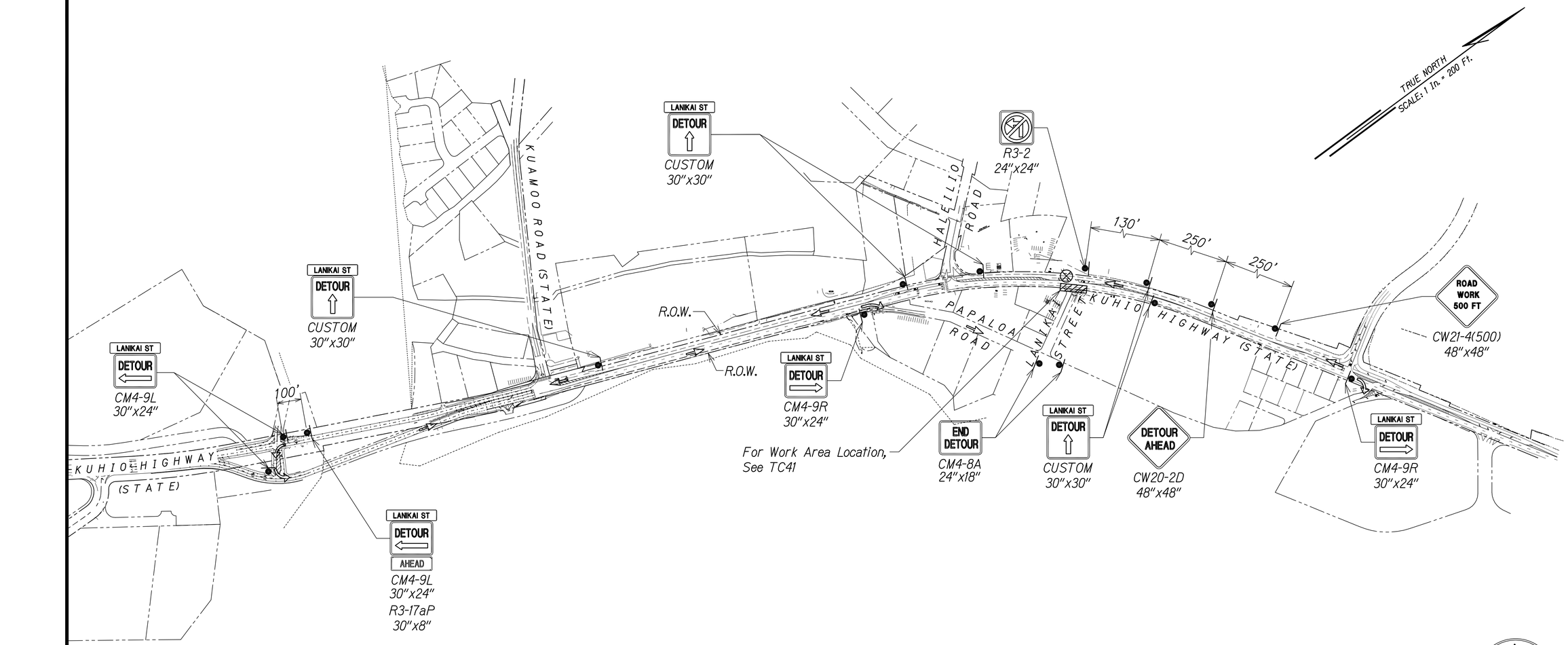
DETOUR PLAN 04

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 200' Date: JULY 2019

SHEET No. TD4 OF 63 SHEETS

ADD.171

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.172	244



Legend:

- ⊗ *Special Duty Officer*
- ● *Cones or Delineators*
- ●| *Sign*
- ⇨ *Direction of Traffic*
- *Arrowboard Assembly*
- *Work Area*

GRAPHIC SCALE:

100' 50' 0 100' 200'

SCALE: 1" = 200'

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

DETOUR PLAN - PHASE 4 AND 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 200'
SEE TC40 FOR TRAFFIC CONTROL PLAN

Approved

County Engineer *Date*
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	③ Reissuing plan for legibility only. No design changes have been made.
9/20/19	① Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETOUR PLAN 05

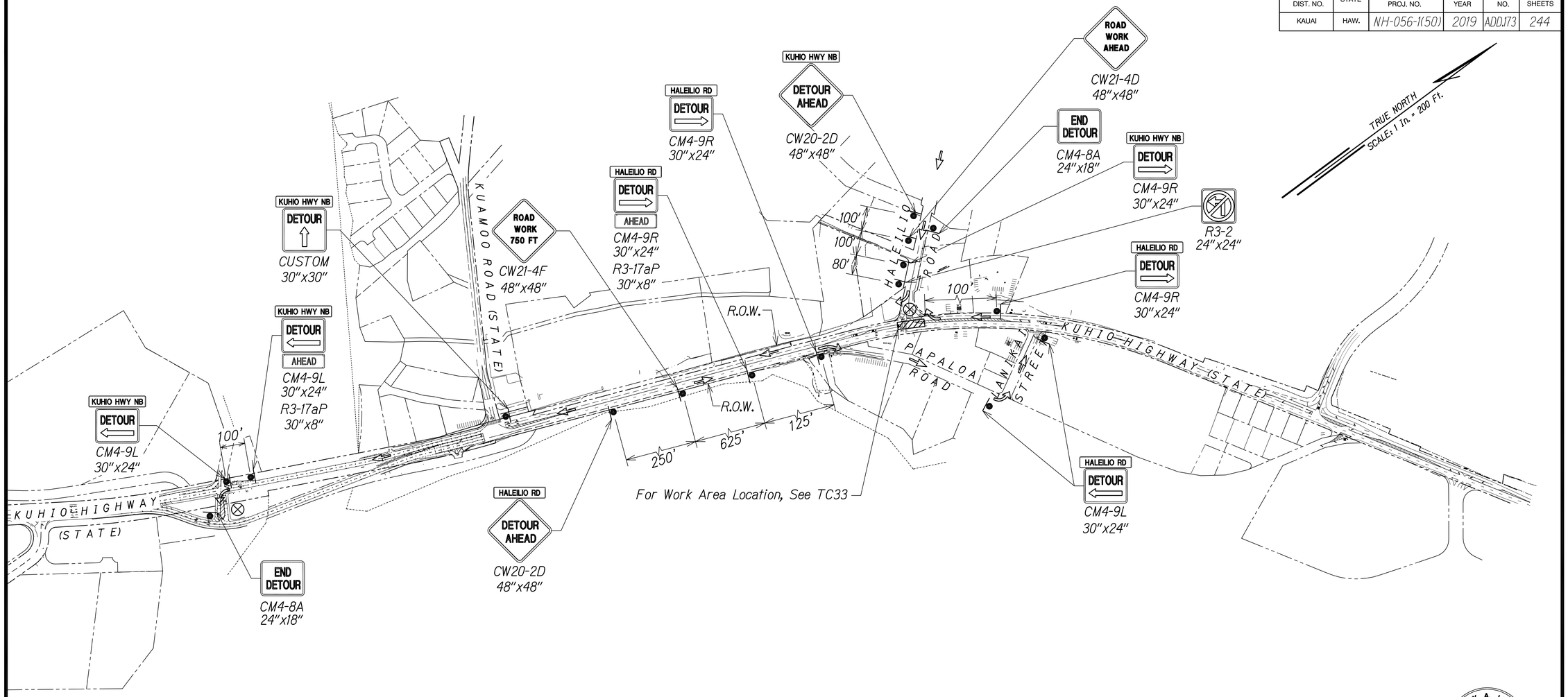
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 200' *Date: JULY 2019*

SHEET No. TD5 OF 63 SHEETS

ADD.172

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.173	244



Legend:

- ⊗ *Special Duty Officer*
- ● *Cones or Delineators*
- ●| *Sign*
- ⇨ *Direction of Traffic*
- *Arrowboard Assembly*
- *Work Area*

GRAPHIC SCALE:

100' 50' 0 100' 200'

SCALE: 1" = 200'

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

DETOUR PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 200'
SEE TC32 FOR TRAFFIC CONTROL PLAN

Approved

County Engineer *Date*
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

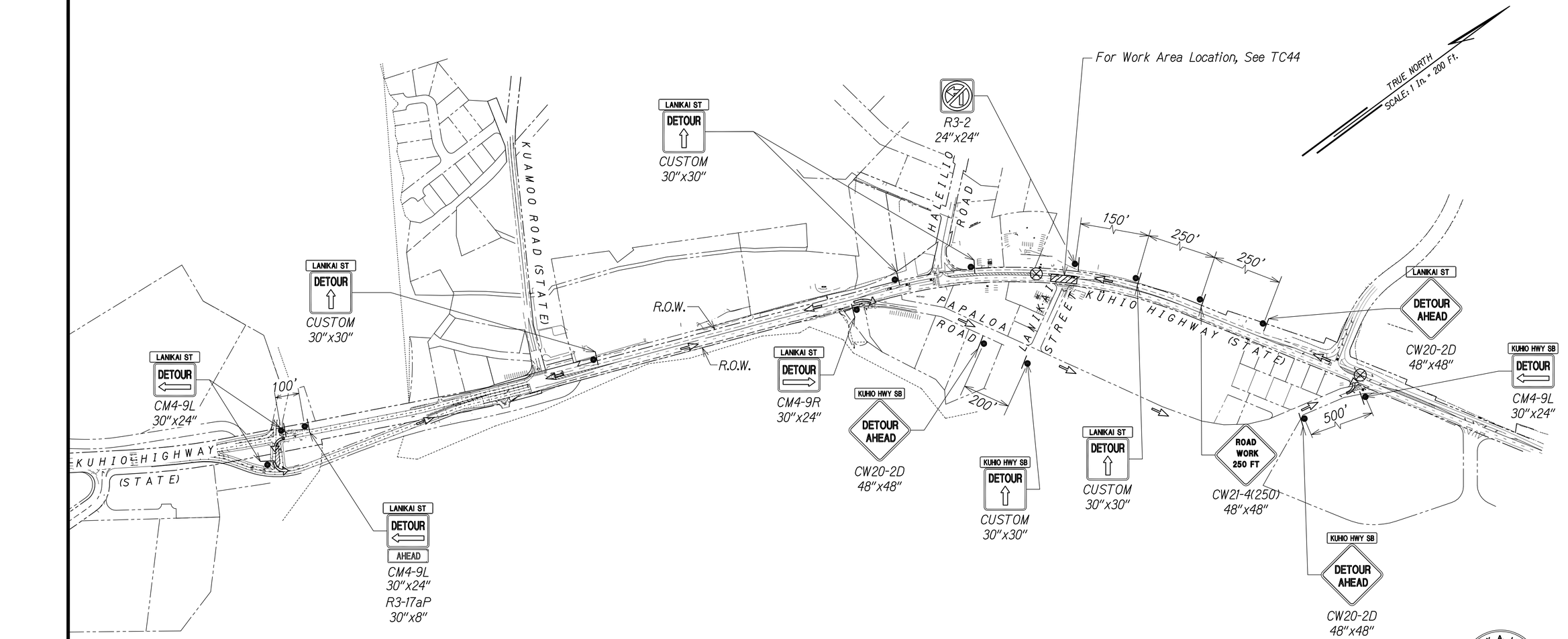
DETOUR PLAN 06

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 200' *Date: JULY 2019*

SHEET No. TD6 OF 63 SHEETS

ADD.173

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.174	244



Legend:

- Special Duty Officer
- Cones or Delineators
- Sign
- Direction of Traffic
- Arrowboard Assembly
- Work Area

GRAPHIC SCALE:

100' 50' 0 100' 200'

SCALE: 1" = 200'

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

DETOUR PLAN - PHASE 5

WORK HOURS 8:00 P.M. TO 4:00 A.M.
SCALE 1" = 200'
SEE TC43 AND TC44 FOR TRAFFIC CONTROL PLANS

Approved

County Engineer Date
County of Kauai
(For work within the County right-of-way)

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETOUR PLAN 07

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 200' Date: JULY 2019

SHEET No. TD7 OF 63 SHEETS

ADD.174

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.175	244

CONSTRUCTION NOTES

1. Locations of existing underground structures and utilities such as pipelines, conduits, cables, etc., shown on plans are approximate only. It is not the intent of these plans to show the exact location of all underground utilities and structures. It is the responsibility of the contractor to verify the locations of all existing utilities with the respective owners. Existing utilities damaged by the contractor shall be repaired by the contractor at his own cost.
2. The contractor shall verify and check all dimensions and details shown on the drawings prior to the start of construction. Any discrepancy shall be immediately brought to the attention of the engineer for clarification.
3. The contractor shall notify all agencies to verify the actual location of all utilities in the project area prior to excavating. The contractor shall coordinate all work.
4. The contractor shall tone and locate existing utilities along duct line prior to excavation.
5. The locations of the new traffic signal standards, traffic signal standards with mast-arm, pedestrian push buttons, traffic controller, pullboxes, conduits and loop detectors shall be staked out in the field by the contractor and approval of the locations shall be obtained from the engineer prior to construction and installation.
6. All traffic signal work shall conform to the requirements of the "Manual on Uniform Traffic Control Devices for Streets and Highways", Federal Highway Administration (2000) and amendments.
7. Locations of new pavement markings (pavement arrow, stop lines, crosswalk, etc.) that are done by others (as shown on plans) shall be verified with the engineer prior to the installation of the traffic signal system.
8. Provide arrow board at start of all tapers.

TRAFFIC SIGNAL NOTES

1. All traffic signal controller equipment shall be completely wired in the cabinet and shall control the traffic signals as called for in the plans.
2. Signal indications during clearance interval:
   - A. If a signal is G or ~~G~~ and will remain G or ~~G~~ during the next phase, it shall be G or ~~G~~ during the clearance interval.
   - B. If a signal is G or ~~G~~ and will become R or extinguished during the next phase, it shall be Y or ~~Y~~ during the clearance interval.
   - C. If a signal is R and will remain R or becomes G during the next phase, it shall remain R during the clearance interval.
3. The loop amplifier units furnished for this project shall be capable of operating the loop detector configurations shown on the plans.
4. A solid #8 bare copper wire shall be pulled with the traffic control cable for equipment ground. Cost shall be incidental to the installation of the control cable.
5. Conduits and cabinet locations as shown on the plans are schematic. They may be modified by the contractor with the approval of the engineer.
6. The contractor shall splice all signal conductors in pullbox. No splices shall be permitted in detector lead-in cable.
7. All traffic signal removal and disposal work (i.e. pullboxes, standards, foundations, signal and pedestrian heads, loop detectors, etc.) shall be considered incidental to the various traffic signal items.
8. The contractor shall remove existing traffic signal equipment in usable condition as indicated on the plans and deliver to the Kauai District Baseyard or as directed by the Engineer. Cost shall be incidental to various traffic signal items.
9. All resulting holes from the removal of pedestrian push buttons on existing traffic signal standards shall be plugged as directed by the Engineer. Cost shall be incidental to the various traffic signal items.
10. The Department of Water requires 6" minimum vertical and 3' minimum horizontal clearance between utilities.
11. After installing all the traffic signal cables, seal all conduits in pullboxes, standards and controller cabinet with "duct seal". "Duct Seal" shall be acceptable to Engineer and State Inspector.
12. All mounting brackets for vehicle and pedestrian signal heads and all other equipment attached to signal standards shall be brass, bronze or stainless steel (Type 316), except as listed below, no steel parts shall be used including setscrews.
    - A. Hub plates may be aluminum if not available in brass, bronze or stainless steel (Type 316).
    - B. Mast arm mounting brackets may be aluminum alloy. All hardware shall be stainless steel (Type 316).
13. All luminated signals shall be LED.
14. Pedestrian signal housings shall be plastic style.
15. Internal parts for 3 section and 4 section signal heads shall be stainless steel (Type 316).

TRAFFIC SIGNAL LEGEND

- New Traffic Signal Standard
- Existing Traffic Signal Standard
- New Standard Traffic And Pedestrian Signal Heads Mounted On Type I Signal Standard, Height=10'
- Existing Standard Traffic And Pedestrian Signal Heads Mounted On Type I Signal Standard, Height=10'
- New Opticom Unit
- Existing Opticom Unit
- New Traffic Signal Pullbox (TSPB)
- Existing Traffic Signal Pullbox
- New Traffic Signal Heads Mounted On Type II Signal Standard, Arm Spread Shown is 30' And Distance Between Signal Heads is 12'
- Existing Traffic Signal Heads Mounted On Type II Signal Standard, Arm Spread Shown is 30' And Distance Between Signal Heads is 12'
- New 12" RY⟶ Traffic Signal Head (Programmable Visibility)
- New 12" RY⟶ Traffic Signal Head (LED)
- Existing 12" RY⟶ Traffic Signal Head
- New Loop Detectors
- Existing Loop Detectors
- New 12" RYG Traffic Signal Head (LED)
- Existing 12" RYG Traffic Signal Head
- New 12" RY↑ Traffic Signal Head (LED)
- Existing 12" RY↑ Traffic Signal Head
- New Pedestrian Signal Head
- Existing Pedestrian Signal Head
- New Controller And Cabinet
- Existing Controller And Cabinet
- New Temporary Microwave Vehicle Detector
- New Video Detector

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

CATHY A. LEONG LICENSED PROFESSIONAL ENGINEER No. 10334-C HAWAII, U.S.A.

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

APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL NOTES AND LEGEND

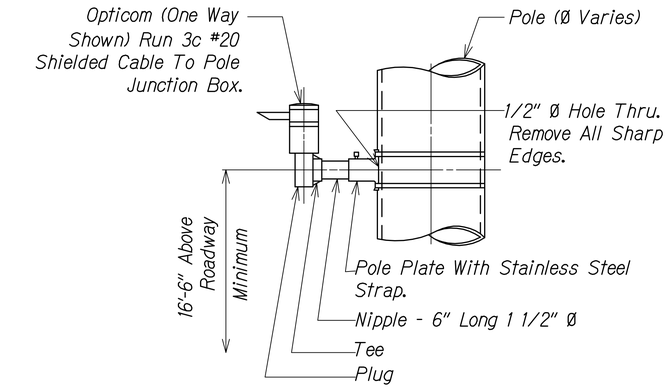
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: N/A Date: JULY 2019

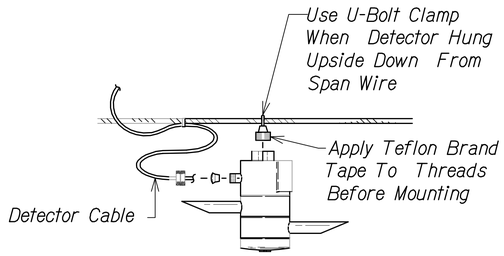
SHEET No. TS1 OF 04 SHEETS

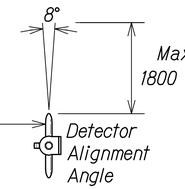
ADD.175

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.176	244



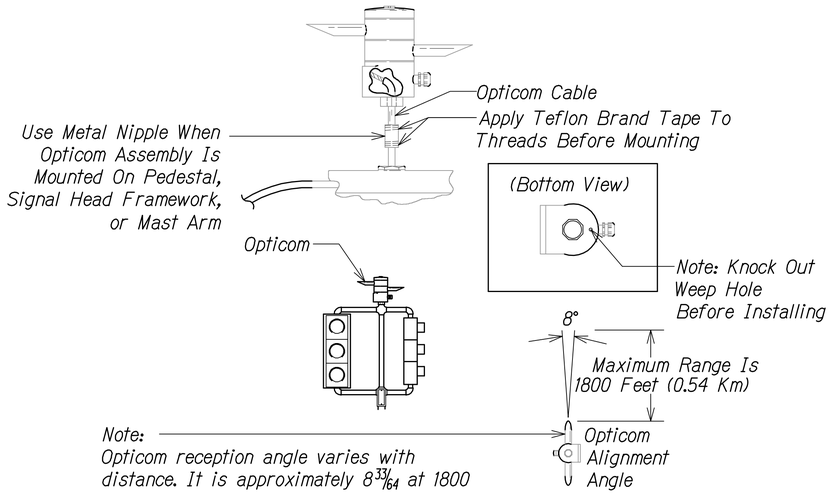
TYPICAL VERTICAL MOUNT OF OPTICOM
Not To Scale





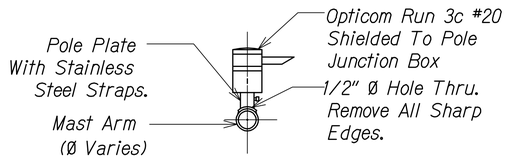
Note:
Detector reception angle varies with distance. It is approximately $8^{33}/_{64}$ at 1800 feet (0.54km). Due to reflection, reception angle is increased at close range. The detector must be aligned within $8^{33}/_{64}$ of the farthest point where priority vehicle is to be sensed.

TYPICAL SPAN WIRE INSTALLATION OF OPTICOM
Not To Scale



Note:
Opticom reception angle varies with distance. It is approximately $8^{33}/_{64}$ at 1800 feet (0.54km). Due to reflection, reception angle is increased at close range. The opticom must be aligned within $8^{33}/_{64}$ of the farthest point where priority vehicles is to be sensed.

TYPICAL PEDESTAL/MAST ARM INSTALLATION OF OPTICOM
Not To Scale



TYPICAL HORIZONTAL MOUNT OF OPTICOM
Not To Scale

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

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS

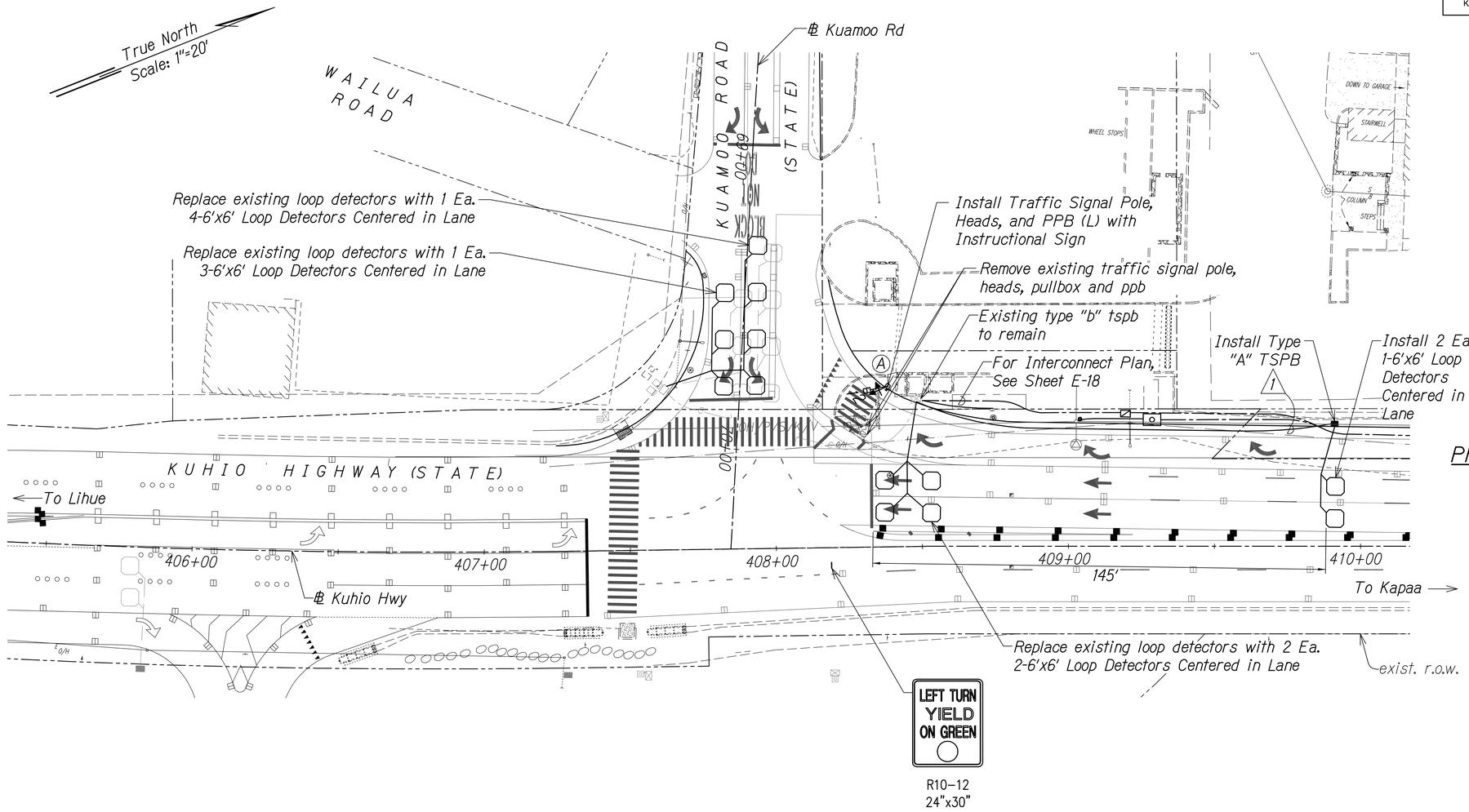
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

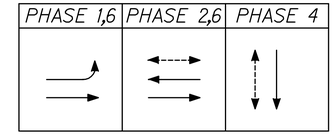
Scale: N/A Date: JULY 2019

SHEET No. TS2 OF 04 SHEETS

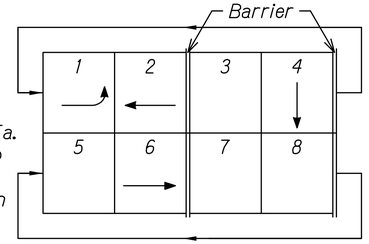
ADD.176

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.177	244

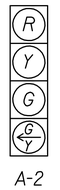




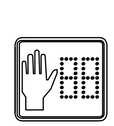
PHASE DIAGRAM



PHASE ASSIGNMENT DIAGRAM



A-2



A-1

SIGNAL INDICATIONS

NOTES:

1. Install Backplates on Existing Traffic Signal Heads Mounted on Horizontal Portion of Mast Arm Only. Backplates Shall be 5" with Slots to Reduce Wind Load with 1" Retro-Reflective Border.

CONDUIT & CABLE SCHEDULE		
△	CONDUIT	CABLE
1	1-2"	2-2C#14

GRAPHIC SCALE

20' 10' 0 20' 40'

Scale: 1" = 20'

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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

APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL PLAN
KUAMOO RD. AT KUHIO HWY.

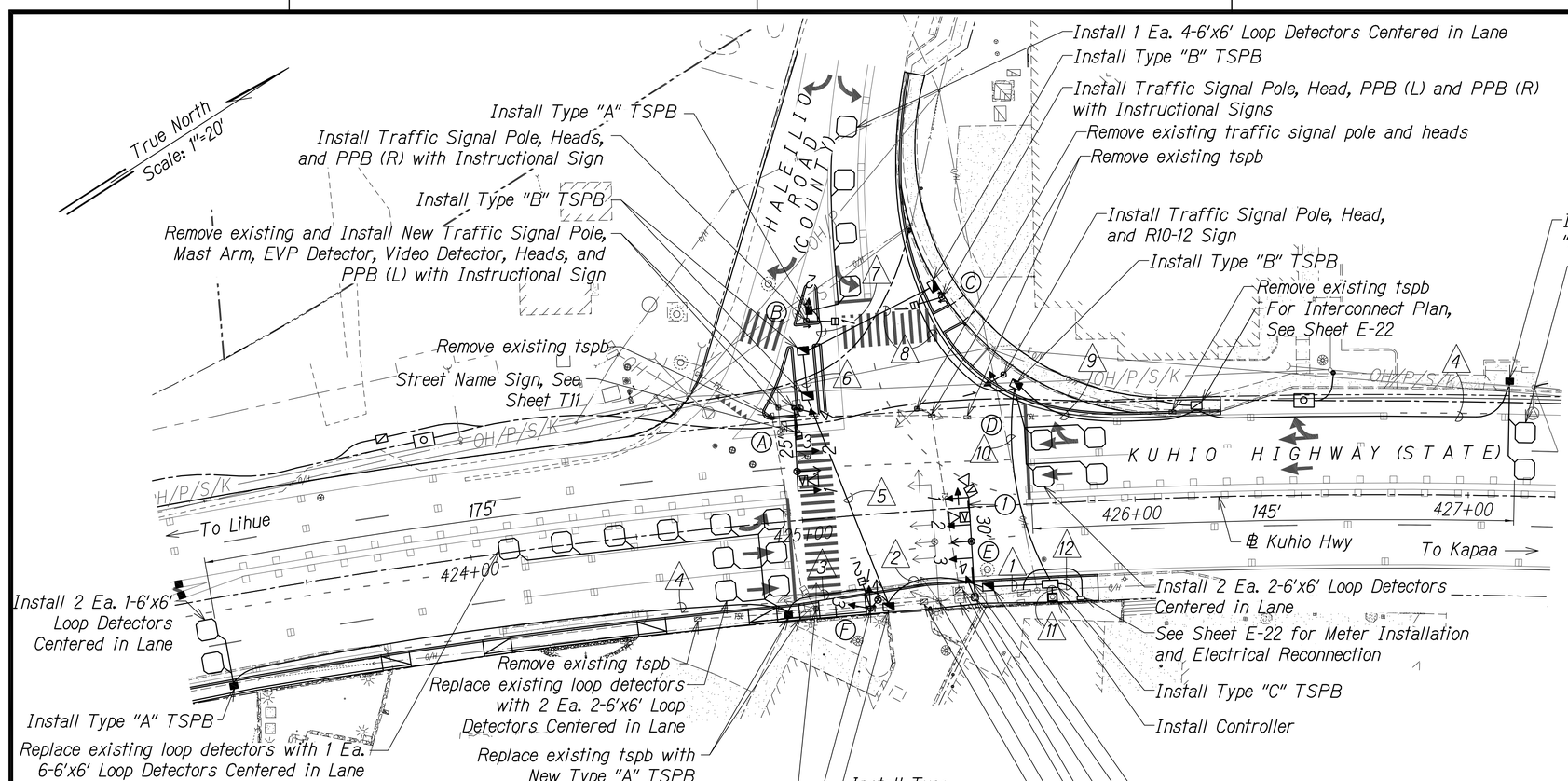
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 20' Date: JULY 2019

SHEET No. TS3 OF 04 SHEETS

ADD.177

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.178	244



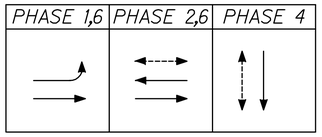
CONDUIT & CABLE SCHEDULE

△	CONDUIT	CABLE
1	1-2"	1-26C#14
	1-2"	6-2C#14
	1-2"	3-OPTICOM
	1-2"	3-VIDEO
	2-2"	2-SPARE
2	1-2"	1-26C#14
	1-2"	6-2C#14
	1-2"	2-OPTICOM
	1-2"	1-VIDEO
	2-2"	2-SPARE
3	1-2"	5-2C#14
4	1-2"	2-2C#14
5	1-2"	1-26C#14
	1-2"	1-2C#14
	1-2"	1-OPTICOM
	1-2"	1-VIDEO
	2-2"	2-SPARE
6	1-2"	1-26C#14
	3-2"	3-SPARE
7	1-2"	1-2C#14
8	1-2"	1-26C#14
	1-2"	2-2C#14
	2-2"	2-SPARE
9	1-2"	2-2C#14
	1-2"	2-12PR#19
10	1-2"	1-26C#14
	1-2"	6-2C#14
	1-2"	2-12PR#19
	2-2"	2-SPARE
11	2-2"	2-26C#14
	2-2"	12-2C#14
	1-2"	3-OPTICOM
	1-2"	3-VIDEO
	1-2"	2-12PR#19
	2-2"	2-SPARE
	1-2"	1-3C#6
12	1-2"	1-3C#6

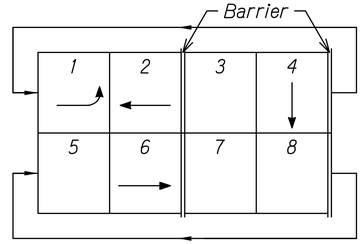
GRAPHIC SCALE

20' 10' 0 20' 40'

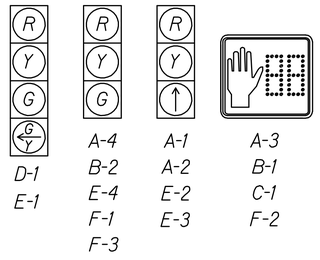
Scale: 1" = 20'



PHASE DIAGRAM



PHASE ASSIGNMENT DIAGRAM



SIGNAL INDICATIONS

① LEFT TURN YIELD ON GREEN

R10-12
24"x30"

NOTES:

1. Install Backplates on Traffic Signal Heads Mounted on Horizontal Portion of Mast Arm Only. Backplates Shall be 5" with Slots to Reduce Wind Load with 1" Retro-Reflective Border.

APPROVED

County Engineer
County of Kaua'i
(For Work Within the County Right-of-Way)

Date

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

CATHY A. LEONG
LICENSED PROFESSIONAL ENGINEER
No. 10334-C
HAWAII, U.S.A.

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

APRIL 30, 2020
WILSON OKAMOTO CORP. LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL PLAN
HALEILIO RD. AT KUHIO HWY.

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD

Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 20' Date: JULY 2019

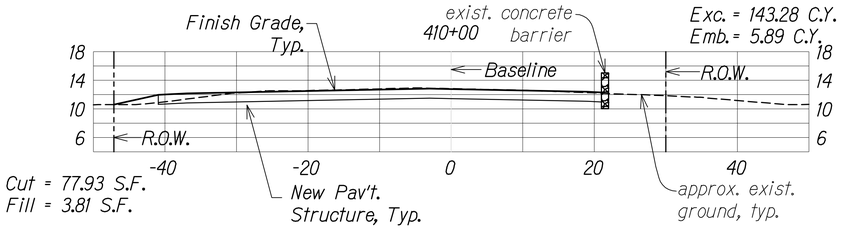
SHEET No. TS4 OF 04 SHEETS

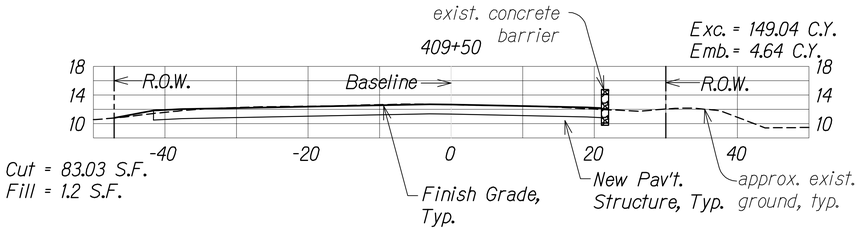
ORIGINAL PLAN | NOTE BOOK | No. | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

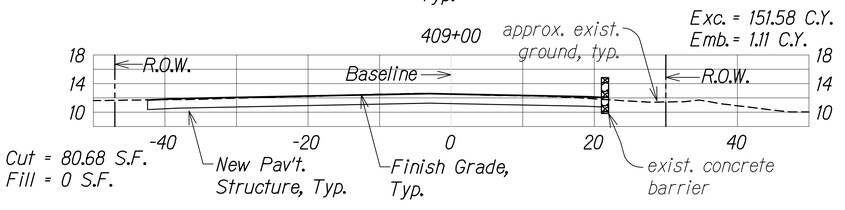
ADD.178

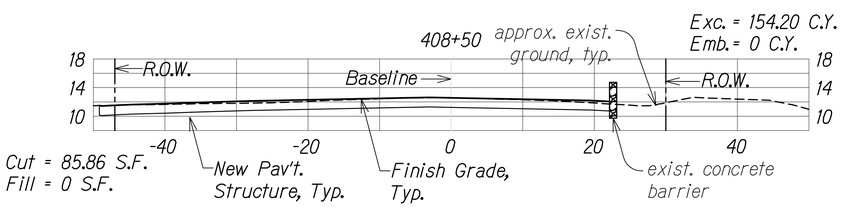
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.179	244

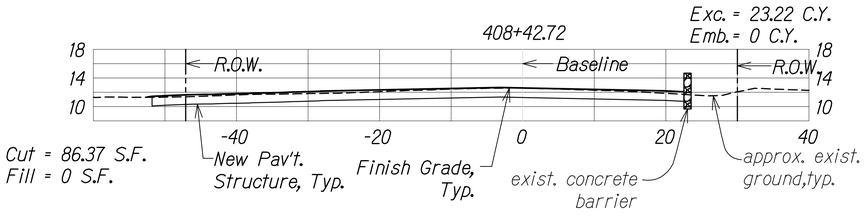
△3 Sheet Total
Exc. = 1362.28 C.Y.
Emb. = 36.74 C.Y.

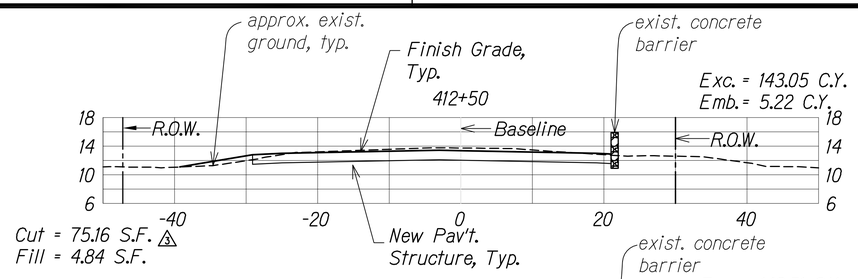


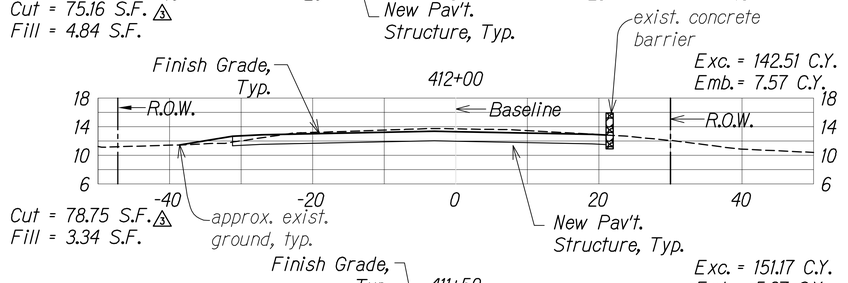


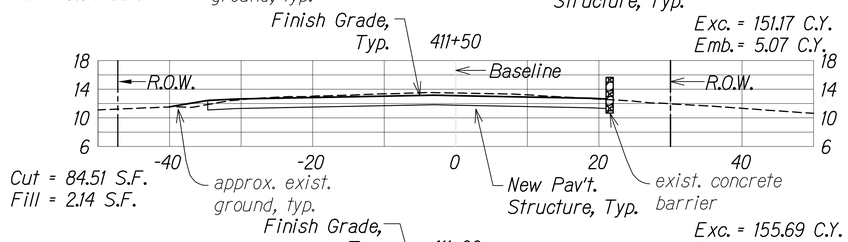


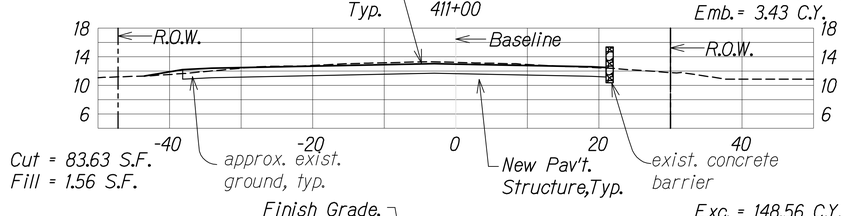


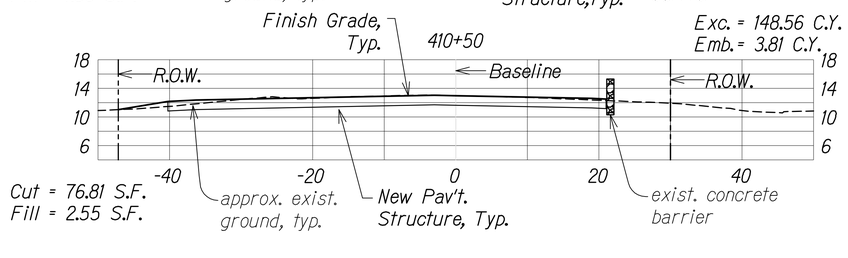












GRAPHIC SCALE:

10' 5' 0 10' 20'
Scale: 1" = 10'

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

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

Kuhio Highway Improvements
ROADWAY CROSS SECTIONS
Scale: 1" = 10'

DATE	REVISION
11/12/19	△3 Reissuing plan for legibility; revised cross section
9/20/19	△1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY CROSS SECTIONS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 10' Date: July 2019

SHEET No. XS1 OF 8 SHEETS

ADD.179

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.180	244

Sheet Total
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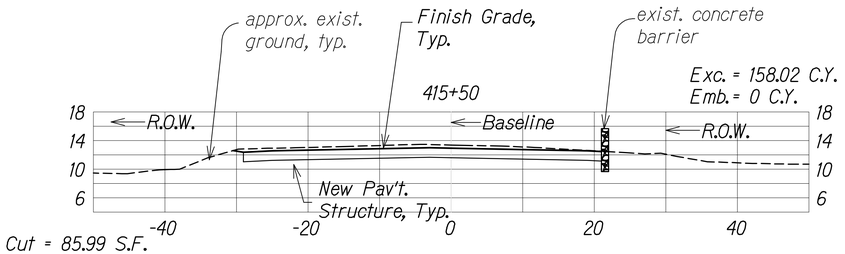
Emb. = 3.80 C.Y.



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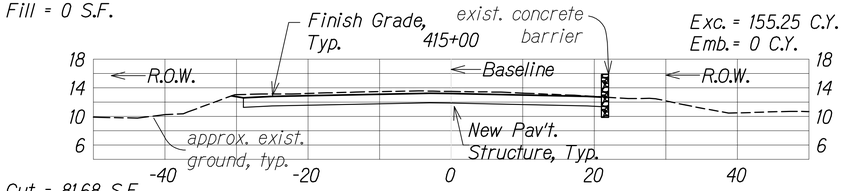

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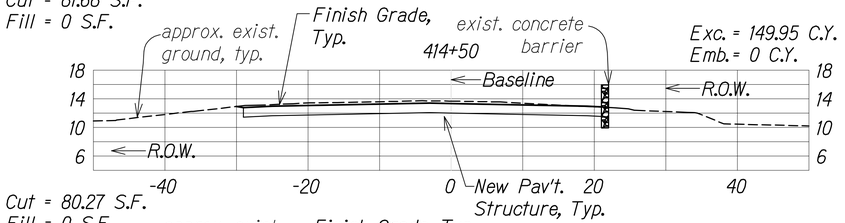

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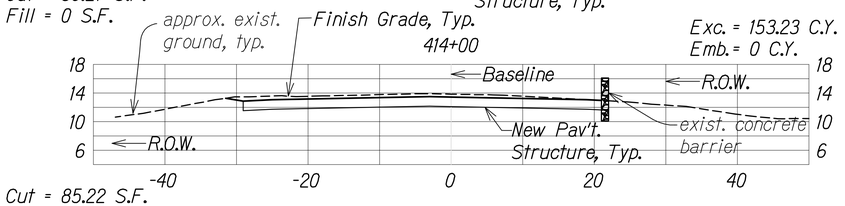

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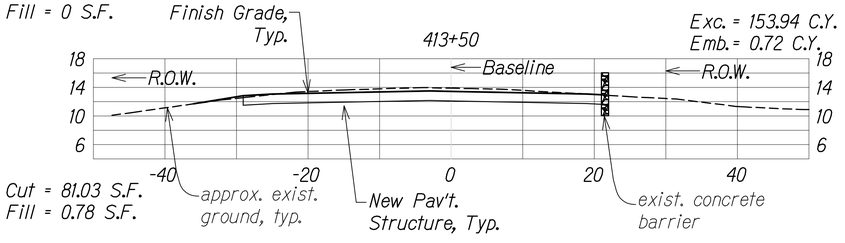

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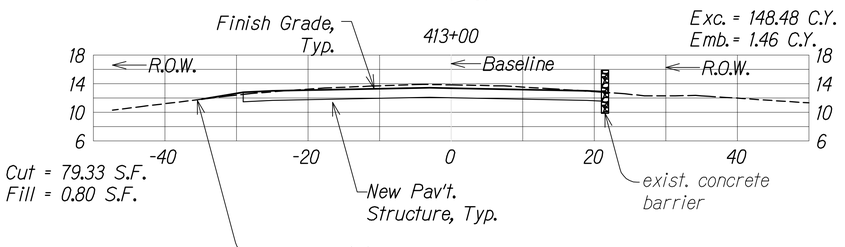

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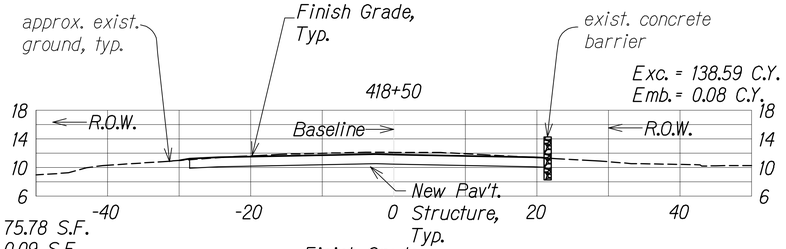

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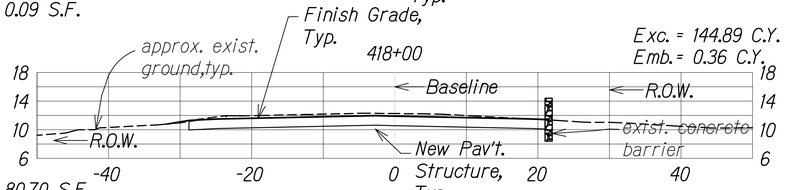

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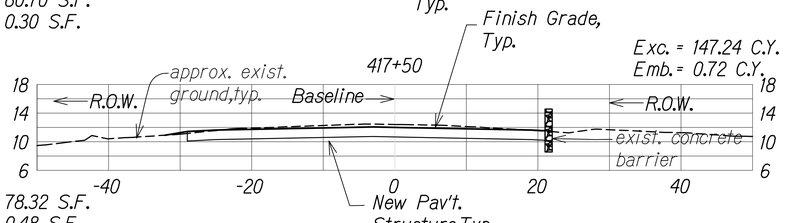

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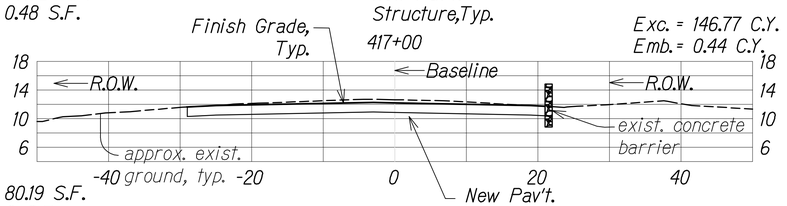

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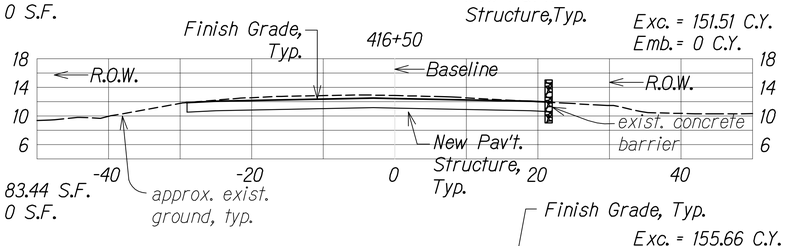

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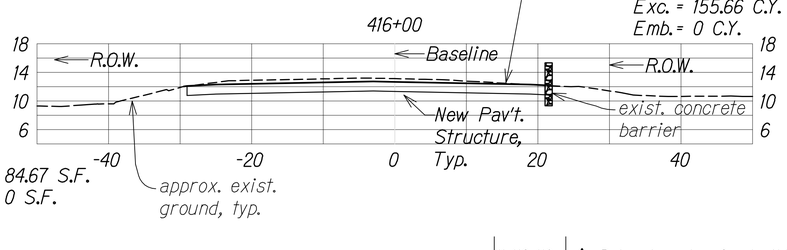

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GRAPHIC SCALE:
10' 5' 0 10' 20'
Scale: 1" = 10'

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

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

Kuhio Highway Improvements
ROADWAY CROSS SECTIONS
Scale: 1" = 10'

DATE	REVISION
11/12/19	③ Reissuing plan for legibility only. No design changes have been made.
9/20/19	① Reissuing plan for legibility only. No design changes have been made.

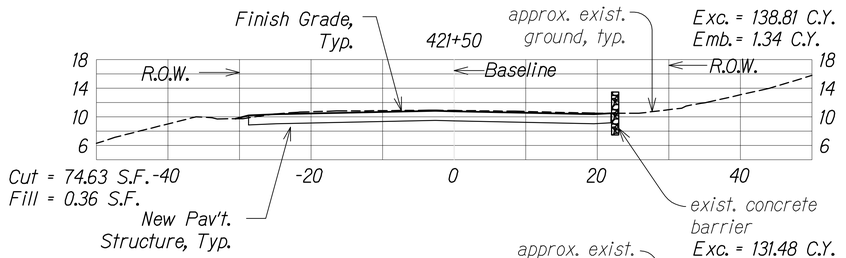
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

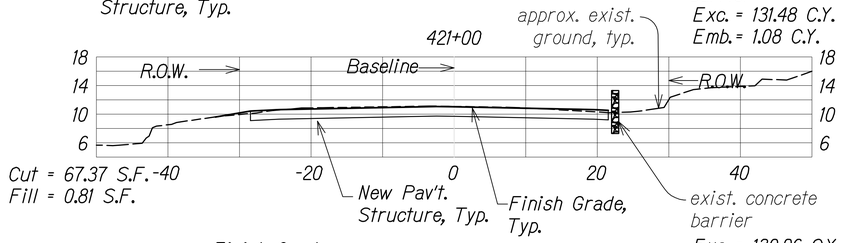
ROADWAY CROSS SECTIONS

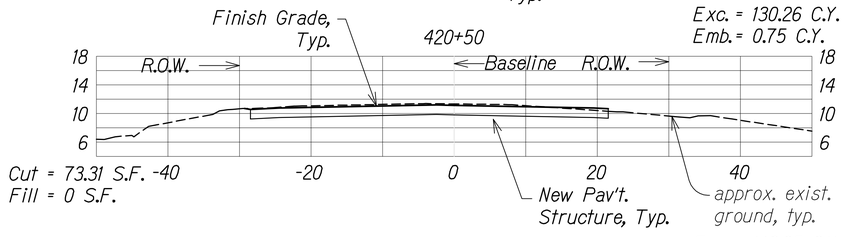
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 10' Date: July 2019

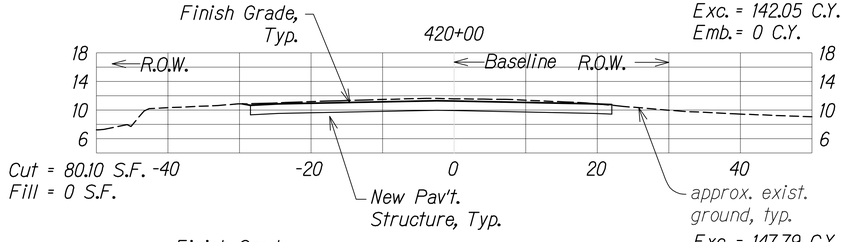
SHEET No. XS2 OF 8 SHEETS

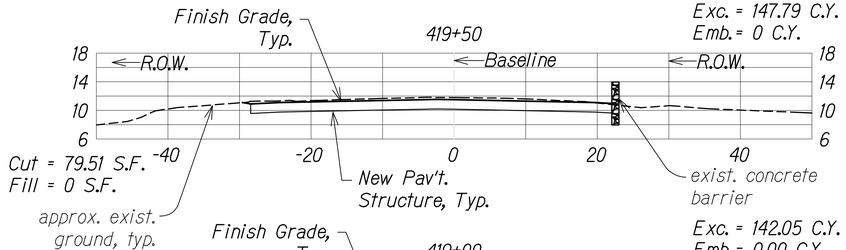
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.181	244

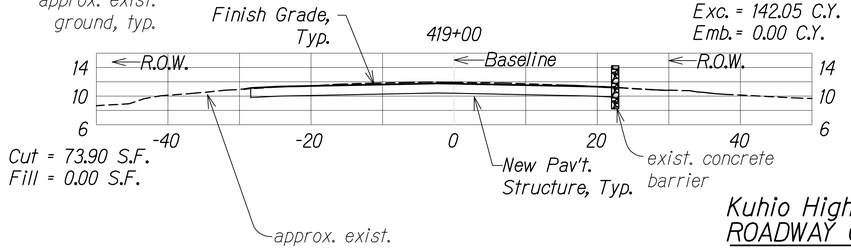


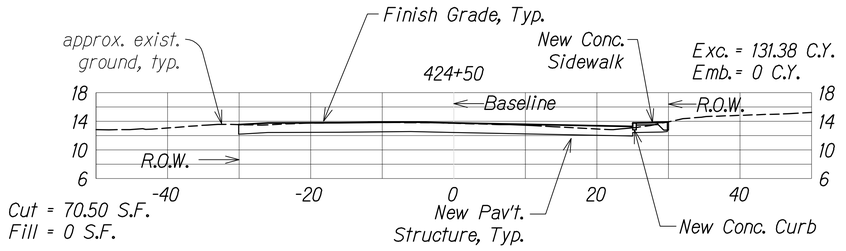


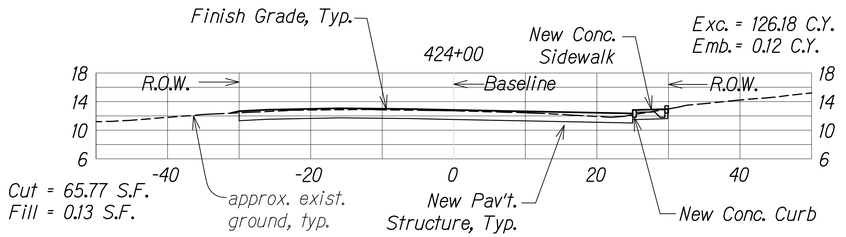


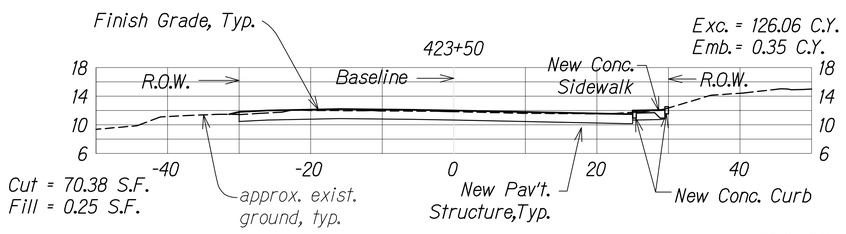


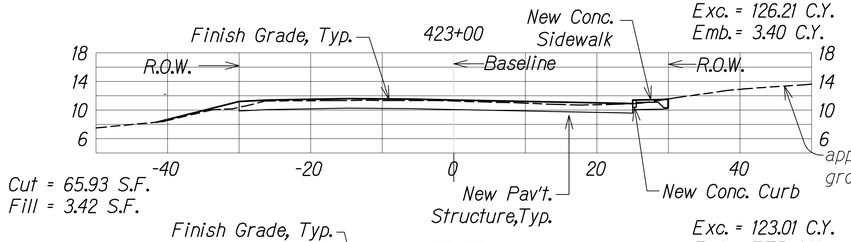


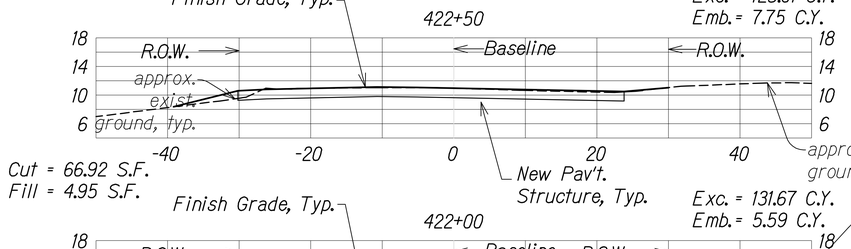


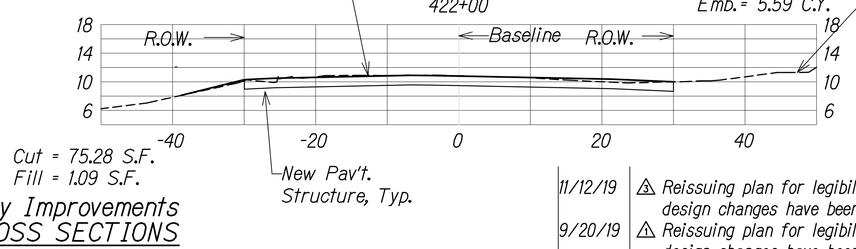












Kuhio Highway Improvements
ROADWAY CROSS SECTIONS
Scale: 1" = 10'

Sheet Total
Exc. = 1596.94 C.Y.
Emb. = 20.39 C.Y.

GRAPHIC SCALE:
10' 5' 0 10' 20'
Scale: 1" = 10'

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

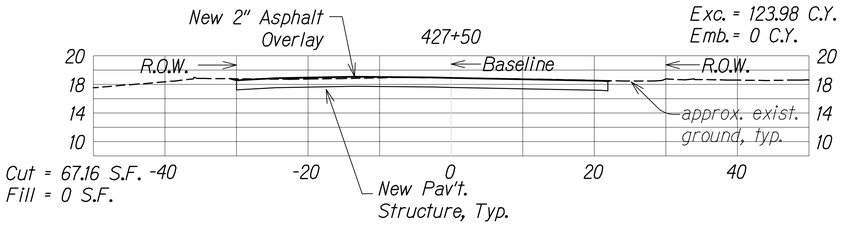
ROADWAY CROSS SECTIONS

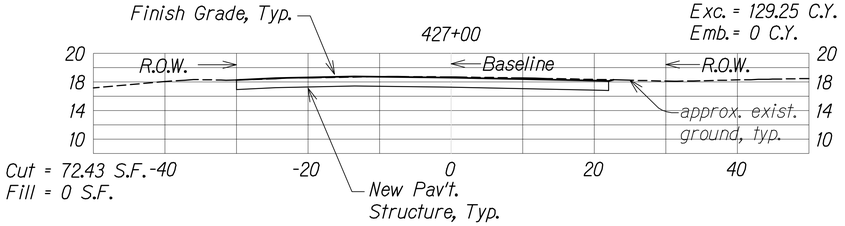
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 10' Date: July 2019

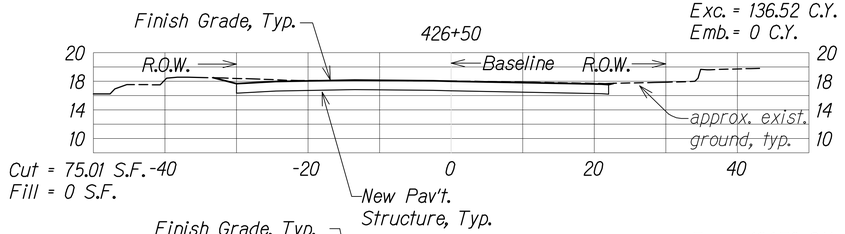
SHEET No. XS3 OF 8 SHEETS

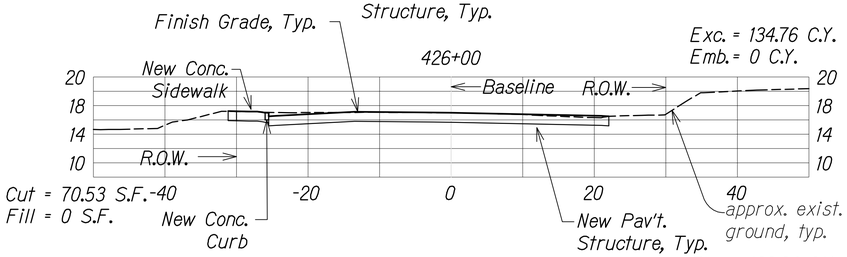
ADD.181

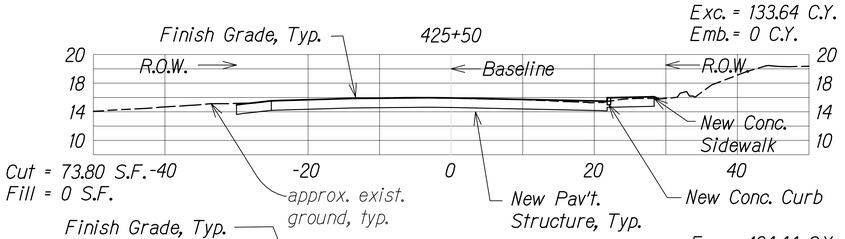
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.182	244

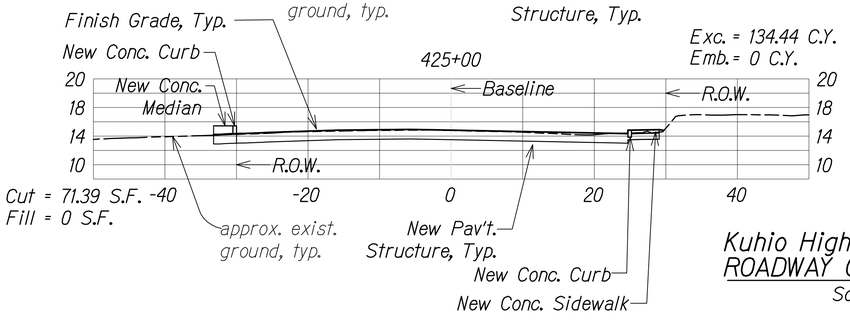


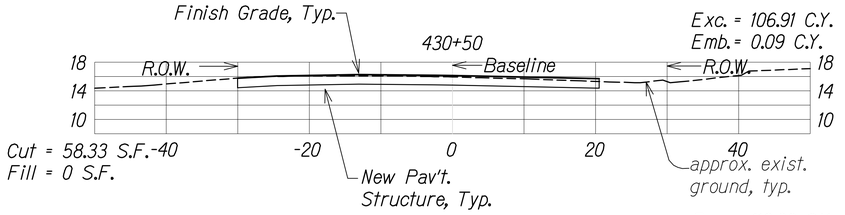


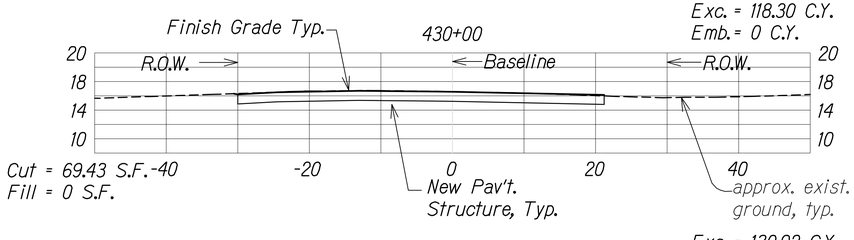


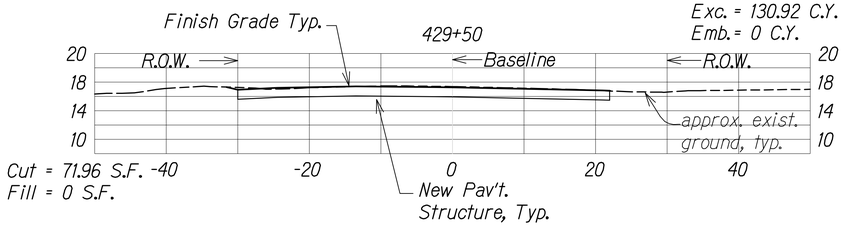


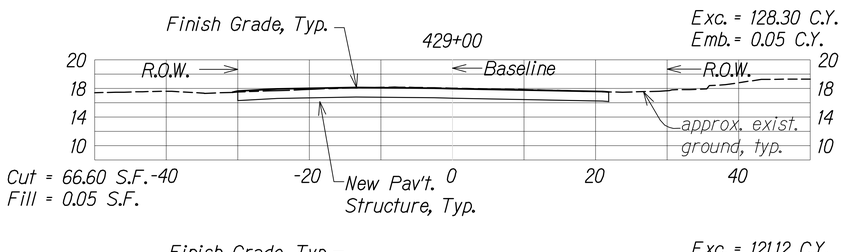


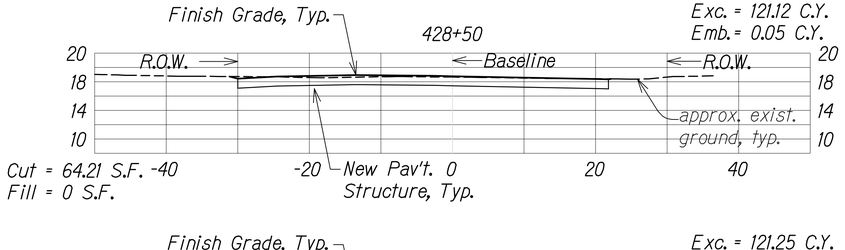


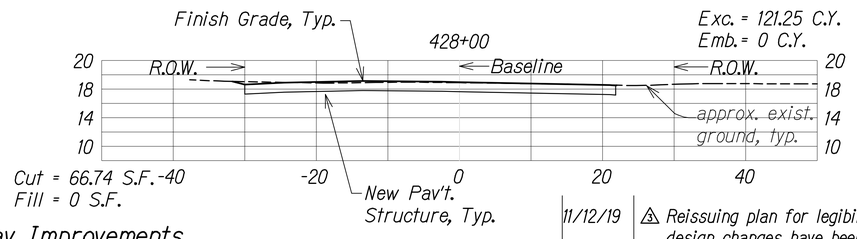












Sheet Total
Exc. = 1519.37 C.Y.
Emb. = 0.19 C.Y.

GRAPHIC SCALE:
10' 5' 0 10' 20'
Scale: 1" = 10'

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

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

Kuhio Highway Improvements
ROADWAY CROSS SECTIONS
Scale: 1" = 10'

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY CROSS SECTIONS

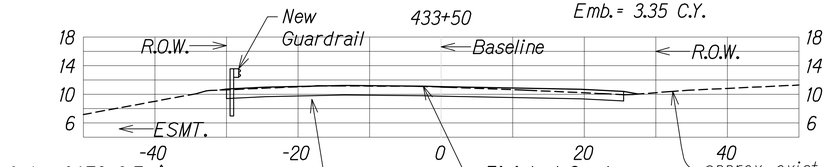
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 10' Date: July 2019

SHEET No. XS4 OF 8 SHEETS

ADD.182

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.183	244

Exc. = 118.01 C.Y.
Emb. = 3.35 C.Y.



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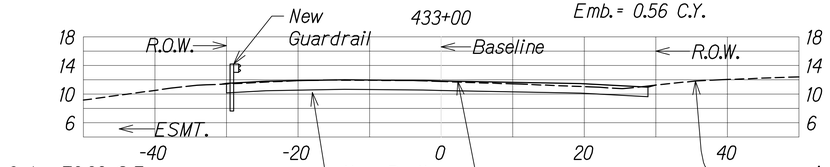
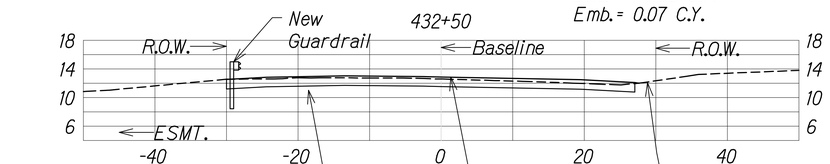
Fill = 0.56 S.F.

Exc. = 124.87 C.Y.
Emb. = 0.56 C.Y.



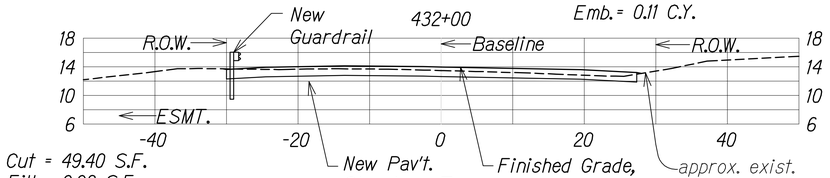
Cut = 70.08 S.F.
Fill = 0.04 S.F.

Exc. = 119.53 C.Y.
Emb. = 0.07 C.Y.



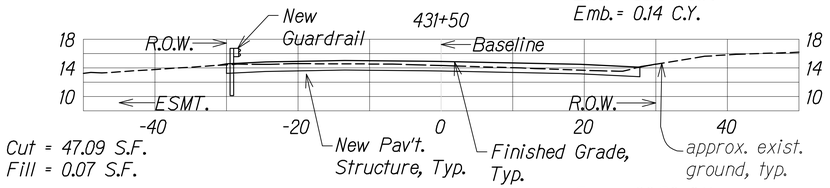
Cut = 59.01 S.F.
Fill = 0.04 S.F.

Exc. = 100.38 C.Y.
Emb. = 0.11 C.Y.



Cut = 49.40 S.F.
Fill = 0.08 S.F.

Exc. = 89.34 C.Y.
Emb. = 0.14 C.Y.



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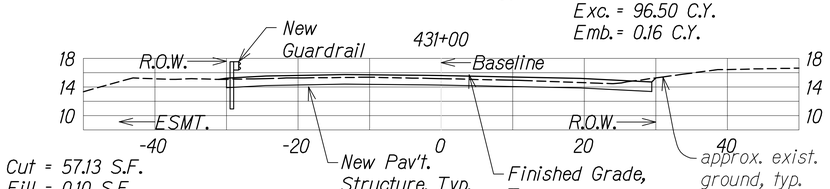
Fill = 0.07 S.F.

Exc. = 96.50 C.Y.
Emb. = 0.16 C.Y.



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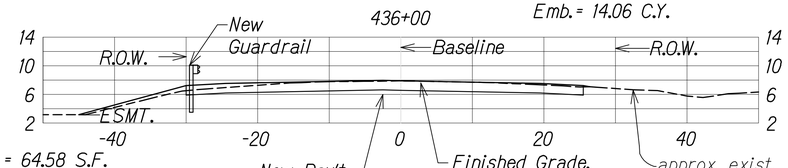
Fill = 0.10 S.F.

Exc. = 117.53 C.Y.
Emb. = 14.06 C.Y.



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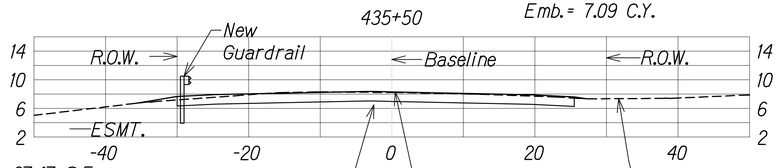
Emb. = 7.09 C.Y.



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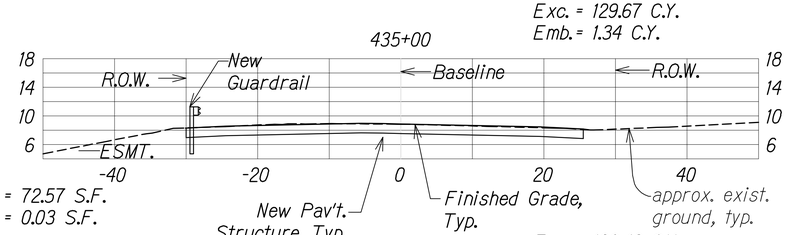
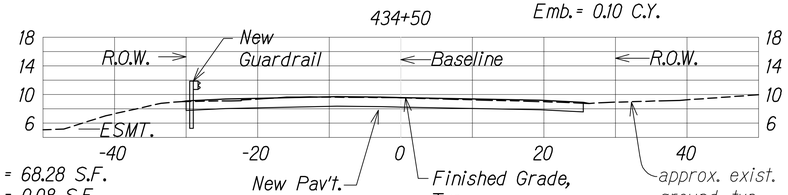
Fill = 1.42 S.F.

Exc. = 129.67 C.Y.
Emb. = 1.34 C.Y.



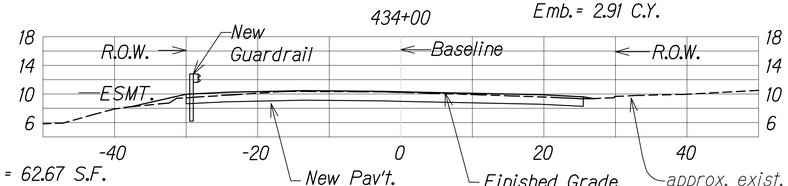
Cut = 72.57 S.F.
Fill = 0.03 S.F.

Exc. = 130.42 C.Y.
Emb. = 0.10 C.Y.



Cut = 68.28 S.F.
Fill = 0.08 S.F.

Exc. = 121.25 C.Y.
Emb. = 2.91 C.Y.



Cut = 62.67 S.F.
Fill = 3.06 S.F.

Sheet Total
Exc. = 1269.76 C.Y.
Emb. = 29.90 C.Y.

GRAPHIC SCALE:

10' 5' 0 10' 20'
Scale: 1" = 10'

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

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

Kuhio Highway Improvements
ROADWAY CROSS SECTIONS
Scale: 1" = 10'

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; revised cross section
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

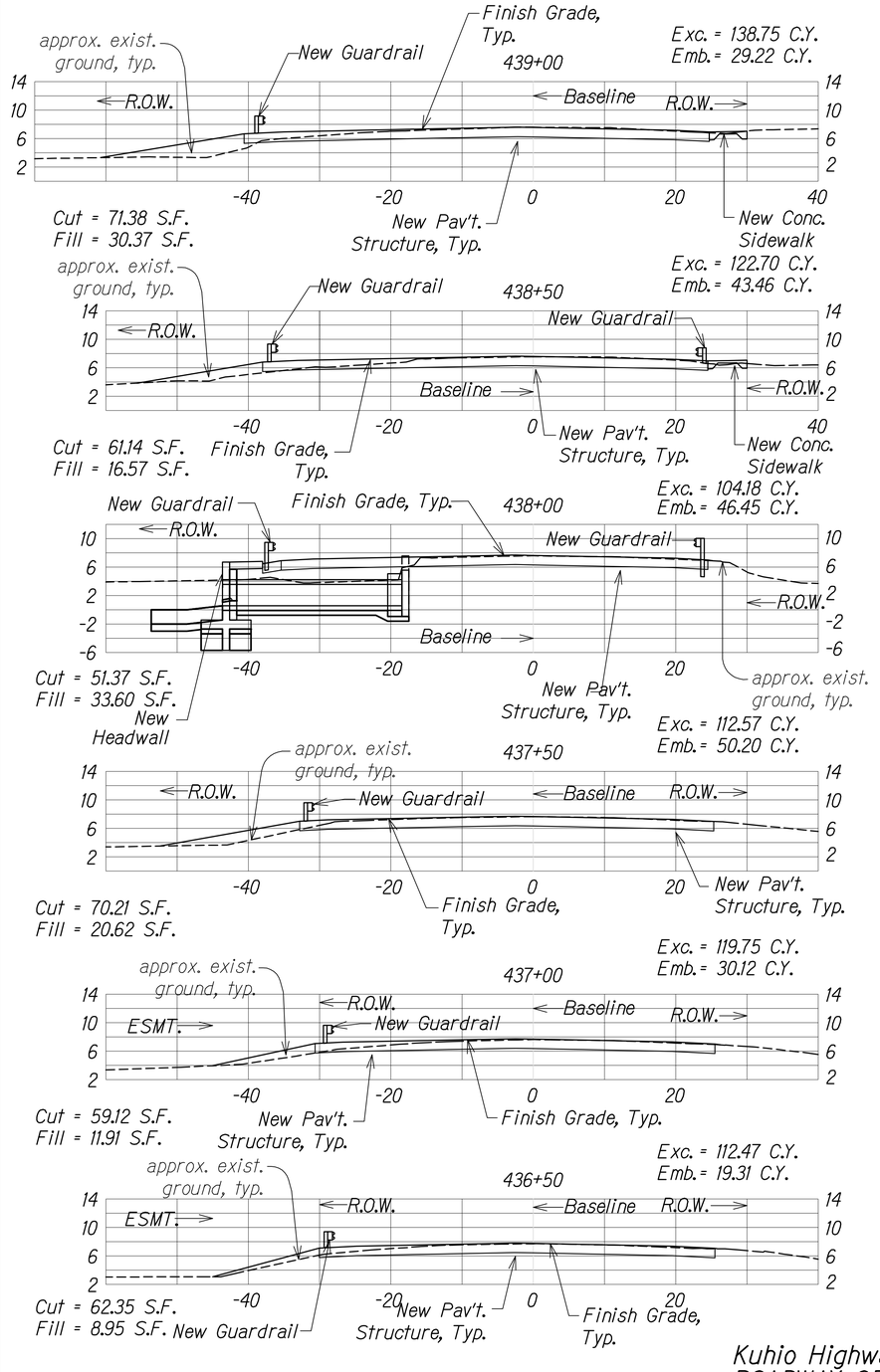
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

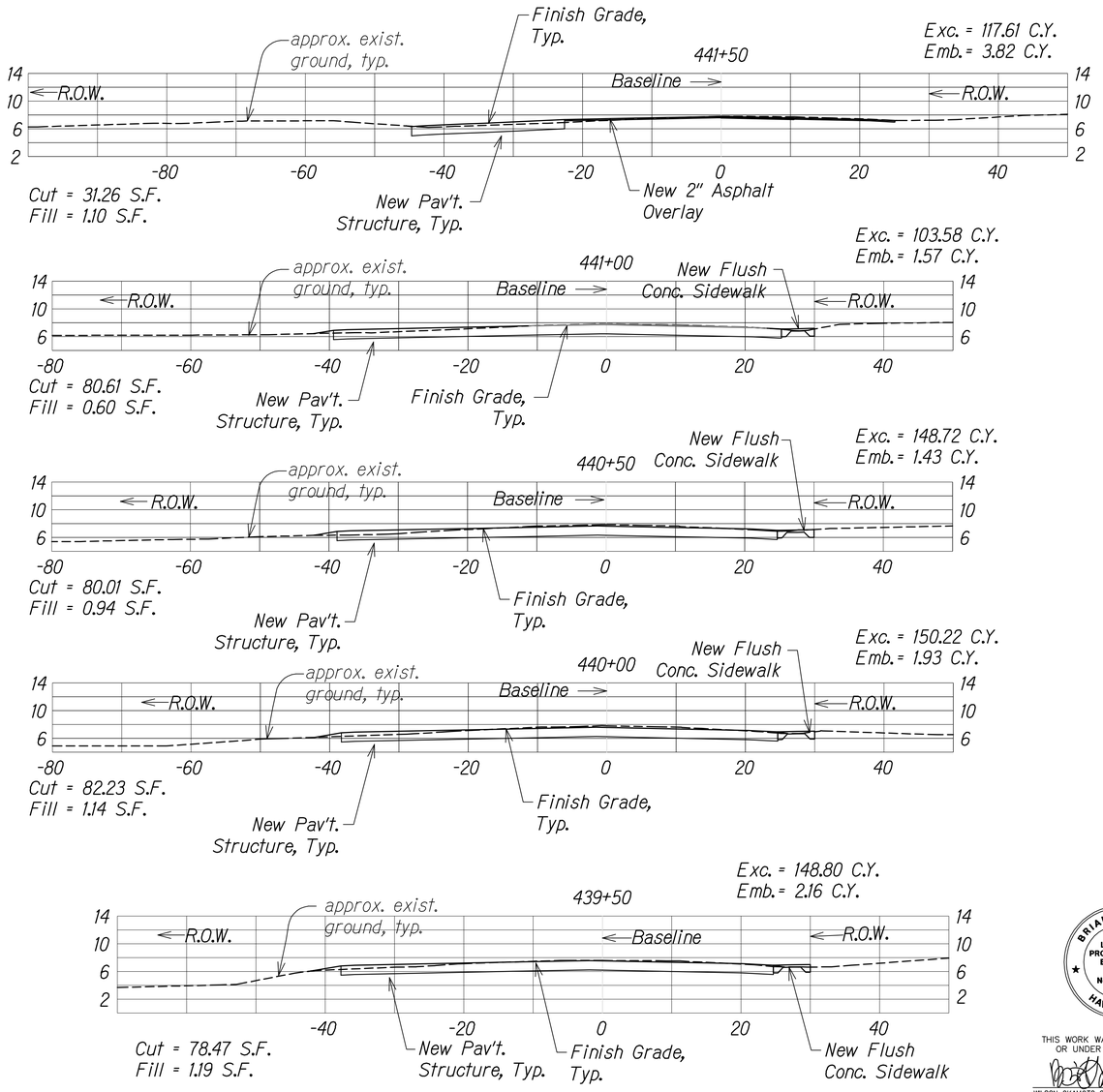
ROADWAY CROSS SECTIONS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 10' Date: July 2019

SHEET No. XS5 OF 8 SHEETS

ADD.183





Sheet Total
Exc. = 1379.36 C.Y.
Emb. = 229.69 C.Y.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.184	244

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

Kuhio Highway Improvements
ROADWAY CROSS SECTIONS
Scale: 1" = 10'

GRAPHIC SCALE:
10' 5' 0 10' 20'
Scale: 1" = 10'

DATE	REVISION
11/12/19	⚠ Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠ Reissuing plan for legibility only. No design changes have been made.

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY CROSS SECTIONS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 10' Date: July 2019

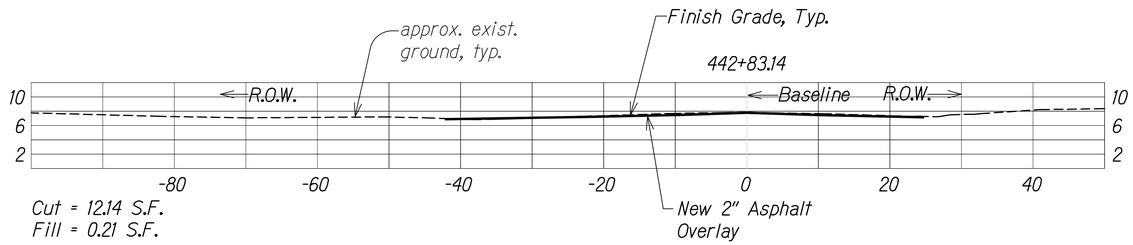
SHEET No. XS6 OF 8 SHEETS

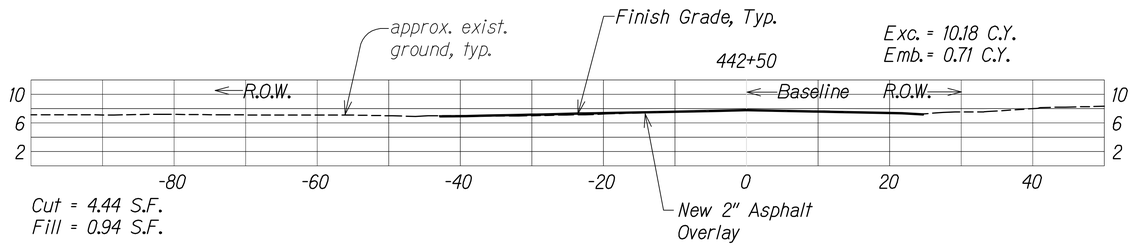
ADD.184

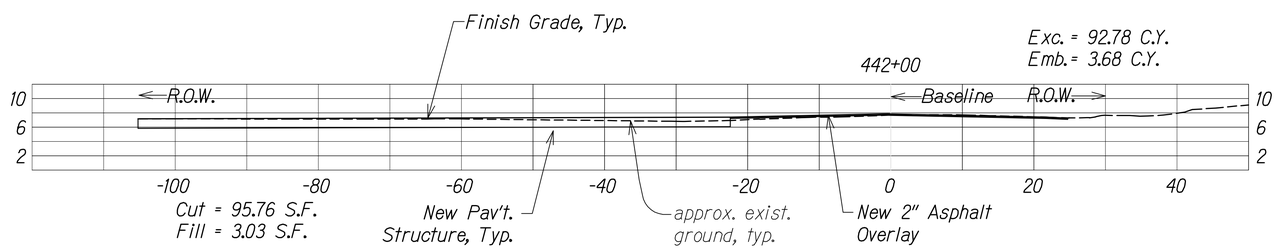
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.185	244

Sheet Total
Exc. = 102.95 C.Y.
Emb. = 4.38 C.Y.

Roadway Total ⚠3
Total Exc. = 9,034.19 C.Y.
Total Emb. = 325.08 C.Y.







Kuhio Highway Improvements
ROADWAY CROSS SECTIONS
Scale: 1" = 10'

GRAPHIC SCALE:

10' 5' 0 10' 20'
Scale: 1" = 10'

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION — APRIL 30, 2020 LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility; revised total quantities
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY CROSS SECTIONS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 10' *Date: July 2019*

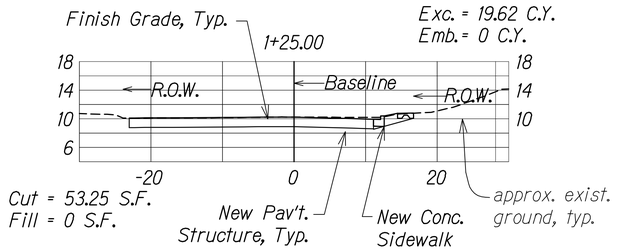
SHEET No. XS7 OF 8 SHEETS

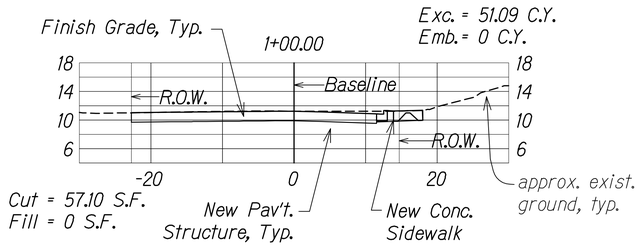
ORIGINAL PLAN
NOTE BOOK
No.
SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

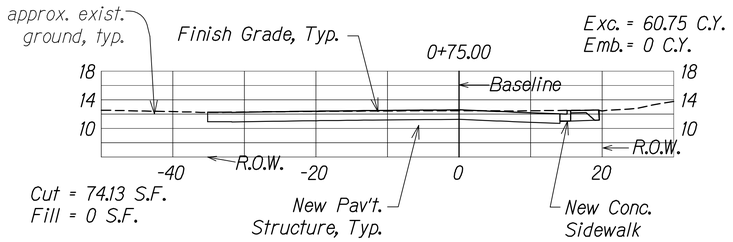
ADD.185

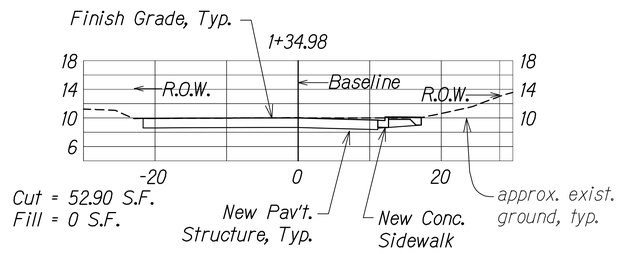
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.186	244

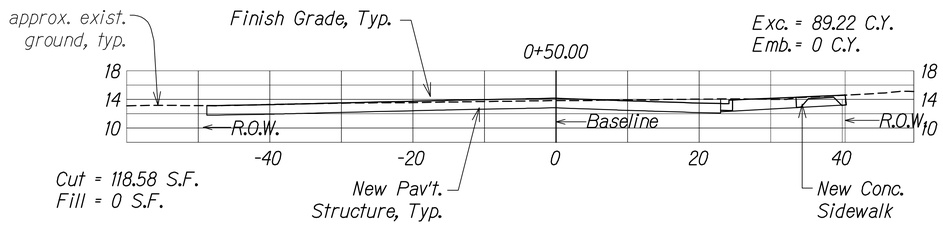
Total Exc.= 364.31 C.Y.
Total Emb.= 0 C.Y.

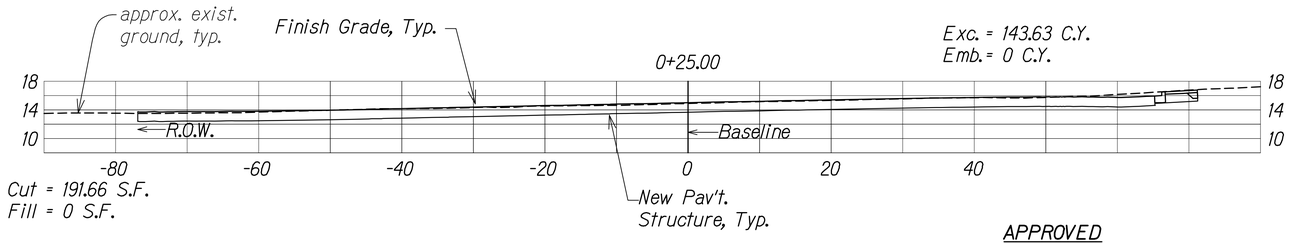












GRAPHIC SCALE:

10' 5' 0 10' 20'
Scale: 1" = 10'

BRIAN A. LOCK
LICENSED PROFESSIONAL ENGINEER
No. 9867-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY CROSS SECTIONS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 10' Date: July 2019

SHEET No. XS8 OF 8 SHEETS

DATE	REVISION
11/12/19	③ Reissuing plan for legibility only. No design changes have been made.
9/20/19	① Reissuing plan for legibility only. No design changes have been made.

APPROVED

County Engineer Date
County of Kaua'i
(For Work Within the County Right-of-Way)

Haleilio Road Improvements
ROADWAY CROSS SECTIONS
Scale: 1" = 10'

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

ADD.186

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD.187	244

INDEX OF STRUCTURAL DRAWINGS

SHEET NO.	DESCRIPTION
S0.1	INDEX OF STRUCTURAL DRAWINGS
S0.2	STRUCTURAL GENERAL NOTES
S0.3	STRUCTURAL GENERAL NOTES
S0.4	SYMBOLS AND ABBREVIATIONS
S0.5	TYPICAL DETAILS
S0.6	TYPICAL DETAILS
S1.1	KUAMOO ROAD CULVERT EXTENSION
S1.2	KUAMOO ROAD EB CULVERT HEADWALL ELEVATION
S1.3	KUAMOO ROAD WB CULVERT HEADWALL ELEVATION
S1.4	KUAMOO ROAD EB CULVERT EXTENSION SECTION
S1.5	KUAMOO ROAD EB CULVERT EXTENSION SECTIONS
S1.6	KUAMOO ROAD WB CULVERT EXTENSION SECTIONS
S2.1	KUHIO HIGHWAY CULVERT EXTENSION
S2.2	KUHIO HIGHWAY CULVERT EXTENSION SECTIONS
S2.3	KUHIO HIGHWAY HEADWALL ELEVATION
S2.4	KUHIO HIGHWAY CULVERT EXTENSION SECTION
S2.5	KUHIO HIGHWAY CULVERT EXTENSION SECTIONS
S3.1	TYPICAL END POST PLAN AND ELEVATION
S3.2	TYPICAL END POST SECTION
S3.3	TYPICAL END POST SECTION
S3.4	TYPICAL END POST SECTIONS AND DETAIL

DRAWING NAME: Z:\OD ONGOING\18-029-KUHIO HWY SHORT TERM IMPROVTS KUAMOO-RDCW\01 CAD\11-08-19 ADD\KSI-S001 ADD1 ADD3 INDEX.DWG PLOT TIME: 11-08-19, 9:07 AM

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

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11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
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CALVIN T. MIYAHARA LICENSED PROFESSIONAL ENGINEER NO. 8133-S HAWAII, U.S.A.

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Calvin Miyahara — 4-30-20

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

INDEX OF STRUCTURAL DRAWINGS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: None — Date: July 2019

SHEET No. S0.1 OF 6 SHEETS

ADD.187

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD. 188	244

STRUCTURAL GENERAL NOTES

1. General Specifications: Hawaii Department of Transportation (HDOT), Standard Specifications for Road and Bridge Construction, 2005, together with Special Provisions prepared for this contract.

2. Design Specifications:
   (A) AASHTO 2017 LRFD Bridge Design Specifications (Eighth Edition) and its subsequent interim specifications with interim supplements and modifications by the HDOT Highways Division.
   (B) State of Hawaii Department of Transportation Highways Division "Design Criteria for Bridges and Structures" dated August 8, 2014. with all interim supplements and modifications by the HDOT Highways Division.
   (C) Temporary shoring and falsework shall follow the AASHTO Guide Design Specification for Bridge Temporary Works.

3. Loads:
   (A) Live Load: HL93 Loading
   (B) Railing Test Level: TL-2

4. Materials:
   (A) All concrete strengths shall be as noted below:

Item No.	Structural Parts	Classes of Concrete	Compressive Strength, f'c (28 Days)
(1)	Box Culvert, Retaining Walls, and Headwalls	-	5,000 psi
(2)	Except as noted otherwise, all others	-	4,000 psi

   All concrete shall have a maximum W/C Ratio of 0.45.

   (B) Concrete shall contain 15 lbs./yd^3 of Cemfil Anti-crack HP 67/36 Alkali Resistant Glass Fiber or equivalent.

   (C) The use of any calcium chloride in any concrete is prohibited.

   (D) A migrating corrosion inhibitor amine carboxylate water-based admixture shall be added to the concrete mix for concrete on bridge. The minimum dosage shall be 1.5 pints per cubic yard of concrete. The admixture shall not affect the set time of the concrete.

   (E) All reinforcing steel shall be ASTM A 615 deformed bars Grade 60 unless otherwise noted.

   (F) Reinforcing steel shall be ASTM A 706 where welded connections are required.

   (G) All structural steel shall be ASTM A 36, hot dip galvanized after fabrication, unless otherwise noted.

   (H) All anchor bolts, washers and nuts shall be ASTM A325 hot dip galvanized after fabrication, unless otherwise specified.

4. Materials (Cont.):
   (J) All welding shall conform to AWS D1.5 Bridge Welding Code. All welds shall be ground smooth. Unless noted otherwise, all welding shall be shielded arc welding done with E70 electrodes.
   (K) All stainless steel shall be duplex stainless steel Type 2205 with a minimum yield strength of 65 ksi and minimum tensile strength of 95 ksi.

5. Reinforcement:
   (A) The covering measured from the surface of the concrete to the face of any reinforcing bars shall be as follows, except as otherwise shown:
      (1) Concrete cast against and permanently exposed to earth = 3"
      (2) All others unless otherwise noted = 2".
   (B) Reinforcing bars shall be installed in accordance with the Concrete Reinforcing Steel Institute "Manual of Standard Practice" unless otherwise noted.
   (C) Minimum clear spacing between parallel bars shall be 1 1/2 times the diameter of bars (for non bundled bars). In no case shall the clear distance between the bars be less than 1 1/2 times the maximum size of the coarse aggregate or 1 1/2".
   (D) All dimensions relating to reinforcing bars are to centers of bars unless otherwise noted.
   (E) Reinforcing bars shall be securely tied at all intersections and lap splices except where the spacing of intersections is less than one foot in each direction, in which case alternate intersections shall be tied.

6. Construction Notes:
   (A) The Contractor shall verify all dimensions and site conditions and shall report any discrepancies in writing to the Engineer before commencing work or ordering materials.
   (B) The Contractor shall verify all site conditions and not rely upon these plans for existing, dimensions, elevations and azimuths, stream channel location, roads, roadway gutters, curbs and sidewalks, etc.. Conditions may differ from those shown.
   (C) The Contractor shall be solely responsible for the protection of adjacent properties, utilities and existing and new structures from damage due to construction. Repairing any damage shall be at the Contractor's own expense, to the satisfaction of the Engineer.
   (D) The Contractor shall verify the location of all utility lines and notify the respective owners before commencing with excavation, and any temporary piling or sheeting.
   (E) All shoring, temporary embankments, temporary structures, etc. shall be capable of supporting the design loads as stated in the Structural General Notes. The drawings and calculations shall be stamped by a licensed Structural Engineer and a licensed Civil Engineer specializing in Geotechnical engineering in the State of Hawai'i. The above work, including working drawings and calculations, shall be incidental to various contract items. The drawings and calculations shall be found acceptable by the Engineer before any construction work is to proceed.

6. Construction Notes (Cont.):
   (F) Except as otherwise noted, all vertical dimensions are measured plumb.
   (G) For concrete finish see Standard Specifications and Special Provisions.
   (H) Construction joints may be relocated or additional ones added subject to the approval of the Engineer.
   (J) Unless otherwise noted, all exposed concrete edges shall be chamfered 3/4" x 3/4".
   (K) Contractor shall unplug, clean and maintain existing drains during construction of the project.
   (L) When only portions of concrete are to be demolished. The intersections between the demolished concrete and the concrete that is to remain shall have a 3/4 inch deep sawcut around the entire perimeter of the demolished area.
   (M) The concrete surfaces which new concrete is poured against shall be roughened to a full amplitude of 1/4 inch and cleaned, unless otherwise noted.
   (N) All existing reinforcing shall remain in place and shall not be damaged in any way unless otherwise noted.
   (P) All existing reinforcing that is to remain in place shall have a minimum concrete cover of 2".
   (Q) Pavement, concrete, riprap, etc. shall be restored to its original condition when it is removed to install new items of work.
   (R) New concrete surfaces shall match the finish of the existing structure. Any reveals, patterns, or decorative features shall also match the existing structure.
   (S) Existing weepholes shall be extended through new concrete where applicable. New weephole shall be coupled to the existing weephole and form a watertight connection.

ORIGINAL PLAN | NOTE BOOK | No.
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CALVIN T. MIYAHARA LICENSED PROFESSIONAL ENGINEER NO. 8133-S HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURAL GENERAL NOTES

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: None Date: July 2019

SHEET No. S0.2 OF 6 SHEETS

ADD. 188

DRAWING NAME: Z:\DOCUMENTS\18-029-KUHIO HWY SHORT TERM IMPROVTS KUAMOO-KOOLAU CAD\11-08-19 ADD\KSI-S002 ADD1 GENNOTE ADD1 ADD3.DWG PLOT TIME: 11-08-19, 8:08 AM

STRUCTURAL GENERAL NOTES

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD. 189	244

7. Foundation:

(A) Retaining Walls and Headwalls

(1) Active Earth Pressures

(a) Active Lateral Earth Pressure (Level Backfill) = 40 Pounds per Foot (PCF) Equivalent Fluid Pressure

(2) Bearing Capacity

(a) Extreme Event Limit State = 9,000 Pounds per Square Foot (PSF)

(b) Strength Limit State = 4,500 PSF

(c) Service Limit State = 3,000 PSF

(3) Friction Factor

(a) Extreme Event Limit State = 0.55

(b) Strength Limit State = 0.44

(4) Passive Earth Resistance

(a) Extreme Event Limit State = 250 PCF (Level Backfill)

(b) Strength Limit State = 125 PCF (Level Backfill)

(B) Box Culvert

(1) At-Rest Earth Pressures

(a) At-Rest Lateral Earth Pressure (Level Backfill) = 56 PSF

(2) Bearing Capacity

(a) Extreme Event Limit State = 6,000 Pounds per Square Foot (PSF)

(b) Strength Limit State = 2,700 PSF

(c) Service Limit State = 2,000 PSF

(3) Friction Factor

(a) Extreme Event Limit State = 0.55

(b) Strength Limit State = 0.44

7. Foundation (Cont.):

(4) Passive Earth Resistance

(a) Extreme Event Limit State = 250 PCF (Level Backfill)

(b) Strength Limit State = 125 PCF (Level Backfill)

(C) For additional geotechnical information see geotechnical engineering exploration report by Geolabs dated 10/1/2009.

8. General:

(A) All items noted incidental will not be paid for separately.

(B) Standard Plans refer to all structures in general, except for modifications as may be required for special conditions. For such modifications refer to the corresponding detailed drawings.

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CALVIN T. MIYAHARA LICENSED PROFESSIONAL ENGINEER NO. 8133-S HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURAL GENERAL NOTES

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: None Date: July 2019

SHEET No. S0.3 OF 6 SHEETS

ADD. 189

DRAWING NAME: Z:\OD DRGONLY\18-029-KUHIO HWY SHORT TERM IMPRVMTS KUAMOO-WOLF01 CADV\11-08-19 ADD3\VGS-S003 ADD1 GENNOTE ADD1 ADD3.DWG PLOT TIME: 11-08-19, 8:08 AM

SYMBOLS AND ABBREVIATIONS

∉	And
@	At
?	Diameter
≥	Greater Than or Equal to
≤	Less Than or Equal to
#	Number
Abut.	Abutment
Abbr.	Abbreviation
Add.	Additional
Alt.	Alternate
AB	Anchor Bolt
AC	Asphaltic Concrete
Approx.	Approximate
Az.	Azimuth
Bk.	Back
Bal.	Balance
℄	Baseline
Bm.	Beam
Brg., Brgs.	Bearing, Bearings
BVC	Beginning of Vertical Curve
Bet.	Between
BF	Both Faces
BW	Both Ways
BFE	Bottom of Footing Elevation
Bot., Bott., B	Bottom
BOF	Bottom of Footing
Br.	Bridge
Blt.	Bolt
Cant.	Cantilever
CIP	Cast Iron Pipe
℄	Center line
CG	Center of Gravity
cc	Center to Center
CFCW	Continuous Flashing Compound Waterproofing
Cl.	Class
Clr.	Clearance
CO	Clean Out
Col.	Column
Conc.	Concrete
CBW	Concrete Barrier Wall
CMU	Concrete Masonry Unit
Conn.	Connection
Const.	Construction
CJ	Construction Joint
Cntl. Jt.	Control Joint
CLSM	Controlled Low Strength Material
Cont.	Continuous
CSL	Crosshole Sonic Log
CF	Cubic Feet
CY, Cu. Yd.	Cubic Yard
Det.	Detail
Dia.	Diameter
Diaph.	Diaphragm
Dim.	Dimension
Dist.	Distance
DO	Ditto
Dwls.	Dowels
Dn.	Down
Dbl.	Double
DI	Drain Inlet, Ductile Iron
Dwg., Dwgs.	Drawing, Drawings
DS	Drilled Shaft
E	East
EB	East Bound
EA, Ea., ea.	Each
EF	Each Face
EFH	Each Face Horizontal
EFV	Each Face Vertical
EW	Each Way
EPE	Existing Edge of Pavement
EPS	Expanded Polystyrene
ES	Edge of Shoulder
Elec.	Electrical
EMH	Electrical Manhole
El., Elev.	Elevation
Emb.	Embankment
EVC	End of Vertical Curve
Eq.	Equal
Est.	Estimated
Exc.	Excavation
Excl.	Excluding
Exist., Ex.	Existing
Exp., (E)	Expansion
EJ	Expansion Joint
Ext.	Exterior
(F)	FIxed
FA	Force account
FB	Flat Bar
FC	Compression Stresses
f'c	Specified Compressive Strength of Concrete at 28 days
f'ci	Specified Compressive Strength of Concrete at Time of Initial Prestress
FF	Far Face. Front Face
Fig.	Figure
Fin. Gr.	Finish Grade
FRP	Fiberglass Reinforced Plastic
FT	Tensile Stresses
Ftg.	Footing
Ft.	Feet, Foot
Ga.	Gage, Gauge
Galv.	Galvanized
G, Gir.	Girder
GDI	Grated Drain Inlet
GFRP	Glass Fiber Reinforced Polymer Rebar
Gr.	Grade
Grd.	Ground
GRP	Grouted Rubble Pavement
Ht.	Height
(H)	Hinge
Horiz., H	Horizontal
HDOT	State of Hawaii Department of Transportation
HDPE	High Density Polyethylene
HS	High strength
HECO	Hawaiian Electric Company
IB	Inbound
In.	Inch
ID	Inside Diameter
IF	Inside Face
Int.	Interior
Inv.	Invert
Jt.	Joint
K	Kips
KF	Kip Foot
KSF	Kips Per Square Foot
KSI	Kips Per Square Inch
KLF	Kips Per Linear Foot
L	Length
lb., lbs., LBS.	Pound, Pounds
Ltg. Std.	Lighting Standard
LF, Lin. Ft.	Linear Feet/Foot
LS	Lump Sum
Longit.	Longitudinal
M	Modified
MH	Manhole
Max.	Maximum
Mech.	Mechanical
Min.	Minimum
Misc.	Miscellaneous
MPH	Miles Per Hour
NF	Near Face
N	North
NIC	Not in Contract
No.	Number
NTS	Not to Scale
O/S	Offset
oc	On Center
Opn'g	Opening
OB	Outbound
OD	Outside Diameter
OG	Outside Girder, Outbound Girder
Perf.	Perforated
PL	Plate
PCC	Portland Cement Concrete
PC	Point of Curvature
PCF	Pounds per Cubic Foot
P(e)	Effective Prestress Force After All Losses
PPM	Parts Per Million
PSF	Pounds per Square Foot
PSI, psi	Pounds per Square Inch
PLF	Pounds per Linear Foot
PI	Point of Intersection of Tangents
PIVC	Point of Intersection of Vertical Curve
PT	Point of Tangency
Pt., Pts.	Point, Points
PRC	Point of Reverse Curvature
PVC	Polyvinyl Chloride
Prestr.	Prestressed
P/S	Prestressed Strands
PB	Pull Box
Rad., R	Radius
RF	Rear Face
Rebar	Reinforcing Bar
Ref.	Reference
Reinf.	Reinforced, Reinforcing, Reinforcement
Req'd.	Required
Ret.	Retaining
ROW	Right of Way
Rdwy.	Roadway
Sect.	Section
SRW	Segmental Retaining Wall
Sht.	Sheet
Sim.	Similar
Sl.	Slope
S	South
Spc., Spg.	Spaces, Spacing
Sprd.	Spread
Spec.	Specification
SF	Square Feet
SY	Square Yard
SS	Stainless Steel
Std.	Standard
Sta.	Station
Stiff.	Stiffener
Stirr.	Stirrup
Stl.	Steel
Str.	Straight
Struct.	Structure
SE	Super Elevation
Symm.	Symmetrical
Tan.	Tangent
TC	Continuity Tendons
Temp.	Temporary
TD	Deck Tendon
Thk.	Thick
T	Top
T∉B	Top and Bottom
TCE	Top of Column (and Bent Cap Soffit) Elevation
TOD	Top of Deck
TOP	Top of Pier
TFE	Top of Footing Elevation
Tot.	Total
Transv.	Transverse
TS	Structural Tubing
TSS	Tendon For Girder in Simply Supported Condition
Typ.	Typical
Undergrd.	Underground
Var.	Varies
Vert., V	Vertical
VC	Vertical Curve
VESLMC	Very Early Strength Latex Modified Concrete
W/C	Water/Cement
w/	With
W	West
WB	West Bound
WWF	Welded Wire Fabric
WW	Wingwall
WP	Work Point, Working Point
WS	Water Surface
Yr.	Year

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD. 190	244

CALVIN T. MIYAHARA LICENSED PROFESSIONAL ENGINEER NO. 8133-S HAWAII, U.S.A.

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Calvin Miyahara 4-30-20

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SYMBOLS AND ABBREVIATIONS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: None Date: July 2019

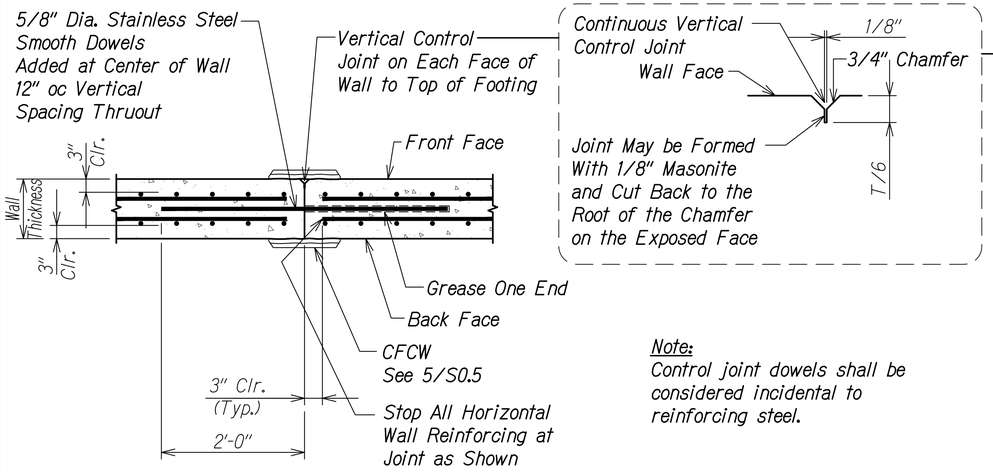
SHEET No. S0.4 OF 6 SHEETS

ADD. 190

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

DRAWING NAME: Z:\00 ONGOING\18-029-KUHIO HWY SHORT TERM IMPROMTS KUAMOO-RDDC\01 PADL\11-08-19 ADD3\VSI-S004 SYMBABBR ADD1 ADD3.DWG PLOT TIME: 11-08-19 9:09 AM

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD. 191	244

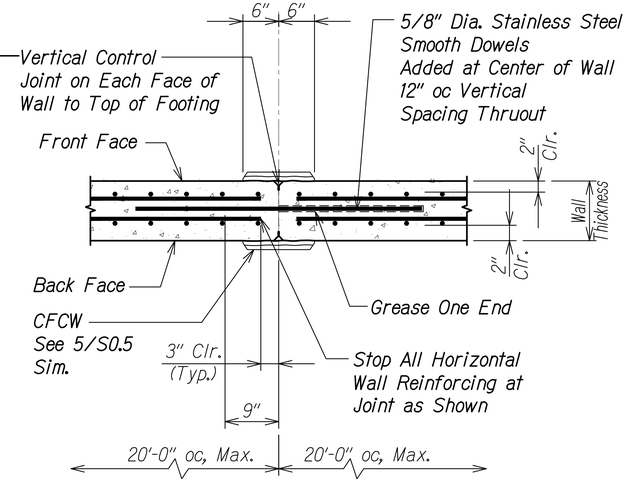


Note:
Control joint dowels shall be considered incidental to reinforcing steel.

CONSTRUCTION JOINT AT CONTROL JOINT LOCATION

Scale: 1" = 1'-0"

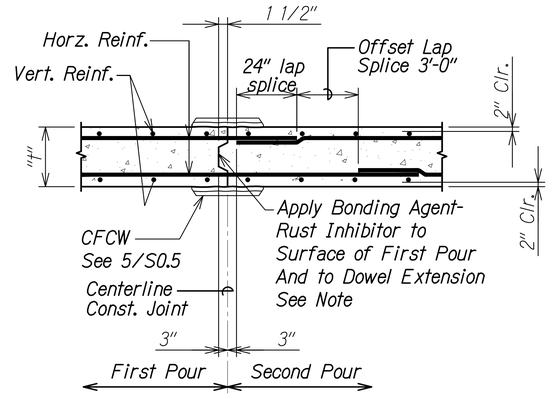
S0.5 | S0.5



TYPICAL WALL VERTICAL CONTROL JOINT DETAIL

Scale: 1" = 1'-0"

S0.5 | S0.5

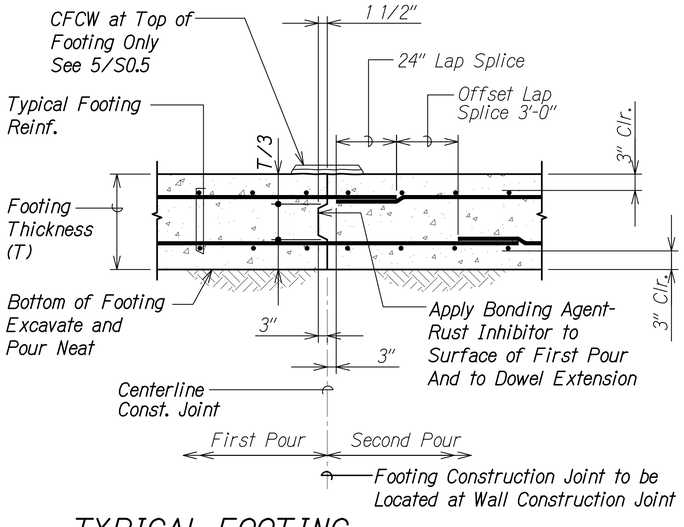


Note: Use 1 1/2" Deep X "t"/3 Keys.

TYPICAL WALL VERTICAL CONSTRUCTION JOINT DETAIL

Scale: 1" = 1'-0"

S0.5 | S0.5



TYPICAL FOOTING CONSTRUCTION JOINT DETAIL

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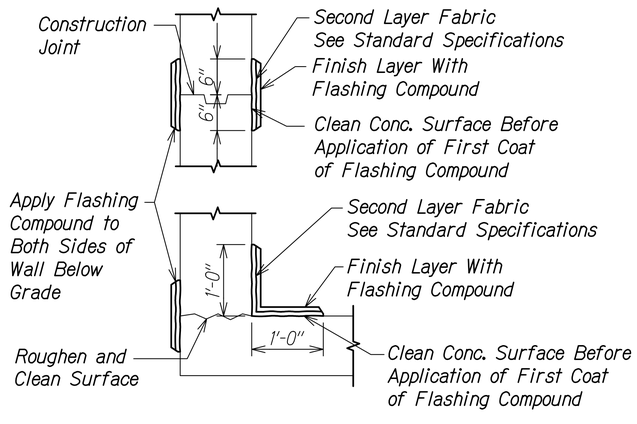
S0.5 | S0.5



TYPICAL CONTINUOUS FLASHING COMPOUND WATERPROOFING (CFCW)

Scale: 1" = 1'-0"

S0.5 | S0.5

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL DETAILS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. S0.5 OF 6 SHEETS

ADD. 191

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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PLOT TIME= 11-08-19, 9:09 AM
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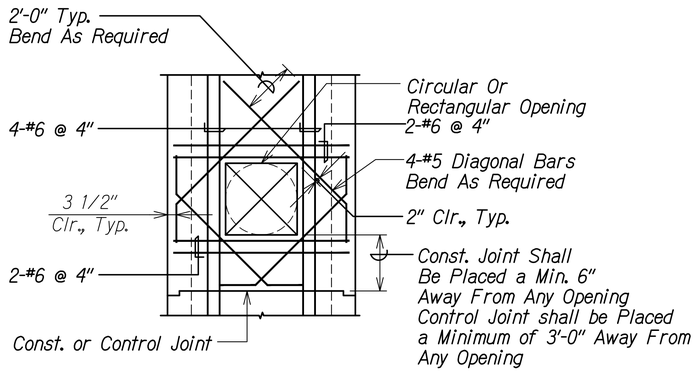
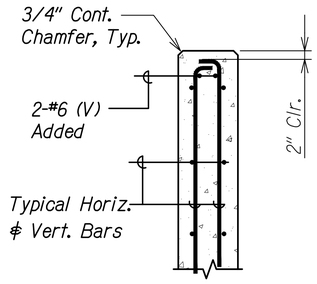
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD. 192	244



ADDED REINFORCING FOR OPENING

Scale: 1/2" = 1'-0"

1 S0.6 | S0.6



CONCRETE WALL ENDS

Scale: 1" = 1'-0"

2 S0.6 | S0.6

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ORIGINAL PLAN

NOTE BOOK

No.

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DRAWN BY ____ " " "
TRACED BY ____ " " "
DESIGNED BY ____ " " "
QUANTITIES BY ____ " " "
CHECKED BY ____ " " "

DRAWING NAME: Z:\OD ONGOING\18-029-KUHIO HWY SHORT TERM IMPRVMTS KUAMOO-RDCA\01 CAD\11-08-19 ADD3\KSI-S005 S006 TYPDTLS ADD1 ADD3.DWG PLOT TIME: 11-08-19, 9:10 AM

CALVIN T. MIYAHARA
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No. 8133-S
HAWAII, U.S.A.

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STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL DETAILS

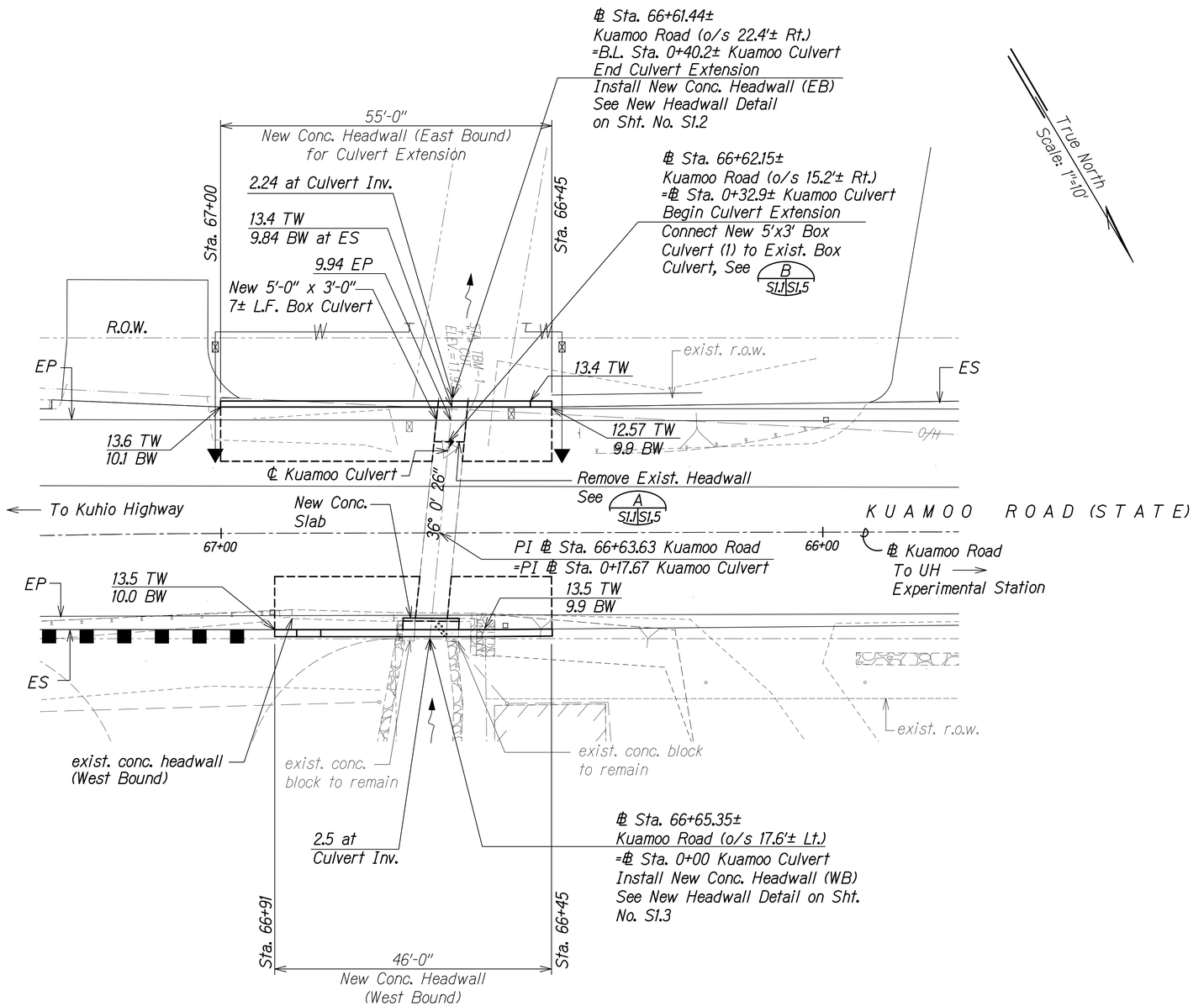
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted — Date: July 2019

SHEET No. S0.6 OF 6 SHEETS

ADD. 192

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD. 193	244



LAYOUT PLAN
EXTENSION OF EXISTING BOX CULVERT AT STA. 66+64

Scale: 1" = 10'

APPROVED

Manager and Chief Engineer — Date
Department of Water,
County of Kauai

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

CALVIN T. MIYAHARA
LICENSED PROFESSIONAL ENGINEER
NO. 8133-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Calvin Miyahara — 4-30-20
SIGNATURE — EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KUAMOO ROAD CULVERT EXTENSION

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted — Date: July 2019

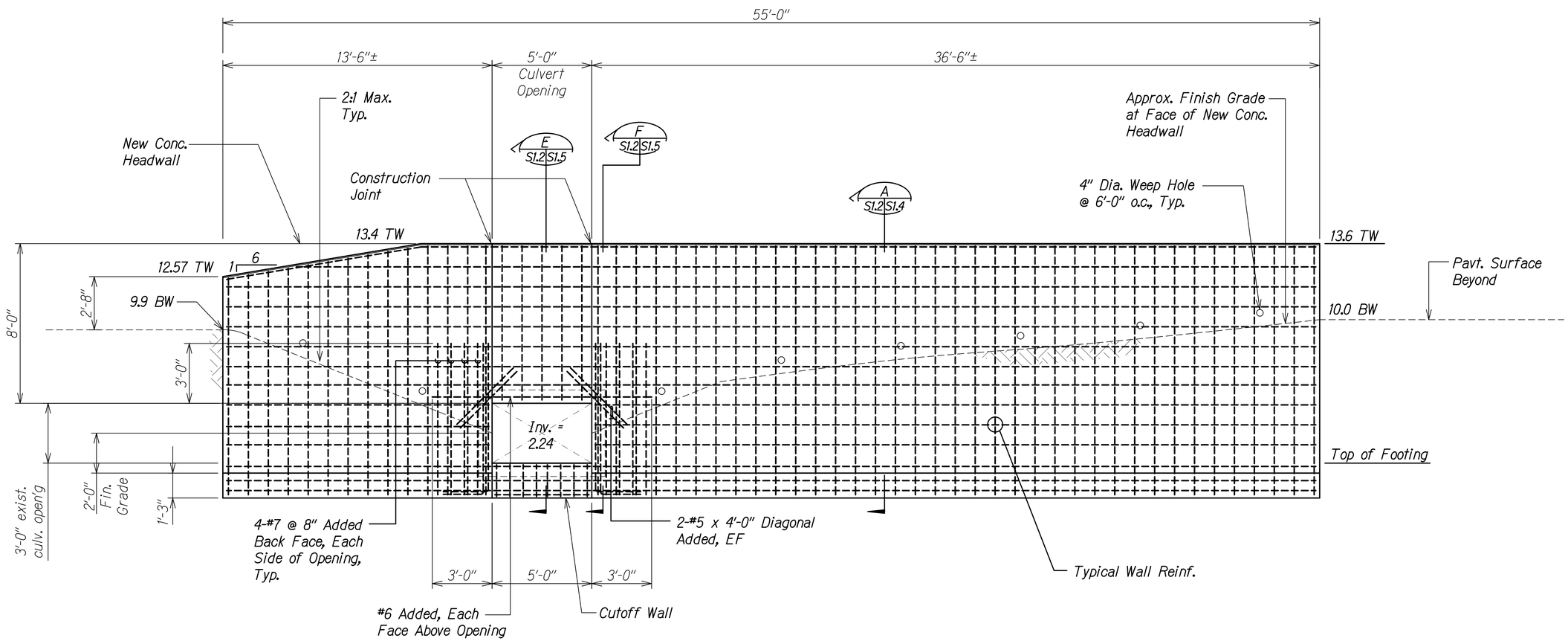
SHEET No. S1.1 OF 6 SHEETS

ADD. 193

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

DRAWING NAME: Z:\JOB ONGOING\18-029-KUHIO HWY SHORT TERM IMPROVMTS KUAMOO-WOC\01 CAD\11-14-19 ADD3 S0101\VSI-S101 KUAMOO ADD1 ADD3.DWG PLOT TIME: 11-14-19, 3:57 PM

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD. 194	244



HEADWALL ELEVATION - KUAMOO ROAD (EB)

A S1.2 S1.2

Scale: 3/8" = 1'-0"

ORIGINAL PLAN

NOTE BOOK No.

SURVEY PLOTTED BY DATE
DRAWN BY "
TRACED BY "
DESIGNED BY "
QUANTITIES BY "
CHECKED BY "

DRAWING NAME: Z:\OD ONGOING\16-029-KUHIO HWY SHORT TERM IMPROVMTS KUAMOO-WOCA\01 CAD\11-08-19 ADD\KSS-S102 ELEV ADD1 ADD.DWG PLOT TIME: 11-08-19, 9:10 AM)

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

CALVIN T. MIYAHARA LICENSED PROFESSIONAL ENGINEER No. 8133-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Calvin Miyahara 4-30-20

SIGNATURE EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KUAMOO ROAD EB

CULVERT HEADWALL ELEVATION

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD

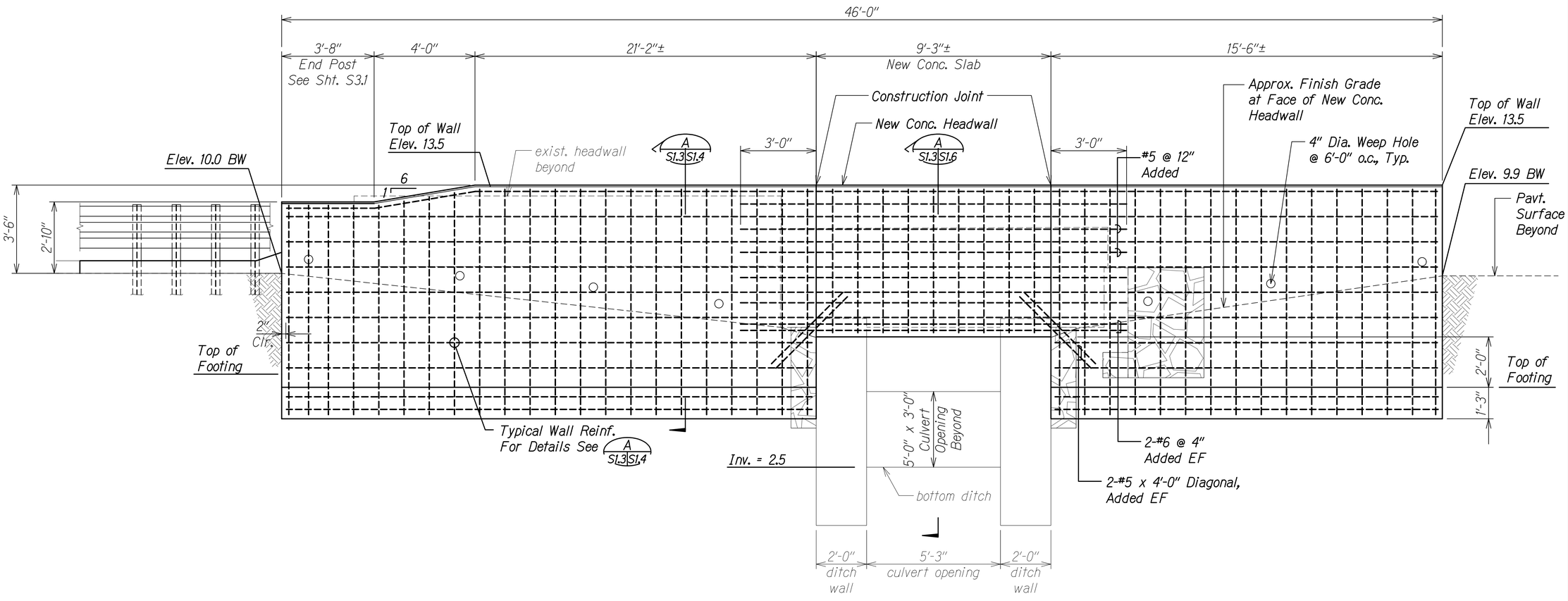
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. S1.2 OF 6 SHEETS

ADD. 194

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD. 195	244



HEADWALL ELEVATION - KUAMOO ROAD (WB) A S1.3 S1.3

Scale: 1/2" = 1'-0"

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

DRAWING NAME: Z:\OD ONGOING\18-029-KUHIO HWY SHORT TERM IMPROMTS KUAMOO-ROCK\01 CAD\11-08-19 ADD3\KSI-S102 ELEV ADD1 ADD3.DWG PLOT TIME: 11-08-19 9:11 AM)

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

CALVIN T. MIYAHARA
LICENSED PROFESSIONAL ENGINEER
No. 8133-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Calvin Miyahara 4-30-20
SIGNATURE EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KUAMOO ROAD WB
CULVERT HEADWALL ELEVATION

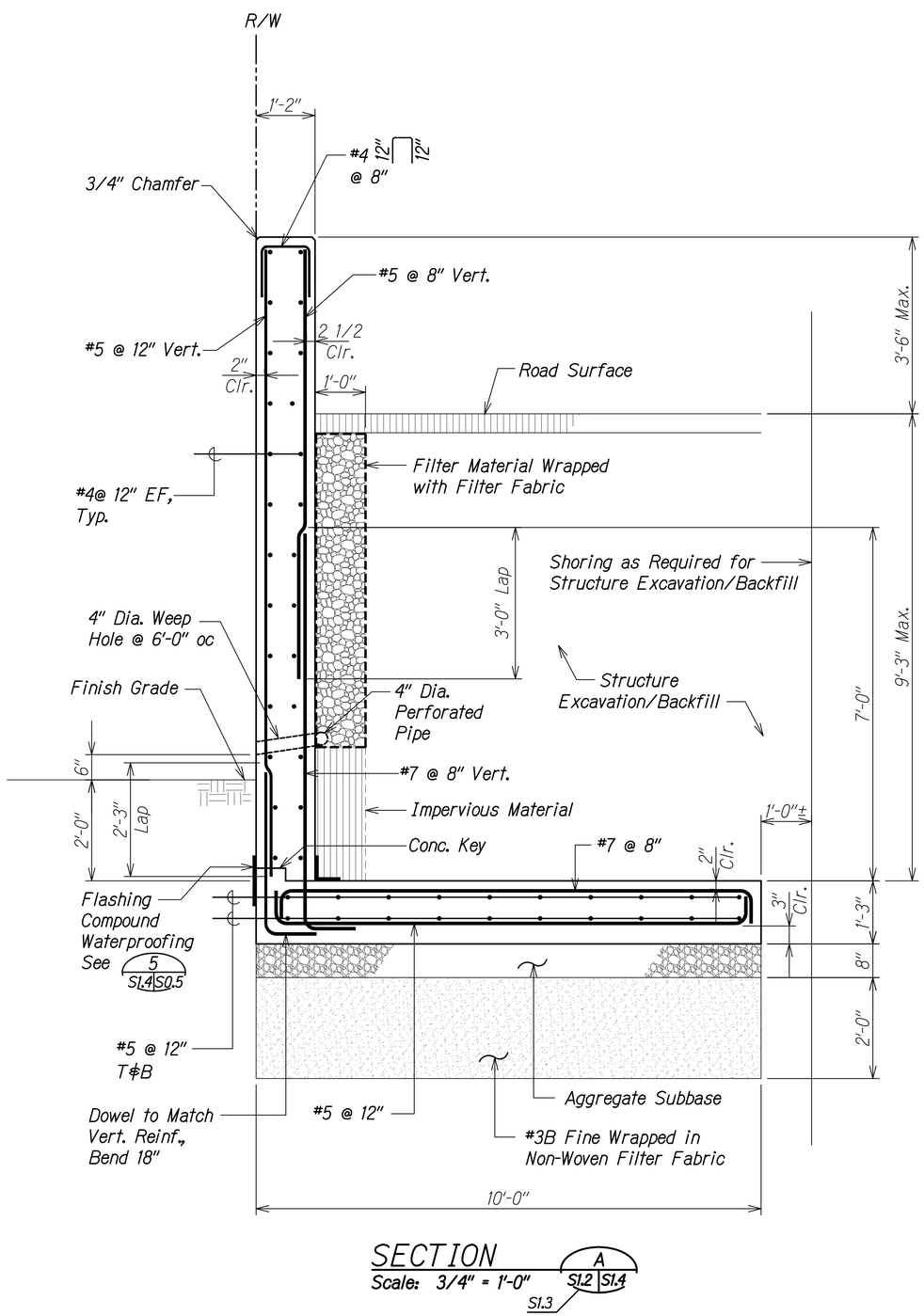
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. S1.3 OF 6 SHEETS

ADD. 195

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD. 196	244



SECTION A
Scale: 3/4" = 1'-0"
S1.2 S1.4
S1.3

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

DRAWING NAME: Z:\OD ONGOING\15-029-KUHIO HWY SHORT TERM IMPROVMTS KUAMOO-WOCA\01 CAD\11-08-19 ADD3\KSI-S104 EB SECTS ADD1 ADD3.DWG PLOT TIME: 11-08-19, 9:12 AM)

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

CALVIN T. MIYAHARA LICENSED PROFESSIONAL ENGINEER No. 8133-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Calvin Miyahara 4-30-20
SIGNATURE EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

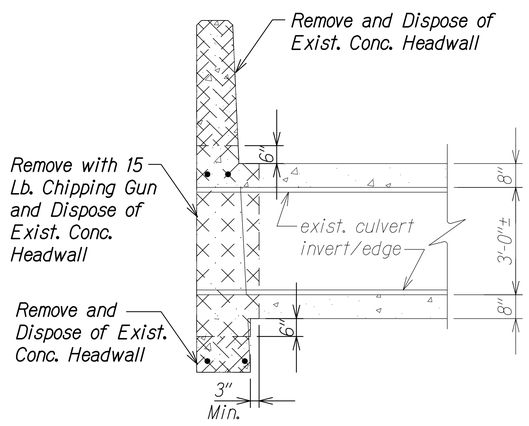
KUAMOO ROAD EB
CULVERT EXTENSION SECTION
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. S1.4 OF 6 SHEETS

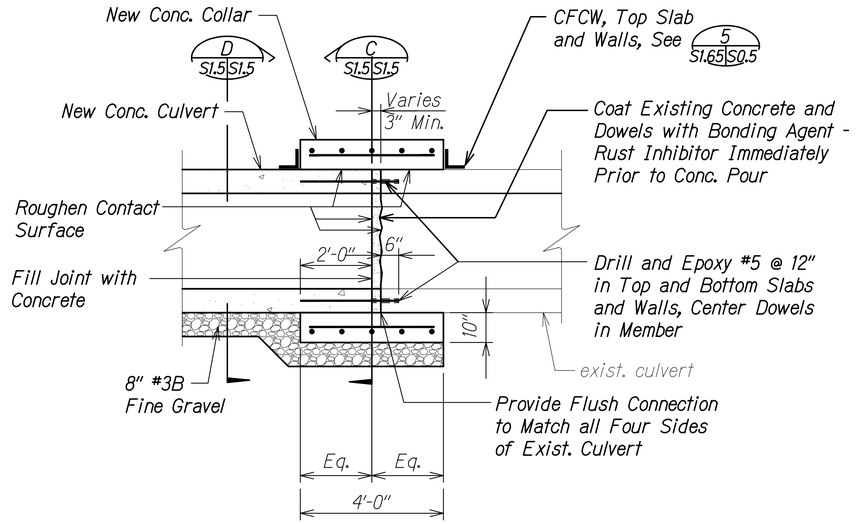
ADD. 196

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD. 197	244



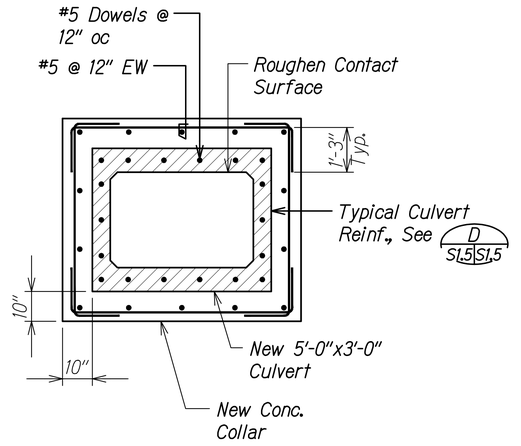
DEMOLITION SECTION AT KUAMOO ROAD (EB)

Scale: 1/2" = 1'-0" — A S1.1 | S1.5



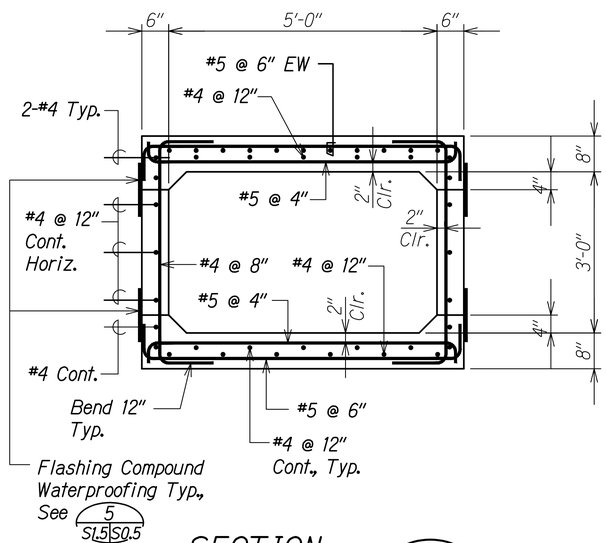
SECTION

Scale: 1/2" = 1'-0" — B S1.1 | S1.5



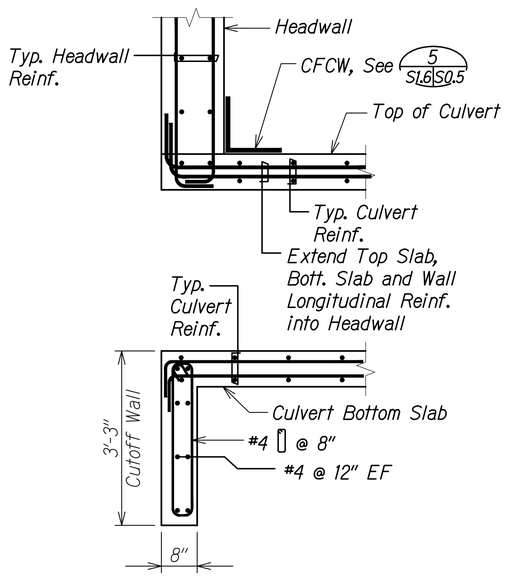
SECTION

Scale: 1/2" = 1'-0" — C S1.5 | S1.5



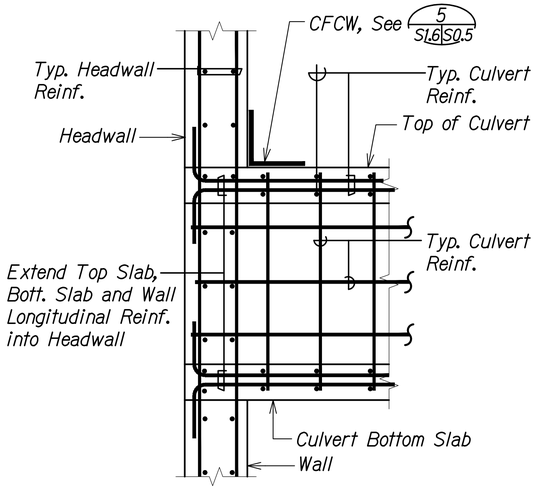
SECTION

Scale: 3/4" = 1'-0" — D S1.5 | S1.5



SECTION

Scale: 3/4" = 1'-0" — E S1.2 | S1.5



SECTION

Scale: 3/4" = 1'-0" — F S1.2 | S1.5

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

DRAWING NAME: Z:\OD ONGOING\18-029-KUHIO HWY SHORT TERM IMPROVMTS KUAMOO-WOA\01 CAD\11-08-19 ADD3\KSS-S164 EB SECTS ADD1 ADD3.DWG PLOT TIME: 11-08-19, 9:12 AM)

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

CALVIN T. MIYAHARA LICENSED PROFESSIONAL ENGINEER NO. 8133-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Calvin Miyahara 4-30-20

SIGNATURE — EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

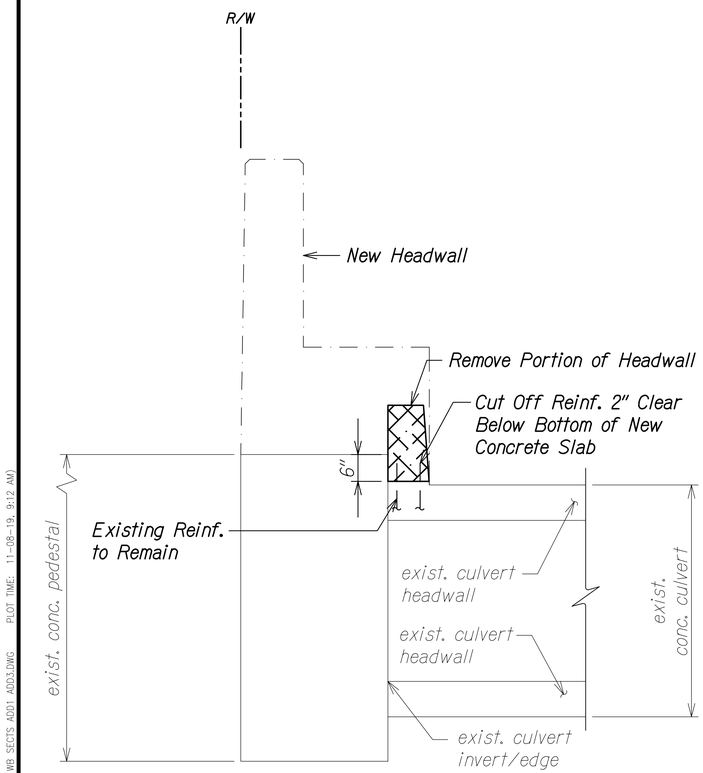
KUAMOO ROAD EB
CULVERT EXTENSION SECTIONS
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted — Date: July 2019

SHEET No. S1.5 OF 6 SHEETS

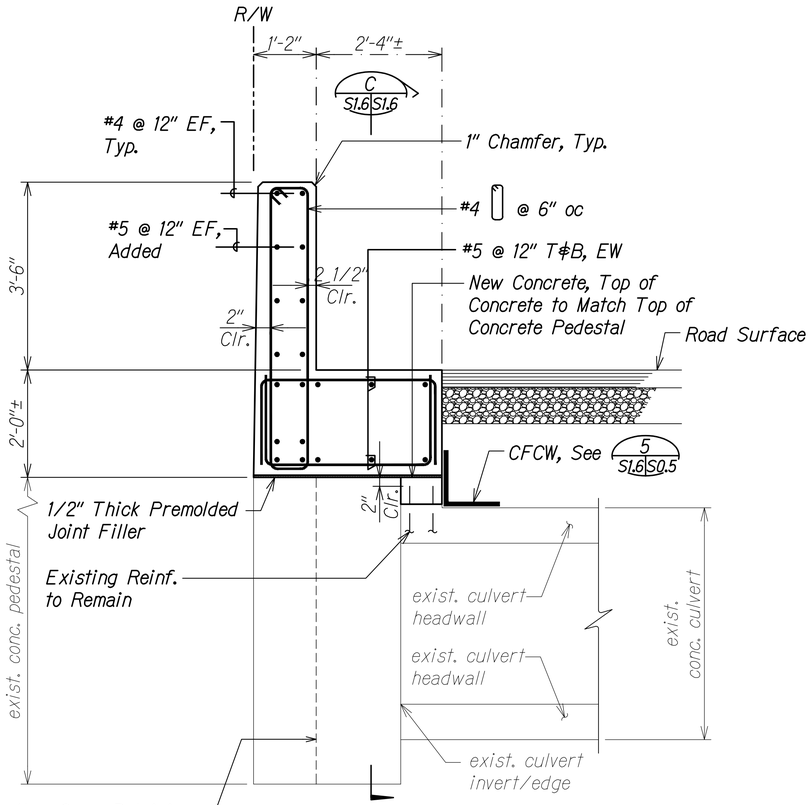
ADD. 197

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD. 198	244



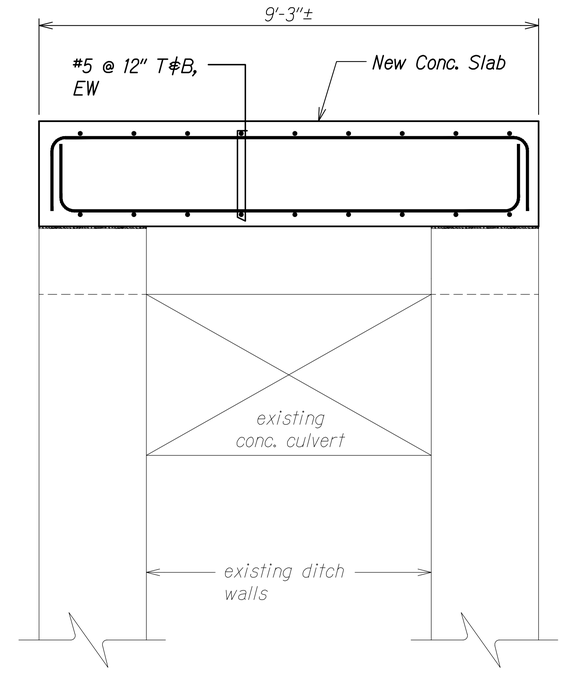
DEMOLITION SECTION (A S1.3 | S1.6)

Scale: 3/4" = 1'-0"



SECTION (B S1.3 | S1.6)

Scale: 3/4" = 1'-0"



SECTION (C S1.6 | S1.6)

Scale: 3/4" = 1'-0"

CALVIN T. MIYAHARA LICENSED PROFESSIONAL ENGINEER No. 8133-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Calvin Miyahara 4-30-20

SIGNATURE EXPIRATION DATE OF THE LICENSE

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KUAMOO ROAD WB

CULVERT EXTENSION SECTIONS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. S1.6 OF 6 SHEETS

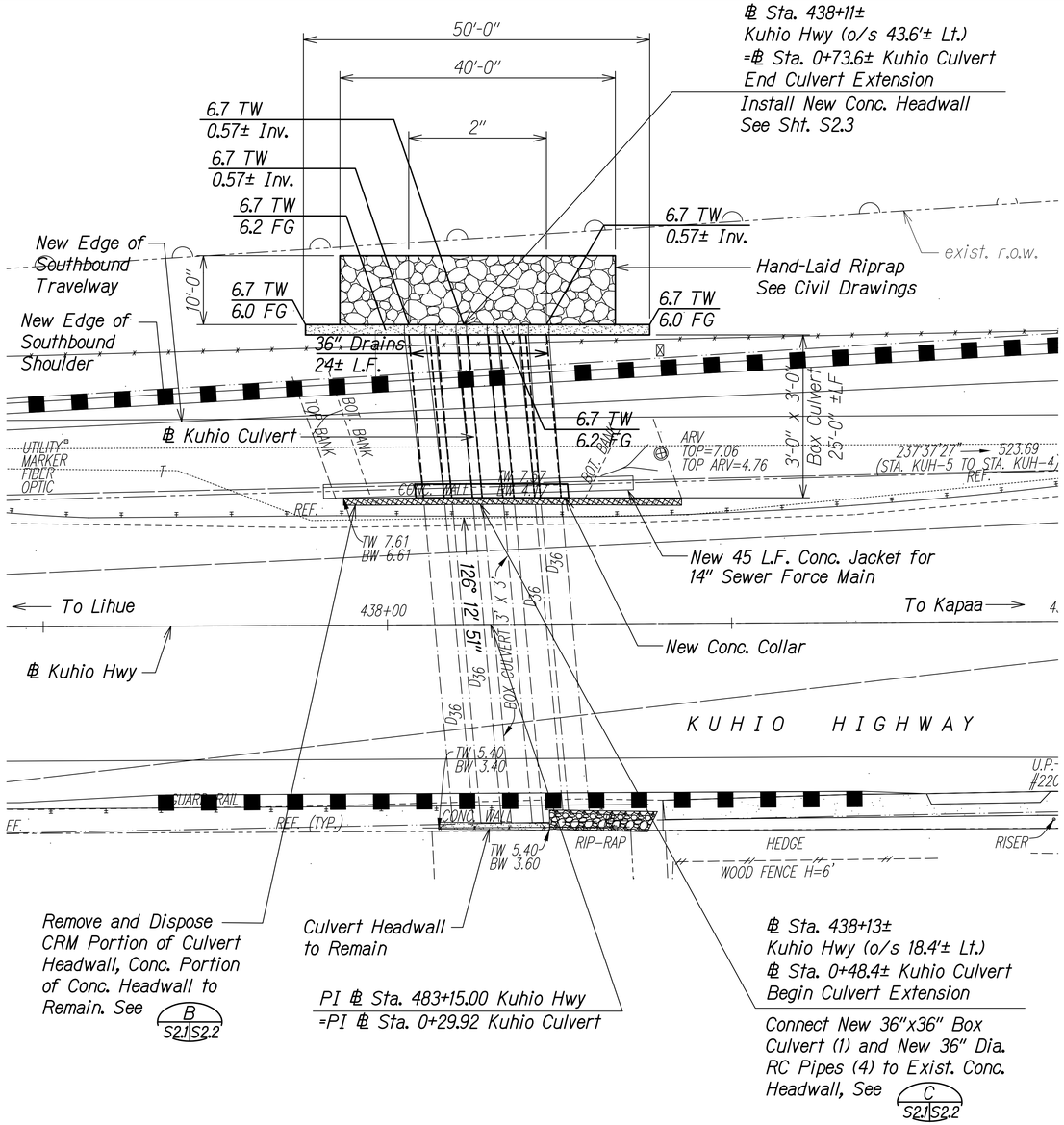
ADD. 198

ORIGINAL PLAN | NOTE BOOK | No.

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

DRAWING NAME: Z:\OD ONGOING\18-029-KUHIO HWY SHORT TERM IMPROVTS KUAMOO-WDC\01 CAD\11-08-19 ADD\KSI-S106 WB SECTS ADD1 ADD3.DWG PLOT TIME: 11-08-19, 9:12 AM

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD. 199	244



True North
Scale: 1"=10'

LAYOUT PLAN
EXTENSION OF EXISTING BOX CULVERT
AT STA. 438+15
Scale: 1" = 10'

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

DRAWING NAME: Z:\DOT ONGOING\18-029-KUHIO HWY SHORT TERM IMPROMTS KUAMOO-PROJ\01 CAD\11-08-19 ADD\VSI-S201 KUHIO ADD1 ADD3.DWG PLOT TIME: 11-08-19, 9:16 AM

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

CALVIN T. MIYAHARA
LICENSED PROFESSIONAL ENGINEER
NO. 8133-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Calvin Miyahara 4-30-20
SIGNATURE EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

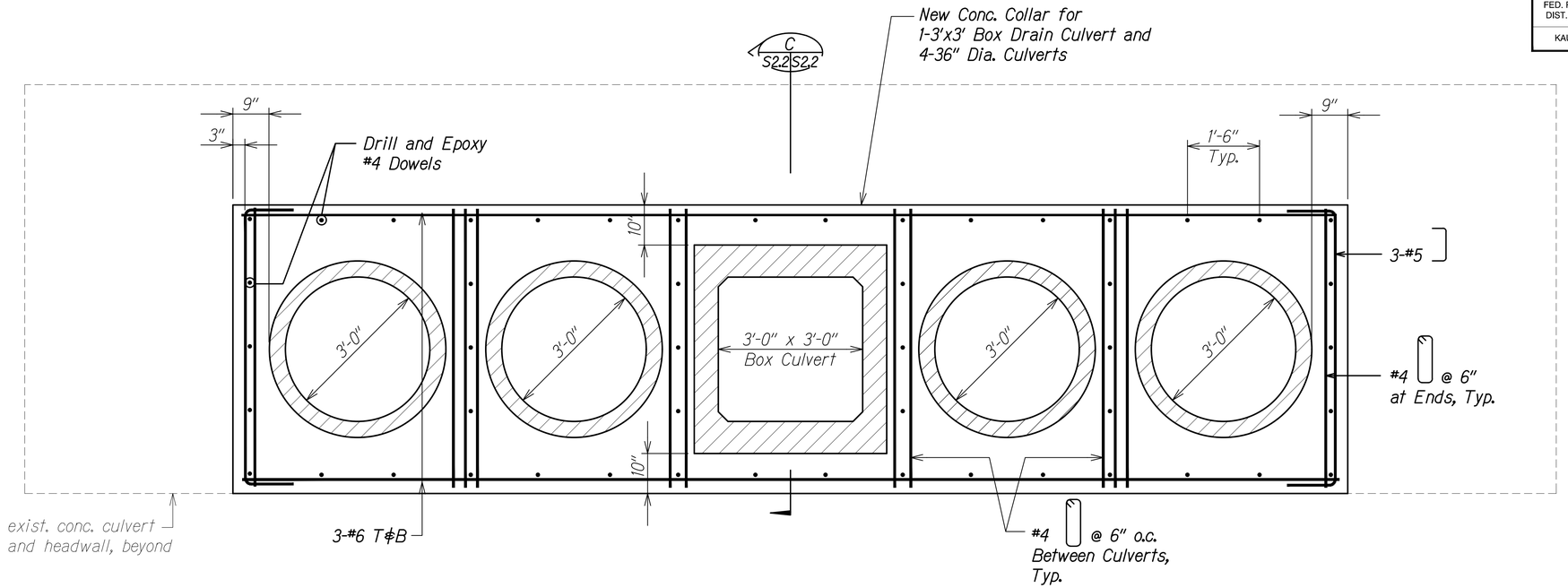
KUHIO HIGHWAY
CULVERT EXTENSION
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. S2.1 OF 5 SHEETS

ADD. 199

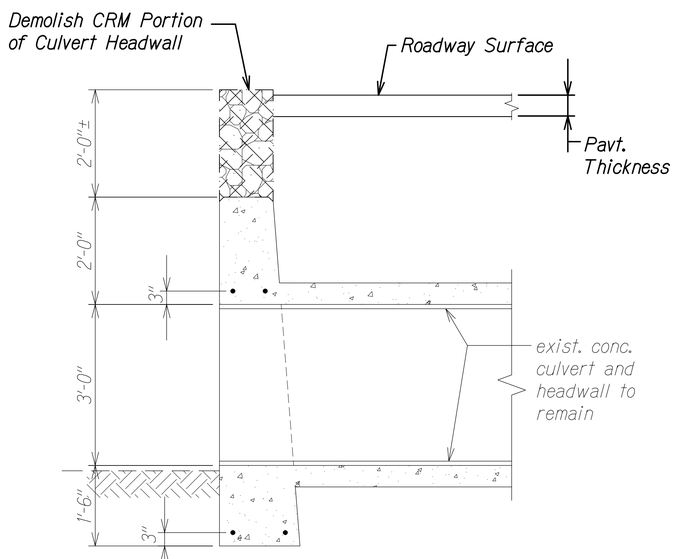
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD. 200	244



COLLAR CONNECTION DETAIL FOR CULVERT EXTENSION

A S2.2 S2.2

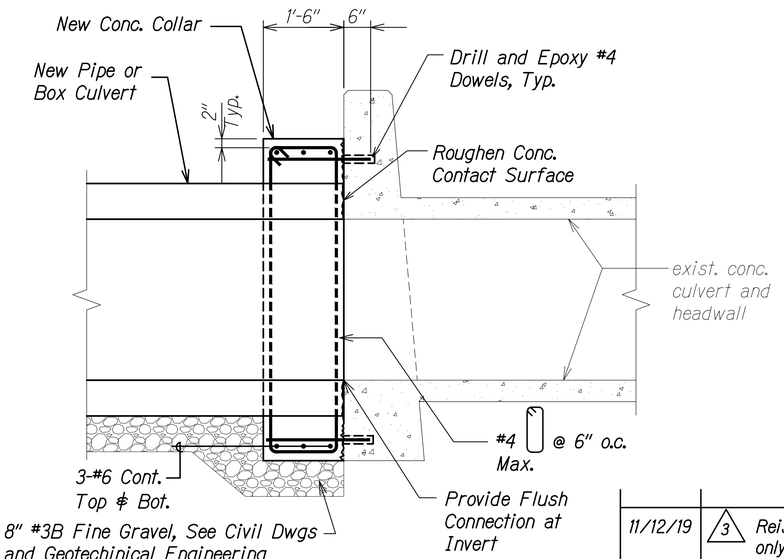
Scale: 3/4" = 1'-0"



DEMOLITION SECTION

B S2.1 S2.2

Scale: 3/4" = 1'-0"



SECTION

C S2.2 S2.2

Scale: 3/4" = 1'-0"

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

ORIGINAL PLAN | NOTE BOOK | No.

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

DRAWING NAME: Z:\DOT\ENGINEERING\18-023-KUHIO HWY SHORT TERM IMPROVMTS KUAMOO-ADD\01 CAD\11-08-19 ADD\KSI-S202 ADD1 ADD2.DWG PLOT TIME: 11-08-19, 9:13 AM)

CALVIN T. MIYAHARA
LICENSED PROFESSIONAL ENGINEER
NO. 8133-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Calvin Miyahara 4-30-20

SIGNATURE EXPIRATION DATE OF THE LICENSE.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KUHIO HIGHWAY
CULVERT EXTENSION SECTIONS

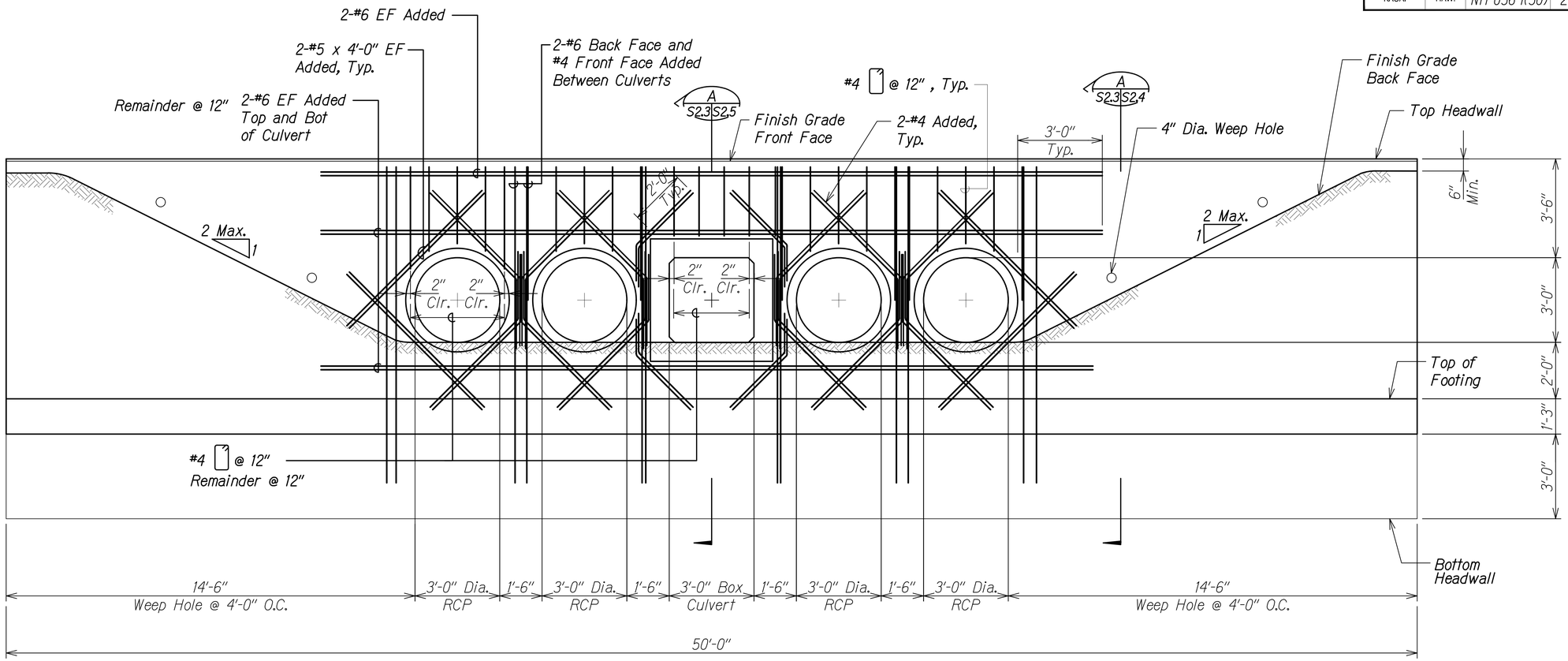
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. S2.2 OF 5 SHEETS

ADD. 200

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD. 201	244



NEW HEADWALL ELEVATION

Scale: 1/2" = 1'-0"

Note:

Typical wall reinforcement not shown for clarity.

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

DRAWING NAME: Z:\JOB ONGOING\18-029-KUHIO HWY SHORT TERM IMPROMTS KUAMOO-ROC\01 CAD\11-08-19 ADD\VSI-S203 ADD1 ADD3.DWG PLOT TIME: 11-08-19, 9:14 AM)

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

CALVIN T. MIYAHARA LICENSED PROFESSIONAL ENGINEER NO. 8133-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Calvin Miyahara 4-30-20
SIGNATURE EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

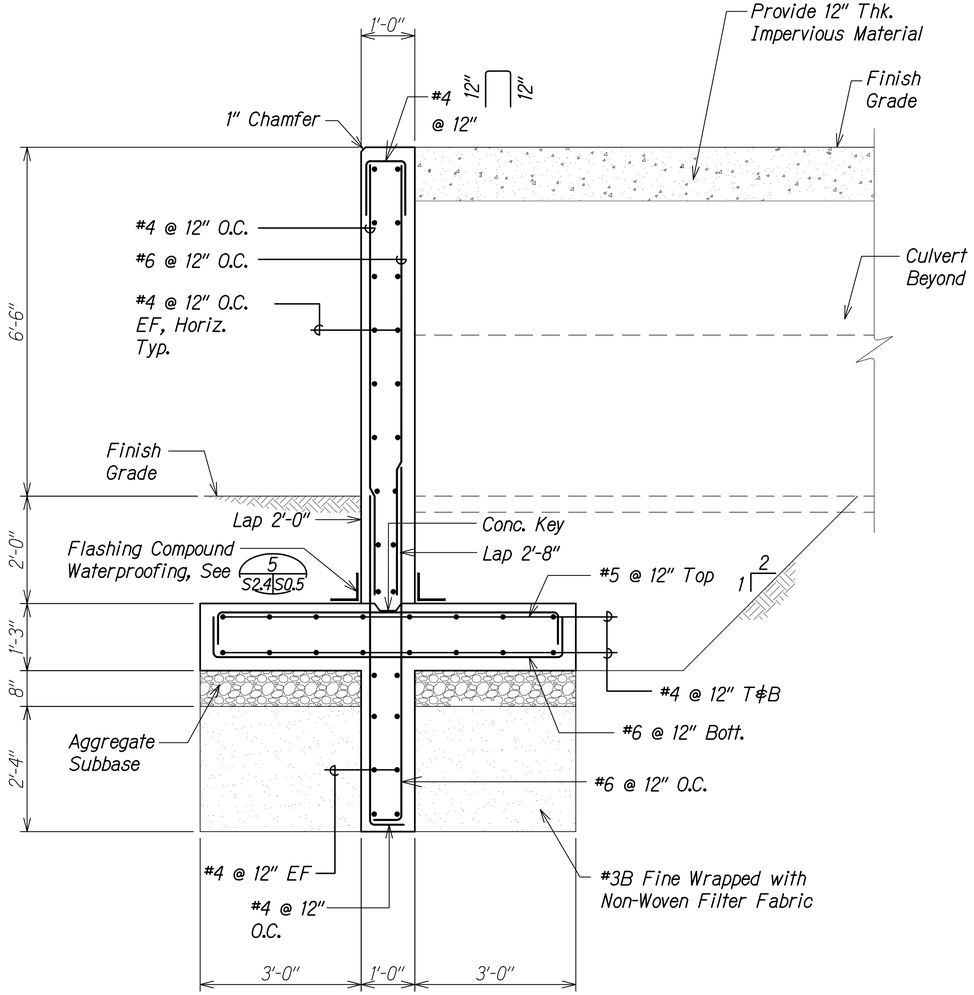
KUHIO HIGHWAY
HEADWALL ELEVATION
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. S2.3 OF 5 SHEETS

ADD. 201

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD. 202	244



SECTION A
Scale: 3/4" = 1'-0"
S2.3 | S2.4

ORIGINAL PLAN
NOTE BOOK No.

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

DRAWING NAME: Z:\JOB ONGOING\18-029-KUHIO HWY SHORT TERM IMPROVMTS KUAMOO-WDC\01 CAD\11-08-19 ADD3\KSI-5203 ADD1 ADD3.DWG PLOT TIME: 11-08-19, 9:14 AM

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

CALVIN T. MIYAHARA
LICENSED PROFESSIONAL ENGINEER
NO. 8133-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Calvin Miyahara
SIGNATURE

4-30-20
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

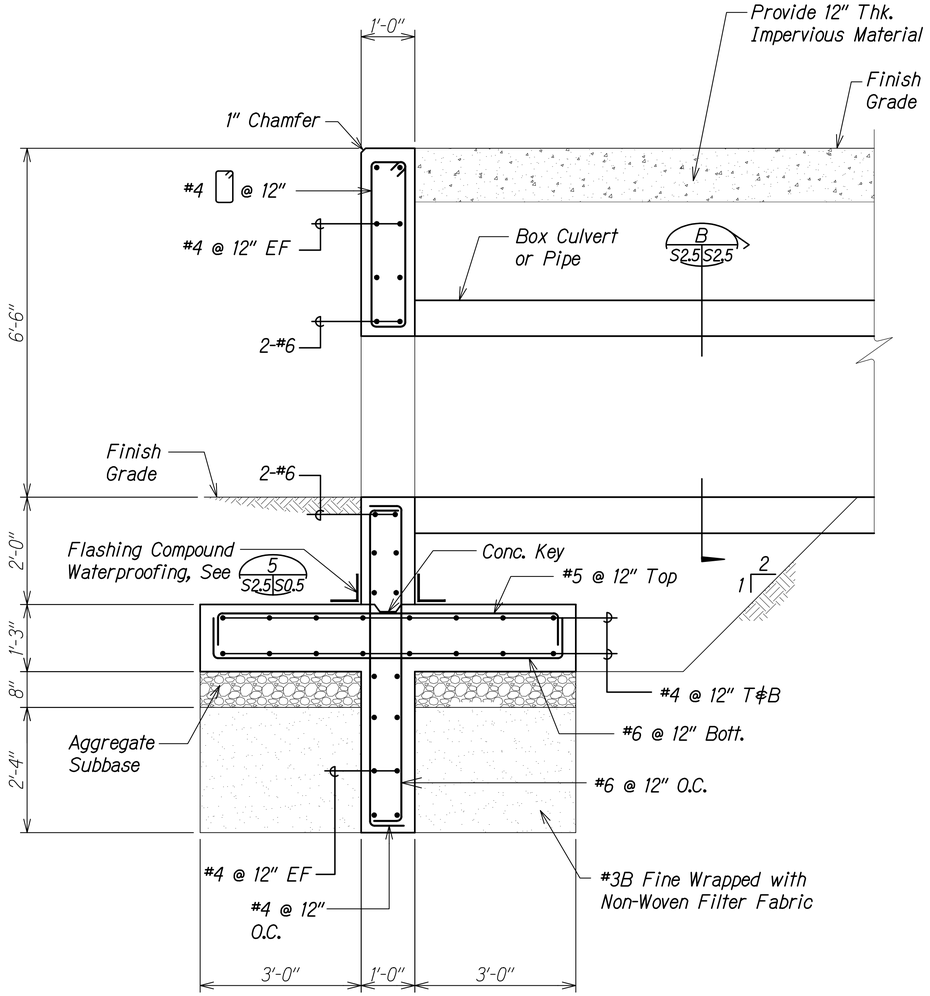
KUHIO HIGHWAY
CULVERT EXTENSION SECTION
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. S2.4 OF 5 SHEETS

ADD. 202

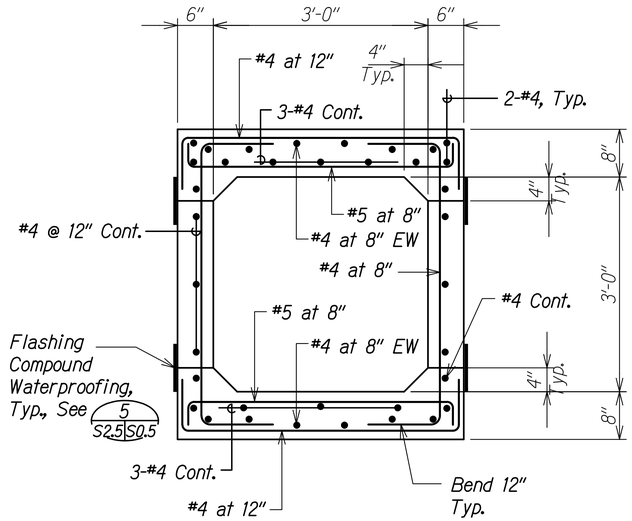
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD. 203	244



SECTION
Scale: 3/4" = 1'-0"
A S2.3 S2.5

Note:

See Civil plans for pipe details.



TYPICAL SECTION
3'-0" x 3'-0" BOX CULVERT
Scale: 1" = 1'-0"
B S2.5 S2.5

CALVIN T. MIYAHARA LICENSED PROFESSIONAL ENGINEER NO. 8133-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Calvin Miyahara
SIGNATURE

4-30-20
EXPIRATION DATE OF THE LICENSE

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KUHIO HIGHWAY
CULVERT EXTENSION SECTIONS
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. S2.5 OF 5 SHEETS

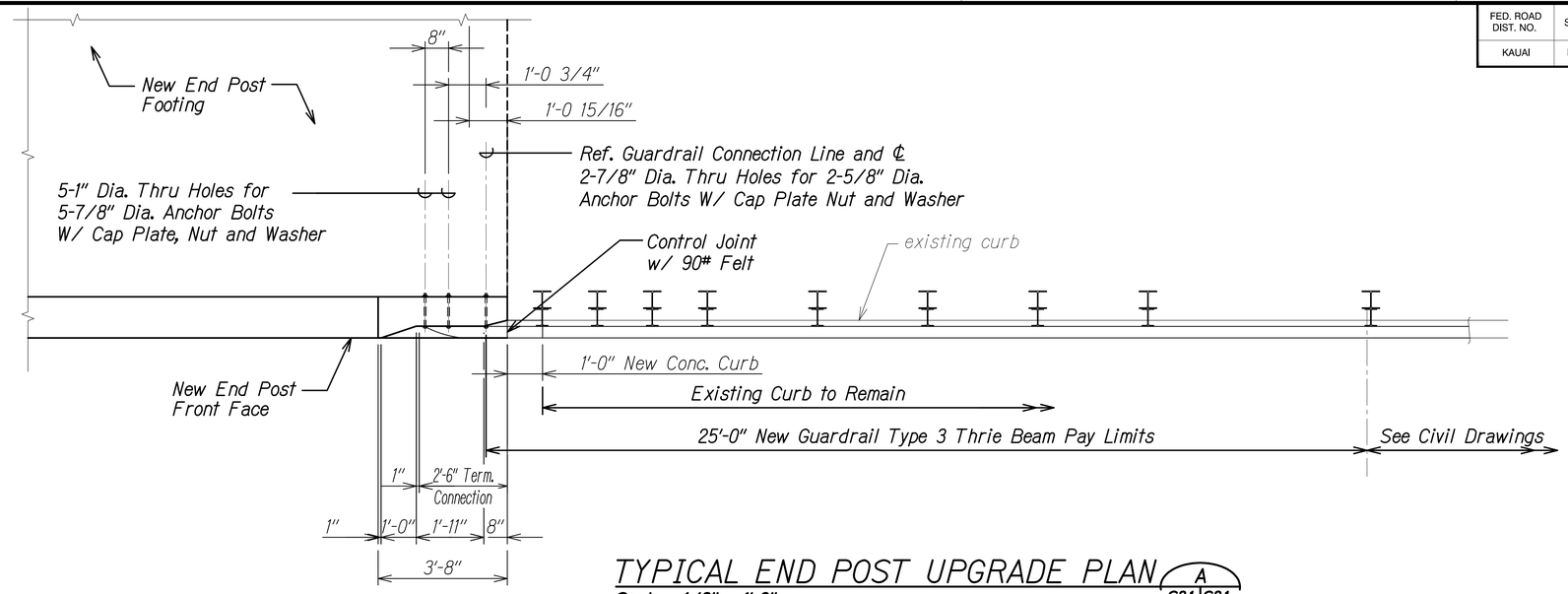
ADD. 203

ORIGINAL PLAN
NOTE BOOK
No.

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

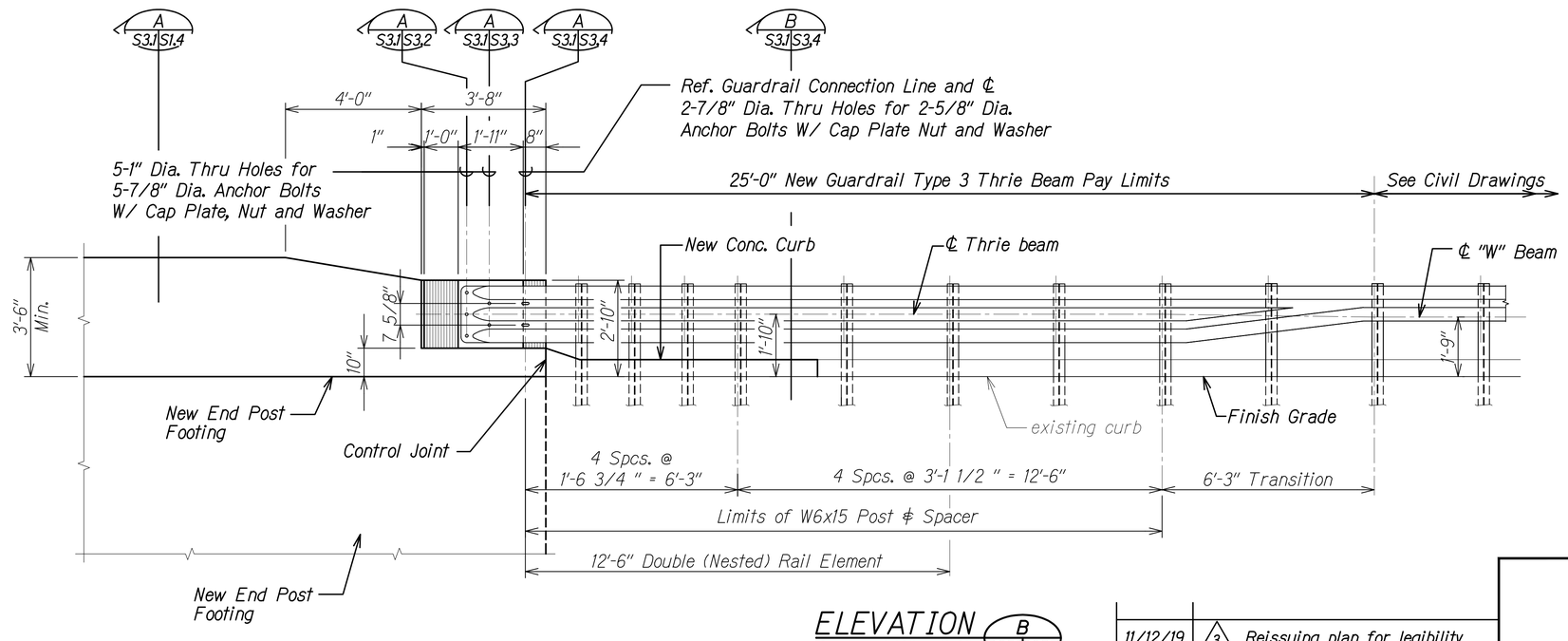
DRAWING NAME: Z:\OD ONGOING\16-029-KUHIO HWY SHORT TERM IMPROVTS KUAMOO-WOCA\01 CAD\11-08-19 ADD\KSS-S203 ADD1 ADD.DWG PLOT TIME: 11-08-19, 9:15 AM

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD. 204	244



TYPICAL END POST UPGRADE PLAN (A S3.1 | S3.1)

Scale: 1/2" = 1'-0"



ELEVATION (B S3.1 | S3.1)

Scale: 1/2" = 1'-0"

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

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

DRAWING NAME: Z:\JOB ONGOING\18-029-KUHIO HWY SHORT TERM IMPROVTS KUAMOO-ROCK\01 CAD\11-08-19 ADD\VGS-S351 ADD1 ADD3.DWG PLOT TIME: 11-08-19, 9:17 AM

CALVIN T. MIYAMARA LICENSED PROFESSIONAL ENGINEER NO. 8133-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Calvin Miyamara 4-30-20

SIGNATURE EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL END POST PLAN AND ELEVATION

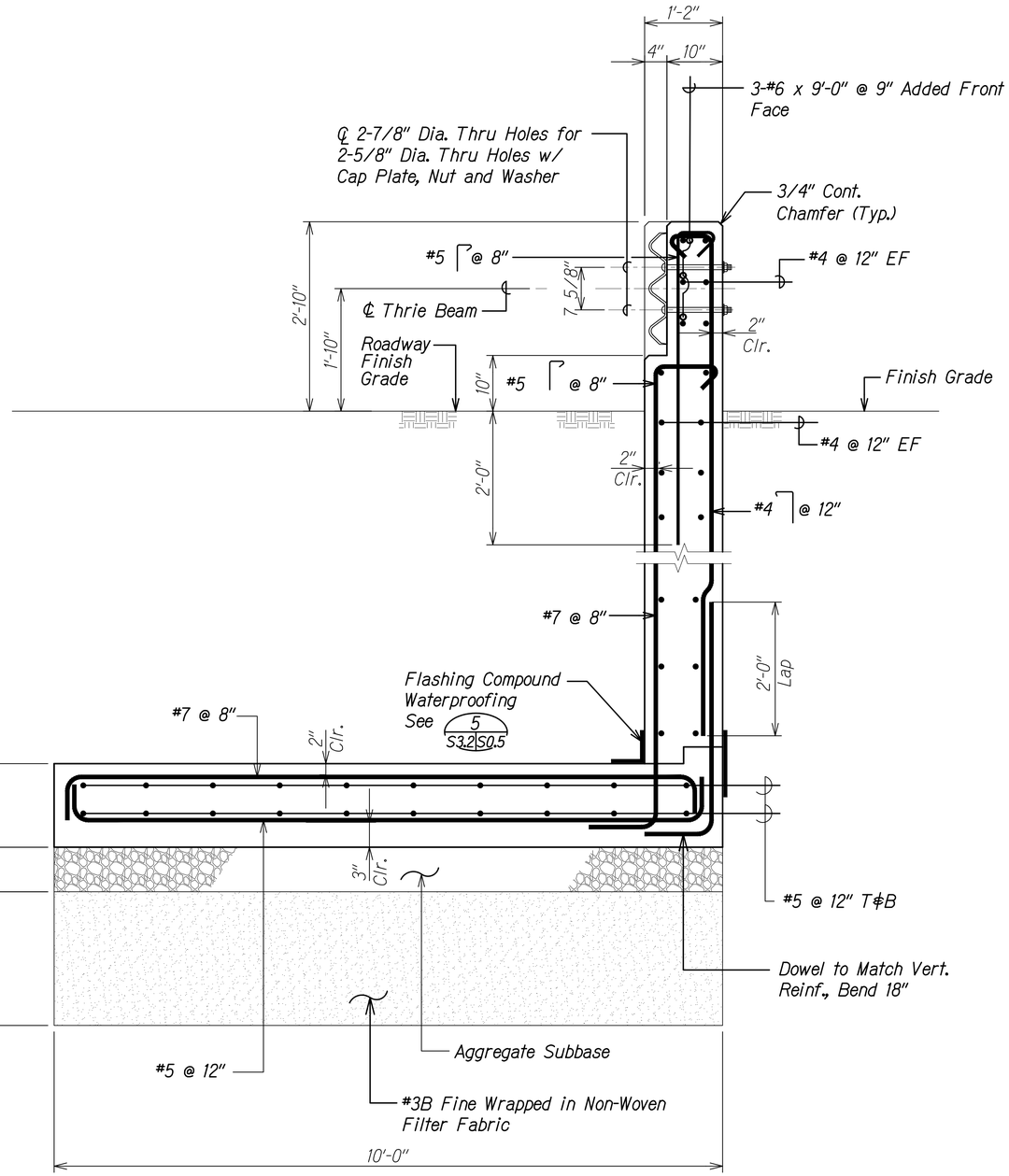
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. S3.1 OF 4 SHEETS

ADD. 204

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD. 205	244



SECTION A
Scale: 1" = 1'-0"
S3.1 S3.2

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

DRAWING NAME: Z:\OD ONGOING\15-029-KUHIO HWY SHORT TERM IMPROVMTS KUAMOO-WOCA\01 CAD\11-08-19 ADD\KSI-S302 ADD1 ADD3.DWG PLOT TIME: 11-08-19, 9:18 AM)

DATE		REVISION
11/12/19	3	Reissuing plan for legibility only. No design changes have been made.
9/20/19	1	Reissuing plan for legibility only. No design changes have been made.

CALVIN T. MIYAHARA
LICENSED PROFESSIONAL ENGINEER
No. 8133-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Calvin Miyahara 4-30-20
SIGNATURE EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL END POST SECTION

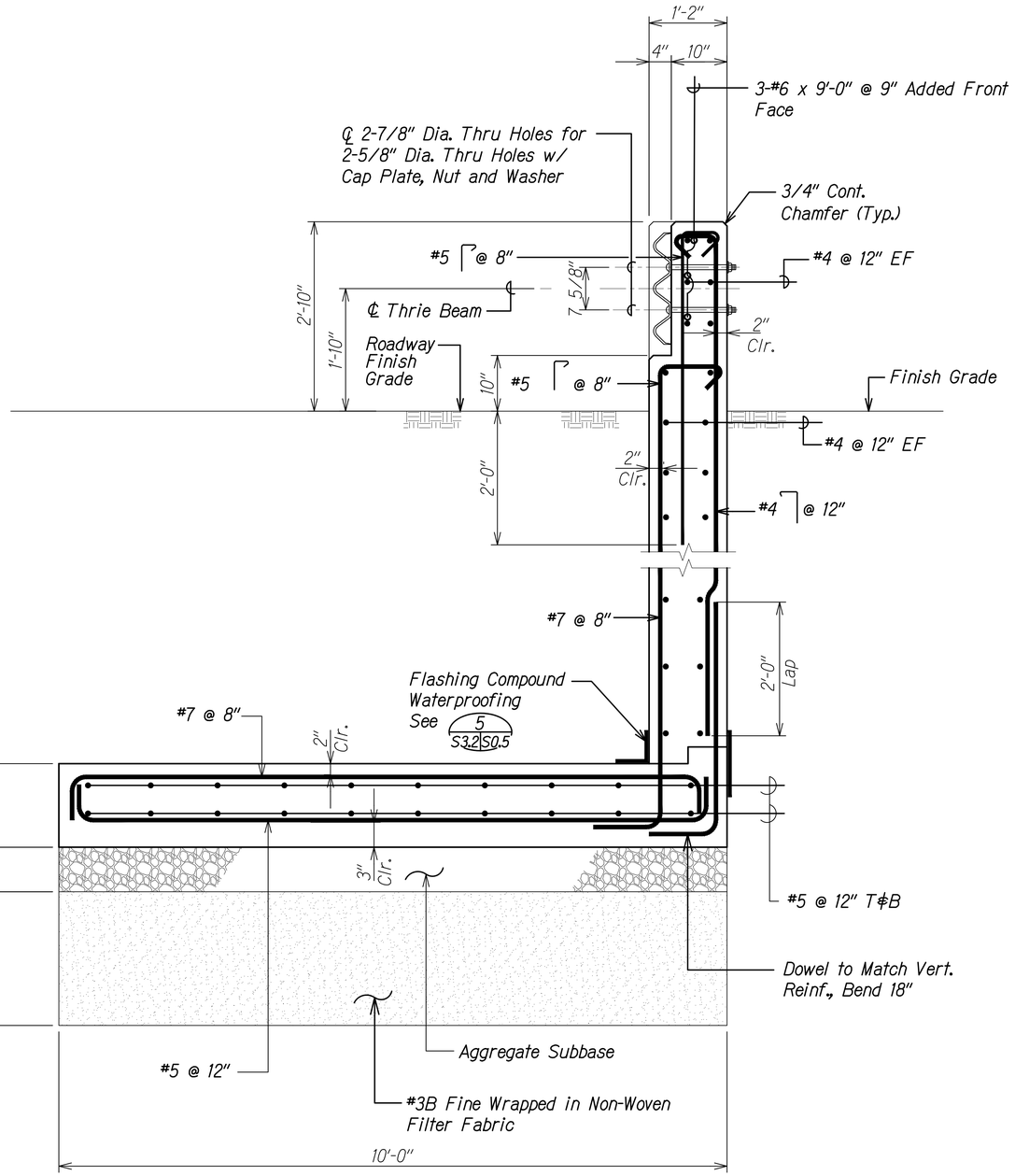
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. S3.2 OF 4 SHEETS

ADD. 205

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD. 206	244



SECTION A (S3.1 | S3.3)
Scale: 1" = 1'-0"

ORIGINAL PLAN
NOTE BOOK No.

SURVEY PLOTTED BY DATE
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY

DRAWING NAME: Z:\OD ONGOING\15-029-KUHIO HWY SHORT TERM IMPROVMTS KUAMOO-WOCA\01 CAD\11-08-19 ADD\KSI-5302 ADD1 ADD3.DWG PLOT TIME: 11-08-19, 9:18 AM

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

CALVIN T. MIYAHARA
LICENSED PROFESSIONAL ENGINEER
No. 8133-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Calvin Miyahara 4-30-20
SIGNATURE EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL END POST SECTION

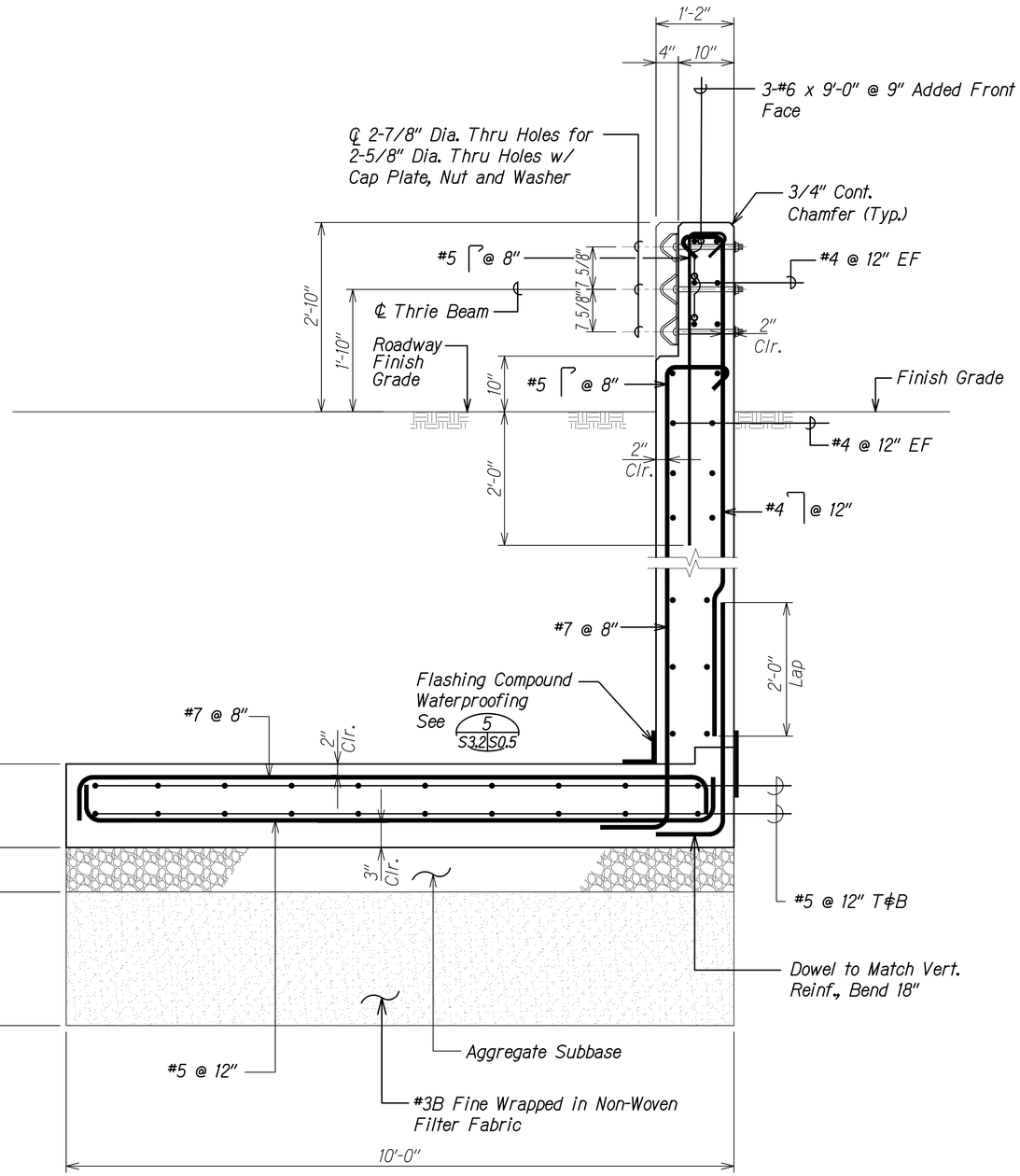
KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

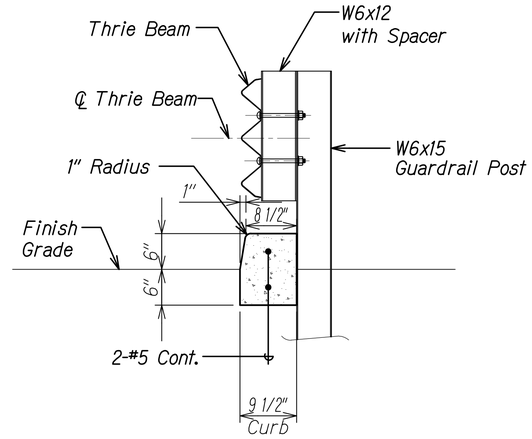
SHEET No. S3.3 OF 4 SHEETS

ADD. 206

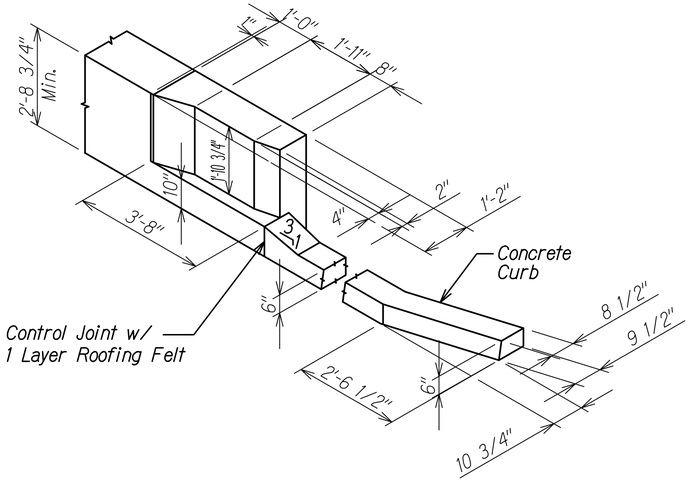
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	NH-056-1(50)	2019	ADD. 207	244



SECTION A
Scale: 1" = 1'-0"
S3.1 S3.4



SECTION B
Scale: 1" = 1'-0"
S3.1 S3.4



END POST DETAIL 1
Scale: 1/2" = 1'-0"
S3.4 S3.4

CALVIN T. MIYAHARA LICENSED PROFESSIONAL ENGINEER NO. 8133-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Calvin Miyahara 4-30-20
SIGNATURE EXPIRATION DATE OF THE LICENSE

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL END POST SECTIONS AND DETAIL

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Noted Date: July 2019

SHEET No. S3.4 OF 4 SHEETS

ADD. 207

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

DRAWING NAME: Z:\OD ORDONO\18-029-KUHIO HWY SHORT TERM IMPRVMTS KUAMOO-WOLOI CAD\11-08-19 ADD3\KSI-S304 ADD1 ADD3.DWG PLOT TIME: 11-08-19, 9:19 AM

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.208	244

ELECTRICAL SYMBOL LIST

SYMBOL		DESCRIPTION
EXISTING	NEW	
		Existing Street Light Mounted On Joint Pole
		New LED Street Light Luminaire And 15' Arm Mounted On Joint Pole (By KIUC)
		Pullbox/Handhole, Type As Noted
		Manhole, Type As Noted
		Traffic Signal Pullbox, Type B ◇6
		Pad Mounted Transformer
		Utility Pole/Guy Pole
-- eoh/X --	— OH/X —	Overhead Conductors/Cables P = KIUC Primary S = KIUC Secondary T = Telephone V = CATV K = KIUC Fiber Optic Cable g = guy wire S = Traffic Signal
— e —·—	—·—·—	Underground Ductline, Type as Indicated
—ep—·—		Existing KIUC Primary Ductline
—et—·—		Existing Hawaiian Telcom Ductline
—eSIC—·—		Exising Sandwich Isles Communications Ductline
	E—·—	Ductline Stubout, Capped and Marked
	X	Denotes Removal/Demolition
		Electrical Equipment
	CATV	Cable Television
	GP	Guy Pole
	ELEC	Electric
	HH	Handhole
	HT	Hawaiian Telcom
	GND	Ground
	KIUC	Kauai Island Utility Cooperative
	R/W	Right Of Way
	SIC	Sandwich Isle Communications, Inc.
	SIC MH	Sandwich Isle Communications Manhole
	SL	Street Light
	TEL	Telephone
	TMH	Telephone Manhole
	TSL	Traffic Signal Light
	TSPB	Traffic Signal Pullbox
	WP	Weatherproof
	2 / E-1	Detail Indicator: Top Half Denotes Detail Number, Left Denotes Sheet On Which Detail Shown
	1	Duct Indicator, See Schedule On Sheet E-36
	◇1 →	Note Indicator

GENERAL NOTES FOR CONSTRUCTION

1. The Contractor at his own expense, shall keep the project area and surrounding area free from rubbish, dust, noise, erosion, etc. The work shall be done in conformance with the air and water pollution control standards and regulations of the State Department of Health.

2. Wherever connections to existing utilities are shown on the plans, the Contractor shall expose the existing lines to verify their locations and depths prior to excavation of the main trenches. Should any discrepancies be discovered, the Contractor shall notify the Engineer for direction.

3. Wherever new utility lines cross existing underground utilities, the Contractor shall expose the existing lines and verify their locations, depths and clearances between existing utilities and the new lines prior to beginning excavation of the main trenches. Should any discrepancies be discovered, the Contractor shall notify the Engineer for direction.

4. Existing underground utilities, pipes, cables or ductlines were determined on the basis of the best available information. Therefore, no assurance can be provided that the actual locations will be precisely as shown on the contract drawings. The Contractor shall verify the locations and depths of the facilities and exercise proper care in excavating the area. Wherever connections of new 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 the new lines. The Contractor shall be responsible for any damages to any existing facilities.

5. The Contractor at his own expense, shall remove all utility ductlines designated to be demolished. Do not abandon in place. Restore AC pavement and concrete sidewalk associated with ductline removal work. For pavement and sidewalk restoration requirements, see Civil plans for details.

◇6 Refer to DOT 2008 Standard Plans for Traffic Signal Pullbox details: TE-37, TE-37B, TE-37C, TE-37D, TE-37E, TE-37J.

APPROVED:

Kauai Island Utility Cooperative — Date

Hawaiian Telcom — Date

Spectrum — Date

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL SYMBOL LIST & GENERAL NOTES

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Shown — Date: July 2019

SHEET No. E-1 OF 37 SHEETS

11/8/19-9:55 Y:\030\030.007\030.007 E-1.GD1.dwg

ADD.208

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.209	244

KAUAI ISLAND UTILITY COOPERATIVE (KIUC) UNDERGROUND CONSTRUCTION NOTES AND REQUIREMENTS

1. 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.

2. Contractor shall contact KIUC Construction Coordinator/Inspector prior to start of work on KIUC Facilities and for scheduling site inspections. [West side: 246-2323; East side: 246-4343]

3. Contractor shall contact KIUC's Distribution Planning Coordinator @ 246-2373 for design approvals, standard detail drawings, and any items not addressed in these notes or drawings.

4. All contractors entering KIUC facilities must be approved by KIUC and must have proper licensing and insurance coverage. Contact KIUC Legal Coordinator @ 246-4369 for details.

5. 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.

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

7. 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 (covers shall be Carlon Plug with Pull Tab Series P258 equivalent or better.)

8. For all conduit other than services, refer to conduit schedule on drawings.

9. 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 but less than 150 feet, contact KIUC Planner for field verification and underground service requirements. Any deviations will require KIUC written approval.

10. Primary and secondary conduits for new line extensions shall be Schedule 40 PVC. Under driveways and roadways, the conduits shall be encased in a minimum of 3 inch concrete jacket extending 12 inches outside the edge of pavement.

11. 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.

12. 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.

13. 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.

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

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

16. 90 degree conduit bends shall be factory-made with a minimum radius of 3 feet in trench runs.

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

18. 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.

19. No foreign pullboxes, handholes, manholes, concrete slabs/boxes, structures, etc. are to be installed over KIUC facilities with the exception of Hawaiian Telcom, 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.

20. 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).

21. Unless otherwise noted, the top of all conduits shall be at depth of 36 inches.

22. 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.

23. 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).

24. 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.

25. 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.

APPROVED:

Kauai Island Utility Cooperative — Date

DATE	REVISION
11/12/19	(3) Reissuing plan for legibility only. No design changes have been made.
9/20/19	(1) Reissuing plan for legibility only. No design changes have been made.

MICHELE N. ADOLPHO — LICENSED PROFESSIONAL ENGINEER — No. 10017-E — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KIUC CONSTRUCTION NOTES AND REQUIREMENTS

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

Scale: None — Date: July 2019

SHEET No. E-2 OF 37 SHEETS

11/8/19-9:55 Y:\030\030.007\030.007 E-2.GD2.dwg

ADD.209

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.210	244

HAWAIIAN TELCOM (HT) CONSTRUCTION NOTES GENERAL NOTES:

1. Installation of a HT ductline system shall conform with the requirements of the HT "Standard Specification for Placing Underground Systems" dated January 2007, all subsequent amendments and additions, and all other pertinent standards for telephone construction. Contractor shall familiarize his personnel by obtaining applicable specifications.

2. For underground cable locating and marking, five (5) working days advanced notice is required. Three (3) working days advanced notice is required for any inspection by a designated representative. The Contractor shall take necessary precaution not to damage any existing cables or ducts. A HT Inspector or designated representative is required to be at any job site whenever there will be a breakage into or entry into any structure that contain HT facilities.

3. The Contractor shall closely coordinate all work with HT. All trenches must be inspected by HT prior to backfilling and concrete encasing operations. The Contractor shall notify the HT inspector at least 72 hours prior to the excavation, bracing, pouring of concrete or backfilling.

4. The location of HT's existing facilities are approximate only. The Contractor shall exercise extreme caution and shall maintain proper clearances whenever construction crosses or is in close proximity to HT's facilities. The Contractor shall verify their locations and shall be liable for any damages to HT's facilities. Any damages shall be reported immediately to HT's repair section at #611 (24 hours) or to the Excavation Permit Section during normal work days hours, Monday through Friday, except holidays.

5. When excavation is adjacent to or beneath HT's existing structures or facilities, the Contractor shall:

   a. Sheet and/or brace the excavation to prevent slides, cave-ins or settlements to ensure no movement to HT's structures or facilities.

   b. Protect existing structures and/or facilities with beams, struts or underpinning while excavating beneath them to ensure no movement to HT's structures or facilities.

   c. Contractor shall be liable for any damages to Hawaiian Telcom Facilities.

6. The Contractor shall provide a 5/8 inch x 8 foot galvanized ground rod below the telephone cabinet or backboard and a #6 TW insulated green ground wire with a 3 foot coil. Telephone cabinets shall be grounded.

7. Concrete strength shall be 3,000 PSI in 28 days.

8. For pole bracing instructions should field conditions and/or construction procedures require that poles be braced to facilitate construction, the Contractor is to contact the HT Inspector at least 72 hours in advance.

9. Should it become necessary to relocate any HT facilities, the work shall be done by Contractor, otherwise noted on the plan. The Contractor shall be responsible for all coordination and costs associated with the relocation.

10. All construction must be inspected and approved by HT prior to the installation of any of its facilities and the energizing of its systems. Contractor shall commence installation only after the construction has been approved by HT.

11. The Contractor shall furnish his construction schedule forty-five (45) working days prior to starting any HT work. Contractor shall provide HT with sufficient time to inspect the work.

CONDUIT NOTES:

1. Unless otherwise indicated, all conduits, sweeps, couplings, adapters, and bell ends provided for concrete encased usage by HT shall be DB-100 or DB-120, 4 inch PVC meeting NEMA TC-6 & 8. Refer to HT Standard Drawing 34028 for installation. Schedule 40 conduit is acceptable as a substitute for DB-100 or DB-120 except that pole riser bends shall be Schedule 40 sun-resistant conduit.

2. Conduits from utility boxes to the individual lots shall be considered incidental to their respective main duct lines. Said conduits shall be DB-100 or DB-120, 4 inch PVC unless otherwise shown (see Item 1 above).

3. When utility ducts are concrete encased at intersection of water pipe and utility ducts, a 6 inch minimum separation between water pipe and top of the concrete encased utility ducts shall be maintained. Stones, rocks, etc. shall not be used with backfill material. Only nonexpansive select materials shall be used as backfill material.

4. Bends in the duct alignment, due to changes in grade, shall have a minimum radius of 20 feet. All 90-degrees C-bends at a pole or at the building floor penetration shall have a bend radius of ten times the diameter of the duct or greater.

5. The Contractor shall place 8-mil, 4 inch wide warning tape, orange in color with a black imprinted message "WARNING – STOP DIGGING – CALL HT, COMMUNICATIONS CABLE BURIED BELOW, FAILURE TO COMPLY COULD RESULT IN LEGAL ACTION", 12 inchs above the duct or concrete jacket for the entire length of all duct installations. See HT standard drawing 34028. Recommended tape is manufactured by Thor Enterprises, Inc., Sun Prairie, WI 53590 (phone: 1-800-827-8467) part numbers DTOGTE-41 (1000'), and DTOGTE-46 (6000'). Equivalent tapes are acceptable.

6. After the ducts are installed, but prior to concrete encasement, a mandrel with a square front not less than 12 inches long and having a diameter of 1/4 inch 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. Ducts shall be completely dry and clean. All ducts shall be capped to prevent entry of foreign material during construction and at the completion of installation. Recommended mandrels and brushes are made by General Machine Products Co. (GMP), Trevose, PA (phone: 215-357-5500). Recommended GMP part number 8182-4R (test mandrel for 4 inch conduit), and part number 17094 (brush for 4 inch conduit) 2 inch ducts will require cleaning using rags.

7. All empty ducts and conduits shall have an #1800 polyester mule-tape (Neptco WP1800P, HT code no. 571154) installed through one entire length with 2 feet of slack in manholes and handholes, and 1 foot of slack in pullboxes. The mule-tape shall be rated for 1800 lbs. of pull and have footage markers for measuring duct lengths. The Neptco mule-tape is available in 3,000 feet, 6,500 feet and 10,000 feet reels. The Neptco mule-tape is prelubricated and printed with sequential footage markings. Using the Neptco mule-tape, 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 HT Inspector for record keeping.

8. Metallic entrance conduits shall be grounded.

9. All conduits within a building shall:

   a. Be installed in the shortest and straightest possible run.

   b. Have no section longer than 100 feet nor contain more than two 90-degree bends. An approved sized junction box or gutter box shall be placed if this is exceeded.

   c. All bends shall be long sweep-radius bends but the inside radius of the bend must never be less than ten times the diameter of the conduit.

APPROVED:

Hawaiian Telcom Date

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
LIC. EXP. DATE

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HAWAIIAN TELCOM CONSTRUCTION NOTES

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

Scale: None Date: July 2019

SHEET No. E-3 OF 37 SHEETS

ADD.210

11/8/19-9:55 Y:\030\030.007\030.007 E-3.003.dwg

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.211	244

SPECTRUM CONSTRUCTION NOTES:

1. The Contractor shall procure and pay for all licenses and permits and shall give all notices necessary and incident to the due and lawful prosecution of the work.
2. The locations of existing utilities are approximate only. The Contractor shall verify their locations and shall be responsible for any damages to these utilities as a result of his operations. Adjustments to the new ductline alignment, if required, shall be made to provide the required clearances.
3. The Contractor shall sawcut A.C. pavement, concrete gutter, and concrete sidewalk wherever new manholes, handholes, pullboxes or ductlines are to be placed and shall restore to existing condition or better.
4. The Contractor, at his own expense, shall keep the project and surrounding area free from dust nuisance. The cost for supplementary measures, which will be required by the State, shall be borne by the Contractor.
5. Prior to the excavation of the ductline, the Contractor shall request that Spectrum to locate existing ductline wherever required.
6. The Contractor shall take necessary precaution not to damage existing cables or ducts. Any work involving existing cables or ducts shall be done in the presence of the Spectrum inspector or his representative.
7. The Contractor shall notify the Spectrum Inspector 48 hours prior to the pouring of concrete or backfilling.
8. Wherever connections to existing utilities are shown on the plans, the Contractor shall expose the existing lines prior to excavation of the main trenches to verify their locations and depths.
9. Contractor shall provide all materials and furnish all labor and equipment necessary to install the ductline in place complete.
10. The Contractor shall be responsible for laying out all required lines and grades and shall preserve all bench marks and working points necessary to lay out the work correctly. The new ductline shall be adjusted by the Contractor to suit the existing conditions and the details as described in the plans.
11. The Contractor, at his own expense, shall keep the project area free from dust nuisance. The work shall be in conformance with the Air Pollution Control Standards and Regulations of the State of Hawaii, Department of Health.
12. The location of CATV facilities shown on plans are from existing records with varying degrees of accuracy as to its actual fixed location. The Contractor shall use extreme caution when working in close proximity of CATV facilities.
13. The Contractor shall obtain excavation permit clearance from Spectrum's Engineering Section.
14. For any field assistance or verification of CATV facilities, the Contractor shall call Josh Martin at 855-2621.
15. 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.
16. Any damage to Spectrum's Facilities shall be reported to Spectrum's Repair Dispatch Department.
17. The Contractor shall tunnel under existing concrete curb and gutter as necessary to extend conduit into existing CATV pullbox and into the proposed power supply pullbox.
18. All existing improvements that are disturbed during the construction phase shall be restored to its original or better condition at no cost to the State in accordance with State's standards.
19. At locations where existing CATV pullbox replacement is proposed, the Contractor shall take all necessary precaution not to damage the existing cables in the pullbox. All damages to existing cables shall be repaired by Spectrum and paid for by the Contractor.
20. Coordinate all penetration of telephone pullboxes with Hawaiian Telcom Inspector.
21. Smooth finish inside wall of existing pullboxes and handholes to its original condition or better.
22. The Contractor shall install Neptco WP1800 muletape or approved equal in all ductlines, leave muletape in place for future use as a pull or fish line, unless otherwise noted. Reference GTE Material Code No. 571154. All ducts shall be capped to prevent entry of foreign material during construction and at completion of installation.
23. The Contractor shall place poly cord through out project, and secure in manholes, handholes, and pullboxes.
24. Penetration into pullboxes if necessary to be from factory installed opening or from bricks position. Penetration from pullbox walls is not acceptable.
25. A minimum of (2) precast sections must be used on all 2 x 4 or 2 x 6 pullboxes.
26. Two minimum layers of bricks to be used shall always be at least one layer lower than the lowest duct entering the pullbox. At no time however, shall there be less than two layers of bricks on each installation.
27. At no time shall cement mortar, wood, or any other material be used between precast sections. Leveling or raising of boxes to grade must be done at brickwork section using cement mortar. The permanent installation of wooden wedges to accomplish this purpose will not be accepted.
28. Concrete precast base may be used as an alternative to bricks.
29. Trenching to be by hand digging near and across existing utility lines.
30. Minimum clearance between street light standards and fire hydrants shall be three feet.
31. Underground utilities shown hereon is for information only. No guarantee is made on the accuracy or completeness of said installation.
32. For underground cable locating and marking, five working days advance notice is required. Three working days advance notice is required for any inspection by a designated representative. Contractor shall take necessary precaution not to damage any existing cables or ducts. Spectrum's Inspector or designated representative is required to be at any job site whenever there will be a breakage into or entry into any structure that contain Spectrum's facilities.
33. Concrete strength shall be 3,000 psi in 28 days.
34. Bends in the duct alignment, due to changes in grade shall have a minimum radius of 20-feet. All 90-degree C-bends at a pole or at the building floor slab penetration, shall have a bend radius of ten times the diameter of the duct or greater.
35. After ductline has been completed, a mandrel with a square front not less than 12-inch long and having a diameter of 1/4-inch less than the inside diameter of 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 inside. Ducts shall be completely dry and clean.
36. All construction must be inspected and approved by Spectrum prior to the installation of any of its facilities and the energizing of its system.
37. Contractor and/or customer shall provide Spectrum with sufficient installation time in their occupancy time table.
38. Install 4-mil. thick orange color warning tape 3-inch wide, entire length of trench when placing CATV conduits. Tape should read "CAUTION BURIED CABLE LINE BELOW". Manufactured by Harris Industries, Inc., Catalog Number UT-43 or equivalent tape. Tape to be installed 12-inches above ductline.

APPROVED:

Spectrum Date

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
LIC. EXP. DATE

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SPECTRUM CONSTRUCTION NOTES

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

Scale: None Date: July 2019

SHEET No. E-4 OF 37 SHEETS

ADD.211

11/8/19-9:55 Y:\030\030.007\030.007 E-4.G04.dwg

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.212	244

HIGHWAY LIGHTING NOTES:

1. The Contractor shall notify the State Highways, Highway Lighting and Traffic Supervisor 72 hours in advance before commencing installation of highway lighting system.

2. The Contractor shall have one set of approved plans at job site at all times during the construction work and record all changes which occur during construction of the highway lighting system. Coordinate and schedule work with KIUC.

3. Final acceptance and inspection will be undertaken only after all work has been completed. Street light provided and wired by KIUC.

4. Contractor shall trim tree branches to clear removal or installation of highway luminaires, at no additional cost the State.

5. Temporary Lighting

   The Contractor shall schedule the construction work in such a manner that highway lighting is provided during all hours of darkness either with new, temporary or existing luminaires or a combination thereof. Temporary wiring and connections may need to be utilized. Temporary wiring may be installed in exposed conduit, where not subject to vehicular damage, or with overhead wiring. Overhead wiring shall be a minimum of 20 feet above roadways at its lowest measured point, unless approved by the Engineer. Coordinate with KIUC.

   Contractor shall maintain existing circuiting, provide temporary connections to existing highway lights or provide temporary luminaires through construction of the new highway lighting system. Maintain existing illumination levels utilizing a temporary lighting system, eg. utilizing existing or temporary wiring and connections temporary light standards, etc., until new highway lights can be energized and are approved by the Engineer. New highway lights shall be energized by either permanent or temporary wiring and connections prior to demolition of the existing highway lighting system or removal of the temporary lighting system.

   Temporary lighting system shall meet the same design, safety, traffic, etc. requirements as the permanent lighting system.

   The temporary lighting system shall be incidental to the removal of the existing street lights. This includes any design work needed to implement the temporary lighting system.

SANDWICH ISLES COMMUNICATIONS, INC (SIC) NOTES:

1. The locations of existing utilities are approximate only. The Contractor shall exercise caution and shall maintain proper clearances whenever construction crosses or is in close proximity to Sandwich Isles Communications, Inc. (SIC) facilities.

2. Prior to excavating the Contractor shall call into Hawaii's One Call Center and shall comply with Hawaii Revised Statutes Chapter 269E. Contact Hawaii One Call at 1-866-423-7287.

3. If required, adjustment shall me made to new construction to provide required clearances from SIC facilities.

4. A SIC inspector or designated representative is required to be present during a breakage into or entry into any structure or conduit system that contain SIC facilities. Temporary duct or cable support shall be provided wherever necessary or required by SIC inspector.

5. The Contractor shall notify SIC Customer Service at least 72 hours prior to excavation, bracing, or backfilling of SIC facilities. Contact SIC Customer Service at 1-888-995-7274.

6. When excavation is adjacent to, above or below SIC facilities, the Contractor shall:

   a. Sheet and/or brace the excavation to prevent slides, cave-ins, or settlements to ensure no movement or impact to SIC facilities.

   b. Support existing structures and/or facilities with beams, struts, or underpinning while excavating around or beneath them to prevent any movement or impact to SIC facilities.

MICHELE N. ADOLPHO
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APRIL 30, 2020
LIC. EXP. DATE

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HIGHWAY LIGHTING AND SIC NOTES

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

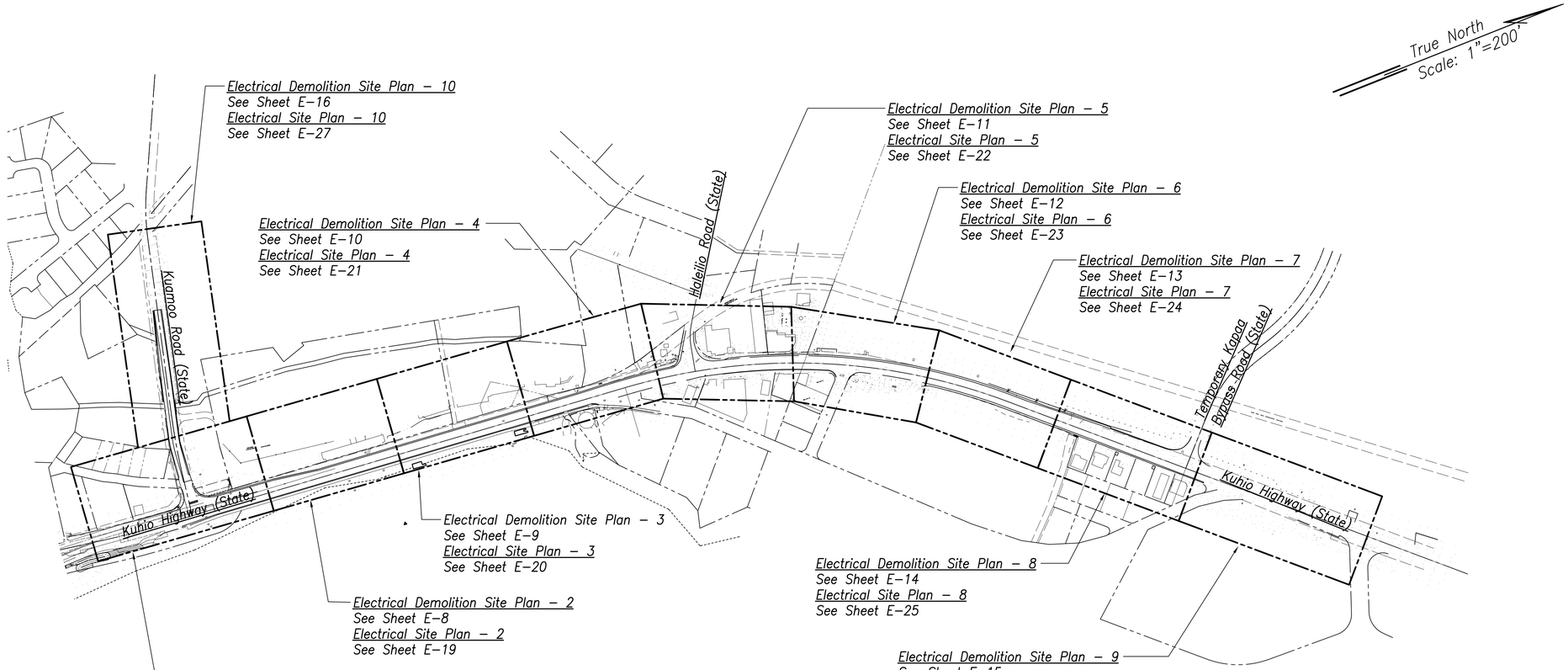
Scale: None Date: July 2019

SHEET No. E-5 OF 37 SHEETS

ADD.212

11/8/19-9:56 Y:\030\030.007\030.007 E-5.DGN.dwg

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.213	244



OVERALL ELECTRICAL SITE PLAN

SCALE: 1" = 200'

GRAPHIC SCALE:
200' 100' 0 200' 400'
SCALE: 1" = 200'

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

MICHELE N. ADOLPHO
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APRIL 30, 2020
LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

OVERALL ELECTRICAL SITE PLAN

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

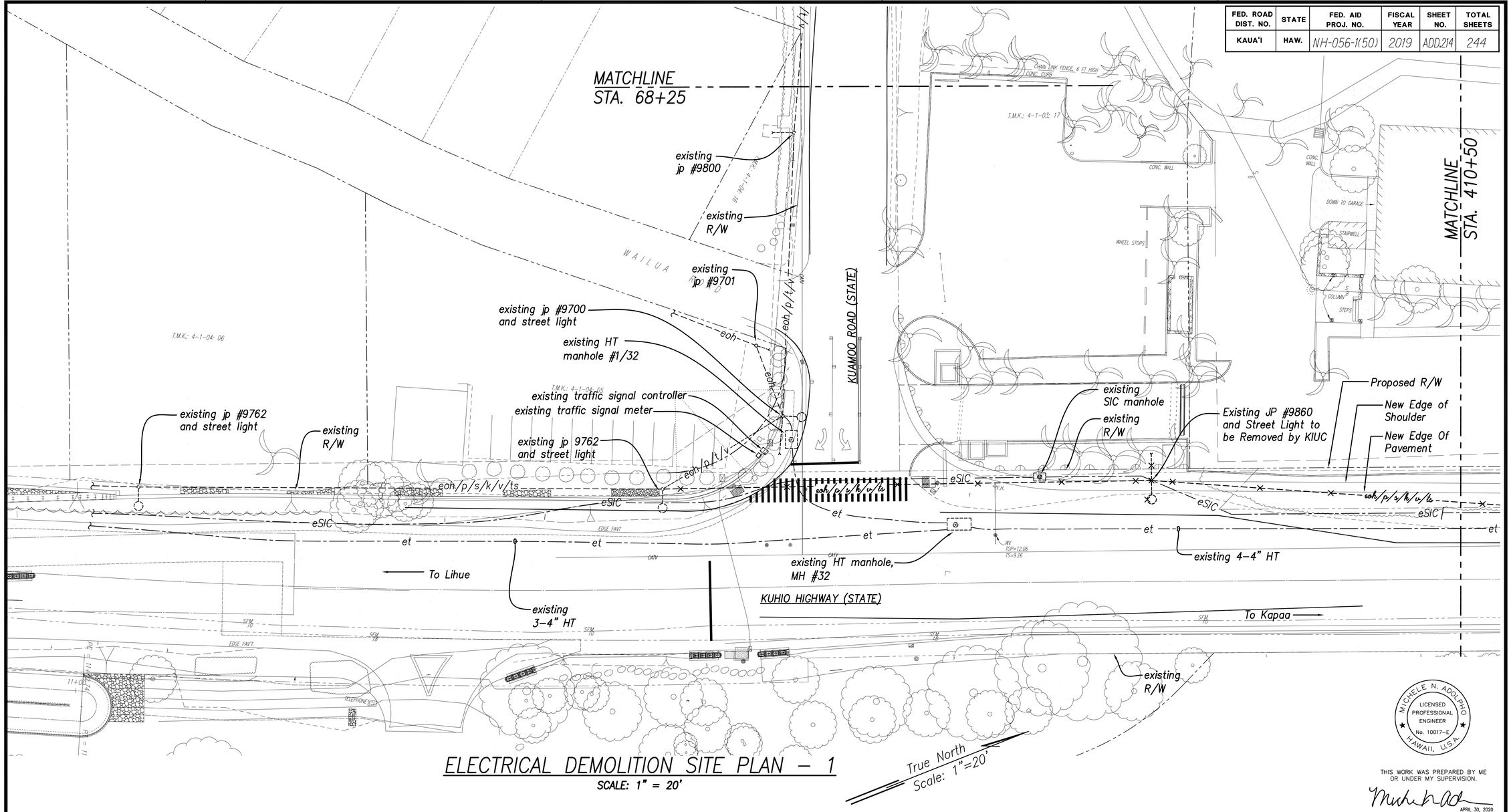
Scale: 1" = 200' Date: July 2019

SHEET No. E-6 OF 37 SHEETS

11/8/19-9:56 Y:\030\030.007\030.007 E-6.051.dwg

ADD.213

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.214	244



ELECTRICAL DEMOLITION SITE PLAN – 1

SCALE: 1" = 20'

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
LIC. EXP. DATE

APPROVED:

Kauai Island Utility Cooperative	Date
Hawaiian Telcom	Date
Spectrum	Date

GRAPHIC SCALE:
20' 10' 0 20' 40'
SCALE: 1" = 20'

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL DEMOLITION SITE PLAN – 1

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

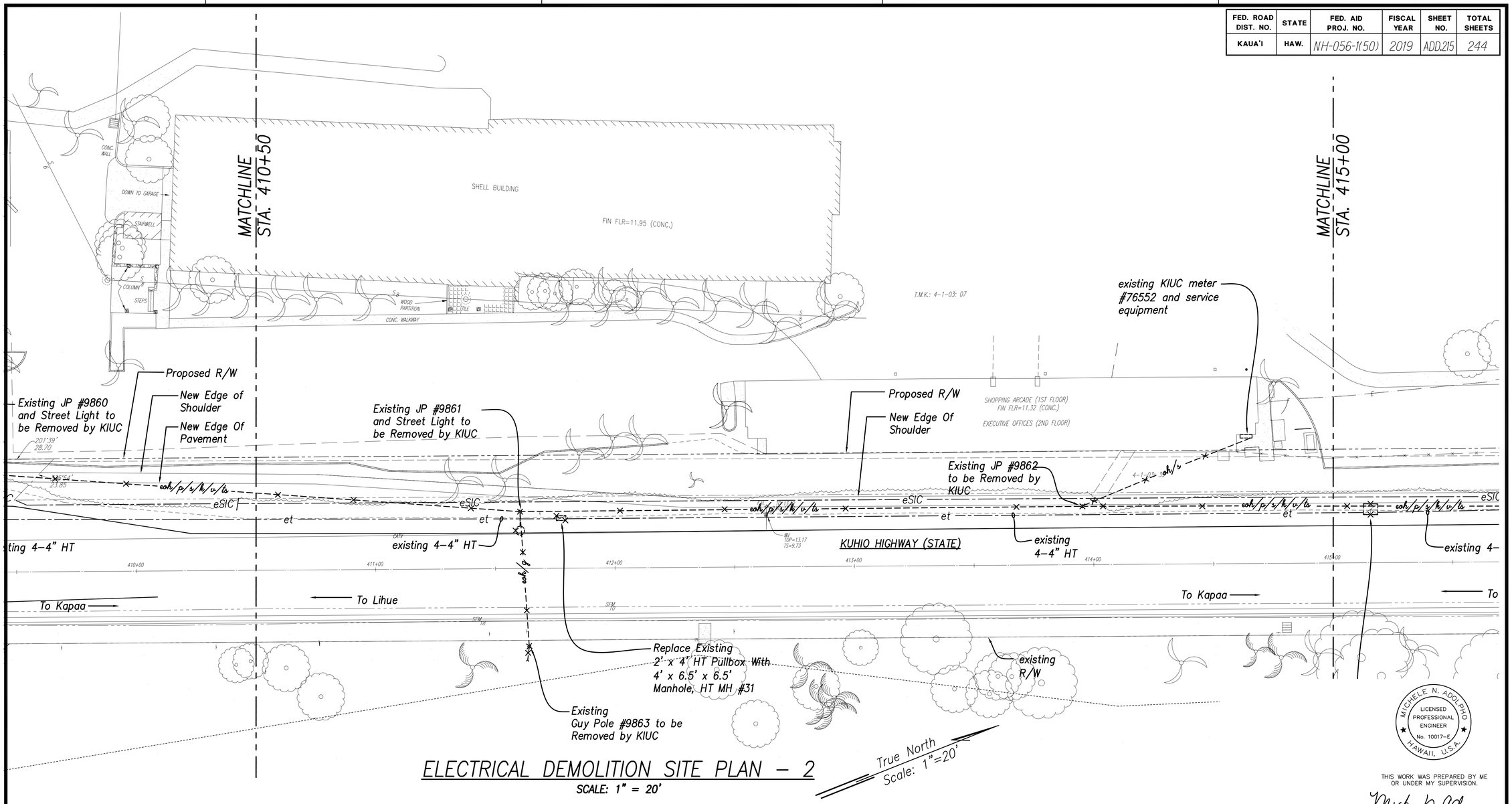
Scale: 1" = 20' Date: July 2019

SHEET No. E-7 OF 37 SHEETS

ADD.214

11/8/19-9:56 Y:\030\030.007\030.007 E07-E17.SD1.dwg

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.215	244



ELECTRICAL DEMOLITION SITE PLAN – 2

SCALE: 1" = 20'

APPROVED:

Kauai Island Utility Cooperative — Date

Hawaiian Telcom — Date

Spectrum — Date

GRAPHIC SCALE: 20' 10' 0 20' 40'

SCALE: 1" = 20'

MICHELE N. ADOLPHO
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No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
LIC. EXP. DATE

DATE	REVISION
11/12/19	(3) Reissuing plan for legibility only. No design changes have been made.
9/20/19	(1) Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL DEMOLITION SITE PLAN – 2

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

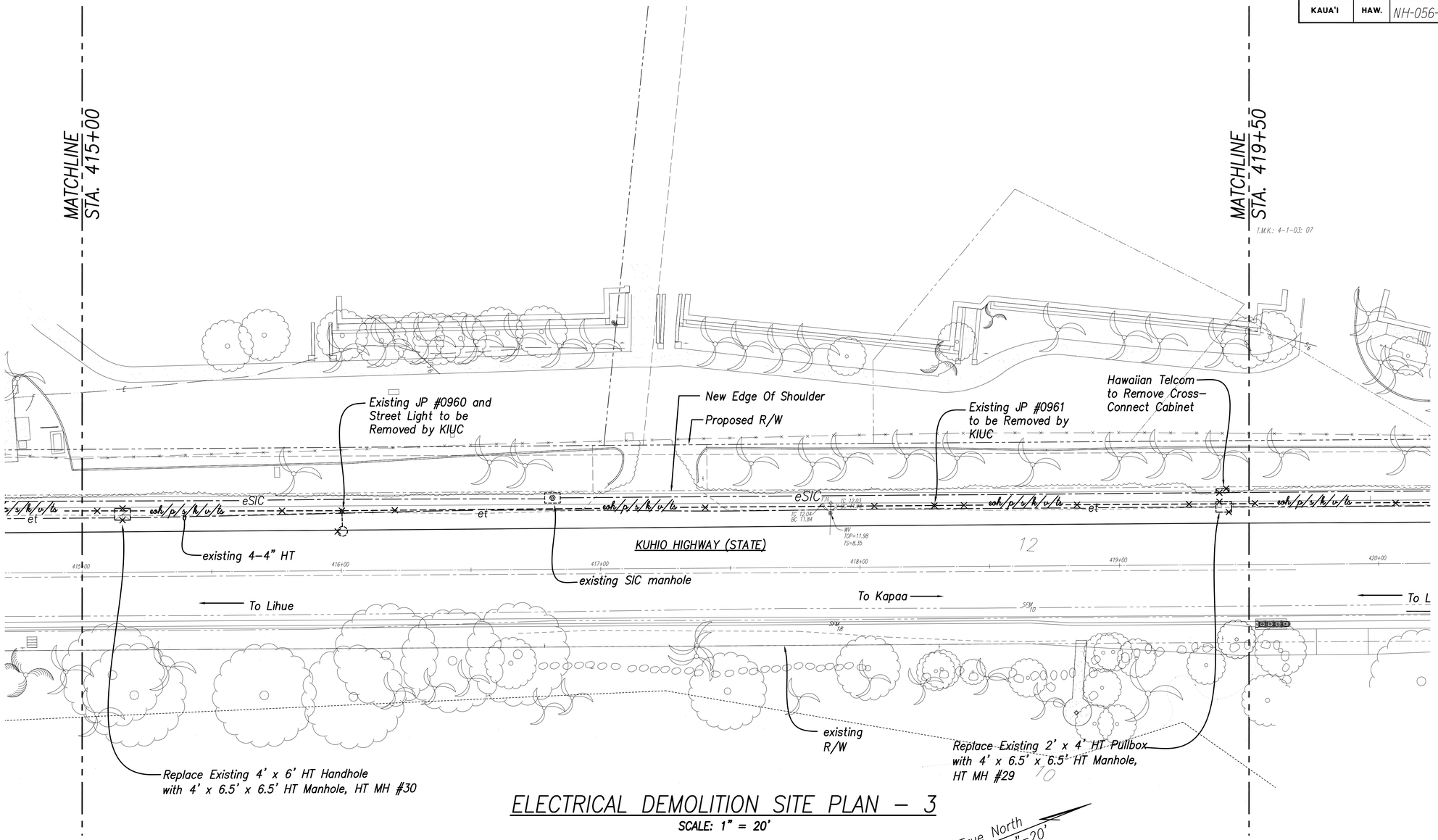
Scale: 1" = 20' Date: July 2019

SHEET No. E-8 OF 37 SHEETS

ADD.215

11/8/19-9:56 Y:\030\030.007\030.007 E07-E17.SD1.dwg

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.216	244



ELECTRICAL DEMOLITION SITE PLAN – 3

SCALE: 1" = 20'

True North
Scale: 1"=20'

APPROVED:

Kauai Island Utility Cooperative — Date

Hawaiian Telcom — Date

Spectrum — Date

GRAPHIC SCALE:
20' 10' 0 20' 40'
SCALE: 1" = 20'

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
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APRIL 30, 2020
LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL DEMOLITION SITE PLAN – 3

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

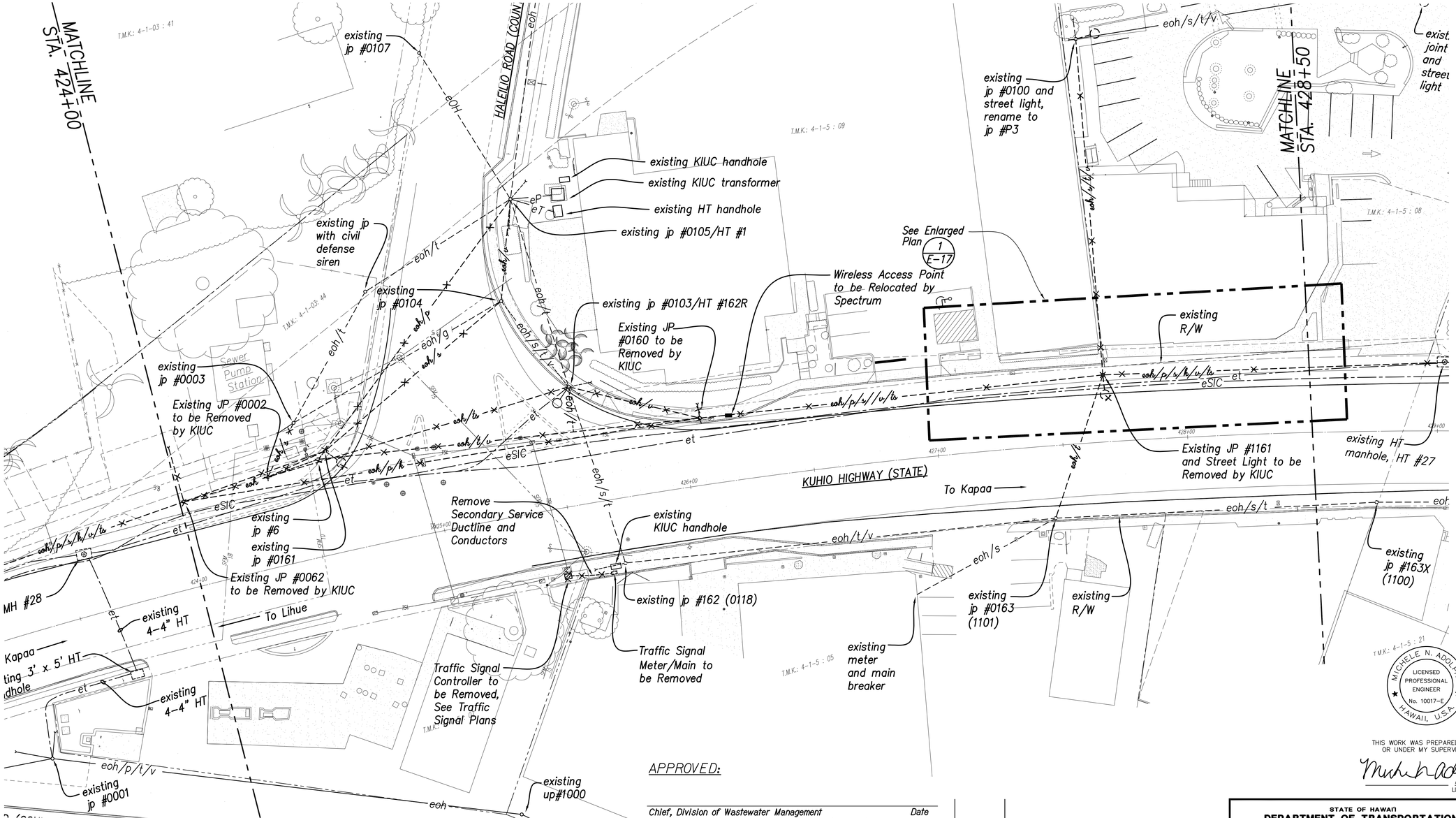
Scale: 1" = 20' Date: July 2019

SHEET No. E-9 OF 37 SHEETS

ADD.216

11/8/19-9:56 Y:\030\030.007\030.007 E07-E17.SDI.dwg

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.218	244



ELECTRICAL DEMOLITION SITE PLAN – 5

SCALE: 1" = 20'

True North
Scale: 1"=20'

GRAPHIC SCALE:
20' 10' 0 20' 40'
SCALE: 1" = 20'

APPROVED:

Chief, Division of Wastewater Management (For Work Involving Sewer Lines and Appurtenances) — Date

Kauai Island Utility Cooperative — Date

Hawaiian Telcom — Date

Spectrum — Date

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL DEMOLITION SITE PLAN – 5

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

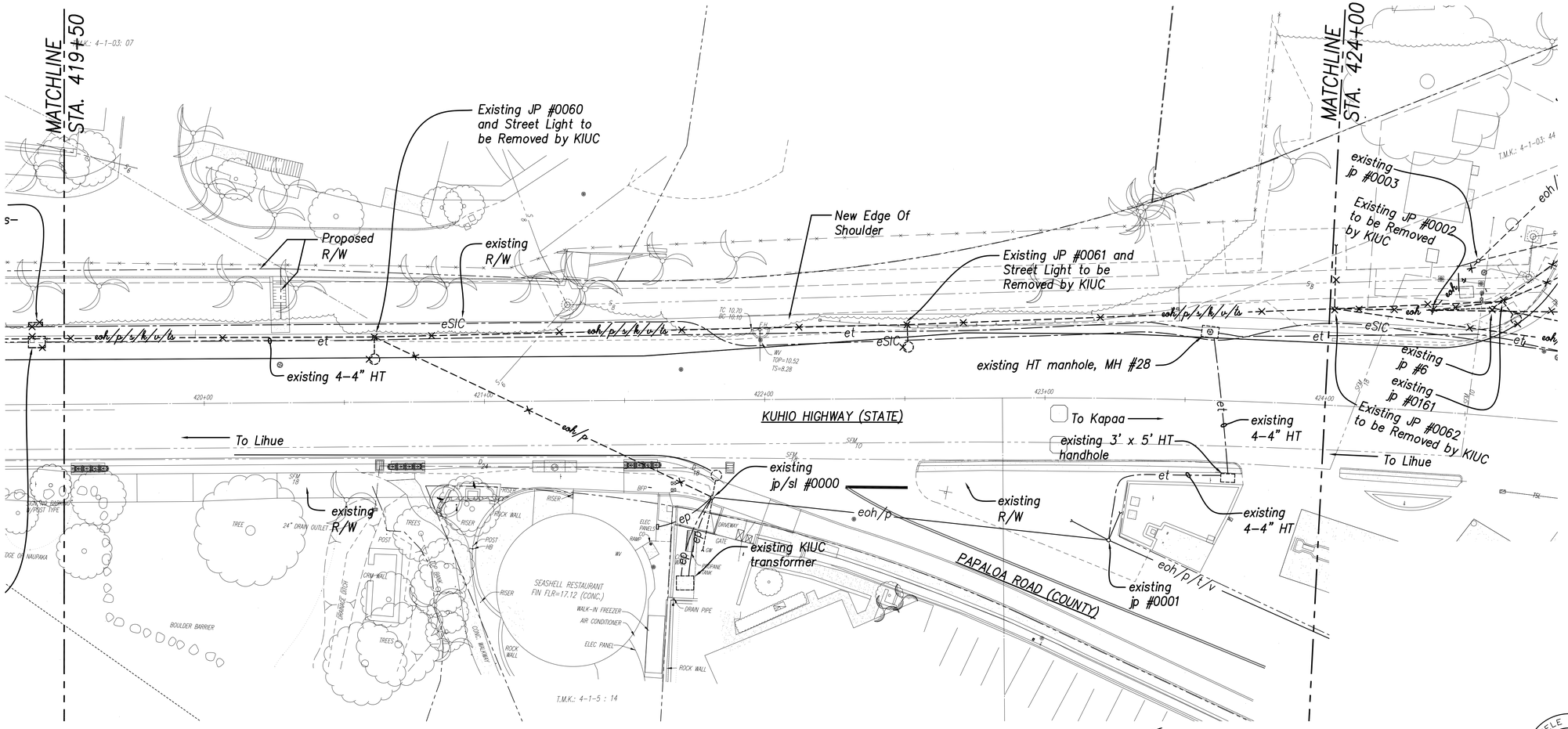
Scale: 1" = 20' Date: July 2019

SHEET No. E-11 OF 37 SHEETS

ADD.218

11/8/19-9:56 Y:\030\030.007\030.007 E07-E17-SDI.dwg

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.217	244



ELECTRICAL DEMOLITION SITE PLAN – 4

SCALE: 1" = 20'

True North
Scale: 1"=20'

APPROVED:

Kauai Island Utility Cooperative — Date

Hawaiian Telcom — Date

Spectrum — Date

GRAPHIC SCALE:
20' 10' 0 20' 40'
SCALE: 1" = 20'

DATE	REVISION
11/12/19	(3) Reissuing plan for legibility only. No design changes have been made.
9/20/19	(1) Reissuing plan for legibility only. No design changes have been made.

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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APRIL 30, 2020
LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL DEMOLITION SITE PLAN – 4

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

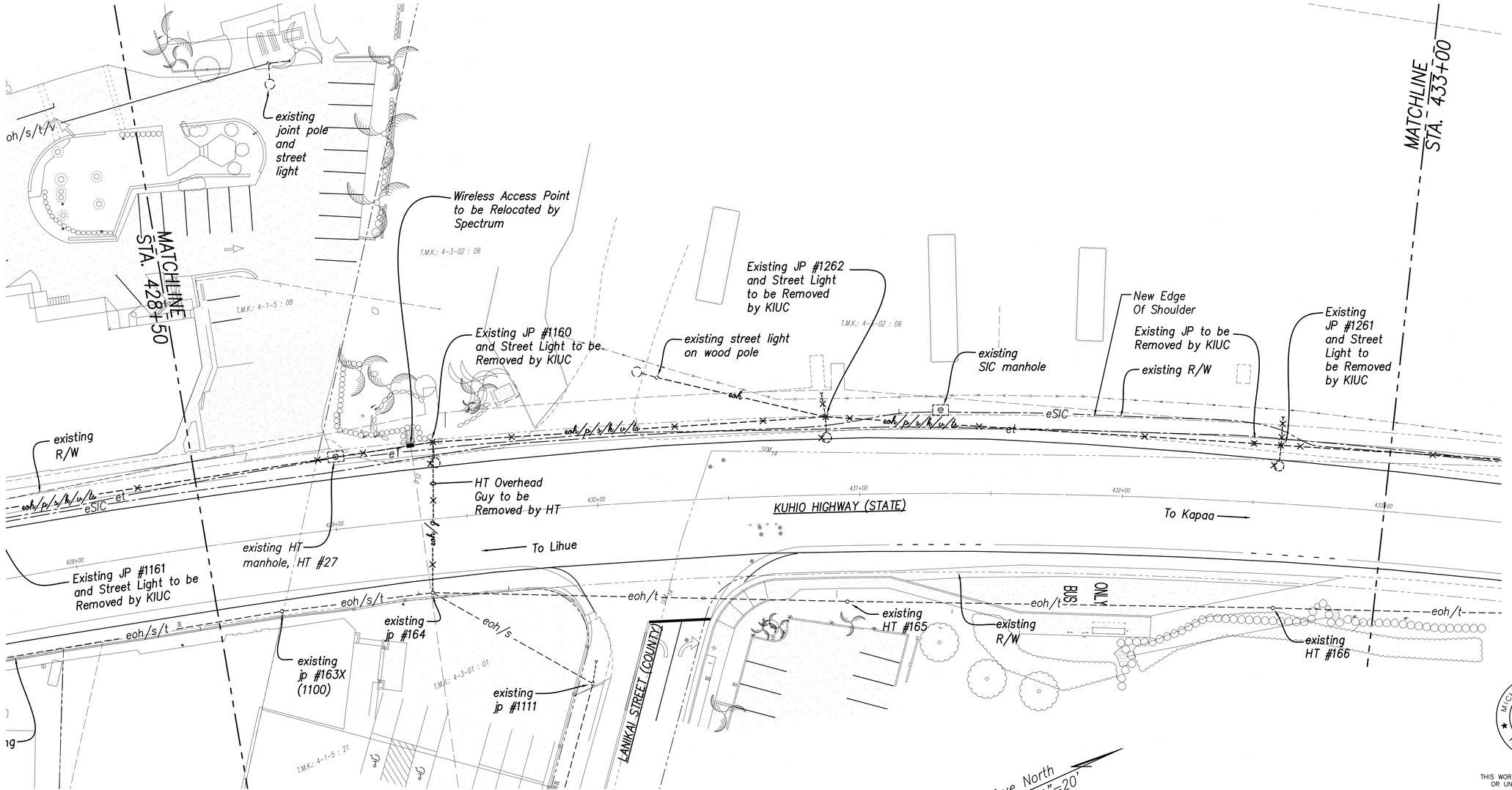
Scale: 1" = 20' Date: July 2019

SHEET No. E-10 OF 37 SHEETS

ADD.217

11/8/19-9:56 Y:\030\030.007\030.007 E07-E17.501.dwg

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.219	244



ELECTRICAL DEMOLITION SITE PLAN – 6

SCALE: 1" = 20'

True North
Scale: 1"=20'

APPROVED:

Kauai Island Utility Cooperative — Date

Hawaiian Telcom — Date

Spectrum — Date

GRAPHIC SCALE:
20' 10' 0 20' 40'
SCALE: 1" = 20'

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

MICHELE N. ADOLPHO
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HAWAII, U.S.A.

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APRIL 30, 2020
LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL DEMOLITION SITE PLAN – 6

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

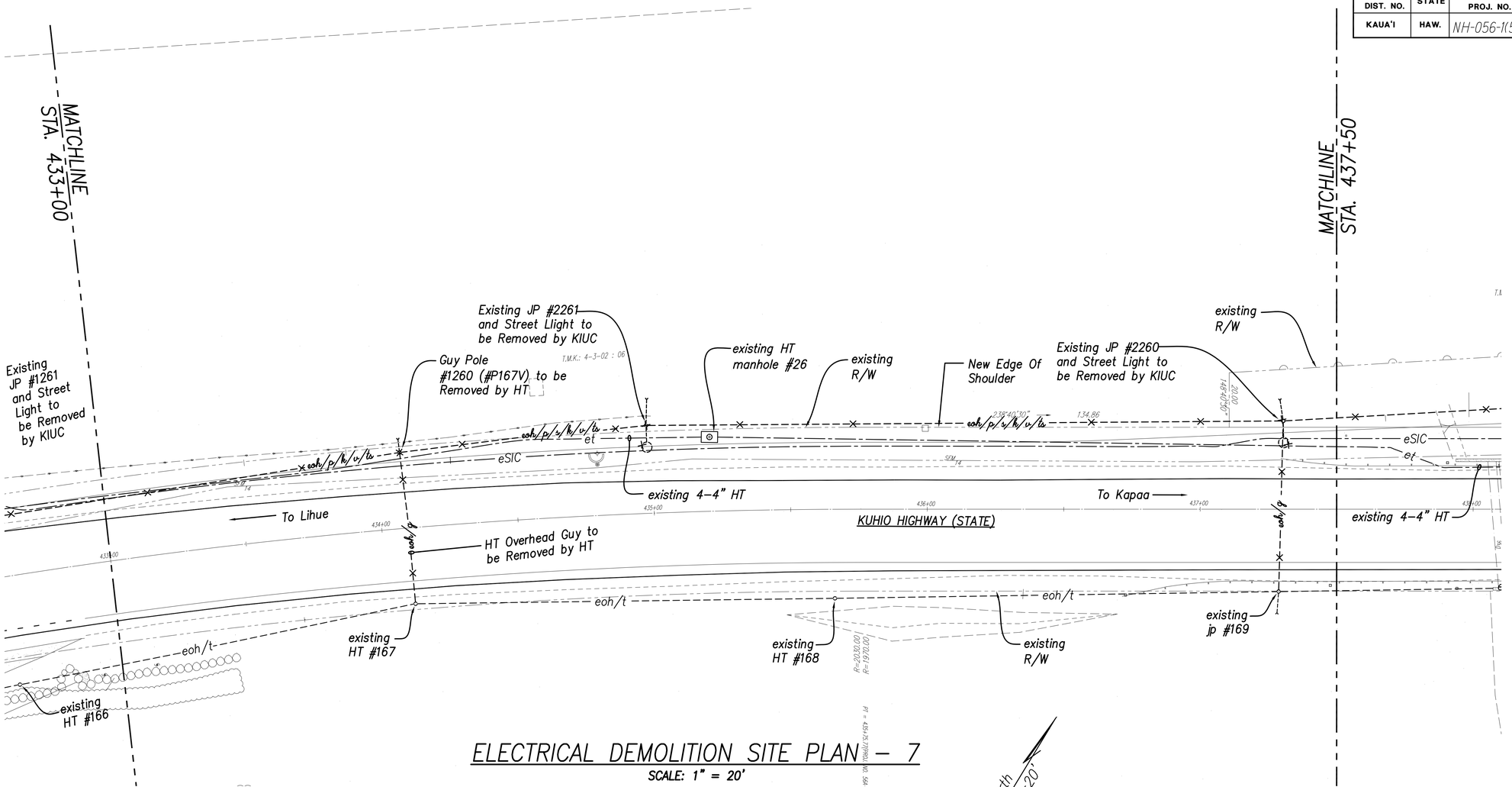
Scale: 1" = 20' Date: July 2019

SHEET No. E-12 OF 37 SHEETS

ADD.219

11/8/19--9:56 Y:\030\030.007\030.007 E07-E17.SDI.dwg

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.220	244



ELECTRICAL DEMOLITION SITE PLAN – 7

SCALE: 1" = 20'

True North
Scale: 1"=20'

APPROVED:

Kauai Island Utility Cooperative — Date

Hawaiian Telcom — Date

Spectrum — Date

GRAPHIC SCALE:
20' 10' 0 20' 40'
SCALE: 1" = 20'

DATE	REVISION
11/12/19	(3) Reissuing plan for legibility only. No design changes have been made.
9/20/19	(1) Reissuing plan for legibility only. No design changes have been made.

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL DEMOLITION SITE PLAN – 7

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

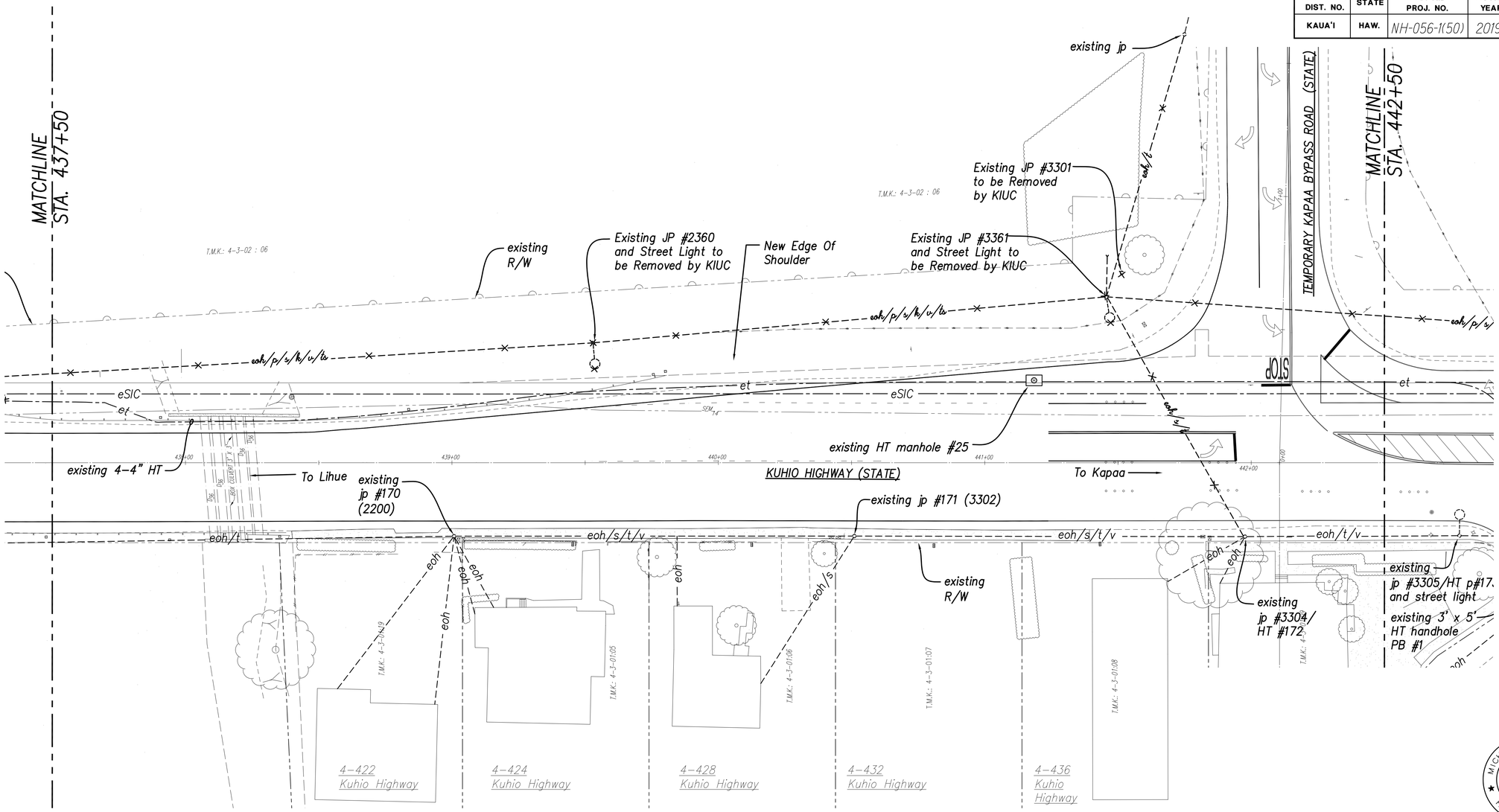
Scale: 1" = 20' Date: July 2019

SHEET No. E-13 OF 37 SHEETS

ADD.220

11/6/19-9:56 Y:\D30\D30.007\D30.007 E07-E17.SD1.dwg

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.221	244



ELECTRICAL DEMOLITION SITE PLAN – 8

SCALE: 1" = 20'

True North
Scale: 1"=20'

APPROVED:

Kauai Island Utility Cooperative	Date
Hawaiian Telcom	Date
Spectrum	Date

GRAPHIC SCALE:
20' 10' 0 20' 40'
SCALE: 1" = 20'

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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APRIL 30, 2020
LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL DEMOLITION SITE PLAN – 8

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

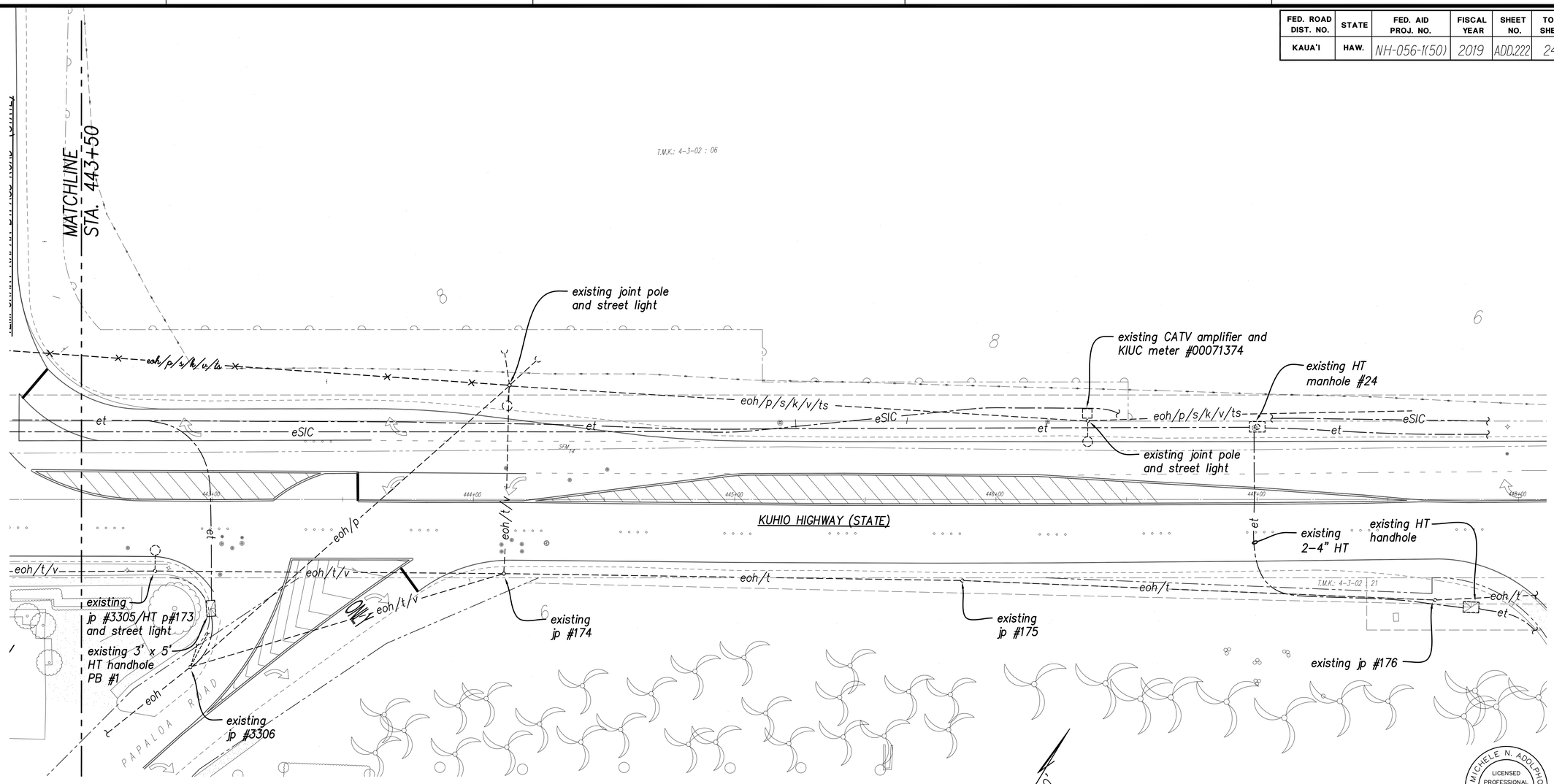
Scale: 1" = 20' Date: July 2019

SHEET No. E-14 OF 37 SHEETS

ADD.221

11/8/19-9:56 Y:\030\030.007\030.007 E07-E17.SD1.dwg

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.222	244



ELECTRICAL DEMOLITION SITE PLAN – 9

SCALE: 1" = 20'

APPROVED:

Kauai Island Utility Cooperative — Date

Hawaiian Telcom — Date

Spectrum — Date

GRAPHIC SCALE:
20' 10' 0 20' 40'
SCALE: 1" = 20'

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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APRIL 30, 2020
LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL DEMOLITION
SITE PLAN – 9

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

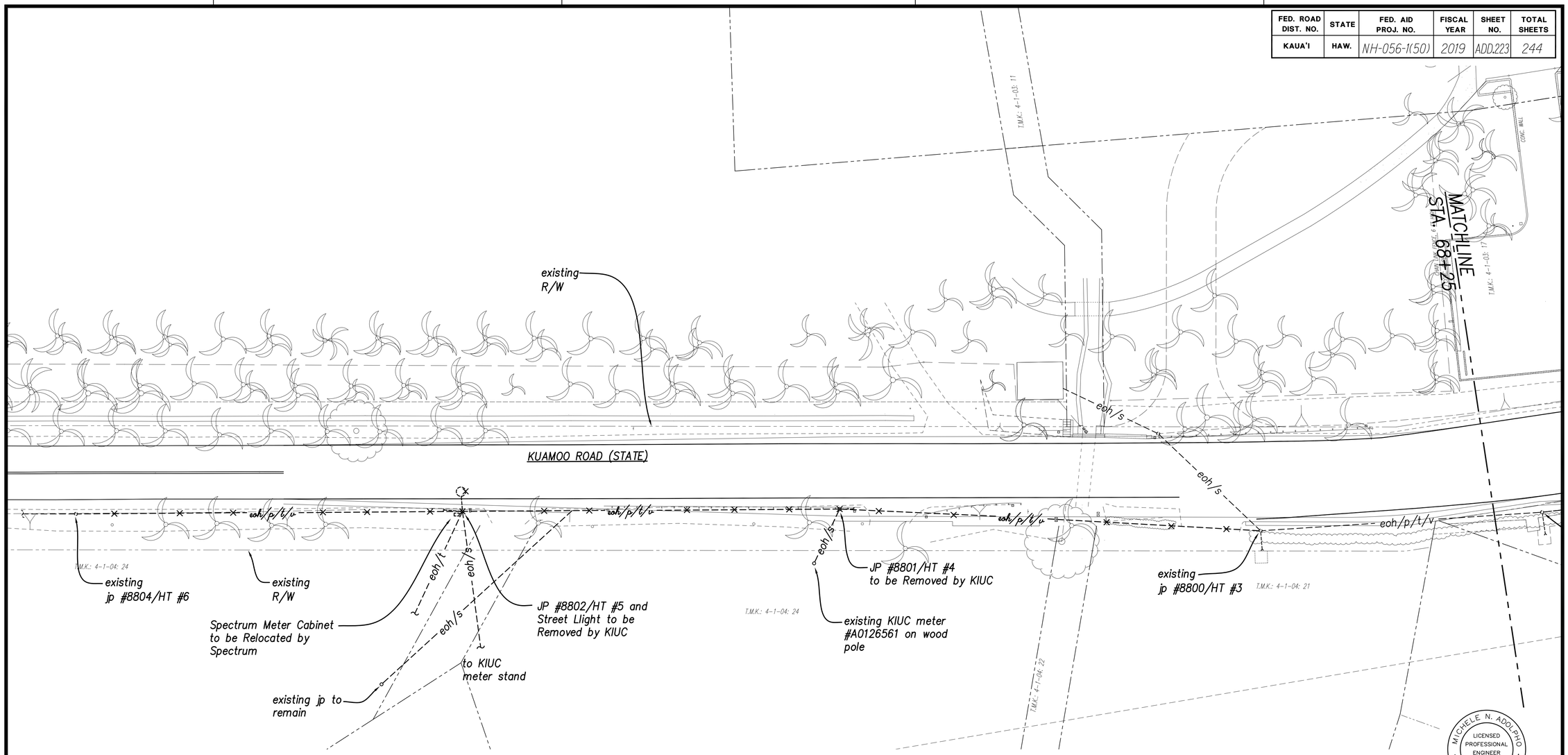
Scale: 1" = 20' Date: July 2019

SHEET No. E-15 OF 37 SHEETS

ADD.222

11/8/19-9:57 Y:\D30\D30.007\D30.007 E07-E17.SD1.dwg

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.223	244



ELECTRICAL DEMOLITION SITE PLAN – 10

SCALE: 1" = 20'

True North
Scale: 1"=20'

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
LIC. EXP. DATE

APPROVED:

Kauai Island Utility Cooperative — Date

Hawaiian Telcom — Date

Spectrum — Date

GRAPHIC SCALE:
20' 10' 0 20' 40'
SCALE: 1" = 20'

DATE	REVISION
11/12/19	③ Reissuing plan for legibility only. No design changes have been made.
9/20/19	① Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL DEMOLITION SITE PLAN – 10

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

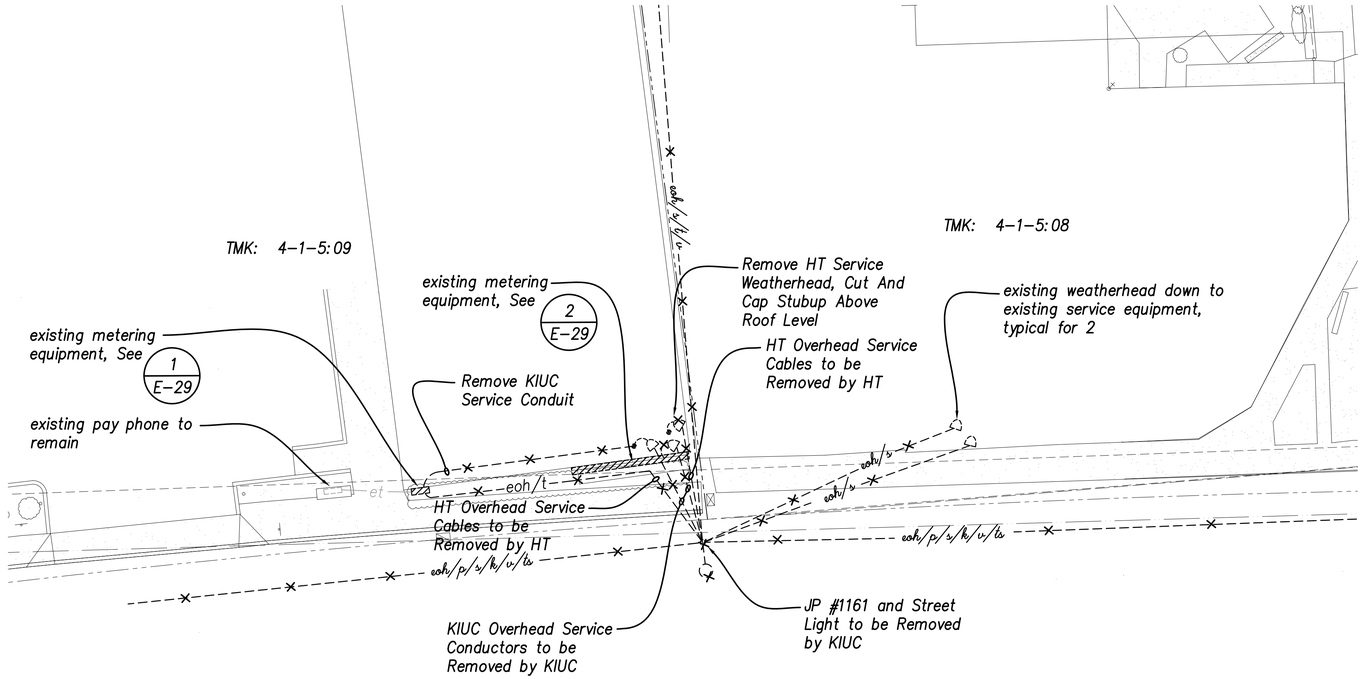
Scale: 1" = 20' Date: July 2019

SHEET No. E-16 OF 37 SHEETS

11/8/19-9:57 Y:\030\030.007\030.007 E07-E17-SD1.dwg

ADD.223

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.224	244



1 / E-17 ENLARGED ELECTRICAL DEMOLITION SITE PLAN

SCALE: 1" = 10'

True North
Scale: 1"=10'

APPROVED:

Kauai Island Utility Cooperative — Date

Hawaiian Telcom — Date

Spectrum — Date

GRAPHIC SCALE:
10' 0 10' 20'
SCALE: 1" = 10'

DATE	REVISION
11/12/19	3 Reissuing plan for legibility; remove HT weatherhead and cables
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ENLARGED ELECTRICAL DEMOLITION SITE PLAN

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

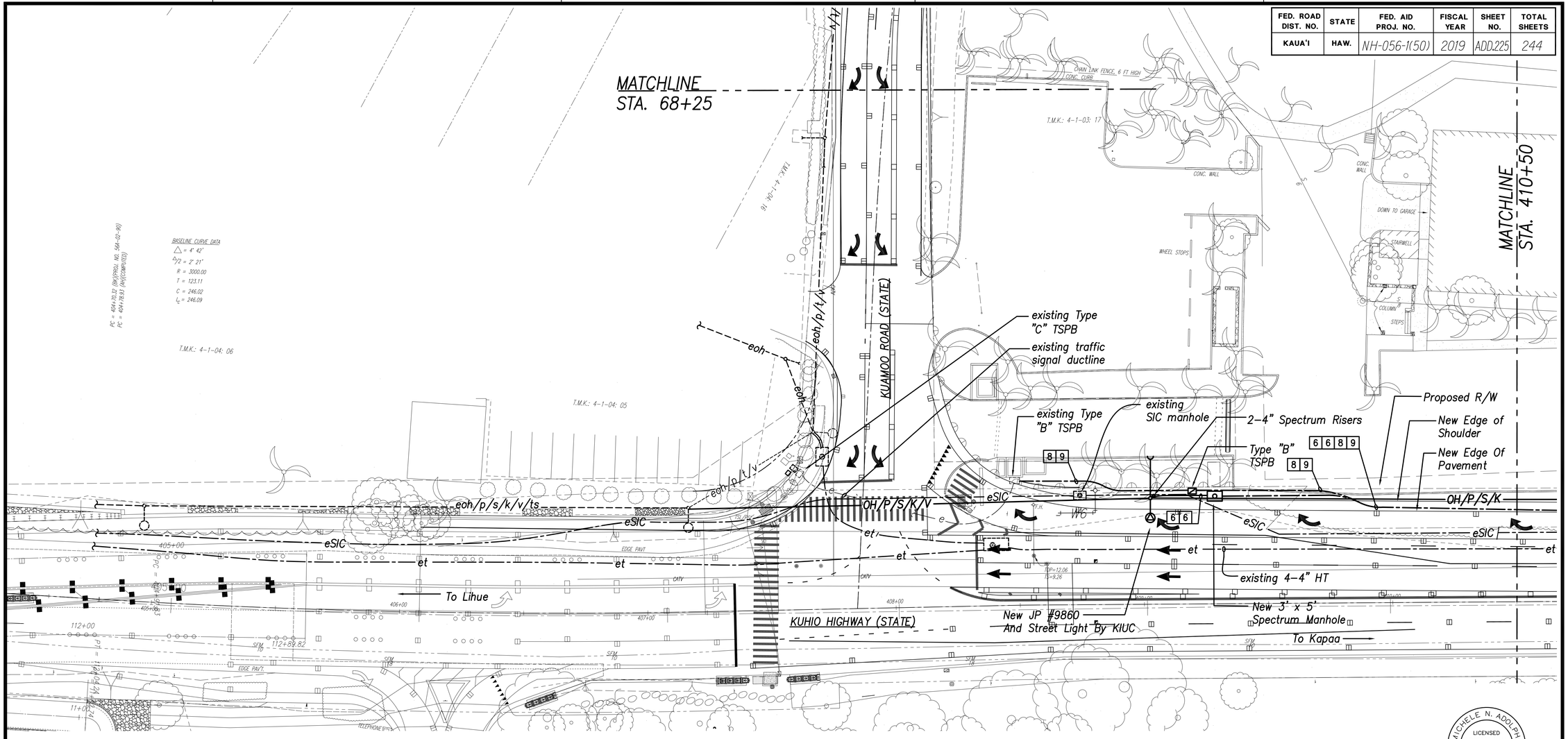
Scale: 1" = 10' Date: July 2019

SHEET No. E-17 OF 37 SHEETS

11/8/19-9:57 Y:\030\030.007\030.007 E07-E17.SD1.dwg

ADD.224

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.225	244



ELECTRICAL SITE PLAN – 1

SCALE: 1" = 20'

True North
Scale: 1"=20'

APPROVED:

Kauai Island Utility Cooperative — Date

Hawaiian Telcom — Date

Spectrum — Date

GRAPHIC SCALE:
20' 10' 0 20' 40'
SCALE: 1" = 20'

DATE	REVISION
11/12/19	(3) Reissuing plan for legibility only. No design changes have been made.
9/20/19	(1) Reissuing plan for legibility only. No design changes have been made.

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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APRIL 30, 2020
LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL
SITE PLAN – 1
Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

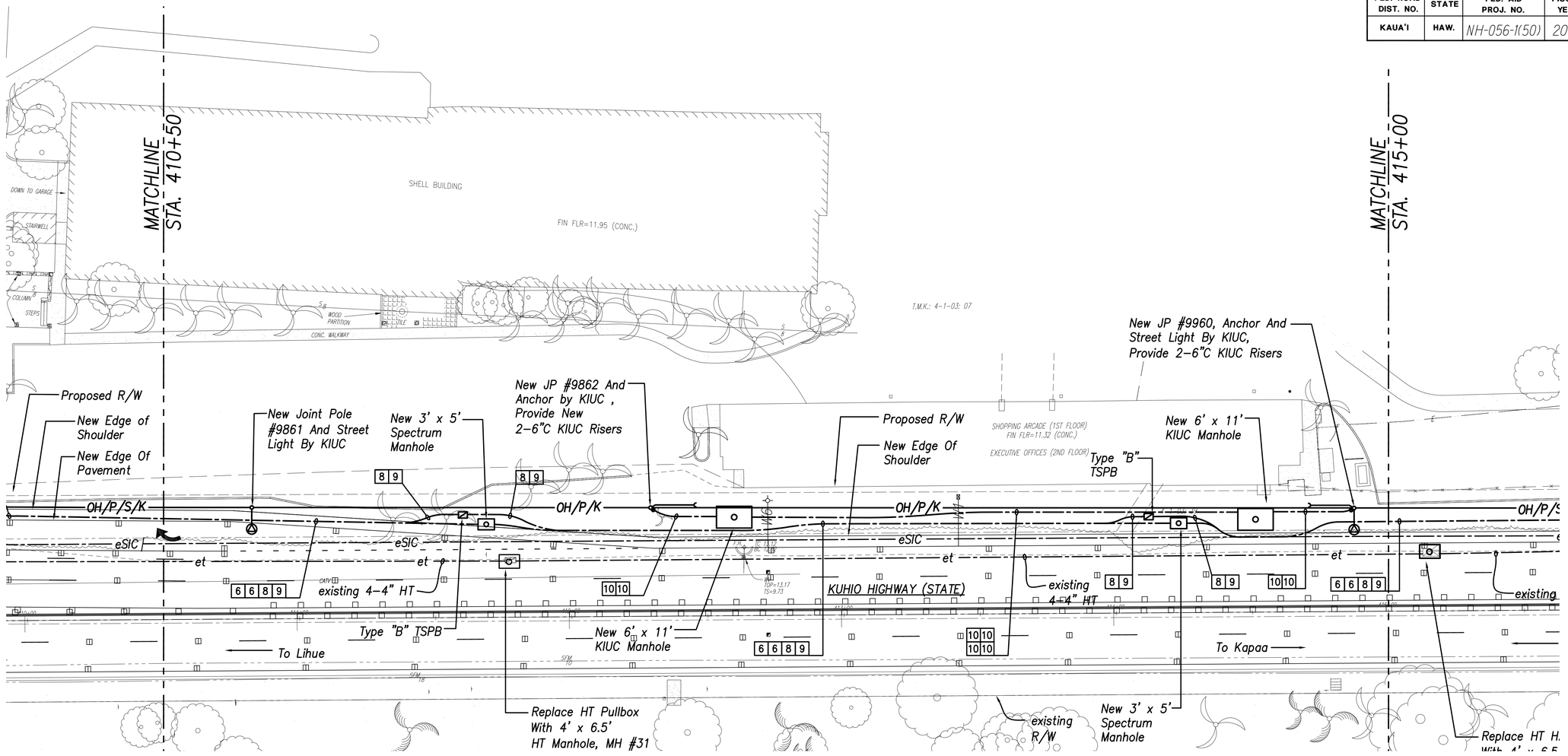
Scale: 1" = 20' Date: July 2019

SHEET No. E-18 OF 37 SHEETS

ADD.225

11/8/19-9:57 Y:\D30\D30.007\D30.007 E18-E28.SN1.dwg

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.226	244



ELECTRICAL SITE PLAN – 2

SCALE: 1" = 20'

True North
Scale: 1"=20'

APPROVED:

Kauai Island Utility Cooperative — Date

Hawaiian Telcom — Date

Spectrum — Date

GRAPHIC SCALE:
20' 10' 0 20' 40'
SCALE: 1" = 20'

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
LIC. EXP. DATE

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL SITE PLAN – 2

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

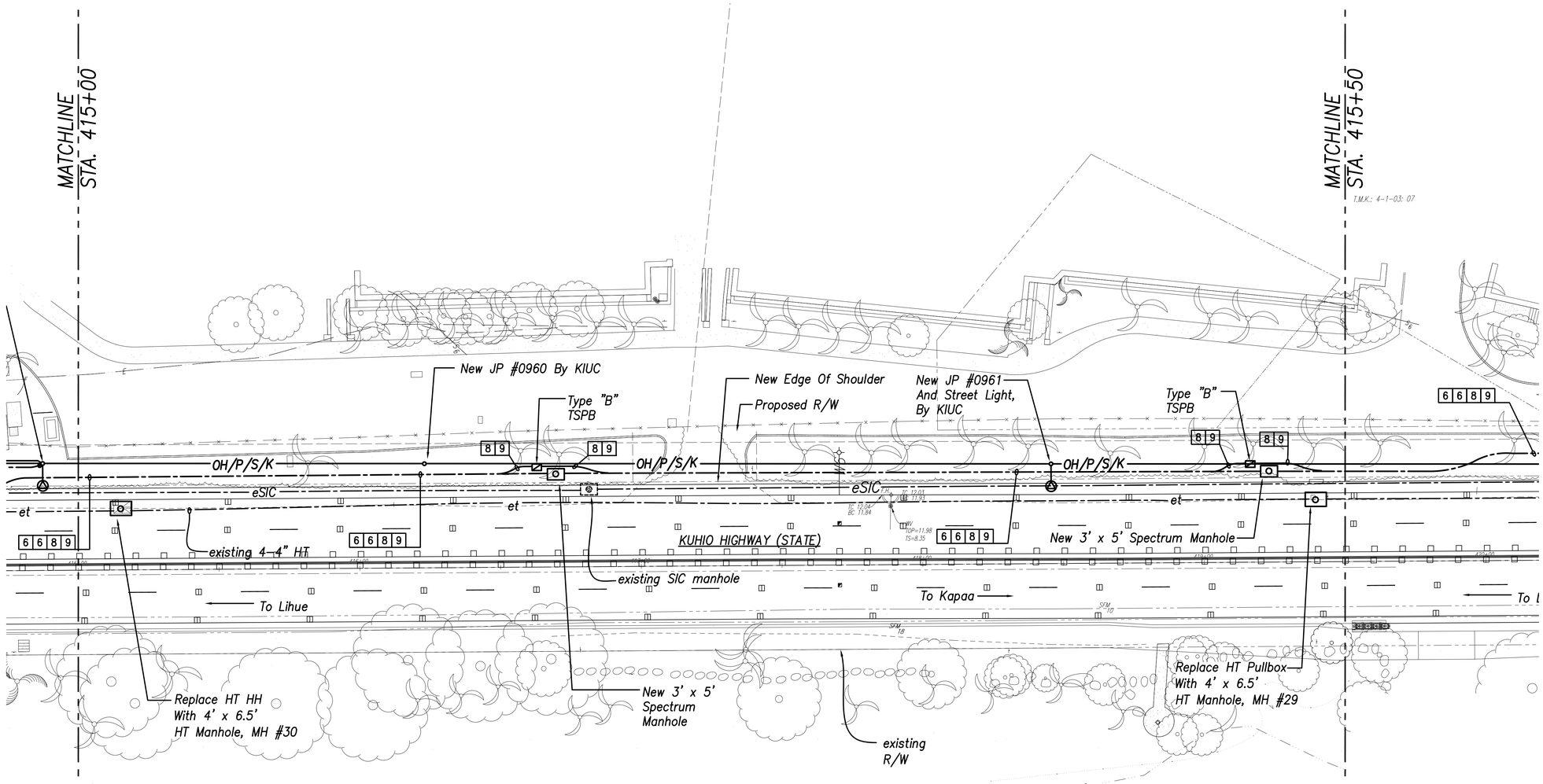
Scale: 1" = 20' Date: July 2019

SHEET No. E-19 OF 37 SHEETS

ADD.226

11/8/19-9:57 Y:\DSD\DSD.007\DSD.007 E18-E28.SN1.dwg

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.227	244



ELECTRICAL SITE PLAN – 3

SCALE: 1" = 20'

True North
Scale: 1"=20'

APPROVED:

Kauai Island Utility Cooperative — Date

Hawaiian Telcom — Date

Spectrum — Date

GRAPHIC SCALE:
20' 10' 0 20' 40'
SCALE: 1" = 20'

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
LIC. EXP. DATE

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL SITE PLAN – 3

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

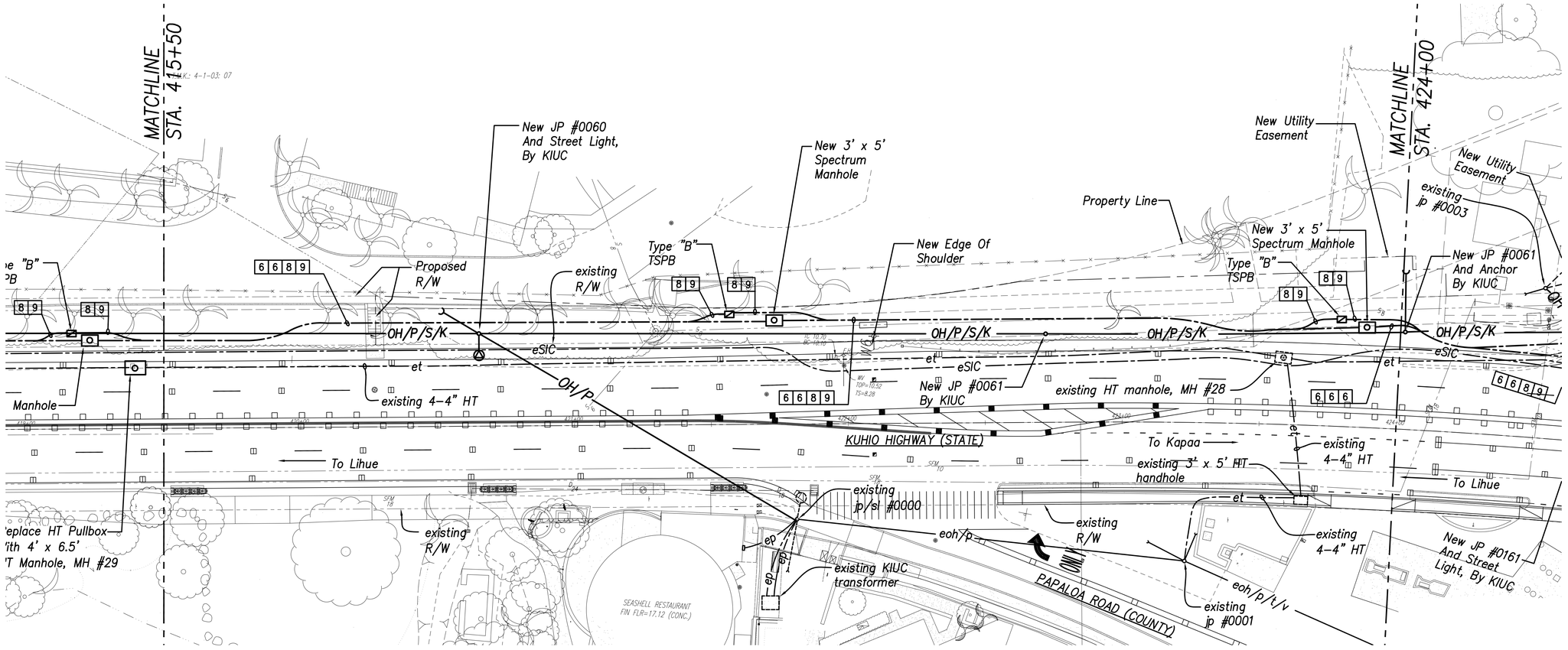
Scale: 1" = 20' Date: July 2019

SHEET No. E-20 OF 37 SHEETS

ADD.227

11/8/19-9:57 Y:\030\030.007\030.007 E18-E28.SNT.dwg

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.228	244



ELECTRICAL SITE PLAN – 4

SCALE: 1" = 20'

True North
Scale: 1"=20'

APPROVED:

Kauai Island Utility Cooperative — Date

Hawaiian Telcom — Date

Spectrum — Date

GRAPHIC SCALE:
20' 10' 0 20' 40'
SCALE: 1" = 20'

DATE	REVISION
11/12/19	(3) Reissuing plan for legibility only. No design changes have been made.
9/20/19	(1) Reissuing plan for legibility only. No design changes have been made.

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL
SITE PLAN – 4
Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

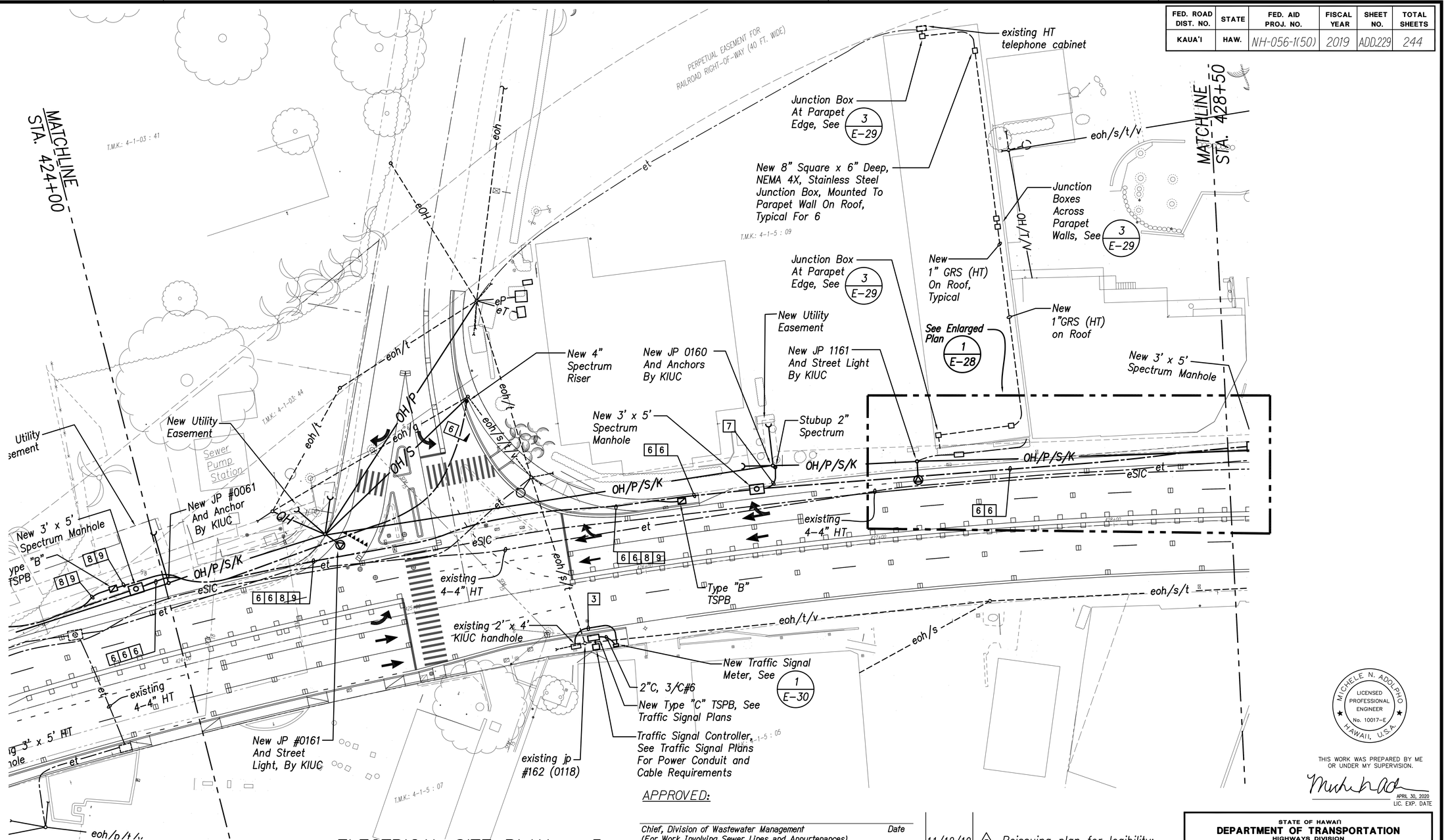
Scale: 1" = 20' Date: July 2019

SHEET No. E-21 OF 37 SHEETS

ADD.228

11/8/19-9:57 Y:\030\030.007\030.007 E18-E28.SN1.dwg

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.229	244



True North
Scale: 1"=20'

ELECTRICAL SITE PLAN – 5

SCALE: 1" = 20'

GRAPHIC SCALE:
20' 10' 0 20' 40'
SCALE: 1" = 20'

APPROVED:

Chief, Division of Wastewater Management (For Work Involving Sewer Lines and Appurtenances)	Date
Kauai Island Utility Cooperative	Date
Hawaiian Telcom	Date
Spectrum	Date

DATE	REVISION
11/12/19	3 Reissuing plan for legibility; revised HT overhead conductor alignment; revised HT conduit routing on roof.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL SITE PLAN – 5

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

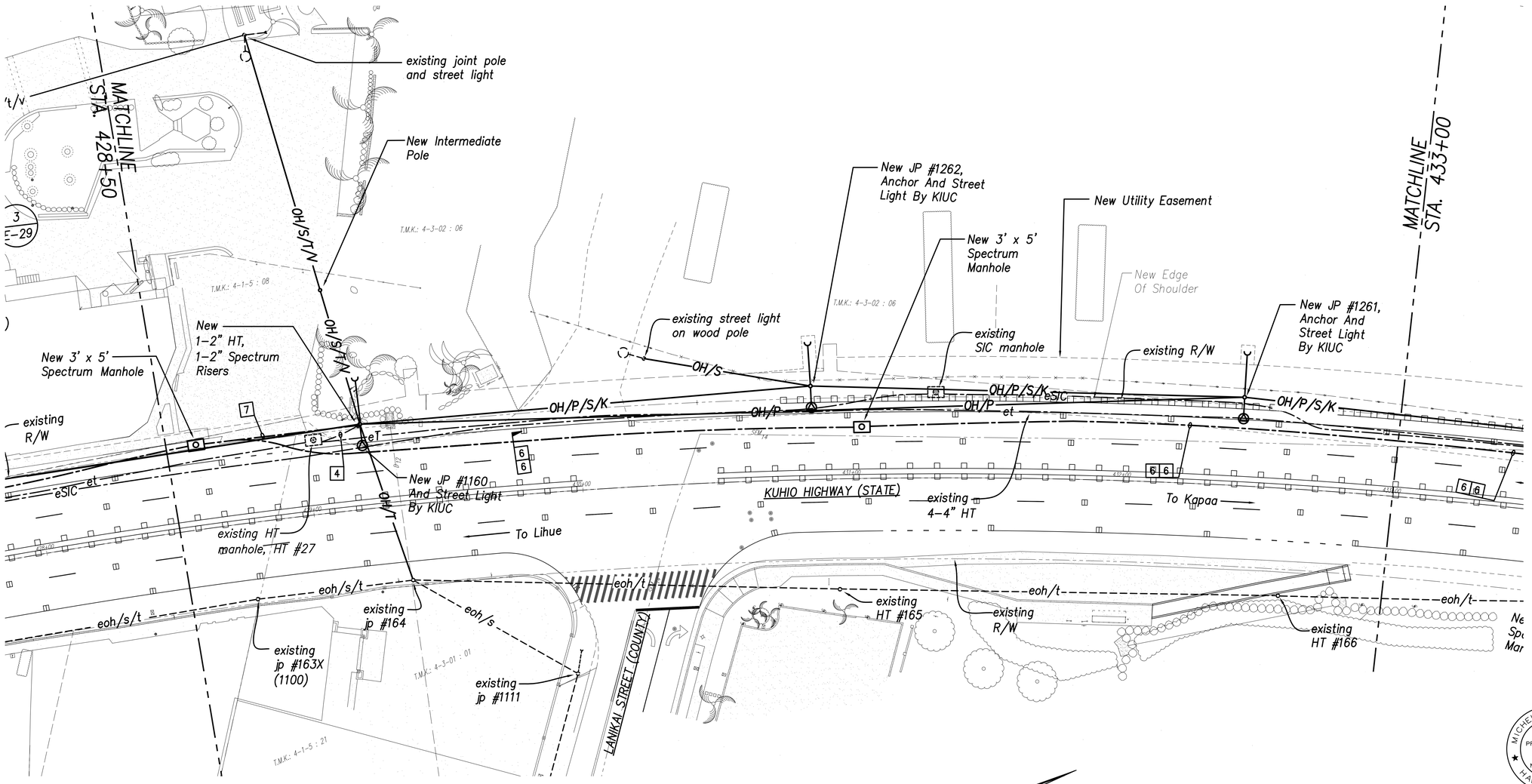
Scale: 1" = 20' Date: July 2019

SHEET No. E-22 OF 37 SHEETS

ADD.229

11/8/19--9:57 Y:\030\030.007\030.007 E18-E28.SNT.dwg

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.230	244



ELECTRICAL SITE PLAN – 6

SCALE: 1" = 20'

True North
Scale: 1"=20'

APPROVED:

Kauai Island Utility Cooperative *Date*

Hawaiian Telcom *Date*

Spectrum *Date*

GRAPHIC SCALE:
20' 10' 0 20' 40'
SCALE: 1" = 20'

DATE	REVISION
11/12/19	(3) Reissuing plan for legibility; added HT overhead road crossing.
9/20/19	(1) Reissuing plan for legibility only. No design changes have been made.

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL SITE PLAN – 6

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

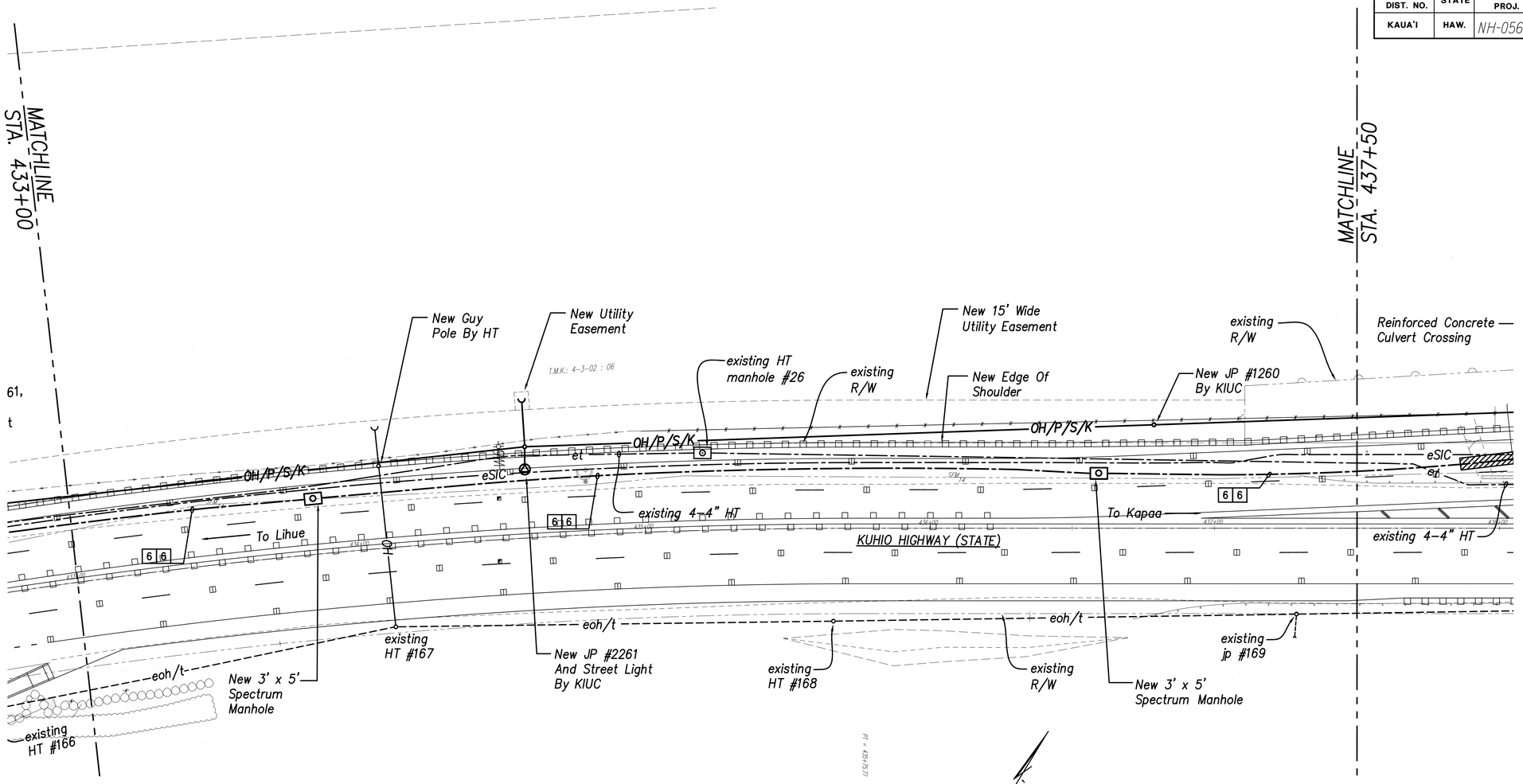
Scale: 1" = 20' Date: July 2019

SHEET No. E-23 OF 37 SHEETS

11/8/19-9:57 Y:\030\030.007\030.007 E18-E28.SNT.dwg

ADD.230

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.231	244



ELECTRICAL SITE PLAN – 7

SCALE: 1" = 20'

True North
Scale: 1" = 20'

APPROVED:

Kauai Island Utility Cooperative — Date

Hawaiian Telcom — Date

Spectrum — Date

GRAPHIC SCALE:
20' 10' 0 20' 40'
SCALE: 1" = 20'

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

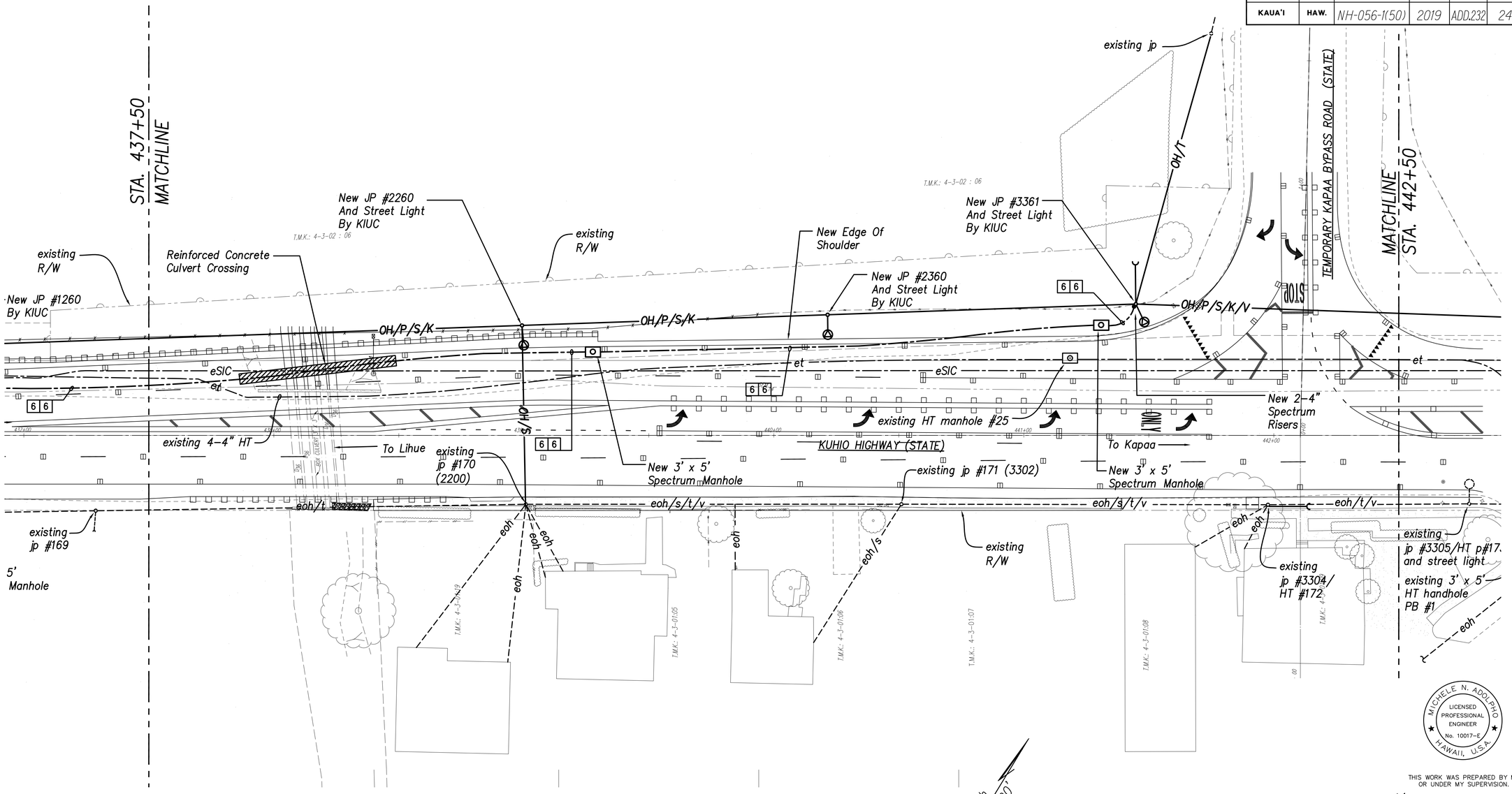
ELECTRICAL
SITE PLAN – 7
Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)
Scale: 1" = 20' Date: July 2019

SHEET No. E-24 OF 37 SHEETS

ADD.231

11/8/19-9:57 Y:\D30\030.007\030.007 E18-E28.SN1.dwg

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.232	244



ELECTRICAL SITE PLAN – 8

SCALE: 1" = 20'

APPROVED:

Kauai Island Utility Cooperative — Date

Hawaiian Telcom — Date

Spectrum — Date

True North
Scale: 1"=20'

GRAPHIC SCALE:
20' 10' 0 20' 40'
SCALE: 1" = 20'

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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APRIL 30, 2020
LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL SITE PLAN – 8

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

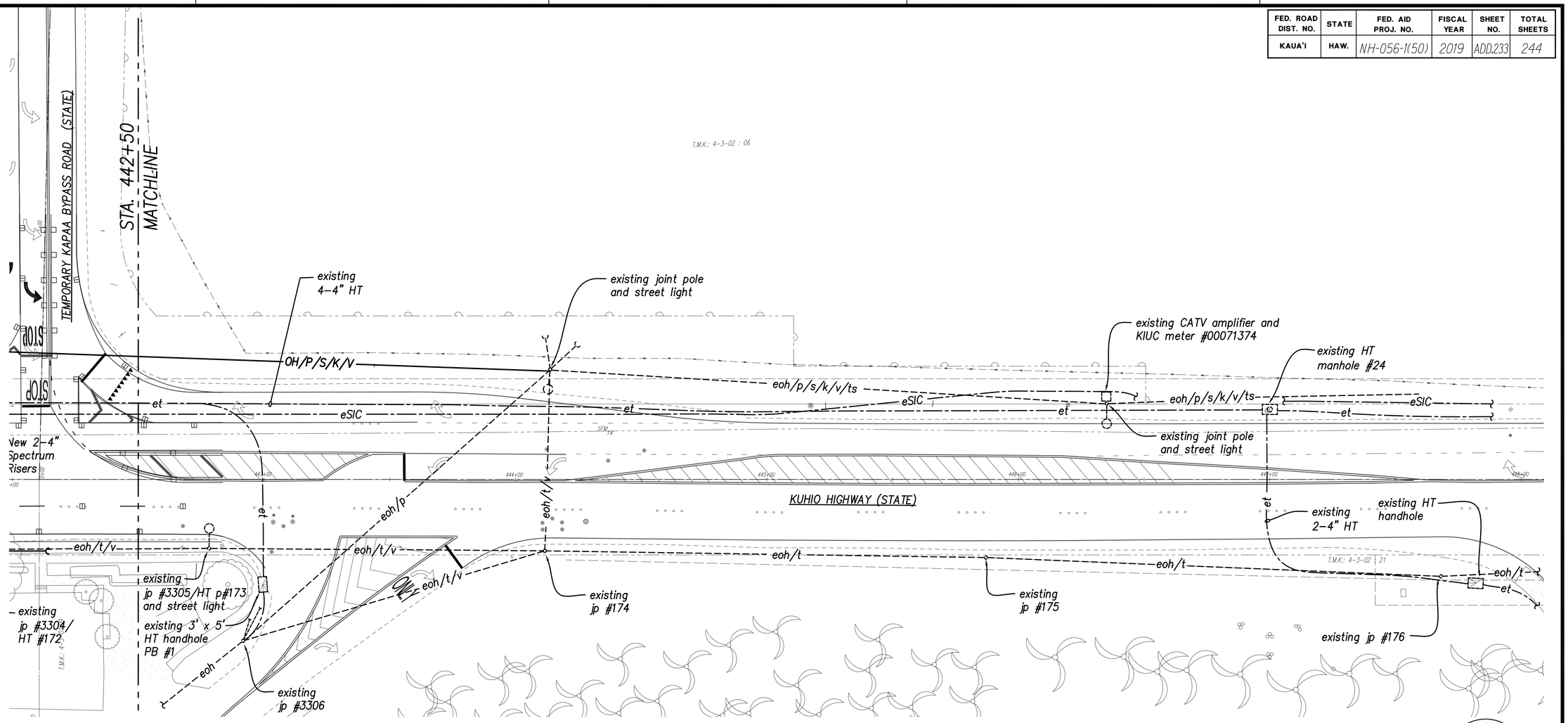
Scale: 1" = 20' Date: July 2019

SHEET No. E-25 OF 37 SHEETS

ADD.232

11/8/19-9:58 Y:\030\030.007\030.007 E18-E28.SNT.dwg

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.233	244



ELECTRICAL SITE PLAN – 9

SCALE: 1" = 20'

True North
Scale: 1"=20'

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
LIC. EXP. DATE

APPROVED:

Kauai Island Utility Cooperative — Date

Hawaiian Telcom — Date

Spectrum — Date

GRAPHIC SCALE:
20' 10' 0 20' 40'
SCALE: 1" = 20'

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL SITE PLAN – 9

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

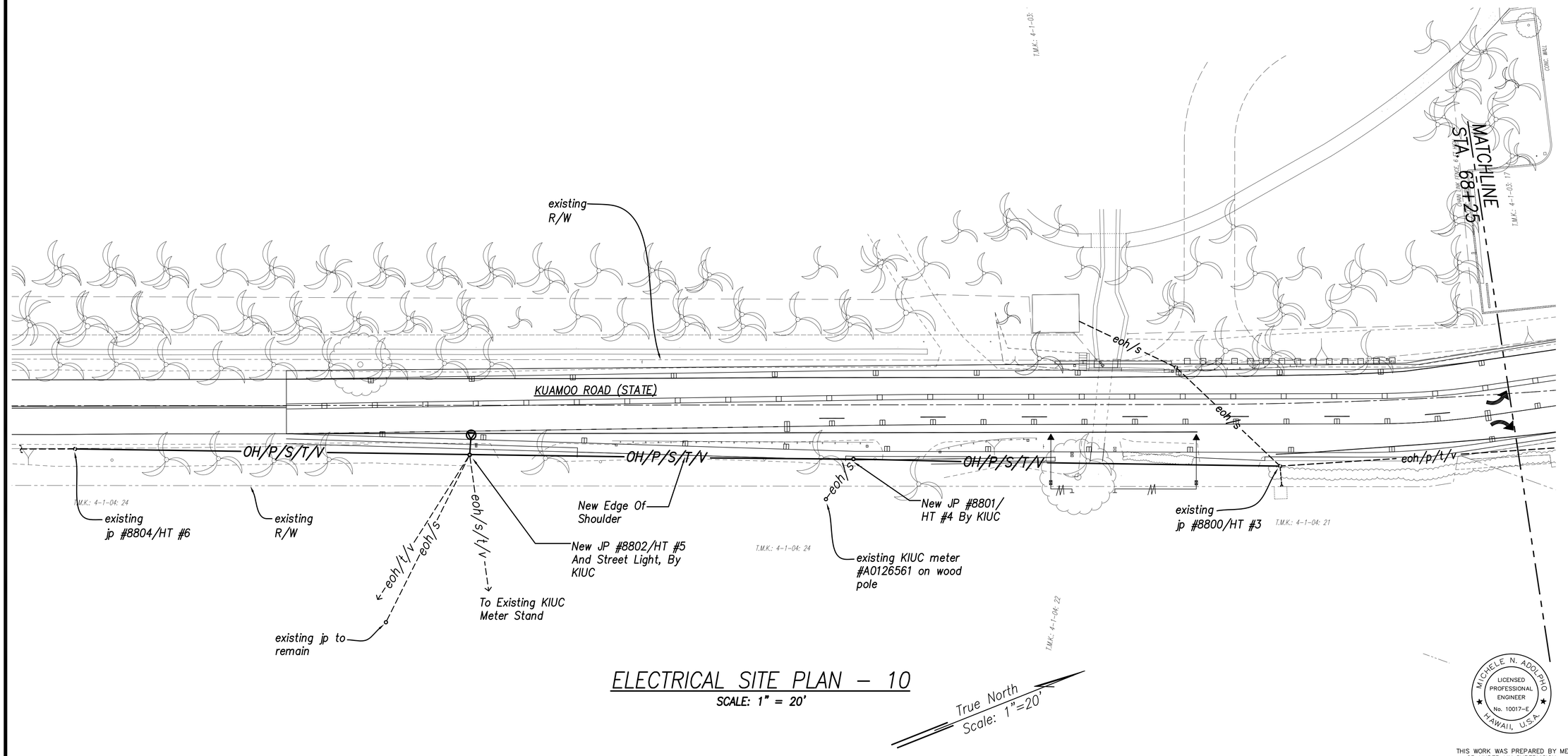
Scale: 1" = 20' Date: July 2019

SHEET No. E-26 OF 37 SHEETS

ADD.233

11/8/19-9:58 Y:\030\030.007\030.007 E18-E28.SNT.dwg

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.234	244



ELECTRICAL SITE PLAN – 10

SCALE: 1" = 20'

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
LIC. EXP. DATE

APPROVED:

Kauai Island Utility Cooperative — Date

Hawaiian Telcom — Date

Spectrum — Date

GRAPHIC SCALE:
20' 10' 0 20' 40'
SCALE: 1" = 20'

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL SITE PLAN – 10

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

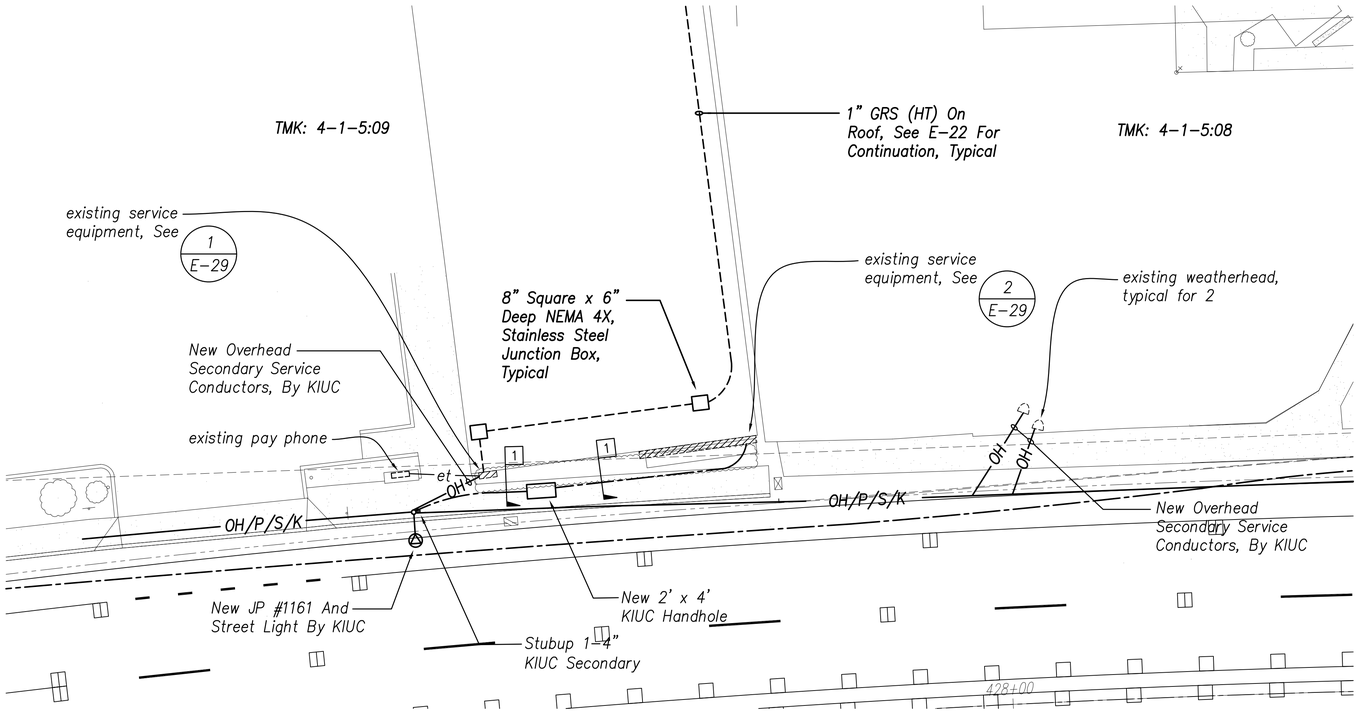
Scale: 1" = 20' Date: July 2019

SHEET No. E-27 OF 37 SHEETS

ADD.234

11/8/19-9:58 Y:\D30\D30.007\D30.007 E18-E28.SN1.dwg

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.235	244



1 / E-28 ENLARGED ELECTRICAL SITE PLAN

SCALE: 1" = 10'

True North
Scale: 1"=10'

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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APRIL 30, 2020
LIC. EXP. DATE

APPROVED:

Kauai Island Utility Cooperative — Date

Hawaiian Telcom — Date

GRAPHIC SCALE:
10' 0 10' 20'
SCALE: 1" = 10'

DATE	REVISION
11/12/19	3 Reissuing plan for legibility; revised HT conduit routing on roof.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ENLARGED ELECTRICAL SITE PLAN

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

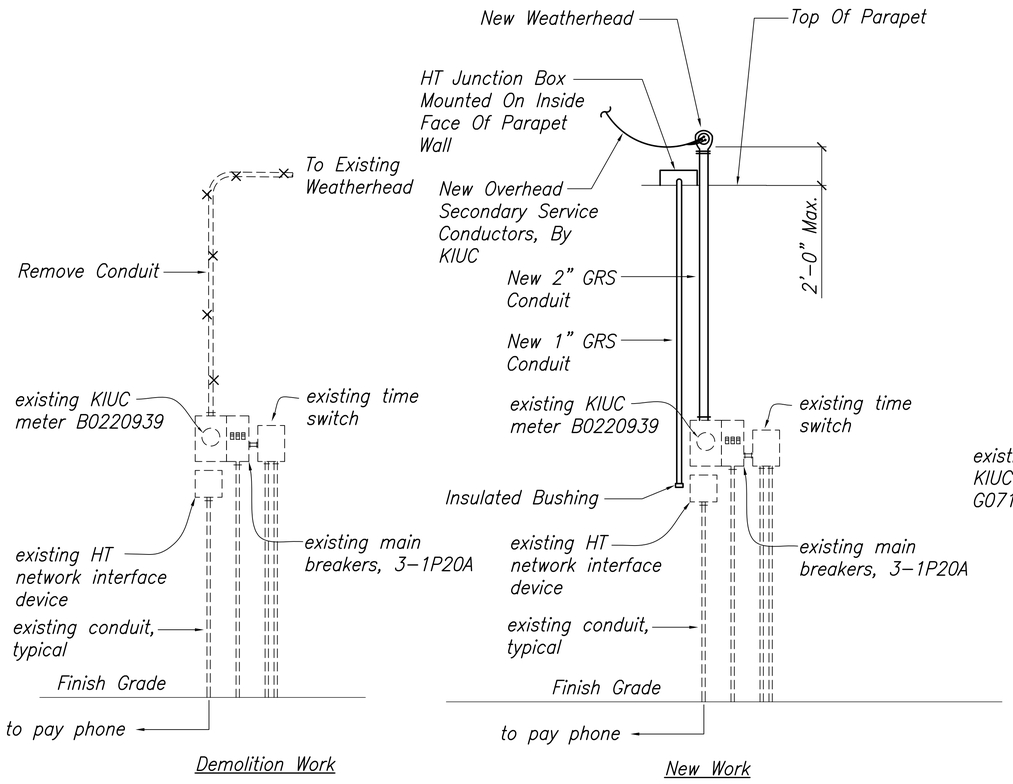
Scale: 1" = 10' Date: July 2019

SHEET No. E-28 OF 37 SHEETS

11/8/19-9:58 Y:\030\030.007\030.007 E18-E28.SNI.dwg

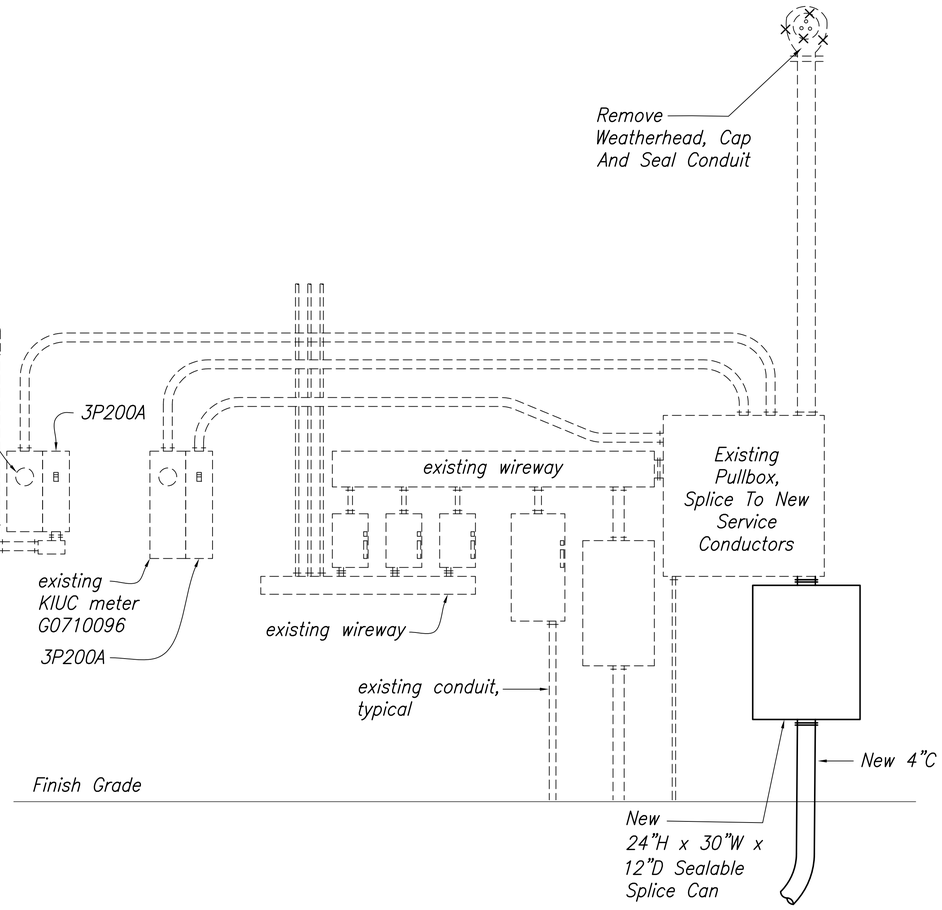
ADD.235

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.236	244



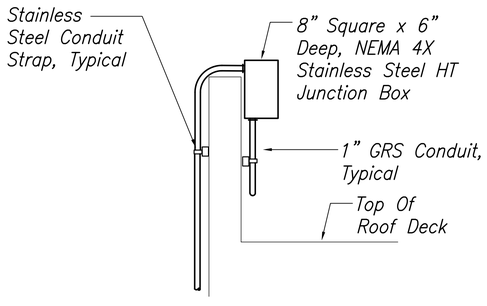
1 E–29 SERVICE EQUIPMENT ELEVATION – 1

Not To Scale

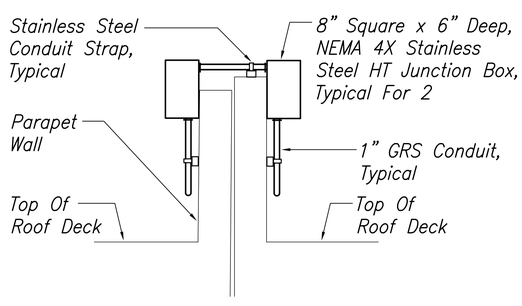


2 E–29 SERVICE EQUIPMENT ELEVATION – 2

Not To Scale



At Parapet Edge



Across Parapet Walls

3 E–29 JUNCTION BOX AT PARAPET WALL

Not To Scale

APPROVED:

Kauai Island Utility Cooperative — Date

Hawaiian Telcom — Date

DATE	REVISION
11/12/19	3 Reissuing plan for legibility; added Detail 3.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

MICHELE N. ADOLPHO — LICENSED PROFESSIONAL ENGINEER — No. 10017–E — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SERVICE EQUIPMENT ELEVATIONS

Kuhio Highway Short–Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH–056–1(50)

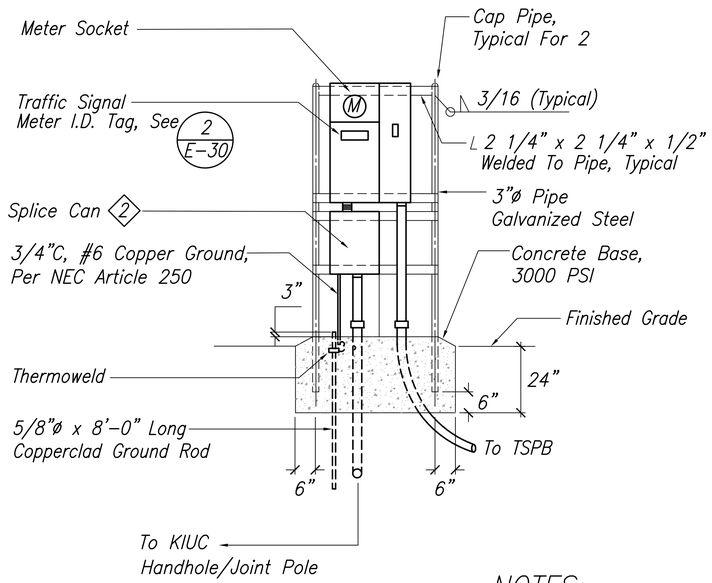
Scale: As Shown — Date: July 2019

SHEET No. E–29 OF 37 SHEETS

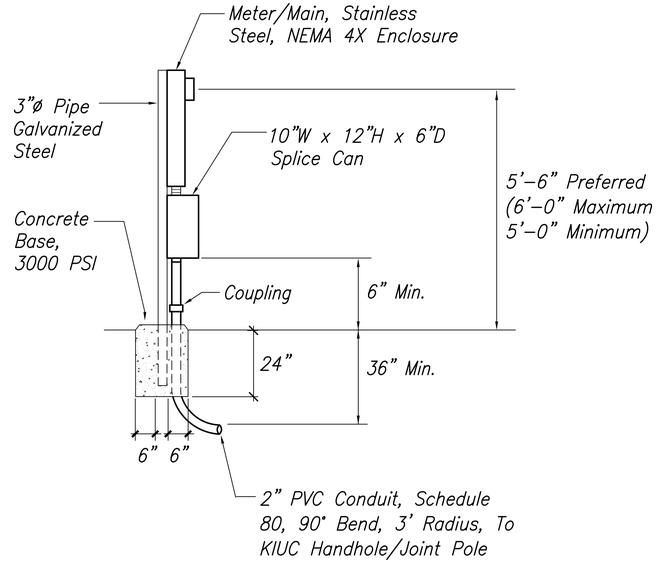
11/8/19–9:58 Y:\D30\D30.007\D30.007 E-29.D11.dwg

ADD.236

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.237	244



Front Elevation



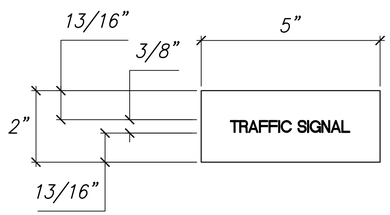
Side Elevation

NOTES:

1. Pedestal Shall Be Hot-Dipped Galvanized After Fabrication. All Fastening Bolts, Nuts And Washers Shall Be Stainless Steel. Provide 4 Feet Clear In Front Of Meter.

2. Sealable Stainless Steel Enclosure 10"W x 12"H x 6"D.

1 / E-30 TRAFFIC SIGNAL METER
Not To Scale



NOTES:

1. Use 3-Ply Laminated Flexible Plastic, Black-White-Black Thickness: Black Cap Sheet-0.010", White Base Sheet-0.052", Black Base Sheet-0.010".
2. Attach To Meter Socket Using Scotch 3M Brand Very High Bond (VHB) Double Coated Acrylic Foam Tape Or Equivalent.
3. Letters/Numbers Shall Be 3/8" High, 1/16" Stroke, And White In Color.
4. Letters/Numbers Area Inscribed By Cutting Through "Black Cap Sheet" To Expose White Letters/Numbers.

2 / E-30 TRAFFIC SIGNAL METER I.D. TAG
Not To Scale

APPROVED:

Kauai Island Utility Cooperative — Date

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

MICHELE N. ADOLPHO
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No. 10017-E
HAWAII, U.S.A.

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APRIL 30, 2020
LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL METER DETAILS

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

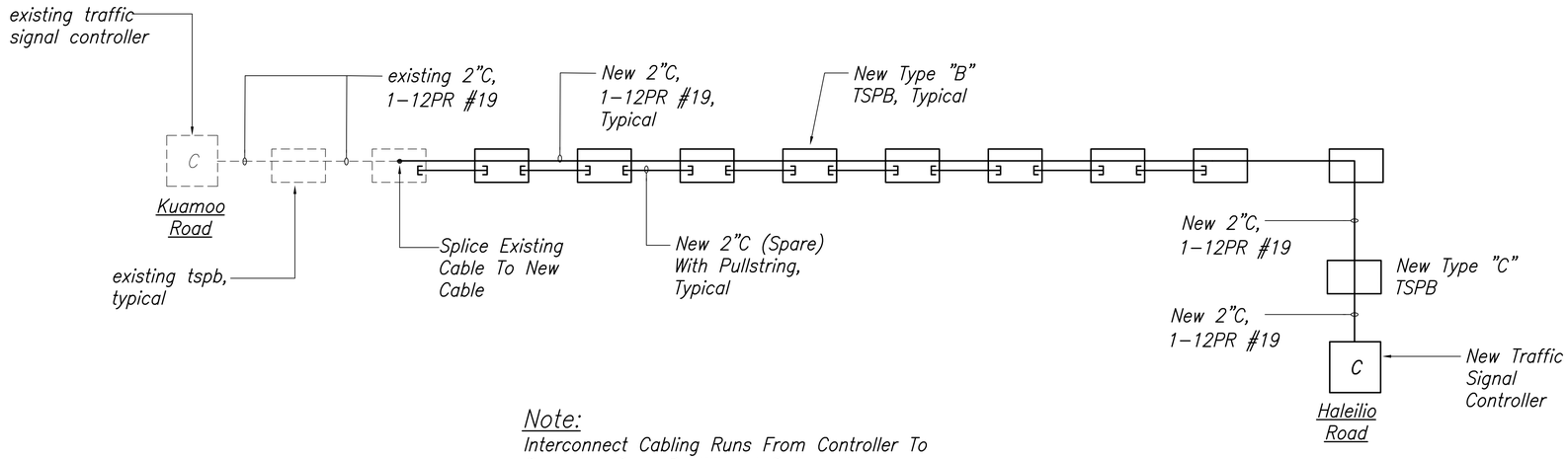
Scale: As Shown — Date: July 2019

SHEET No. E-30 OF 37 SHEETS

11/8/19-9:58 Y:\030\030.007\030.007 E-30.018.dwg

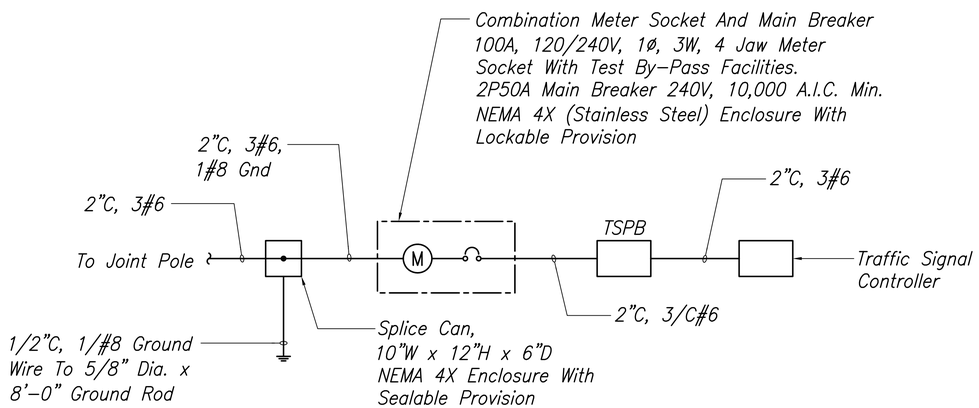
ADD.237

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.238	244



Note:
Interconnect Cabling Runs From Controller To Controller Shall Be Without Splices, Unless Otherwise Noted.

1 / E-31 TRAFFIC SIGNAL INTERCONNECT CABLING DIAGRAM
No Scale



2 / E-31 TYPICAL TRAFFIC SIGNAL CONTROLLER ONE-LINE DIAGRAM
No Scale

APPROVED:

Kauai Island Utility Cooperative — Date

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

MICHELE N. ADOLPHO
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No. 10017-E
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APRIL 30, 2020
LIC. EXP. DATE

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL DIAGRAMS

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

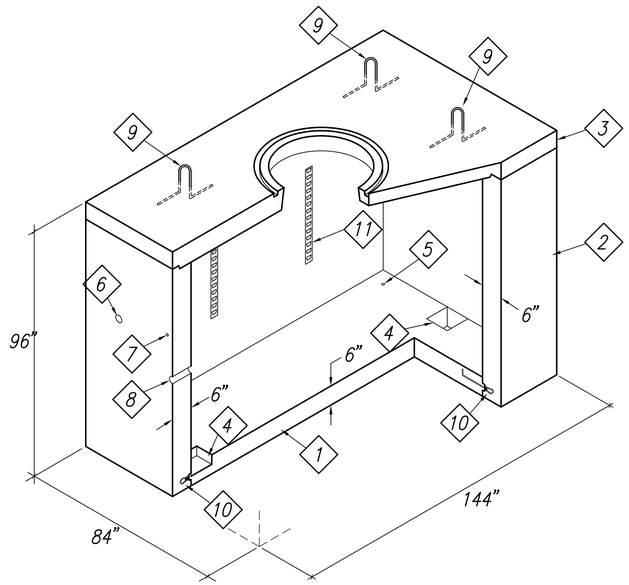
Scale: As Shown — Date: July 2019

SHEET No. E-31 OF 37 SHEETS

11/8/19-9:58 Y:\030\030.007\030.007 E-31.019.dwg

ADD.238

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.239	244



Material Schedule

1. Floor Section – 8,400lbs.
2. Wall Section – 18,375lbs.
3. Roof Section – 10,120lbs.
4. 12" x 12" Open Sump (Closed Sump In Areas Of High Water Table Only.)
5. 1" Dia. Gnd. Rod Hole.
6. 3" Dia. x 6" Lifting Hole (Contractor To Grout Solid After Placement Of Section.)
7. Pulling Iron As Required.
8. End Bell Cast In Wall As Required By KIUC Butterfly Drawing. Contractor To Request Drawing From KIUC Prior To Ordering Manhole.
9. #5 Lifting Loop.
10. Ferrule Loop Insert.
11. Cable Rack, Refer To KIUC Requirements

Notes:

1. Pullbox Designed In Accordance With HECO Standards Using 4,000 PSI Compressive Strength Concrete And 60,000 PSI Yield Strength Astm A-615 Steel Reinforcement Per Calcs.
2. All Concrete And Reinforced Concrete Work Shall Be Done In Accordance With Project Specifications And Special Provisions. Handhole Shall Be Designed In Accordance With AASHTO LRFD Bridge Design Specification, 4th Edition 2007, With 2008 And 2009 Interim Revisions.
3. Pullbox To Be Placed On A 6" Base Of #3 Crushed Rock For Ease Of Installation And Even Load Distribution.
4. Product To Be Stenciled With Manufacturer Name And Date Of Pour.
5. The Following Materials To Be Shipped With Each Handhole:
   (a) 7/8" Dia. U-bolt W/Nut (Galv) Pulling Iron
   (b) 1 1/2" Ramnek Joint Compound (36 Feet Required)
   (c) 32" Dia. "KIUC" Type Frame & Cover
   (d) 32" Dia. Octagonal Grade Ring (1 Required)

1 / E-32 — 6' x 11' KIUC MANHOLE
Not To Scale — Ref. HECO Dwg. No. 100726

APPROVED:

Kauai Island Utility Cooperative — Date

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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APRIL 30, 2020
LIC. EXP. DATE

DATE	REVISION
11/12/19	2 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

6' x 11' KIUC MANHOLE

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

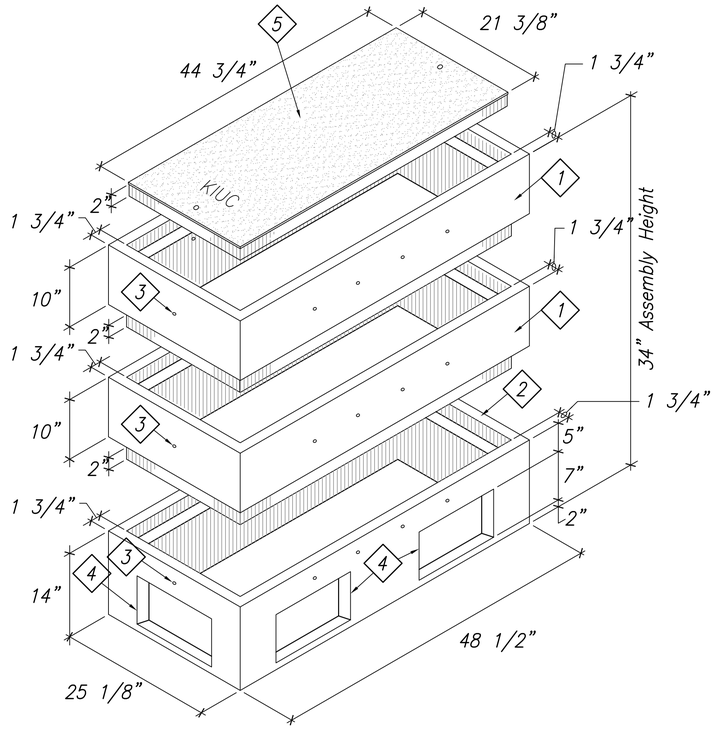
Scale: As Shown — Date: July 2019

SHEET No. E-32 OF 37 SHEETS

11/8/19-9:58 Y:\030\030.007\030.007 E-32.001.dwg

ADD.239

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.240	244



1 / E-33 2' x 4' KIUC HANDHOLE
Not To Scale

Material Schedule

The Following Materials To Be Shipped With Each Handhole:

1. *Top Section. Wt. 400 lbs.*
2. *Bottom Section With Knockouts. Wt. 430 lbs.*
3. *1/2"ø x 4" Lifting Hole (Contr. To Grout Solid After Placement Of Section).*
4. *Conduit Opening Knockout.*
5. *Concrete Cover, Refer To HECO Dwg. No. 11312.*

Notes:

1. *Handhole Designed In Accordance With Hawaiian Electric Company Standards Using 4,000 PSI Compressive Strength Concrete And 60,000 PSI Yield Strength ASTM A-615 Steel Reinforcement Per Calcs.*
2. *All Concrete And Reinforced Concrete Work Shall Be Done In Accordance With Project Specifications And Special Provisions.*
3. *Handhole To Be Placed On A 6" Base Of #3 Crushed Rock For Ease Of Installation And Even Load Distribution.*
4. *Product To Be Stenciled With Manufacturer Name And Date Of Pour.*
5. *Ordering Information: 2' x 4' x 34" KIUC For Assembly As Shown. Approved For KIUC Specs. Total Weight Of Assembly Shown Is 1230 lbs.*

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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APRIL 30, 2020
LIC. EXP. DATE

APPROVED:

Kauai Island Utility Cooperative — Date

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

2' x 4' KIUC HANDHOLE

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

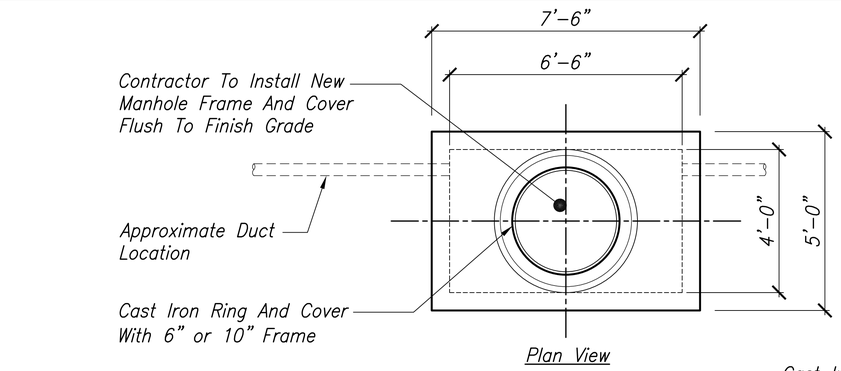
Scale: As Shown Date: July 2019

SHEET No. E-33 OF 37 SHEETS

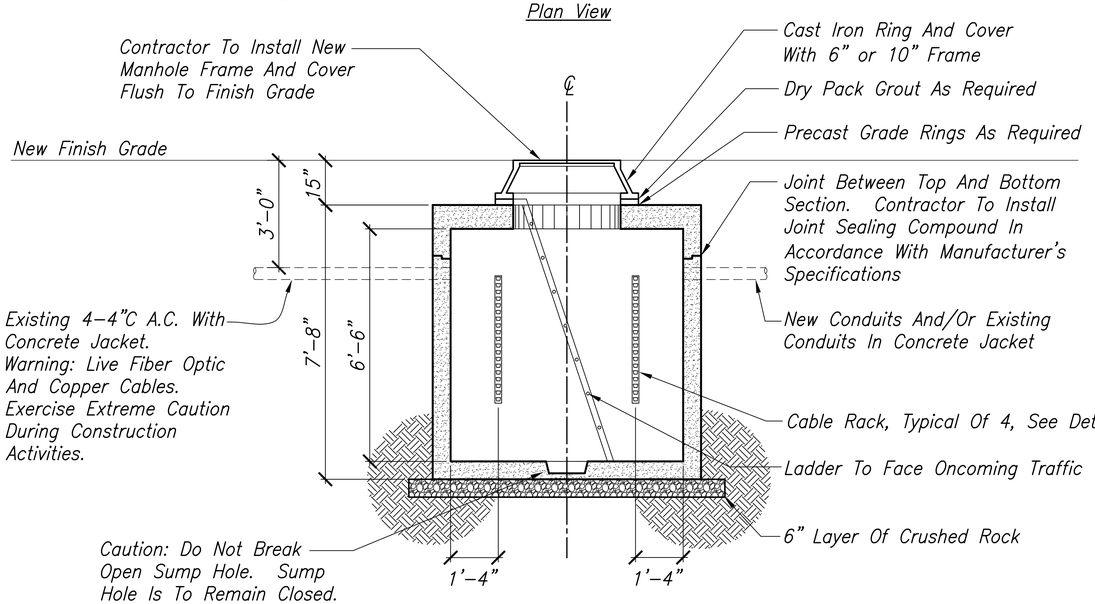
11/8/19-9:58 Y:\030\030.007\030.007 E-33.001.dwg

ADD.240

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.241	244



Plan View



Longitudinal Section View

Notes:

1. Manhole Shall Be Designed In Accordance With: AASHTO LRFD Bridge Design Specification, 4th Edition 2007, With 2008 And 2009 Interim Revisions. State Of Hawaii, Department Of Transportation "Design Criteria For Bridges And Structures", April 2008. Compressive Strength Concrete and 60,000 PSI Yield Strength ASTM A-706 Steel Reinforcement.
2. Manhole To Be Placed On A 6" Base Of Crusher Run For Ease Of Installation And Even Load Distribution.
3. Limits Of Cover Over Roof Section 1'-0" To 5'-0".
4. Interior Walls And Ceiling To Be Painted White.
5. Product To Be Stenciled With The Following In Accordance With GTE GTS-8395 Specs:
   - Manufacturer Name
   - Date Of Pour
   - Product Number
6. Existing Conduits May Be Asbestos Cement/Transite. Utilize Appropriate Procedures For Handling And Removal.
7. Provide Segmented Intercept Manhole Wtih Notches In Sections For Existing Ducts. Patch Wtih Grout.

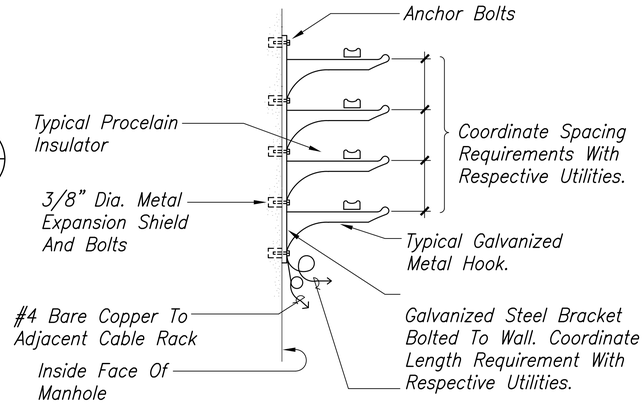
1/E-34 4' x 6.5' x 6.5' HT MANHOLE DETAILS
Not To Scale

APPROVED:

Hawaiian Telcom Date

Installation Procedures:

1. Demolish Or Remove Existing HT Pullbox. Caution: Exercise Caution Around Existing Fiber Optic Cable. The Cable Shall Be Fully Supported During The Demolition And Installation Procedure.
2. Two Methods To Install New Manhole.
   A. Break Back On The Existing Jacket And 4" Ducts So That The Conduit, The Orange Subducts And The Associated Fiber Cable And Copper Can Be Moved Out Of The Way. Then Excavate For The Manhole. Place The Bottom Section And Return the Subducts To The Slot In The Bottom Section Of The Manhole. Install Split Ducts As Required.
   B. Excavate Additional Area To One Side Of The Manhole So That The Bottom Section Of The Manhole Can Be Slid Under The Existing Fiber Optic Cable, Subducts, And Associated 4" Conduit. Split Duct As Required.
3. Install Manhole Joint Compound And The Manhole Top Section. Concrete Encase The Conduit Entrance To The Manhole.



2/E-34 TYPICAL CABLE RACK DETAILS
Not To Scale

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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APRIL 30, 2020
LIC. EXP. DATE

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HT MANHOLE DETAILS

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

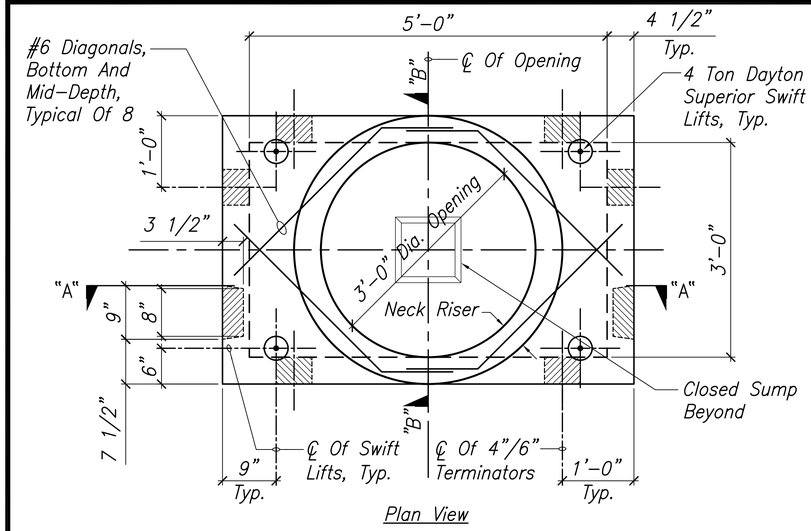
Scale: As Shown Date: July 2019

SHEET No. E-34 OF 37 SHEETS

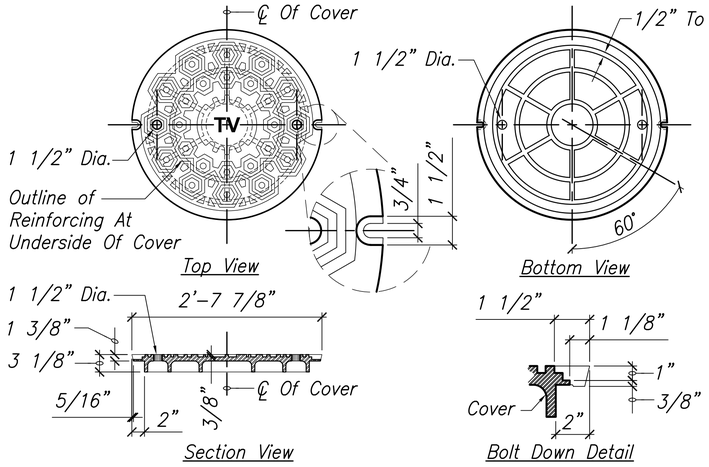
11/8/19-9:58 Y:\030\030.007\030.007 E-34.DT7.dwg

ADD.241

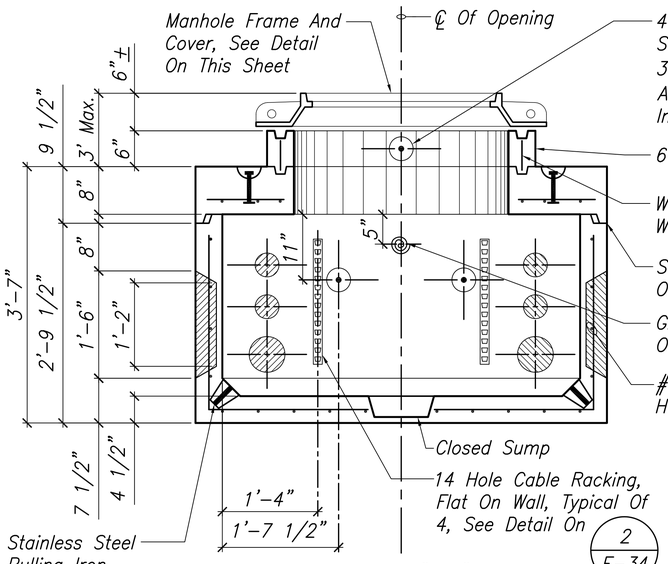
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.242	244



Plan View



CAST IRON MANHOLE COVER



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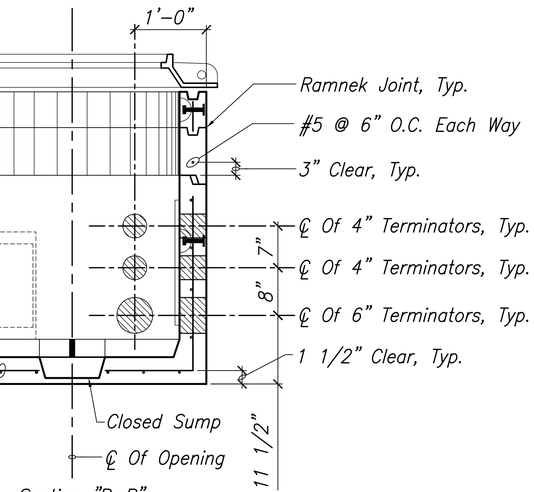

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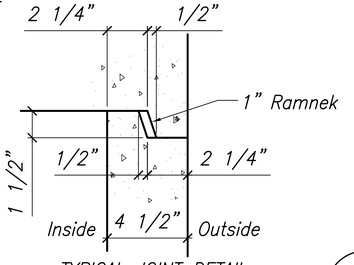
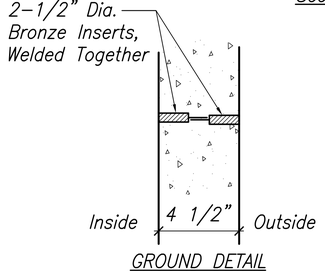
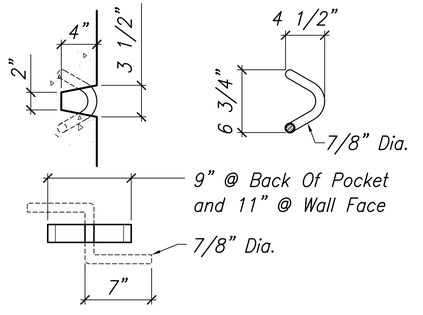


TYPICAL JOINT DETAIL



GROUND DETAIL



STAINLESS STEEL PULLING IRON

1 / E-35 — 3' x 5' SPECTRUM MANHOLE

Not To Scale

Notes:

1. Concrete Shall Have A Compressive Strength Of 5,000 PSI At 28 Days.
2. All Reinforcing Steel Shall Be New Stock Deformed Bars Conforming To ASTM A706W Grade 60 Unless Otherwise Noted. Placement Of Rebars Shall Be In Accordance With Project Specifications. All Bars Shall Be Clean Of Rust, Grease Or Other Materials Likely To Impair Bond. All Bends Shall Be Made Cold.
3. All Reinforcing Bars Shall Be Accurately And Securely Placed. All Reinforcing Shall Be Lapped 40 Bar Diameters Or Eighteen (18) Inches, Whichever Is Greater At Splices. All Splices Shall Be Made Away From Point Of Maximum Stress.
4. Concrete Cover to Reinforcing Steel Shall Be 1 1/2" Minimum.
5. Allow Concrete To Cure A Minimum Of 7 Days Prior To Shipping.
6. Structural Design Criteria:
   (a) AASHTO HS20-44 Loading
   (b) Active Earth Pressure Above The Water Table = 40 PCF
   (c) Soil Unit Weight = 110 PCF
7. Manhole Shall Not Be Placed Below The Water Table.
8. Manhole Shall Be Designed In Accordance With: AASHTO LRFD Bridge Design Specification, 4th Edition 2007, With 2008 And 2009 Interim Revisions. State Of Hawaii, Department Of Transportation "Design Criteria For Bridges And Structures", April 2008.

	Weight (lbs)	Concrete (C.Y.)
Base	3,900	0.87
Roof	1,800	0.38
Riser	600	0.15

APPROVED:

Spectrum — Date

MICHELE N. ADOLPHO LICENSED PROFESSIONAL ENGINEER No. 10017-E HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
LIC. EXP. DATE

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SPECTRUM 3' x 5' MANHOLE

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Shown — Date: July 2019

SHEET No. E-35 OF 37 SHEETS

ADD.242

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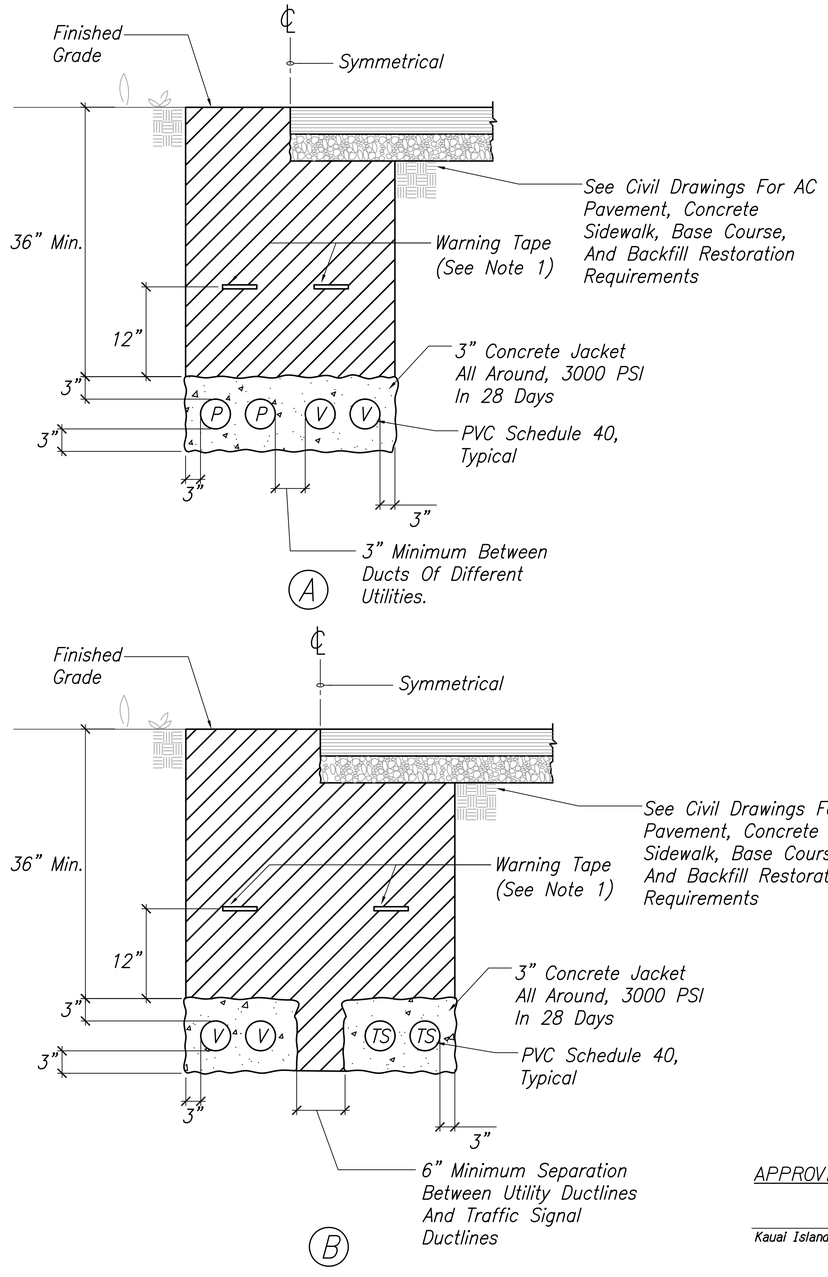
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.243	244



DUCT SCHEDULE

Type	Use	Size (PVC 40)	Cables
1	KIUC Secondary, PVC Schedule 40	4"	By KIUC, Provide Pullstring
2	KIUC Secondary, PVC Schedule 40	3"	By KIUC, Provide Pullstring
3	KIUC Secondary, PVC Schedule 40	2"	3#6
4	HT, PVC Schedule 40	2"	By Hawaiian Telcom, Provide Muletape
5	HT, PVC Schedule 40	1"	By Hawaiian Telcom, Provide Muletape
6	Spectrum, PVC Schedule 40	4"	By Spectrum, Provide Muletape
7	Spectrum, PVC Schedule 40	2"	By Spectrum, Provide Muletape
8	Traffic Signal, PVC Schedule 40	2"	12PR #19
9	Traffic Signal, PVC Schedule 40	2"	Spare, Provide Pullstring
10	KIUC Primary	6"	By KIUC, Provide Muletape

Notes:

1. 8 Mil Thick Colored Plastic Warning Tape. 3" Wide With Continuous Metallic Backing And Corrosion Resistant Foil Core Inscribed With: "CAUTION – ELECTRICAL LINE BURIED BELOW" In Black Lettering, Repeated At 36" Intervals Above Power Ductlines. Orange Colored Plastic Warning Tape Per HT Standard 34028 Above HT Ductlines And Warning Tape Per Spectrum Standard Above Spectrum Ductlines.
2. All Conduits In The Concrete Shall Be In Conduit Saddle. All Conduits Shall Be Tied Securely Into The Saddle, And All Saddles Shall Be Anchored Into The Ground So That The Conduits Do Not Float.

APPROVED:

Kauai Island Utility Cooperative — Date

Hawaiian Telcom — Date

Spectrum — Date

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

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APRIL 30, 2020
LIC. EXP. DATE

DATE	REVISION
11/12/19	⚠3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	⚠1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DUCT DETAILS

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Shown — Date: July 2019

SHEET No. E-36 OF 37 SHEETS

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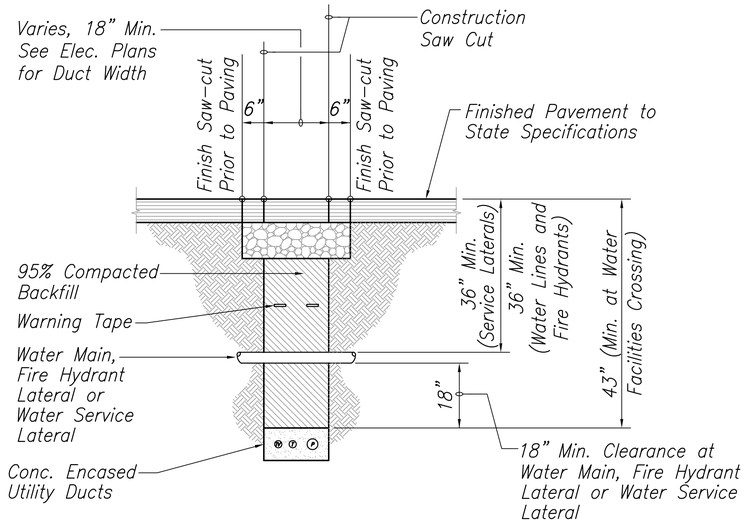
ADD.243

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUA'I	HAW.	NH-056-1(50)	2019	ADD.244	244



Water Notes:

1. The Contractor shall verify in the field the location of the existing water facilities prior to trenching. Excavation around existing water facilities shall be done by hand.

2. Material used for backfilling at the water facilities crossings shall not contain any stones, rocks, or other similar material and shall not contain vegetable matter or debris of any kind. No "Adobe" or similar material shall be used.

3. Provide concrete encasement for the conduits at all waterline, service lateral and fire hydrant crossings. The Contractor shall notify the Department of Water at least 24-hours prior to scheduling back filling operations at the water facilities crossings.

4. Provide 3-foot minimum distance of insitu soil between reaction blocks and excavation for ductlines.

1 / E-37 DETAIL AT WATER FACILITIES CROSSINGS
Not To Scale

MICHELE N. ADOLPHO
LICENSED PROFESSIONAL ENGINEER
No. 10017-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APRIL 30, 2020
LIC. EXP. DATE

APPROVED

MANAGER AND CHIEF ENGINEER, DEPARTMENT OF WATER, COUNTY OF KAUA'I — DATE

DATE	REVISION
11/12/19	3 Reissuing plan for legibility only. No design changes have been made.
9/20/19	1 Reissuing plan for legibility only. No design changes have been made.

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAIL AT WATER CROSSING

Kuhio Highway Short-Term Improvements
Kuamoo Road to Temporary Bypass Road
Fed. Aid Proj. No. NH-056-1(50)

Scale: As Shown Date: July 2019

SHEET No. E-37 OF 37 SHEETS

ADD.244

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