DEPARTMENT OF HAWAIIAN HOME LANDS
STATE OF HAWAII

CONSTRUCTION PLANS FOR:

VILLAGES OF LEIALI`I, PHASE 1B

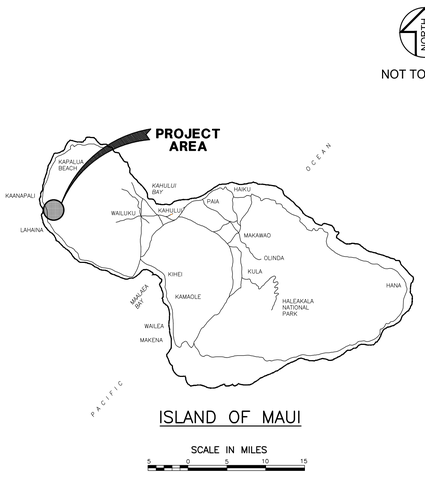
LAHAINA, MAUI, HAWAII

TAX MAP KEY: (2) 4-5-21: 020

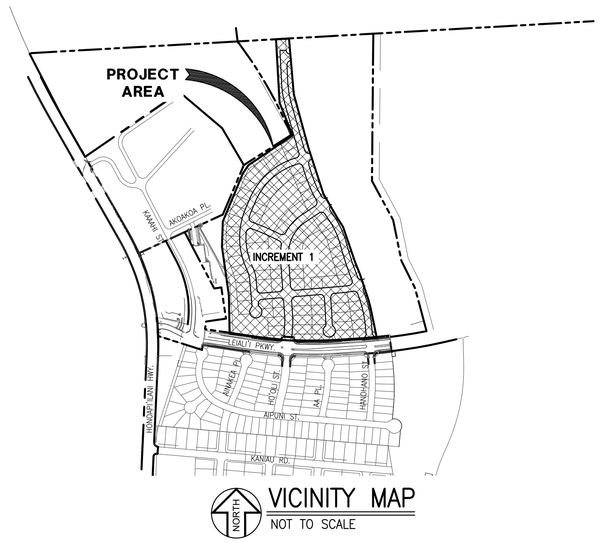
SUBDIVISION FILE NO. X.XXXX

DWS FILE NO. XX-XX

PROJECT LOCATION MAP



VICINITY MAP



CONSULTANTS

CIVIL ENGINEER:
AUSTIN TSUTSUMI & ASSOCIATES, INC.

ELECTRICAL ENGINEER:
ECM, INC.

SOILS ENGINEER:
HAWAII GEOTECHNICAL ENGINEERS, LTD.

LANDSCAPE ARCHITECT:
HAWAII LAND DESIGN

TELEPHONE ELECTRICAL ENGINEER:
ECM, INC.

APPROVED

DIRECTOR, DEPARTMENT OF PUBLIC WORKS, COUNTY OF MAUI — DATE

DIRECTOR, DEPARTMENT OF WATER SUPPLY, COUNTY OF MAUI (APPROVAL LIMITED TO IMPROVEMENTS WHICH WILL BE DEDICATED TO THE DEPARTMENT OF WATER SUPPLY) — DATE

J:\2018\18-552\engineering\DWG\C-0 1-1 TITLE SHEET.dwg

JOB NO. M-21-510

T-001

SHEET 1 OF XX

FILE	POCKET	FOLDER	NO.

INDEX OF DRAWINGS

ABBREVIATIONS

△	DELTA
&	AND
@	AT
A.C. OR A/C	ASPHALT CONCRETE
ADJ.	ADJUST
A.U.E	ACCESS AND UTILITY EASEMENT
AZ	AZIMUTH
℄	BASELINE
BC	BOTTOM CURB
BEG	BEGIN
BLDG.	BUILDING
BLK.	BLOCK
BOTT	BOTTOM
CATV	CABLE TELEVISION
C.B.	CATCH BASIN
℄	CENTERLINE
C.L.	CHAIN LINK
CLR.	CLEAR
CLVRT.	CULVERT
CONC	CONCRETE
CONT	CONTINUATION OR CONTINUOUS
C.O.	CLEAN OUT
ø, D	DIAMETER
DET.	DETAIL
D.I.	DRAIN INLET
D/L	DRAIN LINE
DMH	DRAIN MANHOLE
DU	DECISION UNITS
DWY. OR D/W	DRIVEWAY
EA	EACH
ELEV. OR EL	ELEVATION
EQ	EQUAL
EXIST.	EXISTING
EOP	EDGE OF PAVEMENT
EP	ELECTRIC POLE
FIN	FINISHED
FT	FEET
G.D.I.	GRATED DROP INLET
GRD.	GRADE
HT.	HEIGHT
HORIZ	HORIZONTAL
HP	HIGH POINT
INTER.	INTERSECTION
INV	INVERT ELEVATION
LAT.	LATERAL
LEN	LENGTH
LF	LINEAL FEET
LP	LIGHT POLE
LP	LOW POINT
LT	LEFT
MAX	MAXIMUM
MH	MANHOLE
MON	MONUMENT
NO.	NUMBER
NP	NON POTABLE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O/S	OFFSET
PAV'T	PAVEMENT
PED	PEDESTRIAN
PI	POINT OF INTERSECTION
PL.	PLACE
℄	PROPERTY LINE
R	RADIUS
RD.	ROAD
RT	RIGHT
R.O.W. OR R/W	RIGHT-OF-WAY
S	SLOPE
SDMH	STORM DRAIN MANHOLE
SF	SQUARE FOOT
SHT	SHEET
ST.	STREET
STA	STATION
STD	STANDARD
STRUCT	STRUCTURE
SVC.	SERVICE
S/W	SIDEWALK
T	TANGENT
TC	TOP CURB
TEMP	TEMPORARY
THK	THICK
TRAV	TRAVERSE
TRM	TURF REINFORCEMENT MAT
TYP	TYPICAL
W	WIDE
W/	WITH

LEGEND

NEW

D18

DI

14.50

TOP OF SLOPE

BOTTOM OF SLOPE

EXISTING

E/D18

DI

GA PP#5

GUARD RAIL

14.50

CULVERT/ DRAINLINE	
LIMITS OF GRADING	
DRAIN INLET	
HEADWALL	
CRM OUTLET	
LAMP POLE OR STREET LIGHT STANDARD	
POWER POLE, GUY ANCHOR	
GUARD RAIL	
PAVEMENT STRIPING	
PAVEMENT ARROW	
CROSSWALK	
SPOT ELEVATION	
DIRECTION OF SURFACE FLOW	
SIGNS TO BE REMOVED	
PROPERTY LINE	
BOX CULVERT	
SLOPE GRADING	

ADRIENNE W.L.H. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 16-115-2, HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

LICENSE EXPIRES: APRIL 30, 2024

0 1 2

LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-001**

SHEET 2 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

INDEX OF DRAWINGS, ABBREVIATIONS, LEGENDS AND NOTES

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY DATE

SUBMITTED BY FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

DATE: SEPTEMBER 2023

JOB NO. 18-522

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WASTEWATER NOTES

1. ALL WASTEWATER LINES AND APPURTENANCES SHALL CONFORM TO STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, DATED SEPTEMBER 1984, OF THE DEPARTMENT OF PUBLIC WORKS, COUNTY OF MAUI.
2. ALL SEWERLINE AND APPURTENANCES SHALL FOLLOW THE DESIGN STANDARDS OF THE WASTEWATER RECLAMATION DIVISION, CITY AND COUNTY OF HONOLULU, VOLUMES 1 & 2, DATED JULY 1993 AND JULY 1984 RESPECTIVELY, UNLESS OTHERWISE NOTED.
3. ALL WASTEWATER LINES AND APPURTENANCES INSTALLATIONS SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION DATED SEPTEMBER 1986. IF ANY CONFLICTS ARISE BETWEEN THE STANDARD DETAILS, DESIGN STANDARDS AND THE STANDARD SPECIFICATIONS, THE STRICTEST STANDARD SHALL APPLY, UNLESS APPROVED OTHERWISE.
4. BEFORE CONSTRUCTION COMMENCES, THE CONTRACTOR SHALL SCHEDULE AND DOCUMENT A PRE CONSTRUCTION MEETING WITH ALL AGENCIES HAVING UTILITIES AFFECTED BY THE WORK.
5. CONTRACTOR MUST HAVE A SITE SPECIFIC SPILL PREVENTION PLAN (SSSPP) APPROVED BY WWRD PRIOR TO SEWER LINE CONSTRUCTION AND/OR SEWER LATERAL CONNECTION TO EXISTING FACILITIES, OR ANY WORK WITHIN FIVE (5) FEET OF WASTEWATER SYSTEM IMPROVEMENTS.
6. THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, WASTEWATER RECLAMATION DIVISION, HAS THE RIGHT TO STOP CONSTRUCTION, SHOULD ANY WORK BE FOUND CONTRARY TO THE APPROVED PLANS AND SPECIFICATIONS, OR DETRIMENTAL TO THE PUBLIC INTEREST.
7. ALL EXISTING WASTEWATER LINES, WHETHER OR NOT SHOWN ON THE PLANS, IF DAMAGED DURING CONSTRUCTION, SHALL BE REPAIRED BY THE CONTRACTOR AND THE CONTRACTOR SHALL PAY ALL EXPENSES.
8. THE CONTRACTOR SHALL NOTIFY THE WASTEWATER RECLAMATION DIVISION FIVE (5) WORKING DAYS PRIOR TO CONNECTION TO ANY EXISTING WASTEWATER LINES WITHIN THE COUNTY OF MAUI.
9. SHOULD THE CONTRACTOR EXCAVATE BEYOND THE TRENCH PAY WIDTH, AS SPECIFIED IN THE STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, DATED SEPTEMBER 1984, AND SUCH ACTION RESULTS IN A GREATER LOAD TO THE PIPE, THE CONTRACTOR SHALL PROVIDE, AT THE CONTRACTOR'S EXPENSE, A HIGHER CLASS OF BEDDING MATERIAL THAT WILL WITHSTAND THE ADDED LOAD.
10. WASTEWATER LATERALS SHALL BE SIX (6) INCHES IN DIAMETER AT A 2% SLOPE, UNLESS APPROVED OTHERWISE.
11. AN ADVANCE RISER CONNECTION SHALL BE INSTALLED AT EACH NEW WASTEWATER LATERAL.
12. WHERE THE CLEARANCE BETWEEN A WASTEWATER LINE AND A NEW OR EXISTING UTILITY LINE IS LESS THAN EIGHTEEN (18) INCHES, THE WASTEWATER LINE SHALL BE PROTECTED WITH A REINFORCED CONCRETE JACKET IN ACCORDANCE WITH THE STANDARD DETAILS OF PUBLIC WORKS CONSTRUCTION, DATED SEPTEMBER 1984.
13. WHEN THE WASTEWATER MAINS ARE OF A DIFFERENT MATERIAL THAN THE LATERALS, THE CONTRACTOR SHALL INSTALL APPROVED ADAPTERS.
14. ALL BACKFILL FOR WASTEWATER TRENCHES SHALL BE COMPACTED IN ONE (1) FOOT LIFTS TO A MINIMUM OF 95% OF ITS MAXIMUM DENSITY.
15. WHERE CONSTRUCTION IS TO BE DONE IN PHASES OR INCREMENTS, EACH PHASE OR INCREMENT SHALL BE APPROVED BY WASTEWATER RECLAMATION DIVISION BEFORE THE NEXT PHASE OR INCREMENT IS STARTED.
16. ALL WASTEWATER MAINS SHALL PASS A MANDREL TEST AS A CONDITION OF ACCEPTANCE 30 DAYS AFTER COMPLETION AND BACKFILL. THE MANDREL DIAMETER SHALL BE 95% OR MORE OF THE INSIDE DIAMETER OF THE PIPE BEING TESTED.
17. "AS BUILT" DRAWINGS SHALL BE SUBMITTED AS A CONDITION FOR THE FINAL ACCEPTANCE OF THE PROJECT.
18. PRIOR TO INSPECTION BY CLOSED CIRCUIT TELEVISION (CCTV), ALL WASTEWATER LINES INSTALLED, INCLUDING LATERALS, SHALL BE FLUSHED WITH WATER AND ANY ACCUMULATED CONSTRUCTION DEBRIS AND OTHER FOREIGN MATERIALS SHALL BE REMOVED.
19. ALL MAIN WASTEWATER LINES WHICH WILL BE DEDICATED TO THE COUNTY OF MAUI SHALL BE INSPECTED BY CCTV IN STRICT ACCORDANCE WITH DEPARTMENT OF PUBLIC WORKS CCTV POLICY, EFFECTIVE DATE JULY 15, 2001. FINAL ACCEPTANCE OF THE SYSTEM SHALL BE CONTINGENT UPON THE PASSING OF ALL REQUIREMENTS OF THIS POLICY. CCTV RESULTS SHOULD BE SUBMITTED ON DVD PER MEMO DATED OCTOBER 22, 2015. SHOULD ANY OF THE SEWER LATERALS FAIL TO PASS A VISUAL INSPECTION, THEN A CCTV OF ALL LATERALS WILL ALSO BE REQUIRED.
20. ANY CONNECTION MADE UNDER THE WATER TABLE WILL REQUIRE CCTV AT HIGH TIDE TO DETERMINE WATER TIGHTNESS IN ACCORDANCE WITH DEPARTMENT OF PUBLIC WORKS CCTV POLICY, EFFECTIVE DATE JULY 15, 2001. FINAL ACCEPTANCE OF THE SYSTEM SHALL BE CONTINGENT UPON THE PASSING OF ALL REQUIREMENTS OF THIS POLICY.
21. CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING THE GPS COORDINATES OF ALL BURIED AND CONCEALED WORK TO BE DEDICATED TO THE COUNTY, AND PROVIDE THE GPS DATA TO THE COUNTY PRIOR TO THE PROJECT'S FINAL ACCEPTANCE. AN ACCURATE GPS POINT EVERY (50) FEET ALONG THE MAIN LINE, AT UTILITY CROSSINGS, AND AT ANY INSTALLED APPURTENANCE (INCLUDING BUT NOT LIMITED TO MANHOLES, BENDS, CONCRETE JACKET, CLEANOUT, PIPE DEVIATIONS, CHANGE IN PIPE SIZE, CRITICAL JOINTS, ARV, ETC.). GPS DATA SHALL BE IN NAD 1983 STATE PLANE HAWAII ZONE 2 FIPS 5102 GRID, AND SHALL BE ACCURATE TO WITHIN ONE (1) FOOT. ACQUIRED GPS SURVEY DATA SHALL BE QUALITY CHECKED BY THE CONTRACTOR PRIOR TO SUBMISSION IN SHAPEFILE (.SHP) FORMAT, FOR COMPATIBILITY WITH MAINSTREAM GIS SOFTWARE SUCH AS ESRI ARCMAP.

WATER NOTES

1. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF WATER SUPPLY (DWS), IN WRITING, ONE (1) WEEK PRIOR TO COMMENCEMENT OF WORK.
2. IF CONSTRUCTION OF WATER SYSTEM IMPROVEMENTS WILL AFFECT DWS CONSUMERS, CONTRACTOR SHALL NOTIFY CONSUMERS BY RADIO/NEWSPAPER TWO (2) DAYS BEFORE AND ON DAY OF CONNECTION. CONTRACTOR SHALL ALSO NOTIFY CONSUMERS HOUSE-TO-HOUSE ONE (1) DAY BEFORE CONNECTION WORK.
3. ALL MATERIALS USED AND METHODS OF CONSTRUCTION OF WATER SYSTEM FACILITIES SHALL BE IN ACCORDANCE WITH THE LATEST REVISIONS OF DWS WATER SYSTEM STANDARDS. CONTRACTOR SHALL OBTAIN THE LATEST REVISIONS OF THE DWS STANDARD DETAILS BEFORE COMMENCING CONSTRUCTION.
4. ALL WATER SYSTEM WORK SHALL BE PERFORMED BY CONTRACTORS POSSESSING VALID STATE OF HAWAII CONTRACTOR'S LICENSES, REGARDLESS OF THE VALUE OF THE WORK.
5. CONTRACTOR SHALL FOLLOW ALL LOCAL, STATE, FEDERAL LAWS, RULES AND REGULATIONS REGARDING THE HANDLING, REMOVAL AND DISPOSAL OF ASBESTOS PIPE.
6. CONTRACTOR SHALL PROTECT EXISTING WATERLINE DURING COURSE OF CONSTRUCTION AND SUPPORT EXPOSED WATERLINE TO PREVENT ANY MOVEMENT.
7. THE EXACT DEPTH AND LOCATION OF EXISTING WATERLINES, SERVICE LATERALS AND OTHER UTILITIES ARE NOT KNOWN. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE SAME PRIOR TO TRENCHING FOR THE NEW WATERLINE. THE COST OF LOWERING, RELOCATING OR ADJUSTING EXISTING WATERLINES, SERVICE LATERALS AND APPURTENANCES, WHETHER SHOWN OR NOT SHOWN ON THE CONSTRUCTION PLANS AT THE CONTRACTOR'S EXPENSE.
8. PAVEMENT RESURFACING/RESTORATION:
   A. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING DWS VALVES AND MANHOLES, WHEN AFFECTED BY THE WORK, PRIOR TO START OF CONSTRUCTION.
   B. ALL WATER VALVE AND WATER MANHOLE CONCRETE COLLARS WITHIN THE PROJECT LIMITS SHALL BE DEMOLISHED AND RECONSTRUCTED PER DWS STANDARD DETAIL V12 AND V23, RESPECTIVELY, AT THE CONTRACTOR'S EXPENSE.
   C. THE VALVE BOX RISER AND COVER OF ALL WATER VALVES WITHIN THE PROJECT LIMITS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
   D. CONTRACTOR SHALL ADJUST DWS SLIDING VALVE BOX ASSEMBLY AND MANHOLE FRAME AND COVER TO FINSHED GRADE.
   E. PRIOR TO PAVEMENT RESUFACING/RESTORATION WORK, THE CONTRACTOR SHALL SCHEDULE INSPECTION WITH DWS.
9. ANY SLIDING VALVE BOX ASSEMBLY, MANHOLE COVER, OR CONCRETE COLLAR, WHETHER DISCOVERED DAMAGED OR NOT SPECIFIED ON THE PLANS TO BE ADJUSTED OR REPLACED, SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
10. CONTRACTOR SHALL ADJUST TO FINISHED GRADES, ALL UTILITIES (i.e., WATER, SEWER, DRAIN, etc.) AFFECTED BY THE WORK WHETHER SHOWN OR NOT SHOWN ON THE CONSTRUCTION PLANS AT THE CONTRACTOR'S EXPENSE.
11. CONTRACTOR SHALL RESTORE ALL ROAD IMPROVEMENTS DISTURBED OR DAMAGED DURING CONSTRUCTION IN ACCORDANCE WITH THE 2005 "HAWAII STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AS AMENDED, TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS AT THE CONTRACTOR'S EXPENSE. ROAD IMPROVEMENTS INCLUDE, BUT AT NOT LIMITED TO, PAVEMENT, PAVEMENT MARKERS, SHOULDER DRESSING, STRIPING, AND SPEED HUMPS.
12. CONCRETE FOR REACTION BLOCKS AND ANCHOR BLOCKS SHALL BE DWS CLASS 2500.
13. THE MAXIMUM DISTANCE BETWEEN VALVE NUT AND TOP OF MANHOLE COVER SHALL BE THREE (3) FEET.
14. CONTRACTOR SHALL SUBMIT A MATERIALS LIST TO DWS FOR APPROVAL PRIOR TO CONSTRUCTION.
15. CONNECTION TO DWS SYSTEM:
   A. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL NECESSARY FITTINGS AND OTHER MATERIALS AND EQUIPMENT REQUIRED FOR THE HOOK-UP. CONTRACTOR SHALL VERIFY THE EXACT LOCATION, DEPTH, TYPE, AND CONDITION OF THE EXISTING LINE BEFORE ORDERING MATERIALS FOR THE HOOK-UP. CONTRACTOR SHALL, HOWEVER, CHECK WITH DWS BEFORE EXCAVATING FOR VERIFICATION PURPOSES.
   B. WHENEVER FEASIBLE, MECHANICAL JOINT FITTINGS SHALL BE USED FOR BURIED APPLICATIONS, AND FLANGED JOINT FITTINGS SHALL BE USED FOR EXPOSED APPLICATIONS.
   C. DWS PERSONNEL MAY BE REQUIRED TO BE PRESENT OR ASSIST WITH CONNECTIONS TO THE EXISTING WATER SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED BY DWS FOR SAID WORK.
   D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIAL, EQUIPMENT AND LABOR FOR TRENCH EXCAVATION, BACKFILLING, CLEANING AND CHLORINATION, PAVING, AND OTHER WORK NECESSARY TO COMPLETE THE HOOK-UP, AS DIRECTED BY AND TO THE SATISFACTION OF DWS.

WATER NOTES (CONT.)

16. MINIMUM COVER OVER WATER MAIN, 6" DIAMETER OR LARGER, SHALL BE 3'-0". MINIMUM COVER FOR 4" DIAMETER SHALL BE 2'-6". MINIMUM COVER FOR DIAMETERS LESS THAN 4" SHALL BE 1'-6".
17. CONTRACTOR SHALL ENSURE INSTALLATION OF WATERLINES, SERVICE LATERALS AND APPURTENANCES HAVE PROPER CLEARANCES FROM EXISTING TREES, WALLS, FENCES, ETC., IN ACCORDANCE WITH CURRENT DWS WATER SYSTEM STANDARDS.
18. CONTRACTOR SHALL VERIFY AND MAINTAIN 18" MINIMUM CLEARANCE WITH WATERLINE OR SERVICE LATERAL CROSSING OVER EXISTING SEWERLINE OR SERVICE LATERAL. INSTALL REINFORCED CONCRETE JACKET AROUND SEWERLINE WHERE SEWER IS ABOVE WATERLINE OR LESS THAN 18" BELOW WATERLINE. THE LENGTH OF JACKET REQUIRED SHALL BE AS SPECIFIED IN TABLE 100-5 OF THE DWS STANDARDS. PROVIDE 6" MINIMUM CLEARANCE FROM OUTSIDE JACKET TO WATERLINE OR SERVICE LATERAL. STANDARD CONCRETE JACKET DETAILS FOR SEWERLINE AS SPECIFIED BY THE DEPARTMENT OF PUBLIC WORKS STANDARDS SHALL BE FOLLOWED.
19. CONTRACTOR SHALL HAVE LICENSED SURVEYOR STAKE OUT WATERLINE BASELINE STATIONING, RIGHT-OF-WAY LIMITS, PROPERTY LINES, AND EASEMENT LINES TO ENSURE PROPER LOCATION OF WATER SYSTEM IMPROVEMENTS.
20. BOLTS FOR EXPOSED FLANGED DUCTILE IRON PIPE JOINTS SHALL BE EITHER SILICON BRONZE BOLTS & NUTS OR 316 STAINLESS STEEL BOLTS WITH THE HEAVY-DUTY STAINLESS STEEL NUTS (ONLY) FURNISHED WITH TRIPAC 2000 BLUE COATING SYSTEM. ANTI-SEIZE SHALL NOT BE USED. T-BOLTS FOR DUCTILE IRON MECHANICAL JOINT (MJ) PIPE AND FITTING CONNECTIONS IN UNDERGROUND SITUATIONS SHALL BE ONE OF THE FOLLOWING SYSTEMS:
   A. 316 STAINLESS STEEL T-BOLTS WITH HEAVY-DUTY STAINLESS STEEL NUTS (ONLY) FURNISHED WITH TRIPAC 2000 COATING SYSTEM. ANTI-SEIZE SHALL NOT BE USED.
   B. COR-TEN T-BOLTS AND NUTS WITH HIGH GRADE ZINC SACRIFICIAL ANODES, EQUIVALENT TO "DURATRON" SACRIFICIAL "SAC-NUT" MODULES, INSTALLED ON THE NUTS FOR ALL STANDARD COR-TEN T-BOLTS.
   C. COR-TEN T-BOLTS AND NUTS BOTH FACTORY COATED WITH TRIPAC 2000 BLUE COATING SYSTEM BY "TRIPAC FASTENERS".

   ALL HOT FORGED STAINLESS STEEL BOLTS ARE REQUIRED TO BE PASSIVATED PER ASTM A380. MANUFACTURER CERTIFICATES ARE REQUIRED FOR PROOF WITH EACH SHIPMENT.
21. CONTRACTOR SHALL FURNISH AND INSTALL DUCTILE IRON NIPPLES FOR COMPLETE INSTALLATION OF THE WATERLINE, WHETHER SHOWN OR NOT SHOWN ON THE CONSTRUCTION PLANS, AT THE CONTRACTOR'S EXPENSE.
22. CONTRACTOR SHALL FURNISH TEMPORARY CLEANOUTS WHEN NECESSARY TO TEST, FLUSH, AND CHLORINATE THE WATERLINE AT THE CONTRACTOR'S EXPENSE.
23. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL PORTIONS OF ABANDONED WATERLINES THAT ARE EXPOSED OR WITHIN 12-INCHES BELOW THE GROUND SURFACE AT THE CONTRACTOR'S EXPENSE.
24. ALL BURIED METALS, INCLUDING COPPER PIPES, SHALL BE WRAPPED WITH POLY-WRAP. FOR ALL BURIED INSTALLATIONS OF DUCTILE IRON PIPE AND FITTINGS, POLY-WRAP IS REQUIRED EXCEPT WITHIN CONCRETE JACKETS.
25. LUBRICATE HYDRANT NOZZLE THREADS WITH NON-TOXIC GREASE.
26. CONTRACTOR SHALL PAINT AND NUMBER THE FIRE HYDRANT(S). NUMBERING TO BE FURNISHED BY DWS.
27. WATER MAINS AND APPURTENANCES SHALL BE SUBJECT TO HYDROSTATIC TESTING IN ACCORDANCE WITH THE LATEST REVISION OF AWWA C600, UNDER THE "HYDROSTATIC TESTING" SECTION, TO A PRESSURE OF AT LEAST 1.5 TIMES THE WORKING PRESSURE. UNLESS OTHERWISE STATED IN THE CONSTRUCTION DOCUMENTS OR LIMITED BY THE PRESSURE RATING OF EQUIPMENT, THE PRESSURE TEST AND LEAKAGE TEST SHALL BE PERFORMED AT 225 POUNDS PER SQUARE INCH PRESSURE.
28. DEVELOPER SHALL SUBMIT A COST LIST ALONG WITH AN AFFIDAVIT FOR THE WATER SYSTEM PRIOR TO ACCEPTANCE.
29. CONTRACTOR SHALL SUBMIT (1) SET OF RECORD DRAWINGS VIA A CONSULTANT PRIOR TO ACCEPTANCE OF THE WATER SYSTEM. AN ELECTRONIC IMAGE FILE IN PDF FORMAT AT FULL PAGE SIZE (24"x36") SHALL BE PROVIDED TO THE DWS FOR ALL PROJECTS.

CHLORINATION OF WATER SYSTEMS

1. WATER MAINS AND APPURTENANCES SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C651. ALL PROCEDURES AND MATERIALS (LIQUID CHLORINE OR CALCIUM HYPOCHLORITE) USED FOR THE CHLORINATION OF THE PROJECT SHALL CONFORM TO AWWA REQUIREMENTS.
2. PRIOR TO CHLORINATION, THE PROJECT PIPELINES SHALL BE THOROUGHLY CLEANED. CLEANING OF LINES 8" AND LARGER SHALL BE BY PIGGING USING FOAM PIGS. SMALLER LINES CAN BE FLUSHED IN ACCORDANCE WITH AWWA REQUIREMENTS IF ADEQUATE WATER SUPPLY IS PROVIDED, OTHERWISE BY PIGGING. THE CONTRACTOR SHALL SUBMIT HIS PLAN FOR PIPELINE CLEANING, INCLUDING FITTING REQUIREMENTS FOR PIGGING, FOR APPROVAL PRIOR TO PROCEEDING.
3. THE INTERIOR SURFACE OF THE PROJECT SHALL BE EXPOSED TO THE CHLORINATING SOLUTION FOR A MINIMUM OF 24 HOURS AND THE CHLORINE RESIDUAL SHALL NOT BE LESS THAN 10 PPM AFTER SUCH TIME.
4. SHOULD CALCIUM HYPOCHLORITE BE USED, NO SOLID AND/OR UNDISSOLVED PORTION OF THE COMPOUND SHALL BE INTRODUCED INTO ANY SECTION OF THE PROJECT TO BE CHLORINATED.
5. AT THE END OF THE 24-HOUR DISINFECTION PERIOD, REPRESENTATIVE SAMPLES SHALL BE TAKEN AND ANALYZED TO ASSURE A CHLORINE RESIDUAL OF AT LEAST 10 PPM. MEASUREMENTS FOR CHLORINE RESIDUAL TESTS SHALL BE BY A TRAINED, QUALIFIED TESTER APPROVED BY THE DIRECTOR.
6. SHOULD THE RESULTS INDICATE ADEQUATE CHLORINATION, THE PROJECT SHALL BE THOROUGHLY FLUSHED AND FILLED WITH POTABLE WATER FROM THE EXISTING POTABLE WATER SYSTEM AND AGAIN TESTED FOR CHLORINE RESIDUAL. THE FLUSHING SHALL BE CONSIDERED ADEQUATE IF THE TEST RESULTS INDICATE THAT THE WATER IN THE PROJECT HAS A COMPARABLE CHLORINE RESIDUAL AS THE WATER IN THE EXISTING SYSTEM.
7. FOLLOWING THE ACCEPTABLE FLUSHING OF THE HIGH CONCENTRATION CHLORINE SOLUTION, TWO CONSECUTIVE SETS OF ACCEPTABLE SAMPLES SHALL BE TAKEN AT LEAST 24 HOURS APART FROM REPRESENTATIVE POINTS IN THE PROJECT AND SUBJECTED TO MICROBIOLOGICAL TESTS PERFORMED BY A CERTIFIED LABORATORY APPROVED BY THE DEPARTMENT OF HEALTH. AT LEAST ONE SET OF SAMPLES SHALL BE COLLECTED AND TESTED FROM EVERY 1,200 FEET OF THE NEW WATER MAIN, PLUS ONE SET FROM THE END OF THE LINE AND AT LEAST ONE SET FROM EACH BRANCH. POSITIVE RESULTS WILL NOT BE ACCEPTABLE AND THE ENTIRE CHLORINATION PROCESS WILL BE REPEATED.
8. ANALYSIS FOR RESIDUAL CHLORINE SHALL BE MADE IN ACCORDANCE WITH "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER", AMERICAN PUBLIC HEALTH ASSOCIATION, CURRENT EDITION.
9. MICROBIOLOGICAL TESTS SHALL BE MADE IN ACCORDANCE WITH "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER", AMERICAN PUBLIC HEALTH ASSOCIATION, CURRENT EDITION.
10. THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ALL OF THE FOREGOING.

TEMPORARY EROSION CONTROL MEASURES

1. TEMPORARY GROUND COVER SHALL BE APPLIED WITHIN A PERIOD OF 14 CALENDAR DAYS AFTER THE SITE HAS BEEN GRADED, OR BARED OF VEGETATION, OR IF FINAL GRADING OF THE SITE WILL BE SUSPENDED FOR MORE THAN 21 CALENDAR DAYS. ALL COST FOR MAINTAINING IRRIGATING AND REMOVING TEMPORARY EROSION CONTROL MEASURES WILL BE BORNE BY THE CONTRACTOR.
2. THE CONTRACTOR MAY USE HYDRO-MULCH TO APPLY THE TEMPORARY GROUND COVER.
3. TEMPORARY GROUND COVER SHALL CONSIST OF 2,000 LBS. PER ACRE WOOD CELLULOSE FIBER MULCH AND 65 LBS. PER ACRE TACKIFIER.

PERMANENT EROSION CONTROL MEASURES

1. THE CONTRACTOR SHALL GRASS ALL EXPOSED AREAS THAT HAVE BEEN CONSTRUCTED TO FINAL GRADES WITHIN A PERIOD OF 14 CALENDAR. ALL COSTS FOR MAINTAINING AND WATERING PERMANENT EROSION CONTROL MEASURES WILL BE BORNE BY THE CONTRACTOR.
2. THE CONTRACTOR MAY USE HYDRO-MULCH TO APPLY THE PERMANENT GROUND COVER.
3. PERMANENT BERMUDA GROUND COVER SHALL CONSIST OF 75 LBS. PER ACRE BERMUDA GRASS, 50 LBS. PER ACRE RYE GRASS, 6,000 LBS. PER ACRE GYPSUM BASED GEOBINDER, 2,000 LBS. PER ACRE WOOD CELLULOSE FIBER MULCH, AND 400 LBS. PER ACRE 10-30-10 FERTILIZER.
4. PERMANENT GROUND COVER ALONG NATURAL DRAINAGEWAYS SHALL CONSIST OF 100 LBS. PER ACRE BERMUDA GRASS, 50 LBS. PER ACRE RYE GRASS, 1,500 LBS. PER ACRE WOOD CELLULOSE FIBER MULCH, 400 LBS. PER ACRE 10-30-10 FERTILIZER, AND PERMANENT EROSION CONTROL/TURF REINFORCEMENT MATTING.

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No. 6378
HAWAI'I, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 16-115-2, HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(if NOT 2-inches : Scale Accordingly)

DWG. NO. **C-002**
SHEET 3 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

CONSTRUCTION NOTES

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY _____ DATE
SUBMITTED BY _____ FIRM NUMBER _____ DATE

FILE	POCKET	FOLDER	NO.

DATE: SEPTEMBER 2023

JOB NO. 18-522

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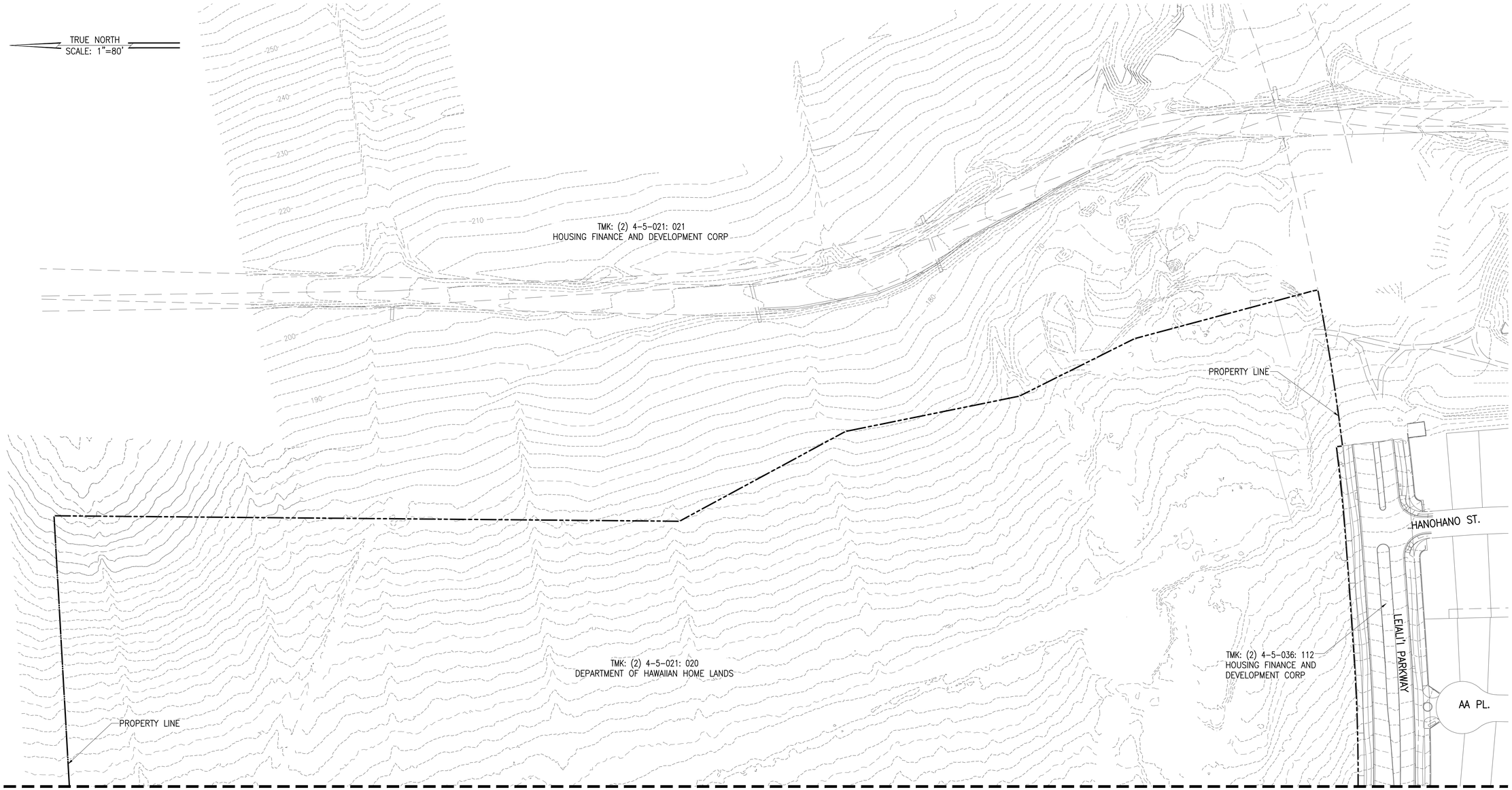

TOPOGRAPHIC AND BOUNDARY PLAN – 1

SCALE: 1"=80'

ADRIENNE W.L.H. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 16-115-2, HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-003**

SHEET 4 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

TOPOGRAPHIC AND BOUNDARY PLAN – 1

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY DATE

SUBMITTED BY
FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

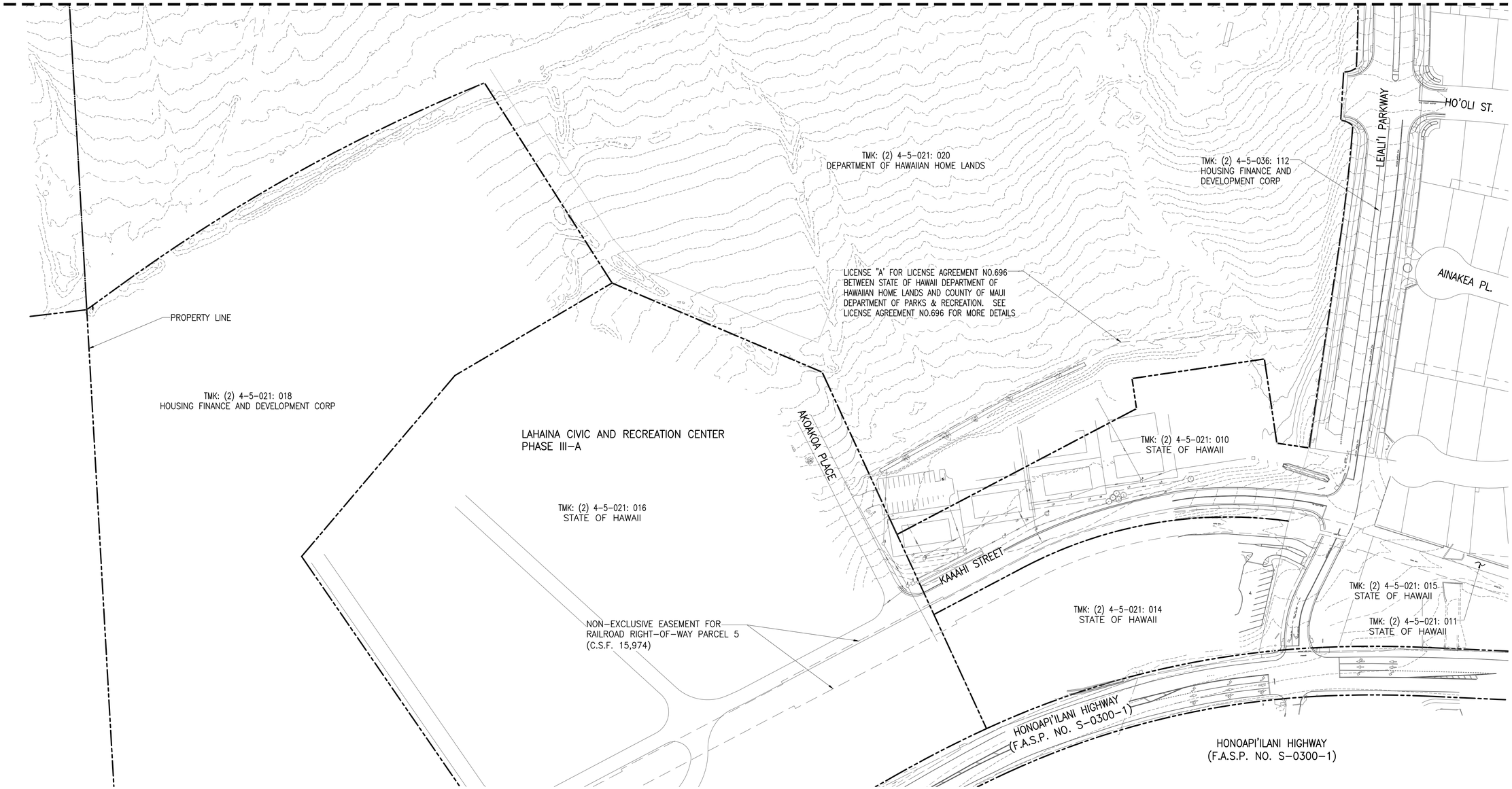
JOB NO. 18-522

DATE: SEPTEMBER 2023

J:\2018\18-522\engineering\DWG\C-003 TOPOGRAPHIC AND BOUNDARY PLAN - 1.dwg

TRUE NORTH
SCALE: 1"=80'

FOR CONTINUATION, SEE DWG. C-003
MATCH LINE



TOPOGRAPHIC AND BOUNDARY PLAN – 2

SCALE: 1"=80'

ADRIENNE W.LH. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-004**
SHEET 5 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B
TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

TOPOGRAPHIC AND BOUNDARY PLAN – 2

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

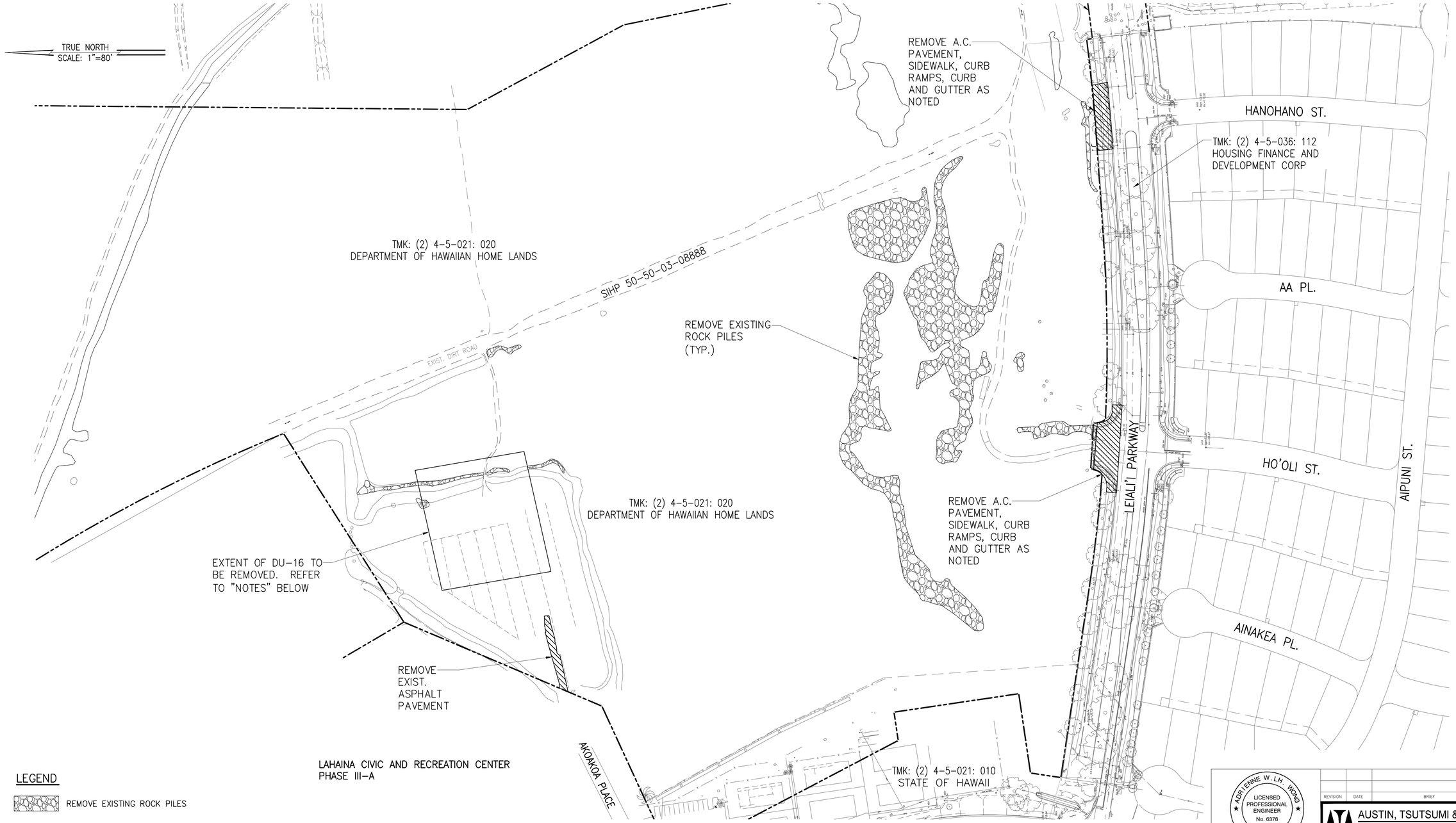
APPROVED BY DATE
SUBMITTED BY FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

DATE: SEPTEMBER 2023

z:\2018\18-522\engineering\18WP\C-004 TOPOGRAPHIC AND BOUNDARY PLAN - 2.dwg



LEGEND

REMOVE EXISTING ROCK PILES

NOTES:

1. PREPARE AN ARCHAEOLOGICAL MONITORING REPORT FOR SIHP 50-50-03-08888. AMP SHALL BE SUBMITTED TO STATE HISTORIC PRESERVATION.
2. REMOVE ALL ABANDONED VEHICLES, SHIPPING CONTAINERS, AND DISPOSE OF AT ACCEPTABLE LOCATION.
3. PRIOR TO GRUBBING, CONTRACTOR SHALL REMOVE 6" OF IMPACTED SOILS FROM SHALLOW INTERVAL OF DU 16; DISPOSE OF IT AT AN ACCEPTABLE LANDFILL; CONDUCT CONFIRMATION SAMPLING TO DEMONSTRATE THAT RRO NO LONGER REMAINS AT THIS LOCATION.

DEMOLITION PLAN

SCALE: 1"=80'

ADRIENNE W.LH. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
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DWG. NO. C-005

SHEET 6 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

DEMOLITION PLAN

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY — DATE — SUBMITTED BY — FIRM NUMBER — DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

DATE: SEPTEMBER 2023

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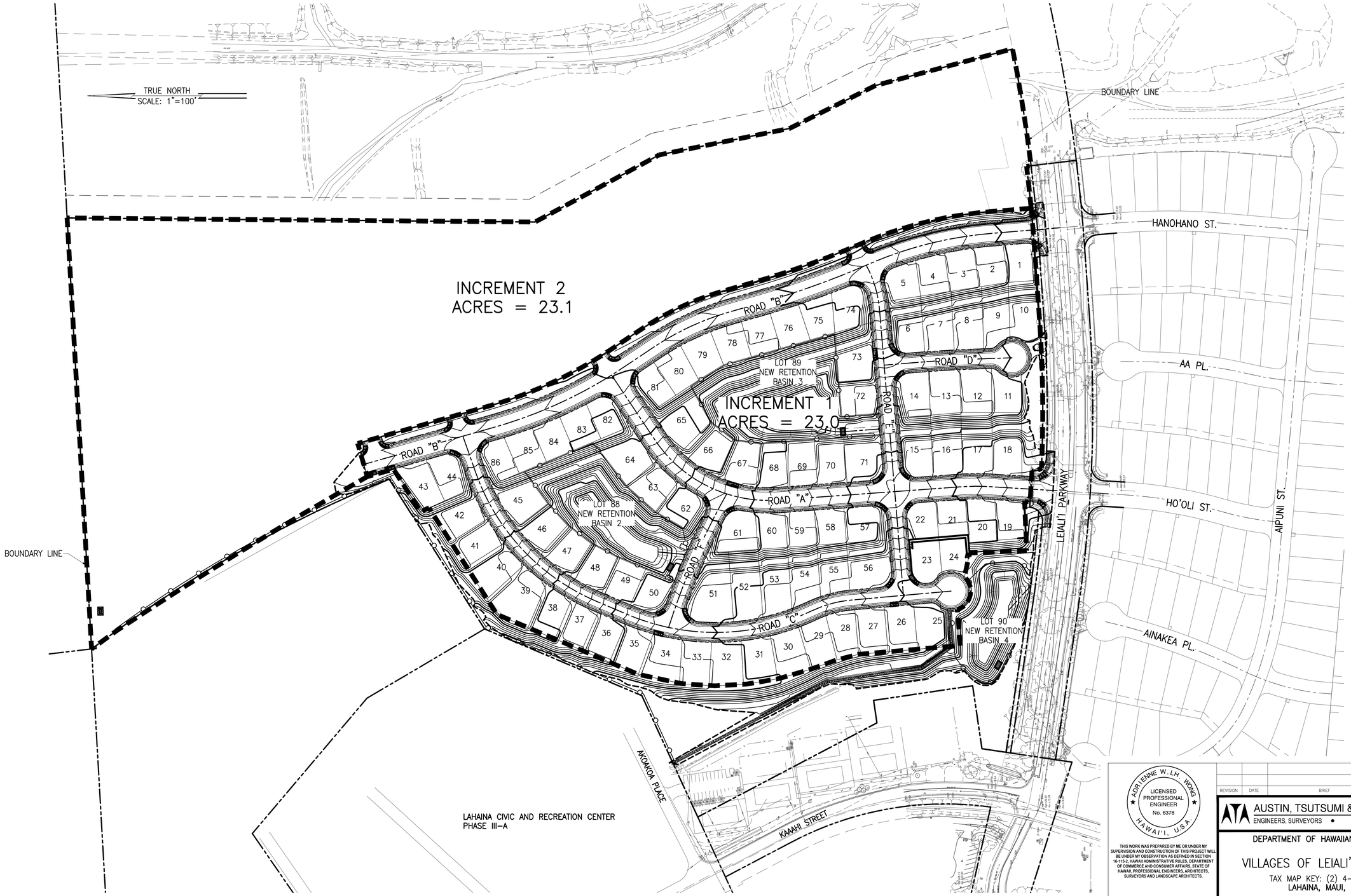

PROJECT PHASING PLAN

SCALE: 1"=100'

ADRIENNE W.LH. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
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(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-006**

SHEET 7 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

PROJECT PHASING PLAN

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY DATE

SUBMITTED BY
FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

DATE: SEPTEMBER 2023

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STANDARD PLANS SUMMARY

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 & COMPRESSION SPLICE	05/31/07
	CAN DETAILS	
B-12A	PRESTRESSED CONCRETE PILES, PILE & COMPRESSION	05/31/07
	SPLICE CAN DETAILS & NOTES	
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 DETAILS 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

L-01	TREE PLANTING	08/16/06
L-02	TREE PLANTING	08/16/06
L-03	TREE TRANSPLANTING	08/16/06
L-04	PALM PLANTING	08/16/06
L-05	SHRUB PLANING	08/16/06
L-06	LANDSCAPE DETAILS	08/16/06
L-07	LANDSCAPE DETAILS	08/16/06
L-08	LANDSCAPE DETAILS	08/16/06
L-09	LANDSCAPE DETAILS	08/16/06
L-10	LANDSCAPE DETAILS	08/16/06
L-11	PLANTING NOTES	08/16/06
L-12	IRRIGATION DETAILS	08/16/06
L-13	IRRIGATION DETAILS	08/16/06
L-14	IRRIGATION DETAILS	08/16/06
L-15	IRRIGATION DETAILS	08/16/06
L-16	IRRIGATION DETAILS	08/16/06
L-17	IRRIGATION DETAILS	08/16/06
L-18	IRRIGATION DETAILS	08/16/06
L-19	IRRIGATION DETAILS	08/16/06
L-20	IRRIGATION DETAILS	08/16/06
L-21	IRRIGATION DETAILS	08/16/06
L-22	IRRIGATION DETAILS	08/16/06
L-23	IRRIGATION DETAILS	08/16/06
L-24	IRRIGATION NOTES	08/16/06

STANDARD PLAN NO.	TITLE	DATE
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 B2 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 SECTION	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 STRUTURES	05/31/07
H-06	TYPICAL REINFORCING DETAILS FOR DRAINAGE STRUTURES	05/31/07
H-07	CATCH BASIN AND MANHOLE CASTING	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 OR 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	05/31/07
	FRAME AND GRATES	
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
H-19	TYPE 61614B STEEL FRAME AND GRATES	05/31/07
H-20	CEMENT RUBBLE MASONRY STRUTURES	05/31/07
H-21	CONCRETE AND CEMENT RUBBLE MASONRY STRUCTURES	05/31/07
H-22	INLET/OUTLET STRUCTURE	05/31/07
H-23	INLET/OUTLET STRUCTURE	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 & 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

TE-01 •	SIGN HEIGHT AND LOCATION	07/11/08
TE-01A •	SIGN INSTALLATION	07/11/08
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	07/11/08
TE-05 •	WARNING SIGNS	07/11/08
TE-06 •	MISCELLANEOUS SIGNS	07/11/08
TE-07 •	CONSTRUCTION SIGNS	07/11/08
TE-08 •	MISCELLANEOUS INTERSECTION SIGNS	07/11/08

STANDARD PLAN NO.	TITLE	DATE
TE-09 •	BIKE ROUTE SIGN & SUPPLEMENTARY PLATES	07/11/08
TE-10	INTERSTATE ROUTE MARKER	07/11/08
TE-11	STATE ROUTE MARKER AND AUXILIARY MARKERS	07/11/08
TE-12	STATE ROUTE MARKER AND BORDER DETAIL FOR	07/11/08
	GUIDE SIGNS	
TE-12A	ROUTE SIGN ASSEMBLIES	07/11/08
TE-13 •	STREET NAME SIGN ON MAST ARM	04/29/16
TE-14 •	MISCELLANEOUS REFLECTOR MARKERS	07/11/08
TE-15	OBJECT MARKERS	07/11/08
TE-16	MILE POSTS	07/11/08
TE-17A	CANTILEVER OVERHEAD SIGN ELEVATION & DETAILS	05/31/07
TE-17B	CANTILEVER SIGN FRAME DETAIL AND SECTION	05/31/07
TE-17C	CANTILEVER SIGN FRAME DETAIL	05/31/07
TE-17D	CANTILEVER SIGN FRAME SECTION	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
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 GROUND 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)	07/11/08
TE-24	SOLID ALUMINUM EXTRUDED SIGN PANEL AND	05/31/07
	ACCESSORY DETAILS	
TE-25	GUIDE SIGNS LUMINAIRE MOUNTINGS	05/31/07
TE-26 •	RAISED PAVEMENT MARKERS AND STRIPING	07/11/08
TE-27 •	RAISED PAVEMENT MARKERS AND STRIPING	07/11/08
TE-28	ENTRANCE AND EXIT PAVEMENT MARKINGS	07/11/08
TE-28A	ENTRANCE AND EXIT PAVEMENT MARKINGS	07/11/08
TE-28A •	MISCELLANEOUS PAVEMENT MARKINGS	07/11/08
TE-29 •	PAVEMENT ARROWS AND SYMBOLS	07/11/08
TE-30 •	PAVEMENT ALPHABETS, NUMBERS AND SYMBOLS	07/11/08

STANDARD PLAN NO.	TITLE	DATE
TE-31 •	PAVEMENT ALPHABETS , NUMBERS & SYMBOLS	07/11/08
TE-32 •	TYPE I & II TRAFFIC SIGNAL SYSTEM MISC. DETAILS	05/31/07
TE-33 •	TYPE II TRAFFIC SIGNAL SYSTEM	08/16/06
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	07/11/08
TE-35 •	LOOP DETECTORS & DUCT DETAILS	07/11/08
TE-36 •	TRAFFIC SIGNAL DETAILS	07/11/08
TE-37 •	PULLBOX AND COVER DETAILS	07/11/08
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	07/11/08
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	07/11/08
TE-45 •	BARRICADES	07/11/08
TE-46	DELINEATION & PAVEMENT MARKINGS AT NARROW BRIDGES	07/11/08
TE-47 •	HIGHWAY LIGHT STANDARD	05/31/07

NOTE:

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

ADRIENNE W.LH. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2

LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. C-007

SHEET 8 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

STATE HIGHWAY STANDARD PLAN SUMMARY

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY DATE

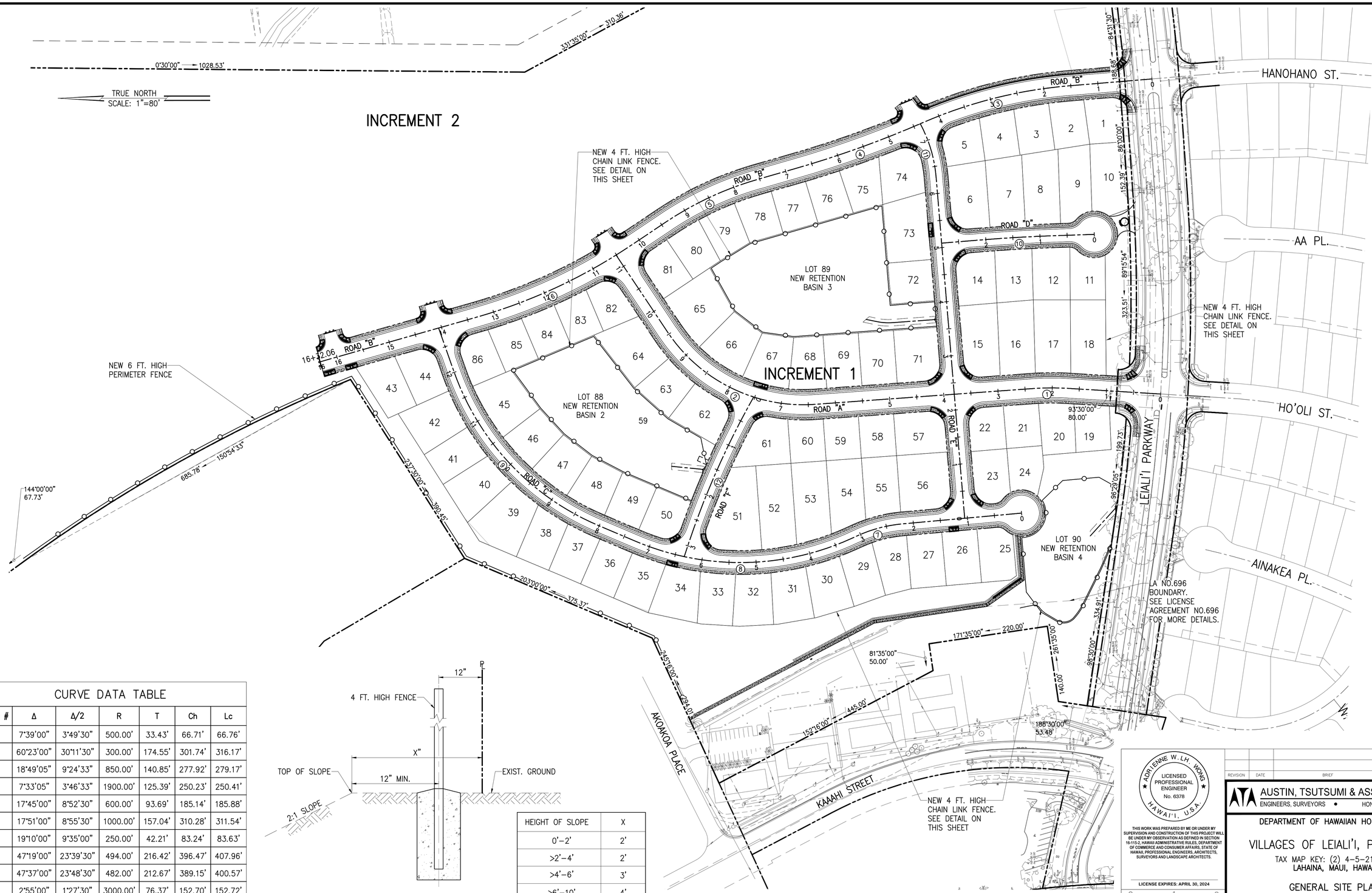
SUBMITTED BY FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

DATE: SEPTEMBER 2023

JOB NO. 18-522

J:\2018\18-522\engineering\CAD\C-007 STATE HIGHWAY STANDARD PLAN SUMMARY.dwg



CURVE DATA TABLE						
Curve #	Δ	Δ/2	R	T	Ch	Lc
①	7°39'00"	3°49'30"	500.00'	33.43'	66.71'	66.76'
②	60°23'00"	30°11'30"	300.00'	174.55'	301.74'	316.17'
③	18°49'05"	9°24'33"	850.00'	140.85'	277.92'	279.17'
④	7°33'05"	3°46'33"	1900.00'	125.39'	250.23'	250.41'
⑤	17°45'00"	8°52'30"	600.00'	93.69'	185.14'	185.88'
⑥	17°51'00"	8°55'30"	1000.00'	157.04'	310.28'	311.54'
⑦	19°10'00"	9°35'00"	250.00'	42.21'	83.24'	83.63'
⑧	47°19'00"	23°39'30"	494.00'	216.42'	396.47'	407.96'
⑨	47°37'00"	23°48'30"	482.00'	212.67'	389.15'	400.57'
⑩	2°55'00"	1°27'30"	3000.00'	76.37'	152.70'	152.72'
⑪	23°35'02"	11°47'31"	250.00'	52.19'	102.18'	102.90'
⑫	11°57'25"	5°58'43"	1538.00'	161.07'	320.38'	320.96'

HEIGHT OF SLOPE	X
0'–2'	2'
>2'–4'	2'
>4'–6'	3'
>6'–10'	4'

FENCE DETAIL "A"
NOT TO SCALE

GENERAL SITE PLAN
SCALE: 1"=80'

ADRIENNE W.LH. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 16-115-2, HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-101**
SHEET 10 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

GENERAL SITE PLAN

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY DATE
SUBMITTED BY FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

DATE: SEPTEMBER 2023

z:\2018\18-522\engineering\CIVIL\C-101 GENERAL SITE PLAN.dwg

TRUE NORTH
SCALE: 1"=80'

PROPERTY LINE

PROPERTY LINE

HANOHANO ST.

AA PL.

HO'OLI ST.

AIPUNI ST.

LEIALI'I PARKWAY

AINAKEA PL.

ROAD "A"

ROAD "B"

ROAD "B"

ROAD "C"

ROAD "D"

ROAD "E"

ROAD "F"

NEW RETENTION BASIN 2

NEW RETENTION BASIN 3

NEW RETENTION BASIN 4

AKOAKOA PLACE

KAAAHI STREET

EXIST. WM#96000230

16+12.0E

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86

GENERAL UTILITY PLAN

SCALE: 1"=80'

ADRIENNE W.LH. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(if NOT 2-inches : Scale Accordingly)

DWG. NO. **C-102**

SHEET 11 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

GENERAL UTILITY PLAN

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY DATE

SUBMITTED BY
FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

DATE: SEPTEMBER 2023

z:\2018\18-522\engineering\DWG\C-102 GENERAL UTILITY PLAN.dwg

TRUE NORTH
SCALE: 1"=80'

BOUNDARY LINE

LIMITS OF GRADING
DUST SCREEN

INGRESS/EGRESS

CONCRETE WASHOUT

HANOHANO STREET

DIVERSION DITCH=1'± BELOW EXIST. GROUND. SEE DIVERSION DITCH DETAIL SHT. C-104

AA PLACE

AIPUNI STREET

DIVERSION DITCH=1'± BELOW EXIST. GROUND. SEE DIVERSION DITCH DETAIL SHT. C-104

PARKWAY

LEIALI'I

DIVERSION DITCH=1'± BELOW EXIST. GROUND. SEE DIVERSION DITCH DETAIL SHT. C-104

LIMITS OF GRADING
SILT FENCE
DUST SCREEN

TEMPORARY BERM
TOP = XX.X

TEMPORARY SEDIMENT BASIN 1
BOTTOM = XX.X

TEMPORARY BERM
TOP = XX.X

TEMPORARY SEDIMENT BASIN 2
BOTTOM = XX.X

NOTE:
CONTRACTOR SHALL PROTECT NEW DRAINAGE STRUCTURES AS THEY ARE INSTALLED WITH TEMPORARY SEDIMENT BARRIERS.

FOLLOWING CONSTRUCTION, THE BOTTOM 6 INCHES OF BASIN 2 SHOULD BE OVER EXCAVATED AND REPLACED W/ SANDY PLANTING SOIL.

LEGEND:

- DUST SCREEN
- SILT FENCE
- LIMITS OF GRADING
- STABILIZED CONSTRUCTION ENTRANCE
- TEMPORARY SEDIMENT BASIN
- CONCRETE WASHOUT

EROSION CONTROL PLAN

SCALE: 1"=80'

ADRIENNE W.L.H. WONG
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No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(if NOT 2-inches : Scale Accordingly)

DWG. NO. **C-103**

SHEET 12 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

EROSION CONTROL PLAN

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

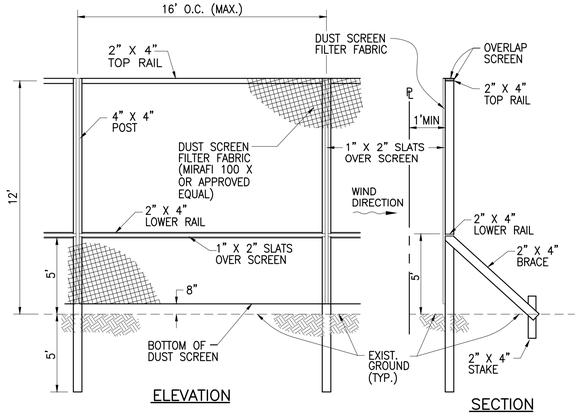
APPROVED BY DATE
SUBMITTED BY FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

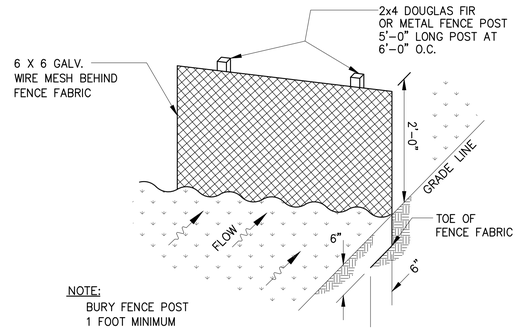
DATE: SEPTEMBER 2023

Z:\2018\18-522\engineering\DWG\C-103 EROSION CONTROL PLAN.dwg



DUST SCREEN DETAIL

NOT TO SCALE



SILT FENCE DETAIL

NOT TO SCALE

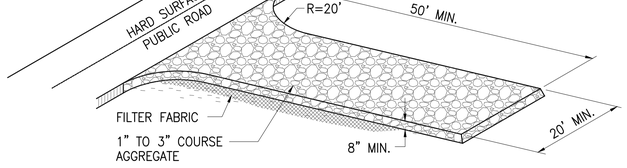
EROSION CONTROL NOTES

1. CONTRACTOR SHALL MINIMIZE AREA TO BE GRADED AT ONE TIME. GRADING WORK FOR THE NEXT INCREMENT SHALL NOT BEGIN UNTIL TEMPORARY OR PERMANENT EROSION CONTROL MEASURES FOR THE PREVIOUS INCREMENT ARE INSTALLED. SEE SHT. C-002 FOR ADDITIONAL NOTES ON TEMPORARY AND PERMANENT EROSION CONTROL MEASURES.
2. THE CONTRACTOR MAY NEED TO SUBMIT PLANS TO DEPARTMENT OF HEALTH – CLEAN WATER BRANCH FOR REVIEW AND APPROVAL FOR ALL WORK WITHIN GULCHES. IF REQUIRED, THE PLANS SHALL SHOW METHOD OF CONSTRUCTION AND BEST MANAGEMENT PRACTICES (BMP).
3. THE CONTRACTOR MAY USE SAND BAGS, SHEET PILING, OR OTHER METHODS TO PROTECT THE WORK AREA WITHIN THE DRAINAGE WAYS.

BEST MANAGEMENT PRACTICES (BMP)

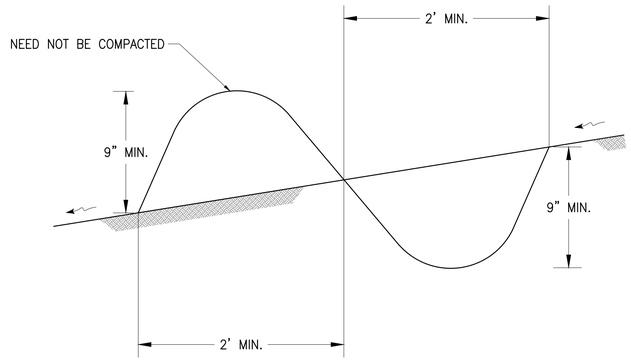
CONTRACTOR SHALL PERFORM THE FOLLOWING WORK:

1. CLEAN CONSTRUCTION EQUIPMENT WITHIN THE LIMITS OF THE DESIGNATED WASHDOWN AREA TO PREVENT TRACKING OF MUD AND DEBRIS BEYOND THE PROJECT LIMITS AND ONTO THE PUBLIC STREETS.
2. INSTALL TEMPORARY SILT FENCE DOWNHILL OF THE CONSTRUCTION SITE TO CONTAIN ANY SILT RUNOFF AND DECREASE THE VELOCITY OF THE SURFACE RUNOFF.
3. REMOVE BEST MANAGEMENT PRACTICES AND RESTORE SITE UPON ACCEPTANCE OF THE PROJECT BY THE COUNTY.



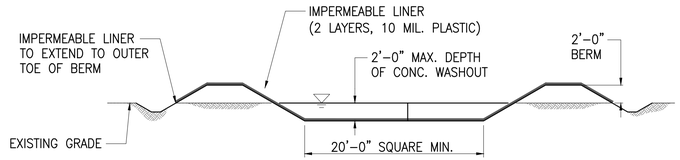
STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



DIVERSION DITCH

NOT TO SCALE



NOTE:

- WASHOUT TO BE INSPECTED, CLEANED AND LINER CHANGED ONCE FILLED TO 75% CAPACITY. RESIDUAL WASTE AND LINER TO BE REMOVED AND HAULED TO APPROVED CONSTRUCTION WASTE LANDFILL.

CONCRETE WASHOUT

NOT TO SCALE

ADRIENNE W.LH. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-104**

SHEET 13 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

EROSION CONTROL DETAILS AND NOTES

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY — DATE
SUBMITTED BY — FIRM NUMBER — DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

DATE: SEPTEMBER 2023

Z:\2018\18-522\engineering\DWG\C-104 EROSION CONTROL DETAILS AND NOTES.dwg

TRUE NORTH
SCALE: 1"=80'

PROPERTY LINE

HANOHANO STREET

AA PL.

LIMITS OF GRADING

BASIN 3
TOP=98.00
BOT=88.00

ROAD "A"

ROAD "B"

ROAD "C"

ROAD "D"

ROAD "E"

HO'OLI STREET

AIPUNI ST.

LEIALI'I PARKWAY

AINAKEA PLACE

BASIN 1
TOP=128.00
BOT=122.00

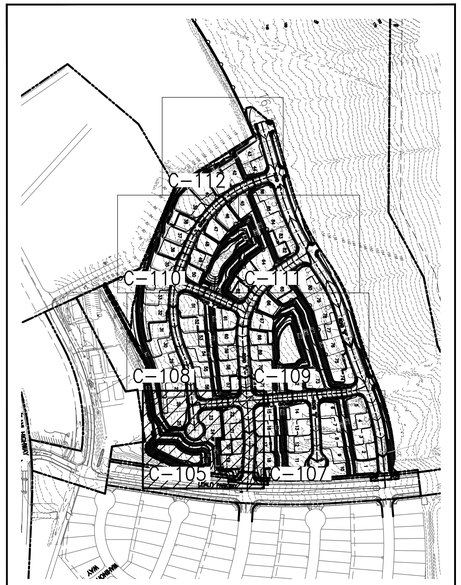
BASIN 2
TOP=92.00
BOT=84.00

BASIN 4
TOP=56.00
BOT=44.00

LIMITS OF GRADING

AKOAKOA PLACE

KAAHI STREET



KEY MAP
SCALE: 1"=300'

LEGEND:

- PAD HINGE
- PROPERTY LINE
- 10 — MAJOR CONTOUR (10-FOOT INTERVAL)
- 14 — MINOR CONTOUR (2-FOOT INTERVAL)
- 16 — EXISTING CONTOUR
- LIMITS OF GRADING

ESTIMATED ON-SITE EARTHWORK SUMMARY:

AREA OF CLEARING, GRUBBING, AND GRADING:	25.7 ACRES
EXCAVATION VOLUME:	89,900 CU. YD.
EMBANKMENT VOLUME:	38,700 CU. YD.
NET VOLUME:	52,200 CU. YD. (CUT)

NOTES:

1. QUANTITIES SHOWN ARE FOR PERMIT PURPOSES AND ESTIMATES ONLY AND SHALL NOT BE USED FOR BIDDING PURPOSES. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE EXACT QUANTITIES FOR BIDDING PURPOSES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO COMPLETE THE GRADING WORK TO THE GRADES AND DIMENSIONS SHOWN ON THE PLANS. IF IMPORTED MATERIALS ARE REQUIRED TO OBTAIN FINISHED GRADES, THE CONTRACTOR IS REQUIRED TO IMPORT SUITABLE MATERIALS AS SPECIFIED AT THE CONTRACTORS EXPENSE. IF EXCAVATED MATERIALS ARE IN EXCESS, THE CONTRACTOR SHALL BE REQUIRED TO DISPOSE OF THE MATERIALS AWAY FROM THE PROJECT AREA AT THE CONTRACTORS EXPENSE.
3. CONTINGENT UPON THE MATERIAL BEING APPROVED BY THE PROJECT GEOTECHNICAL ENGINEER, IMPORTED BORROW MATERIAL MAY BE OBTAINED FROM THE INCREMENT 2 PARCEL.

GENERAL GRADING AND DRAINAGE PLAN

SCALE: 1"=80'

ADRIENNE W.LH. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

GENERAL GRADING AND DRAINAGE PLAN

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY _____ DATE
SUBMITTED BY _____ FIRM NUMBER _____ DATE

DWG. NO. **C-105**
SHEET 14 OF

JOB NO. 18-522

DATE: SEPTEMBER 2023

FILE	POCKET	FOLDER	NO.

J:\2018\18-522\engineering\DWG\C-105 GENERAL GRADING AND DRAINAGE PLAN.dwg

TRUE NORTH
SCALE: 1"=20'

MATCH LINE
FOR CONTINUATION, SEE DWG. C-108

MATCH LINE
FOR CONTINUATION, SEE DWG. C-109

MATCH LINE
FOR CONTINUATION, SEE DWG. C-107

LOT 27
LOT 26
LOT 25
LOT 56
LOT 57
LOT 23
LOT 22
LOT 15
LOT 24
LOT 21
LOT 16
LOT 20
LOT 17
LOT 19
LOT 18

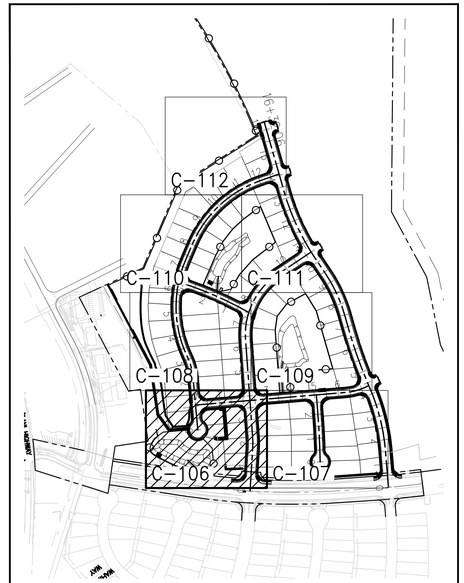
ROAD "C"
ROAD "E"
ROAD "A"

LIMITS OF GRADING

BASIN 4
TOP=56.0
BOT=44.0

double yellow line

LIMITS OF GRADING



KEY MAP
SCALE: 1"=300'

LEGEND:

- PAD HINGE
- PROPERTY LINE
- 10 — MAJOR CONTOUR (10-FOOT INTERVAL)
- 14 — MINOR CONTOUR (2-FOOT INTERVAL)
- 16 — EXISTING CONTOUR
- LIMITS OF GRADING

GRADING AND DRAINAGE PLAN – 1

SCALE: 1"=20'

ADRIENNE W.LH. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-106**

SHEET 15 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B
TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

GRADING AND DRAINAGE PLAN – 1

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY — DATE
SUBMITTED BY — FIRM NUMBER — DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

DATE: SEPTEMBER 2023

Z:\2018\18-522\engineering\DWGS\C-106 GRADING AND DRAINAGE PLAN-1.dwg

MATCH LINE
FOR CONTINUATION, SEE DWG. C-109

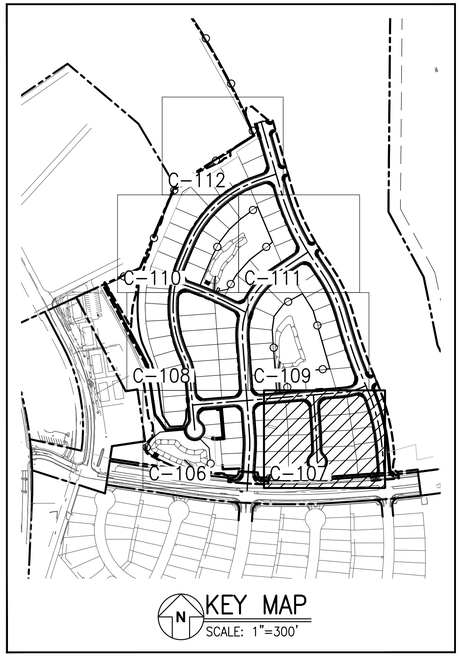
TRUE NORTH
SCALE: 1"=20'

ROAD "E"

LOT 15
LOT 14
LOT 6
LOT 5
LOT 16
LOT 13
LOT 7
LOT 4
ROAD "D"
ROAD "B"
LOT 17
LOT 12
LOT 8
LOT 3
LOT 18
LOT 11
LOT 9
LOT 2
LOT 10
LOT 1

LIMITS OF GRADING

MATCH LINE
FOR CONTINUATION, SEE DWG. C-106



KEY MAP
SCALE: 1"=300'

LEGEND:

- PAD HINGE
- PROPERTY LINE
- 10 — MAJOR CONTOUR (10-FOOT INTERVAL)
- 14 — MINOR CONTOUR (2-FOOT INTERVAL)
- 16 — EXISTING CONTOUR
- LIMITS OF GRADING

GRADING AND DRAINAGE PLAN – 2

SCALE: 1"=20'

ADRIENNE W.LH. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-107**

SHEET 16 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

GRADING AND DRAINAGE PLAN – 2

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY — DATE
SUBMITTED BY — FIRM NUMBER — DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

DATE: SEPTEMBER 2023

J:\2018\18-552\engineering\DWG\C-107 GRADING AND DRAINAGE PLAN-2.dwg

MATCH LINE
FOR CONTINUATION, SEE DWG. C-110

MATCH LINE
FOR CONT., SEE DWG. C-111

TRUE NORTH
SCALE: 1"=20'

LOT 33
LOT 32
LOT 31
LOT 30
LOT 29
LOT 28
LOT 27
LOT 51
LOT 52
LOT 53
LOT 54
LOT 55
LOT 56
LOT 62
LOT 61
LOT 60
LOT 59
LOT 58
LOT 57

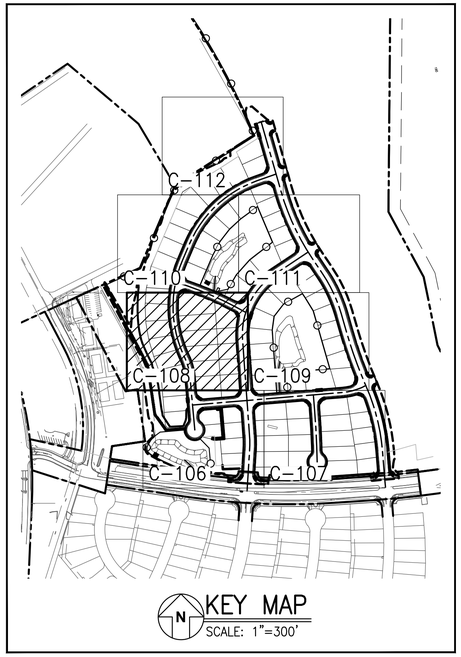
ROAD "F"
ROAD "C"
ROAD "A"

80
90
100
70
60

LIMITS OF GRADING

MATCH LINE
FOR CONTINUATION, SEE DWG. C-109

MATCH LINE
FOR CONTINUATION, SEE DWG. C-106



KEY MAP
SCALE: 1"=300'

LEGEND:

- PAD HINGE
- PROPERTY LINE
- 10 — MAJOR CONTOUR (10-FOOT INTERVAL)
- 14 — MINOR CONTOUR (2-FOOT INTERVAL)
- 16 — EXISTING CONTOUR
- LIMITS OF GRADING

GRADING AND DRAINAGE PLAN – 3

SCALE: 1"=20'

ADRIENNE W.LH. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-108**

SHEET 17 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

GRADING AND DRAINAGE PLAN – 3

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY — DATE
SUBMITTED BY — FIRM NUMBER — DATE

FILE	POCKET	FOLDER	NO.

DATE: SEPTEMBER 2023

JOB NO. 18-522

z:\2018\18-522\engineering\DWG\C-108 GRADING AND DRAINAGE PLAN-3.dwg

MATCH LINE
FOR CONTINUATION, SEE DWG. C-111

TRUE NORTH
SCALE: 1"=20'

LOT 65
LOT 66
LOT 67
LOT 68
LOT 69
LOT 70
LOT 71
LOT 72
LOT 73
LOT 74
LOT 75
LOT 76
LOT 77
LOT 78
LOT 79
LOT 80
LOT 89
BASIN 3
TOP=98.0
BOT=88.0

ROAD "A"
ROAD "B"

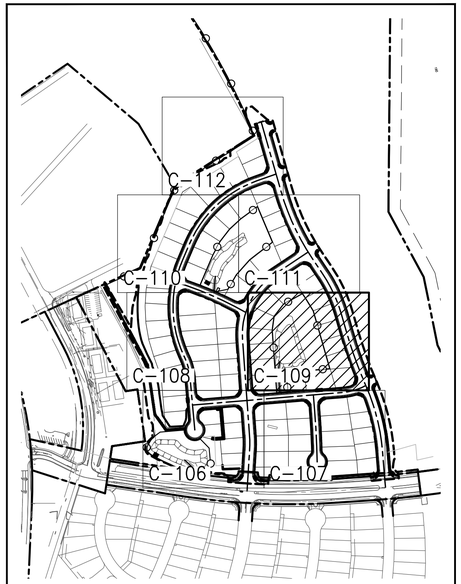
LIMITS OF GRADING

110
100
90
120
130
140

MATCH LINE
FOR CONTINUATION, SEE DWG. C-108

MATCH LINE
FOR CONTINUATION, SEE DWG. C-106

MATCH LINE
FOR CONTINUATION, SEE DWG. C-107



KEY MAP
SCALE: 1"=300'

LEGEND:

- PAD HINGE
- PROPERTY LINE
- 10 MAJOR CONTOUR (10-FOOT INTERVAL)
- 14 MINOR CONTOUR (2-FOOT INTERVAL)
- 16 EXISTING CONTOUR
- LIMITS OF GRADING

GRADING AND DRAINAGE PLAN – 4

SCALE: 1"=20'

ADRIENNE W.L.H. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 16-115-2, HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(if NOT 2-inches : Scale Accordingly)

DWG. NO. **C-109**
SHEET 18 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B
TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

GRADING AND DRAINAGE PLAN – 4

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY _____ DATE
SUBMITTED BY _____ FIRM NUMBER _____ DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

DATE: SEPTEMBER 2023

Z:\2018\18-522\engineering\DWG\C-109 GRADING AND DRAINAGE PLAN-4.dwg

MATCH LINE
FOR CONTINUATION, SEE DWG. C-112

TRUE NORTH
SCALE: 1"=20'

LOT 40
LOT 39
LOT 45
LOT 46
LOT 38
LOT 47
LOT 37
LOT 48
LOT 36
LOT 49
LOT 88
BASIN 3
TOP=92.0
BOT=84.0
LOT 35
LOT 50
LOT 34
LOT 62
LOT 33

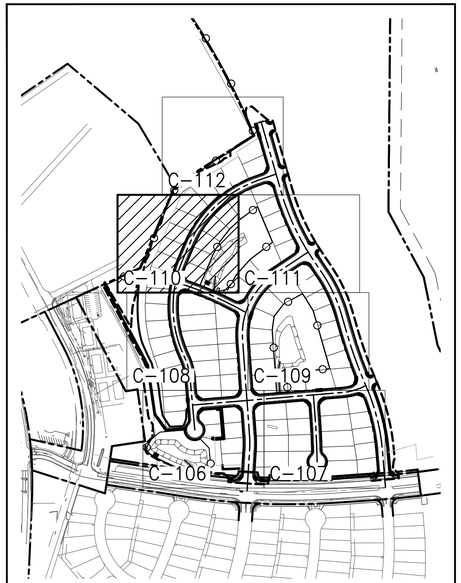
ROAD "C"
ROAD "F"

PROPERTY LINE
LIMITS OF GRADING

110
100
90
80
70

MATCH LINE
FOR CONTINUATION, SEE DWG. C-111

MATCH LINE
FOR CONTINUATION, SEE DWG. C-108



KEY MAP
SCALE: 1"=300'

LEGEND:

- PAD HINGE
- PROPERTY LINE
- 10 MAJOR CONTOUR (10-FOOT INTERVAL)
- 14 MINOR CONTOUR (2-FOOT INTERVAL)
- 16 EXISTING CONTOUR
- LIMITS OF GRADING

GRADING AND DRAINAGE PLAN – 5

SCALE: 1"=20'

ADRIENNE W.LH. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-110**

SHEET 19 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

GRADING AND DRAINAGE PLAN – 5

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY _____ DATE
SUBMITTED BY _____ FIRM NUMBER _____ DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

DATE: SEPTEMBER 2023

J:\2018\18-522\engineering\DWG\C-110 GRADING AND DRAINAGE PLAN-5.dwg

MATCH LINE
FOR CONTINUATION, SEE DWG. C-112

TRUE NORTH
SCALE: 1"=20'

MATCH LINE
FOR CONTINUATION, SEE DWG. C-110

LOT 45
LOT 86
LOT 85
LOT 84
LOT 83
LOT 82
LOT 64
LOT 63
LOT 62
LOT 65
LOT 81
LOT 80

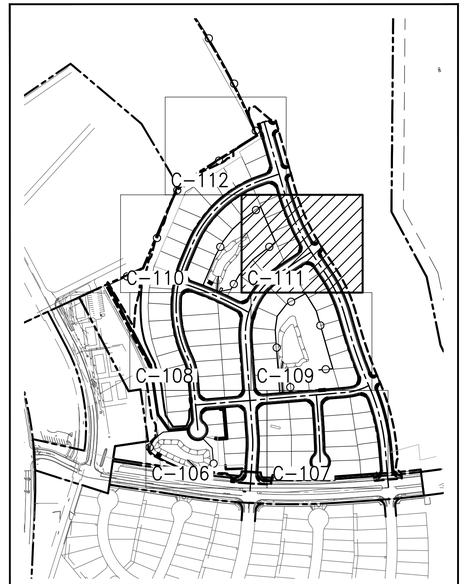
ROAD "A"
ROAD "B"
ROAD "B"

LIMITS OF GRADING

90
100
110
120
130
140

MATCH LINE
FOR CONT., SEE DWG. C-108

MATCH LINE
FOR CONTINUATION, SEE DWG. C-109



KEY MAP
SCALE: 1"=300'

LEGEND:

- PAD HINGE
- PROPERTY LINE
- 10 — MAJOR CONTOUR (10-FOOT INTERVAL)
- 14 — MINOR CONTOUR (2-FOOT INTERVAL)
- 16 — EXISTING CONTOUR
- LIMITS OF GRADING

GRADING AND DRAINAGE PLAN – 6

SCALE: 1"=20'

ADRIENNE W.L.H. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(if NOT 2-inches : Scale Accordingly)

DWG. NO. **C-111**
SHEET 20 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B
TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

GRADING AND DRAINAGE PLAN – 6

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY — DATE
SUBMITTED BY — FIRM NUMBER — DATE

FILE	POCKET	FOLDER	NO.

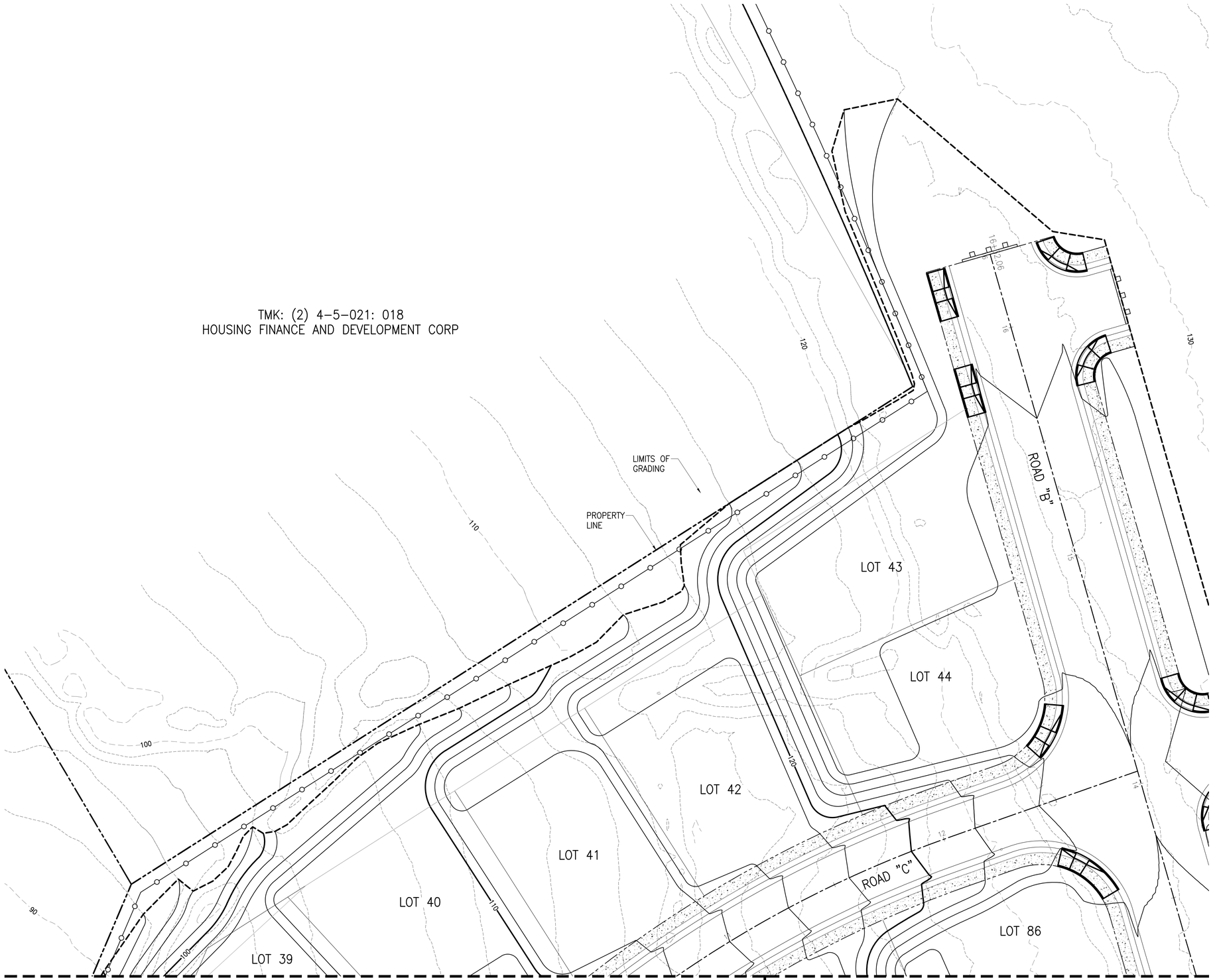
JOB NO. 18-522

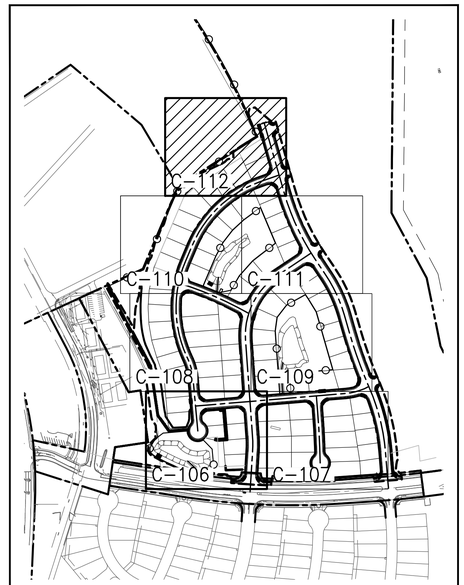
DATE: SEPTEMBER 2023

Z:\2018\18-522\engineering\DWG\C-111 GRADING AND DRAINAGE PLAN-6.dwg

TRUE NORTH
SCALE: 1"=20'

TMK: (2) 4-5-021: 018
HOUSING FINANCE AND DEVELOPMENT CORP





LEGEND:

- PAD HINGE
- PROPERTY LINE
- 10 — MAJOR CONTOUR (10-FOOT INTERVAL)
- 14 — MINOR CONTOUR (2-FOOT INTERVAL)
- 16 — EXISTING CONTOUR
- LIMITS OF GRADING

GRADING AND DRAINAGE PLAN – 7

SCALE: 1"=20'

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No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-112**
SHEET 21 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B
TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

GRADING AND DRAINAGE PLAN – 7

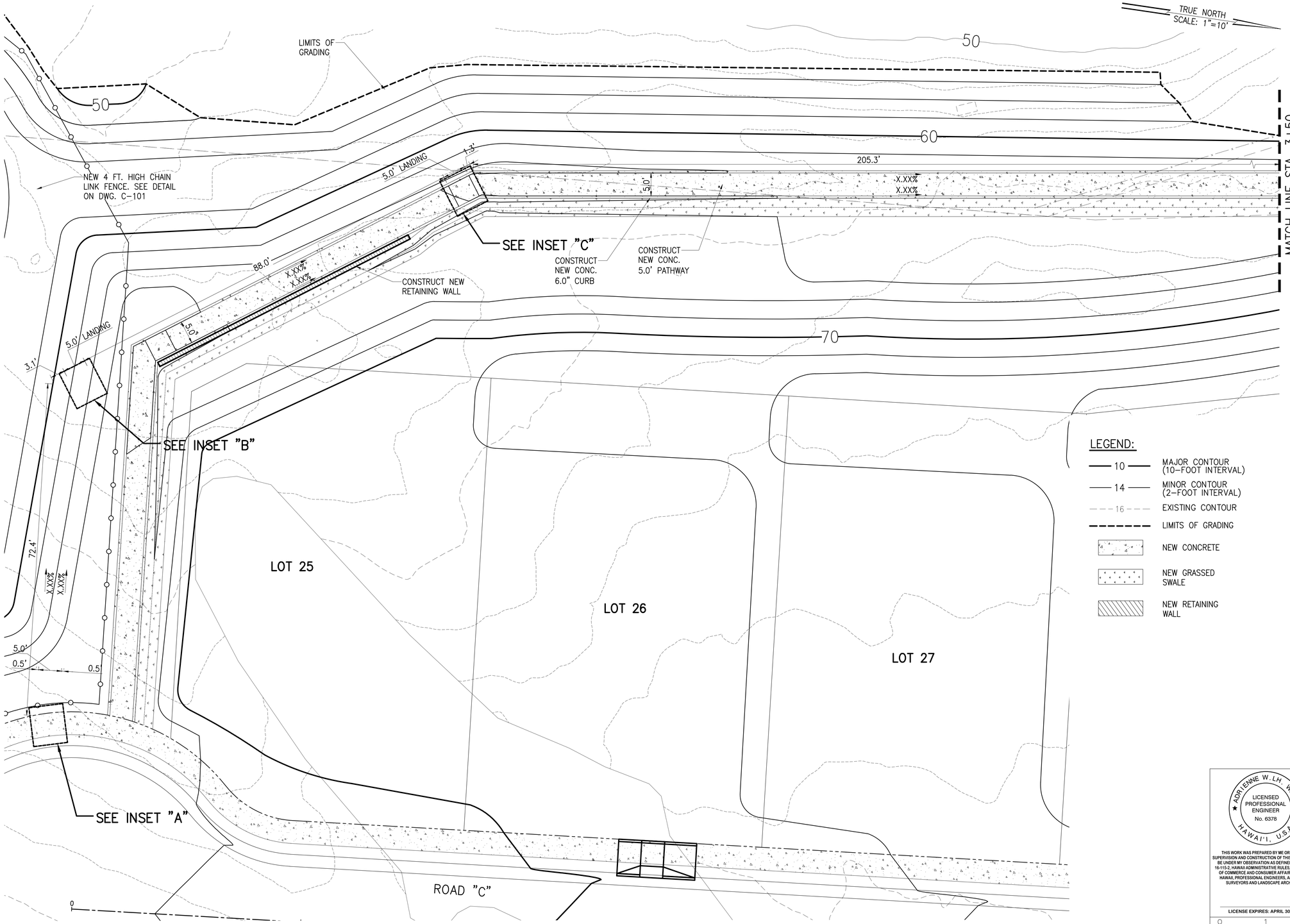
DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

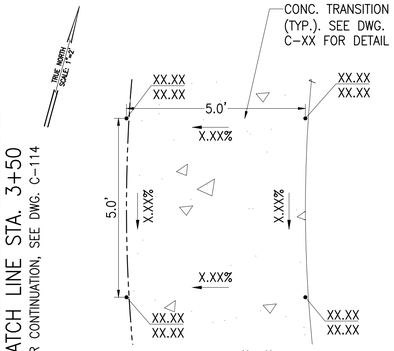
APPROVED BY
SUBMITTED BY
DATE
FIRM NUMBER
DATE

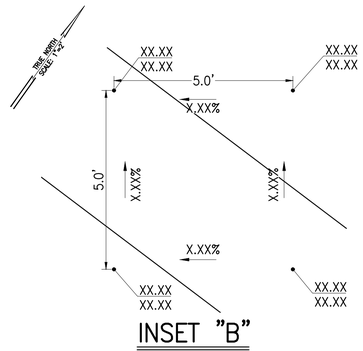
FILE	POCKET	FOLDER	NO.

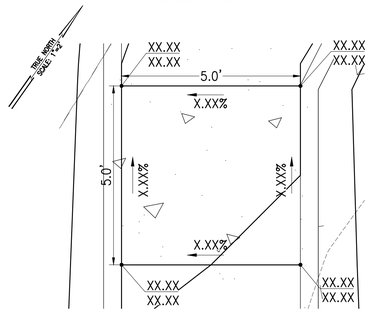
JOB NO. 18-522
DATE: SEPTEMBER 2023

Z:\2018\18-522\engineering\DWGS\C-112 GRADING AND DRAINAGE PLAN-7.dwg









SITE AND GRADING PLAN – WALKWAY "A" STA. 0+00 TO STA. 3+50

SCALE: 1"=10'

ADRIENNE W.LH. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-113**

SHEET 22 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

SITE AND GRADING PLAN
WALKWAY "A" – 1

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY DATE

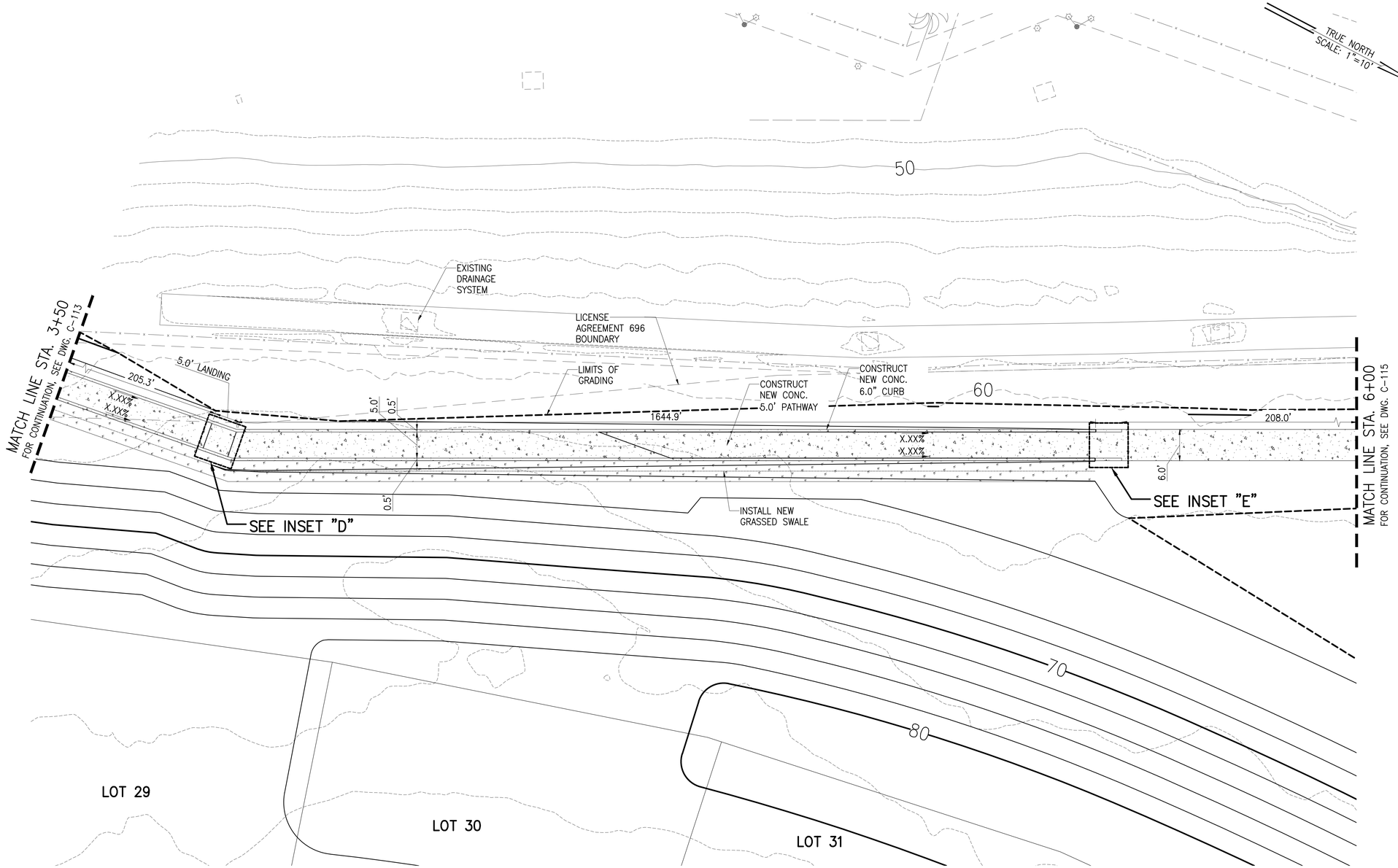
SUBMITTED BY
FIRM NUMBER DATE

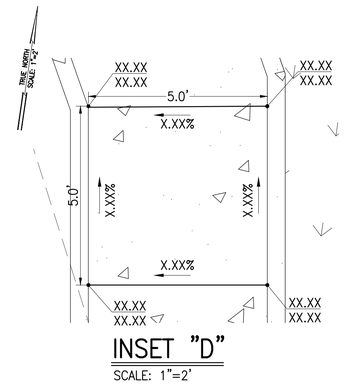
FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

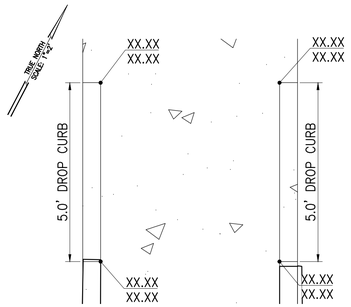
DATE: SEPTEMBER 2023

J:\2018\18-522\engineering\DWG\C-113 SITE AND GRADING PLAN - ROUTE A.dwg





INSET "D"
SCALE: 1"=2'



INSET "E"
SCALE: 1"=2'

LEGEND:

- 10 — MAJOR CONTOUR (10-FOOT INTERVAL)
- 14 — MINOR CONTOUR (2-FOOT INTERVAL)
- 16 — EXISTING CONTOUR
- LIMITS OF GRADING
- NEW CONCRETE
- NEW GRASSED SWALE

SITE AND GRADING PLAN – WALKWAY "A" STA. 3+50 TO STA. 6+00

SCALE: 1"=10'

ADRIENNE W.LH. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-114**
SHEET 23 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B
TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII
SITE AND GRADING PLAN
WALKWAY "A" – 2

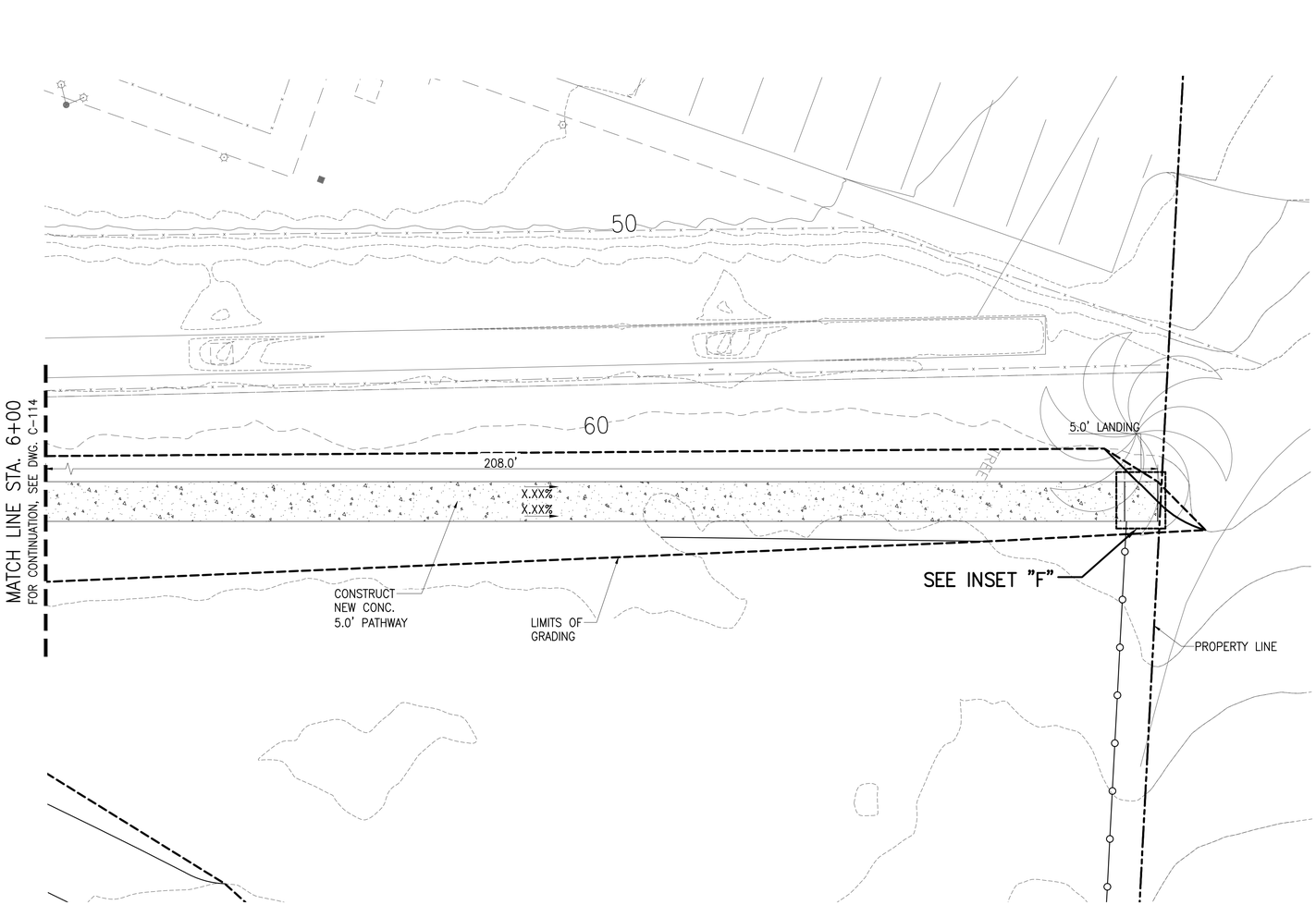
DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

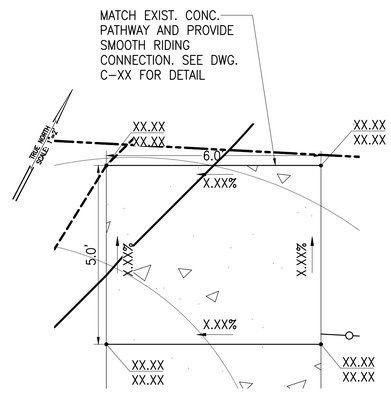
APPROVED BY DATE
SUBMITTED BY FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522
DATE: SEPTEMBER 2023

z:\2018\18-522\engineering\DWG\C-114 SITE AND GRADING PLAN WALKWAY A - 2.dwg





INSET "F"
SCALE: 1"=2'

SITE AND GRADING PLAN – WALKWAY "A" STA. 6+00 TO END
SCALE: 1"=10'

LEGEND:

- PROPERTY LINE
- 10 MAJOR CONTOUR (10-FOOT INTERVAL)
- 14 MINOR CONTOUR (2-FOOT INTERVAL)
- 16 EXISTING CONTOUR
- LIMITS OF GRADING
- NEW CONCRETE

ADRIENNE W.L.H. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-115**

SHEET 24 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

SITE AND GRADING PLAN
WALKWAY "A" – 3

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY DATE

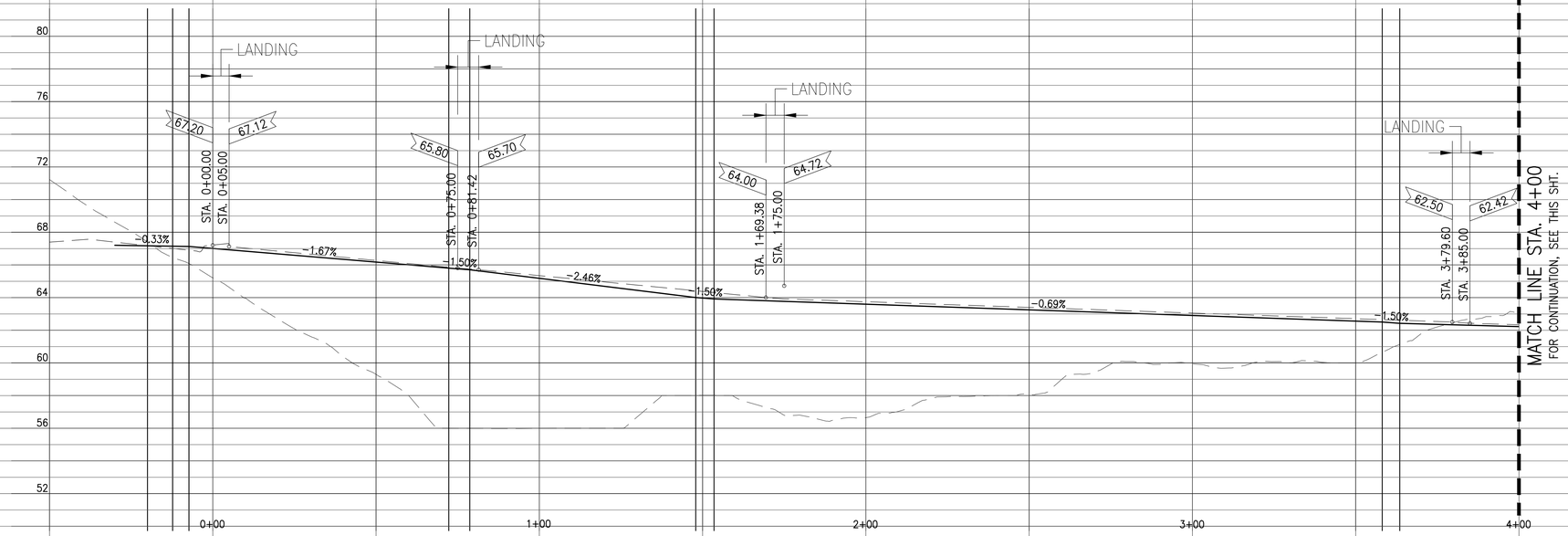
SUBMITTED BY
FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

DATE: SEPTEMBER 2023

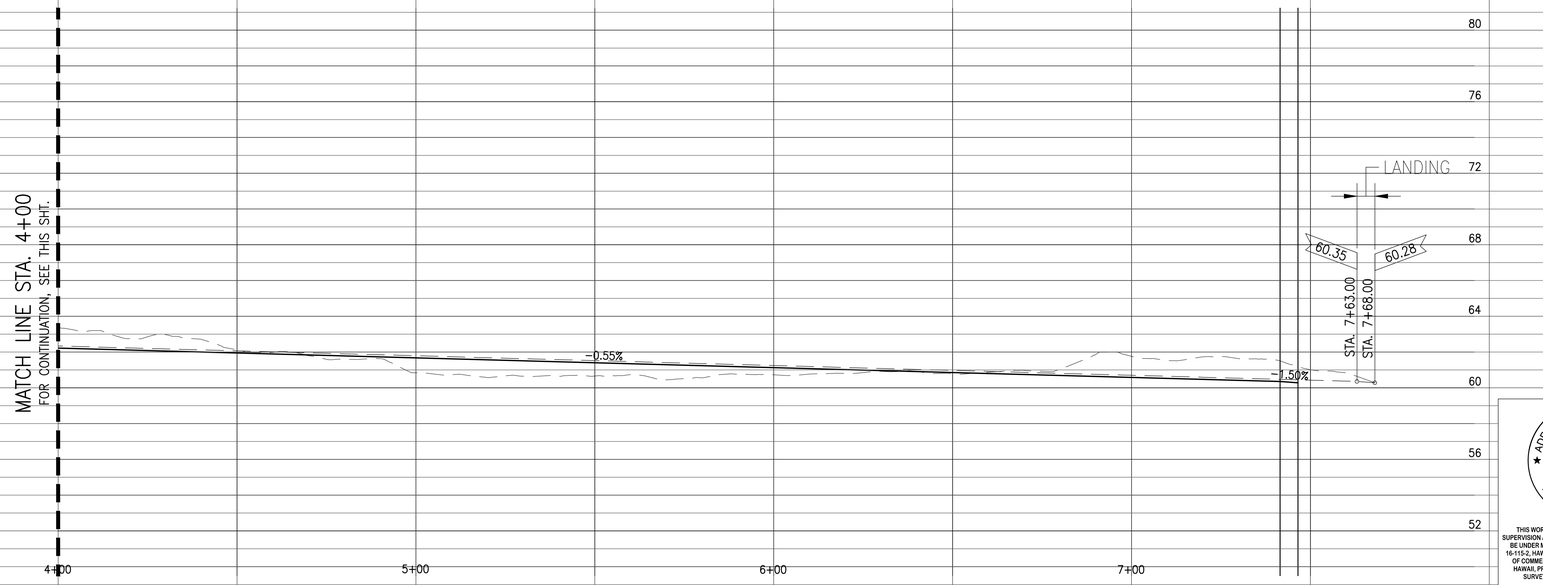
JOB NO. 18-522

z:\2018\18-522\engineering\DWG\C-115 SITE AND GRADING PLAN WALKWAY A - 3.dwg



PROFILE – ADA PEDESTRIAN ROUTE "A" STA. 0+00 TO STA. 4+00

SCALE: 1"=20'



PROFILE – ADA PEDESTRIAN ROUTE "A" STA. 4+00 TO STA. END

SCALE: 1"=20'

ADRIENNE W. LH. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-116**

SHEET **25** OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

PROFILE WALKWAY "A"

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY DATE

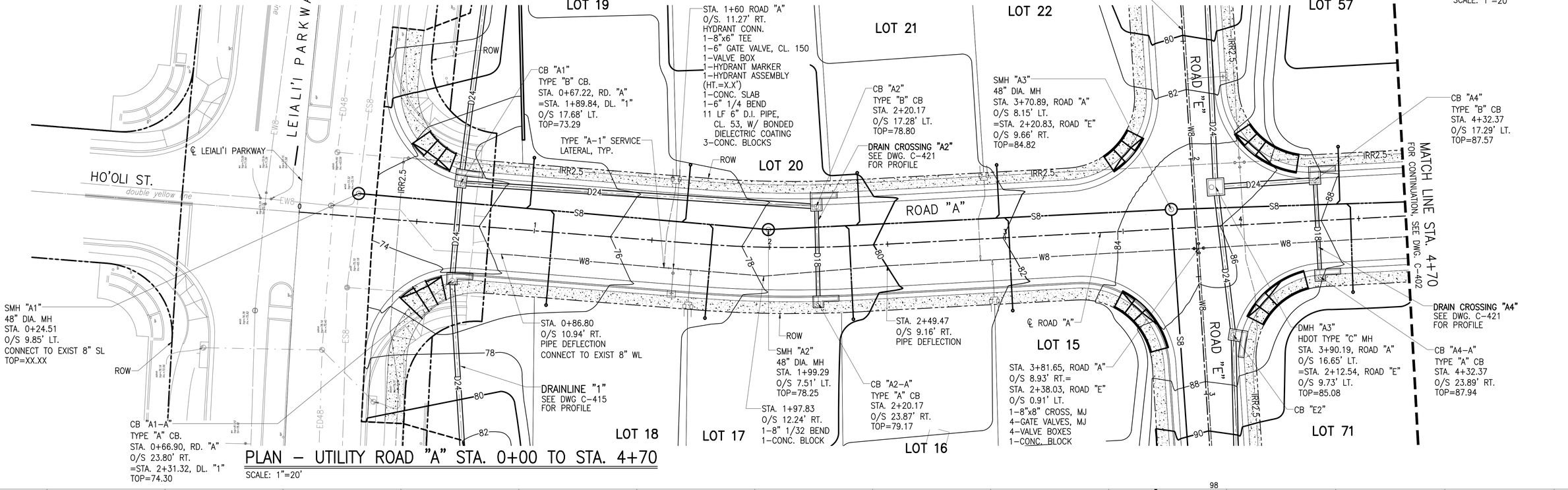
SUBMITTED BY
FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

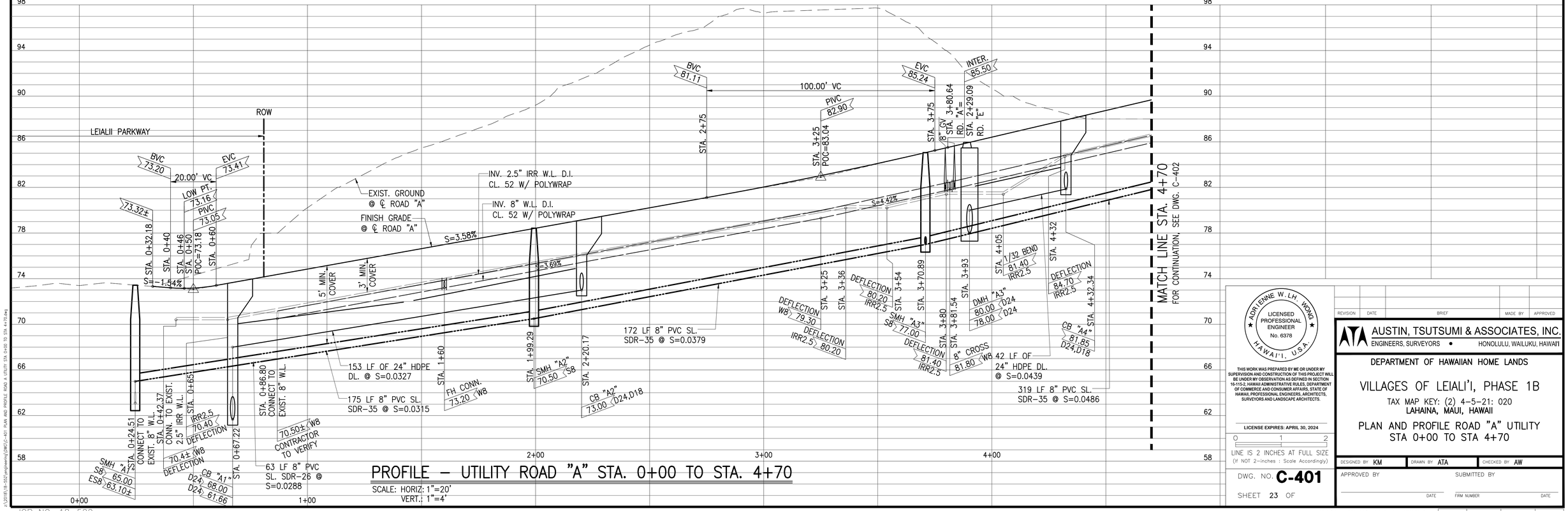
DATE: SEPTEMBER 2023

J:\2018\18-522\engineering\DWG\C-116 PROFILE WALKWAY A.dwg



PLAN – UTILITY ROAD "A" STA. 0+00 TO STA. 4+70

SCALE: 1"=20'



PROFILE – UTILITY ROAD "A" STA. 0+00 TO STA. 4+70

SCALE: HORIZ.: 1"=20'
VERT.: 1"=4'

ADRIENNE W.L.H. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

PLAN AND PROFILE ROAD "A" UTILITY
STA 0+00 TO STA 4+70

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

DWG. NO. **C-401**
SHEET 23 OF

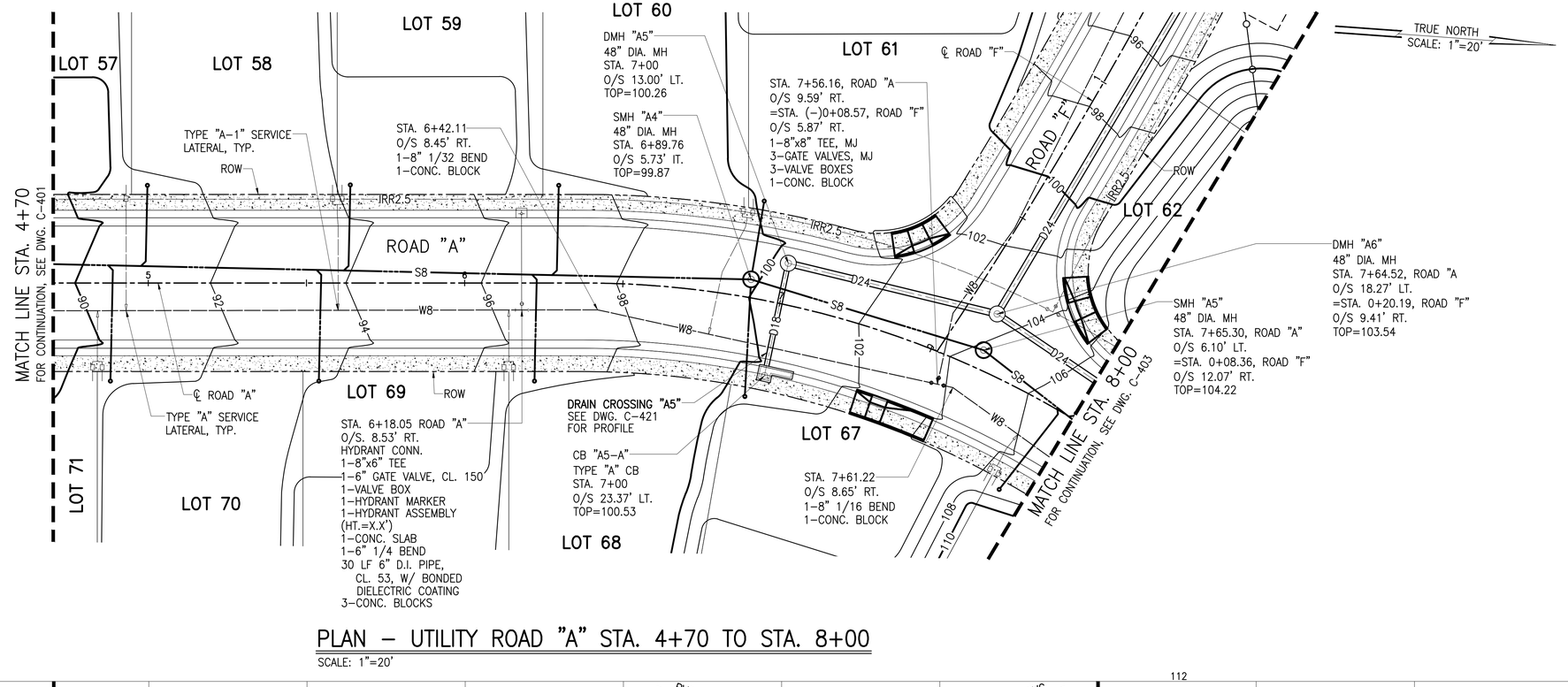
APPROVED BY _____ DATE
SUBMITTED BY _____ FIRM NUMBER _____ DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

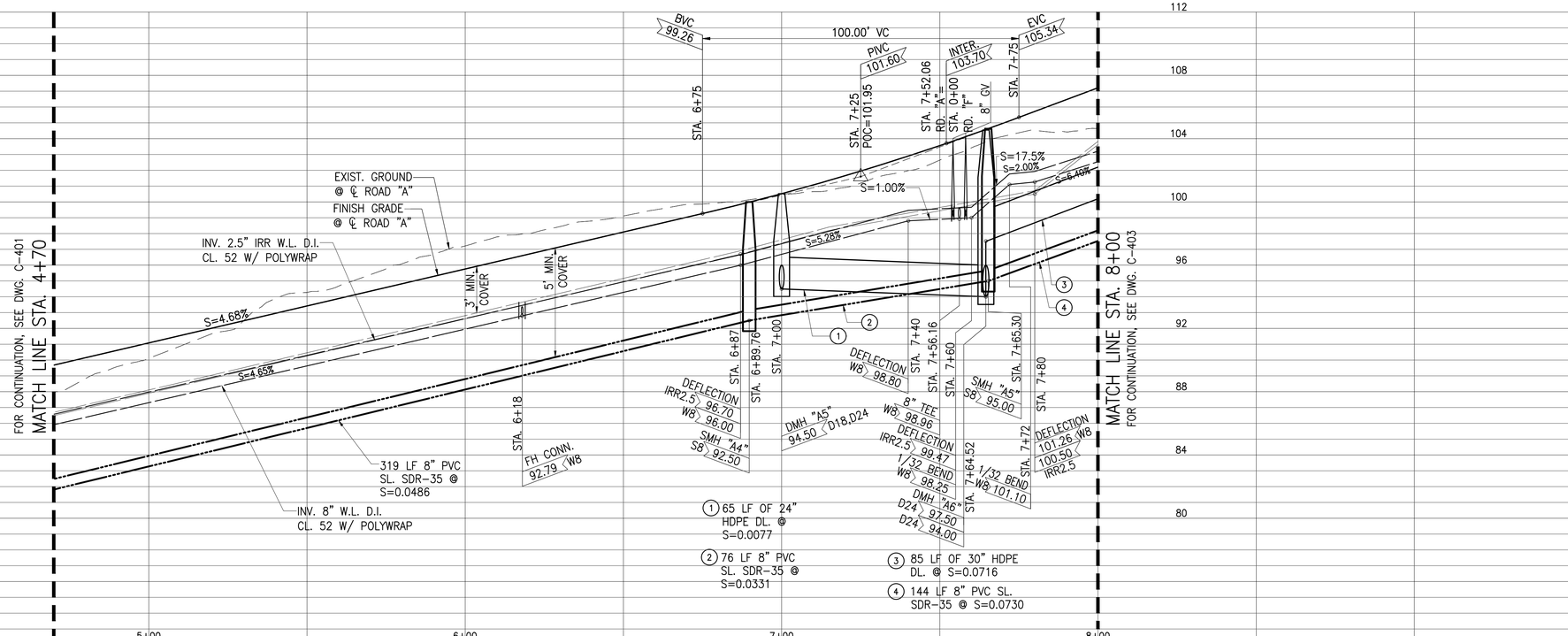
DATE: SEPTEMBER 2023

J:\2018\18-522\engineering\DWG\C-401 PLAN AND PROFILE ROAD A UTILITY STA 0+00 TO STA 4+70.dwg



PLAN – UTILITY ROAD "A" STA. 4+70 TO STA. 8+00

SCALE: 1"=20'



PROFILE – UTILITY ROAD "A" STA. 4+70 TO STA. 8+00

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

ADRIENNE W.L.H. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 16-115-2, HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

LICENSE EXPIRES: APRIL 30, 2024

LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

PLAN AND PROFILE ROAD "A" UTILITY
STA 4+70 TO STA 8+00

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

DWG. NO. **C-402**

SHEET **24** OF

APPROVED BY _____ DATE

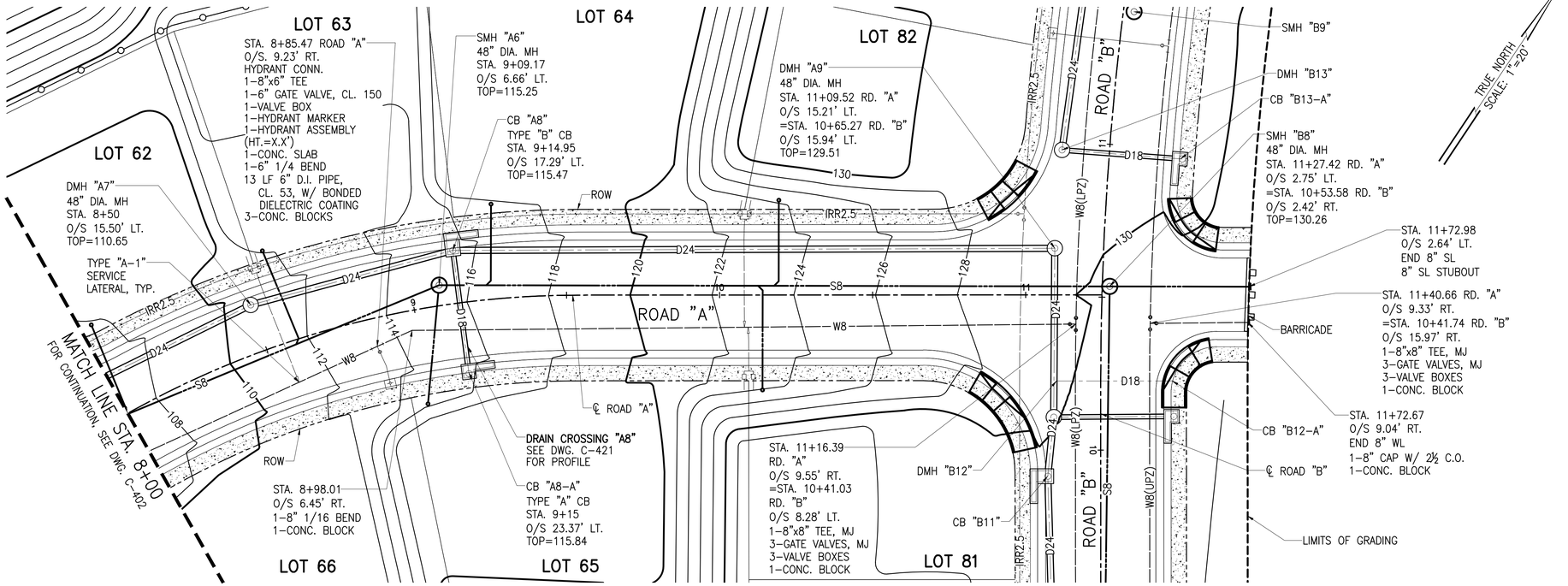
SUBMITTED BY _____ FIRM NUMBER _____ DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

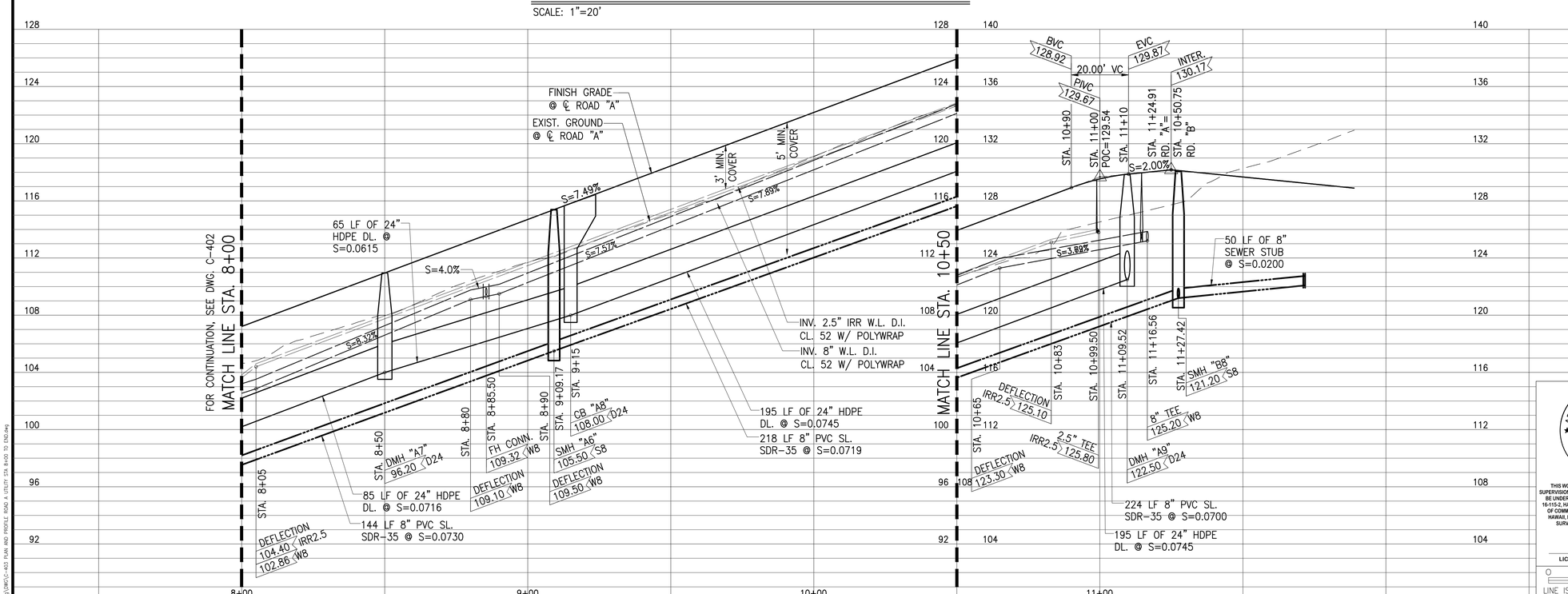
DATE: SEPTEMBER 2023

J:\2018\18-522\engineering\CAD\C-402 PLAN AND PROFILE ROAD A UTILITY STA 4+70 TO STA 8+00.dwg



PLAN – UTILITY ROAD "A" STA. 8+00 TO END

SCALE: 1"=20'



PROFILE – UTILITY ROAD "A" STA. 8+00 TO END

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

ADRIENNE W.LH. WONG
LICENSED PROFESSIONAL ENGINEER
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HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

REVISION	DATE	BRIEF	MADE BY	APPROVED

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ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

PLAN AND PROFILE ROAD "A" UTILITY
STA 8+00 TO END

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

DWG. NO. **C-403**
SHEET 25 OF

APPROVED BY _____ DATE
SUBMITTED BY _____ FIRM NUMBER _____ DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

DATE: SEPTEMBER 2023

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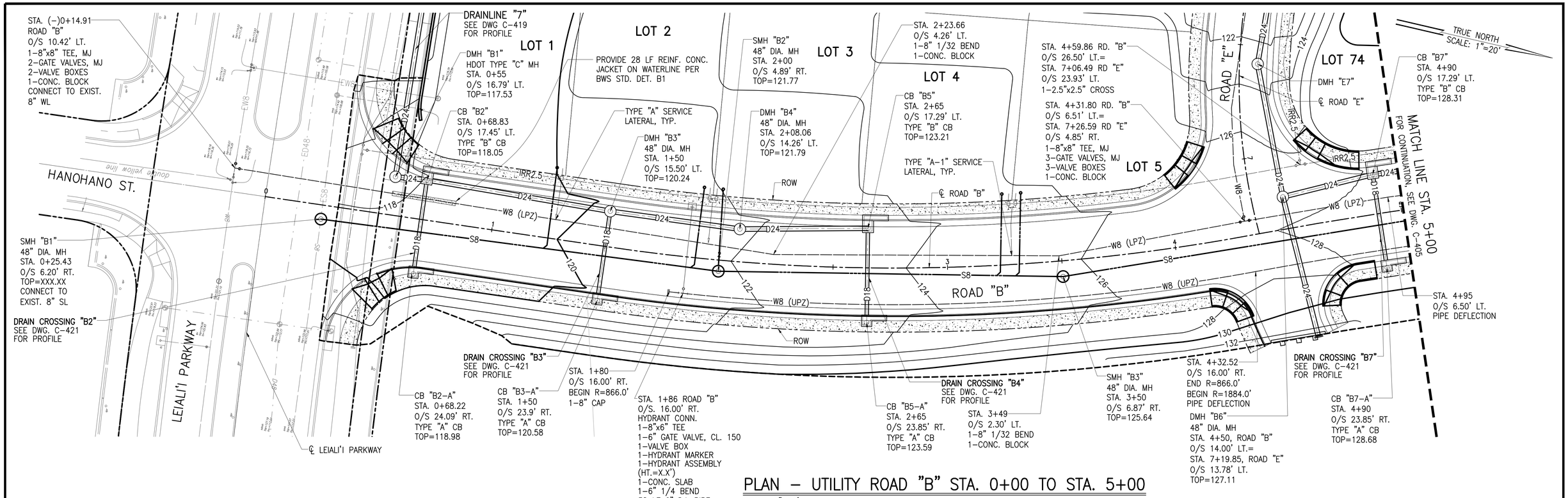
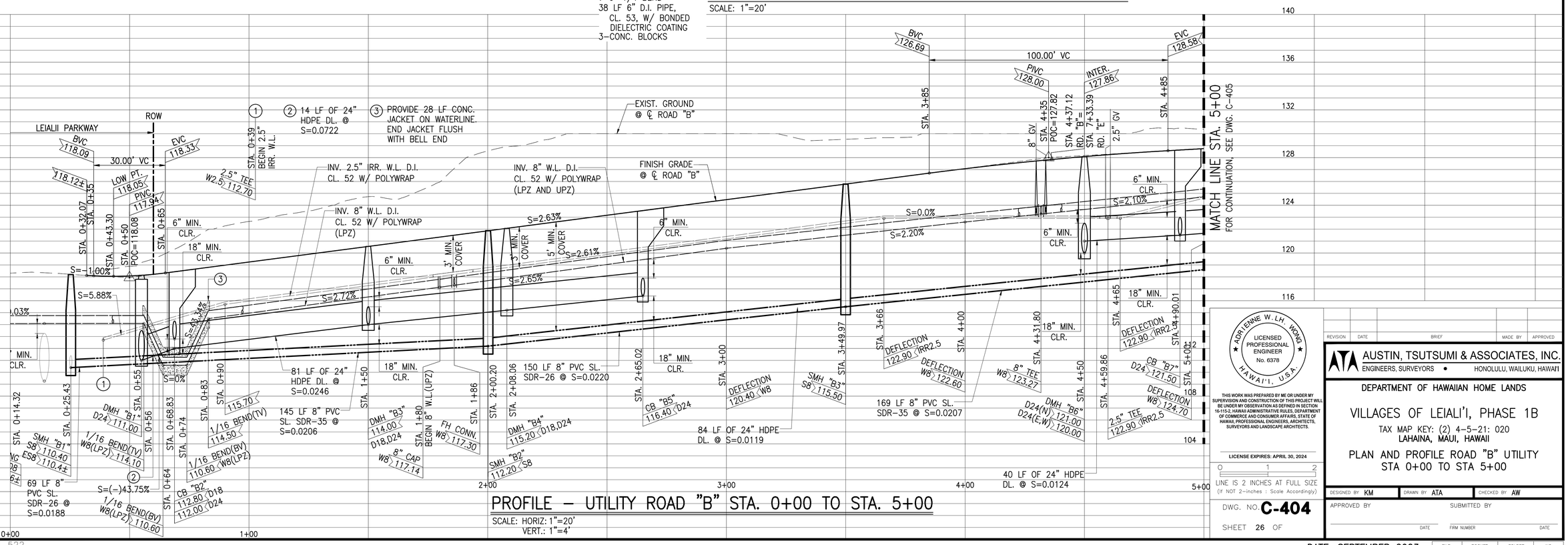


PLAN – UTILITY ROAD "B" STA. 0+00 TO STA. 5+00

SCALE: 1"=20'



PROFILE – UTILITY ROAD "B" STA. 0+00 TO STA. 5+00

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2−inches : Scale Accordingly)

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4−5−21: 020
LAHAINA, MAUI, HAWAII

PLAN AND PROFILE ROAD "B" UTILITY STA 0+00 TO STA 5+00

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY — DATE
SUBMITTED BY — FIRM NUMBER — DATE

DWG. NO. **C-404**

SHEET **26** OF

FILE	POCKET	FOLDER	NO.

JOB NO. 18−522

DATE: SEPTEMBER 2023

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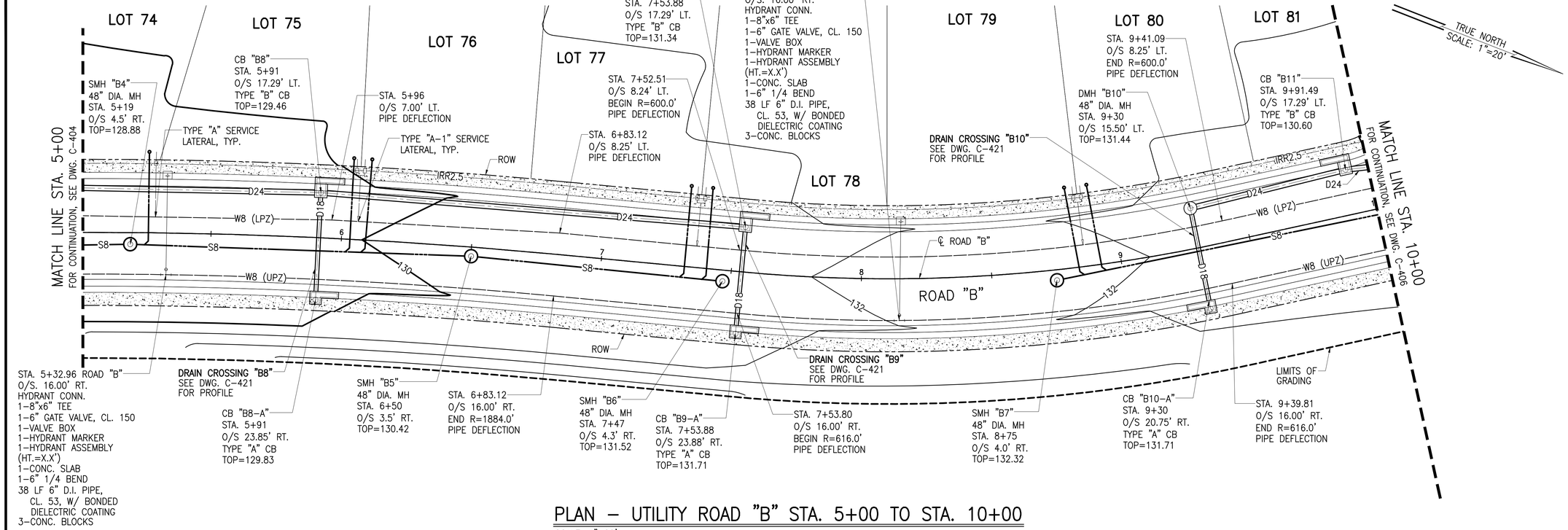
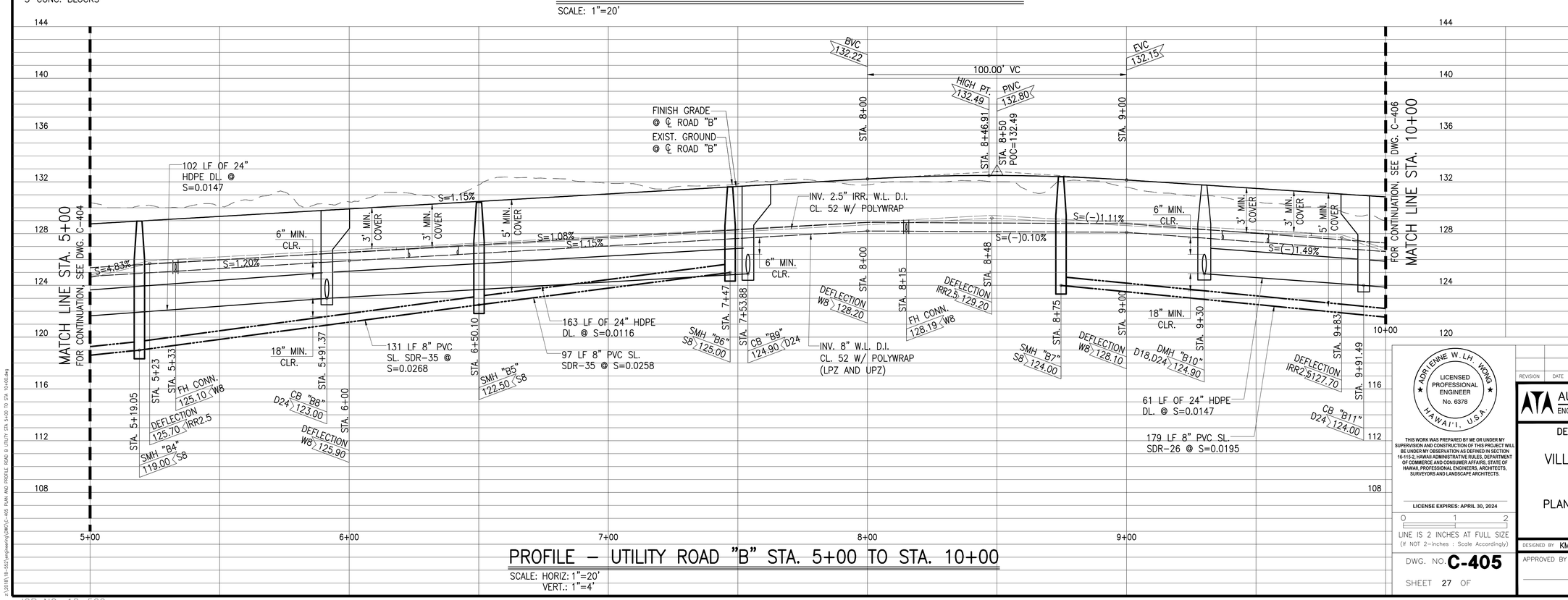


PLAN – UTILITY ROAD "B" STA. 5+00 TO STA. 10+00

SCALE: 1"=20'



PROFILE – UTILITY ROAD "B" STA. 5+00 TO STA. 10+00

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

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LICENSE EXPIRES: APRIL 30, 2024

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

PLAN AND PROFILE ROAD "B" UTILITY
STA 5+00 TO STA 10+00

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

DWG. NO. **C-405**

SHEET 27 OF

APPROVED BY _____ DATE

SUBMITTED BY _____ FIRM NUMBER _____ DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

DATE: SEPTEMBER 2023

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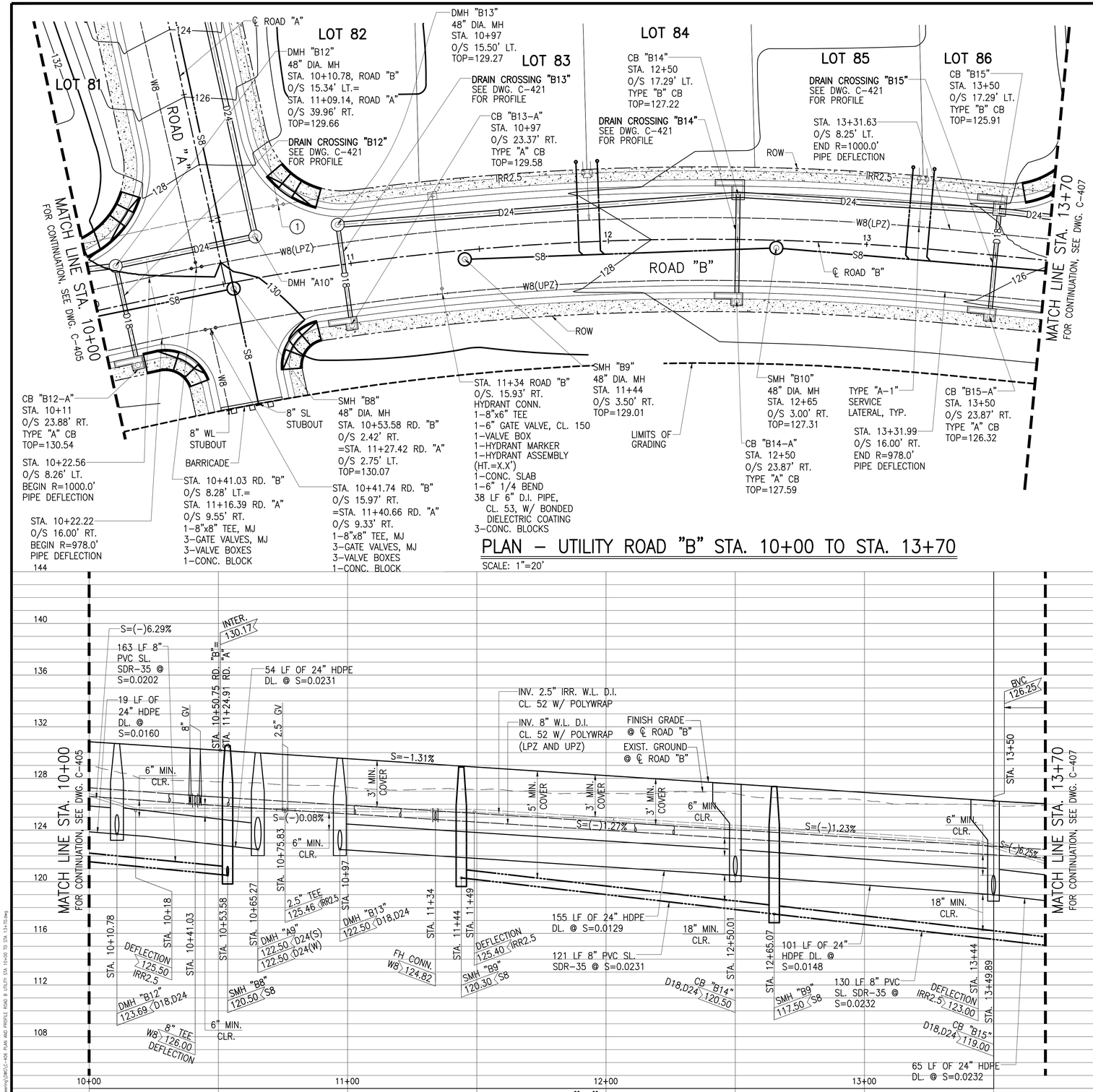

PLAN – UTILITY ROAD "B" STA. 10+00 TO STA. 13+70

SCALE: 1"=20'

PROFILE – UTILITY ROAD "B" STA. 10+00 TO STA. 13+70

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

z:\2018\18-522\engineering\DWG\C-406 PLAN AND PROFILE ROAD B UTILITY STA 10+00 TO STA 13+70.dwg

JOB NO. 18-522

DATE: SEPTEMBER 2023

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-406**

SHEET 28 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

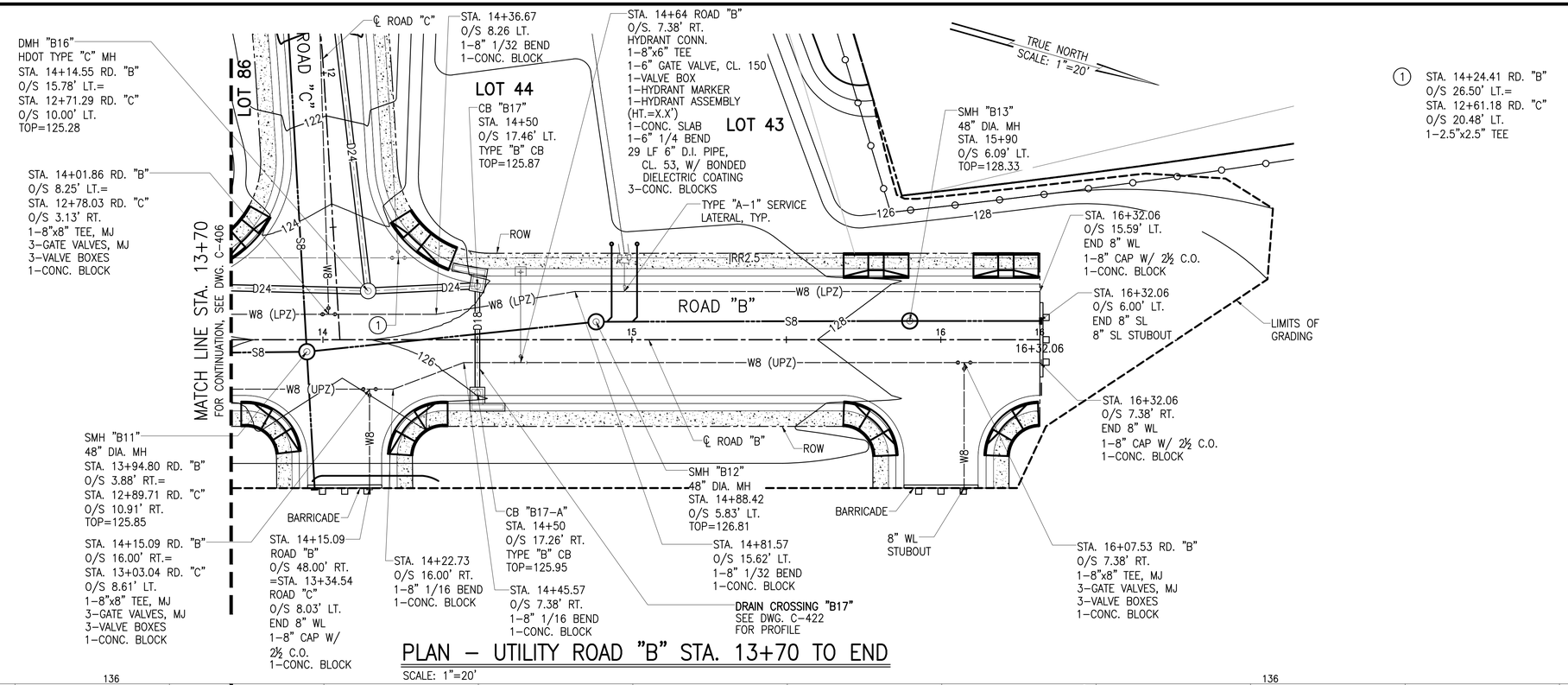
TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

PLAN AND PROFILE ROAD "B" UTILITY
STA 10+00 TO STA 13+70

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

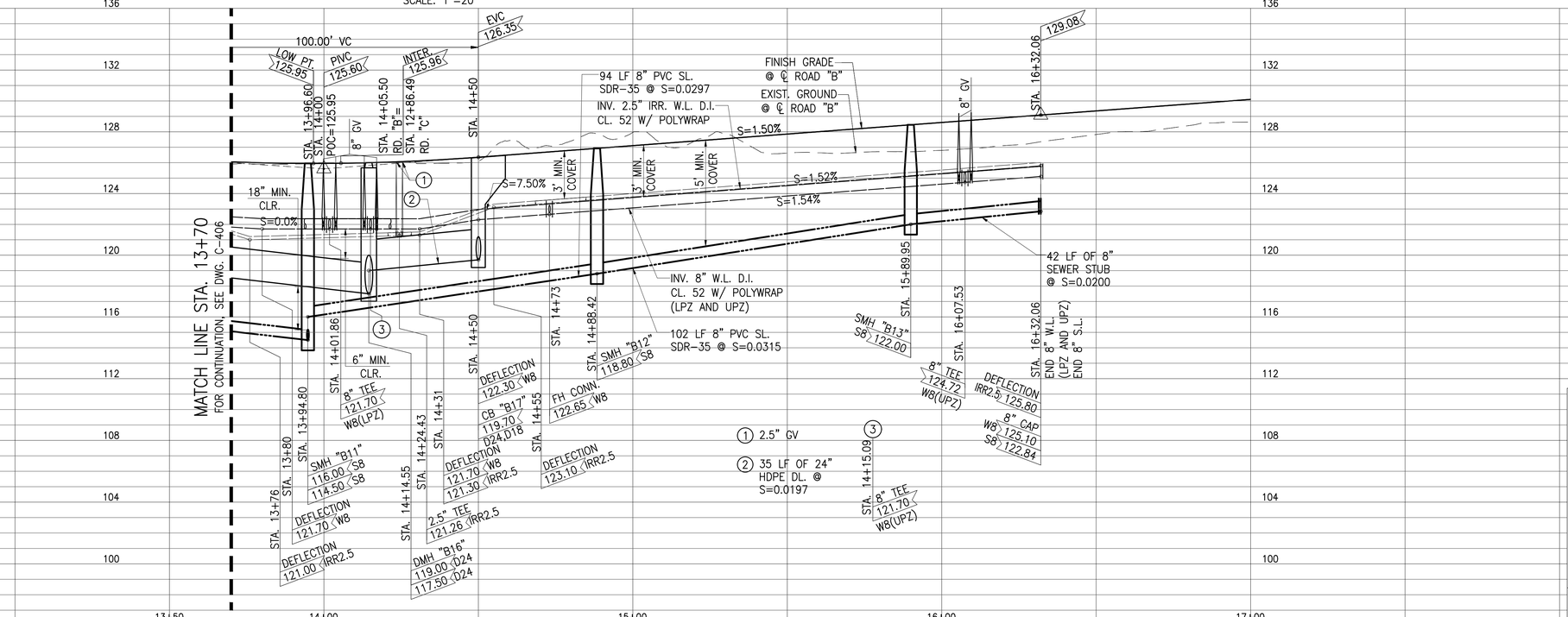
APPROVED BY / DATE — SUBMITTED BY / FIRM NUMBER / DATE

FILE	POCKET	FOLDER	NO.



PLAN – UTILITY ROAD "B" STA. 13+70 TO END

SCALE: 1"=20'



PROFILE – UTILITY ROAD "B" STA. 13+70 TO END

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

LICENSED PROFESSIONAL ENGINEER
No. 6378
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LICENSE EXPIRES: APRIL 30, 2024

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

PLAN AND PROFILE ROAD "B" UTILITY
STA 13+70 TO END

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

DWG. NO. **C-407**

SHEET 29 OF

APPROVED BY _____ DATE

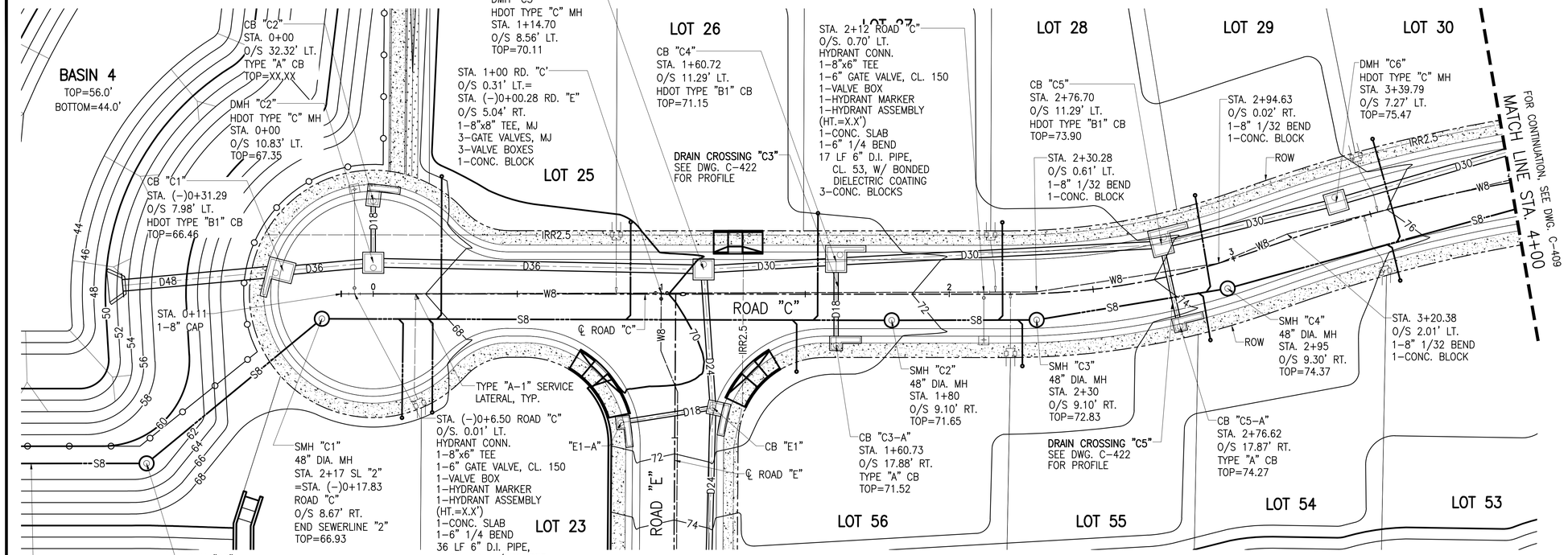
SUBMITTED BY _____ FIRM NUMBER _____ DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

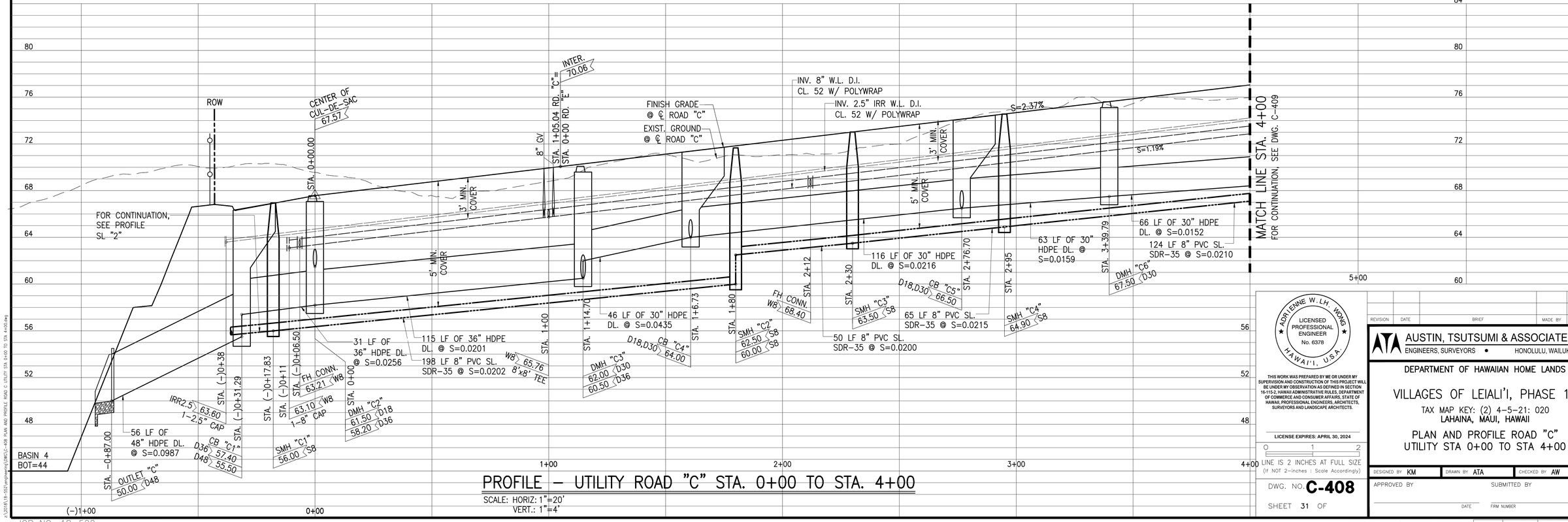
DATE: SEPTEMBER 2023

J:\2018\18-522\engineering\DWG\C-407 PLAN AND PROFILE ROAD B UTILITY STA 13+70 TO END.dwg



PLAN − UTILITY ROAD "C" STA. 0+00 TO STA. 4+00

SCALE: 1"=20'



PROFILE − UTILITY ROAD "C" STA. 0+00 TO STA. 4+00

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

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HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4−5−21: 020
LAHAINA, MAUI, HAWAII

PLAN AND PROFILE ROAD "C"
UTILITY STA 0+00 TO STA 4+00

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2−inches : Scale Accordingly)

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY DATE
SUBMITTED BY FIRM NUMBER DATE

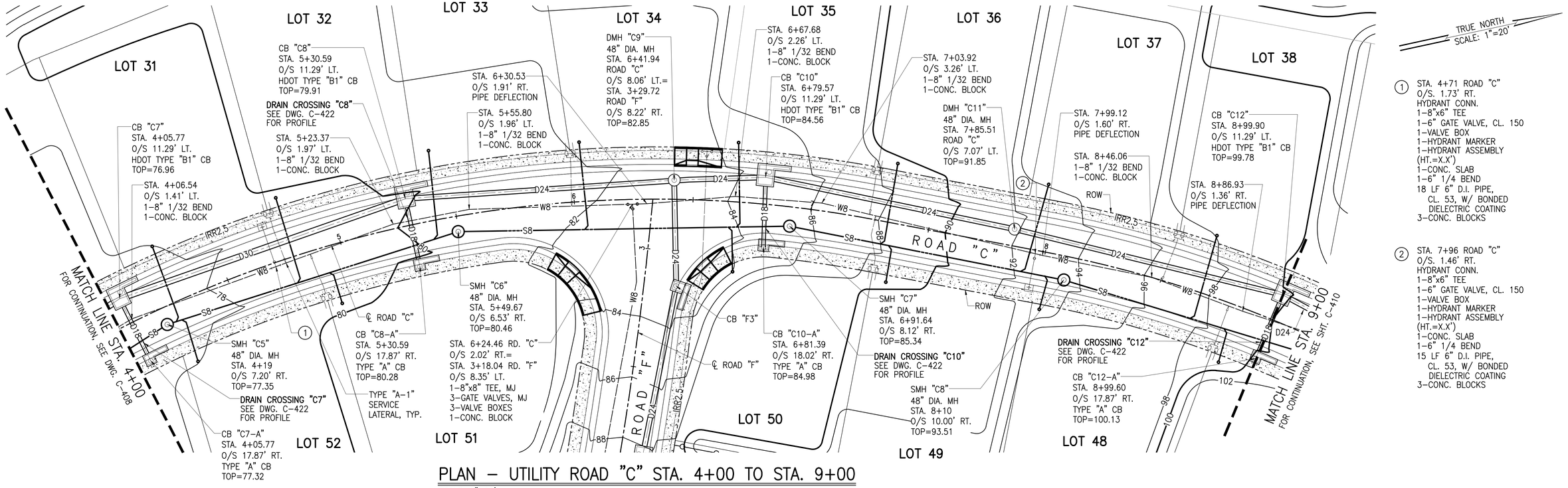
DWG. NO. **C-408**
SHEET 31 OF

FILE	POCKET	FOLDER	NO.

JOB NO. 18−522

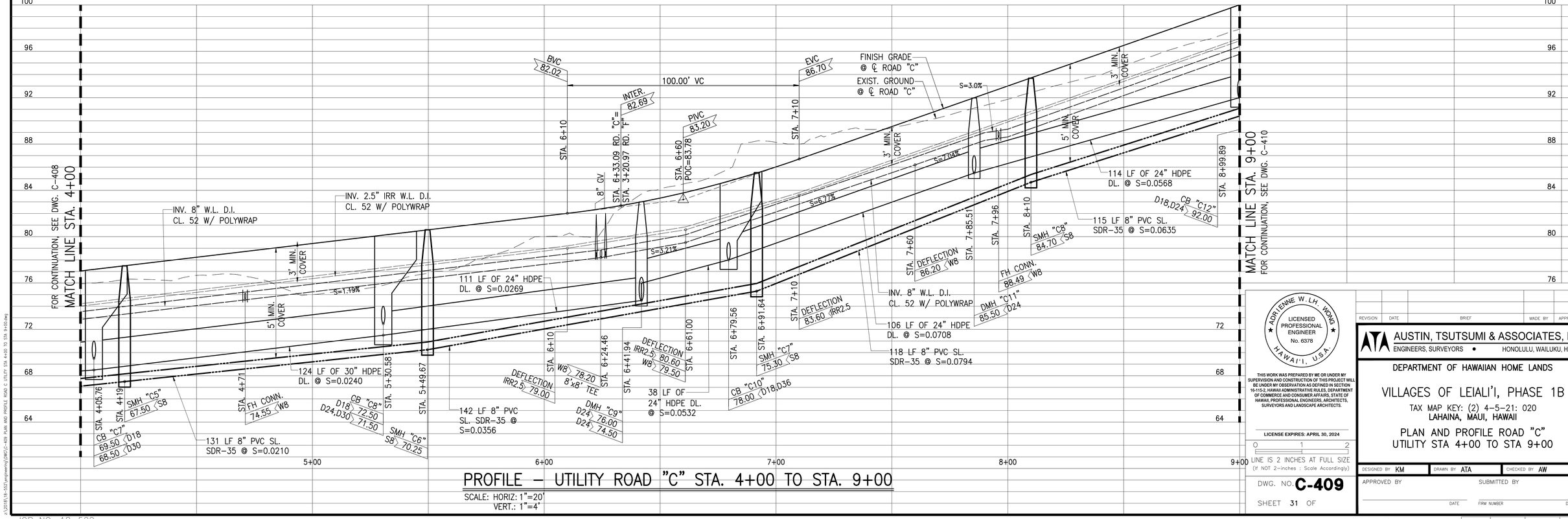
DATE: SEPTEMBER 2023

J:\2018\18−522\engineering\DWG\C−408 PLAN AND PROFILE ROAD C UTILITY STA 0+00 TO STA 4+00.dwg



PLAN – UTILITY ROAD "C" STA. 4+00 TO STA. 9+00

SCALE: 1"=20'



PROFILE – UTILITY ROAD "C" STA. 4+00 TO STA. 9+00

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

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No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

PLAN AND PROFILE ROAD "C"
UTILITY STA 4+00 TO STA 9+00

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

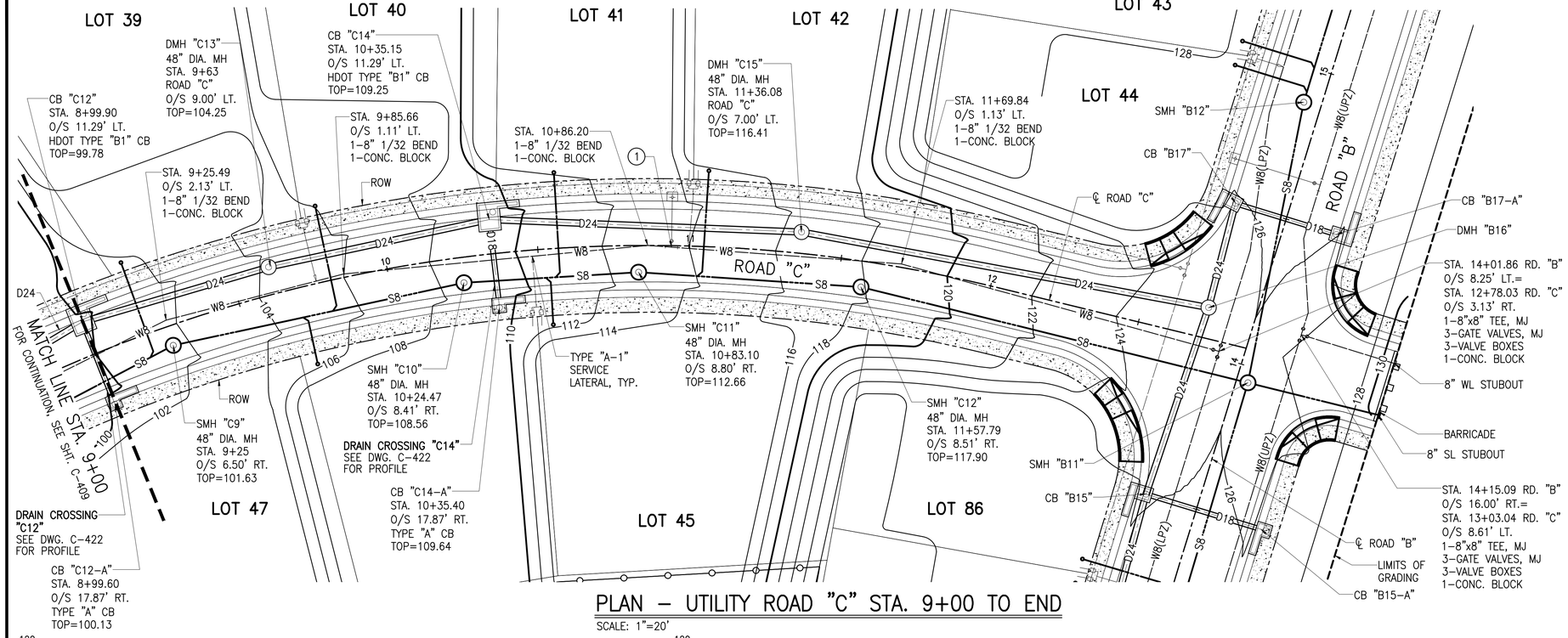
DWG. NO. **C-409**
SHEET 31 OF

APPROVED BY DATE
SUBMITTED BY FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

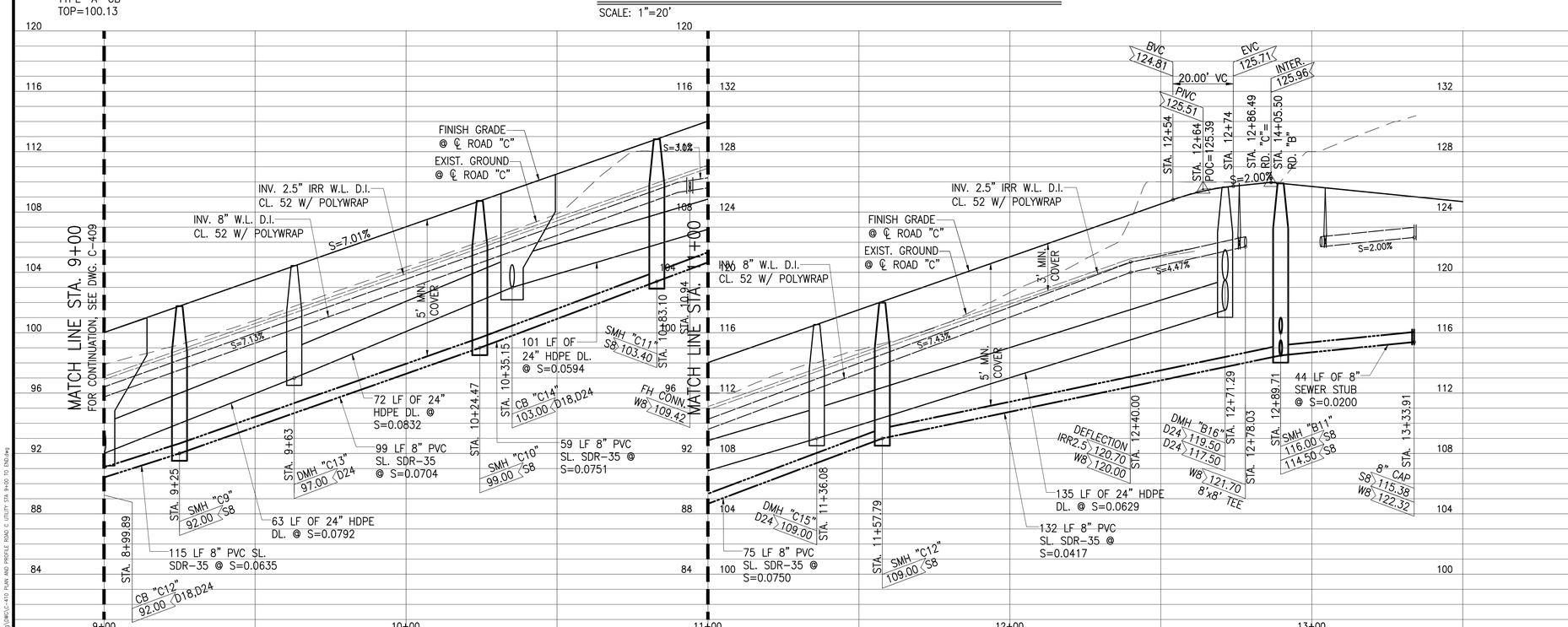
JOB NO. 18-522
DATE: SEPTEMBER 2023

J:\2018\18-522\engineering\DWG\C-409 PLAN AND PROFILE ROAD C UTILITY STA 4+00 TO STA 9+00.dwg



PLAN – UTILITY ROAD "C" STA. 9+00 TO END

SCALE: 1"=20'



PROFILE – UTILITY ROAD "C" STA. 9+00 TO END

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

PLAN AND PROFILE ROAD "C" UTILITY STA 9+00 TO END

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY _____ DATE _____
SUBMITTED BY _____ FIRM NUMBER _____ DATE _____

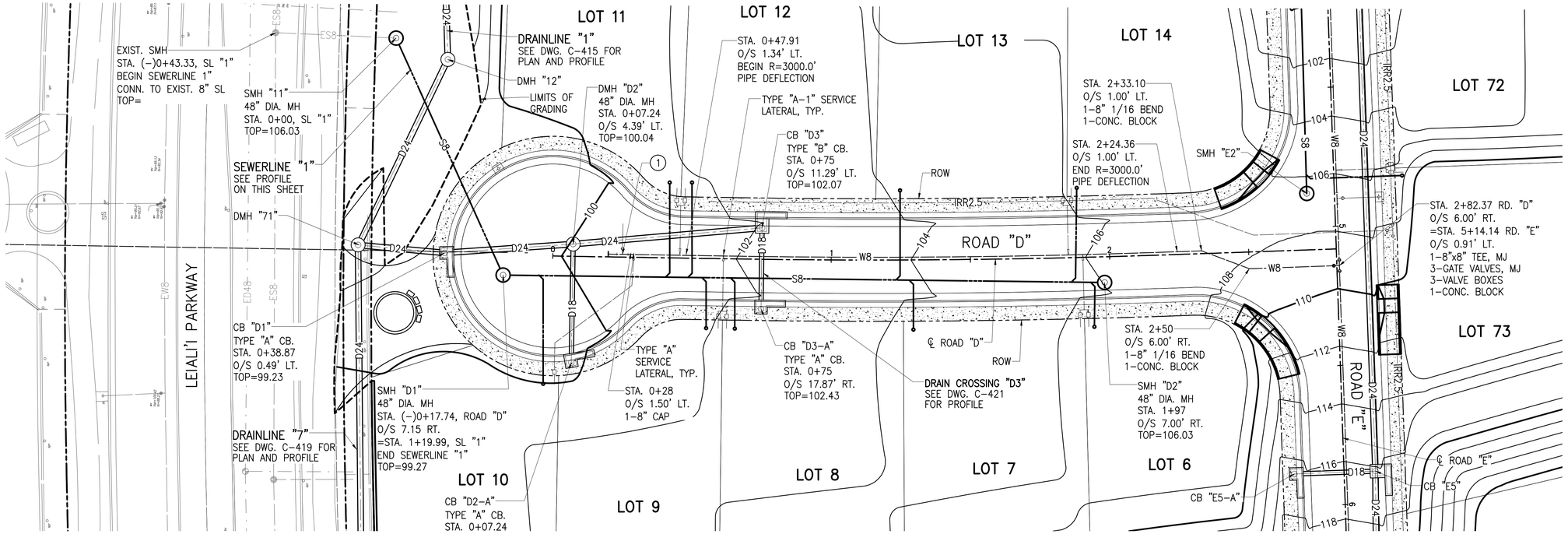
DWG. NO. **C-410**
SHEET 32 OF

JOB NO. 18-522

DATE: SEPTEMBER 2023

FILE	POCKET	FOLDER	NO.

J:\2018\18-522\engineering\DWG\C-410 PLAN AND PROFILE ROAD C UTILITY STA 9+00 TO END.dwg

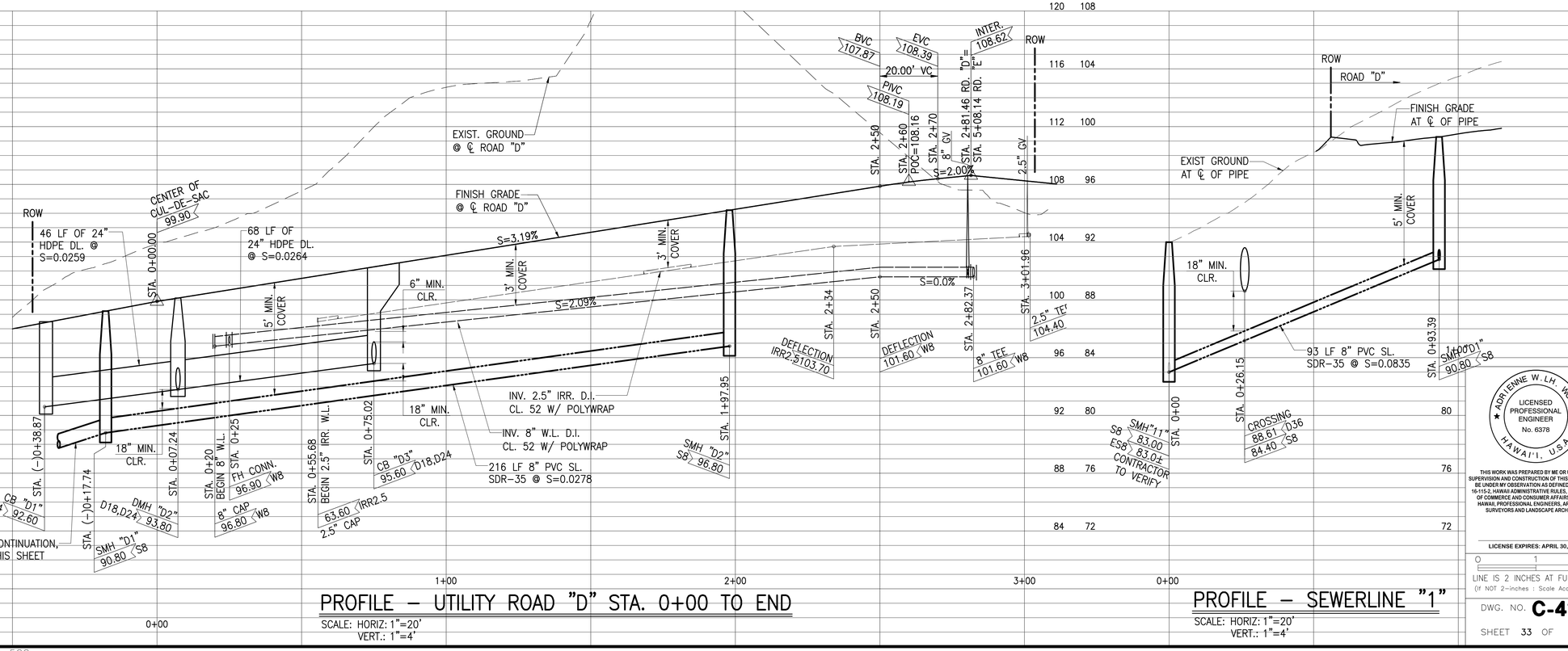


TRUE NORTH
SCALE: 1"=20'

(1) STA. 0+25 ROAD "D"
O/S. 1.00' LT.
HYDRANT CONN.
1-8"x6" TEE
1-6" GATE VALVE, CL. 150
1-VALVE BOX
1-HYDRANT MARKER
1-HYDRANT ASSEMBLY
(HT.=X.X')
1-CONC. SLAB
1-6" 1/4 BEND
64 LF 6" D.I. PIPE,
CL. 53, W/ BONDED
DIELECTRIC COATING
3-CONC. BLOCKS

PLAN – UTILITY ROAD "D" STA. 0+00 TO END

SCALE: 1"=20'



PROFILE – UTILITY ROAD "D" STA. 0+00 TO END

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

PROFILE – SEWERLINE "1"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

PLAN AND PROFILE ROAD "D"
UTILITY STA 0+00 TO END

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY _____ DATE
SUBMITTED BY _____ FIRM NUMBER _____ DATE

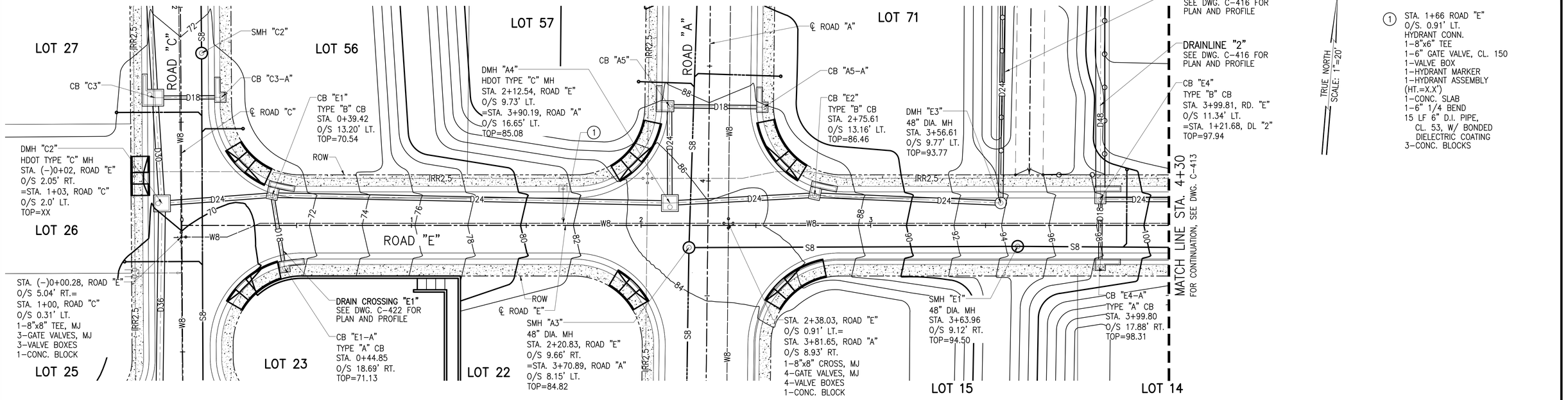
DWG. NO. **C-411**
SHEET 33 OF

FILE	POCKET	FOLDER	NO.

DATE: SEPTEMBER 2023

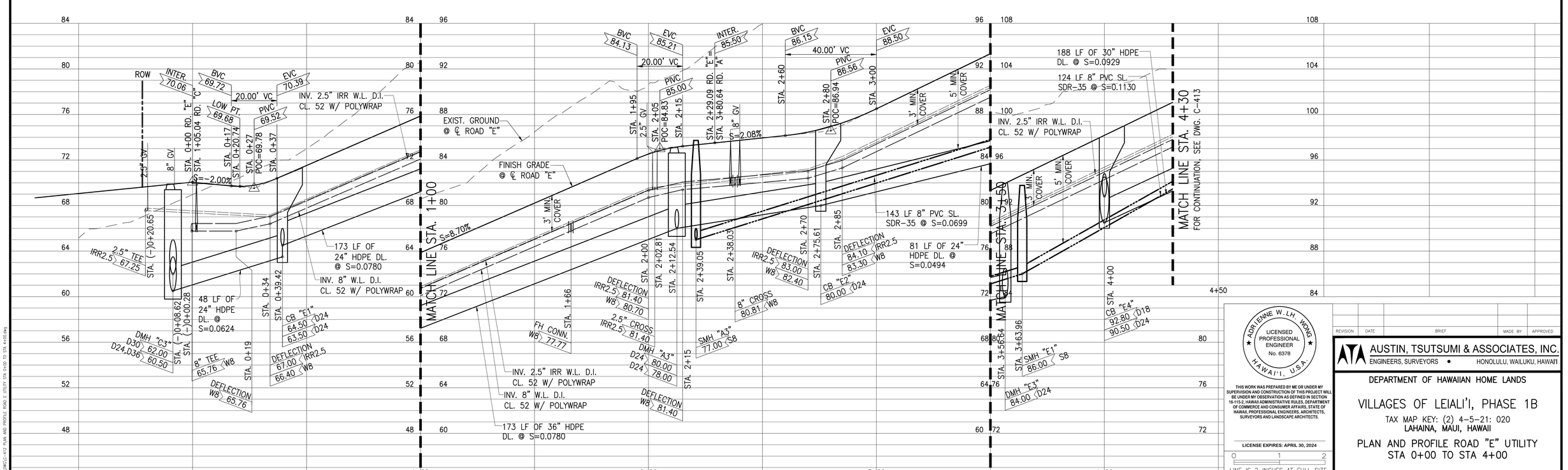
JOB NO. 18-522

J:\2018\18-522\engineering\DWG\C-411 PLAN AND PROFILE ROAD D UTILITY STA 0+00 TO END.dwg



PLAN – UTILITY ROAD "E" STA. 0+00 TO STA. 4+30

SCALE: 1"=20'



PROFILE – UTILITY ROAD "E" STA. 0+00 TO STA. 4+30

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

ADRIENNE W.LH. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4–5–21: 020
LAHAINA, MAUI, HAWAII

PLAN AND PROFILE ROAD "E" UTILITY
STA 0+00 TO STA 4+00

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

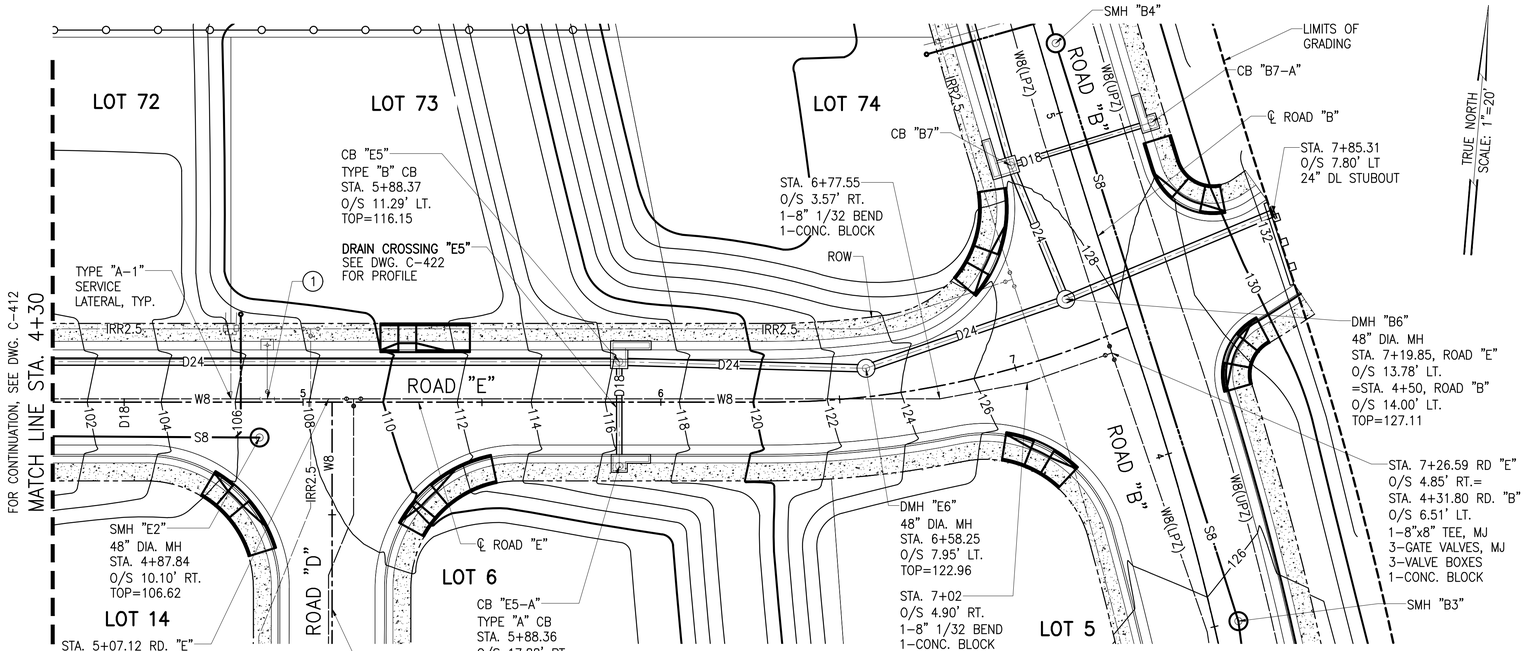
APPROVED BY _____ DATE _____
SUBMITTED BY _____ FIRM NUMBER _____ DATE _____

DWG. NO. **C-412**
SHEET 34 OF

FILE	POCKET	FOLDER	NO.

JOB NO. 18–522
DATE: SEPTEMBER 2023

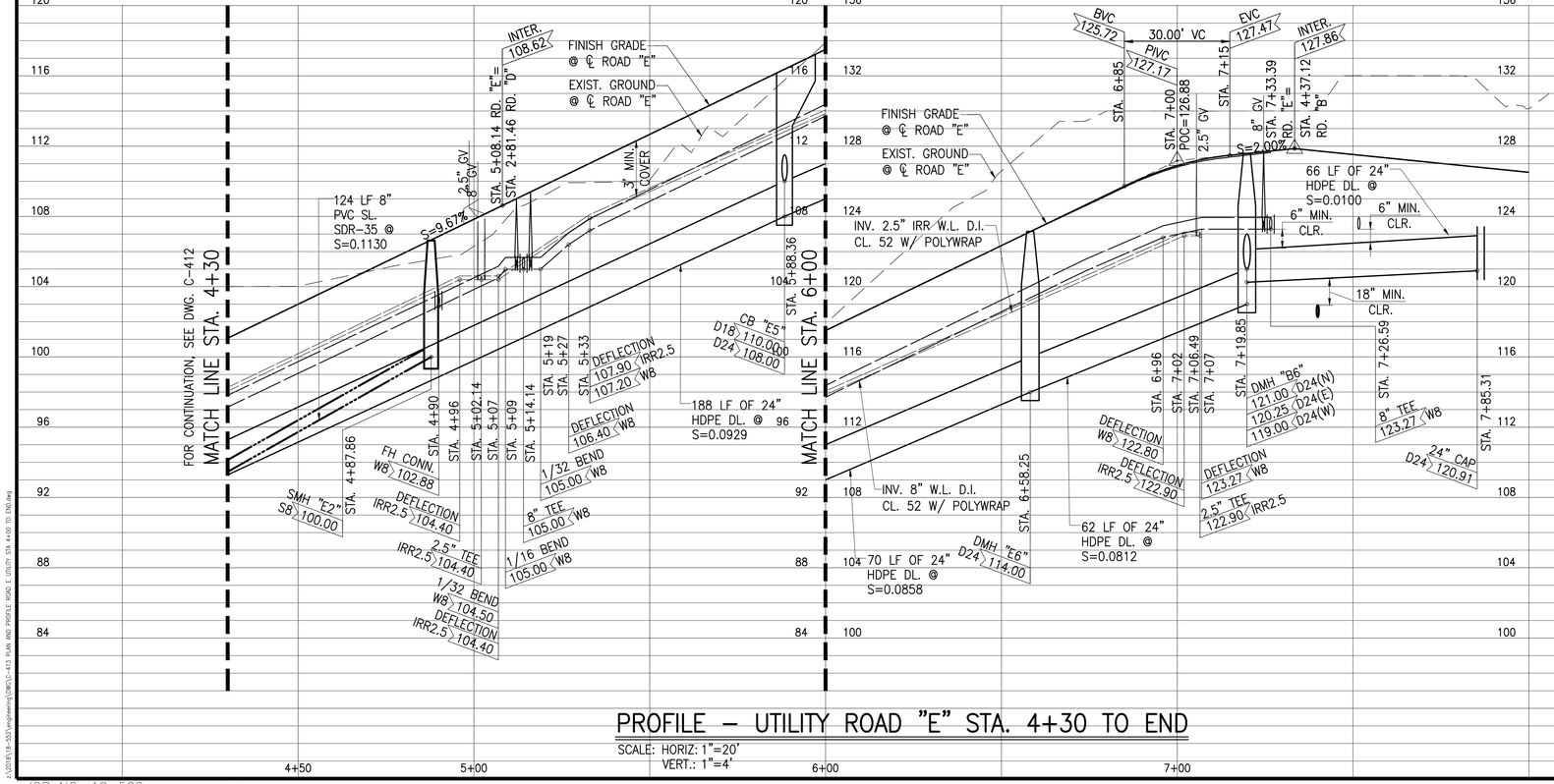
J:\2018\18-522\engineering\CAD\C-412 PLAN AND PROFILE ROAD E UTILITY STA 0+00 TO STA 4+00.dwg



PLAN – UTILITY ROAD "E" STA. 4+30 TO END

SCALE: 1"=20'

① STA. 4+90 ROAD "E"
O/S. 0.91' LT.
HYDRANT CONN.
1-8"x6" TEE
1-6" GATE VALVE, CL. 150
1-VALVE BOX
1-HYDRANT MARKER
1-HYDRANT ASSEMBLY
(HT.=X.X')
1-CONC. SLAB
1-6" 1/4 BEND
15 LF 6" D.I. PIPE,
CL. 53, W/ BONDED
DIELECTRIC COATING
3-CONC. BLOCKS



PROFILE – UTILITY ROAD "E" STA. 4+30 TO END

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

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LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

PLAN AND PROFILE ROAD "E" UTILITY STA 4+00 TO END

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

DWG. NO. **C-413**
SHEET 35 OF

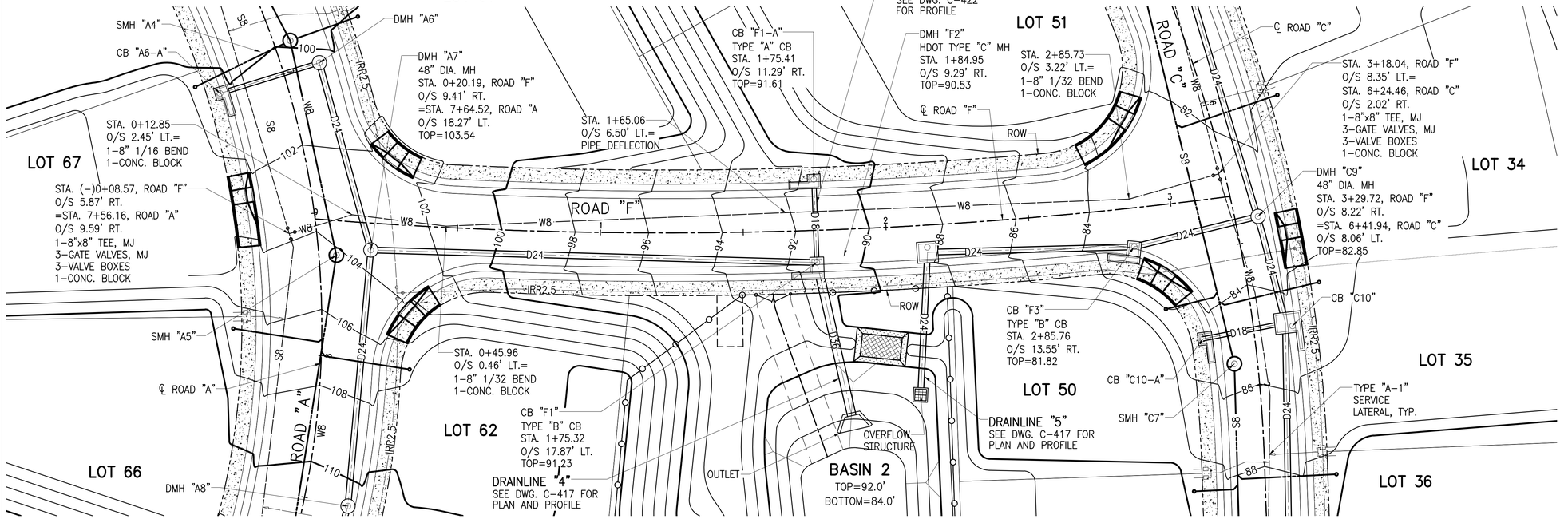
APPROVED BY _____ DATE
SUBMITTED BY _____ FIRM NUMBER _____ DATE

FILE	POCKET	FOLDER	NO.

DATE: SEPTEMBER 2023

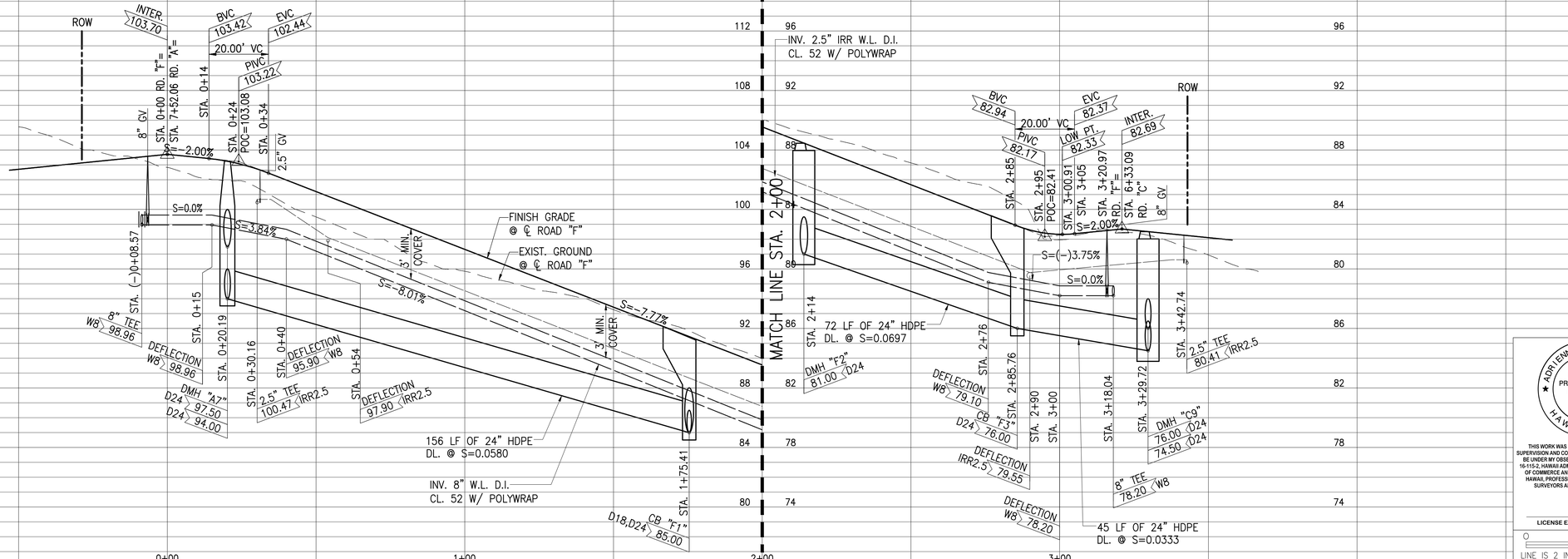
JOB NO. 18-522

J:\2018\18-522\engineering\CAD\C-413 PLAN AND PROFILE ROAD E UTILITY STA 4+00 TO END.dwg



PLAN – UTILITY ROAD "F" STA. 0+00 TO END

SCALE: 1"=20'



PROFILE – UTILITY ROAD "F" STA. 0+00 TO END

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

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HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

REVISION	DATE	BRIEF	MADE BY	APPROVED

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ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

PLAN AND PROFILE ROAD "F" UTILITY
STA 0+00 TO END

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

DWG. NO. **C-414**

SHEET 36 OF

APPROVED BY DATE

SUBMITTED BY

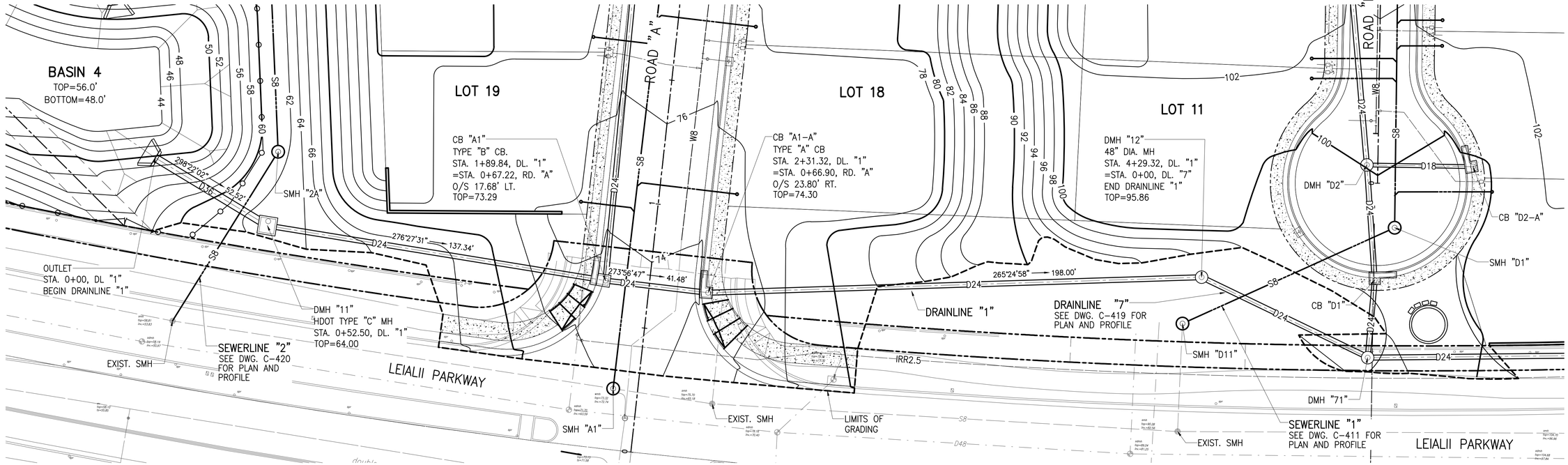
FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

DATE: SEPTEMBER 2023

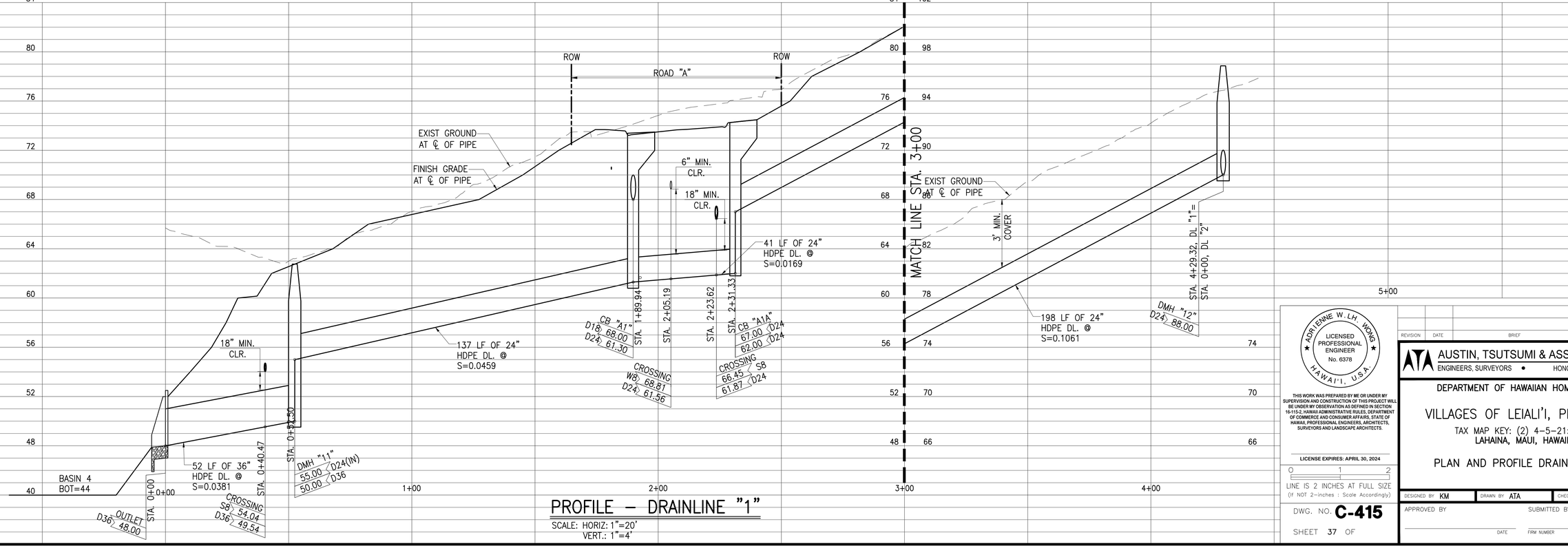
JOB NO. 18-522

J:\2018\18-522\engineering\CAD\C-414 PLAN AND PROFILE ROAD F UTILITY STA 0+00 TO END.dwg



PLAN – DRAINLINE "1"

SCALE: 1"=20'



PROFILE – DRAINLINE "1"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

JOB NO. 18-522

DATE: SEPTEMBER 2023

J:\2018\18-522\engineering\DWG\C-415 PLAN AND PROFILE DRAINLINE 1.dwg

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-415**

SHEET 37 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

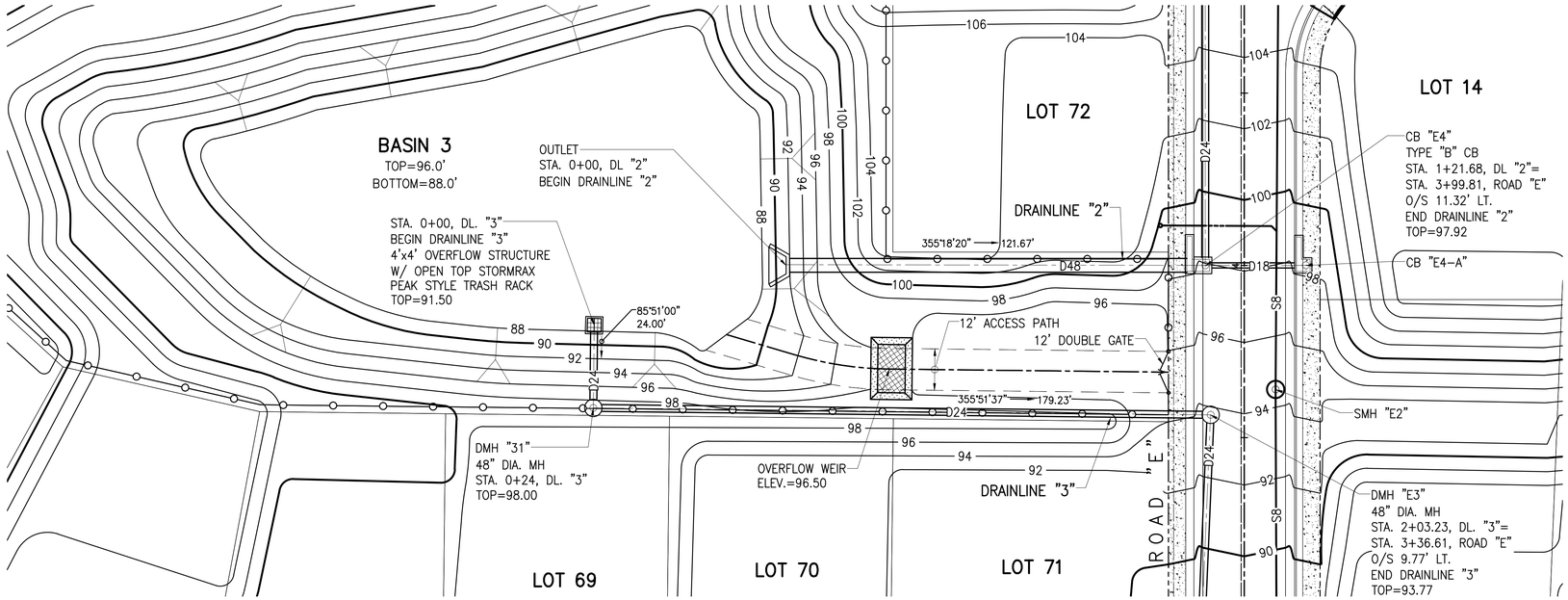
PLAN AND PROFILE DRAINLINE "1"

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY DATE

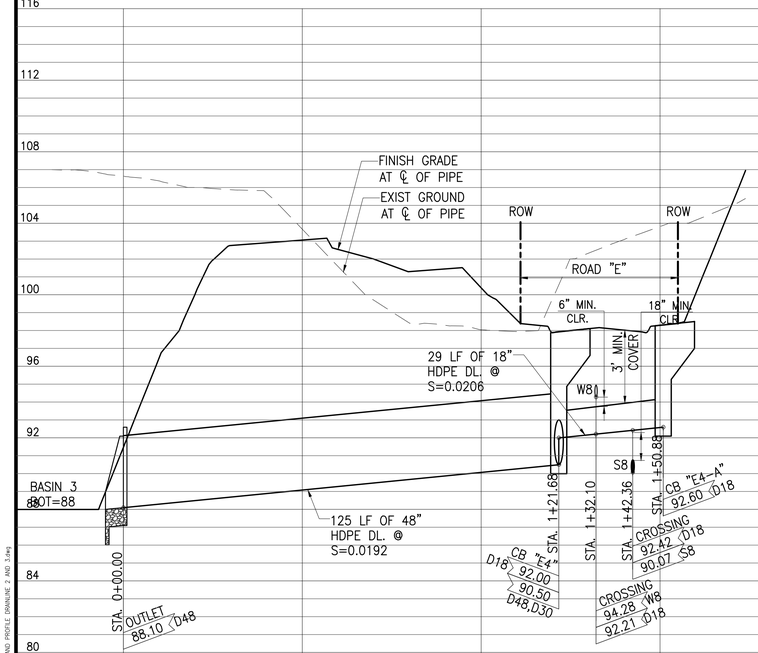
SUBMITTED BY
FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.



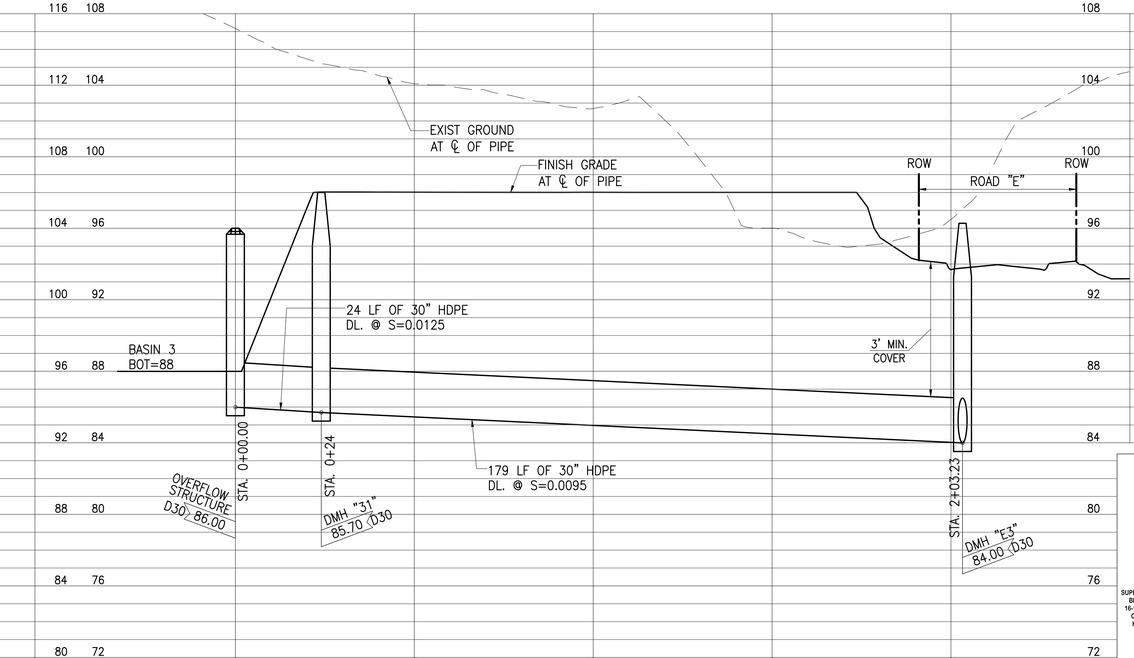
PLAN – DRAINLINE "2" & "3"

SCALE: 1"=20'



PROFILE – DRAINLINE "2"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



PROFILE – DRAINLINE "3"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

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No. 6378
ADRIENNE W.LH. WONG
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-416**

SHEET 38 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

PLAN AND PROFILE
DRAINLINE "2" AND "3"

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY _____ DATE _____

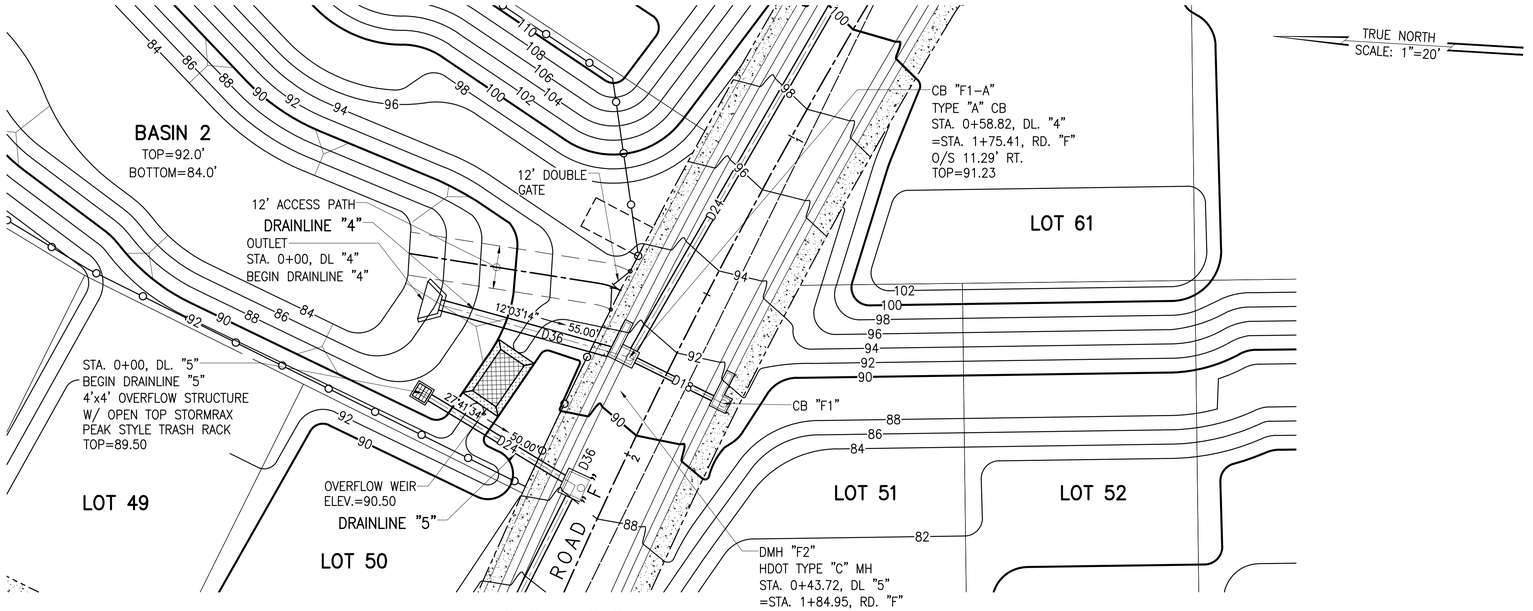
SUBMITTED BY _____ FIRM NUMBER _____ DATE _____

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

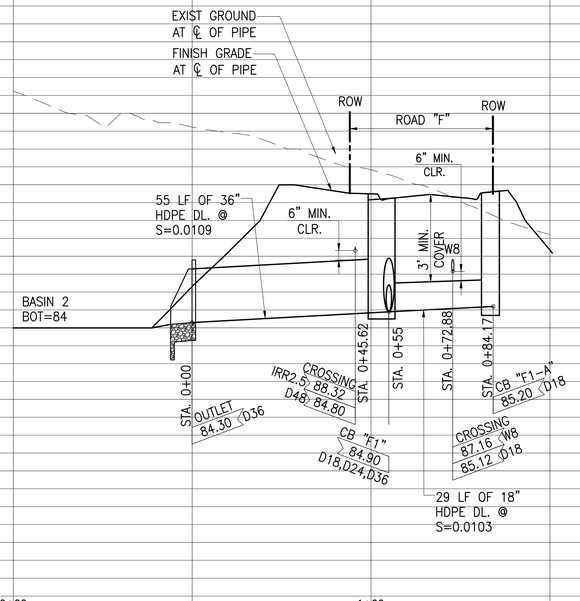
DATE: SEPTEMBER 2023

J:\2018\18-522\engineering\DWG\C-416 PLAN AND PROFILE DRAINLINE 2 AND 3.dwg



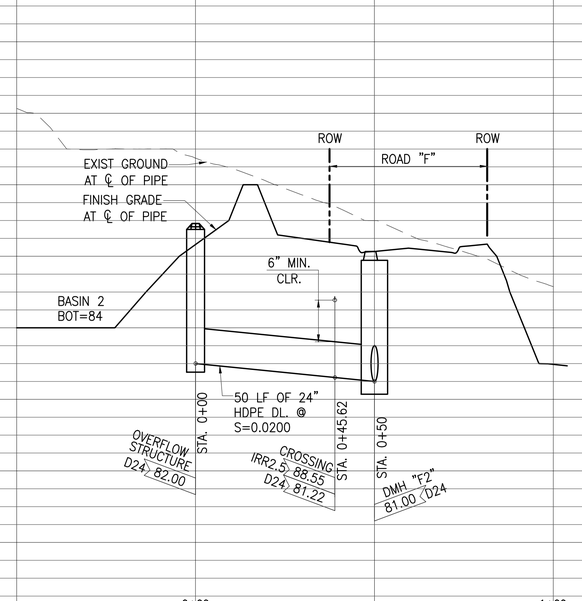
PLAN – DRAINLINE "4" & "5"

SCALE: 1"=20'



PROFILE – DRAINLINE "4"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



PROFILE – DRAINLINE "5"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

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ADRIENNE W.LH. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

LICENSE EXPIRES: APRIL 30, 2024

REVISION	DATE	BRIEF	MADE BY	APPROVED

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ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

PLAN AND PROFILE
DRAINLINE "4" AND "5"

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

DWG. NO. **C-417**
SHEET 39 OF

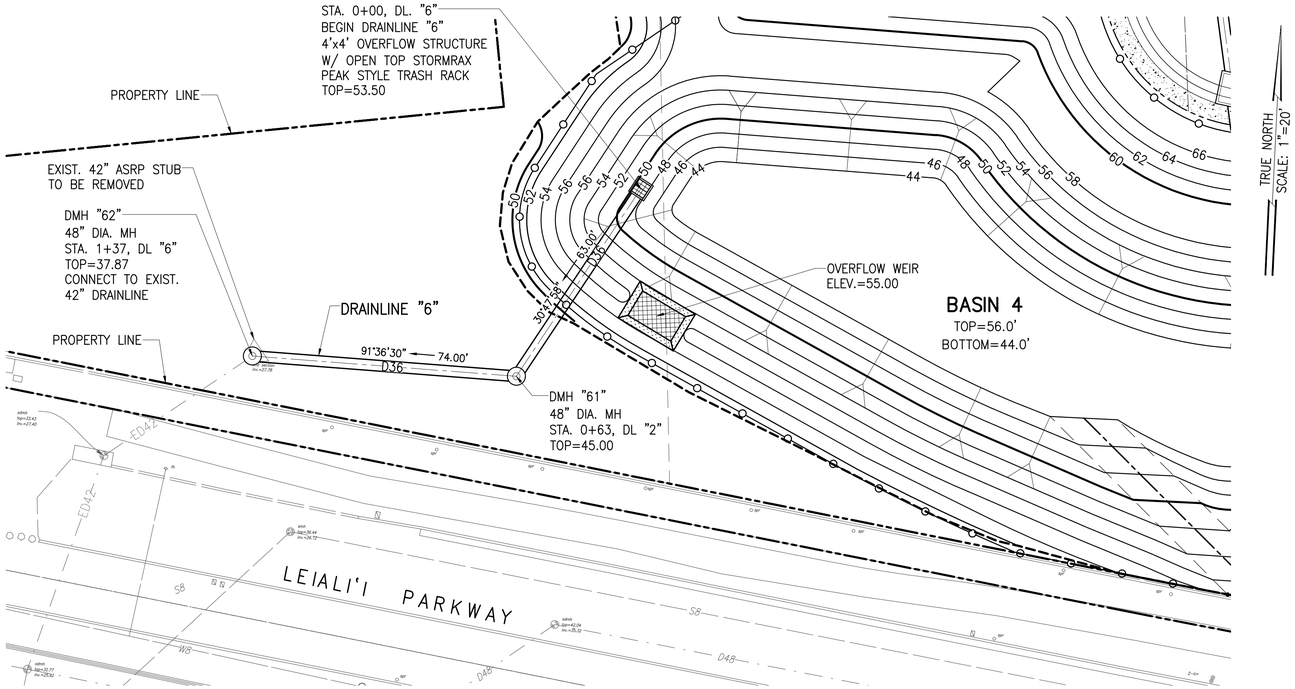
APPROVED BY _____ DATE
SUBMITTED BY _____ FIRM NUMBER _____ DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

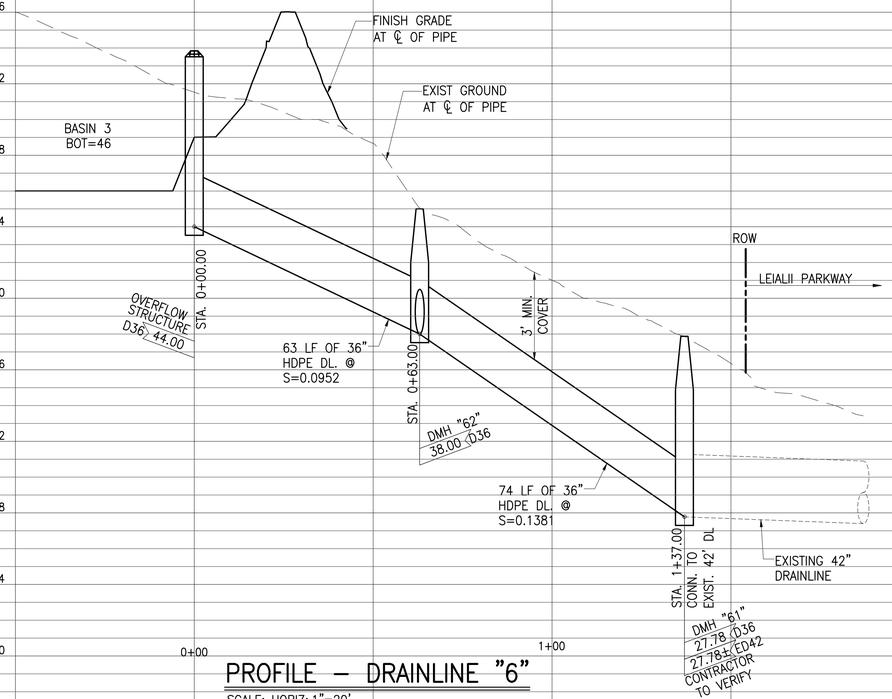
DATE: SEPTEMBER 2023

J:\2018\18-522\engineering\DWG\C-417 PLAN AND PROFILE DRAINLINE 4 AND 5.dwg



PLAN – DRAINLINE "6"

SCALE: 1"=20'



PROFILE – DRAINLINE "6"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

JOB NO. 18-522

DATE: SEPTEMBER 2023

I:\2018\18-522\engineering\DWG\C-418 PLAN AND PROFILE DRAINLINE 6.dwg

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No. 6378
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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-418**

SHEET 40 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

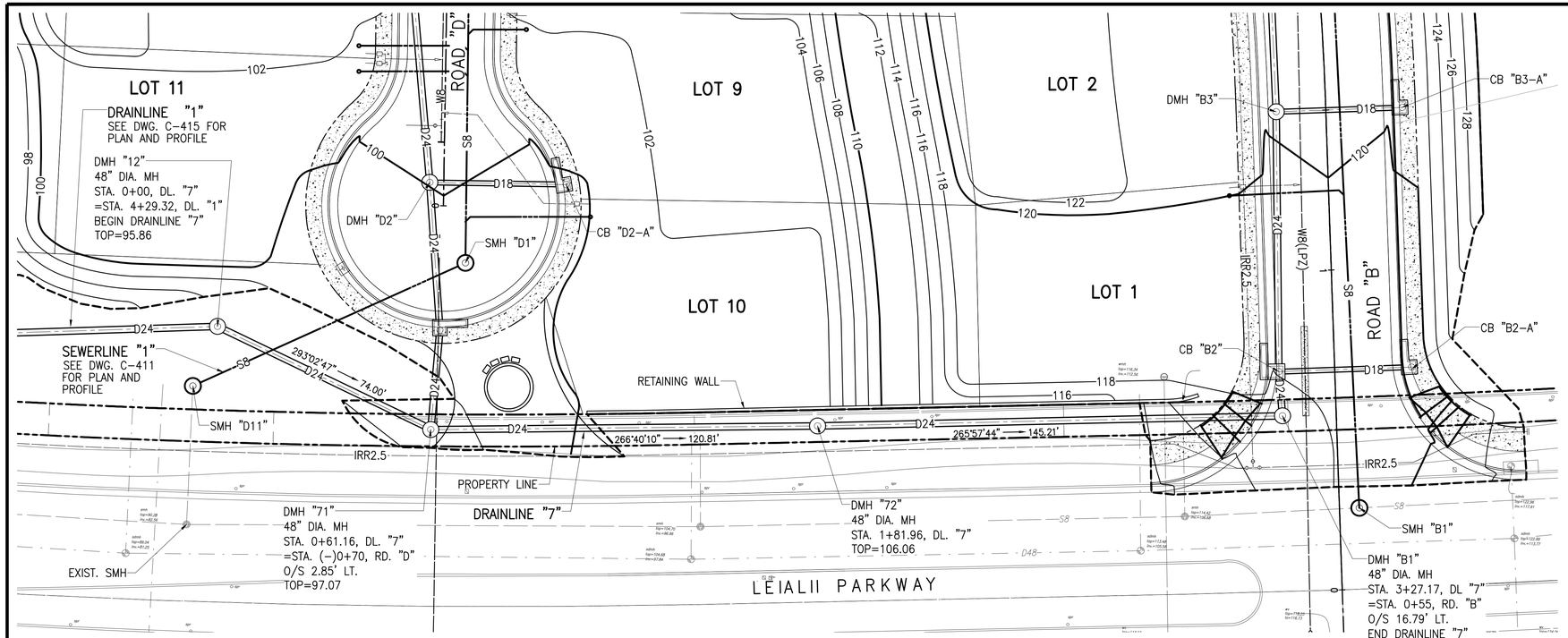
PLAN AND PROFILE DRAINLINE "6"

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY _____ DATE

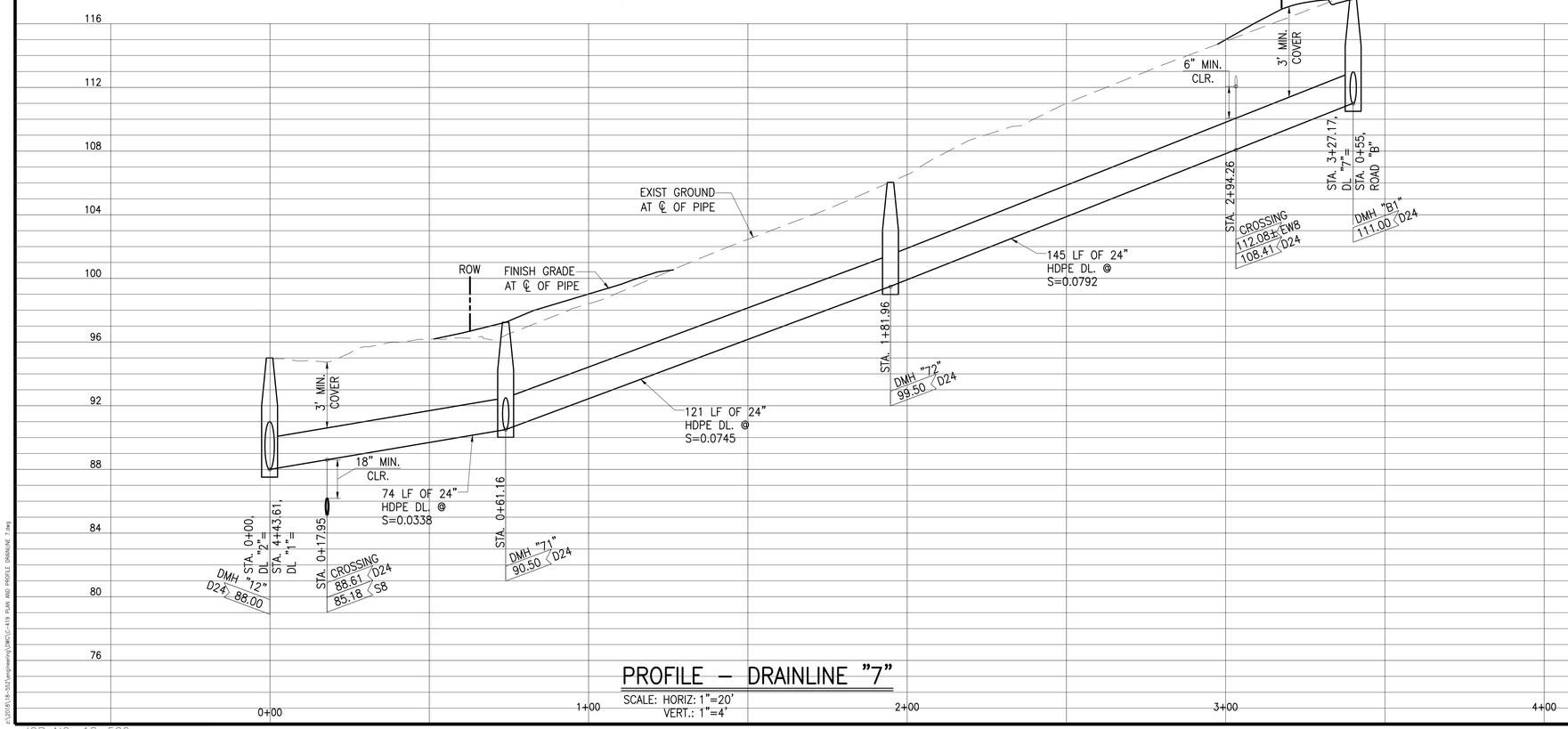
SUBMITTED BY _____ FIRM NUMBER _____ DATE

FILE	POCKET	FOLDER	NO.



PLAN – DRAINLINE "7"

SCALE: 1"=20'



PROFILE – DRAINLINE "7"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

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No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-419**

SHEET 41 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

PLAN AND PROFILE DRAINLINE "7"

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

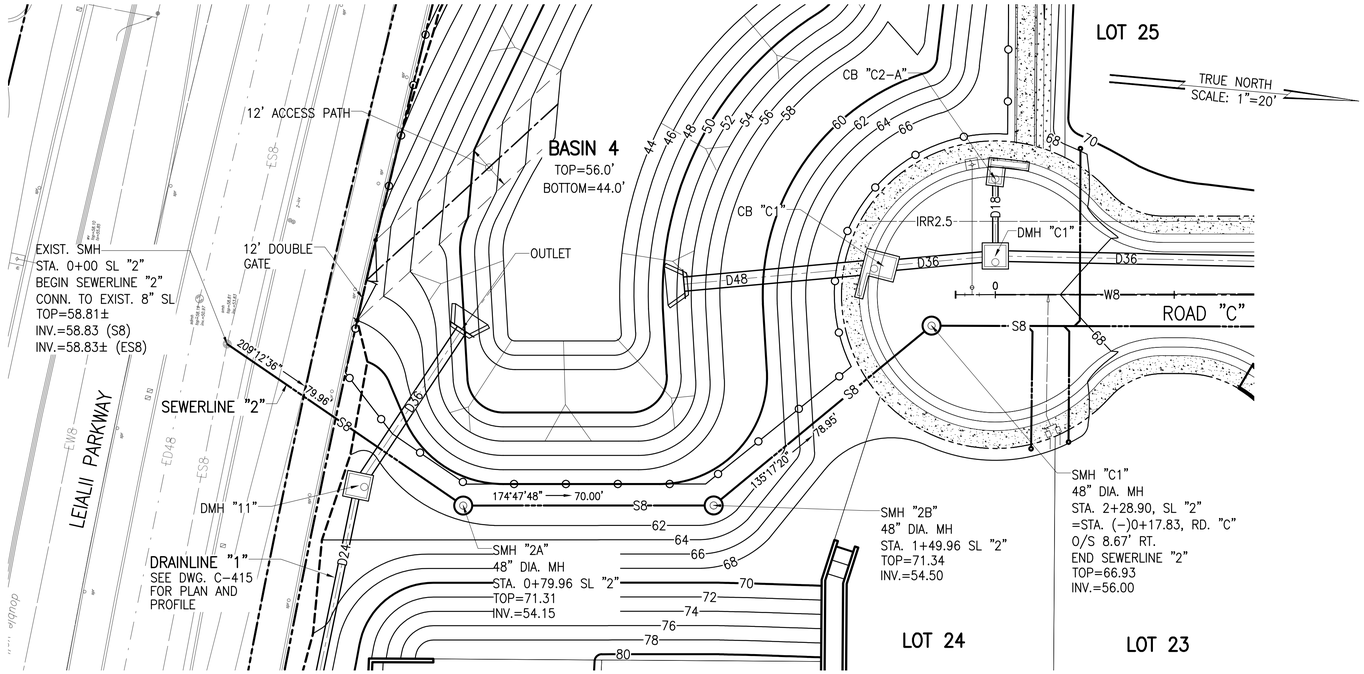
APPROVED BY DATE — SUBMITTED BY FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

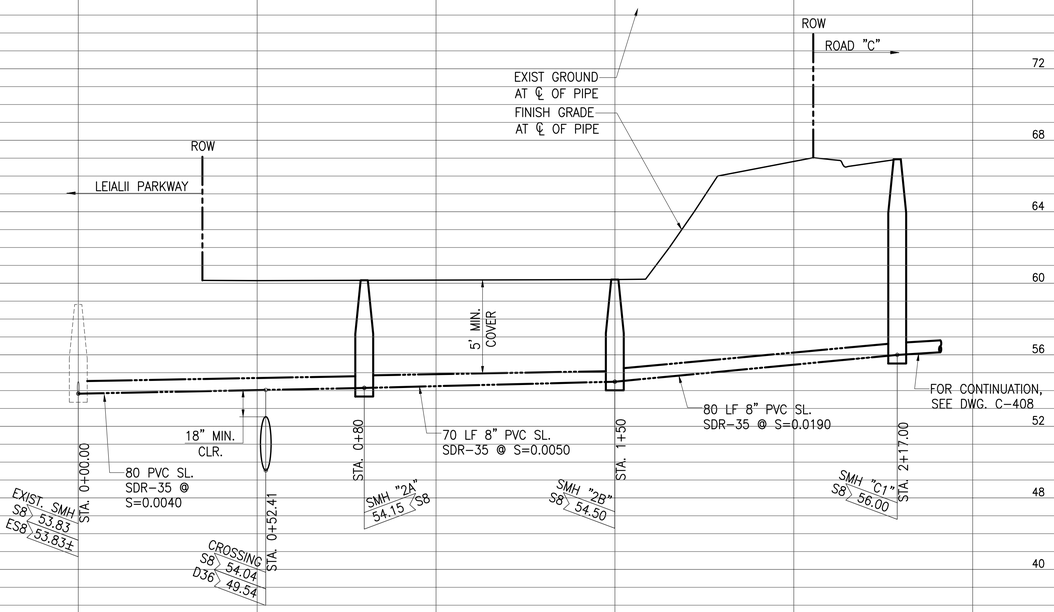
DATE: SEPTEMBER 2023

z:\2018\18-522\engineering\DWG\C-419 PLAN AND PROFILE DRAINLINE 7.dwg



PLAN – SEWERLINE "2"

SCALE: 1"=20'



PROFILE – SEWERLINE "2"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

JOB NO. 18-522

DATE: SEPTEMBER 2023

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No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-420**

SHEET 42 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

PLAN AND PROFILE SEWERLINE 2

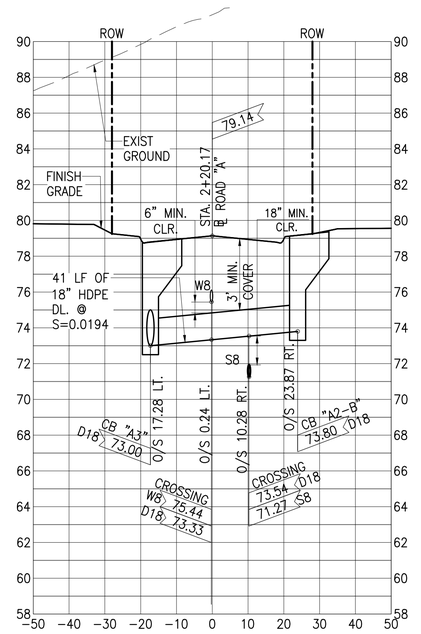
DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY — DATE

SUBMITTED BY — FIRM NUMBER — DATE

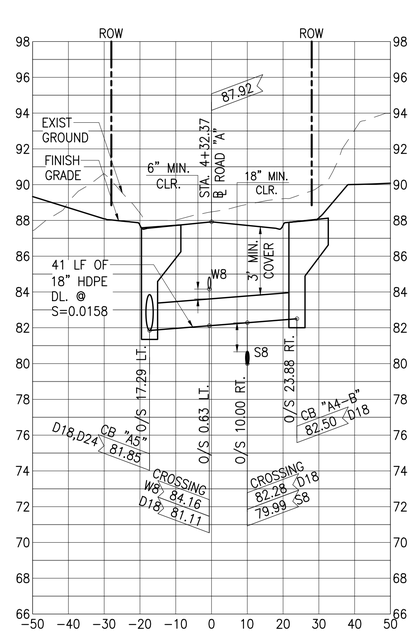
FILE	POCKET	FOLDER	NO.

J:\2018\18-522\engineering\CAD\C-420 PLAN AND PROFILE SEWERLINE 2.dwg



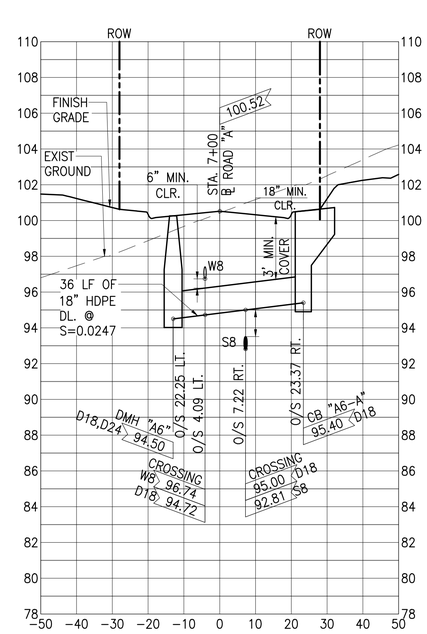
DRAIN CROSSING "A2" – STA. 2+20.17 ROAD "A"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



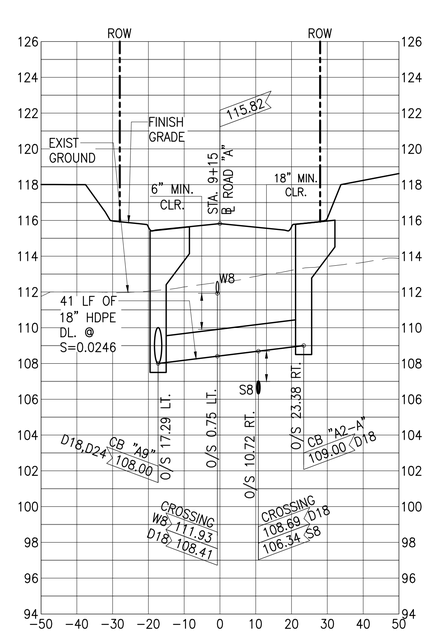
DRAIN CROSSING "A4" – STA. 4+32.37 ROAD "A"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



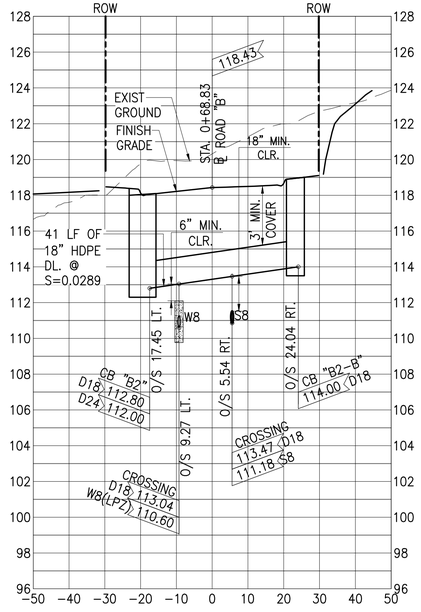
DRAIN CROSSING "A5" – STA. 7+00 ROAD "A"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



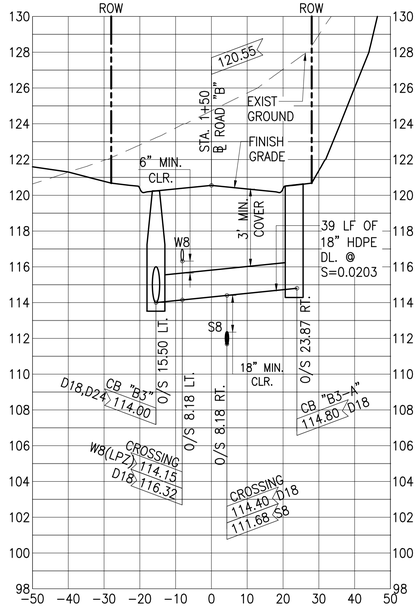
DRAIN CROSSING "A8" – STA. 9+15 ROAD "A"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



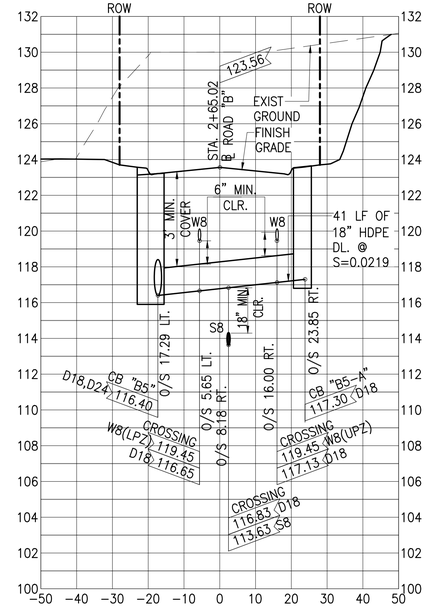
DRAIN CROSSING "B2" – STA. 0+68.58 ROAD "B"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



DRAIN CROSSING "B3" – STA. 1+50 ROAD "B"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



DRAIN CROSSING "B5" – STA. 2+65.02 ROAD "B"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

ADRIENNE W. LH. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-421**
SHEET 43 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B
TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

DRAIN CROSSING – 1

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

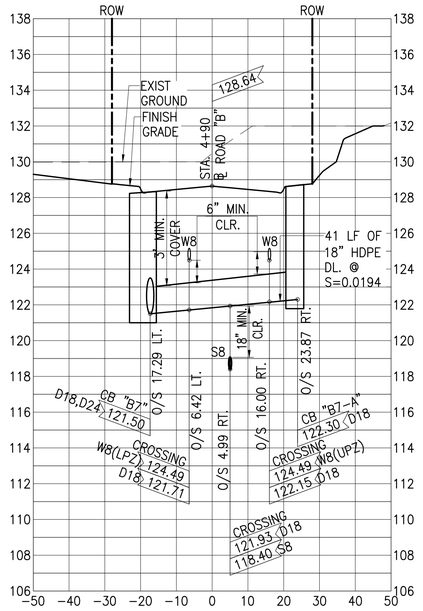
APPROVED BY _____ DATE
SUBMITTED BY _____ FIRM NUMBER _____ DATE

FILE	POCKET	FOLDER	NO.

DATE: SEPTEMBER 2023

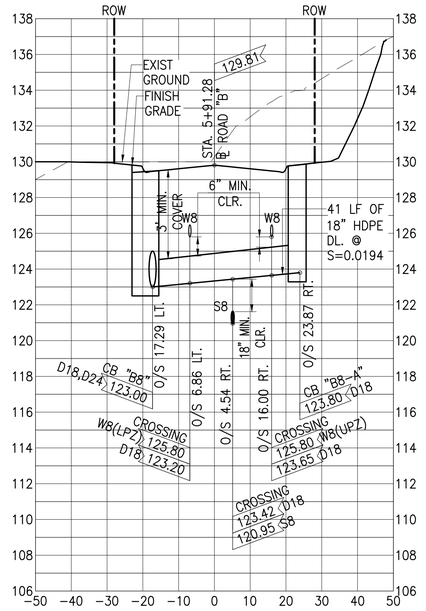
JOB NO. 18-522

z:\2018\18-522\engineering\DWG\C-421 DRAIN CROSSING - 1.dwg



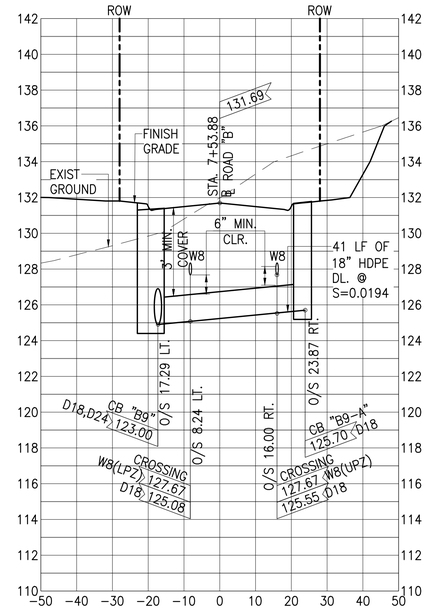
DRAIN CROSSING "B7" – STA. 4+90 ROAD "B"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



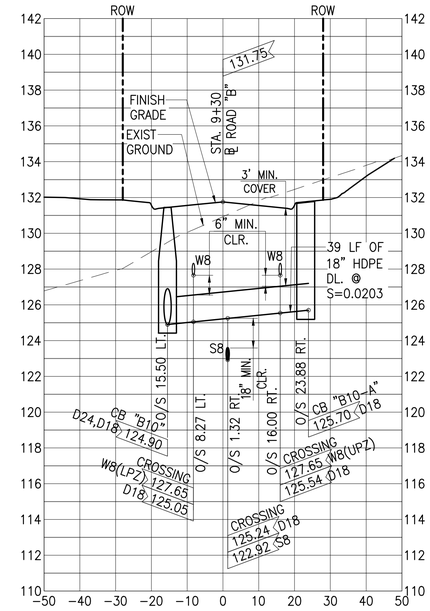
DRAIN CROSSING "B8" – STA. 5+91.28 ROAD "B"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



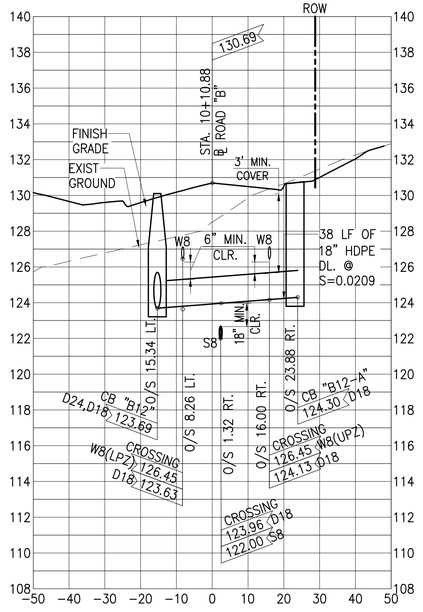
DRAIN CROSSING "B9" – STA. 7+53.88 ROAD "B"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



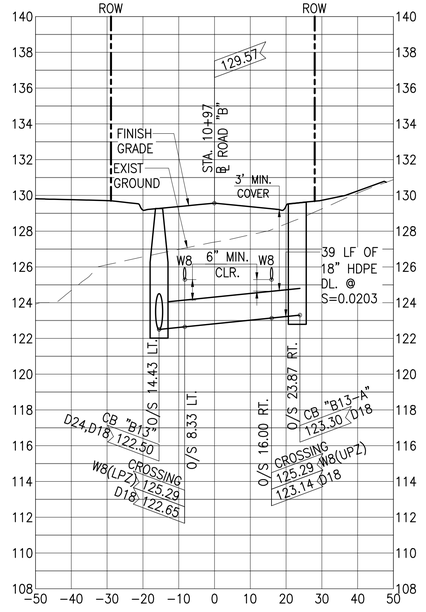
DRAIN CROSSING "B10" – STA. 9+30 ROAD "B"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



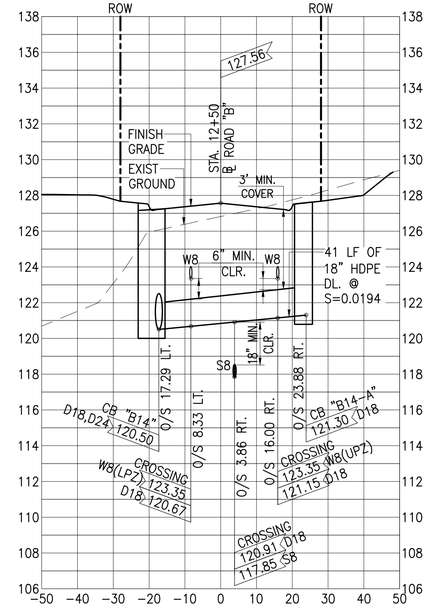
DRAIN CROSSING "B12" – STA. 10+22.60 ROAD "B"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



DRAIN CROSSING "B13" – STA. 10+97 ROAD "B"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



DRAIN CROSSING "B14" – STA. 12+50 ROAD "B"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
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(If NOT 2-inches : Scale Accordingly)

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAI'I

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

DRAIN CROSSING – 2

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY _____ DATE
SUBMITTED BY _____ FIRM NUMBER _____ DATE

DWG. NO. **C-422**
SHEET 45 OF

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522
DATE: SEPTEMBER 2023

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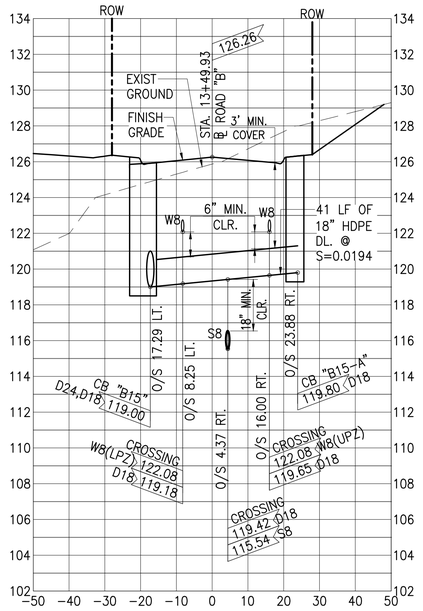
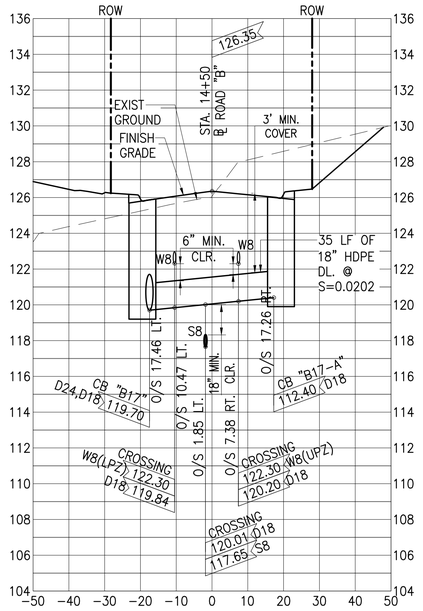


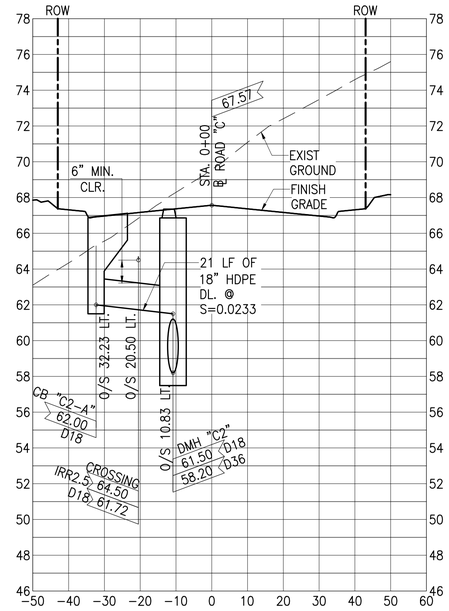
DRAIN CROSSING "B15" – STA. 13+49.93 ROAD "B"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



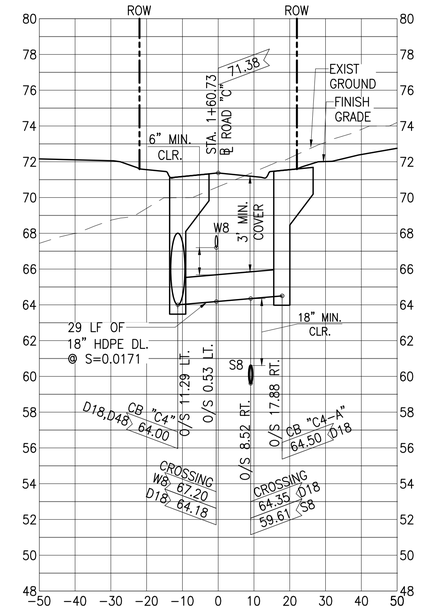
DRAIN CROSSING "B17" – STA. 14+50 ROAD "B"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



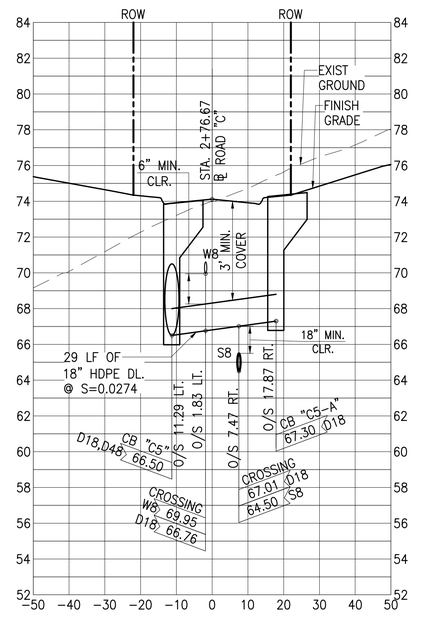
DRAIN CROSSING "C2" – STA. 0+00 ROAD "C"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



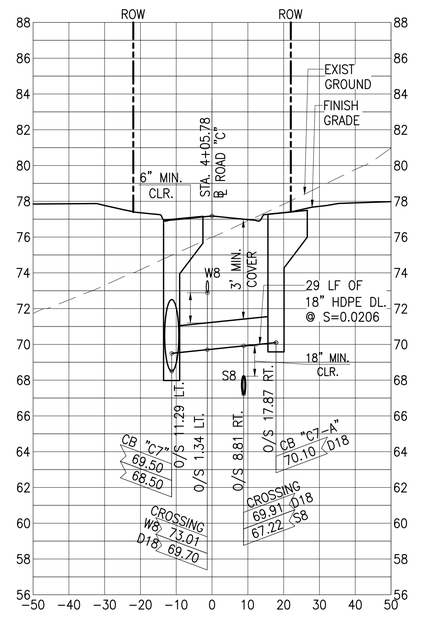
DRAIN CROSSING "C4" – STA. 1+60.73 ROAD "C"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



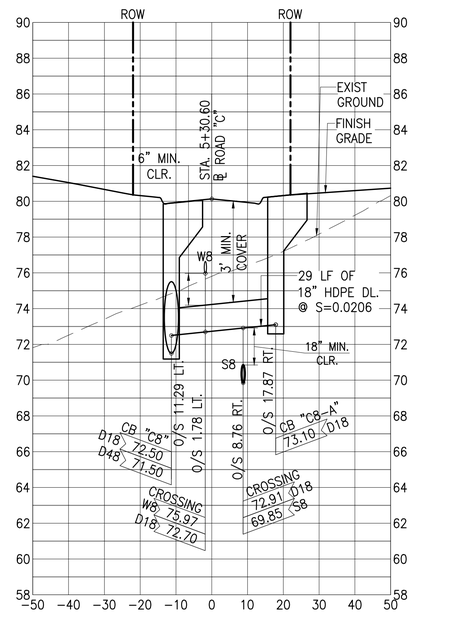
DRAIN CROSSING "C5" – STA. 2+76.67 ROAD "C"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



DRAIN CROSSING "C7" – STA. 4+05.78 ROAD "C"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



DRAIN CROSSING "C8" – STA. 5+30.60 ROAD "C"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-423**

SHEET 46 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

DRAIN CROSSING – 3

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

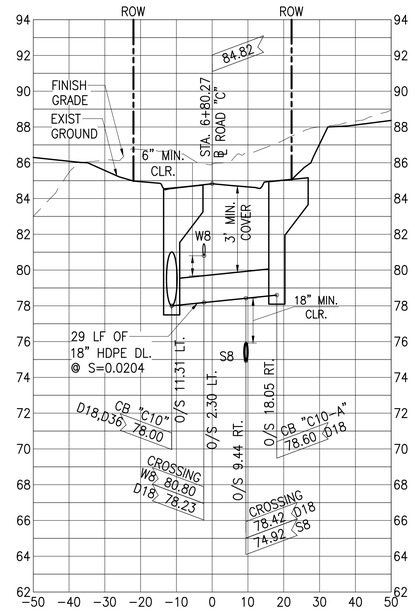
APPROVED BY DATE | SUBMITTED BY FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

DATE: SEPTEMBER 2023

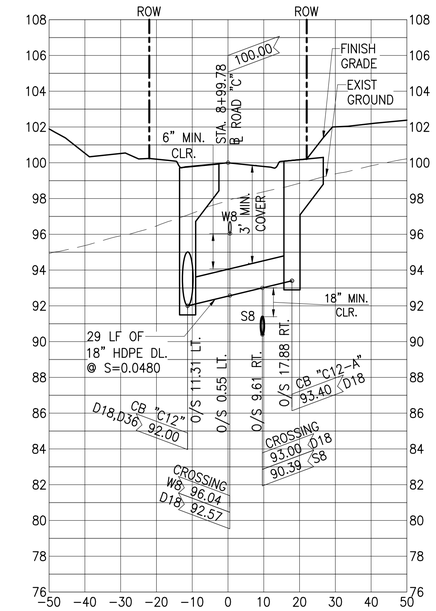
JOB NO. 18-522

z:\2018\18-522\engineering\DWG\C-423 DRAIN CROSSING - 3.dwg



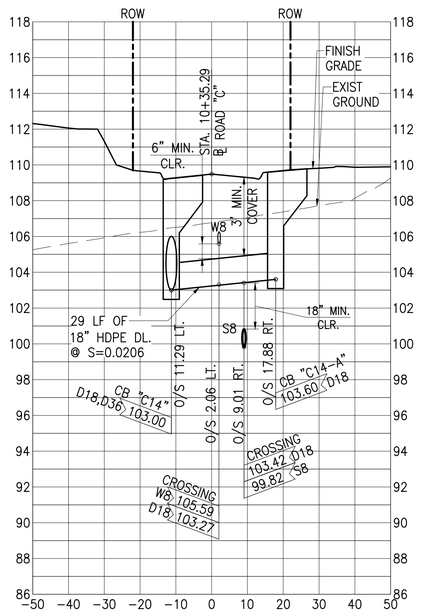
DRAIN CROSSING "C10" – STA. 6+80.24 ROAD "C"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



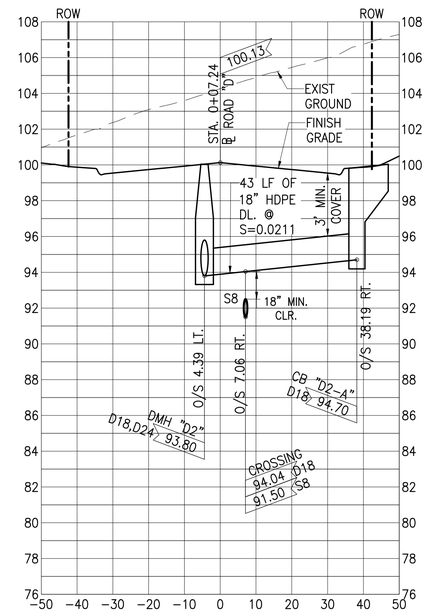
DRAIN CROSSING "C12" – STA. 8+99.78 ROAD "C"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



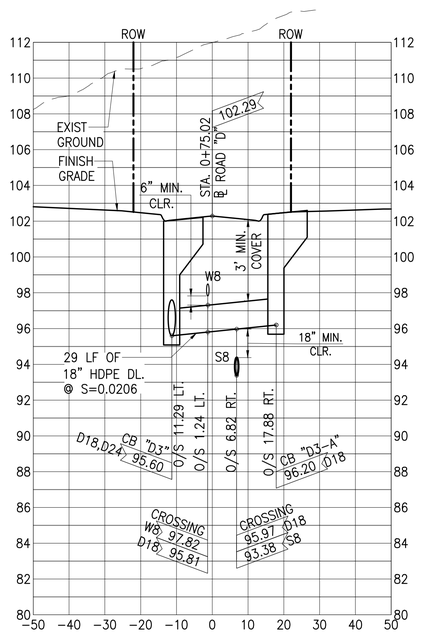
DRAIN CROSSING "C14" – STA. 10+35.29 ROAD "C"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



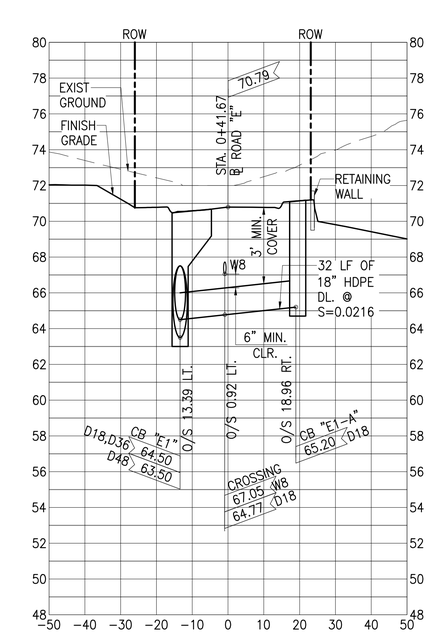
DRAIN CROSSING "D2" – STA. 0+07.24 ROAD "D"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



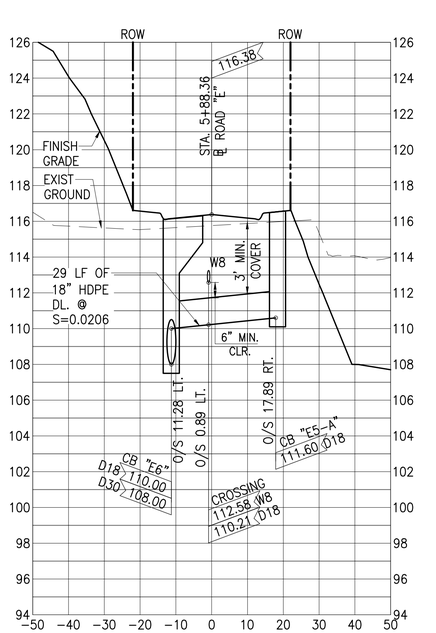
DRAIN CROSSING "D3" – STA. 0+75.02 ROAD "D"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



DRAIN CROSSING "E1" – STA. 0+41.67 ROAD "E"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'



DRAIN CROSSING "E5" – STA. 5+88.36 ROAD "E"

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

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HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-424**

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REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B
TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

DRAIN CROSSING – 4

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

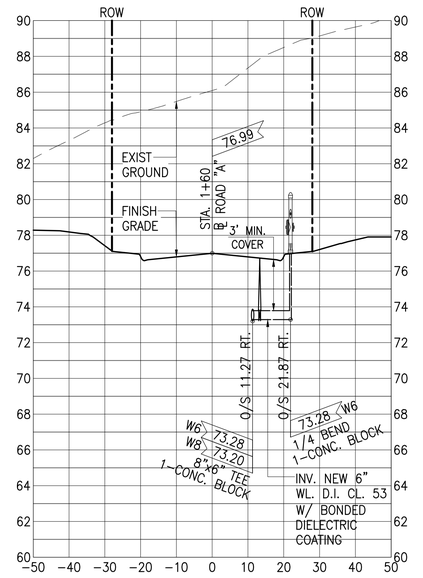
APPROVED BY _____ DATE
SUBMITTED BY _____ FIRM NUMBER _____ DATE

FILE	POCKET	FOLDER	NO.

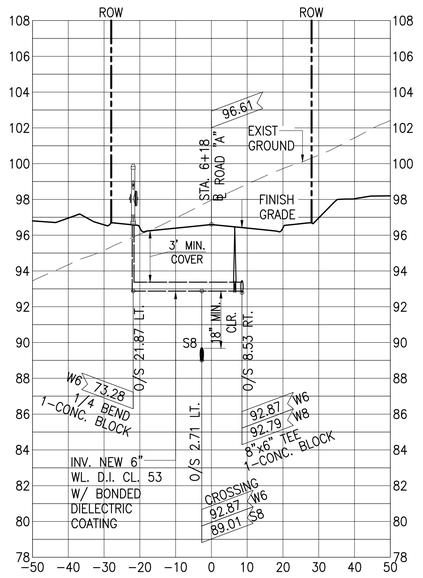
JOB NO. 18-522

DATE: SEPTEMBER 2023

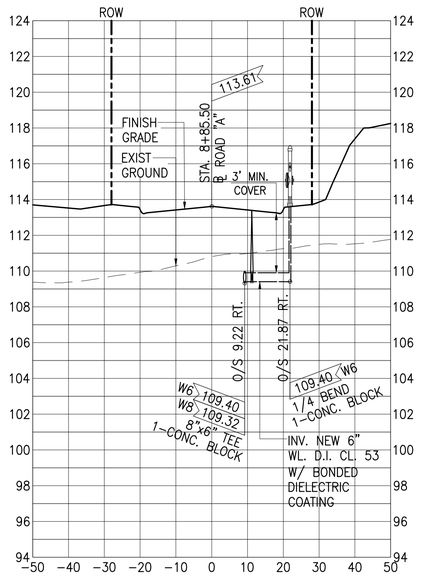
z:\2018\18-522\engineering\DWG\C-424_DRAIN CROSSING - 4.dwg



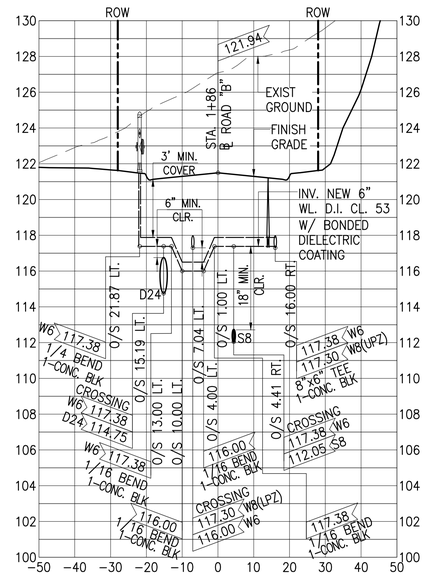
PROFILE – FIRE HYDRANT "A1"



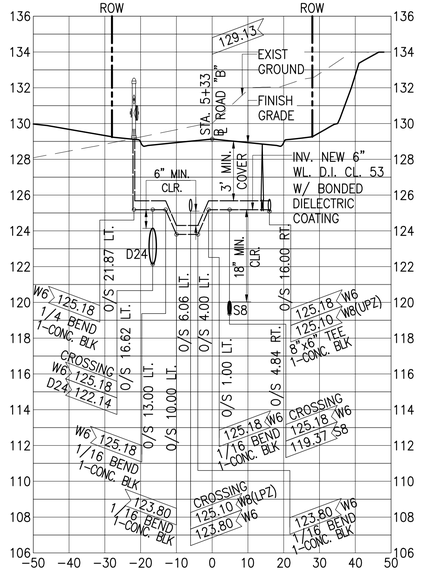
PROFILE – FIRE HYDRANT "A2"



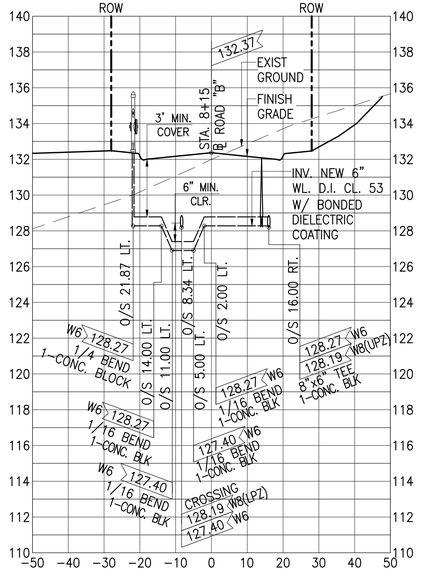
PROFILE – FIRE HYDRANT "A3"



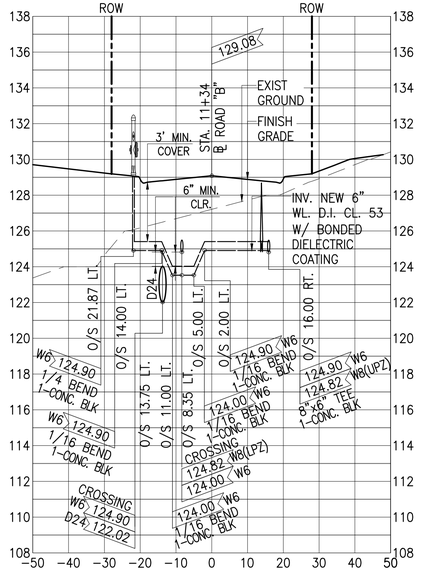
PROFILE – FIRE HYDRANT "B1"



PROFILE – FIRE HYDRANT "B2"



PROFILE – FIRE HYDRANT "B3"



PROFILE – FIRE HYDRANT "B4"

FIRE HYDRANT CONNECTION PROFILES – 1

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

ADRIENNE W.LH. WONG
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LICENSE EXPIRES: APRIL 30, 2024

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

FH CONNECTION PROFILES – 1

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

DWG. NO. **C-425**

SHEET 48 OF

APPROVED BY DATE

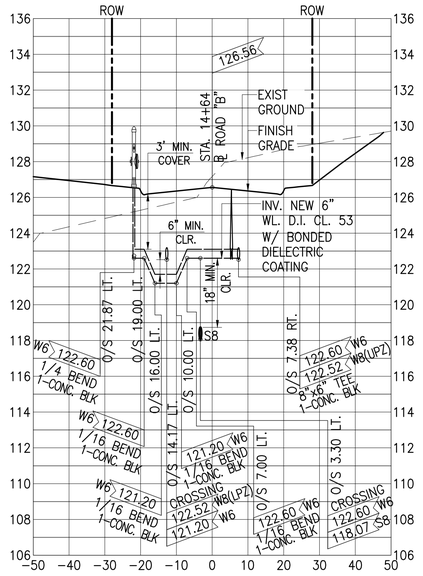
SUBMITTED BY
FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

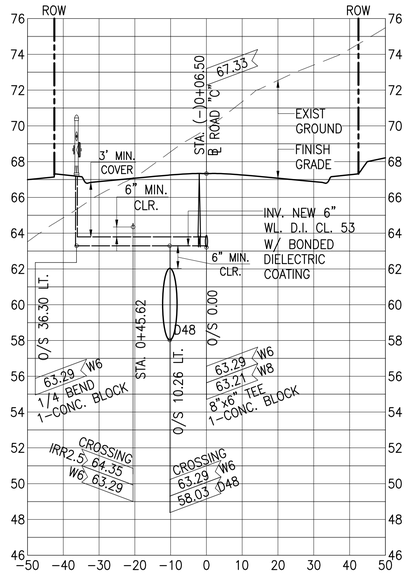
DATE: SEPTEMBER 2023

JOB NO. 18-522

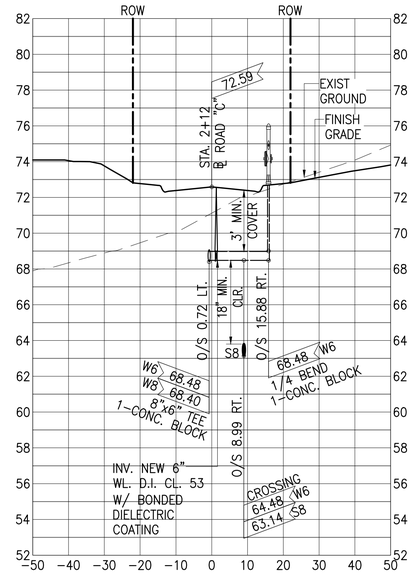
J:\2018\18-522\engineering\DWG\C-425 FH CONNECTION PROFILES - 1 - .dwg



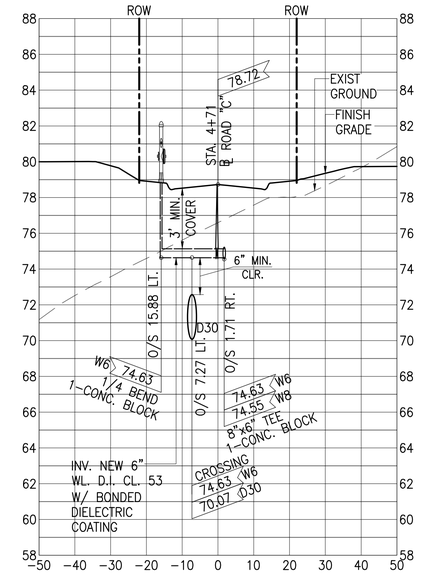
PROFILE – FIRE HYDRANT "B5"



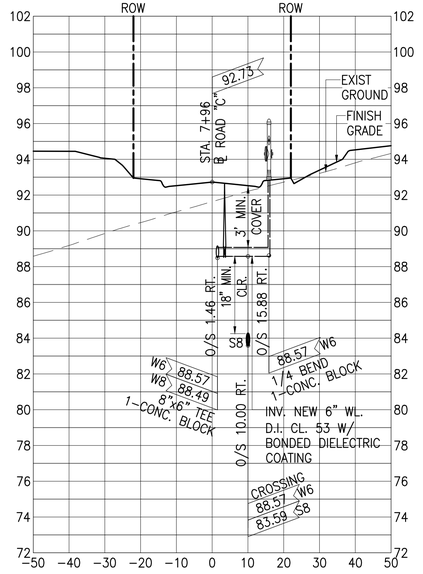
PROFILE – FIRE HYDRANT "C1"



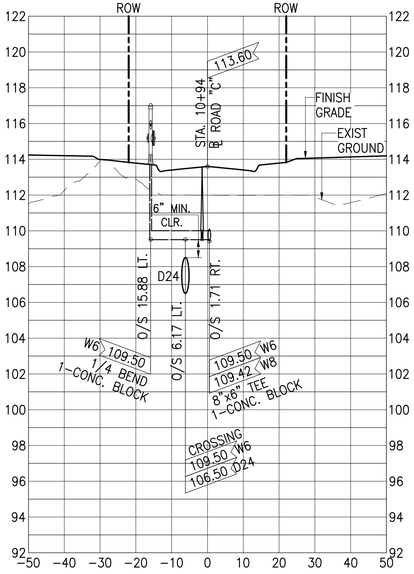
PROFILE – FIRE HYDRANT "C2"



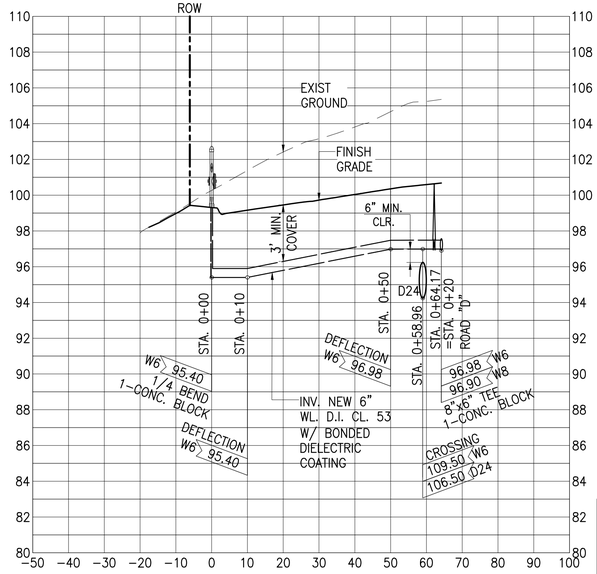
PROFILE – FIRE HYDRANT "C3"



PROFILE – FIRE HYDRANT "C4"



PROFILE – FIRE HYDRANT "C5"



PROFILE – FIRE HYDRANT "D1"

FIRE HYDRANT CONNECTION PROFILES – 2

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

ADRIENNE W.LH. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-426**
SHEET 49 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

FH CONNECTION PROFILE – 2

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

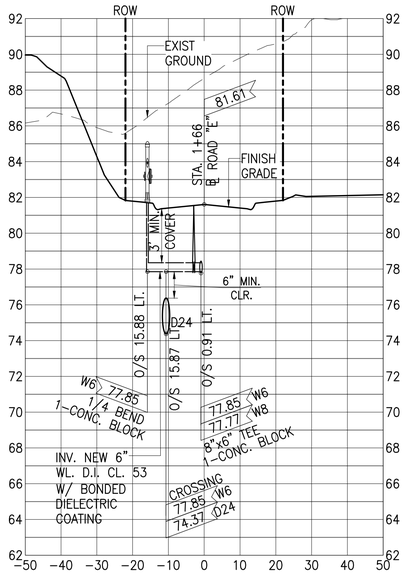
APPROVED BY DATE
SUBMITTED BY FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

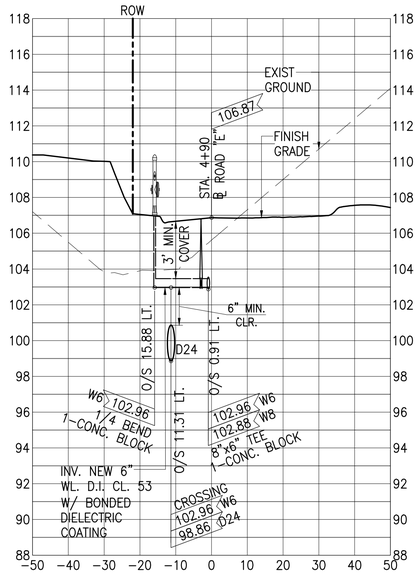
DATE: SEPTEMBER 2023

JOB NO. 18-522

J:\2018\18-522\engineering\DWG\C-426 FH CONNECTION PROFILES - 2 - .dwg



PROFILE – FIRE HYDRANT "E1"



PROFILE – FIRE HYDRANT "E2"

FIRE HYDRANT CONNECTION PROFILES – 3

SCALE: HORIZ: 1"=20'
VERT.: 1"=4'

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HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-427**

SHEET 50 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

FH CONNECTION PROFILES – 3

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

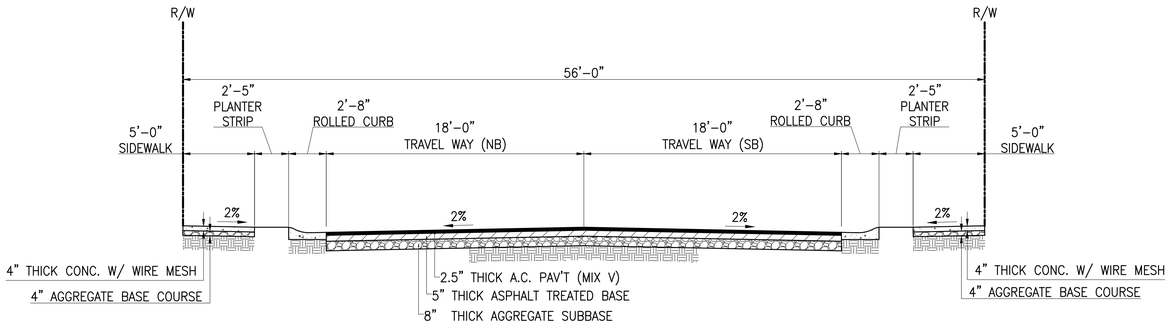
APPROVED BY _____ DATE
SUBMITTED BY _____ FIRM NUMBER _____ DATE

JOB NO. 18-522

DATE: SEPTEMBER 2023

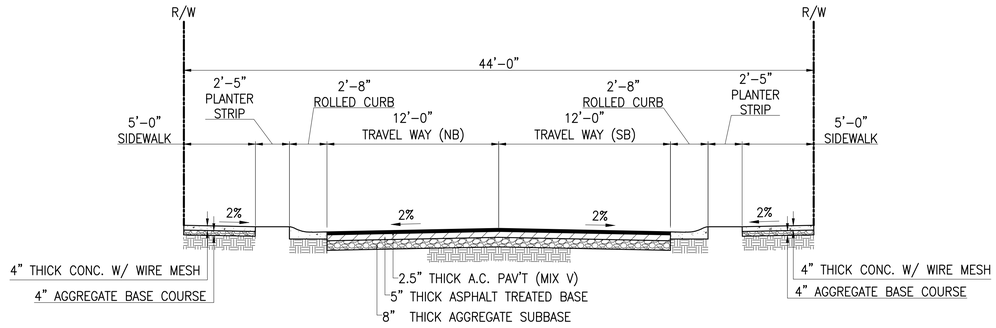
FILE	POCKET	FOLDER	NO.

z:\2018\18-522\engineering\DWG\C-427 FH CONNECTION PROFILES - 3 - .dwg



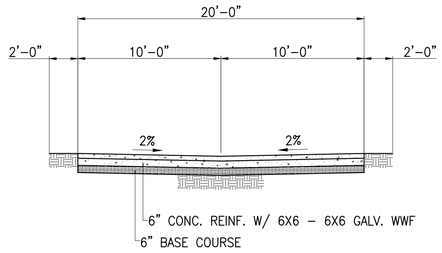
TYPICAL SECTION – COLLECTOR STREET

SCALE: 1" = 5'



TYPICAL SECTION – MINOR STREET

SCALE: 1" = 5'



TYPICAL SECTION – DRIVEWAY

SCALE: 1" = 5'

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No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
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DWG. NO. **C-427**

SHEET 52 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

TYPICAL ROADWAY SECTIONS

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY _____ DATE

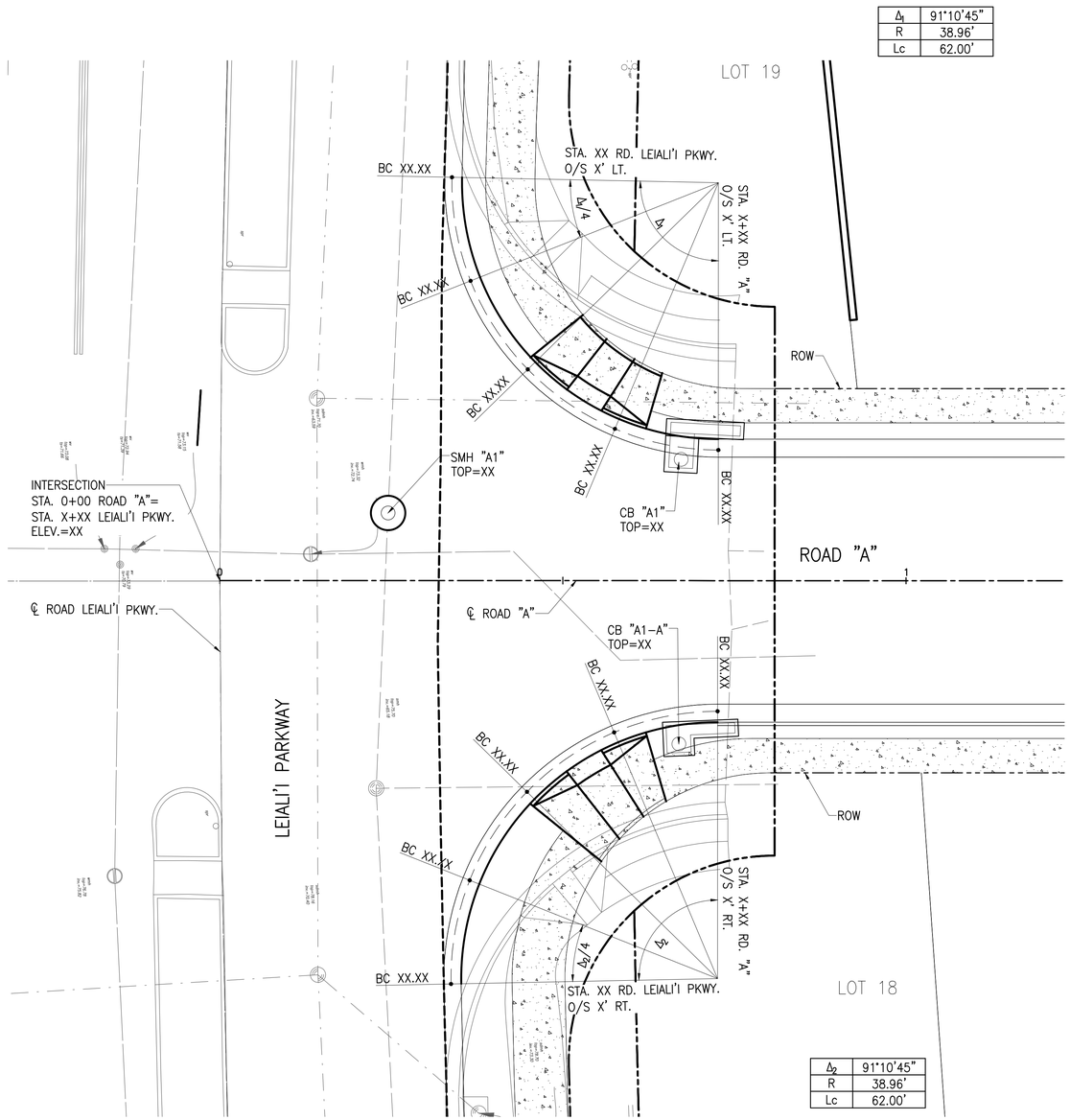
SUBMITTED BY _____ FIRM NUMBER _____ DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

DATE: SEPTEMBER 2023

Z:\2018\18-522\engineering\DWG\C-427 TYPICAL ROADWAY SECTIONS.dwg



Δ_1	91°10'45"
R	38.96'
Lc	62.00'

Δ_2	91°10'45"
R	38.96'
Lc	62.00'

CURB RETURN 1 – ROAD "A" & ROAD LEIALI'I PARKWAY

SCALE: 1"=10'

CURB RETURN 2 – ROAD "A" & ROAD "E"

SCALE: 1"=10'

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LICENSE EXPIRES: APRIL 30, 2024

ADRIENNE W.L.H. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

CURB AND CURVE RETURN DETAILS – 1

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(if NOT 2-inches : Scale Accordingly)

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY DATE
SUBMITTED BY FIRM NUMBER DATE

DWG. NO. **C-501**

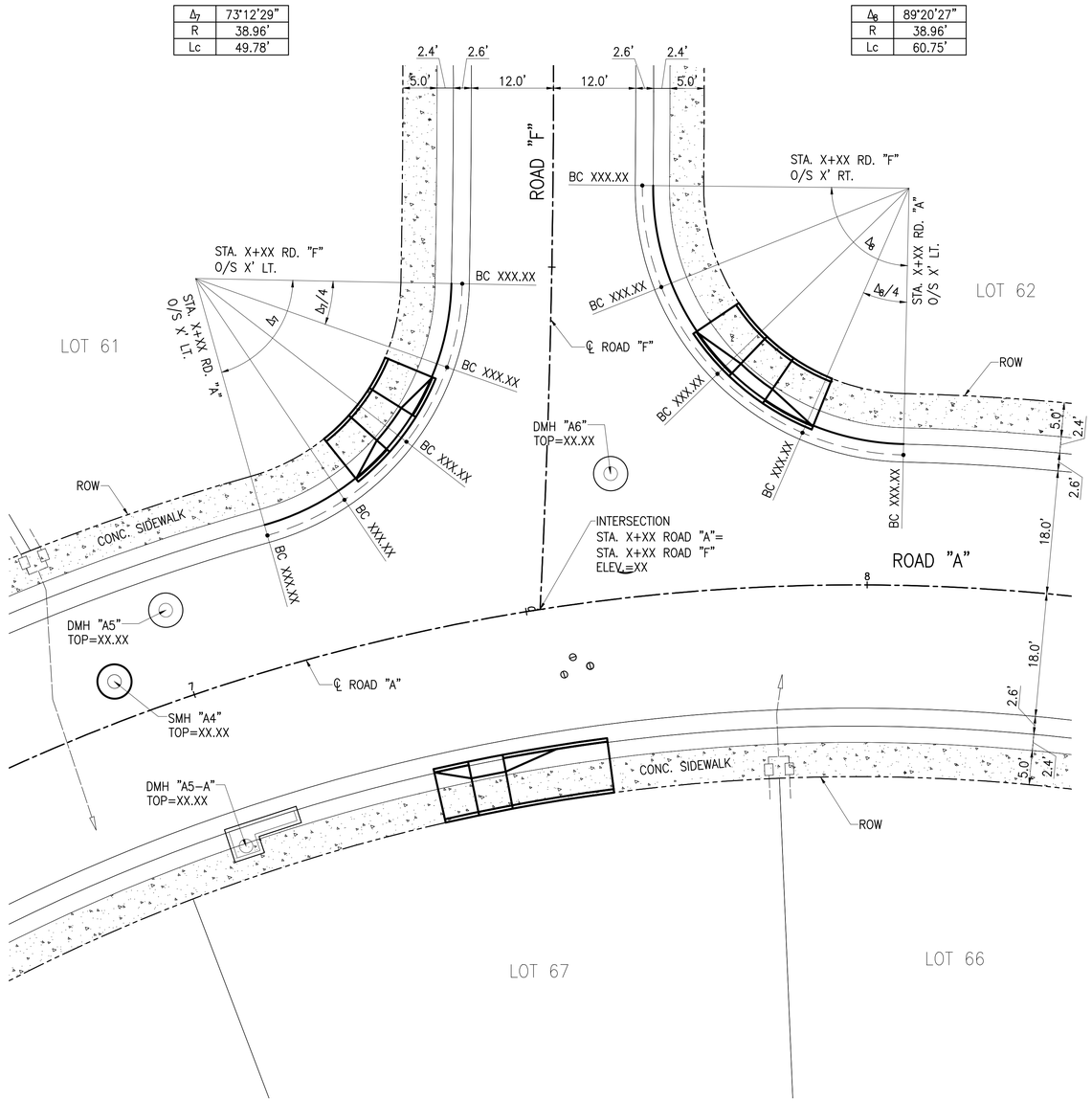
SHEET 53 OF

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

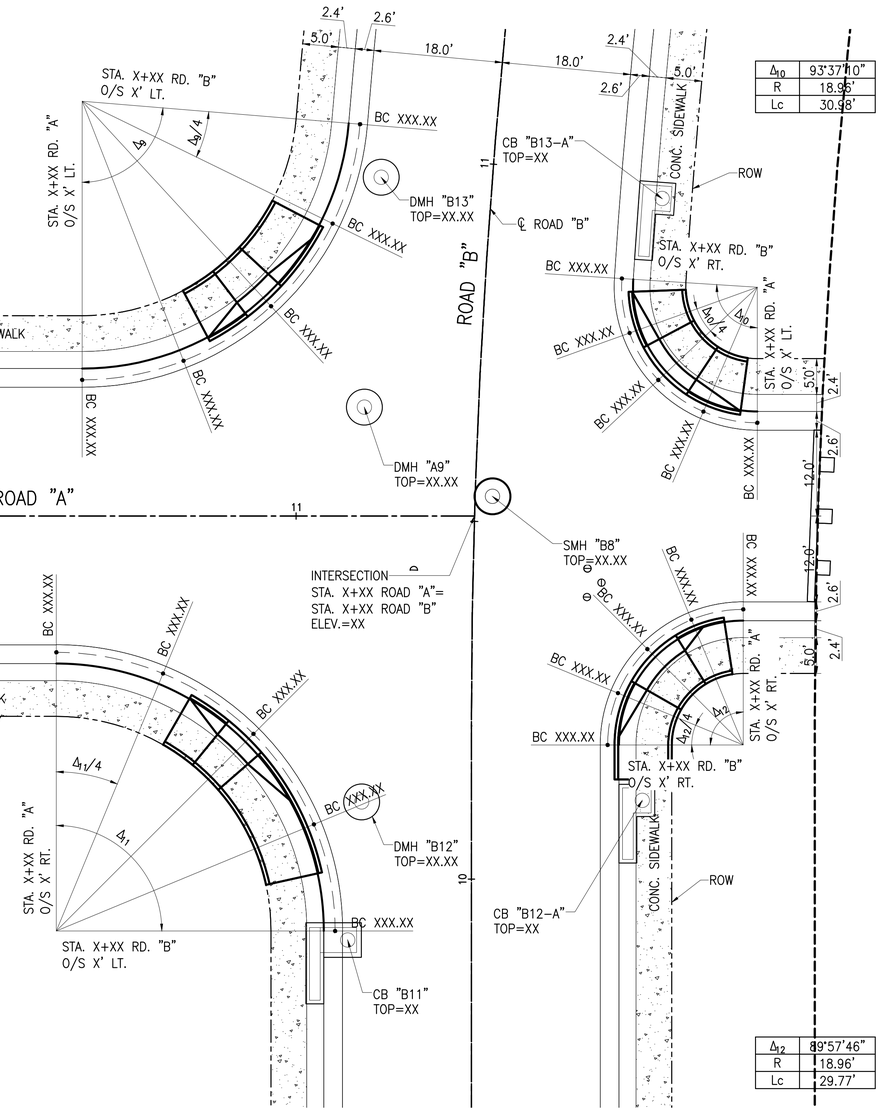
DATE: SEPTEMBER 2023

Z:\2018\18-522\engineering\DWG\C-501 CURB AND CURVE RETURN DETAILS - 1 - .dwg



CURB RETURN 3 – ROAD "A" & ROAD "F"

SCALE: 1"=10'



CURB RETURN 4 – ROAD "A" & ROAD "B"

SCALE: 1"=10'

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LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2

LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-502**

SHEET 54 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

CURB AND CURVE RETURN DETAILS – 2

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

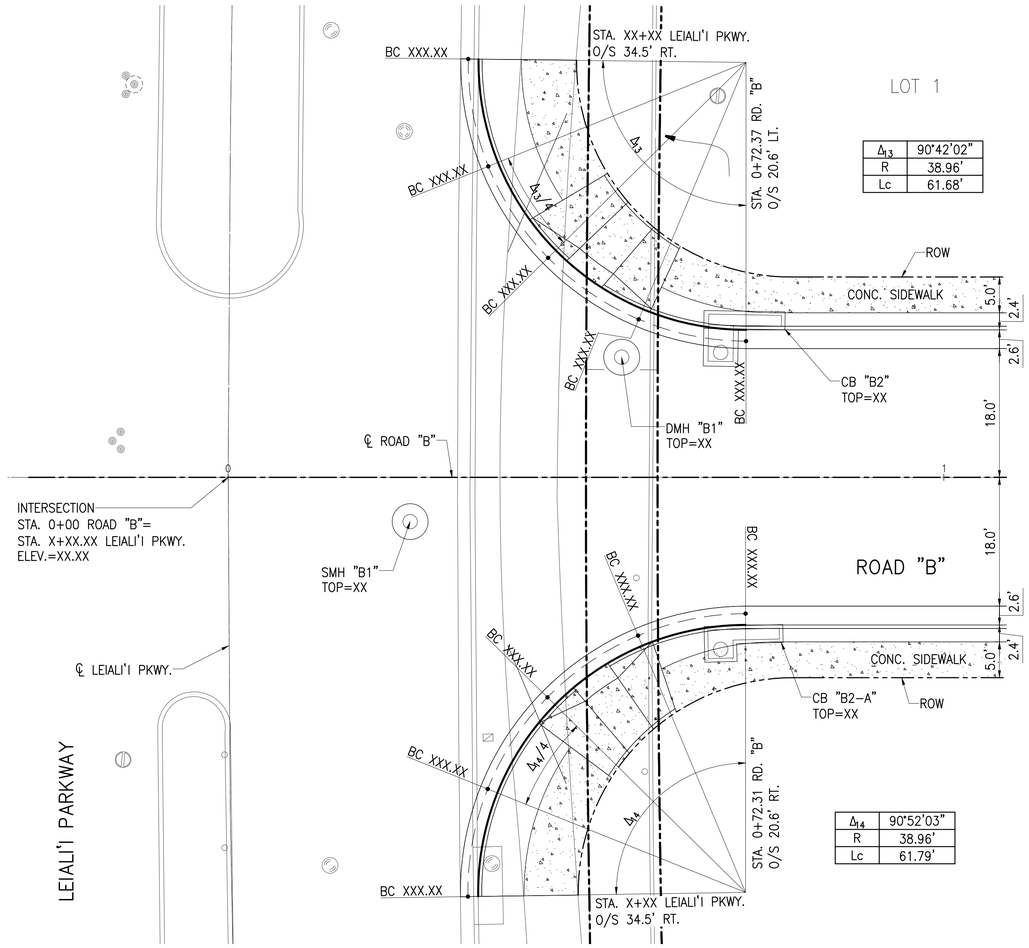
APPROVED BY — DATE
SUBMITTED BY — FIRM NUMBER — DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

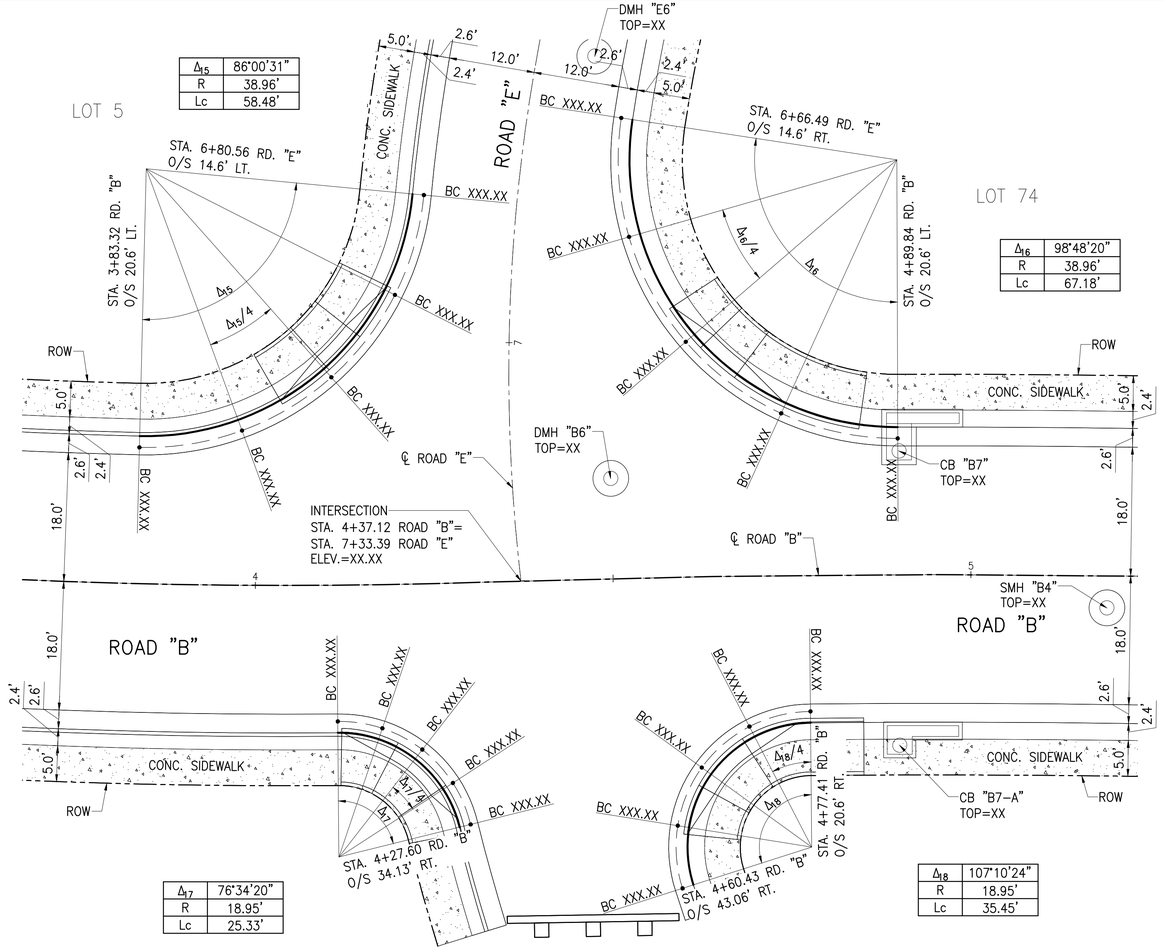
DATE: SEPTEMBER 2023

z:\2018\18-522\engineering\CAD\C-502 CURB AND CURVE RETURN DETAILS - 2 - .dwg



CURB RETURN X – ROAD "B" & LEIALI'I PARKWAY

SCALE: 1"=10'



CURB RETURN X – ROAD "B" & ROAD "E"

SCALE: 1"=10'

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No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-503**

SHEET 55 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

CURB AND CURVE RETURN DETAILS – 3

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY DATE

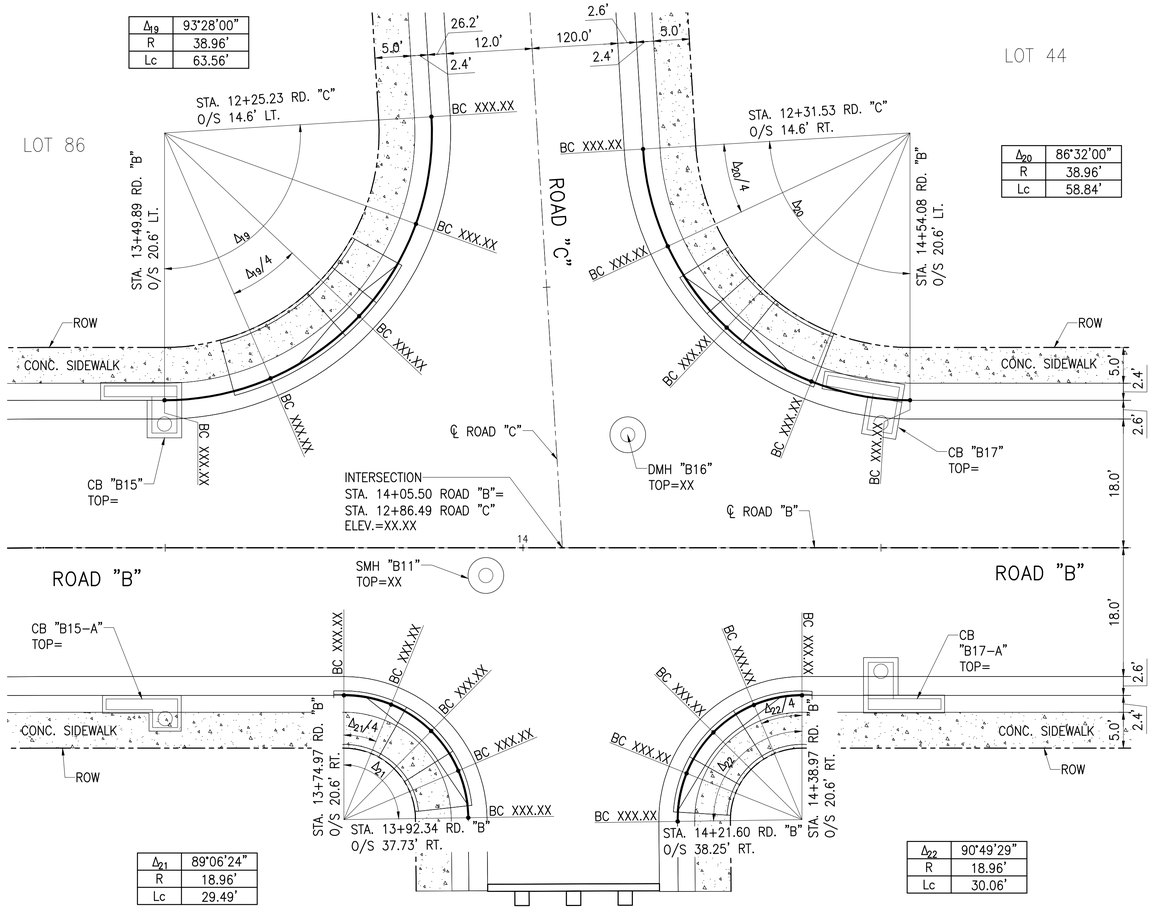
SUBMITTED BY
FIRM NUMBER DATE

JOB NO. 18-522

DATE: SEPTEMBER 2023

FILE	POCKET	FOLDER	NO.

z:\2018\18-522\engineering\DWG\C-503 CURB AND CURVE RETURN DETAILS - 3 - .dwg



Δ_9	93°28'00"
R	38.96'
Lc	63.56'

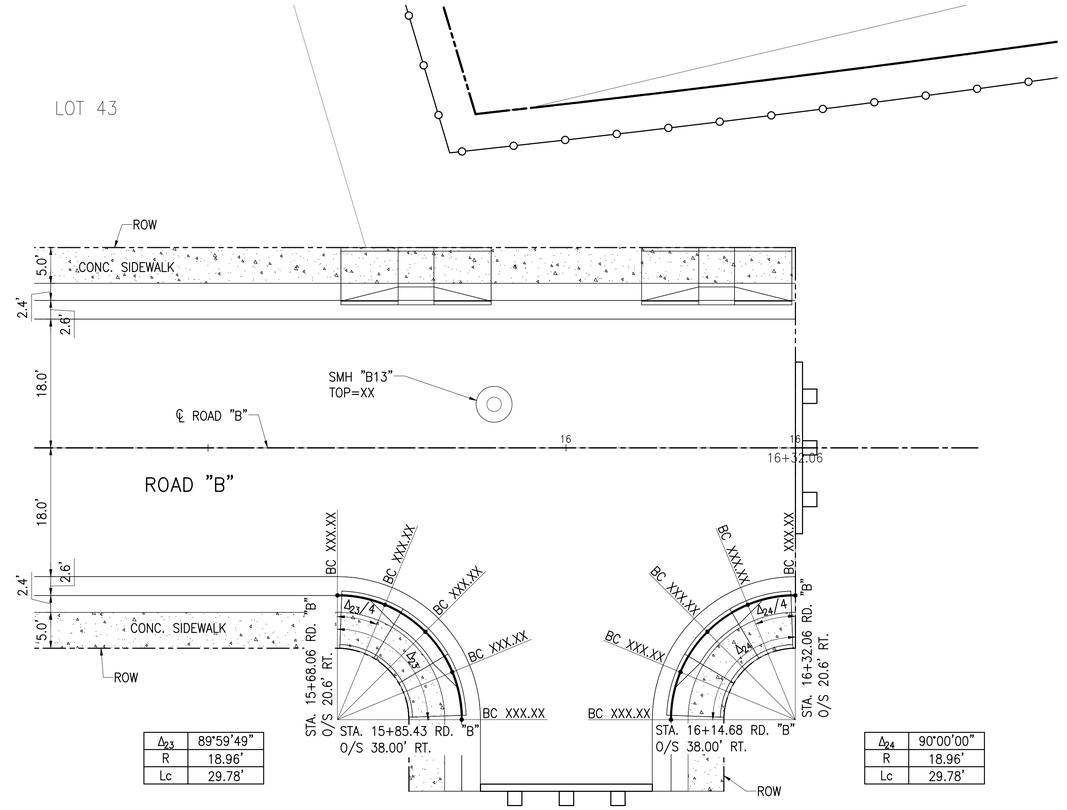
Δ_{20}	86°32'00"
R	38.96'
Lc	58.84'

Δ_{21}	89°06'24"
R	18.96'
Lc	29.49'

Δ_{22}	90°49'29"
R	18.96'
Lc	30.06'

CURB RETURN X – ROAD "B" & ROAD "C"

SCALE: 1"=10'



Δ_{23}	89°59'49"
R	18.96'
Lc	29.78'

Δ_{24}	90°00'00"
R	18.96'
Lc	29.78'

CURB RETURN X – ROAD "B" & ROAD "X"

SCALE: 1"=10'

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LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2

LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-504**

SHEET 56 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

CURB AND CURVE RETURN DETAILS – 4

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY _____ DATE

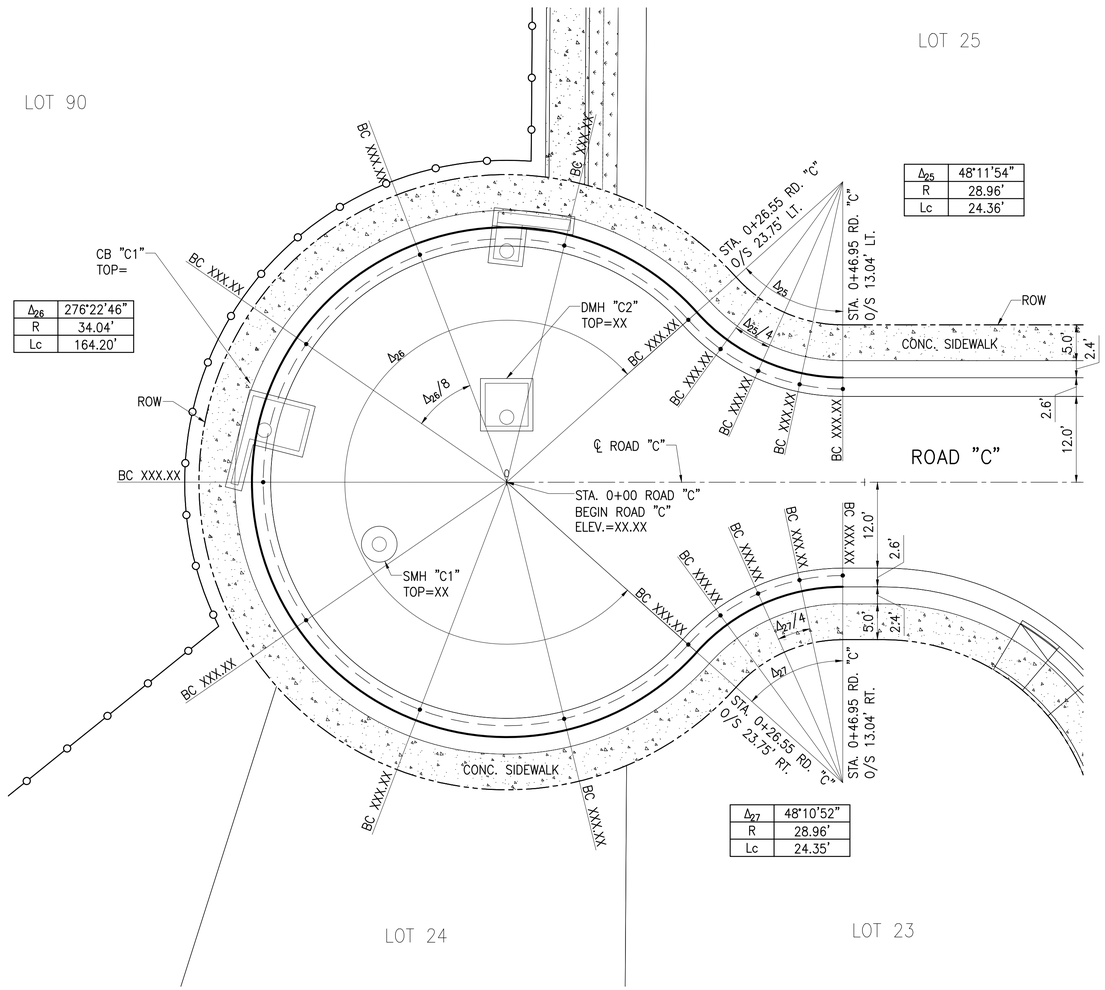
SUBMITTED BY _____ FIRM NUMBER _____ DATE

DATE: SEPTEMBER 2023

FILE	POCKET	FOLDER	NO.

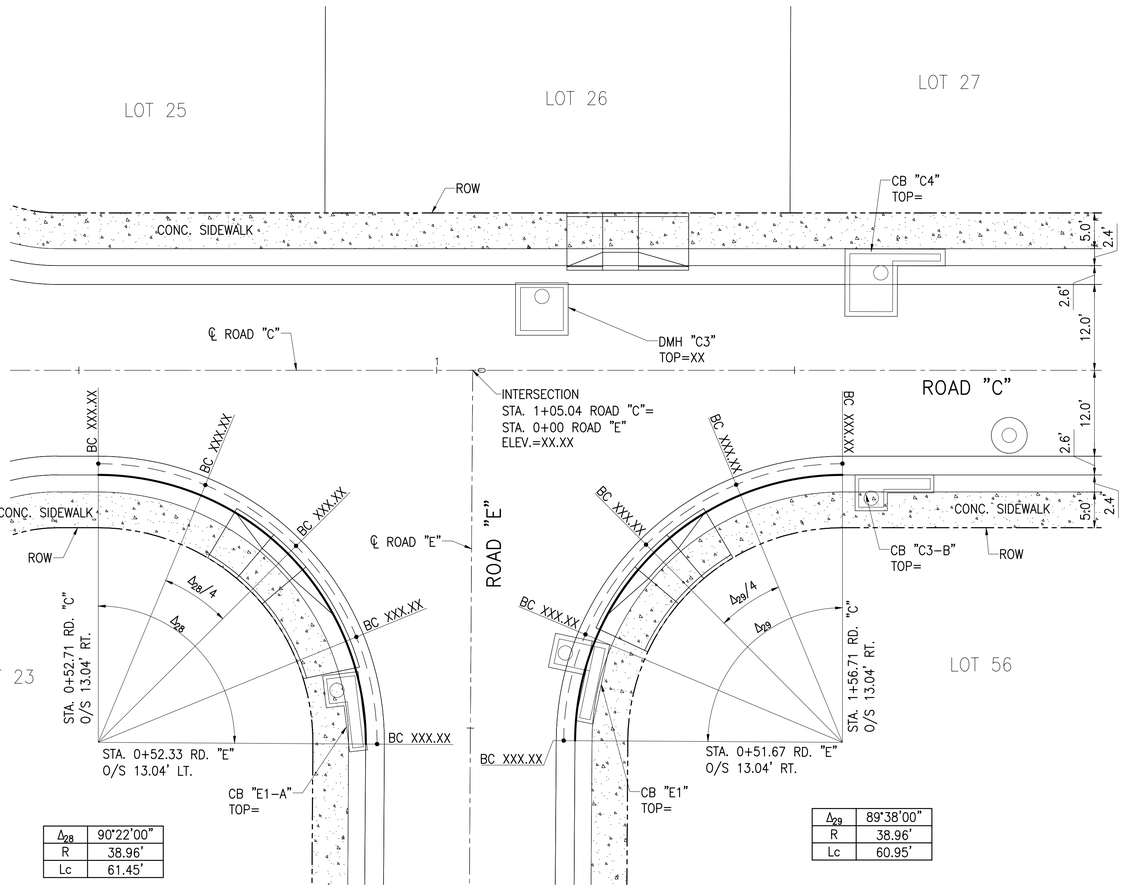
JOB NO. 18-522

J:\2018\18-522\engineering\CAD\C-504 CURB AND CURVE RETURN DETAILS - 4 - .dwg



CURB RETURN X – CUL-DE-SAC ROAD "C"

SCALE: 1"=10'



CURB RETURN X – ROAD "C" & ROAD "E"

SCALE: 1"=10'

ADRIENNE W.LH. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-505**

SHEET 57 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

CURB AND CURVE RETURN DETAILS – 5

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

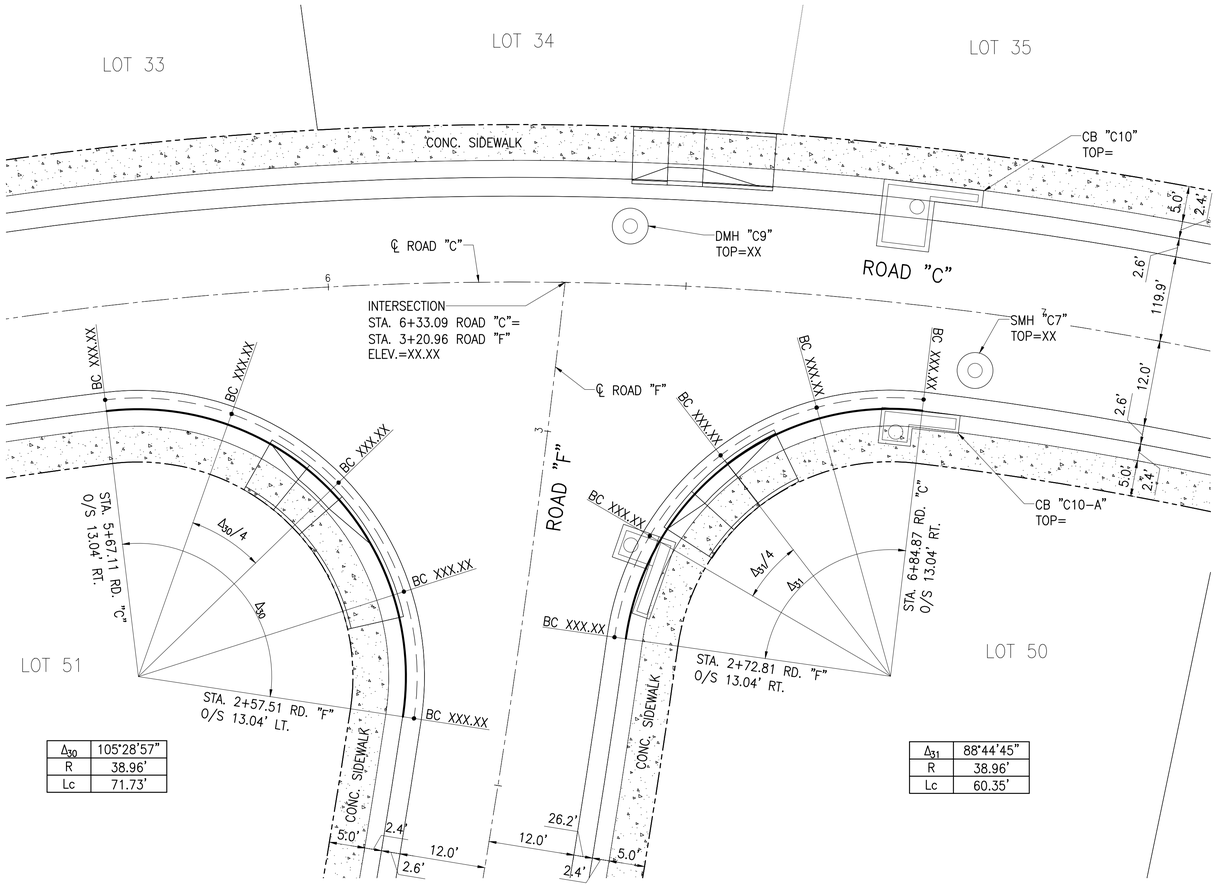
APPROVED BY DATE
SUBMITTED BY FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

DATE: SEPTEMBER 2023

J:\2018\18-522\engineering\DJMC\C-505 CURB AND CURVE RETURN DETAILS - 5 - .dwg



Δ_{30}	105°28'57"
R	38.96'
Lc	71.73'

Δ_{31}	88°44'45"
R	38.96'
Lc	60.35'

CURB RETURN X – ROAD "C" & ROAD "F"

SCALE: 1"=10'

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ADRIENNE W.L.H. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(if NOT 2-inches : Scale Accordingly)

DWG. NO. **C-506**

SHEET 58 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

CURB AND CURVE RETURN DETAILS – 6

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY DATE

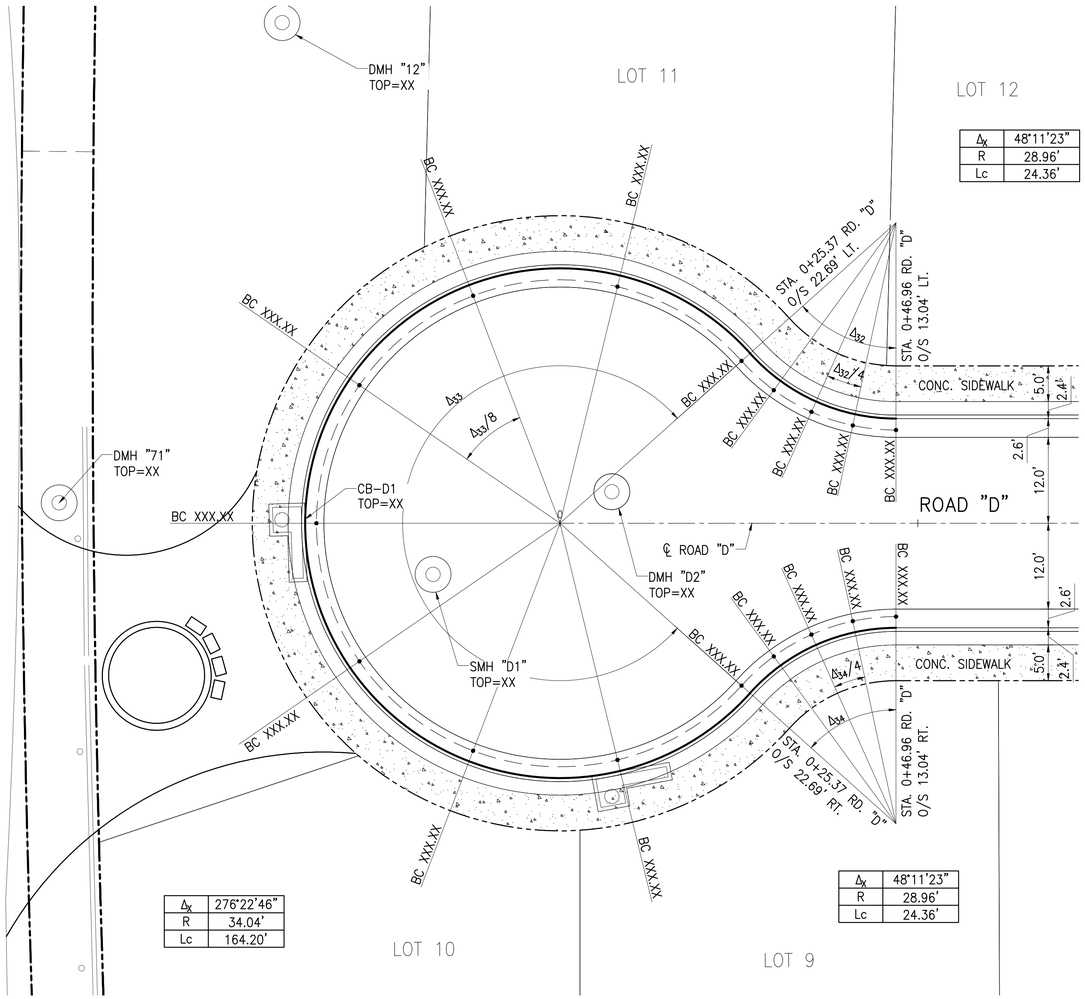
SUBMITTED BY
FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

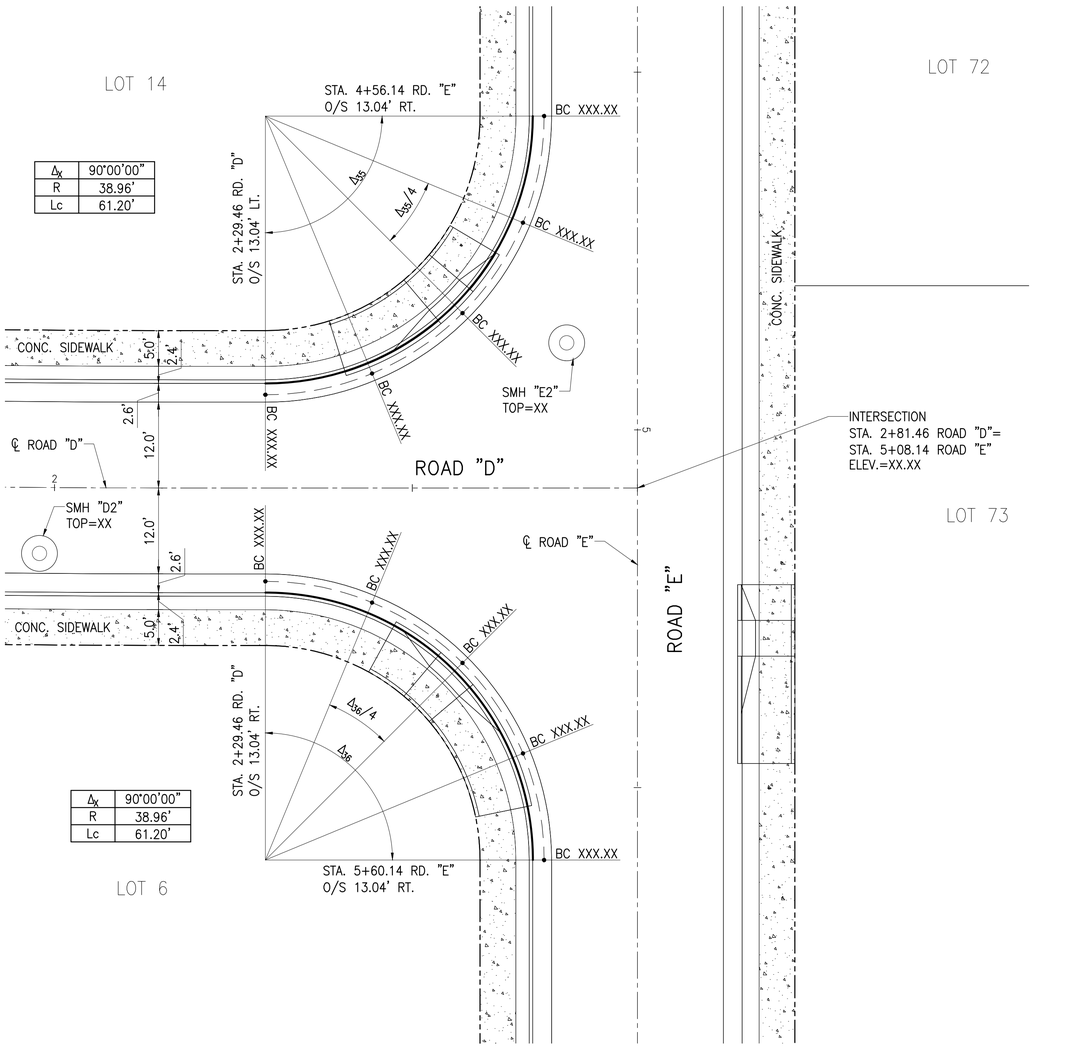
DATE: SEPTEMBER 2023

Z:\2018\18-522\engineering\DWG\C-506 CURB AND CURVE RETURN DETAILS - 6 - .dwg



CURB RETURN X – CUL-DE-SAC ROAD "D"

SCALE: 1"=10'



CURB RETURN X – ROAD "D" & ROAD "E"

SCALE: 1"=10'

ADRIENNE W.LH. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-507**

SHEET 59 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

CURB AND CURVE RETURN DETAILS – 7

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY DATE

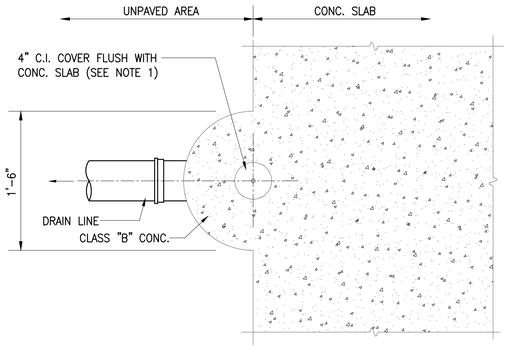
SUBMITTED BY
FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

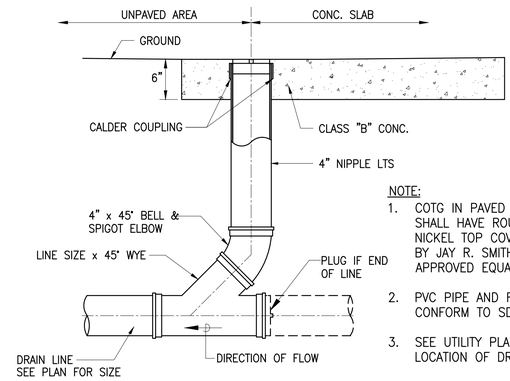
JOB NO. 18-522

DATE: SEPTEMBER 2023

z:\2018\18-522\engineering\DWG\C-507 CURB AND CURVE RETURN DETAILS – 7 – .dwg



PLAN



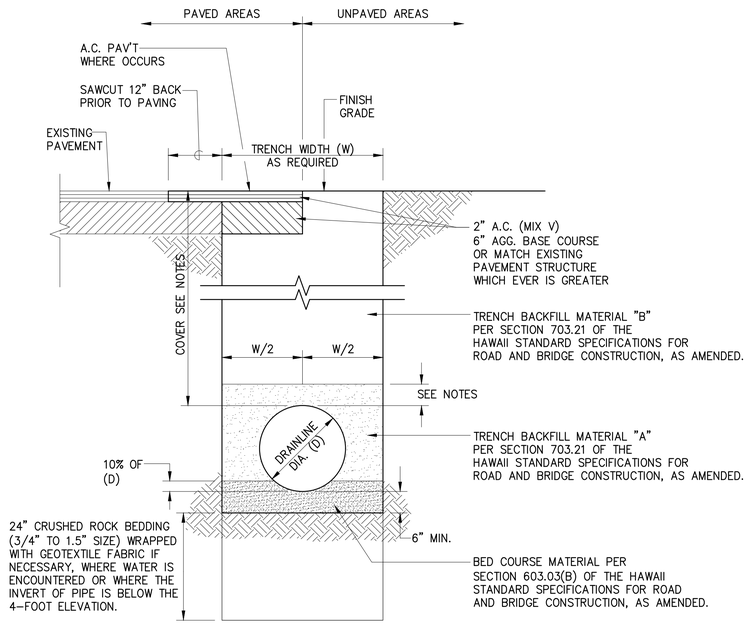
SECTION A-A

NOTE:

1. COTG IN PAVED OR CONCRETE AREAS SHALL HAVE ROUND HEAVY DUTY NICKEL TOP COVER AS MANUFACTURED BY JAY R. SMITH COMPANY OR APPROVED EQUAL.
2. PVC PIPE AND FITTINGS SHALL CONFORM TO SDR 35.
3. SEE UTILITY PLAN FOR SIZE AND LOCATION OF DRAIN LINE

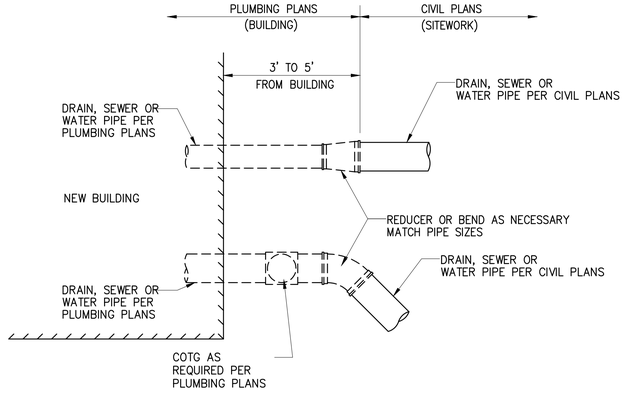
DRAINLINE CLEANOUT TO GRADE DETAIL

NOT TO SCALE



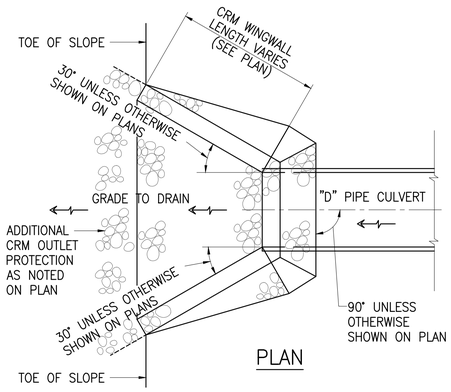
TYPICAL TRENCH RESTORATION DETAIL FOR DRAINLINE

NOT TO SCALE

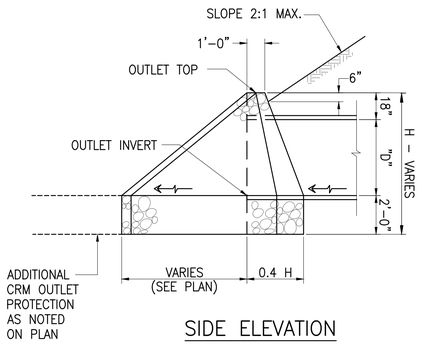


TYPICAL UTILITY POINT OF CONNECTION DETAIL

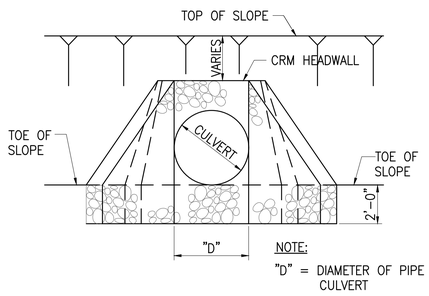
NOT TO SCALE



PLAN



SIDE ELEVATION



NOTE:
"D" = DIAMETER OF PIPE CULVERT

FRONT ELEVATION

CULVERT OUTLET HEADWALL DETAIL

NOT TO SCALE

ADRIENNE W.LH. WONG
LICENSED PROFESSIONAL ENGINEER
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HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-508**

SHEET 60 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

DRAINAGE DETAILS

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

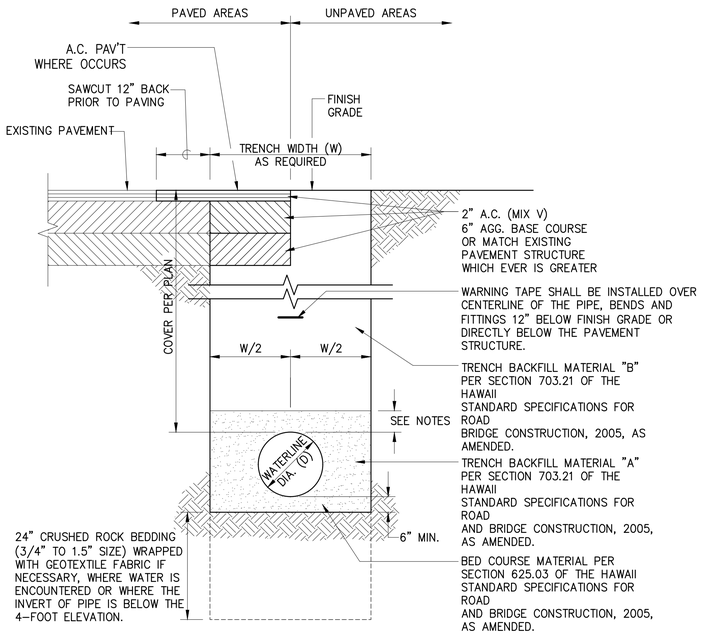
APPROVED BY — DATE
SUBMITTED BY — FIRM NUMBER — DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

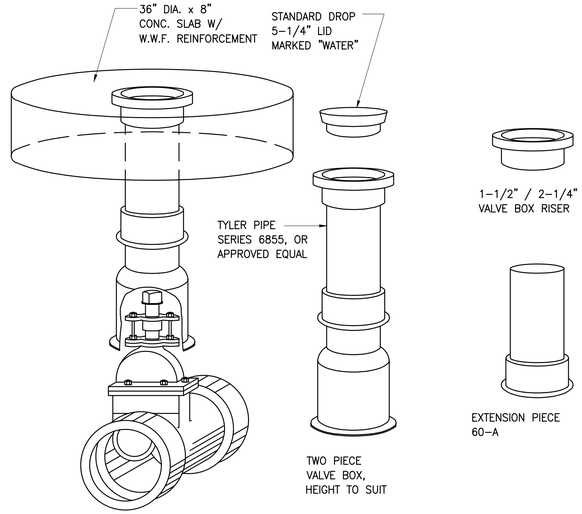
DATE: SEPTEMBER 2023

J:\2018\18-522\engineering\DWG\C-508 DRAINAGE DETAILS.dwg



TYPICAL TRENCH RESTORATION DETAIL FOR WATER LINE PER DWS STD. P10

NOT TO SCALE

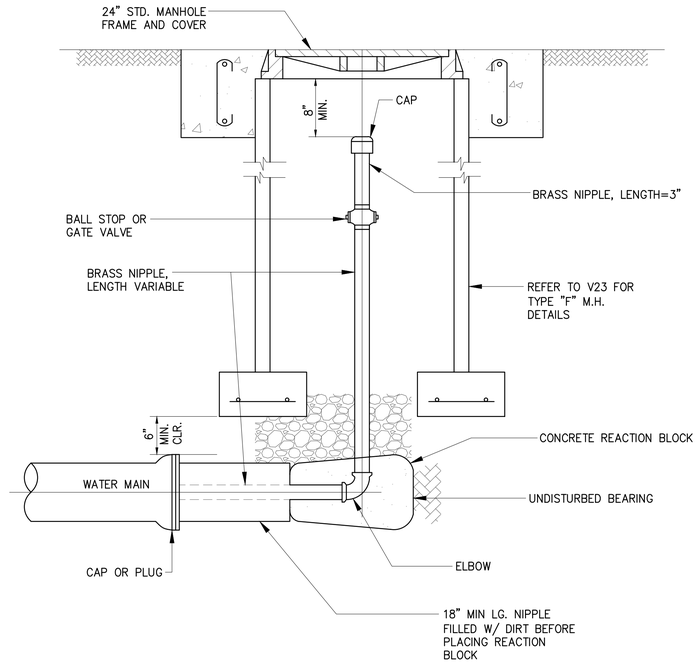


NOTE:

1. VALVE BOX ASSEMBLY TO BE CAST IRON.
2. MODEL NUMBERS REFER TO TYLER PIPE CATALOG.
3. MAXIMUM 4' DEPTH TO VALVE OPERATOR NUT.

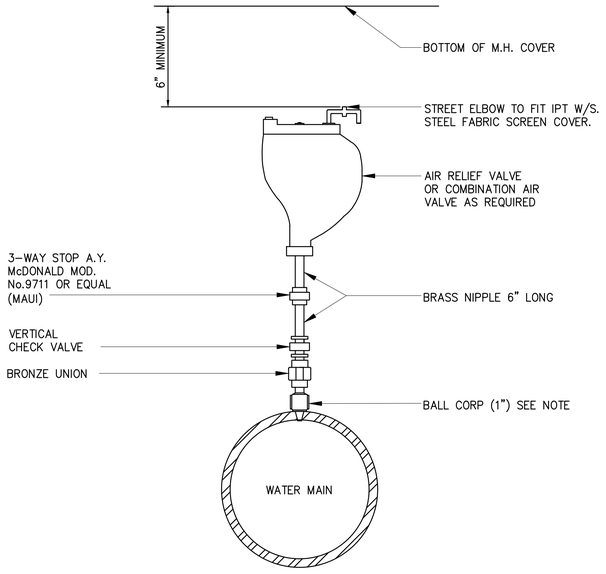
SLIDING VALVE BOX ASSEMBLY FOR GATE VALVES STD. DET. V12

NOT TO SCALE



CLEANOUT

NOT TO SCALE

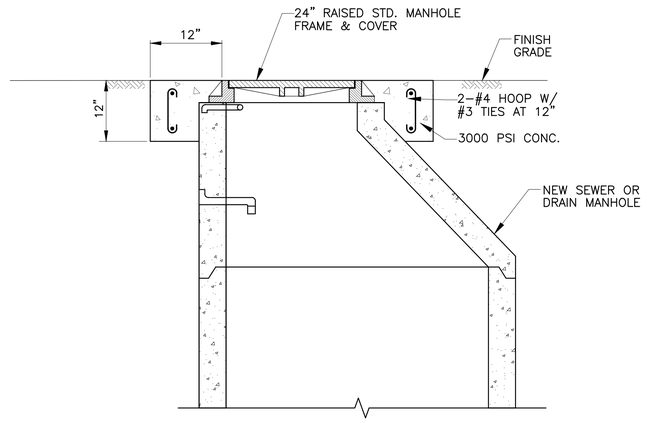


NOTE:

1. FOR 2" AIR RELIEF VALVE, SIZE OF BALL CORP., UNION, VERTICAL CHECK VALVE AND NIPPLE SHALL BE 2".
2. PROVIDE TYPE "F" MANHOLE V23 FOR BURIED INSTALLATION. (MAUI ONLY)
3. INSTALL PRECAST TYPE B OR TYPE C MANHOLE FOR VALVES (OHAU ONLY)
4. FOR COMBINATION AIR VALVE, IMMERSED INSTALLATION NOT PERMITTED.

STANDARD CONNECTION FOR AIR RELIEF VALVE

NOT TO SCALE



CONC. COLLAR FOR SEWER, WATER, AND DRAIN MANHOLES

NOT TO SCALE

ADRIENNE W.LH. WONG
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No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2

LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-509**

SHEET 61 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAI'I

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

WATER DETAILS – 1

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY _____ DATE

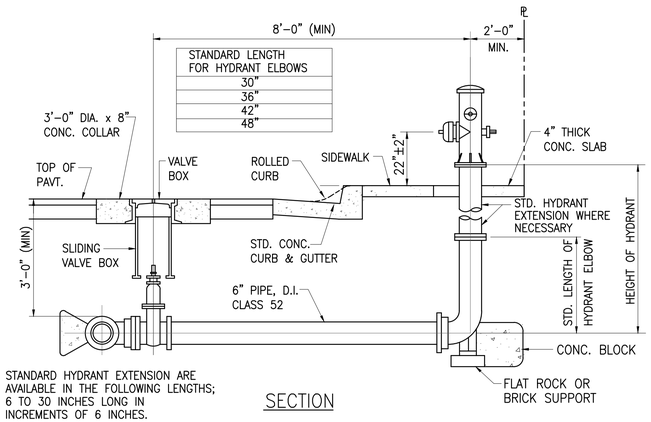
SUBMITTED BY _____ FIRM NUMBER _____ DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

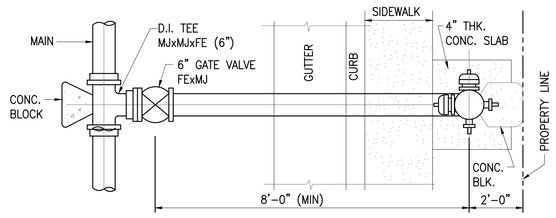
DATE: SEPTEMBER 2023

z:\2018\18-522\engineering\DWG\C-509 WATER DETAILS - 1.dwg



STANDARD HYDRANT EXTENSION ARE AVAILABLE IN THE FOLLOWING LENGTHS; 6 TO 30 INCHES LONG IN INCREMENTS OF 6 INCHES.

SECTION



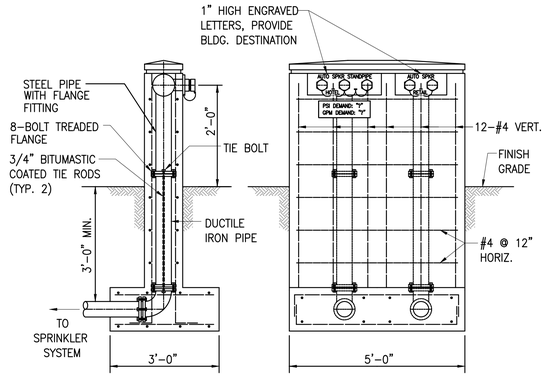
PLAN

NOTES:

1. GASKET FOR FLANGED JOINTS SHALL BE 1/8" DUCK-INSERT RUBBER PACKING GARLOCK NO. 19.
2. BOLTS SHALL BE BREAK-OFF TYPE 5/8"ø X 3" LONG MACHINE BOLTS WITH CUT THREADS, AMERICAN STANDARD COURSE HEXAGON HEAD, STAINLESS STEEL OR SILICON BRONZE. INSTALL BOLT WITH THREAD FACING UP.
3. NUTS SHALL BE AMERICAN STANDARD HEAVY COLD PUNCHED HEXAGON NUTS, STAINLESS STEEL OR SILICON BRONZE.
4. CONCRETE SHALL BE DWS 2500.
5. REFER TO PLATE FH11 FIRE HYDRANT INSTALLATION WITH CURB GUARD. (OAHU & KAUAI ONLY). FOR MAUI, REFER TO PLATE FH9 WHERE NO STREET CURBING.
6. FLANGED TEE IS OPTIONAL FOR OAHU, MANDATORY FOR KAUAI AND MAUI.
7. TAPPING SLEEVE WITH TAPPING VALVE ASSEMBLY MAY BE USED FOR CONNECTION TO EXISTING 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).
11. WHERE THERE IS NO SIDEWALK, THE 4" CONCRETE PAD SHALL MEASURE 42" FRONT-TO-BACK AND 36" ALONG THE PROPERTY LINE, WITH TOP ELEVATION 2" ABOVE THE GRADED SHOULDER.
12. REPLACE PLASTIC VALVE BOX WITH CAST IRON FRAME & COVER IF SUBJECT TO TRAFFIC.

HYDRANT CONNECTION STRAIGHT RUN DETAIL DWS. DET. FH6

NOT TO SCALE



FIRE DEPARTMENT DOUBLE CONNECTION MONUMENT DETAIL

NOT TO SCALE

ADRIENNE W.LH. WONG
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No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-510**

SHEET 62 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

WATER DETAILS - 2

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY DATE

SUBMITTED BY FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

DATE: SEPTEMBER 2023

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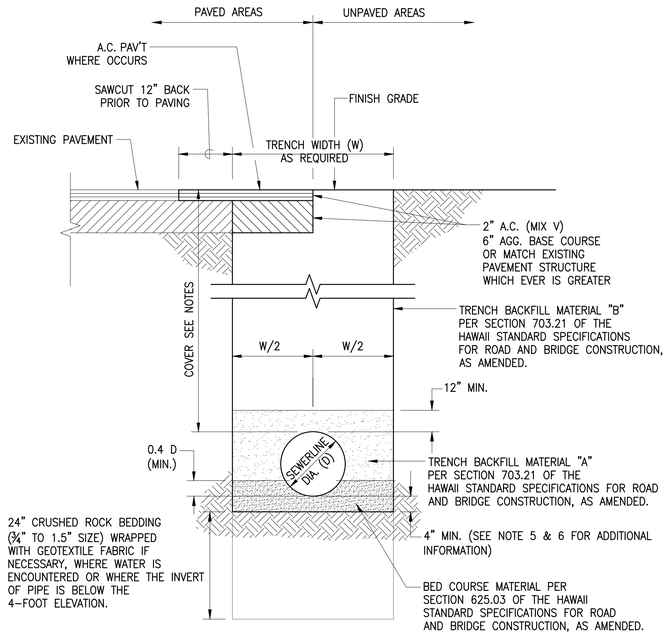
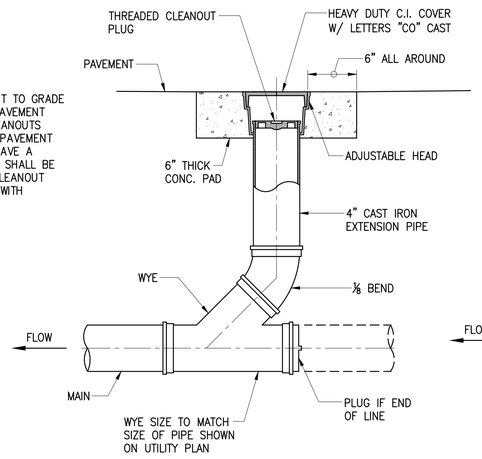


TYPICAL TRENCH RESTORATION DETAIL FOR SEWERLINE

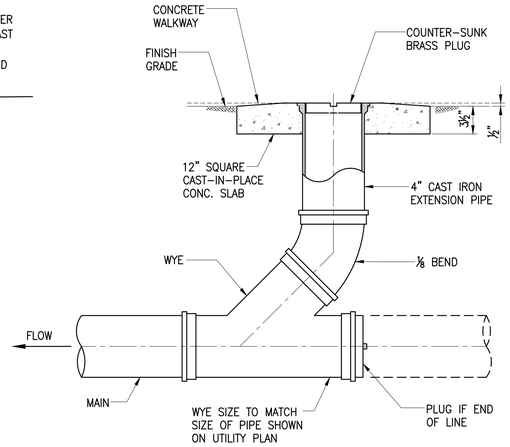
NOT TO SCALE

NOTE:

TRAFFIC CLEANOUT TO GRADE DETAIL FOR AC PAVEMENT AREAS ONLY. CLEANOUTS LOCATED IN PCC PAVEMENT AREAS DO NOT HAVE A COLLAR AND PCC SHALL BE POURED UP TO CLEANOUT WITH TOP FLUSH WITH PAVEMENT.



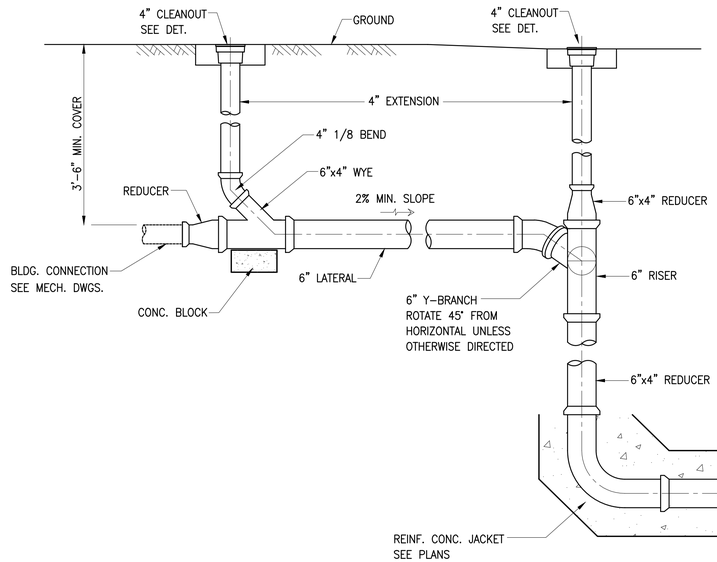
TRAFFIC (TYPE "A")



NON-TRAFFIC (TYPE "B")

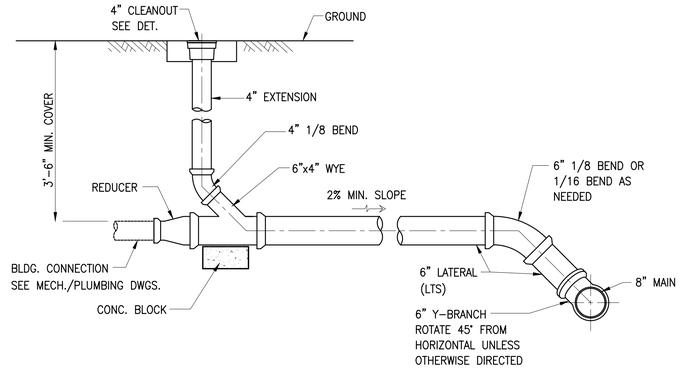
CLEANOUT TO GRADE DETAIL

NOT TO SCALE



SEWER LATERAL B FOR SUBDIVISON

NOT TO SCALE



SEWER LATERAL A FOR SUBDIVISON

NOT TO SCALE

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No. 6378
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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-511**
SHEET 63 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

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DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B
TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

SEWER DETAILS

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY DATE
SUBMITTED BY FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

DATE: SEPTEMBER 2023

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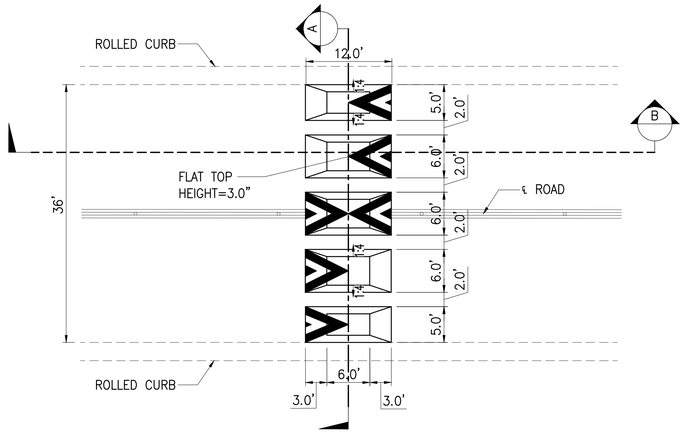
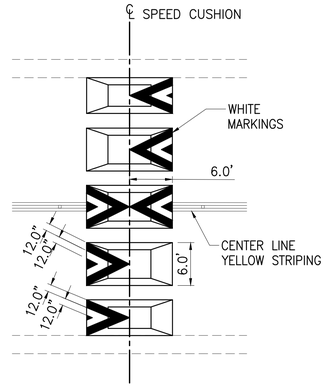
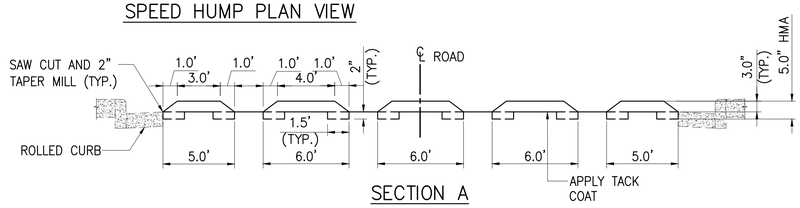


SPEED HUMP PLAN VIEW



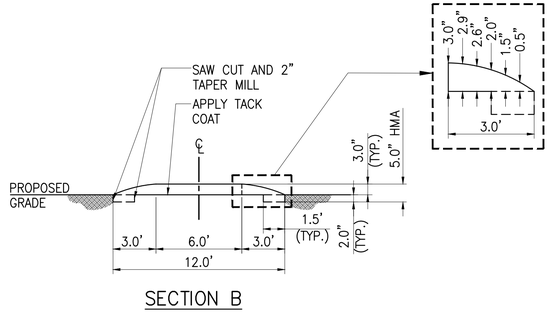
SPEED HUMP MARKINGS



SECTION A

SPEED HUMP DETAILS FOR ROADWAY WIDTH OF 36'

NOT TO SCALE



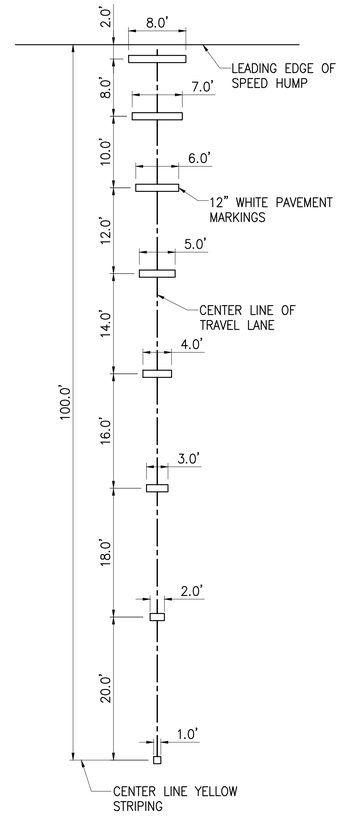
SECTION B

TYPICAL A.C. SPEED HUMP SECTION DETAIL

NOT TO SCALE

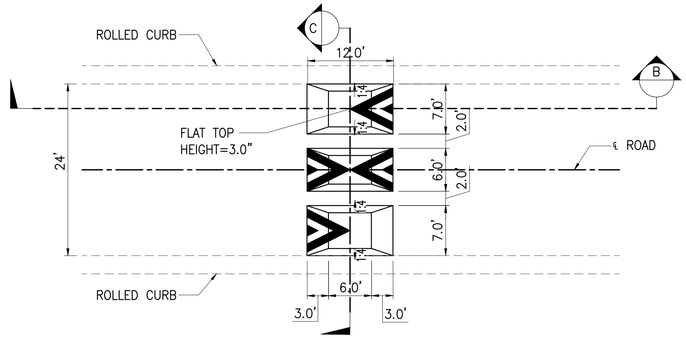
SPEED CUSHION AND SPEED HUMP NOTES:

1. ALL SIGNING AND STRIPING SHALL CONFORM TO THE LATEST EDITION OF THE MUTCD.
2. SPEED CUSHIONS AND SPEED HUMPS SHALL NOT BE PLACED FRONTING DRIVEWAYS AND CURB RAMPS OR OVER UTILITY BOXES, MONUMENTS, AND GUTTERS.

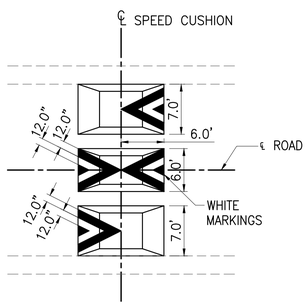


SPEED HUMP ADVANCE WARNING MARKING

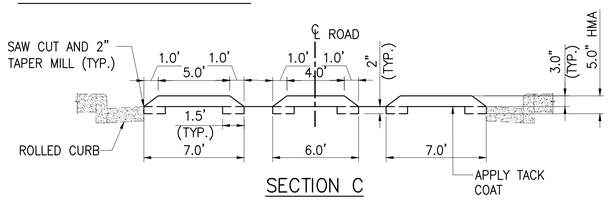
NOT TO SCALE



SPEED HUMP PLAN VIEW



SPEED HUMP MARKINGS



SECTION C

SPEED HUMP DETAILS FOR ROADWAY WIDTH OF 24'

NOT TO SCALE

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No. 6378
HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

SPEED HUMP DETAILS

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

DWG. NO. **C-512**

SHEET 64 OF

APPROVED BY DATE

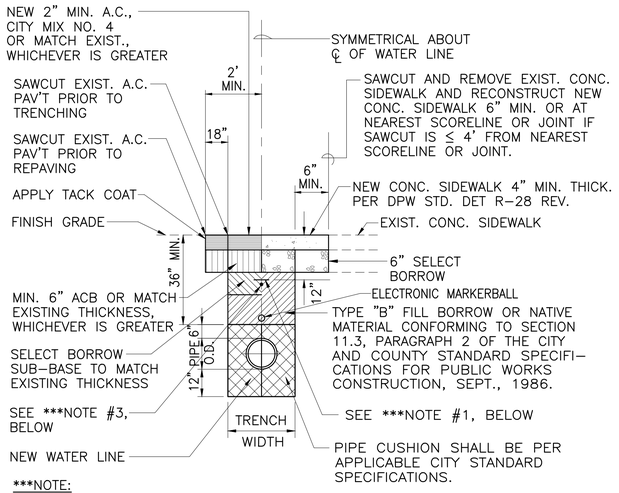
SUBMITTED BY FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

DATE: SEPTEMBER 2023

J:\2018\18-522\engineering\DWG\C-512 SPEED HUMP DETAILS.dwg



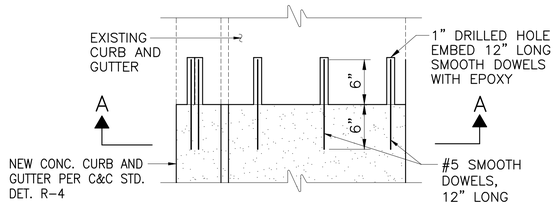
***NOTE:

1. INSTALL 4 MIL. THICK BLUE COLORED WARNING TAPE 6" WIDE OVER CENTERLINE OF THE PIPE AND BELOW THE BASE COURSE ALONG THE ENTIRE LENGTH OF TRENCH. TAPE SHOULD BE MARKED WITH "CAUTION WATER LINE BURIED BELOW." THE TAPE SHALL BE A MINIMUM 12" BELOW THE FINISHED GRADE.
2. THE CONTRACTOR SHALL COMPLY WITH ENGINEERING AND POLICY MEMORANDUM NO. CEB-1-09, JOINTING REQUIREMENTS FOR CONCRETE SIDEWALKS AND DRIVEWAYS, DATED: APRIL 1. 2009.

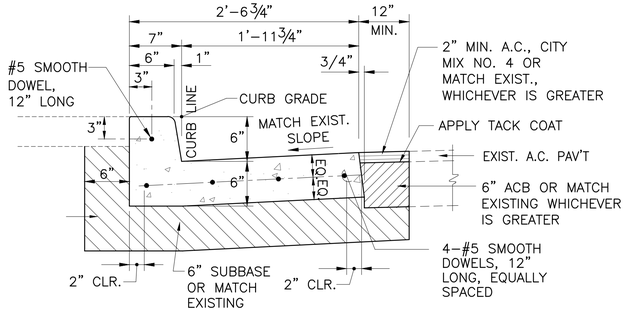
(CITY RIGHT OF WAY)

TRENCH RESTORATION DETAIL

NOT TO SCALE



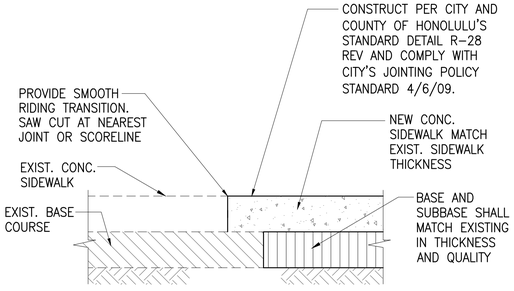
PLAN



SECTION A-A

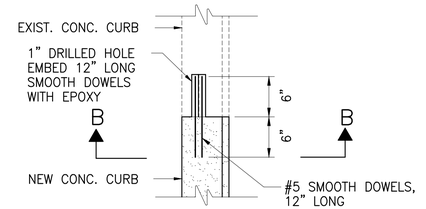
EXIST. CURB AND GUTTER TO NEW CURB AND GUTTER CONNECTION DETAIL

NOT TO SCALE

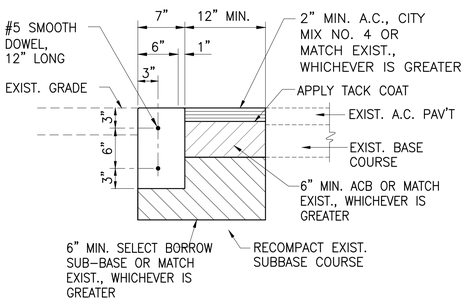


CONCRETE SIDEWALK CONNECTION DETAIL

NOT TO SCALE



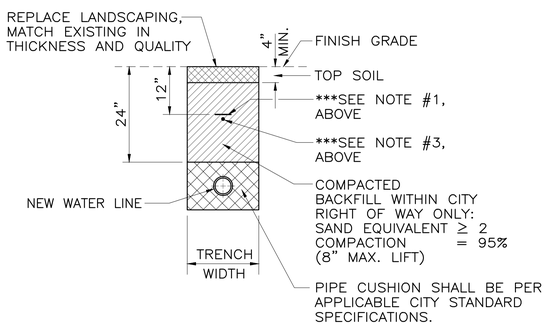
PLAN



SECTION B-B

EXIST. CURB TO NEW CURB CONNECTION DETAIL

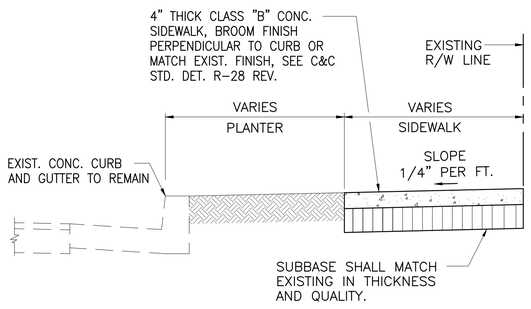
NOT TO SCALE



(GRASS CONDITION)

TYPICAL TRENCH RESTORATION DETAIL

NOT TO SCALE



NOTE:

1. THE CONTRACTOR SHALL COMPLY WITH ENGINEERING AND POLICY MEMORANDUM NO. CEB-1-09, JOINTING REQUIREMENTS FOR CONCRETE SIDEWALKS AND DRIVEWAYS, DATED: APRIL 1, 2009.

SIDEWALK RESTORATION DETAIL

NOT TO SCALE

ADRIENNE W.LH. WONG
LICENSED PROFESSIONAL ENGINEER
No. 6378
HAWAI'I, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 16-115-2 HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-513**

SHEET 65 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B
TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

MISCELLANEOUS DETAILS

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

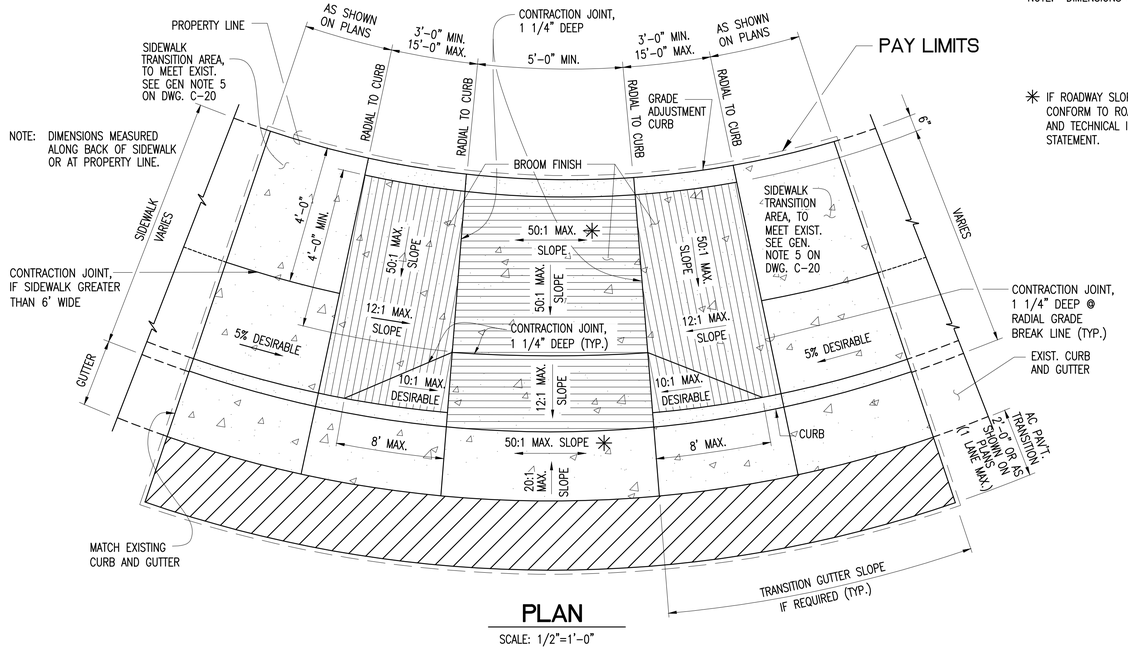
APPROVED BY — DATE
SUBMITTED BY — FIRM NUMBER — DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

DATE: SEPTEMBER 2023

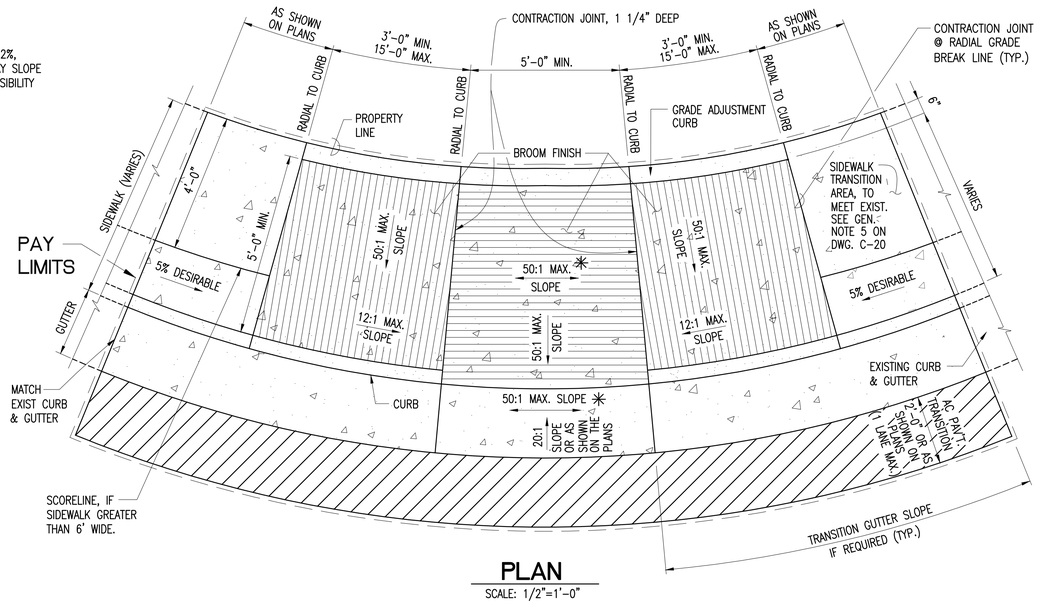
J:\2018\18-522\engineering\DWG\C-513 MISCELLANEOUS DETAILS.dwg



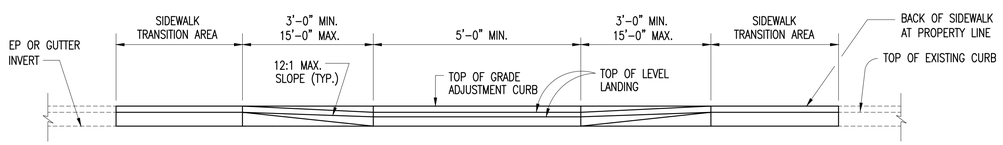
✳ IF ROADWAY SLOPE >2%, CONFORM TO ROADWAY SLOPE AND TECHNICAL INFEASIBILITY STATEMENT.

PLAN
SCALE: 1/2"=1'-0"

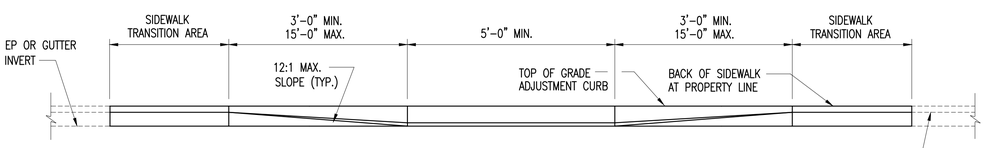
NOTE: DIMENSIONS MEASURED ALONG BACK OF SIDEWALK OR AT PROPERTY LINE.



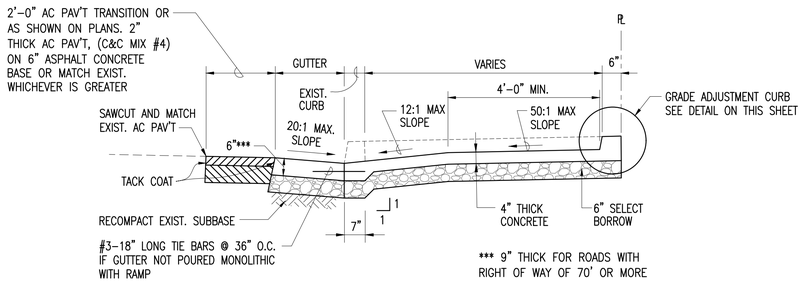
PLAN
SCALE: 1/2"=1'-0"



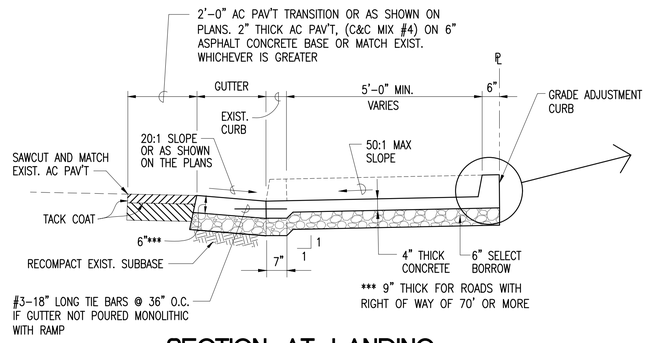
ELEVATION
SCALE: 1/2"=1'-0"



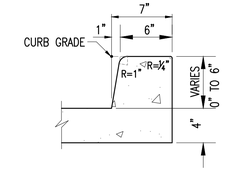
ELEVATION
SCALE: 1/2"=1'-0"



SECTION AT LANDING
SCALE: 1/2"=1'-0"



SECTION AT LANDING
SCALE: 1/2"=1'-0"



DETAIL - GRADE ADJUSTMENT CURB
SCALE: 1 1/2"=1'-0"

CURB RAMP - TYPE "B" (TRUNCATED)

CURB RAMP - TYPE "B"

ADRIENNE W.LH. WONG ★ LICENSED PROFESSIONAL ENGINEER No. 6378 ★ HAWAI'I, U.S.A.

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LICENSE EXPIRES: APRIL 30, 2024

0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

DWG. NO. **C-514**

SHEET 22 OF

REVISION	DATE	BRIEF	MADE BY	APPROVED

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU, WAILUKU, HAWAI'I

DEPARTMENT OF HAWAIIAN HOME LANDS

VILLAGES OF LEIALI'I, PHASE 1B

TAX MAP KEY: (2) 4-5-21: 020
LAHAINA, MAUI, HAWAII

CURB RAMP GRADES - 1

DESIGNED BY	DRAWN BY	CHECKED BY
KM	ATA	AW

APPROVED BY DATE

SUBMITTED BY FIRM NUMBER DATE

FILE	POCKET	FOLDER	NO.

JOB NO. 18-522

DATE: SEPTEMBER 2023

Z:\2018\18-522\engineering\DWG\C-316 CURB RAMP GRADES - 1.dwg