

KAONOULU MARKET PLACE

TAX MAP KEY: (2) 3-9-01 : 16

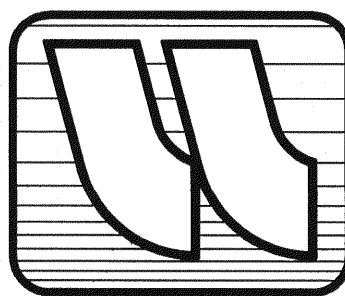
Waiohuli-Keokea, Kula, (Kihei), Maui, Hawaii

Subdivision File No. 2.2795 DWS SD. No. 03-90

Prepared for . . .

MAUI INDUSTRIAL PARTNERS, LLC.
Kihei, Maui, Hawaii

Prepared By . . .



WARREN S. UNEMORI ENGINEERING, INC.
Civil & Structural Engineers - Land Surveyor
Wells Street Professional Center - Suite 403
2145 Wells Street -Wailuku, Maui, Hawaii 96793

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APPROVED BY:

Michael W. Thompson 3/24/09
DIRECTOR DEPARTMENT OF PUBLIC WORKS
COUNTY OF MAUI
(Approval for work in County Right-of-Way Only)

Michael W. Thompson 03/03/2009
DIRECTOR DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
(Approval is limited to the Water System Improvements which will be dedicated to the Department of Water Supply)

Alan Wong 3/6/2009
CHIEF, ENVIRONMENTAL MANAGEMENT DIVISION
STATE OF HAWAII

William Cajigas 4/25/09
CHIEF, HIGHWAYS DIVISION DEPARTMENT OF TRANSPORTATION
STATE OF HAWAII
(Approval Granted for Work Within State Right-of-Way Only)
Letter of Approval No. HWT-M-2096-09 Date 2/25/09
I.D. No. ME 05-40
* Per added State DOT conditions outlined on above referenced letter

RE-APPROVED BY:

Michael W. Thompson 7/1/10
DIRECTOR DEPARTMENT OF PUBLIC WORKS
COUNTY OF MAUI
(Approval for work in County Right-of-Way Only)
for Herbert Chang 6/29/2012
DIRECTOR DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
(Approval is limited to the Water System Improvements which will be dedicated to the Department of Water Supply)

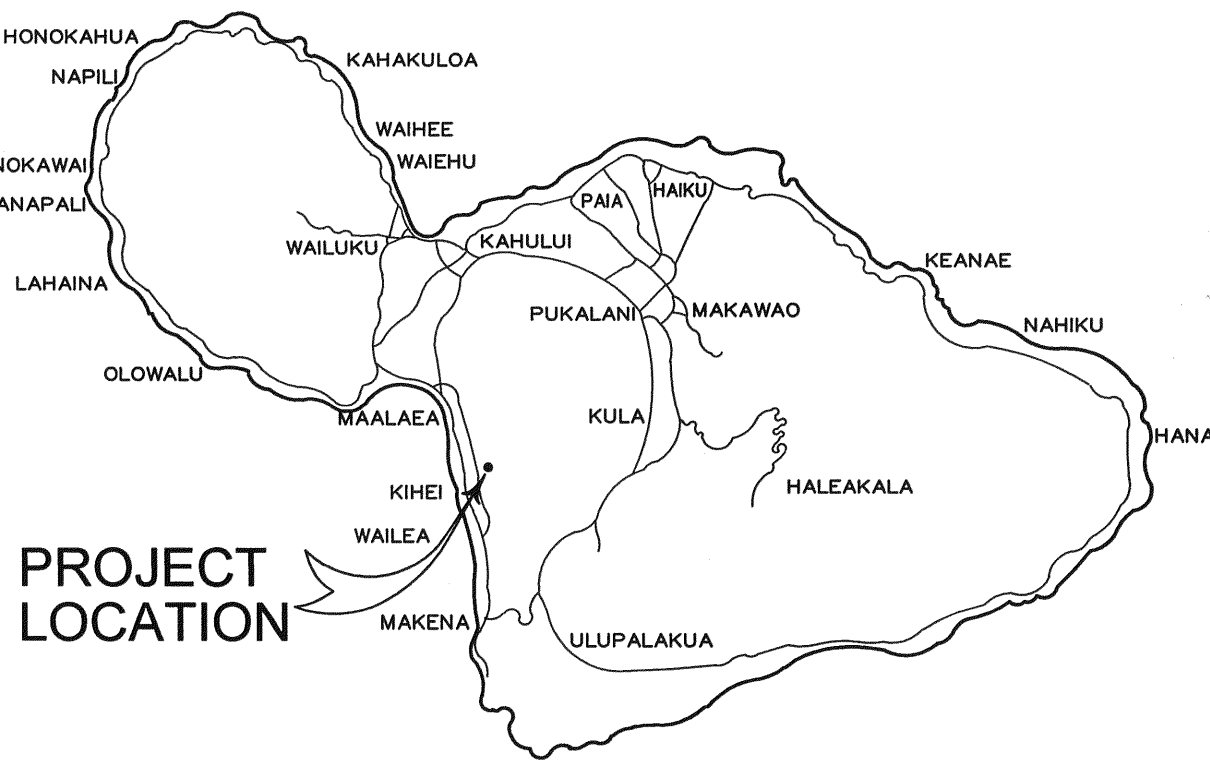
CHIEF, HIGHWAYS DIVISION DEPARTMENT OF TRANSPORTATION, STATE OF HAWAII
(Approval Granted for Work Within State Right-of-Way Only)
Letter of Approval No. HWT-M 2.096-09 Date 2/25/09
I.D. No. ME 05-40. Approval subject to State DOT conditions outlined in above referenced letter with the added condition that a Permit to Perform Work cannot be issued until Chapter 343 requirements are satisfied.

RE-APPROVED BY:

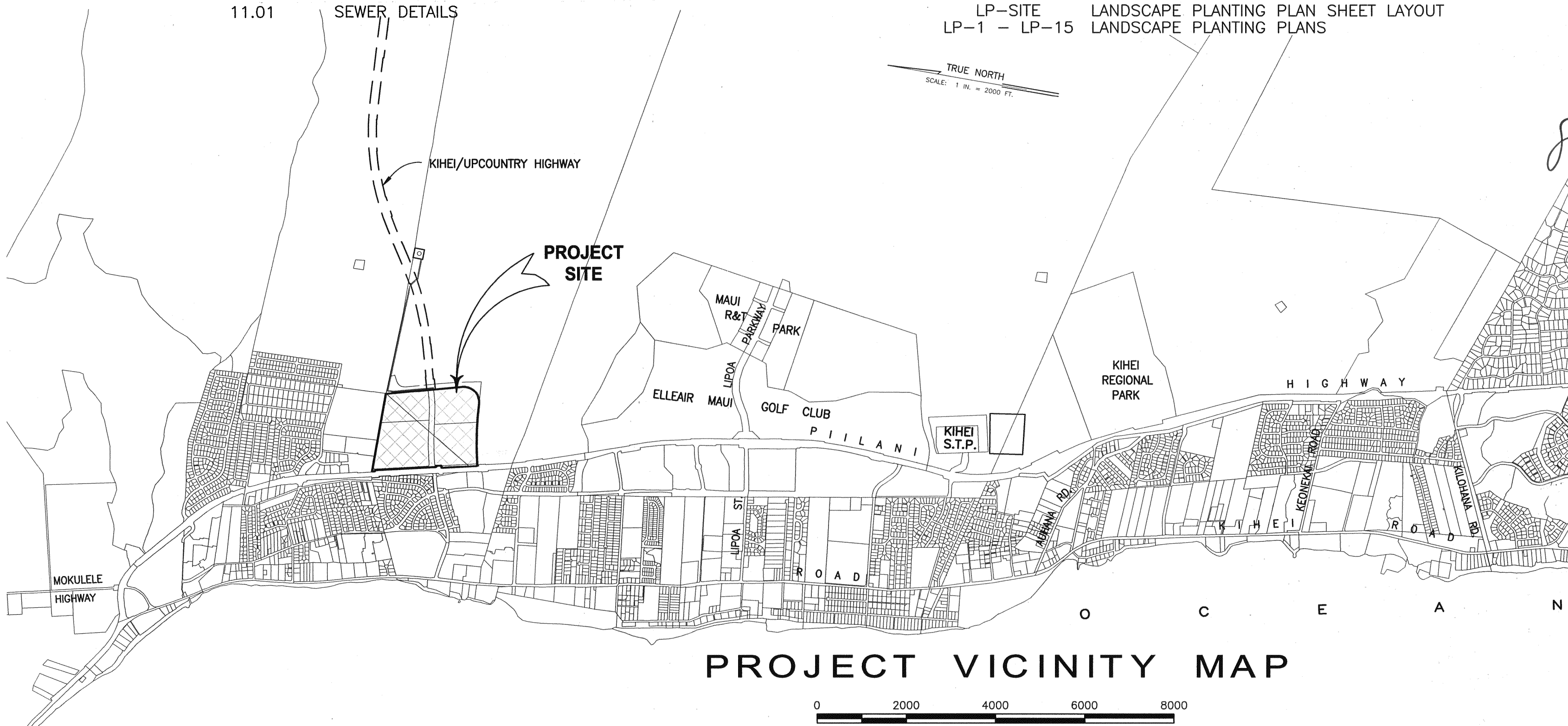
Michael W. Thompson 4-27-11
DIRECTOR DEPARTMENT OF PUBLIC WORKS
COUNTY OF MAUI
(Approval for work in County Right-of-Way Only)

RE-APPROVED BY:

Michael W. Thompson 4-8-15
DIRECTOR DEPARTMENT OF PUBLIC WORKS
COUNTY OF MAUI
(Approval for work in County Right-of-Way Only)

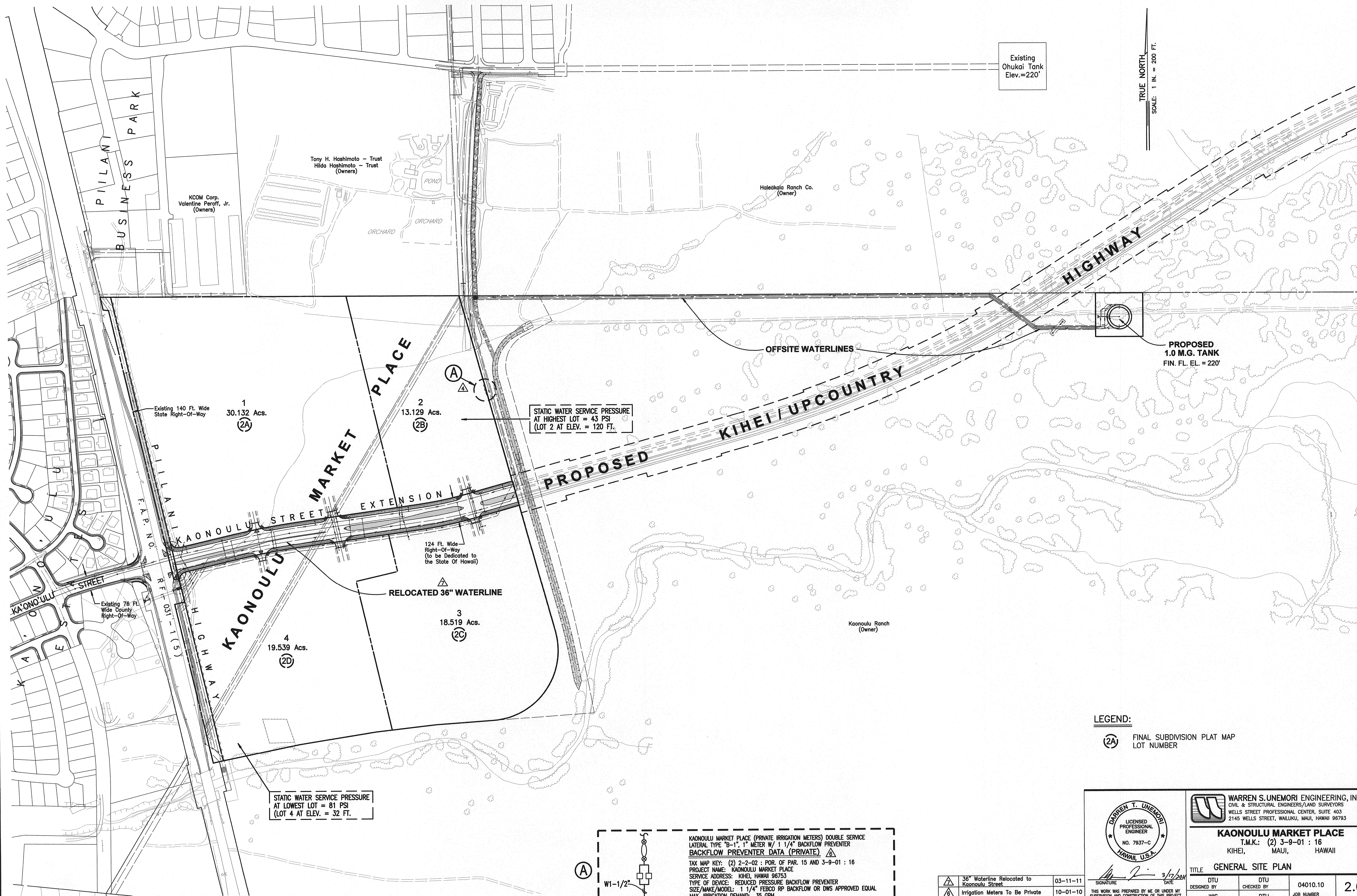


ISLAND OF MAUI
NOT TO SCALE



PROJECT VICINITY MAP

\\projdata\cprproj\04010101.dwg(2004) completed\STEP\AND.dwg



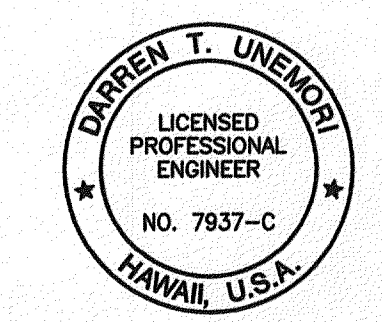
A

W1-1/2"

KAONOULU MARKET PLACE (PRIVATE IRRIGATION METERS) DOUBLE SERVICE
LATERAL TYPE "B-1", 1" METER W/ 1 1/4" BACKFLOW PREVENTER
BACKFLOW PREVENTER DATA (PRIVATE)

TAX MAP KEY: (2) 2-2-02 : POR. OF PAR. 15 AND 3-9-01 : 16
PROJECT NAME: KAONOULU MARKET PLACE
SERVICE ADDRESS: KIHAI, HAWAII 96753
TYPE OF DEVICE: REDUCED PRESSURE BACKFLOW PREVENTER
SIZE/MAKE/MODEL: 1 1/4" FEBCO RP BACKFLOW OR DWS APPROVED EQUAL
MAX. IRRIGATION DEMAND: 35 GPM
SOURCE: OWNER FURNISHED ON-SITE WELL (BY OTHERS)

	36" Waterline Relocated to Kaonoulu Street	03-11-11
	Irrigation Meters To Be Private	10-01-10
	Revised Irrigation Source	12-12-08
LETTER	DESCRIPTION	DATE



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 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"

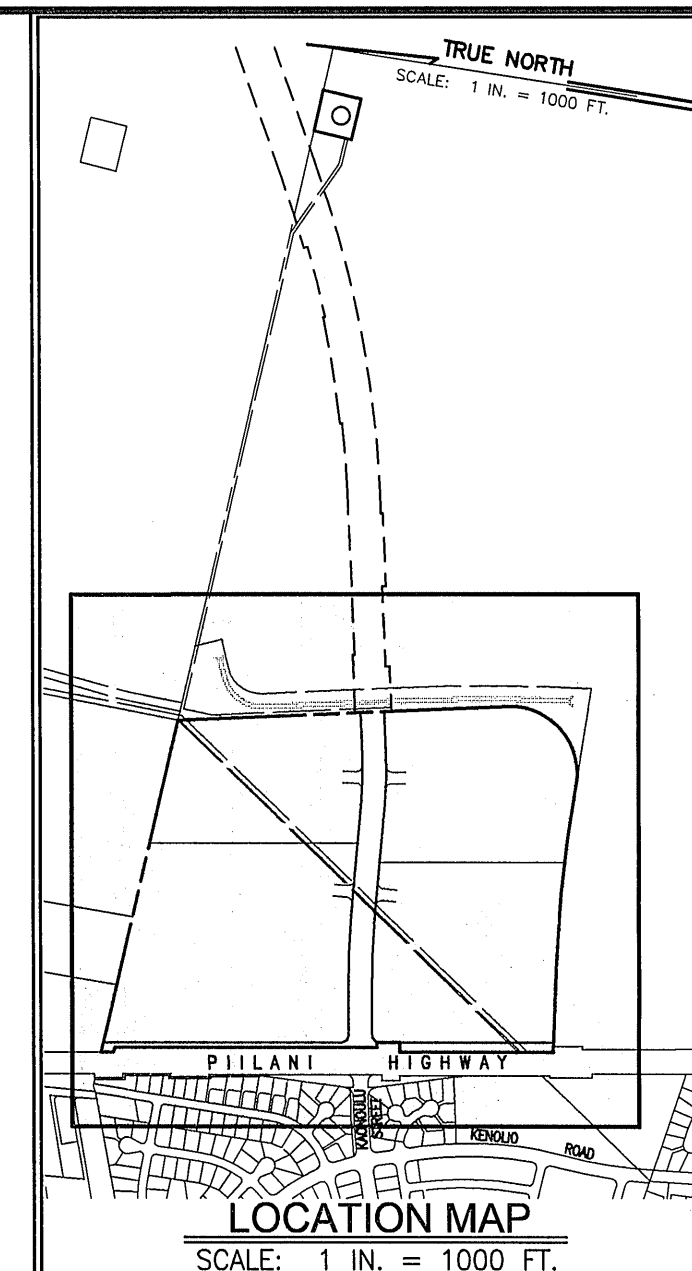
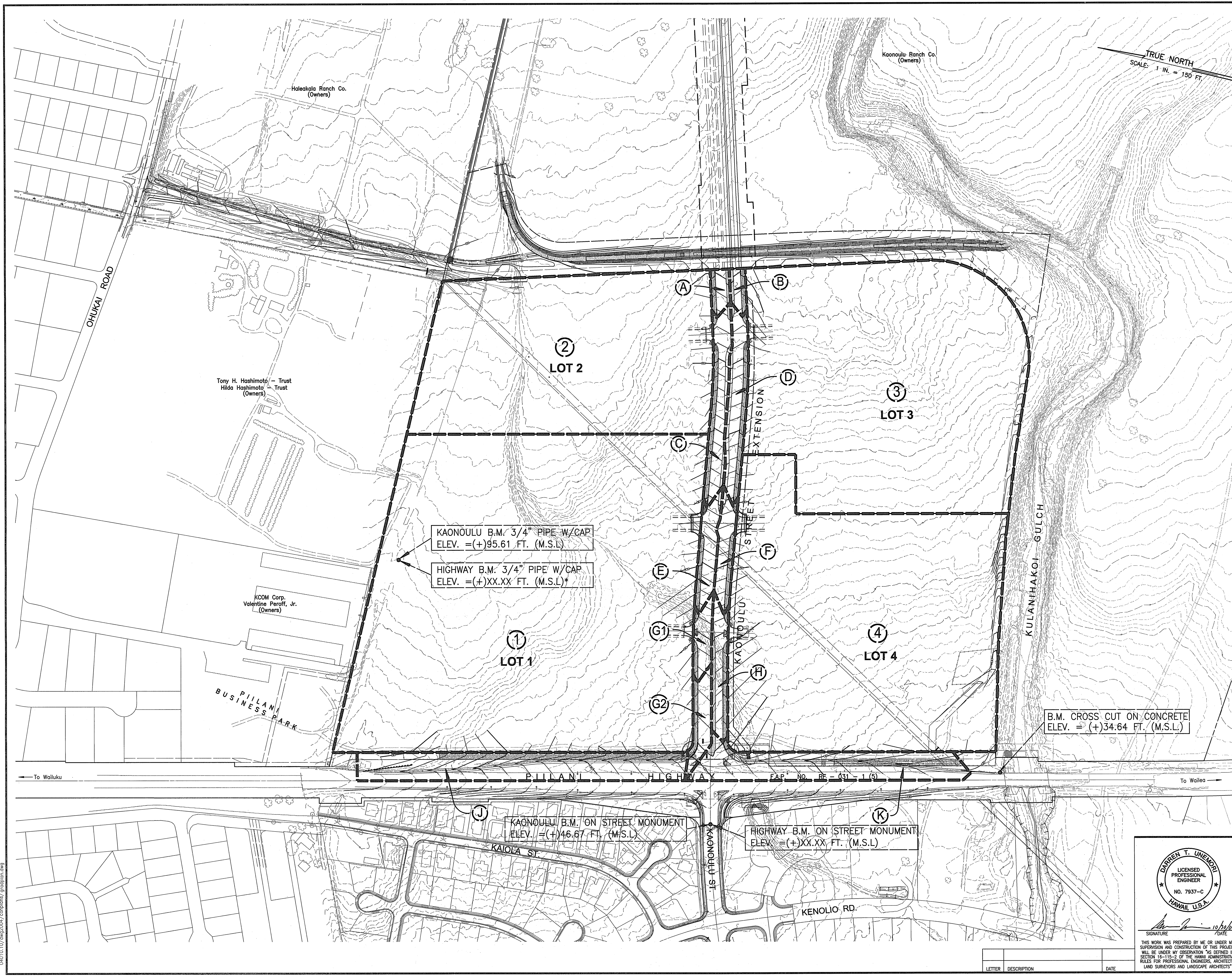
SIGNATURE DATE 3/12/2011

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHAI, MAUI, HAWAII

TITLE GENERAL SITE PLAN

DTU	CHECKED BY	04010.10	2.01
DESIGNED BY	DTU	JOB NUMBER	
WIS	DTU	10-10-05	SHEET
DRAWN BY	APPROVED BY	DATE	
SCALE 1 in. = 200 ft.			OF SHEETS



LEGEND:

- 80 ——— FINISH GRADE W/ ELEVATION
- 80 - - - - - EXISTING GRADE W/ ELEVATION
- - - - - DRAINAGE AREA LIMITS
- (25) DRAINAGE AREA NUMBER

APPROXIMATE EARTHWORK QUANTITIES

EXCAVATION = 42,400 CU.YD.
EMBANKMENT = 44,000 CU.YD.
APPROX. GRADING AREA=29.0± ACRES

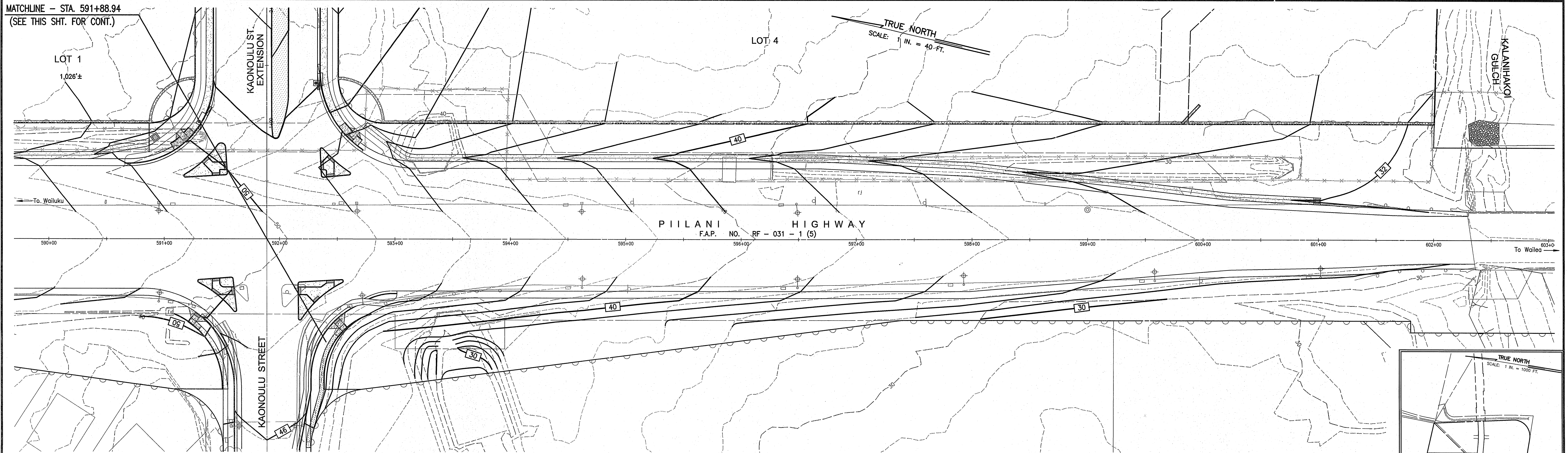
WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOLU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHEI, MAUI, HAWAII

TITLE: GRADING AND DRAINAGE AREA PLAN	
DESIGNED BY: ALU	CHECKED BY: DTU
DRAWN BY: WIS	APPROVED BY: DTU
SCALE: 1 in. = 150 ft.	
DATE: 10-10-05	
SHEET: 3.01	

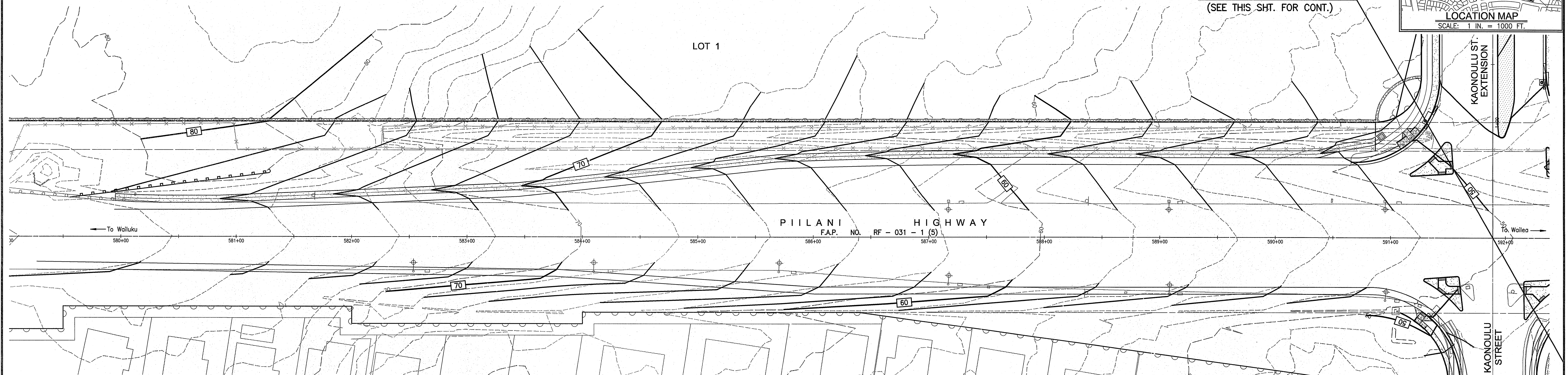
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MATCHLINE - STA. 591+88.94
(SEE THIS SHT. FOR CONT.)

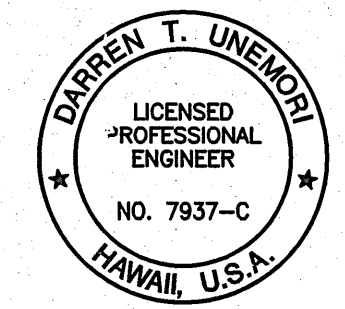
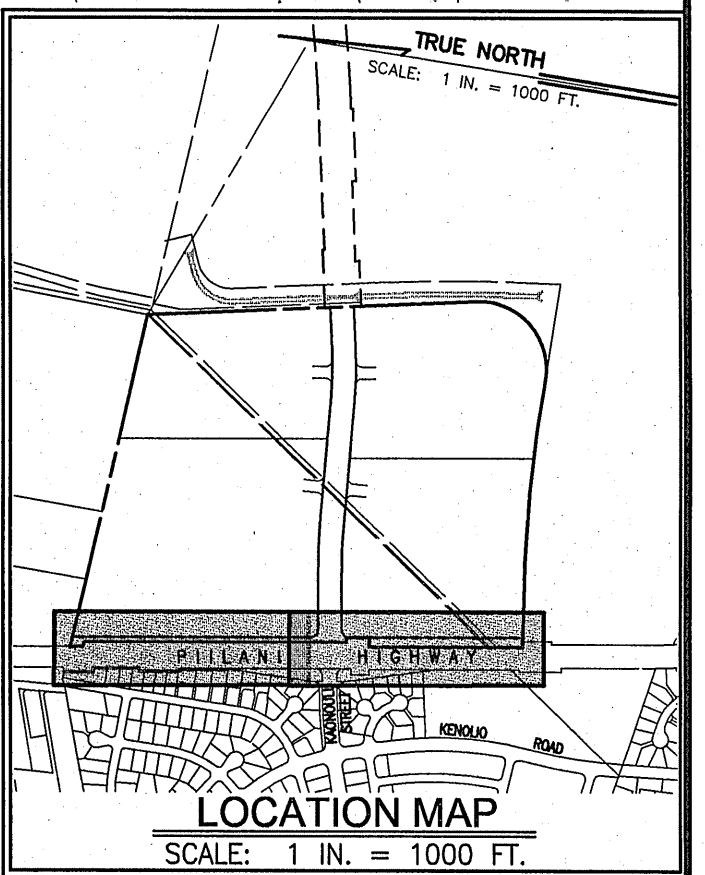


PIILANI HIGHWAY
(STA. 590+00 TO 602+00)
Scale: 1 in. = 40 ft.

MATCHLINE - STA. 591+88.94
(SEE THIS SHT. FOR CONT.)



PIILANI HIGHWAY
(STA. 578+50 TO 590+00)
Scale: 1 in. = 40 ft.



WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIEI, MAUI, HAWAII

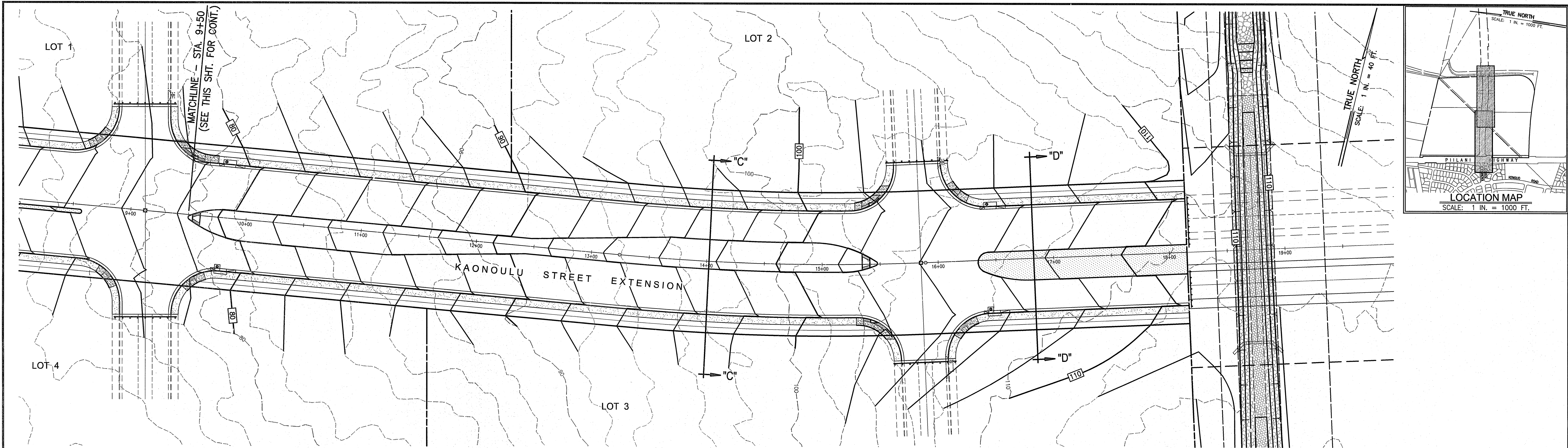
TITLE DETAILED GRADING PLAN - PIILANI HIGHWAY

SIGNATURE: *[Signature]* DATE: 12/12/08
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 10-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS

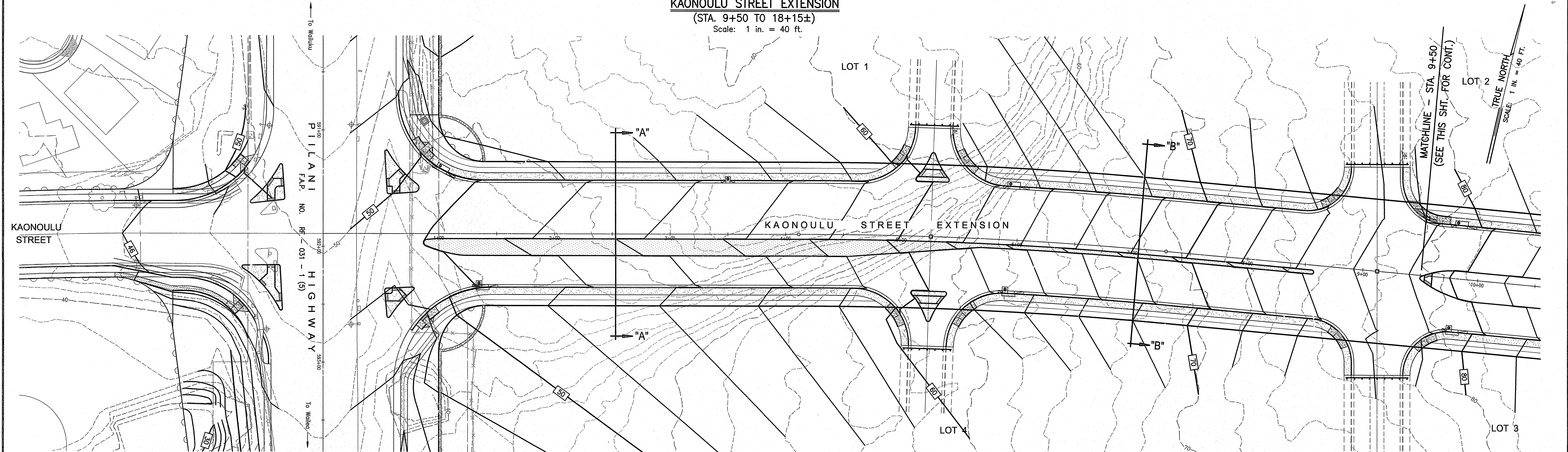
DESIGNED BY WIS	CHECKED BY DTU	04010.10 JOB NUMBER	3.02 SHEET
DRAWN BY	APPROVED BY	10-10-05 DATE	OF SHEETS

LETTER	DESCRIPTION	DATE

04010.10.dwg2004/complan/gis000400.dwg



KAONOULU STREET EXTENSION
(STA. 9+50 TO 18+15±)
Scale: 1 in. = 40 ft.



KAONOULU STREET EXTENSION
(STA. 0+00 TO 9+50)
Scale: 1 in. = 40 ft.

04010.10.dwg 2/20/2004 /complan/ grad00403c.dwg

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CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHAI, MAUI, HAWAII

DETAILED GRADING PLAN -
TITLE: **KAONOULU STREET EXTENSION**

DESIGNED BY	DTU	04010.10
CHECKED BY	DTU	JOB NUMBER
DRAWN BY	DTU	10-10-05
APPROVED BY	DTU	DATE

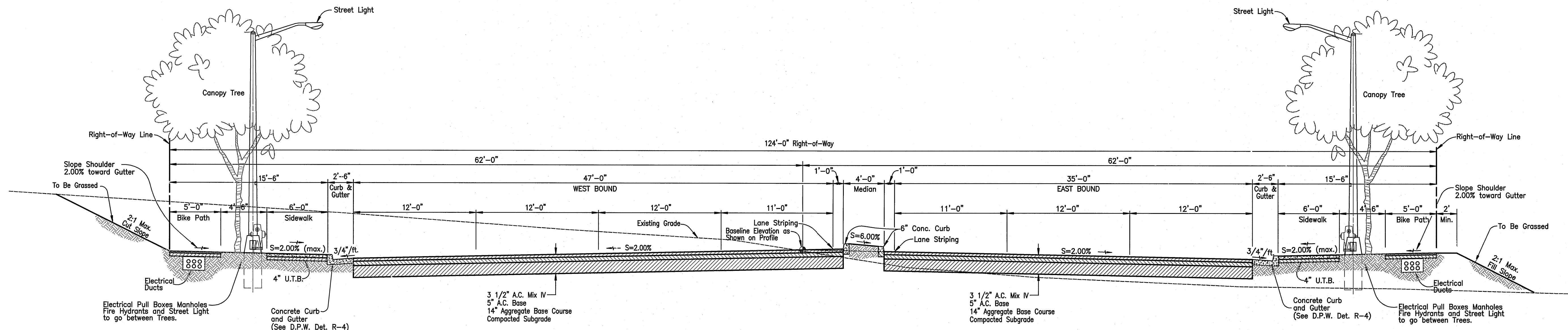
SCALE 1 in. = 40 ft.

LETTER	DESCRIPTION	DATE

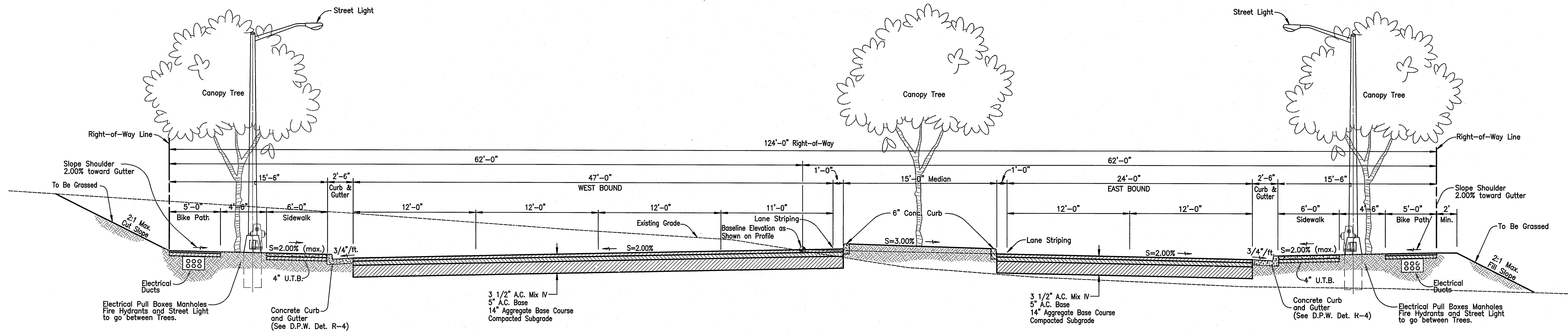
3.03

SHEET

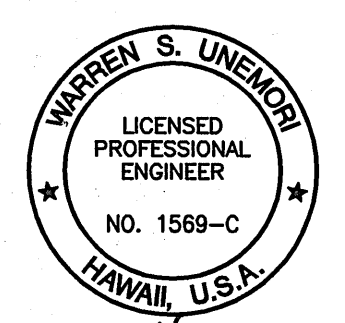
OF SHEETS



SECTION "B"-"B"
TYPICAL SECTION - KAONOULU STREET EXTENSION
 SCALE: 3/16" = 1'-0"



SECTION "A"-"A"
TYPICAL SECTION - KAONOULU STREET EXTENSION
 SCALE: 3/16" = 1'-0"



WARREN S. UNEMORI ENGINEERING, INC.
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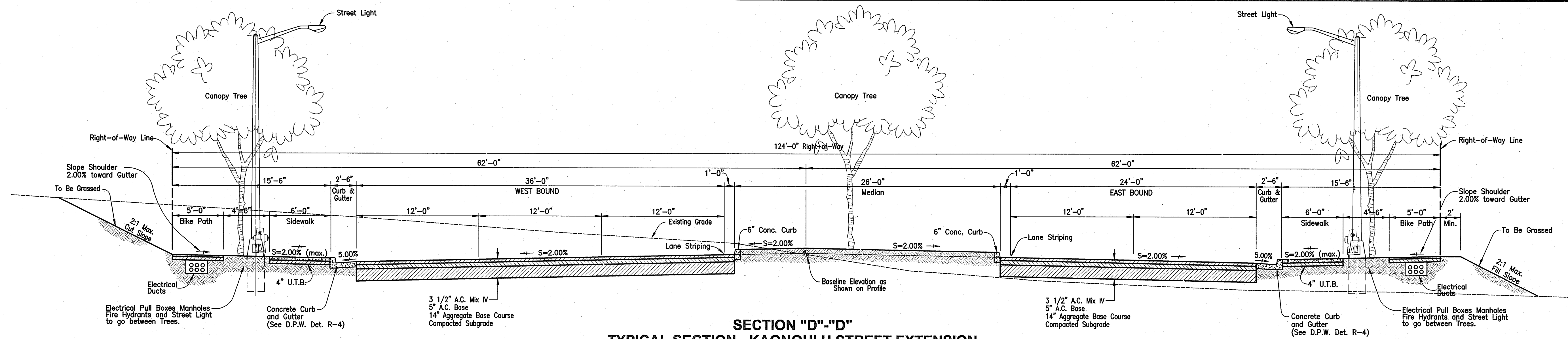
KAONOULU MARKET PLACE
 T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
 KIHAEI, MAUI, HAWAII

TYPICAL SECTIONS
 TITLE KAONOULU STREET EXTENSION

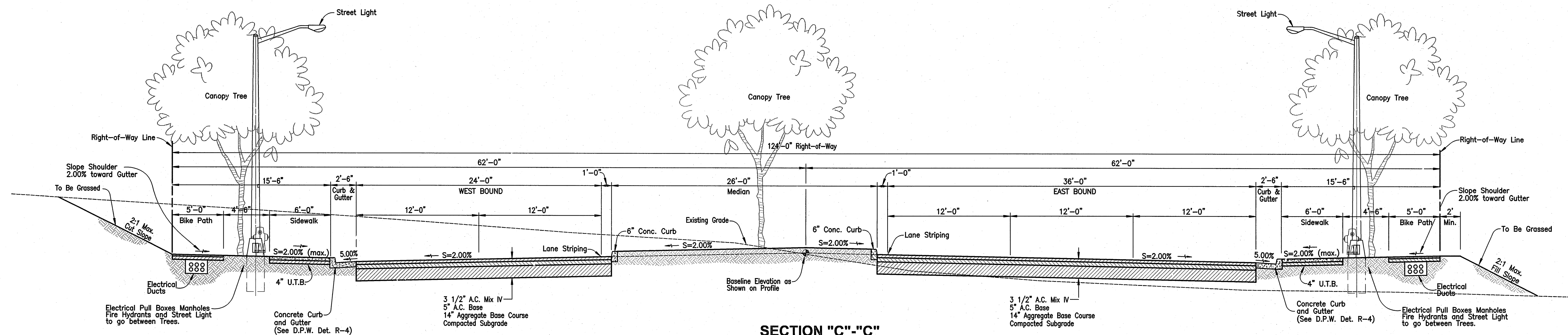
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DESIGNED BY ALU	CHECKED BY WSU	JOB NUMBER 04010.10	4.01
DRAWN BY WIS	APPROVED BY WSU	DATE 10-10-05	
SCALE As Shown		DATE 10-10-05	OF SHEETS

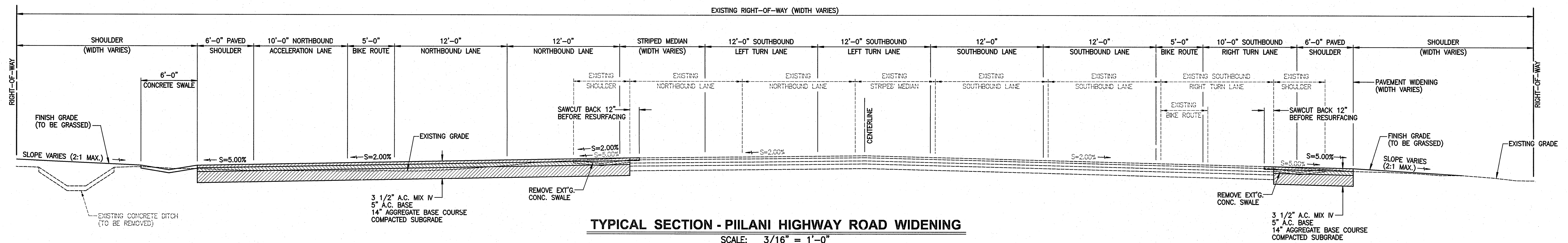
LETTER	DESCRIPTION	DATE



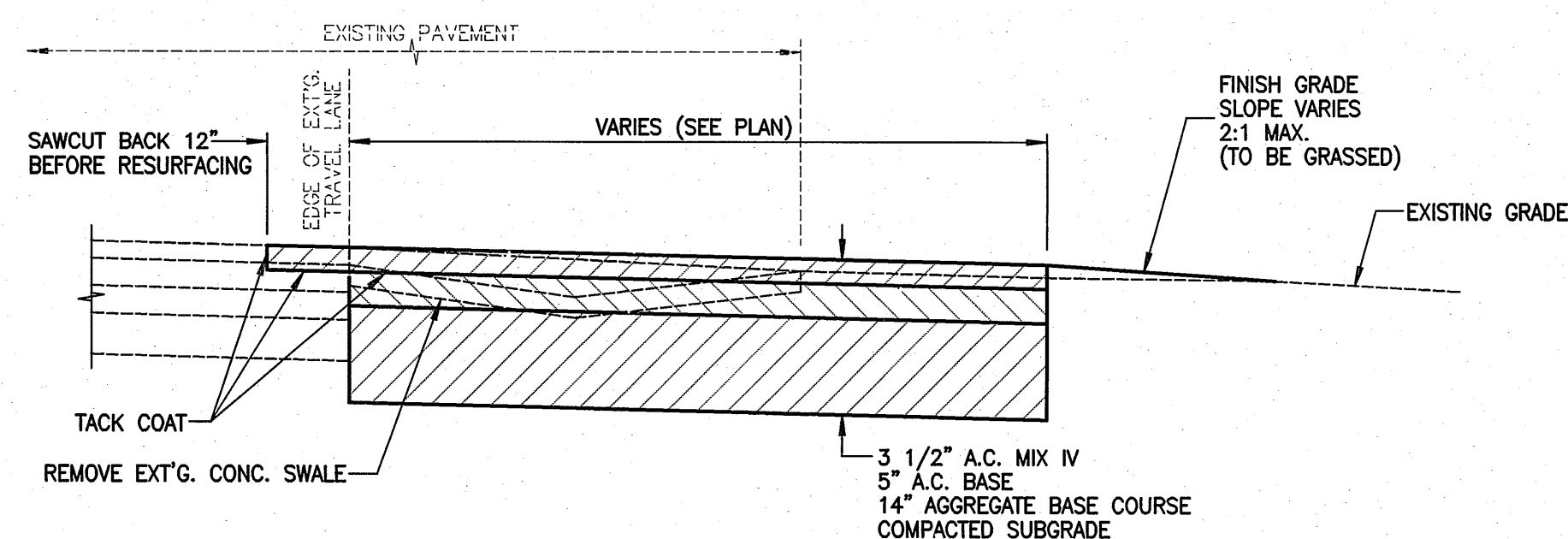
SECTION "D"-"D"
TYPICAL SECTION - KAONOULU STREET EXTENSION
 SCALE: 3/16" = 1'-0"



SECTION "C"-"C"
TYPICAL SECTION - KAONOULU STREET EXTENSION
 SCALE: 3/16" = 1'-0"



TYPICAL SECTION - PILANI HIGHWAY ROAD WIDENING
 SCALE: 3/16" = 1'-0"



DETAIL - PAVEMENT WIDENING / CONNECTION
 NOT TO SCALE

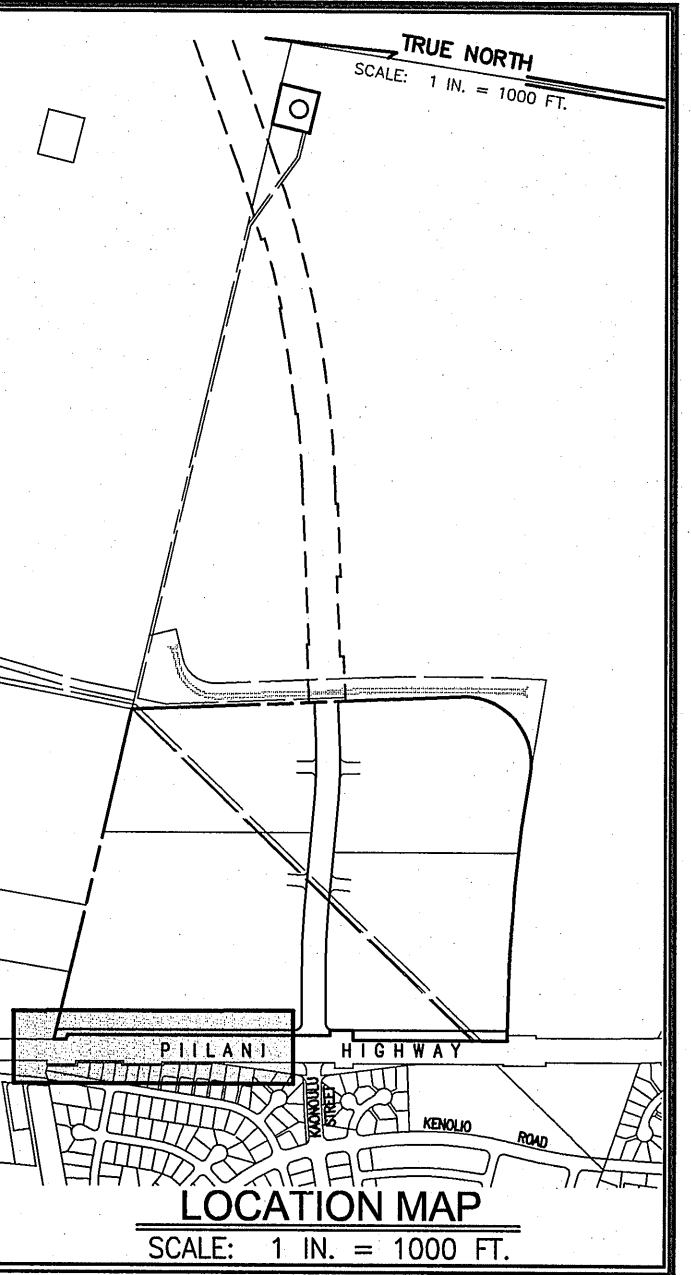
WARREN S. UNEMORI ENGINEERING, INC.
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 WELLS STREET PROFESSIONAL CENTER, SUITE 403
 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
 T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
 KIHU, MAUI, HAWAII

DESIGNED BY ALU
CHECKED BY DTU
DRAWN BY WIS
APPROVED BY DTU

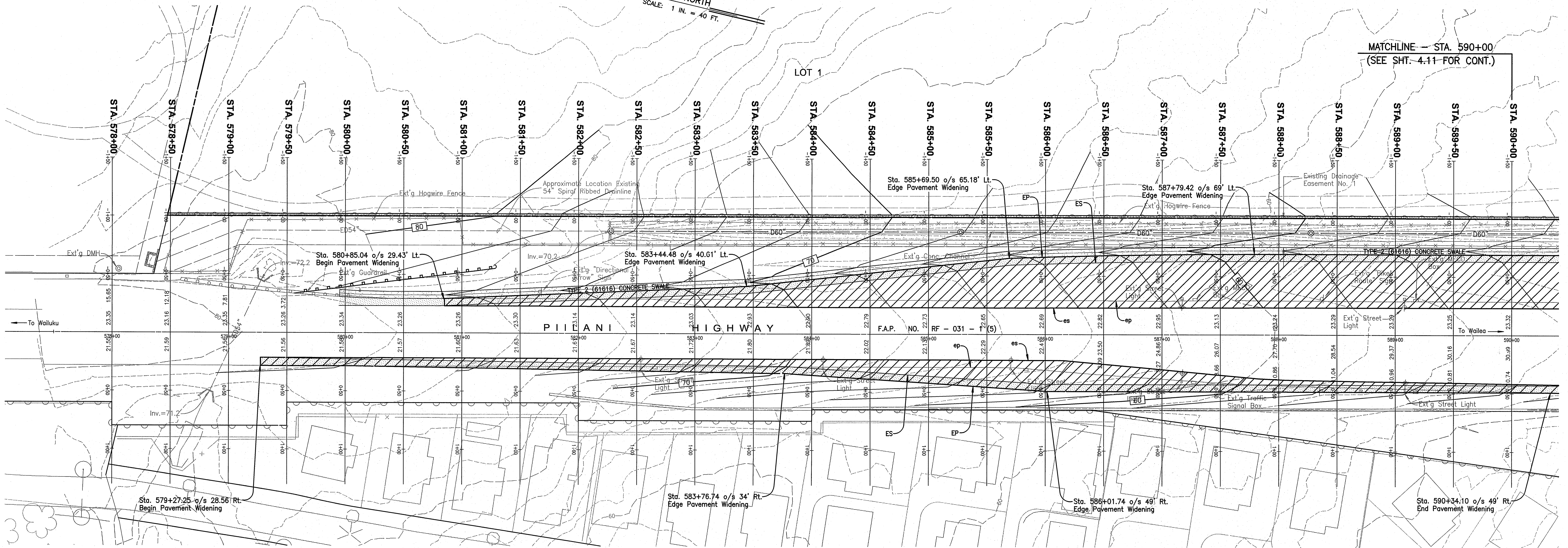
DATE 10-10-05
JOB NUMBER 04010.10
SHEET 4.02
OF SHEETS

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TRUE NORTH
SCALE: 1 IN. = 40 FT.

MATCHLINE — STA. 590+00
(SEE SHT. 4-11 FOR CONT.)



LEGEND:

- es = Existing Edge Stripe
- ep = Existing Edge Pavement
- ES = Proposed Edge Stripe
- EP = Proposed Edge Pavement

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

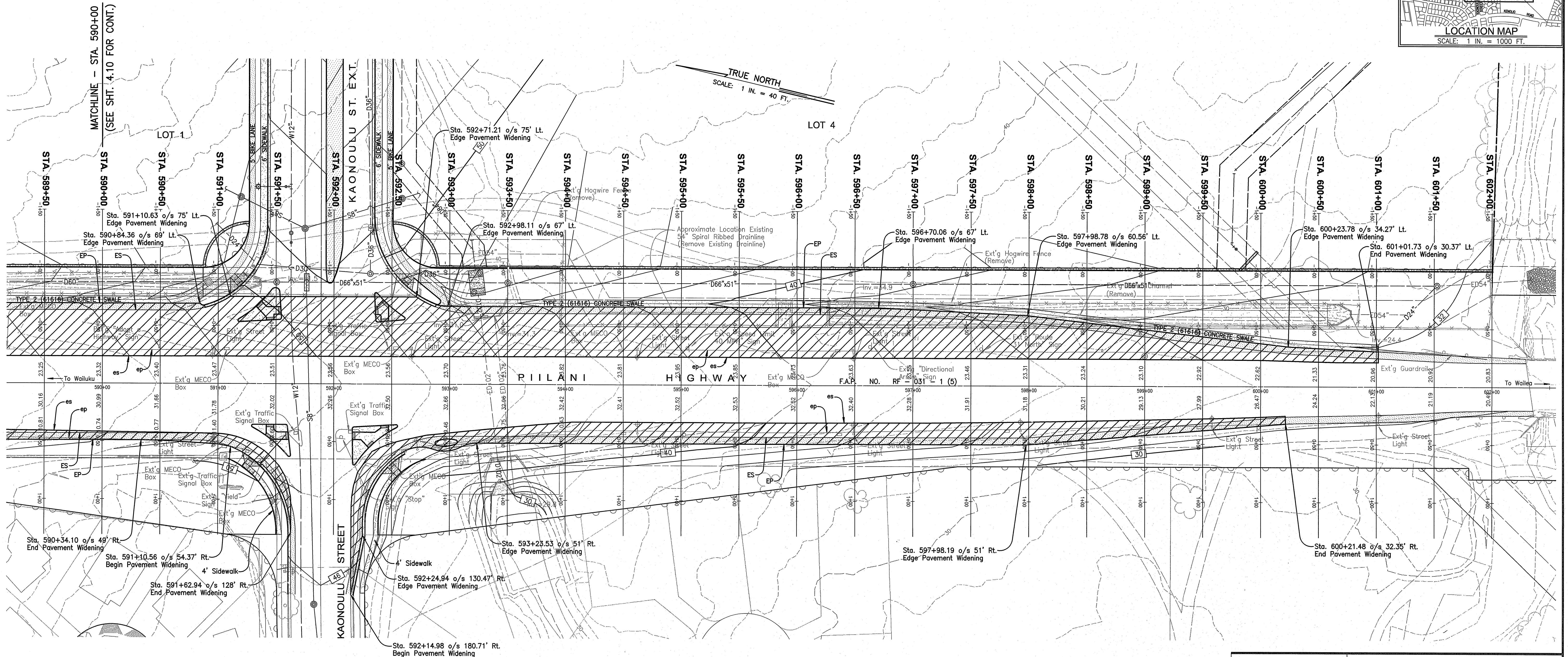
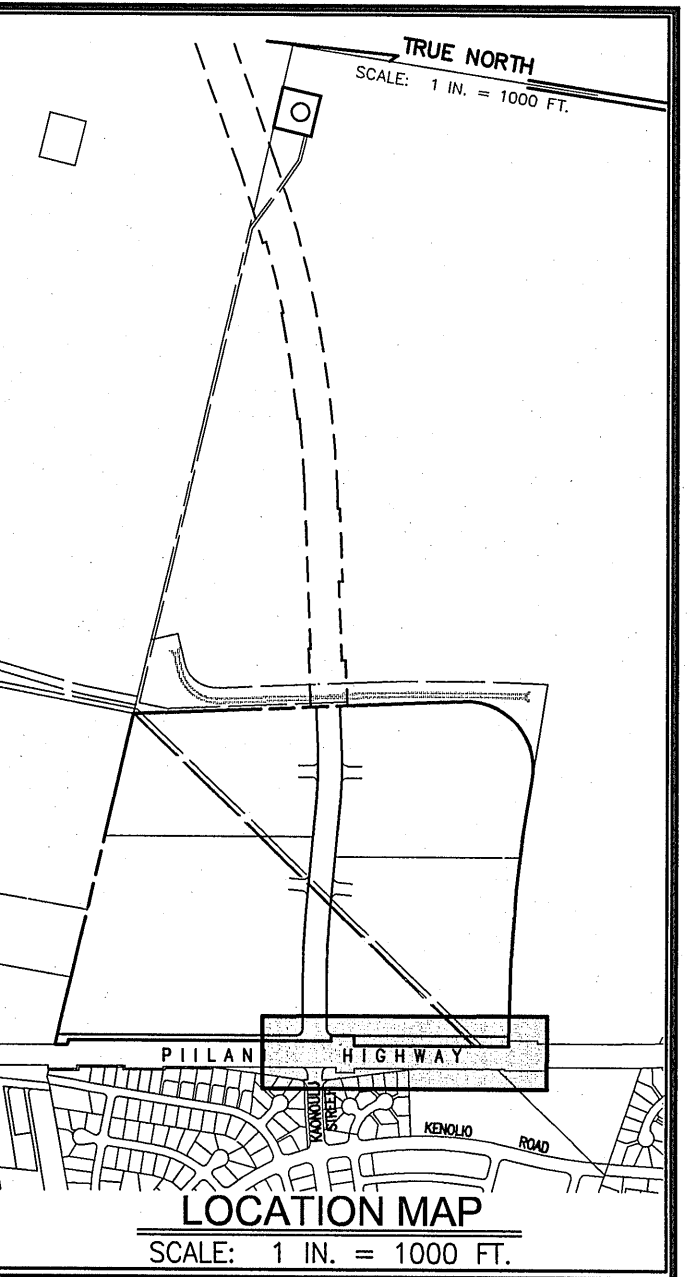
KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHEI, MAUI, HAWAII

CROSS SECTION — PILIHI HIGHWAY

ALU	DTU	04010.10	4.10
WIS	DTU	JOB NUMBER	
DRAWN BY	APPROVED BY	10-10-05	SHEET
SCALE 1 in. = 40 ft.	DATE	OF SHEETS	

SIGNATURE: DATE: 1/29/09

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 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"



LEGEND:

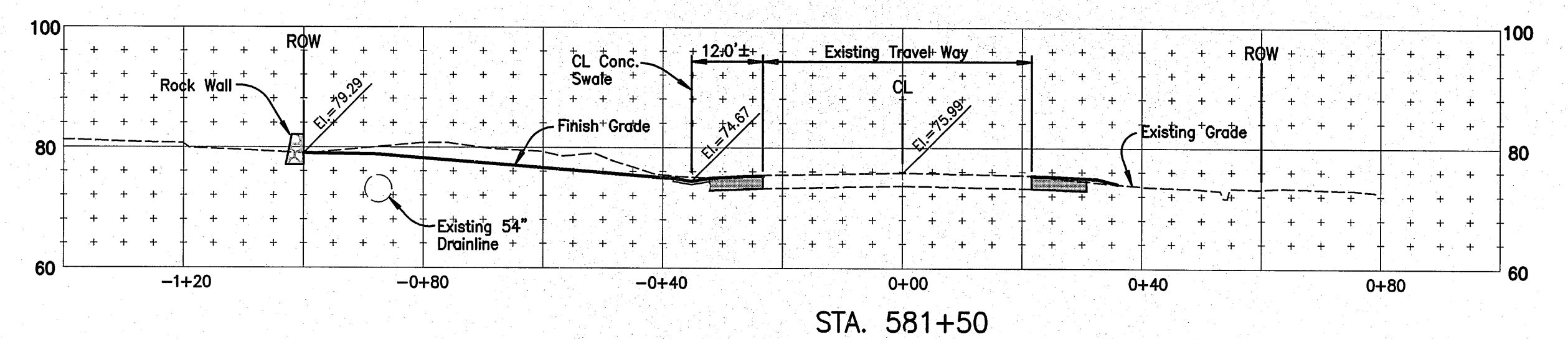
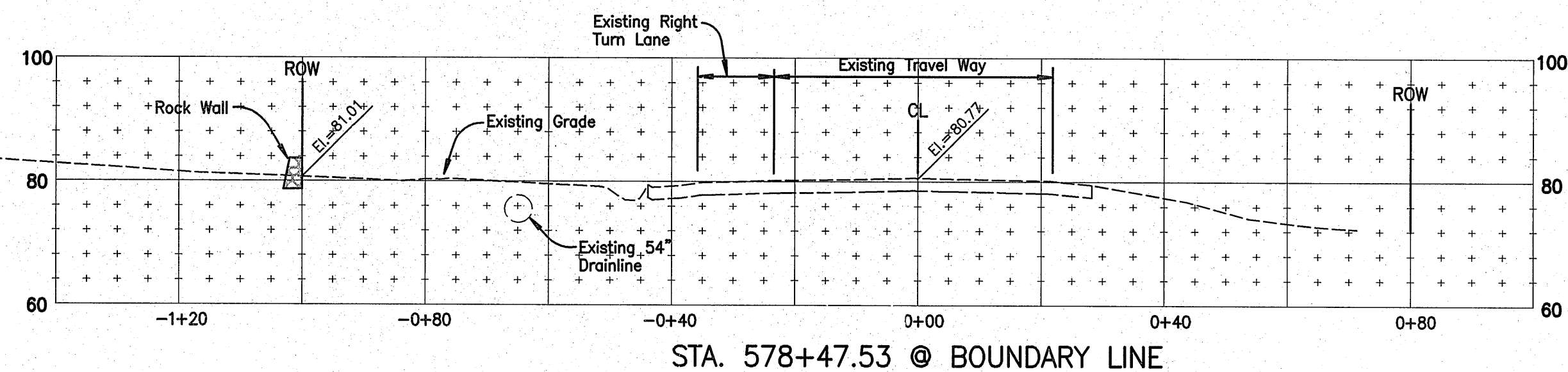
- es = Existing Edge Stripe
- ep = Existing Edge Pavement
- ES = Proposed Edge Stripe
- EP = Proposed Edge Pavement

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

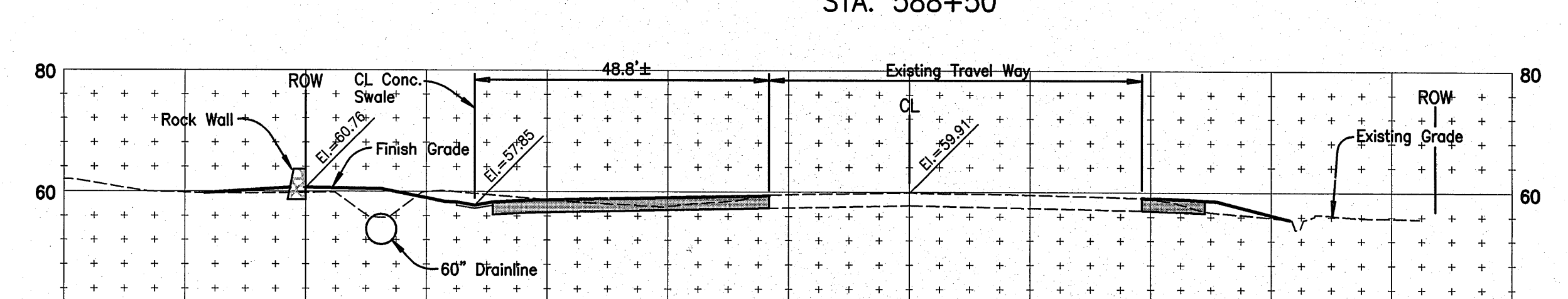
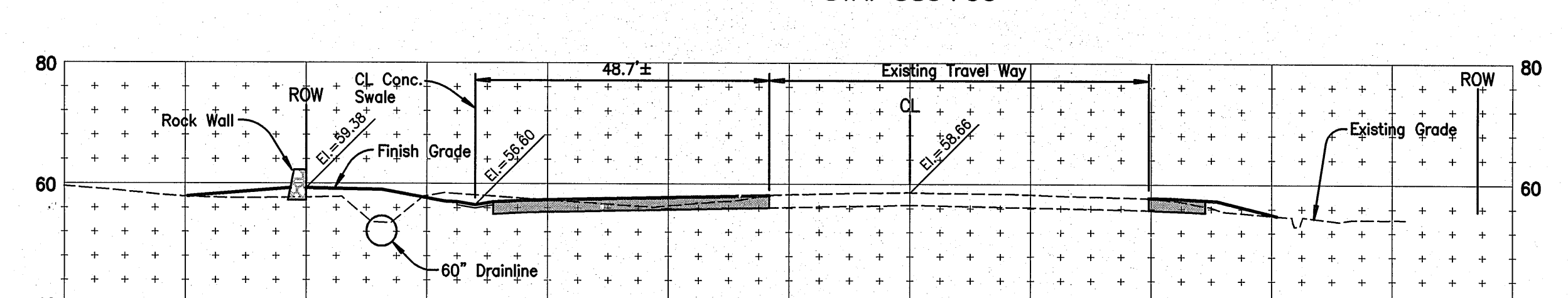
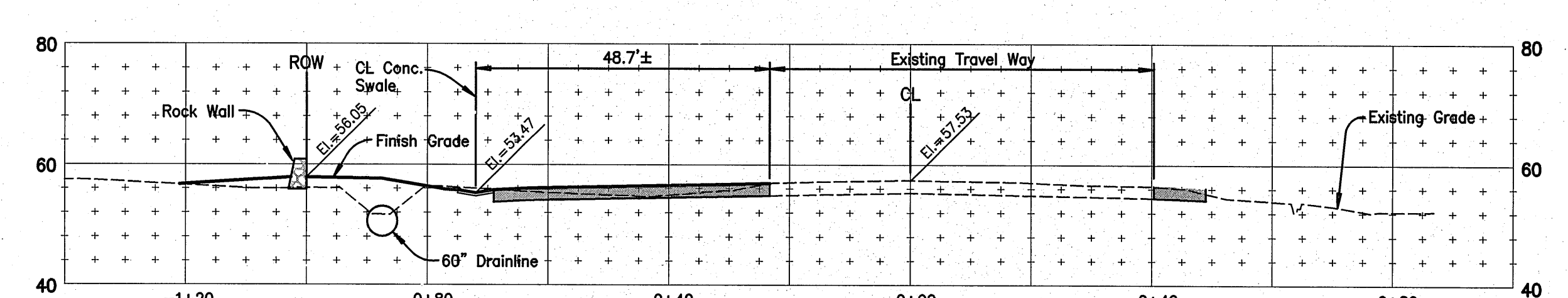
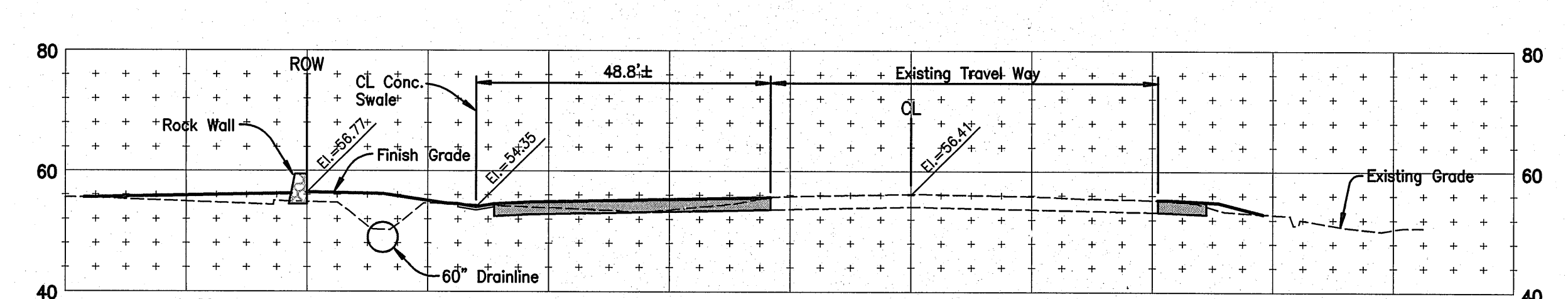
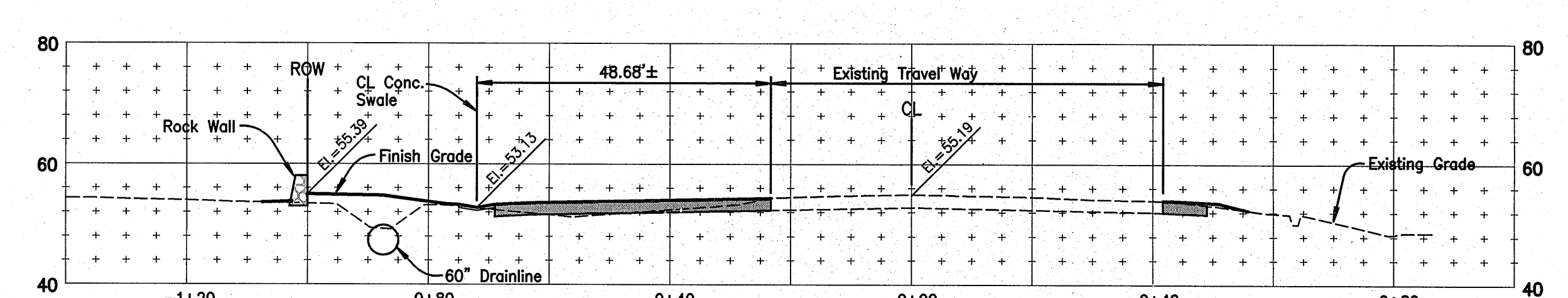
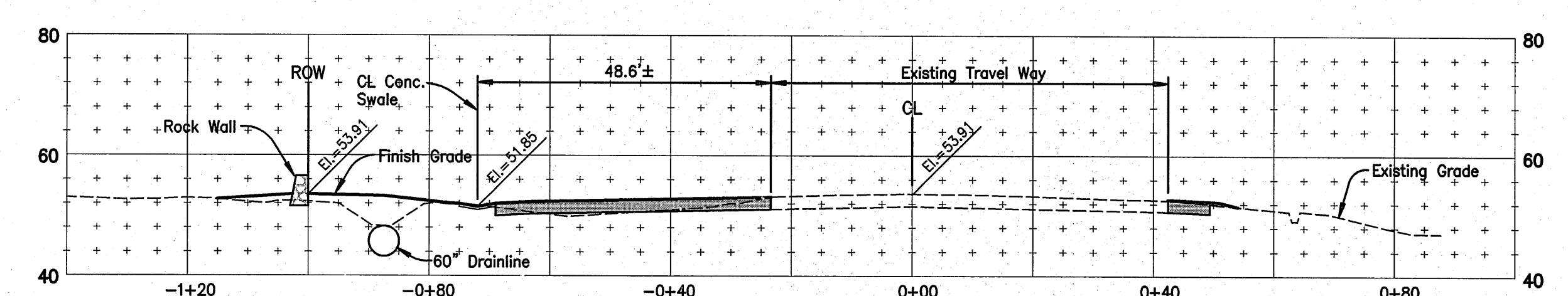
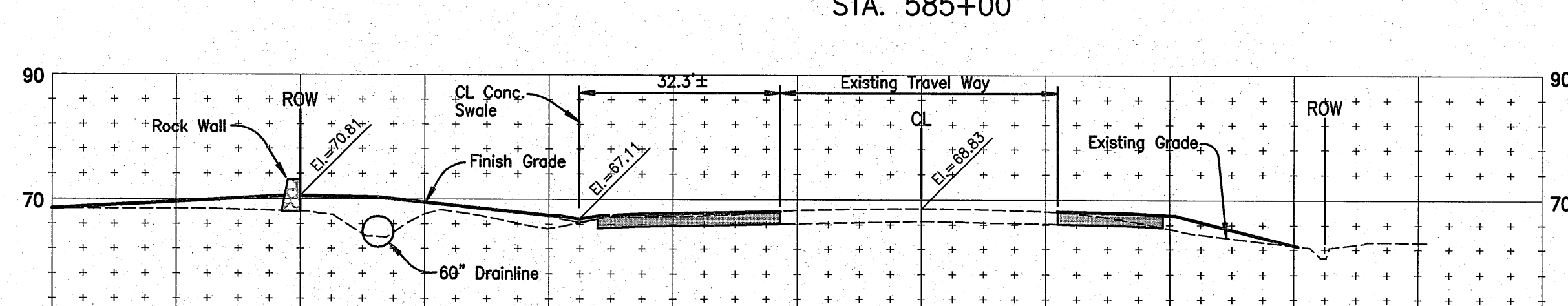
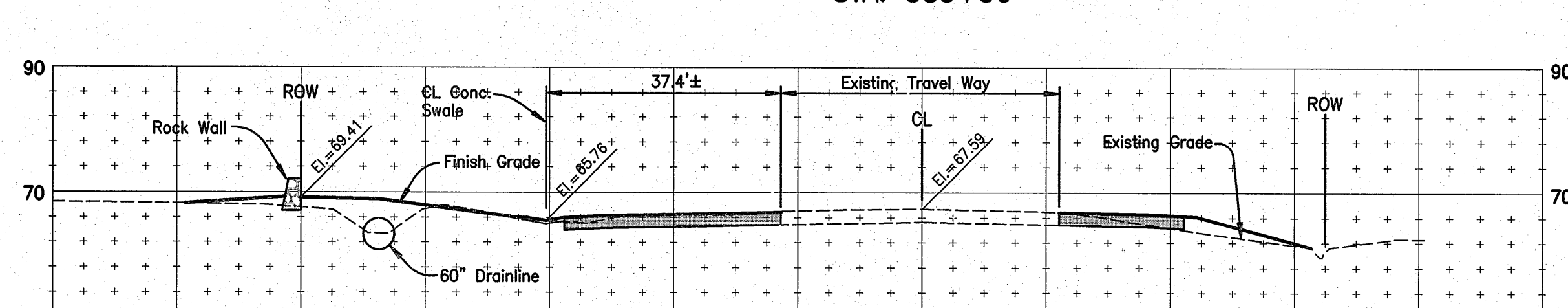
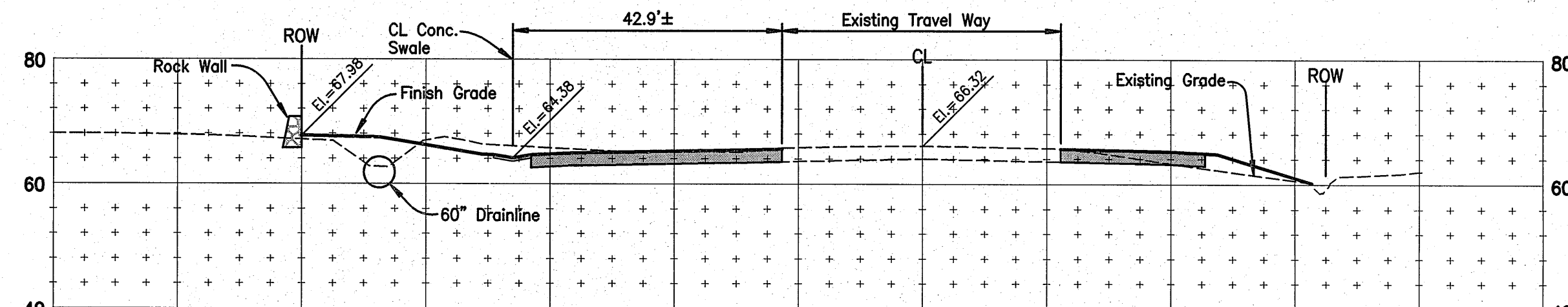
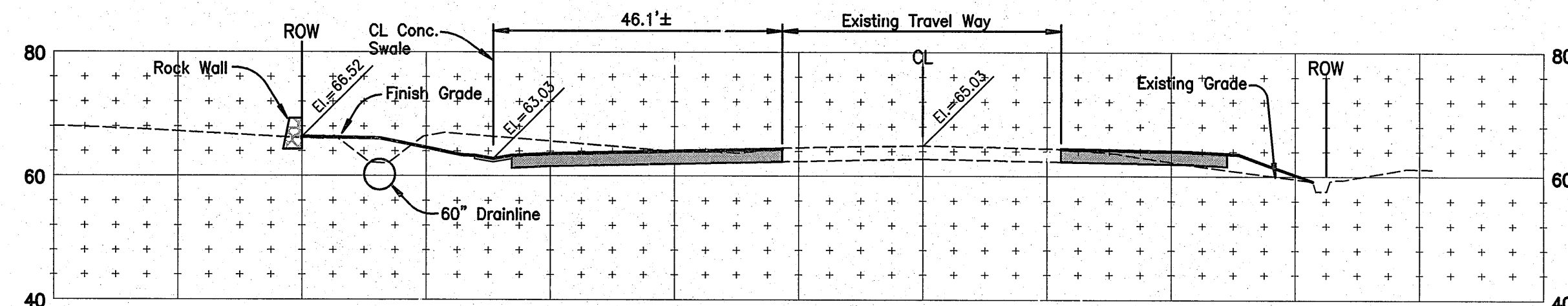
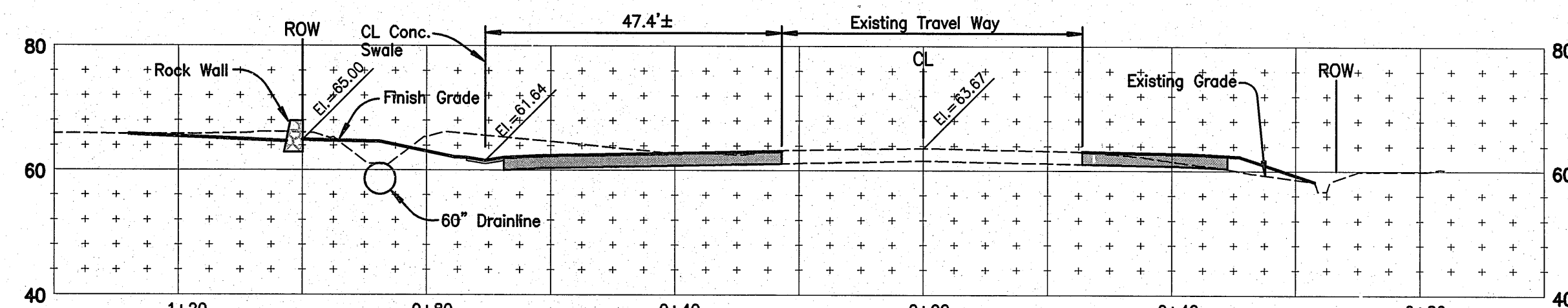
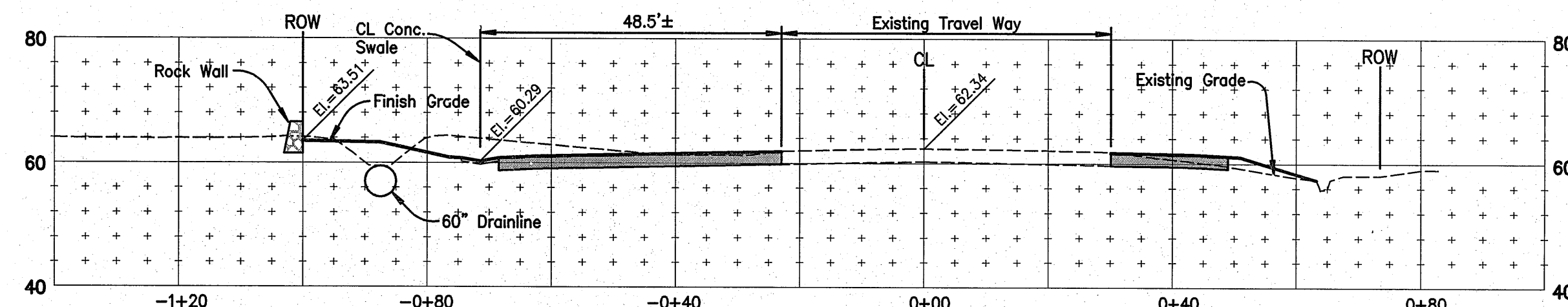
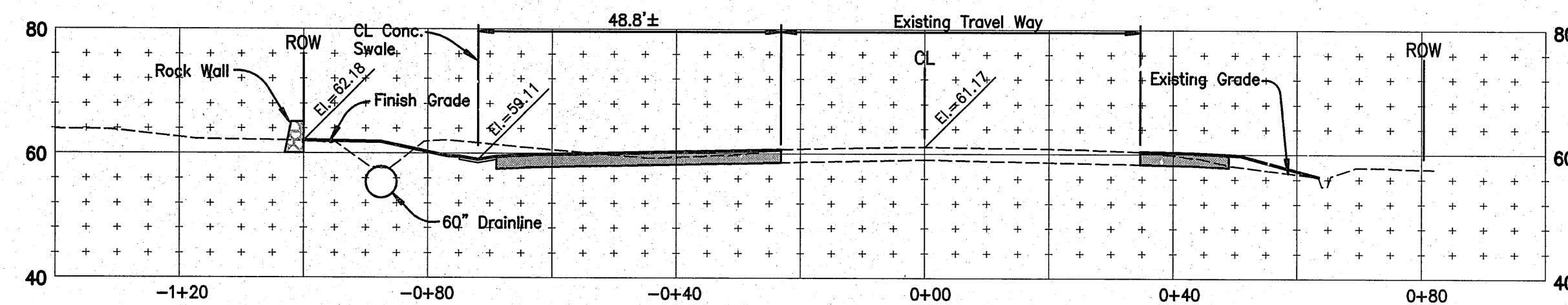
KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHEI, MAUI, HAWAII

CROSS SECTION - PILIHI HIGHWAY

ALU	DTU	04010.10	4.11
DESIGNED BY	CHECKED BY	JOB NUMBER	
WIS	DTU	10-10-05	
DRAWN BY	APPROVED BY	DATE	OF SHEETS
		SCALE 1 in. = 40 ft.	

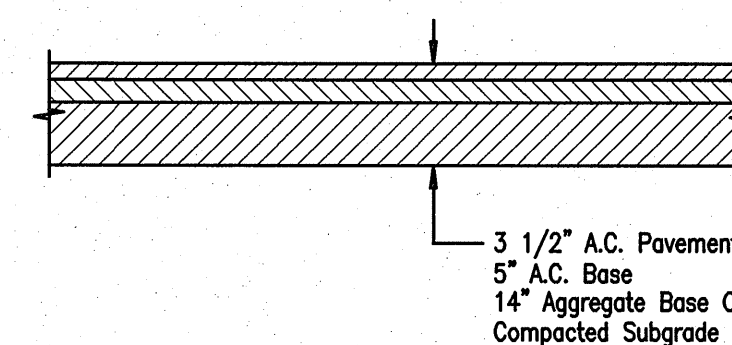


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CROSS SECTIONS

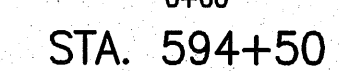
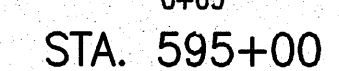
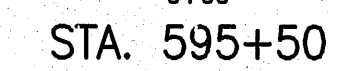
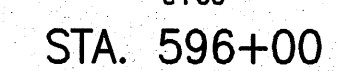
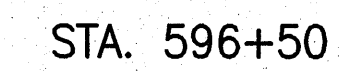
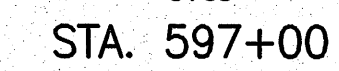
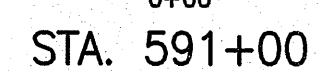
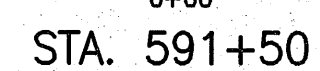
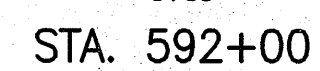
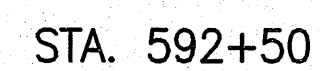
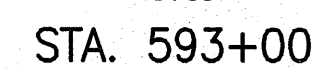
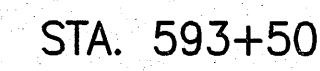
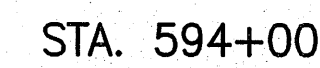
Scale: Horiz. 1" = 20'
Vert. 1" = 20'



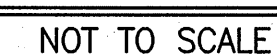
TYPICAL PAVEMENT SECTION FOR PILANI HIGHWAY WIDENING

NOT TO SCALE

		WARREN S. UNEMORI ENGINEERING, INC. CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793	
KAONOLU MARKET PLACE T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16 KIHAI, MAUI, HAWAII			
TITLE CROSS SECTION: PILANI HIGHWAY			
DESIGNED BY	DTU	04010.10	4.13
WIS	DTU	JOB NUMBER	
DRAWN BY	APPROVED BY	10-10-05	SHEET
		DATE	
SCALE 1 in. = 20 ft.		OF SHEETS	



Scale: Horiz. 1" = 20'
Vert. 1" = 20'



NOT TO SCALE



DARREN T. UNENORI
 LICENSED
 PROFESSIONAL ENGINEER
 NO. 7937-C
 HAWAII, U.S.A.



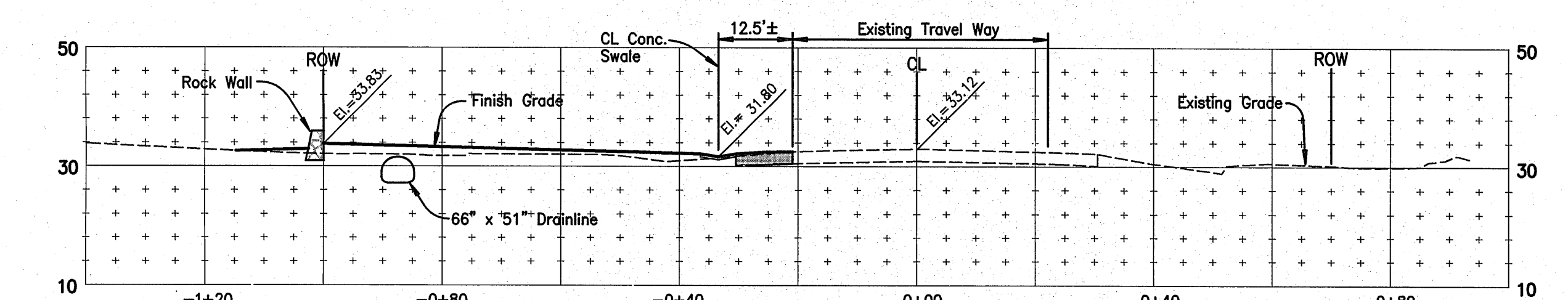
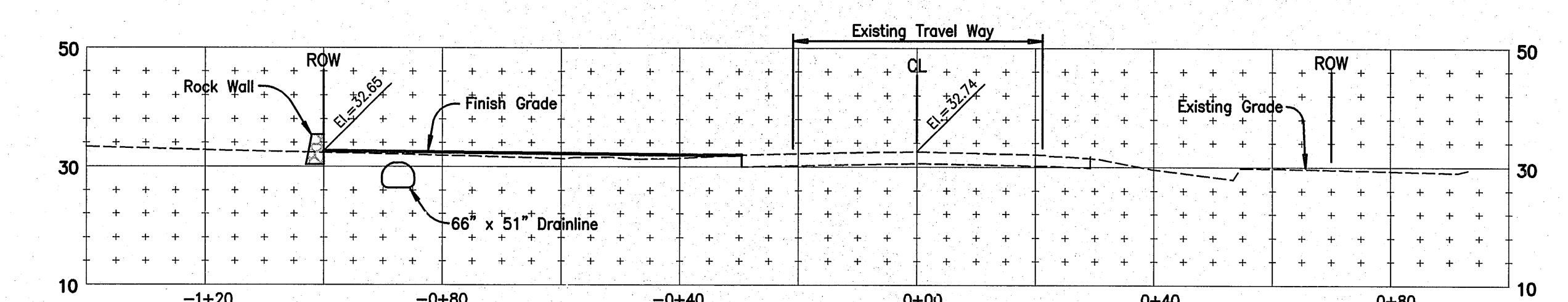
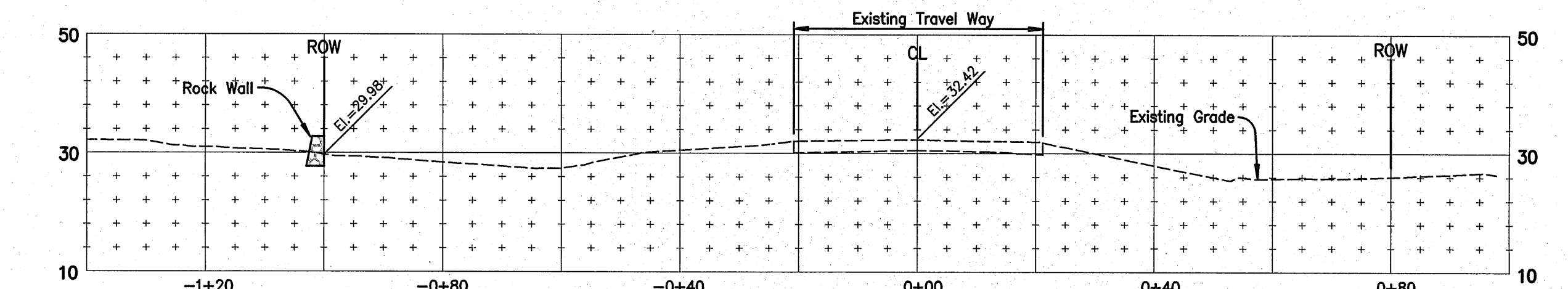
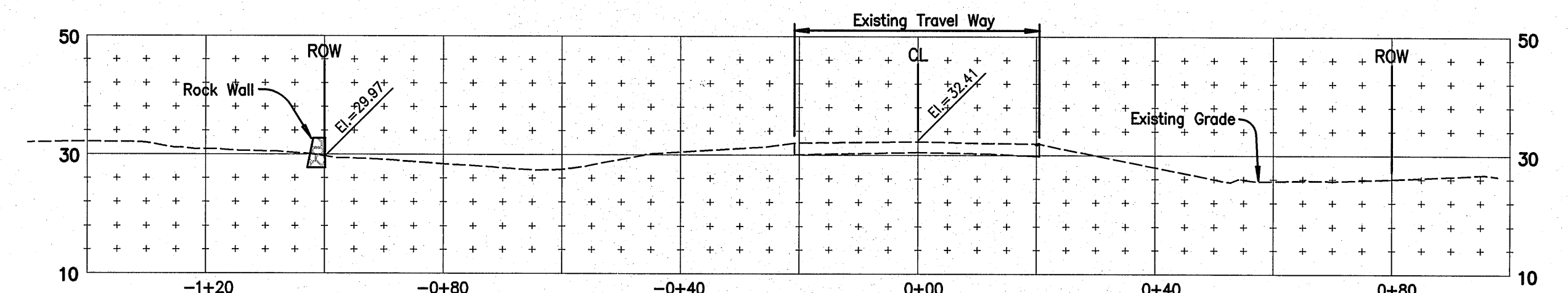
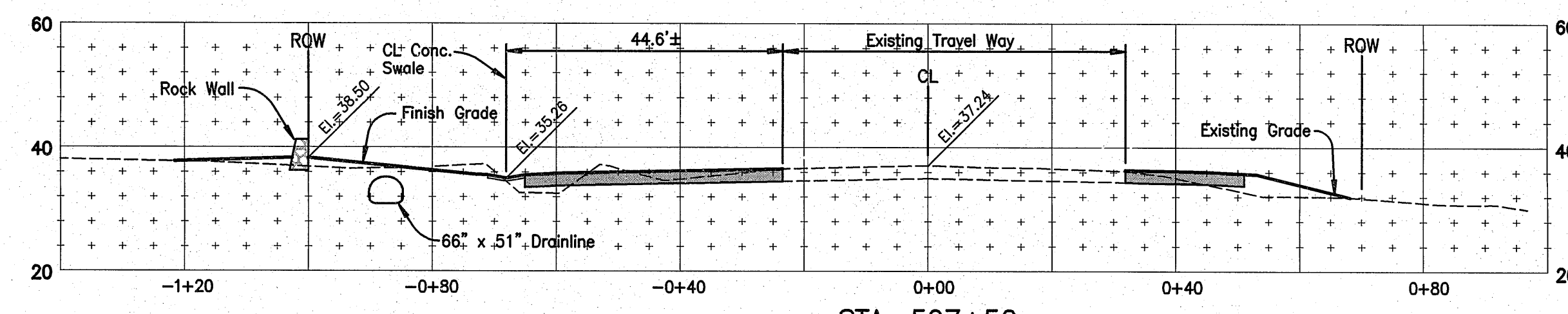
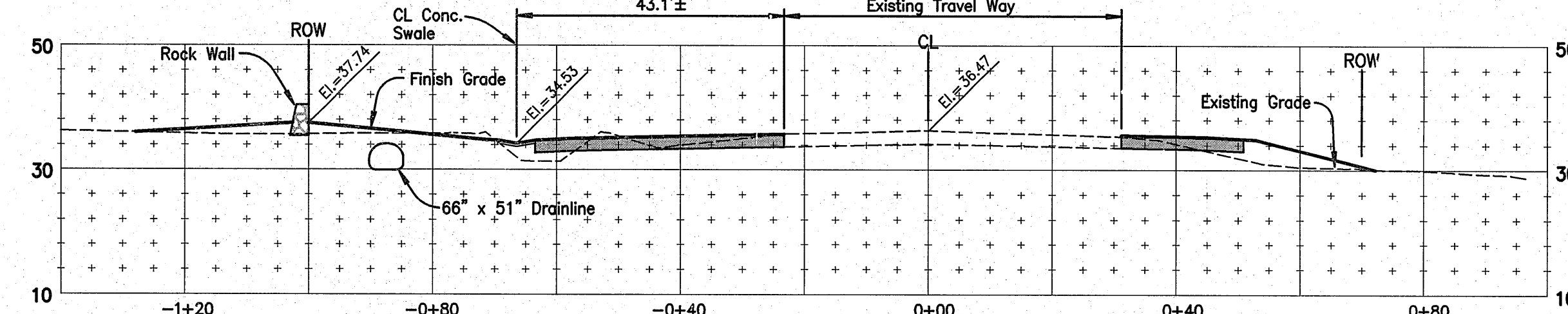
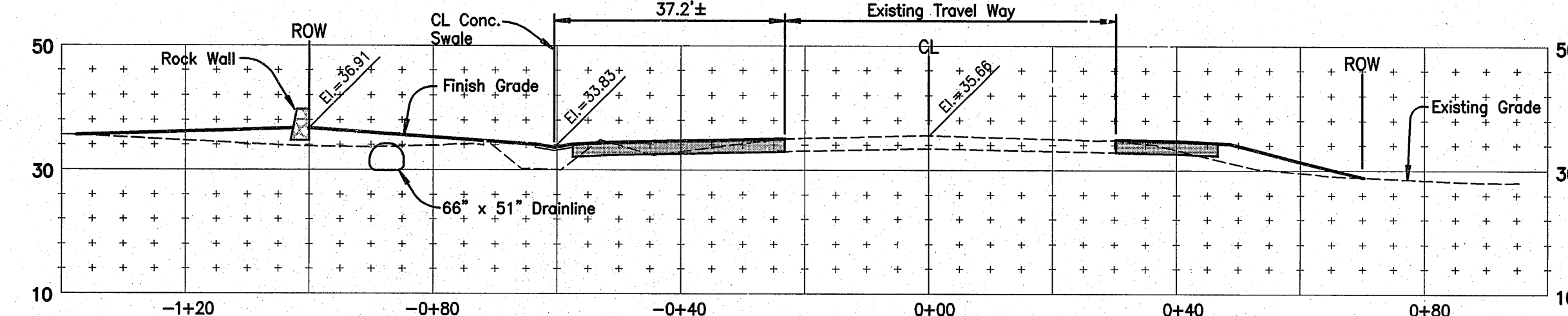
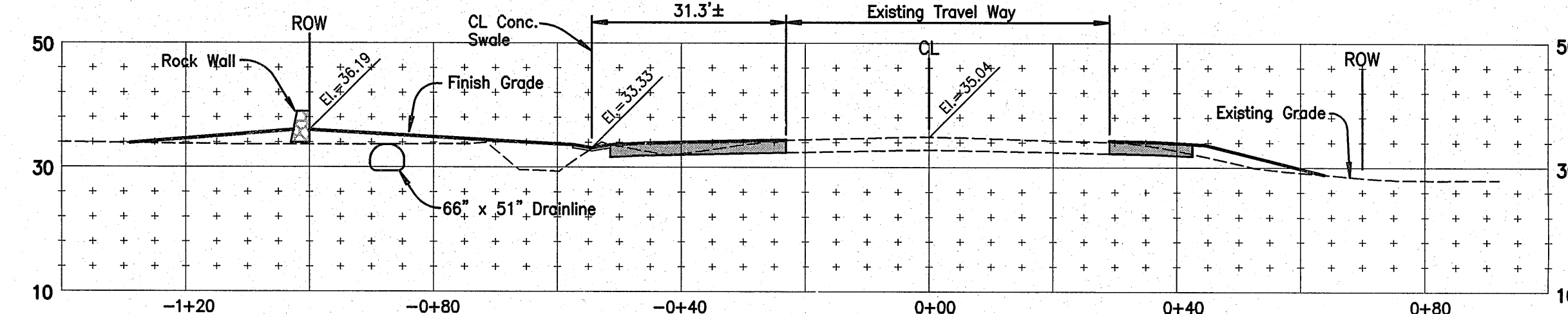
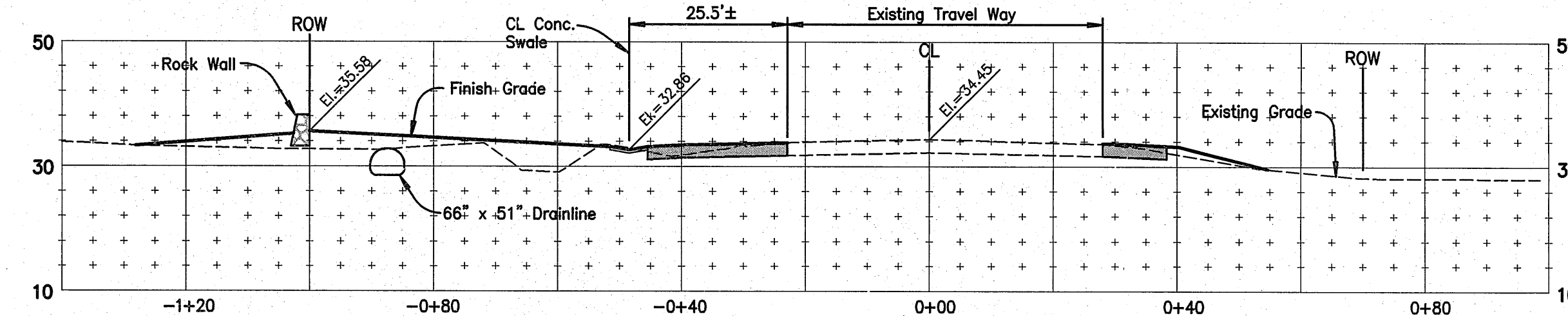
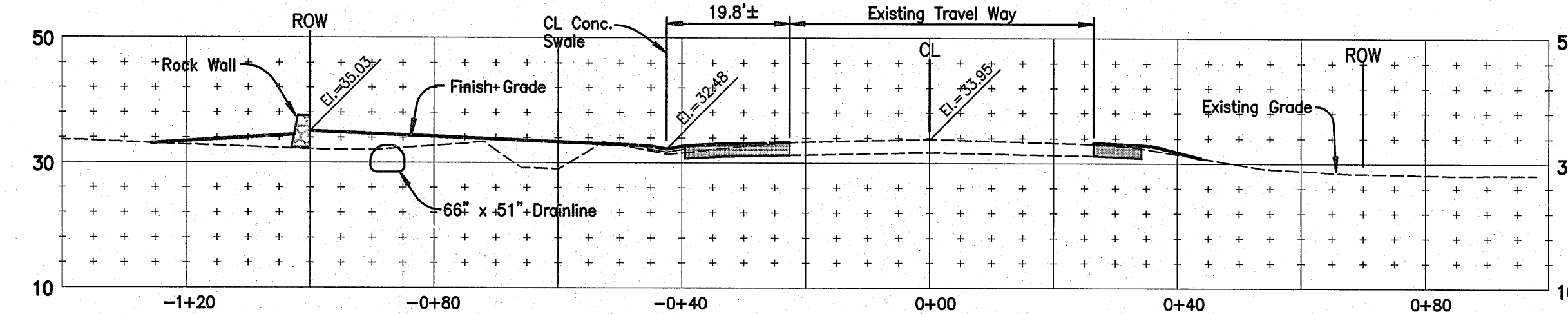
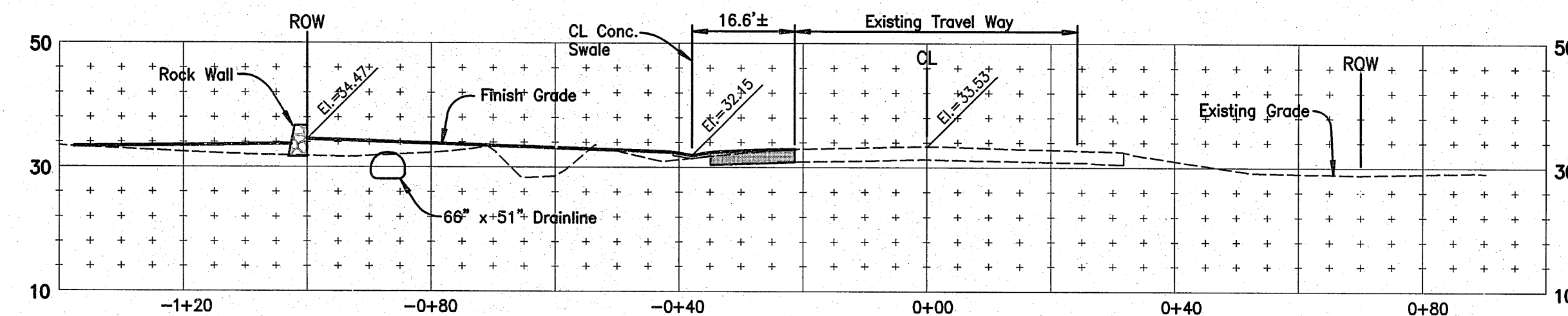
WARREN S. UNENORI ENGINEERING, INC.
 CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
 WELLS STREET PROFESSIONAL CENTER, SUITE 403
 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOLU MARKET PLACE
 T.M.K.: (2) 2-02 : Por. of Par. 15 and 3-9-01 : 16
 KIHAI, MAUI, HAWAII

TITLE CROSS SECTION: PIILANI HIGHWAY

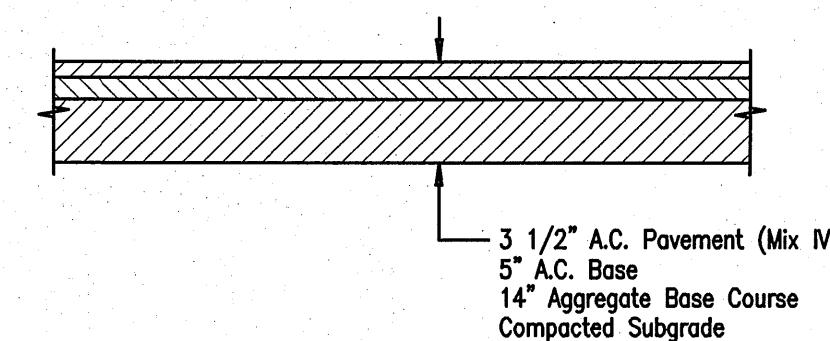
ALU DESIGNED BY	DTU CHECKED BY	04010.10 JOB NUMBER	4.14
WIS DRAWN BY	DTU APPROVED BY	10-10-05 DATE	SHEET
SCALE 1 in. = 20 ft.			OF SHEETS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 18-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS*



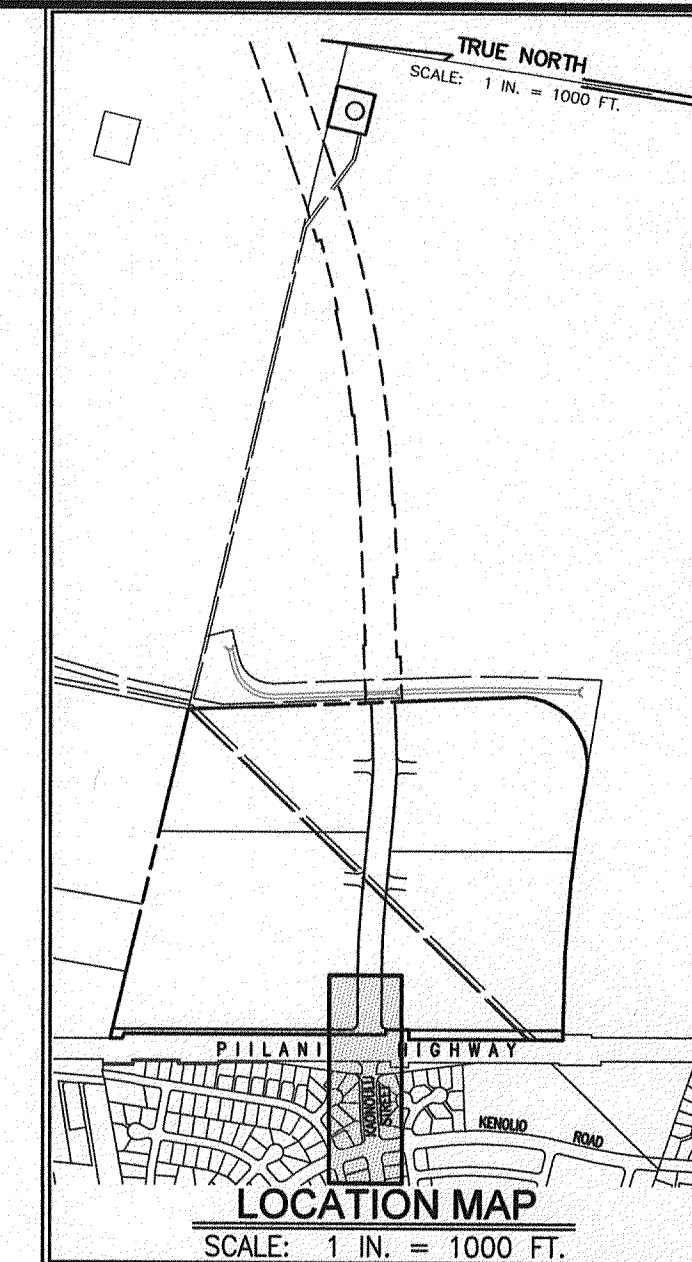
CROSS SECTIONS

Scale: Horiz. 1" = 20'
Vert. 1" = 20'



TYPICAL PAVEMENT SECTION FOR PIILANI HIGHWAY WIDENING
NOT TO SCALE

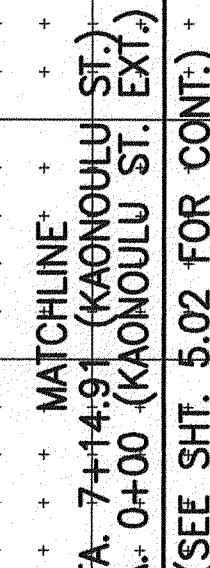
WARREN S. UNEMORI ENGINEERING, INC. CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS WELLS STREET PROFESSIONAL CENTER, SUITE 403 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793		KAONOULU MARKET PLACE T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16 KIHEI, MAUI, HAWAII	
TITLE: CROSS SECTION: PIILANI HIGHWAY			
DESIGNED BY WIS	CHECKED BY DTU	DATE 1/24/04	PROJECT NO. 04010.10
DRAWN BY	APPROVED BY	DATE 10-10-05	SHEET 4.15
SCALE: 1 in. = 20 ft.		DATE	



- NOTES:**
1. CONTRACTOR SHALL VERIFY EXACT LOCATION, INVERT, SIZE, AND TYPE OF EXISTING UTILITIES PRIOR TO ORDERING MATERIALS, SHOULD ANY DISCREPANCIES EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

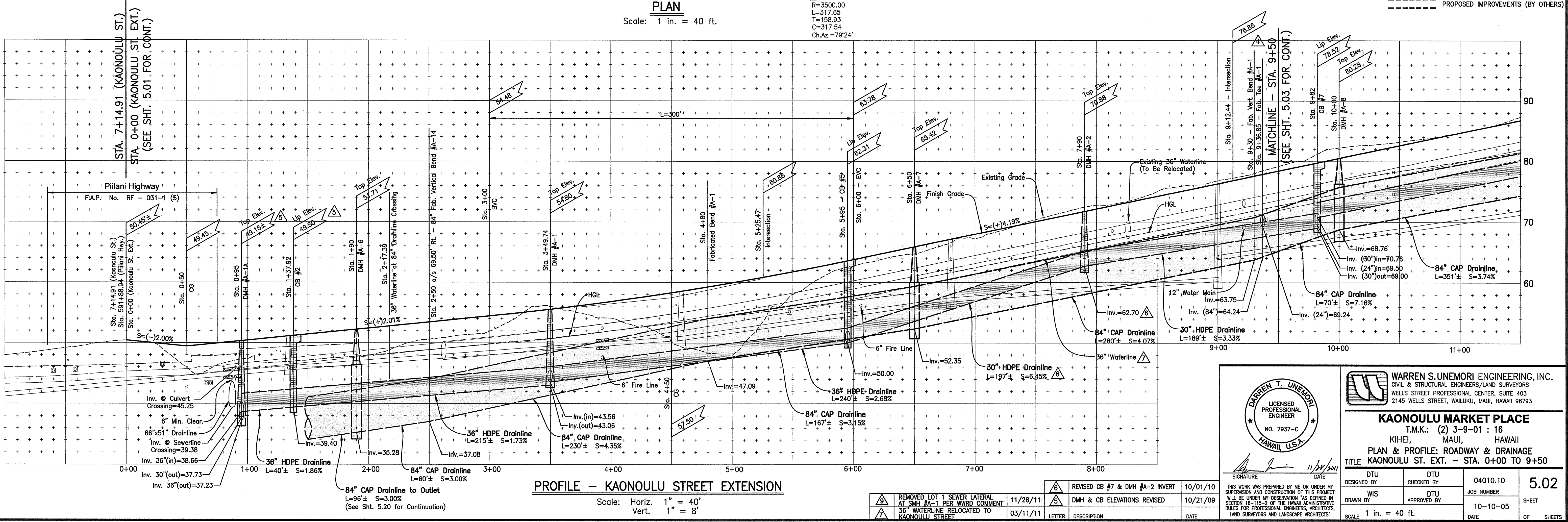
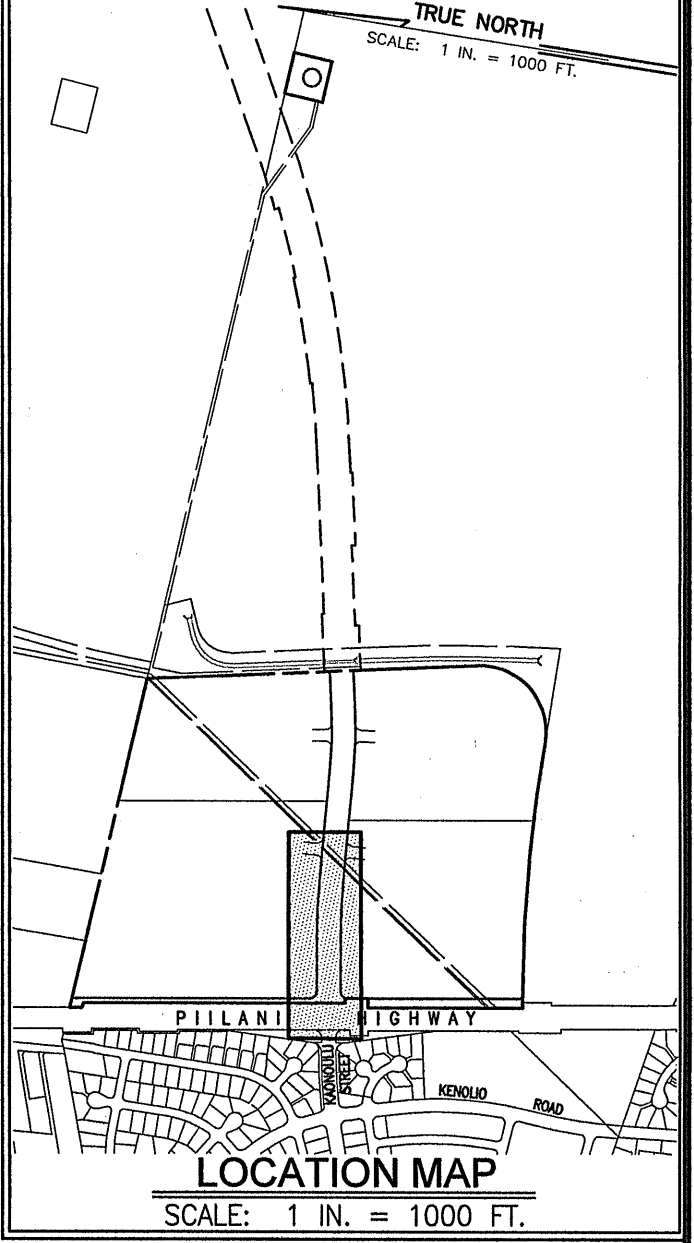
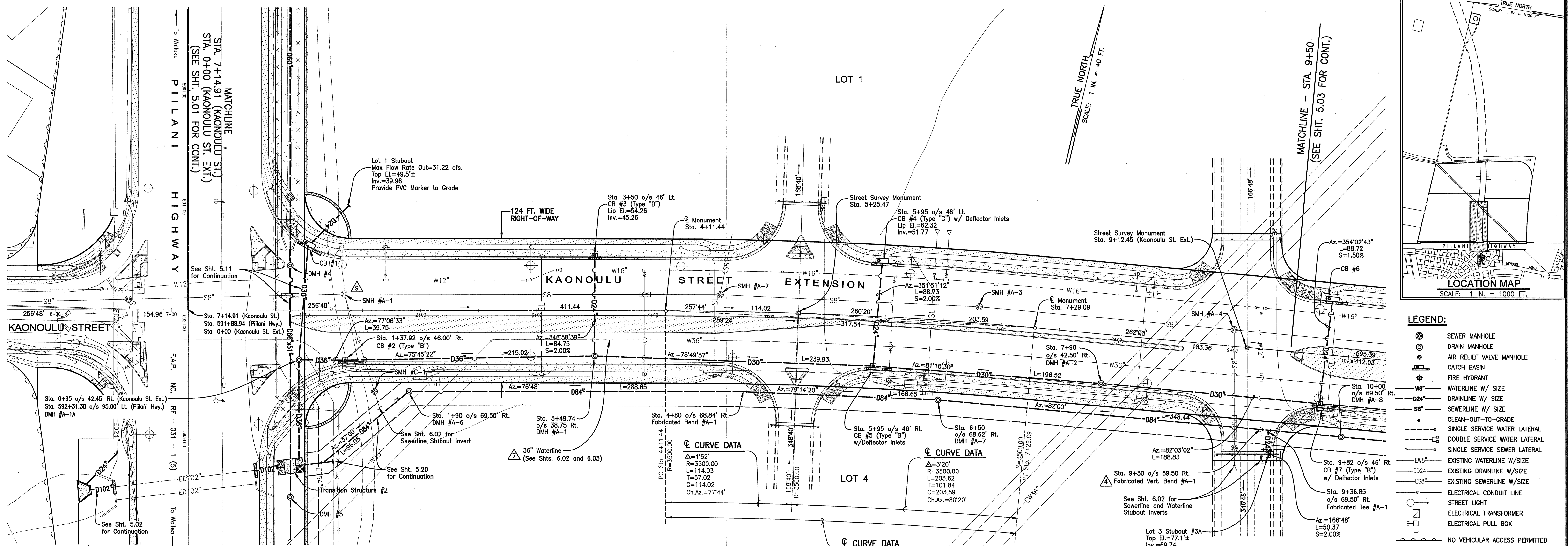
C CURVE DATA
 $\Delta = 6^\circ 35' 59''$
 $R = 3100.00$
 $L = 357.08$
 $T = 178.74$
 $C = 356.88$
 $Ch.Az. = 73^\circ 30' 01''$

Scale: 1 in. = 40 ft



Scale: Horiz. $1'' = 40'$
Vert. $1'' = 8'$

				WARREN T. UNEMORI ENGINEERING, INC. CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS WELLS STREET PROFESSIONAL CENTER, SUITE 403 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793
	KAONOULU MARKET PLACE T.M.K.: 2-3-9-01 : 16 KIHAI, MAUI, HAWAII			PLAN & PROFILE: ROADWAY & DRAINAGE KAONOULU ST. - STA. 0+00 TO 7+14.91
TITLE _____		DTU DESIGNED BY _____		
DTU CHECKED BY _____		04010.10 JOB NUMBER		
DTU APPROVED BY _____		5.01 SHEET		
SCALE 1 in. = 40 ft.		DATE _____		



WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHEI, MAUI, HAWAII

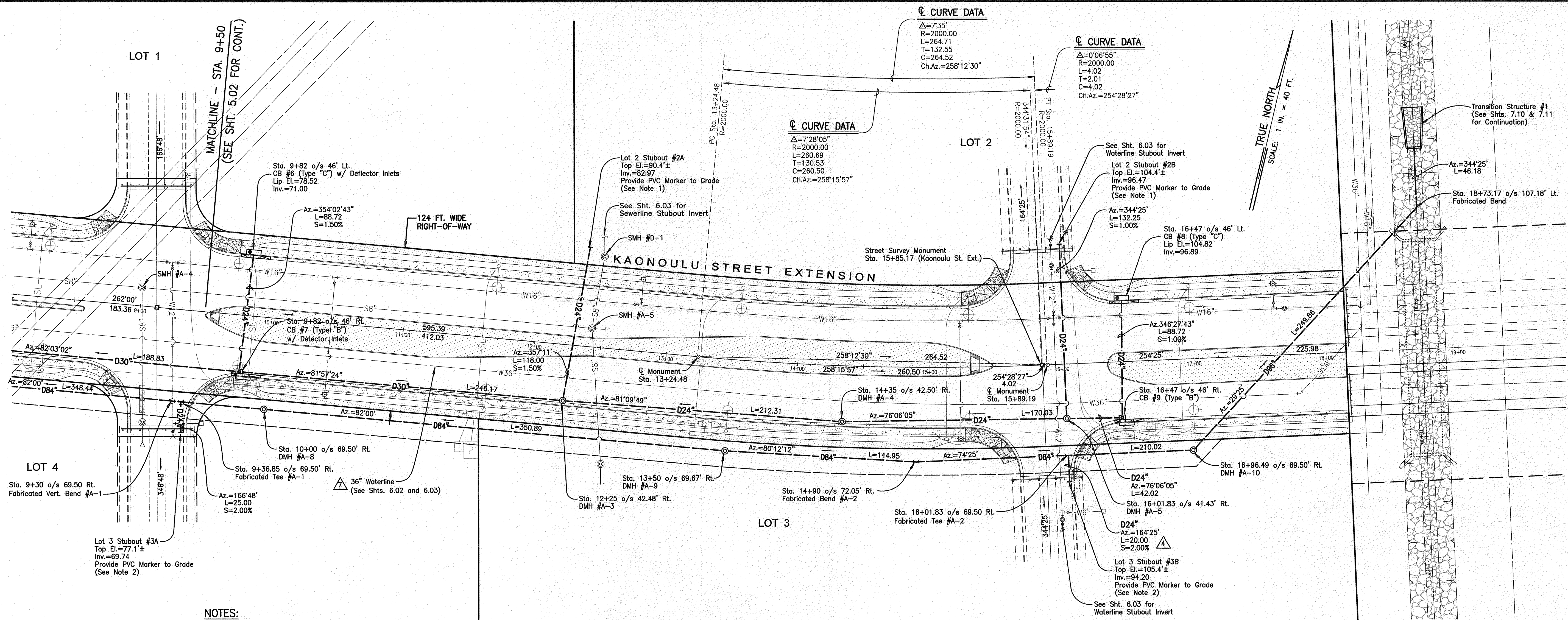
PLAN & PROFILE: ROADWAY & DRAINAGE
TITLE: KAONOULU ST. EXT. - STA. 0+00 TO 9+50

DARREN T. UNEMORI
LICENSED PROFESSIONAL ENGINEER
NO. 7937-C
HAWAII, U.S.A.

DTU DESIGNED BY 04010.10
DTU CHECKED BY 10-10-05
WIS DRAWN BY 10-10-05
DTU APPROVED BY 10-10-05

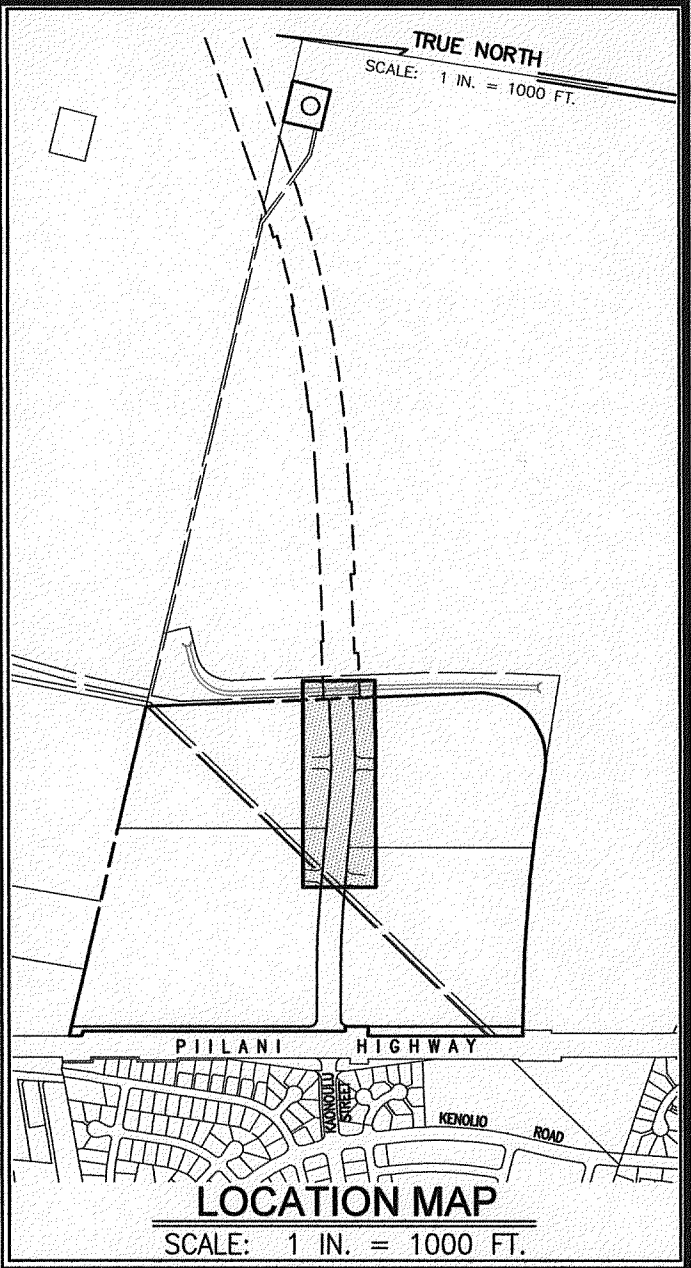
5.02
SHEET
OF SHEETS

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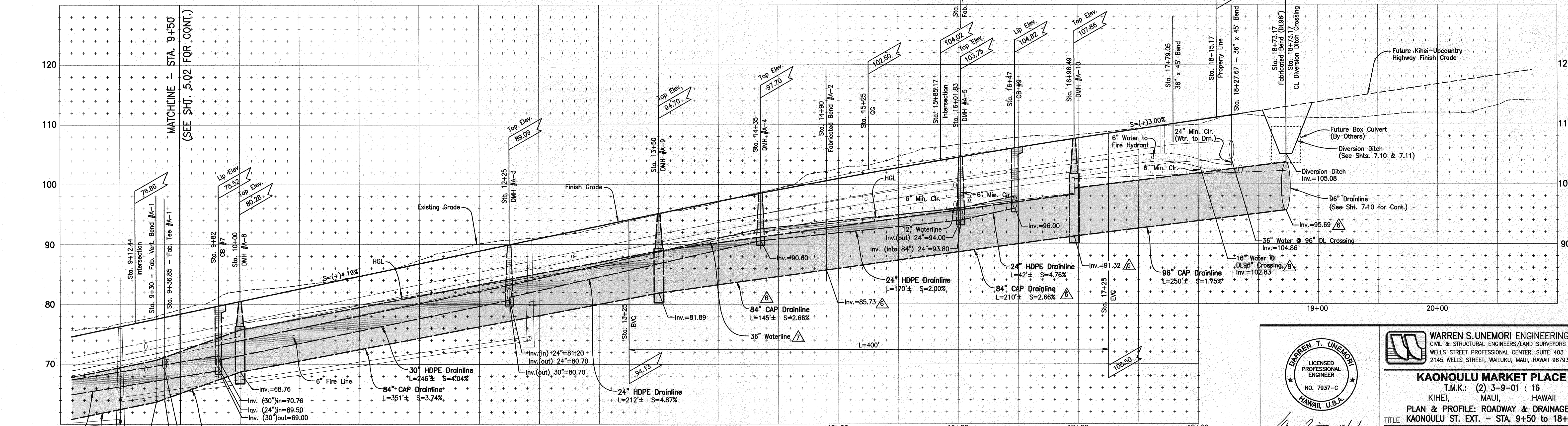
PLAN

Scale: 1 in. = 40 ft.



LEGEND:

- SEWER MANHOLE
- DRAIN MANHOLE
- AIR RELIEF VALVE MANHOLE
- CATCH BASIN
- FIRE HYDRANT
- WATERLINE W/ SIZE
- DRAINLINE W/ SIZE
- SEWERLINE W/ SIZE
- CLEAN-OUT-TO-GRADE
- SINGLE SERVICE WATER LATERAL
- DOUBLE SERVICE WATER LATERAL
- SINGLE SERVICE SEWER LATERAL
- EXISTING WATERLINE W/SIZE
- EXISTING DRAINLINE W/SIZE
- EXISTING SEWERLINE W/SIZE
- ELECTRICAL CONDUIT LINE
- STREET LIGHT
- ELECTRICAL TRANSFORMER
- ELECTRICAL PULL BOX
- NO VEHICULAR ACCESS PERMITTED
- VEHICULAR ACCESS PERMITTED
- PROPOSED IMPROVEMENTS (BY OTHERS)



PROFILE - KAONOULU STREET EXTENSION

Scale: Horiz. 1" = 40'
Vert. 1" = 8'

OUTFLOW WATERLINE UPSIZED TO 16"	10/17/11	24" STUBOUT FROM 84" DRAINLINE	12/12/08
36" WATERLINE RELOCATED TO KAONOULU STREET	03/11/11	ADDED 84" DRAINLINE	10/22/08
REVISED INVERT OF CAP DRAINLINE	10/01/10	LETTER	DATE

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHEI, MAUI, HAWAII
PLAN & PROFILE: ROADWAY & DRAINAGE
TITLE: KAONOULU ST. EXT. - STA. 9+50 TO 18+15.17

DAREN T. UNEMORI
LICENSED PROFESSIONAL ENGINEER
NO. 7937-C
HAWAII, U.S.A.

10/12/11

SIGNATURE DATE

DTU DESIGNED BY	DTU CHECKED BY	04010.10	5.03
WIS	DTU	JOB NUMBER	
DRAWN BY	APPROVED BY	DATE	

SCALE: 1 in. = 40 ft.

10-10-05

DATE

SHEET

OF SHEETS