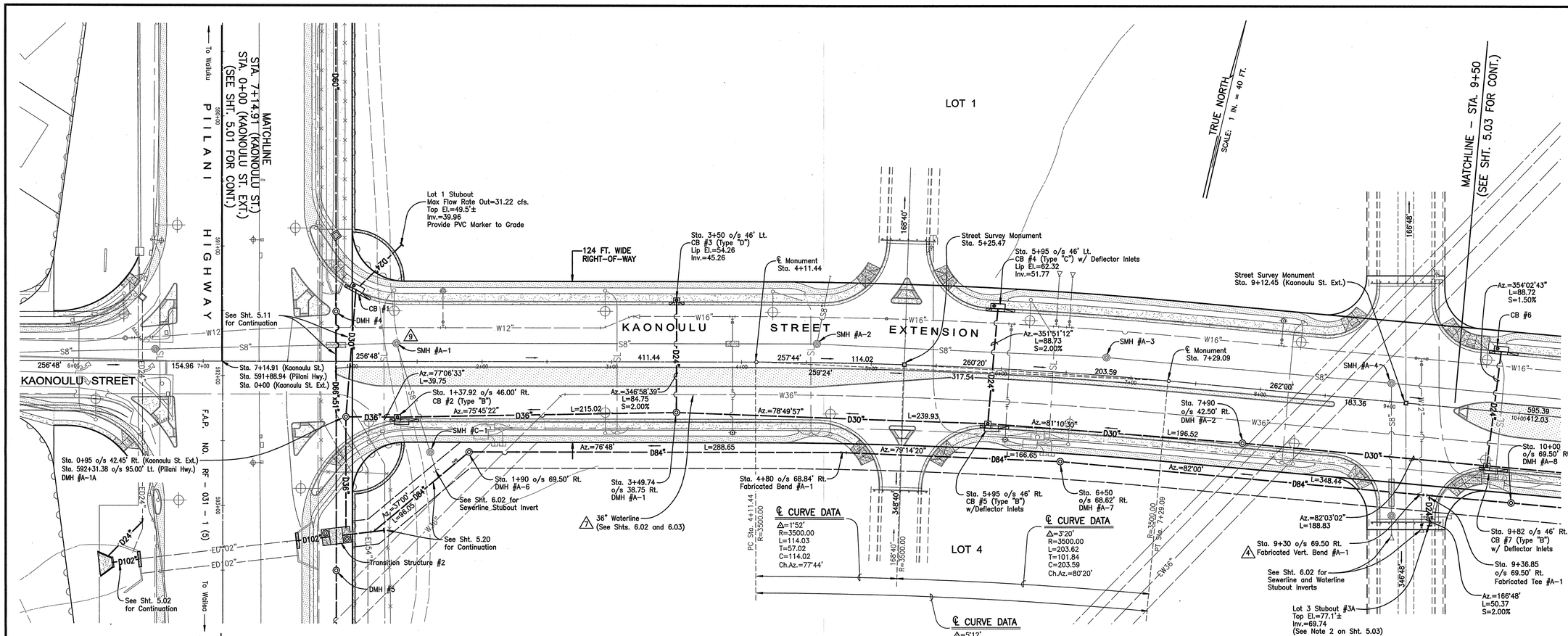
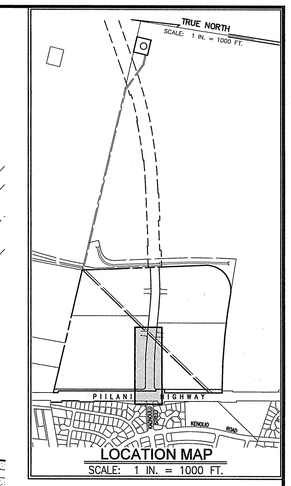


PLAN

Scale: 1 in. = 40 ft.

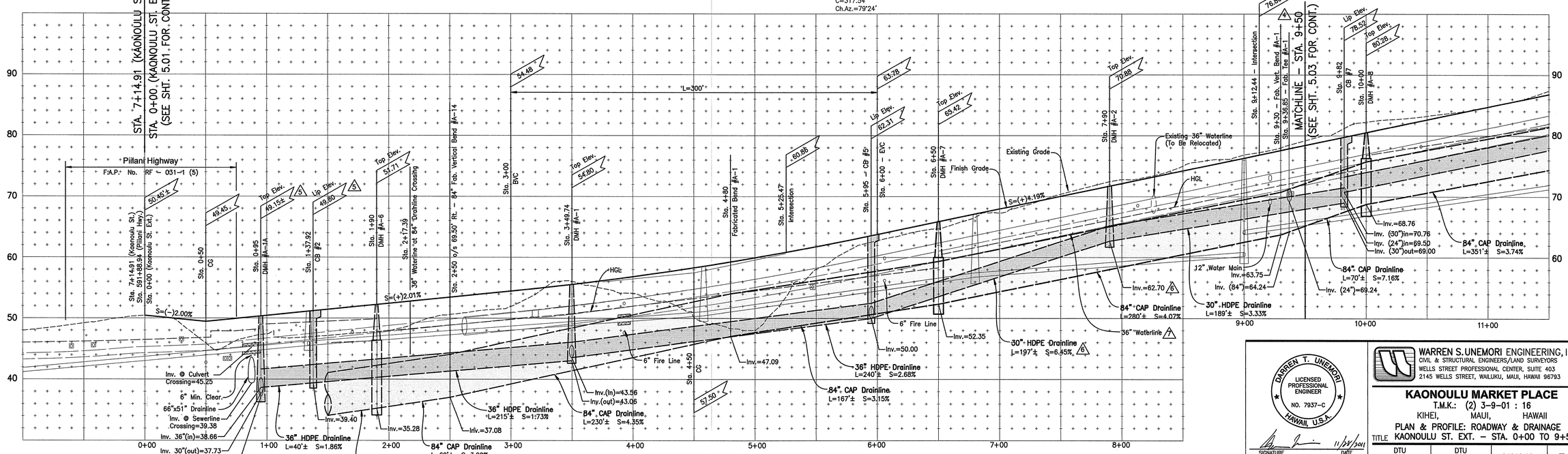


LOCATION MAP

SCALE: 1 IN. = 1000 FT.

LEGEND:

- SEWER MANHOLE
- DRAIN MANHOLE
- AIR RELIEF VALVE MANHOLE
- CATCH BASIN
- FIRE HYDRANT
- W8" — WATERLINE W/ SIZE
- D24" — DRAINLINE W/ SIZE
- S8" — SEWERLINE W/ SIZE
- CLEAN-OUT-TO-GRADE
- SINGLE SERVICE WATER LATERAL
- DOUBLE SERVICE WATER LATERAL
- SINGLE SERVICE SEWER LATERAL
- EW8" — EXISTING WATERLINE W/SIZE
- ED24" — EXISTING DRAINLINE W/SIZE
- ES8" — 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'

LETTER	DESCRIPTION	DATE
9	REMOVED LOT 1 SEWER LATERAL AT SMH #A-1 PER WWRD COMMENT	11/28/11
7	36" WATERLINE RELOCATED TO KAONOULU STREET	03/11/11
6	REVISED CB #7 & DMH #A-2 INVERT	10/01/10
5	DMH & CB ELEVATIONS REVISED	10/21/09

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

SIGNATURE — DATE 11/28/2011

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"

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

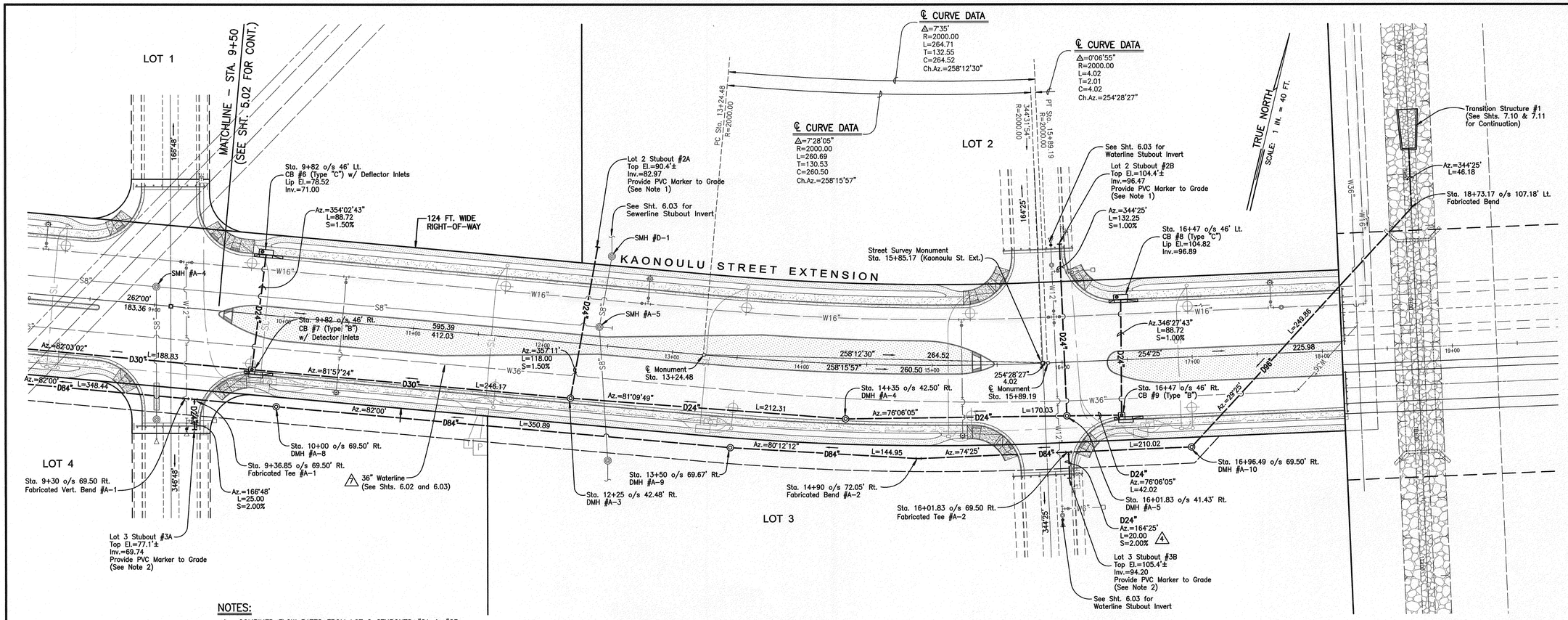
KIHEI, MAUI, HAWAII

PLAN & PROFILE: ROADWAY & DRAINAGE

TITLE KAONOULU ST. EXT. – STA. 0+00 TO 9+50

DTU DESIGNED BY	DTU CHECKED BY	04010.10 JOB NUMBER	5.02 SHEET
WIS DRAWN BY	DTU APPROVED BY		
SCALE 1 in. = 40 ft.		10-10-05 DATE	OF SHEETS

I:\Projects\04PROJ\04010.10\dwg2004\contplans\pl-rd-01-02.dwg

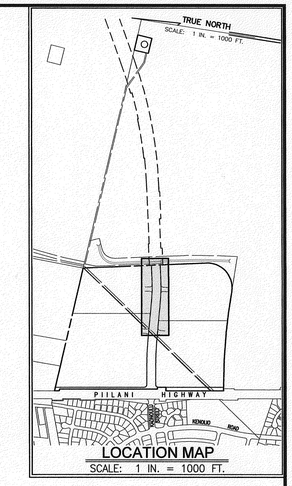


NOTES:

1. COMBINED FLOW RATES FROM LOT 2 STUBOUTS #2A & #2B CANNOT EXCEED 15.44 CFS.
2. COMBINED FLOW RATES FROM LOT 3 STUBOUTS #3A & #3B CANNOT EXCEED 20.22 CFS.

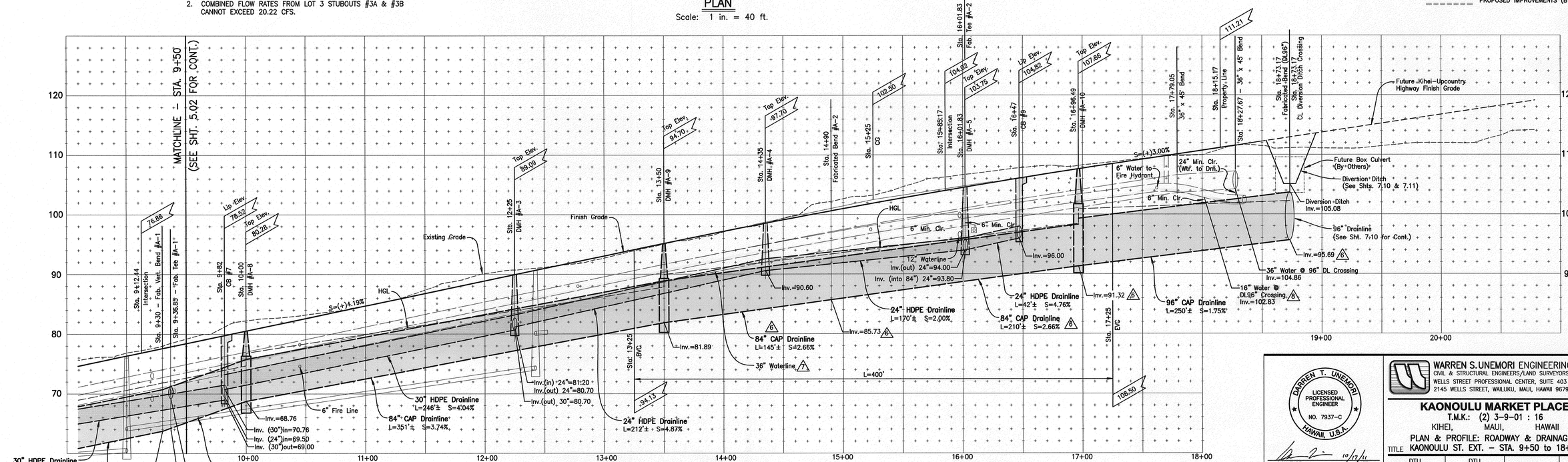
PLAN

Scale: 1 in. = 40 ft.



LEGEND:

- SEWER MANHOLE
- DRAIN MANHOLE
- AIR RELIEF VALVE MANHOLE
- CATCH BASIN
- FIRE HYDRANT
- W8" — WATERLINE W/ SIZE
- D24" — DRAINLINE W/ SIZE
- S8" — SEWERLINE W/ SIZE
- CLEAN-OUT-TO-GRADE
- SINGLE SERVICE WATER LATERAL
- DOUBLE SERVICE WATER LATERAL
- SINGLE SERVICE SEWER LATERAL
- EW8" — EXISTING WATERLINE W/SIZE
- ED24" — EXISTING DRAINLINE W/SIZE
- ES8" — 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'

LETTER	DESCRIPTION	DATE
8	OUTFLOW WATERLINE UPSIZED TO 16"	10/17/11
7	36" WATERLINE RELOCATED TO KAONOULU STREET	03/11/11
6	REVISED INVERT OF CAP DRAINLINE	10/01/10
4	24" STUBOUT FROM 84" DRAINLINE	12/12/08
3	ADDED 84" DRAINLINE	10/22/08

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

SIGNATURE — DATE 10/17/11

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"

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

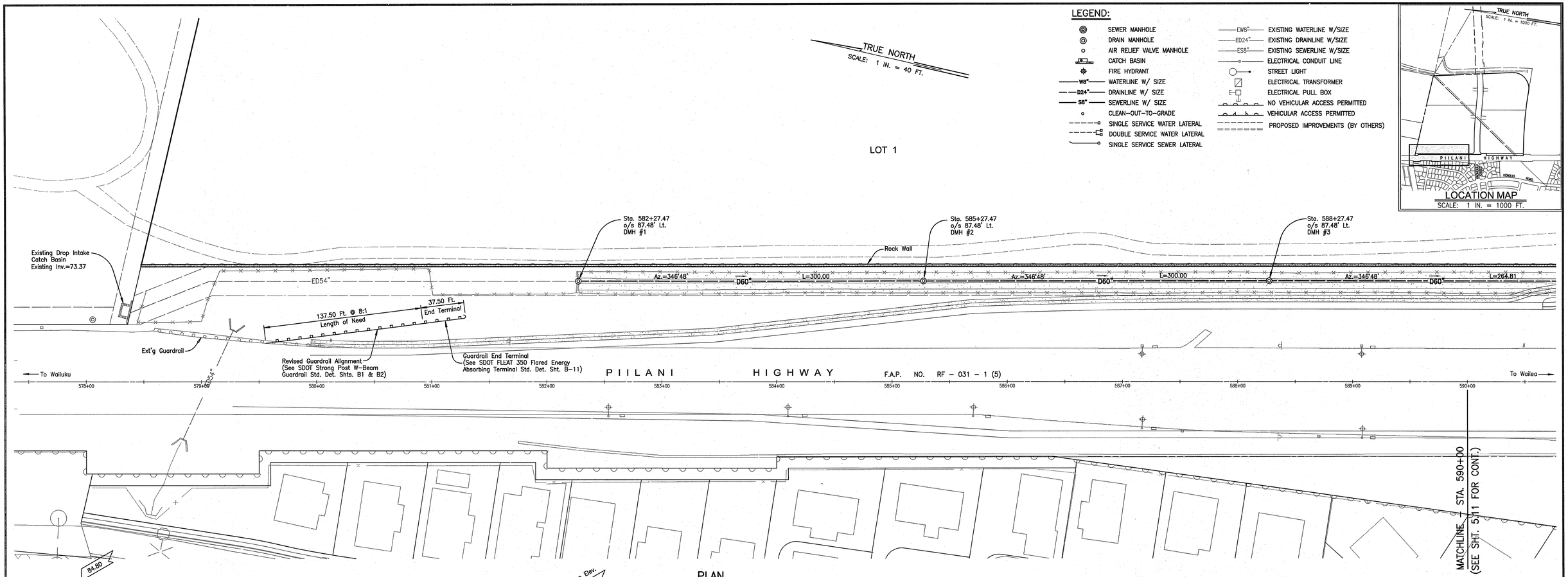
DTU DESIGNED BY	DTU CHECKED BY	04010.10 JOB NUMBER	5.03 SHEET
WIS DRAWN BY	DTU APPROVED BY	10-10-05 DATE	OF SHEETS
SCALE 1 in. = 40 ft.			

V:\Projects\04PROJ\04010.10\dwg2004\conplans\pl-rd-dl-00.dwg

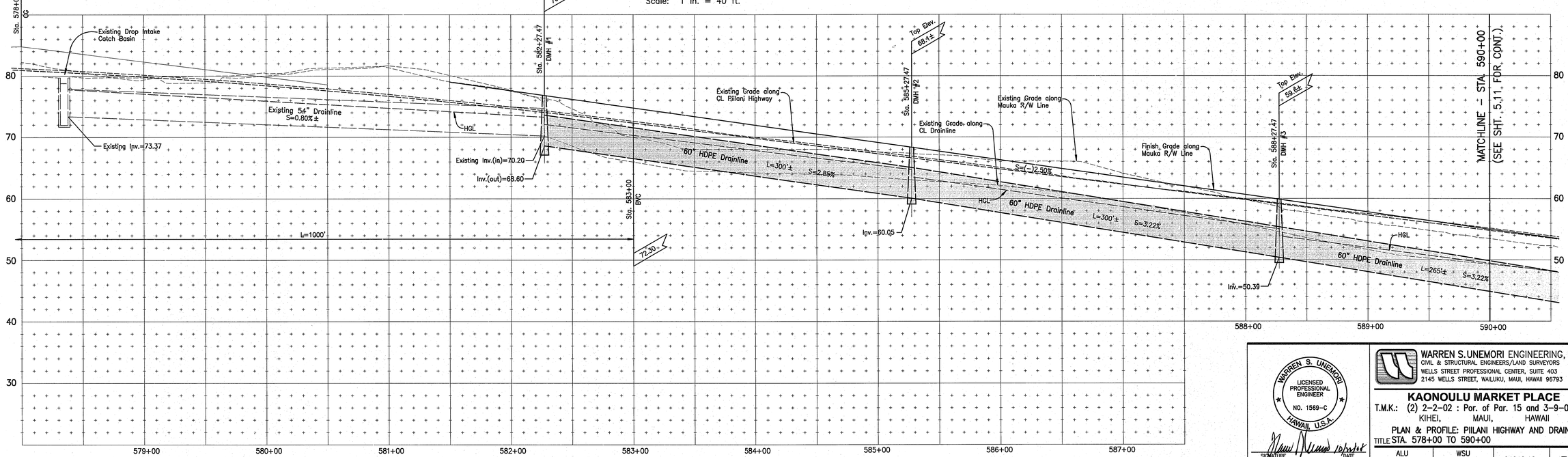
LEGEND:

- SEWER MANHOLE
- DRAIN MANHOLE
- AIR RELIEF VALVE MANHOLE
- CATCH BASIN
- FIRE HYDRANT
- W8" — WATERLINE W/ SIZE
- D24" — DRAINLINE W/ SIZE
- S8" — SEWERLINE W/ SIZE
- CLEAN-OUT-TO-GRADE
- SINGLE SERVICE WATER LATERAL
- DOUBLE SERVICE WATER LATERAL
- SINGLE SERVICE SEWER LATERAL
- EW8" — EXISTING WATERLINE W/SIZE
- ED24" — EXISTING DRAINLINE W/SIZE
- ES8" — 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)

LOCATION MAP
SCALE: 1 IN. = 1000 FT.



PLAN
Scale: 1 in. = 40 ft.



PROFILE – PIILANI HIGHWAY AND DRAINLINE
Scale: Horiz. 1" = 40'
Vert. 1" = 8'

LETTER	DESCRIPTION	DATE

WARREN S. UNEMORI
LICENSED PROFESSIONAL ENGINEER
NO. 1569-C
HAWAII, U.S.A.

SIGNATURE DATE 10/10/18

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"

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

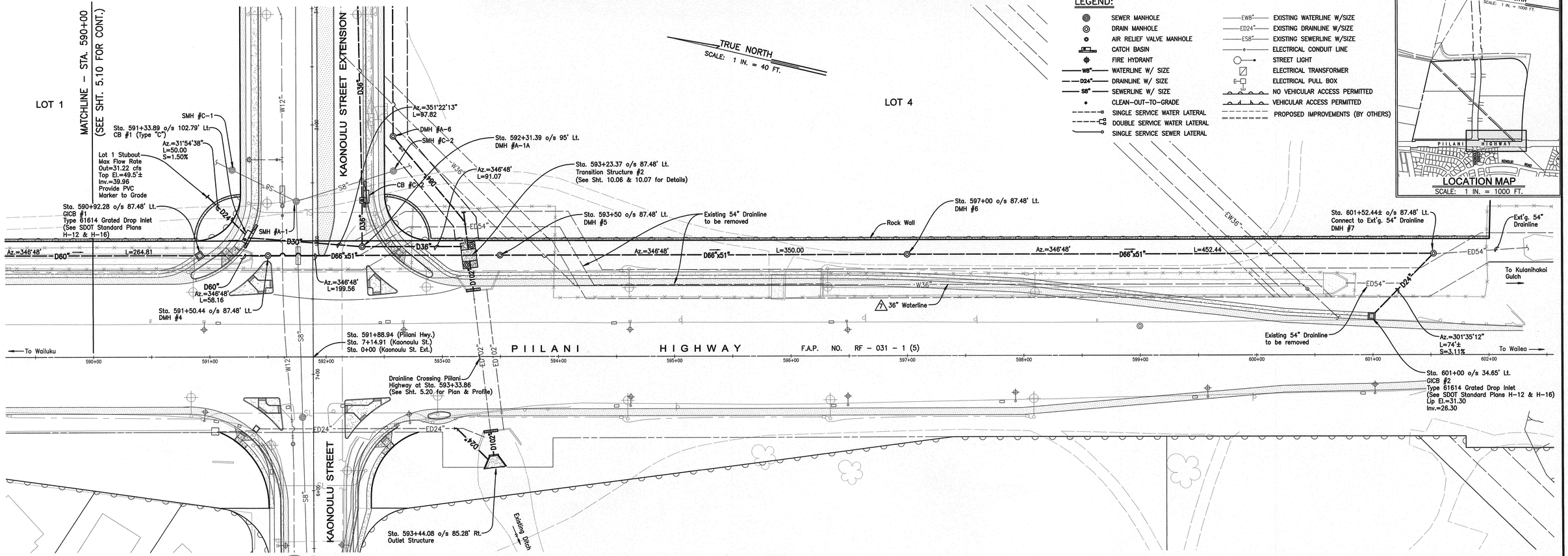
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHEI, MAUI, HAWAII

PLAN & PROFILE: PIILANI HIGHWAY AND DRAINLINE

TITLE STA. 578+00 TO 590+00

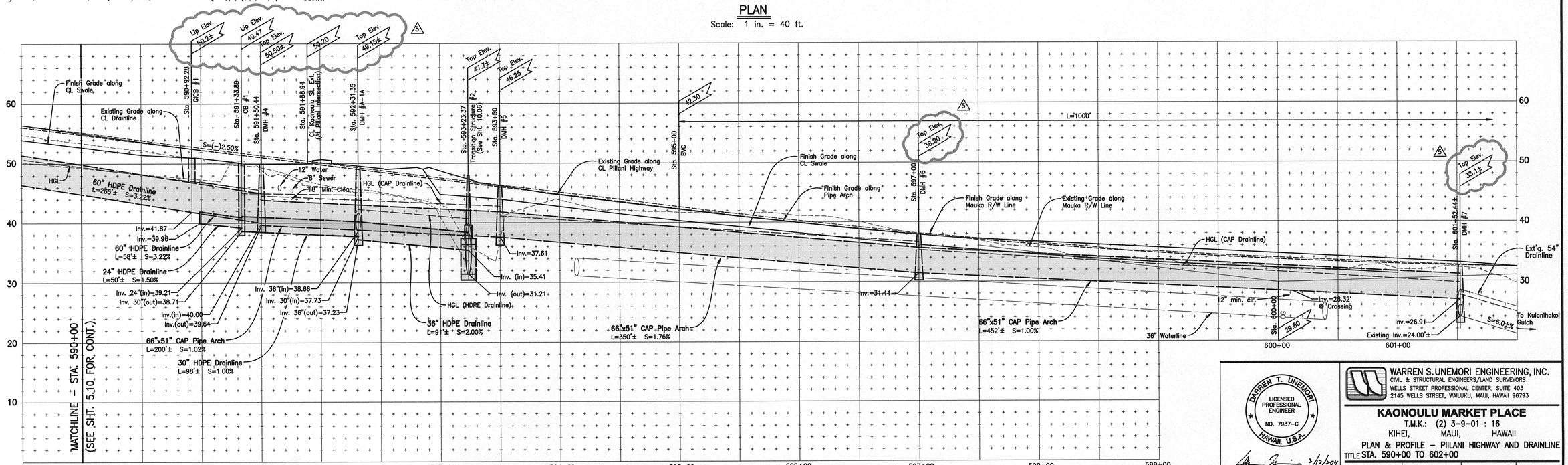
ALU	WSU	0-1010.10	5.10
DESIGNED BY	CHECKED BY	JOB NUMBER	SHEET
WIS	WSU		
DRAWN BY	APPROVED BY		OF SHEETS
SCALE 1 in. = 40 ft.		10-10-05 DATE	

04010.10/dwg2004/conplans/pl-rd-dl-00.dwg



PLAN

Scale: 1 in. = 40 ft.



PROFILE – PIILANI HIGHWAY AND DRAINLINE

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

LETTER	DESCRIPTION	DATE
5	DMH & CB ELEVATIONS REVISED	10/21/09
3	ADDED 66" X 51" DRAINLINE	10/22/08
7	36" WATERLINE RELOCATED TO KAONOULU STREET	03/11/11

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

SIGNATURE — DATE 3/12/04

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"

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

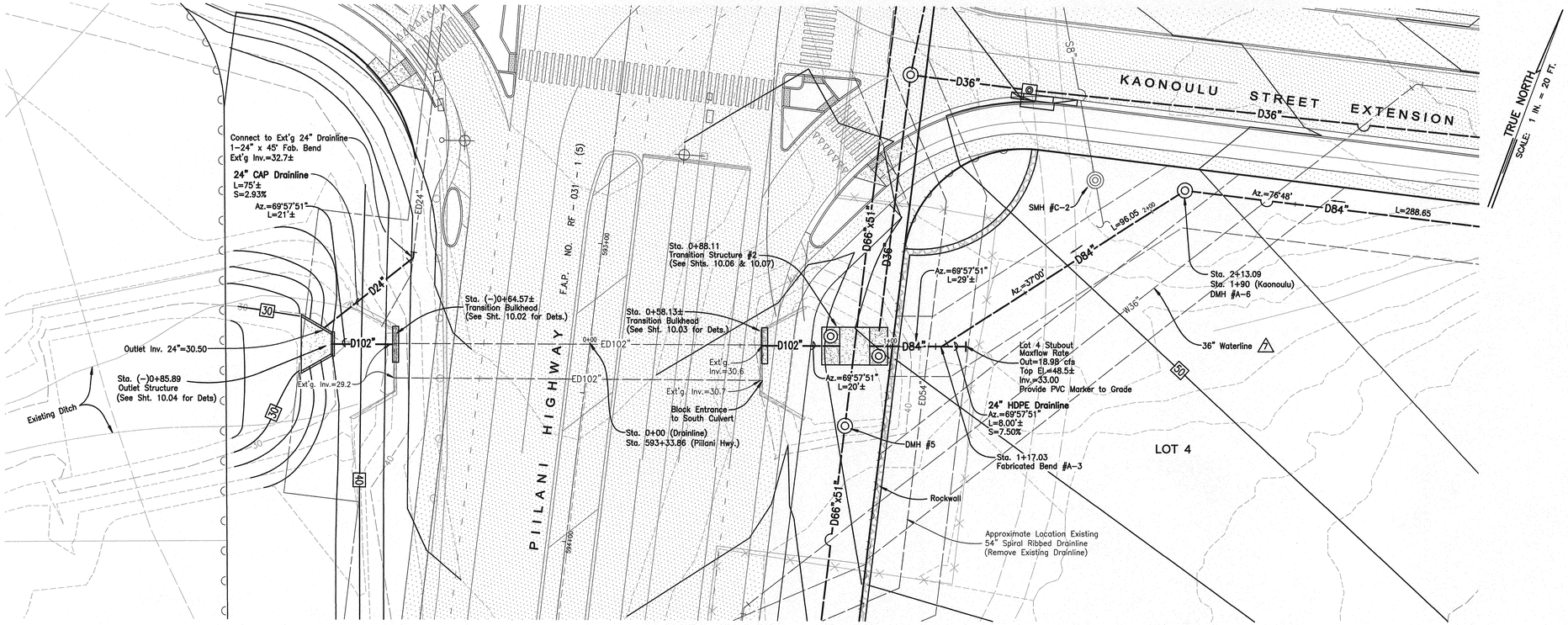
T.M.K.: (2) 3-9-01 : 16

KIHEI, MAUI, HAWAII

TITLE PLAN & PROFILE – PIILANI HIGHWAY AND DRAINLINE STA. 590+00 TO 602+00

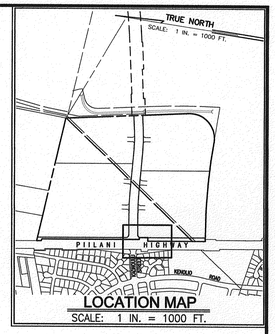
DTU DESIGNED BY	DTU CHECKED BY	04010.10 JOB NUMBER	5.11 SHEET
WIS DRAWN BY	DTU APPROVED BY	10-10-05 DATE	OF SHEETS
SCALE 1 in. = 40 ft.			

V:\Projdata\04PROJ\04010.10\dwg2004\conplans\pl-rd-dr-00.dwg



PLAN

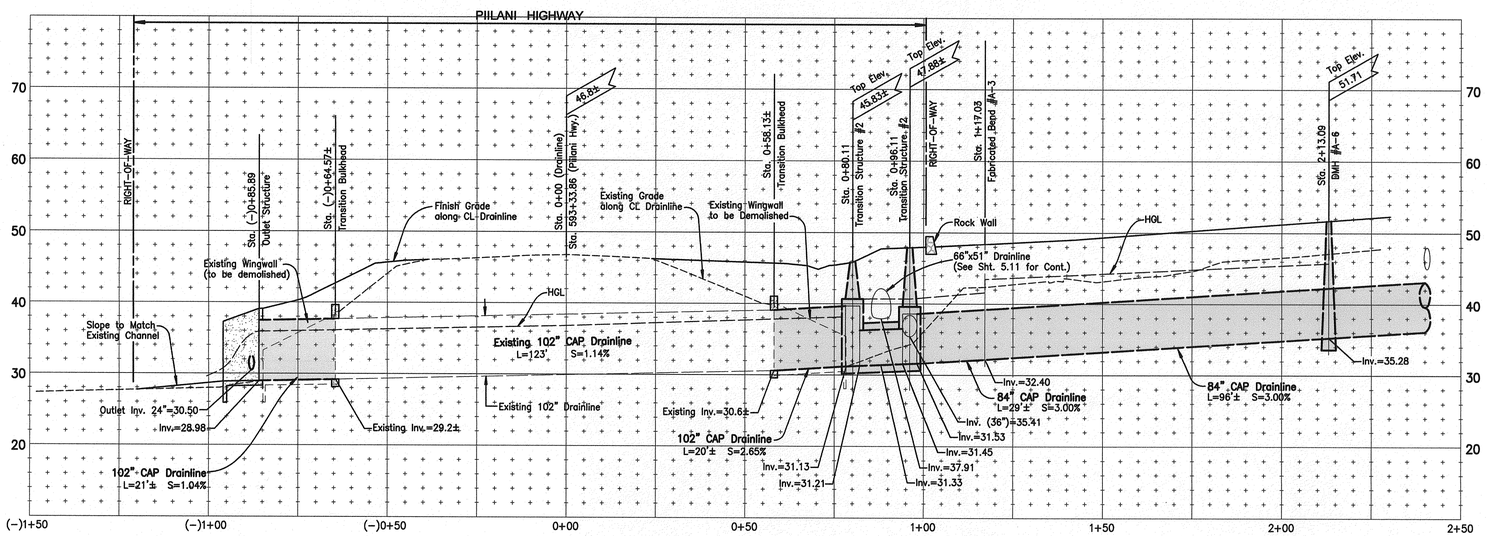
Scale: 1 in. = 20 ft.



LOCATION MAP
SCALE: 1 IN. = 1000 FT.

LEGEND:

- SEWER MANHOLE
- DRAIN MANHOLE
- AIR RELIEF VALVE MANHOLE
- CATCH BASIN
- FIRE HYDRANT
- W8" — WATERLINE W/ SIZE
- D24" — DRAINLINE W/ SIZE
- S8" — SEWERLINE W/ SIZE
- CLEAN-OUT-TO-GRADE
- SINGLE SERVICE WATER LATERAL
- DOUBLE SERVICE WATER LATERAL
- SINGLE SERVICE SEWER LATERAL
- EW8" — EXISTING WATERLINE W/SIZE
- ED24" — EXISTING DRAINLINE W/SIZE
- ES8" — 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 - 102" DRAINLINE CROSSING PIILANI HIGHWAY

Scale: Horiz. 1" = 20'
Vert. 1" = 10'

LETTER	DESCRIPTION	DATE
7	36" Waterline Relocated to Kaonoulu Street	03/11/11
5	Revised Hwy Crossing and Added Transition Structure	10/22/08

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

SIGNATURE — DATE 3/17/2011

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"

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

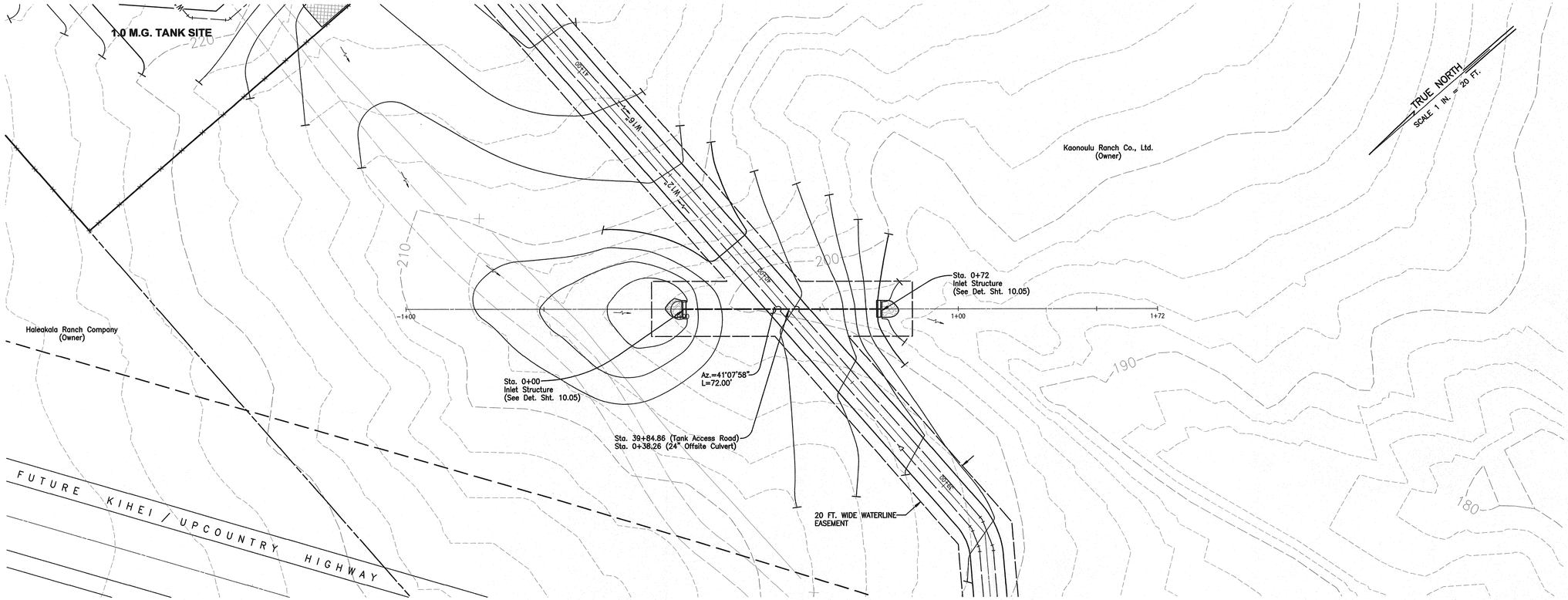
PLAN & PROFILE - EXTENSION TO 102"

TITLE DRAINLINE CROSSING PIILANI HIGHWAY

DTU	DTU	04010.10	5.20
DESIGNED BY	CHECKED BY	JOB NUMBER	SHEET
WIS	DTU	10-10-05	
DRAWN BY	APPROVED BY	DATE	OF SHEETS

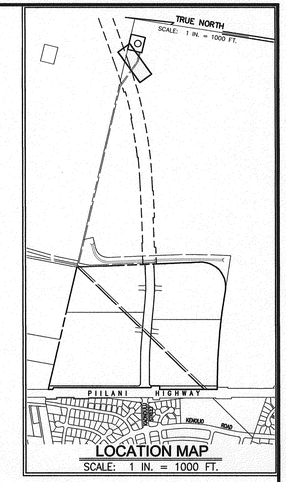
SCALE 1 in. = 20 ft.

V:\Projects\04PROJ\04010.10\dwg2004\contplans\pl-dl-cross-piilani-00.dwg



PLAN

Scale: 1 in. = 20 ft.

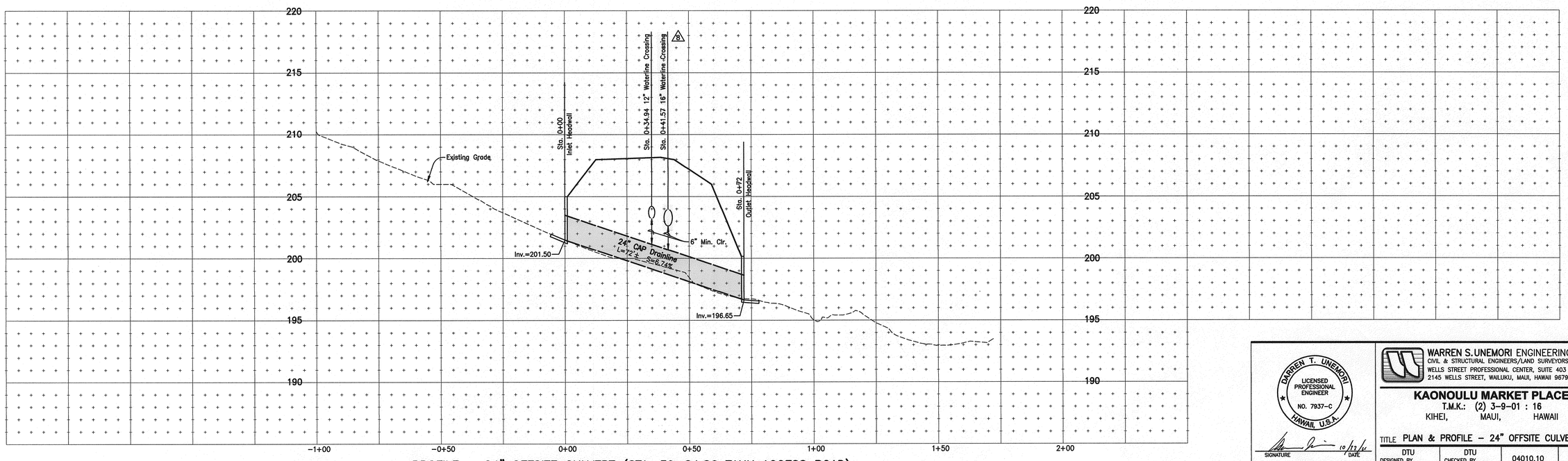


LOCATION MAP

SCALE: 1 IN. = 1000 FT.

LEGEND:

- SEWER MANHOLE
- DRAIN MANHOLE
- AIR RELIEF VALVE MANHOLE
- CATCH BASIN
- FIRE HYDRANT
- W8" — WATERLINE W/ SIZE
- D24" — DRAINLINE W/ SIZE
- S8" — SEWERLINE W/ SIZE
- CLEAN-OUT-TO-GRADE
- SINGLE SERVICE WATER LATERAL
- DOUBLE SERVICE WATER LATERAL
- SINGLE SERVICE SEWER LATERAL
- EW8" — EXISTING WATERLINE W/SIZE
- ED24" — EXISTING DRAINLINE W/SIZE
- ES8" — 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 – 24" OFFSITE CULVERT (STA. 39+84.86 TANK ACCESS ROAD)

Scale: Horiz. 1" = 20'
Vert. 1" = 4'

LETTER	DESCRIPTION	DATE
B	OUTFLOW WATERLINE UPSIZED TO 16"	10/06/11

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

SIGNATURE — DATE 10/12/11

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"

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

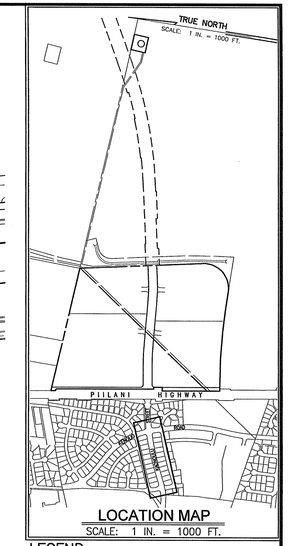
TITLE PLAN & PROFILE – 24" OFFSITE CULVERT

DTU DESIGNED BY	DTU CHECKED BY	04010.10 JOB NUMBER	5.30 SHEET
WIS DRAWN BY	DTU APPROVED BY	10-10-05 DATE	OF SHEETS
SCALE 1 in. = 20 ft.			

V:\Projects\04PROJ\04010.10\dwg2004\conplans\PL-CULVERT-TANK.dwg

PLAN

Scale: 1 in. = 40 ft.



LOCATION MAP

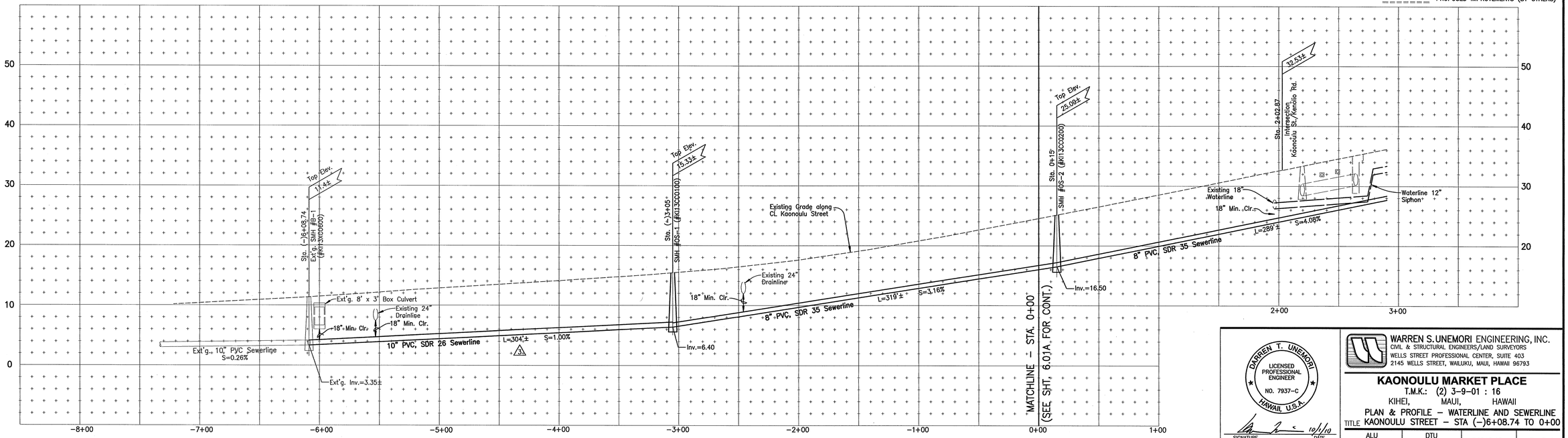
SCALE: 1 IN. = 1000 FT.

LEGEND:

- SEWER MANHOLE
- DRAIN MANHOLE
- AIR RELIEF VALVE MANHOLE
- CATCH BASIN
- FIRE HYDRANT
- W8" — WATERLINE W/ SIZE
- D24" — DRAINLINE W/ SIZE
- S8" — SEWERLINE W/ SIZE
- CLEAN-OUT-TO-GRADE
- SINGLE SERVICE WATER LATERAL
- DOUBLE SERVICE WATER LATERAL
- SINGLE SERVICE SEWER LATERAL
- EW8" — EXISTING WATERLINE W/SIZE
- ED24" — EXISTING DRAINLINE W/SIZE
- ES8" — EXISTING SEWERLINE W/SIZE
- E — ELECTRICAL CONDUIT LINE
- STREET LIGHT
- ELECTRICAL TRANSFORMER
- E — ELECTRICAL PULL BOX
- NO VEHICULAR ACCESS PERMITTED
- VEHICULAR ACCESS PERMITTED
- PROPOSED IMPROVEMENTS (BY OTHERS)

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.



PROFILE – KAONOULU STREET

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

LETTER	DESCRIPTION	DATE
3	INCREASE SIZE TO 10" PVC SEWERLINE	10/22/08
2	REVISED PER WWRD COMMENTS	10/01/08

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

SIGNATURE — DATE 10/1/10

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"

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

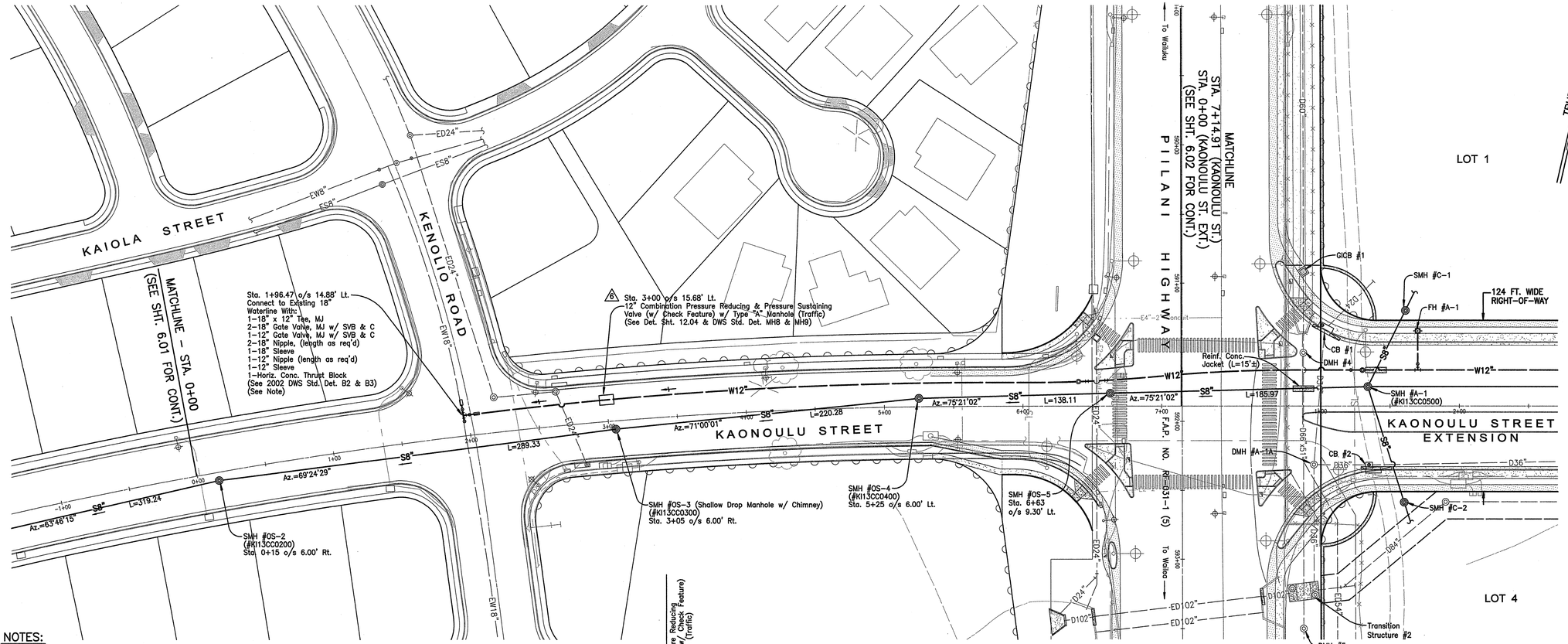
T.M.K.: (2) 3-9-01 : 16
KIHEI, MAUI, HAWAII

PLAN & PROFILE – WATERLINE AND SEWERLINE

TITLE KAONOULU STREET – STA (–)6+08.74 TO 0+00

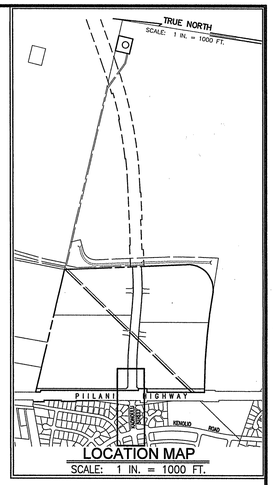
ALU DESIGNED BY	DTU CHECKED BY	04010.10 JOB NUMBER	6.01 SHEET
WIS DRAWN BY	DTU APPROVED BY	10-10-05 DATE	OF SHEETS
SCALE 1 in. = 40 ft.			

V:\Projdata\04PROJ\04010.10\dwg200A\conplans\PL-WL-SL-00.dwg



PLAN

Scale: 1 in. = 40 ft.

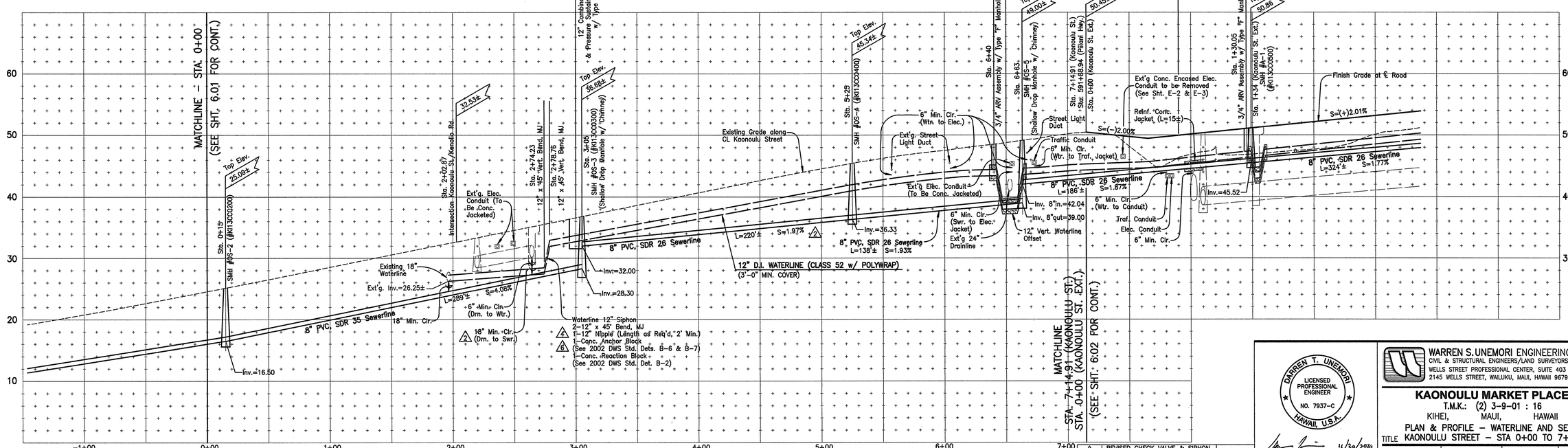


LEGEND:

- SEWER MANHOLE
- DRAIN MANHOLE
- AIR RELIEF VALVE MANHOLE
- CATCH BASIN
- FIRE HYDRANT
- W8" — WATERLINE W/ SIZE
- D24" — DRAINLINE W/ SIZE
- S8" — SEWERLINE W/ SIZE
- CLEAN-OUT-TO-GRADE
- SINGLE SERVICE WATER LATERAL
- DOUBLE SERVICE WATER LATERAL
- SINGLE SERVICE SEWER LATERAL
- EW8" — EXISTING WATERLINE W/SIZE
- ED24" — EXISTING DRAINLINE W/SIZE
- ES8" — 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)

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.



PROFILE – KAONOULU STREET

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

LETTER	DESCRIPTION	DATE
6	REVISED CHECK VALVE & SIPHON CONC. BLOCKS PER DWS REQUEST	10/01/10
5	REVISED PER DWS COMMENTS	12/12/08
2	REVISED PER WWRD COMMENTS	10/01/08

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

SIGNATURE — DATE 11/29/2010

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"

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

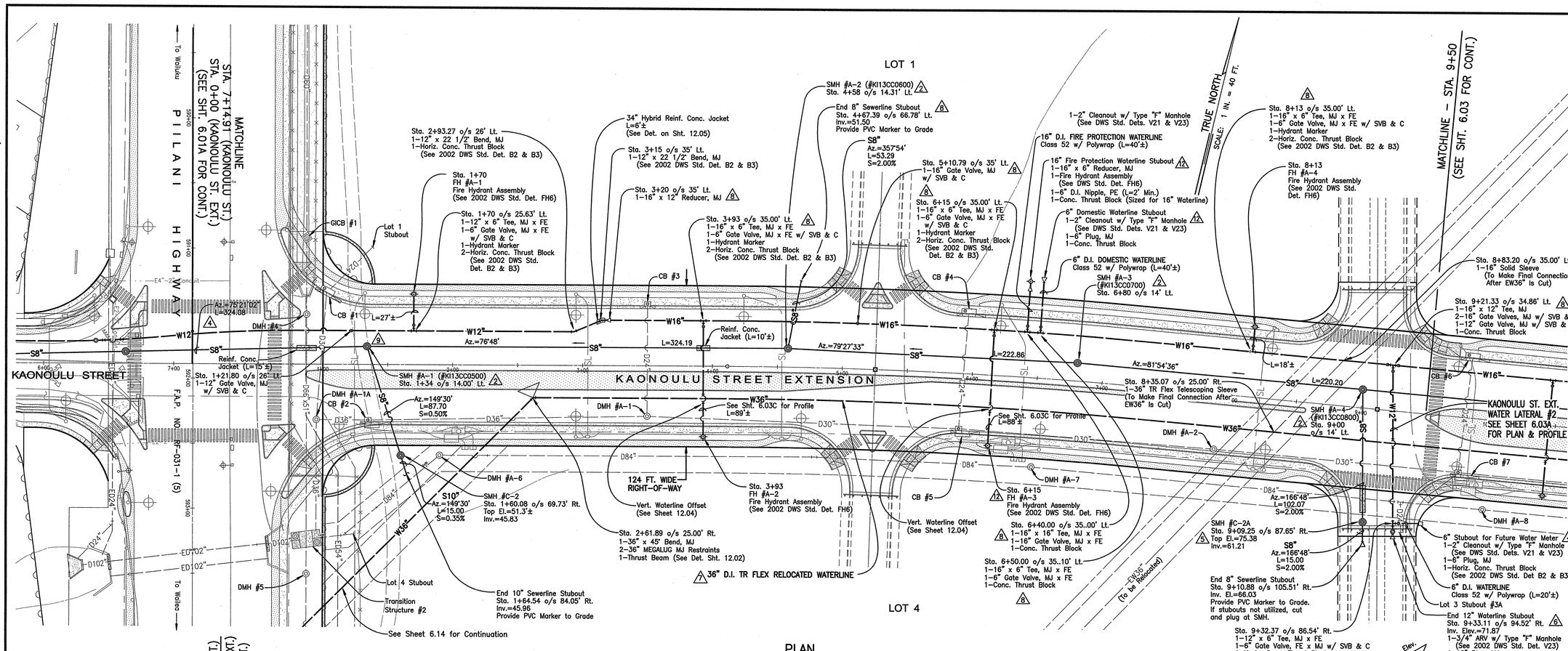
T.M.K.: (2) 3-9-01 : 16

KIHEI, MAUI, HAWAII

TITLE PLAN & PROFILE – WATERLINE AND SEWERLINE KAONOULU STREET – STA 0+00 TO 7+14.91

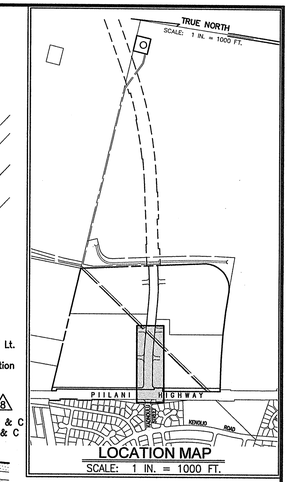
ALU DESIGNED BY	DTU CHECKED BY	04010.10 JOB NUMBER	6.01A SHEET
WIS DRAWN BY	DTU APPROVED BY		
SCALE 1 in. = 40 ft.		10-10-05 DATE	OF SHEETS

V:\Projdata\04PROJ\04010.10\dwg2004\conplans\Pi-WL-SL-00.dwg



PLAN

Scale: 1 in. = 40 ft.

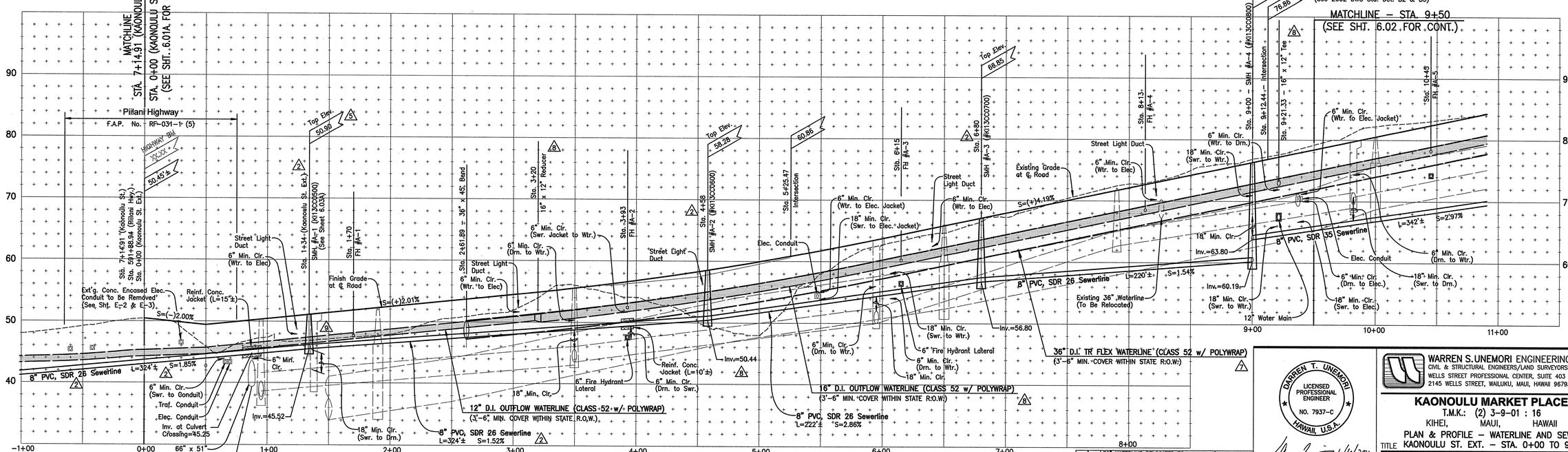


LOCATION MAP

SCALE: 1 IN. = 1000 FT.

LEGEND:

- SEWER MANHOLE
- DRAIN MANHOLE
- AIR RELIEF VALVE MANHOLE
- CATCH BASIN
- FIRE HYDRANT
- W8" — WATERLINE W/ SIZE
- D24" — DRAINLINE W/ SIZE
- S8" — SEWERLINE W/ SIZE
- CLEAN-OUT-TO-GRADE
- SINGLE SERVICE WATER LATERAL
- DOUBLE SERVICE WATER LATERAL
- SINGLE SERVICE SEWER LATERAL
- EW8" — EXISTING WATERLINE W/SIZE
- ED24" — EXISTING DRAINLINE W/SIZE
- ES8" — 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'

LETTER	DESCRIPTION	DATE
7	36" WATERLINE RELOCATED TO KAONOULU STREET	03/11/11
6	ADDED STATIC PRESSURE HEAD TO ARV'S AND TYPE "F" MH TO CLEANOUTS	10/01/10
5	REVISED MANHOLE TOP ELEVATIONS	10/21/09
10	REVISED PER DWS COMMENTS	01/06/12
9	REMOVED LOT 1 SEWER LATERAL AT SMH #A-1 PER WWRD COMMENT	11/28/11
8	OUTFLOW WATERLINE UPSIZED TO 16"; ADJUSTMENTS TO LOT 1 LATERAL	10/06/11
12	REVISED PER DWS COMMENTS	07/02/12

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

SIGNATURE — DATE 6/6/2012

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"

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

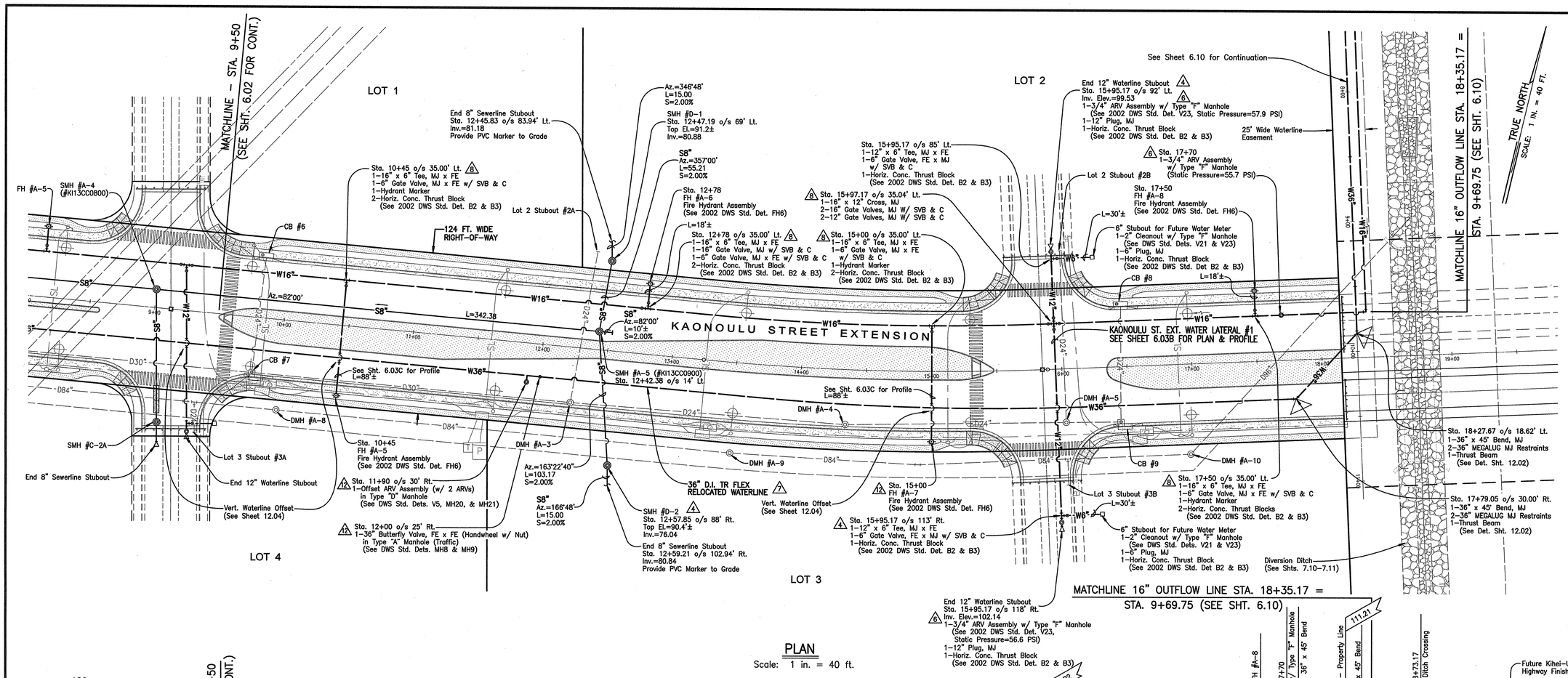
KAONOULU MARKET PLACE

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

TITLE PLAN & PROFILE – WATERLINE AND SEWERLINE KAONOULU ST. EXT. – STA. 0+00 TO 9+50

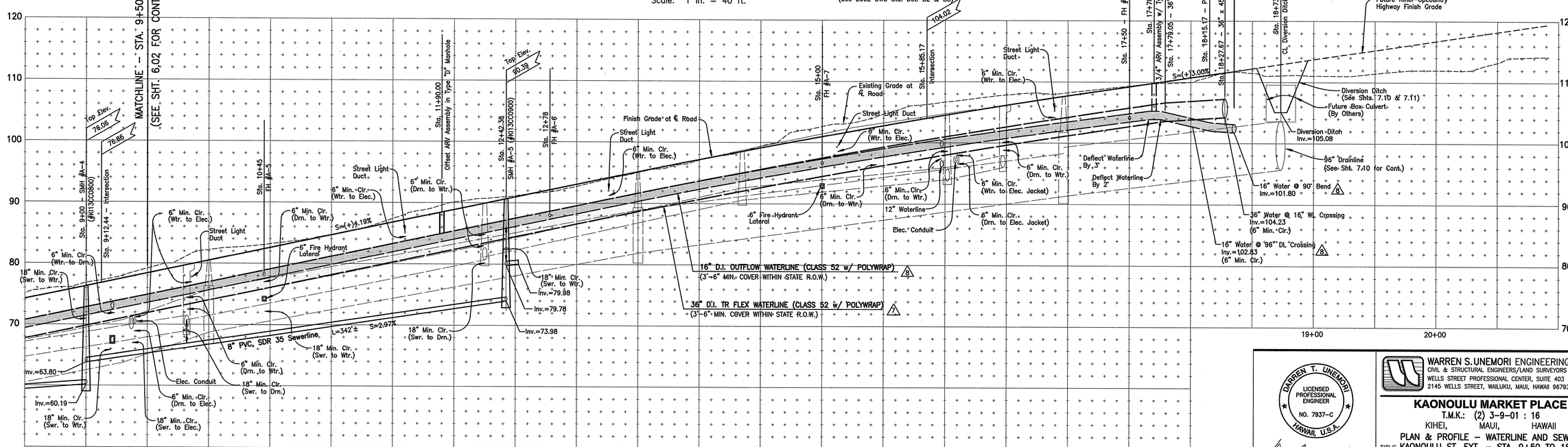
DTU DESIGNED BY	DTU CHECKED BY	04010.10 JOB NUMBER	6.02 SHEET
WIS DRAWN BY	DTU APPROVED BY	10-10-05 DATE	OF SHEETS
SCALE 1 in. = 40 ft.			

I:\Projects\04PROJ\04010.10\dwg2004\contours\PI-WL-SL-00.dwg



PLAN

Scale: 1 in. = 40 ft.



PROFILE – KAONOULU STREET EXTENSION

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

LEGEND:

- SEWER MANHOLE
- DRAIN MANHOLE
- AIR RELIEF VALVE MANHOLE
- CATCH BASIN
- FIRE HYDRANT
- W8" — WATERLINE W/ SIZE
- D24" — DRAINLINE W/ SIZE
- S8" — SEWERLINE W/ SIZE
- CLEAN-OUT-TO-GRADE
- SINGLE SERVICE WATER LATERAL
- DOUBLE SERVICE WATER LATERAL
- SINGLE SERVICE SEWER LATERAL
- EW8" — EXISTING WATERLINE W/SIZE
- ED24" — EXISTING DRAINLINE W/SIZE
- ES8" — EXISTING SEWERLINE W/SIZE
- ELECTRICAL CONDUIT LINE
- STREET LIGHT
- ELECTRICAL TRANSFORMER
- E — ELECTRICAL PULL BOX
- NO VEHICULAR ACCESS PERMITTED
- VEHICULAR ACCESS PERMITTED
- PROPOSED IMPROVEMENTS (BY OTHERS)

LETTER	DESCRIPTION	DATE
12	REVISED PER DWS COMMENTS	07/02/12
10	REVISED PER DWS COMMENTS	01/06/12
8	OUTFLOW WATERLINE UPSIZED TO 16"	10/06/11
7	36" WATERLINE RELOCATED TO KAONOULU STREET	03/11/11
5	ADDED TYPE "F" MANHOLES FOR CLEANOUTS	10/01/10
4	REVISED PER DWS COMMENTS	12/12/08
2	REVISED PER WWRD COMMENTS	10/01/08

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

SIGNATURE DATE 6/6/2012

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"

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

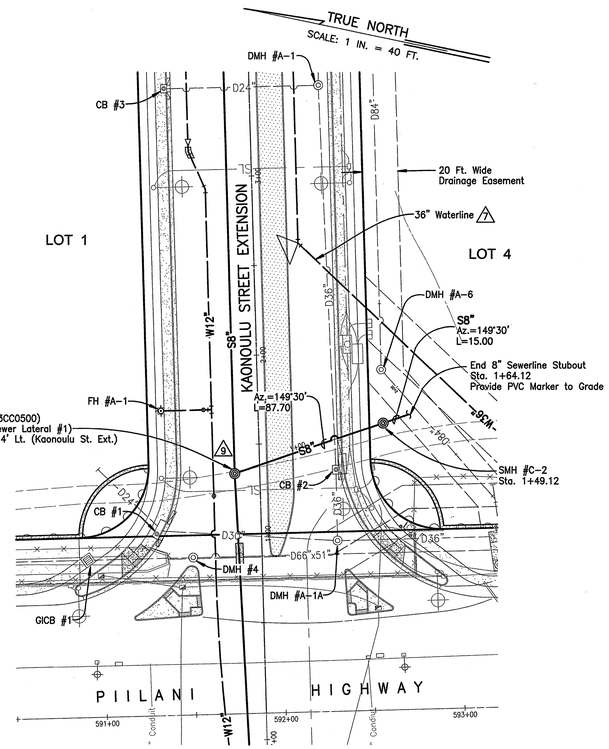
KIHEI, MAUI, HAWAII

PLAN & PROFILE – WATERLINE AND SEWERLINE

TITLE KAONOULU ST. EXT. – STA. 9+50 TO 18+15.17

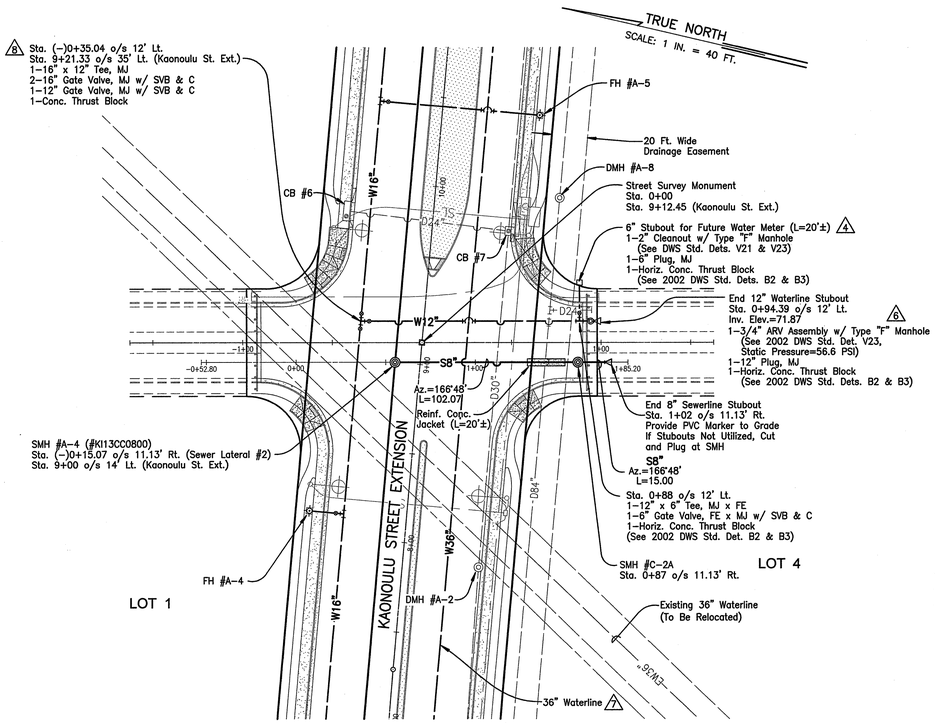
DTU DESIGNED BY	DTU CHECKED BY	04010.10 JOB NUMBER	6.03 SHEET
WIS DRAWN BY	DTU APPROVED BY		OF SHEETS
SCALE 1 in. = 40 ft.		10–10–05 DATE	

I:\Projects\04PROJ\04010.10\dwg200A\contplans\PL-WL-SL-00.dwg



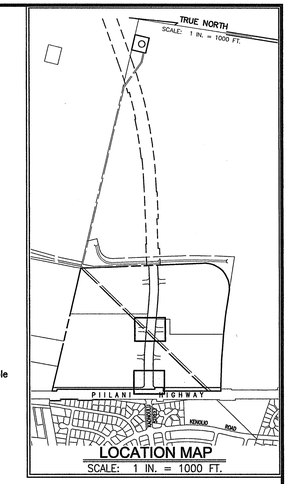
PLAN

Scale: 1 in. = 40 ft.



PLAN

Scale: 1 in. = 40 ft.

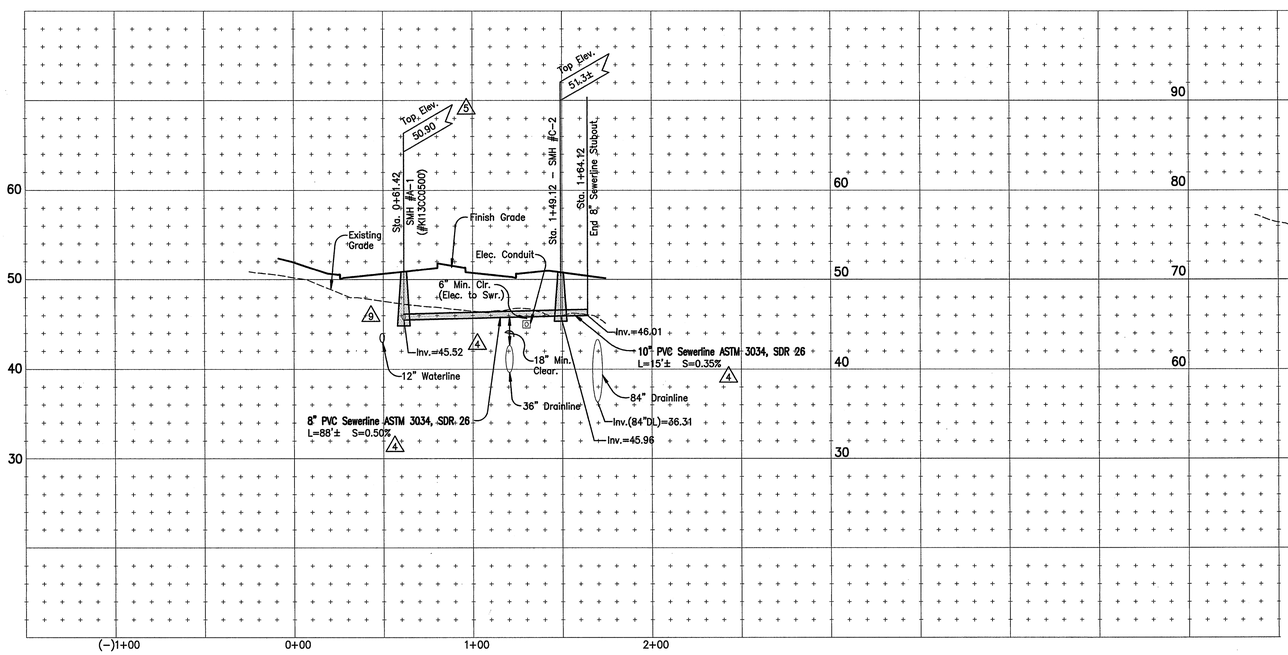


LOCATION MAP

SCALE: 1 IN. = 1000 FT.

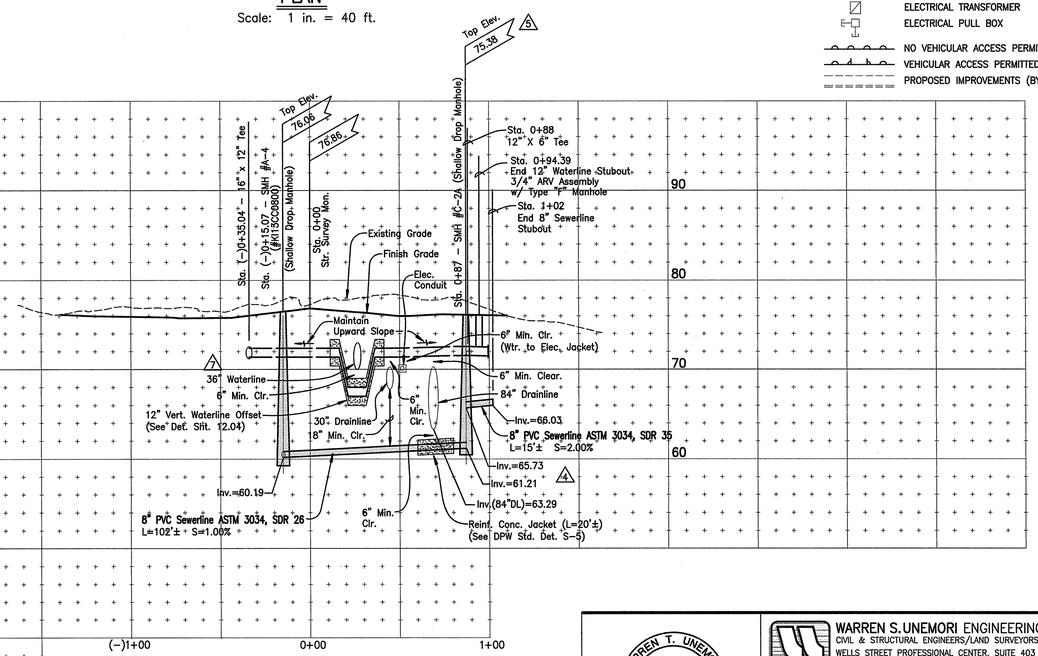
LEGEND:

- SEWER MANHOLE
- DRAIN MANHOLE
- AIR RELIEF VALVE MANHOLE
- CATCH BASIN
- FIRE HYDRANT
- W8" — WATERLINE W/ SIZE
- D24" — DRAINLINE W/ SIZE
- S8" — SEWERLINE W/ SIZE
- CLEAN-OUT-TO-GRADE
- SINGLE SERVICE WATER LATERAL
- DOUBLE SERVICE WATER LATERAL
- SINGLE SERVICE SEWER LATERAL
- EW8" — EXISTING WATERLINE W/SIZE
- ED24" — EXISTING DRAINLINE W/SIZE
- ES8" — 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
SEWER LATERAL #1

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



PROFILE – KAONOULU STREET EXTENSION
SEWER LATERAL #2 AND WATER LATERAL #2

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

LETTER	DESCRIPTION	DATE
10	REVISED PER DWS COMMENTS	01/06/12
9	REMOVED LOT 1 SEWER LATERAL AT SMH #A-1 PER WWRD COMMENT	11/28/11
8	OUTFLOW WATERLINE UPSIZED TO 16"	10/17/11
7	36" WATERLINE RELOCATED TO KAONOULU STREET	03/11/11
6	ADDED TYPE "F" MANHOLES FOR CLEANOUTS	10/01/10
5	REVISED TOP MANHOLE ELEVATIONS	10/21/09
4	REVISED PER DWS COMMENTS	12/12/08
2	REVISED PER WWRD COMMENTS	10/01/08

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

SIGNATURE DATE 1/6/2012

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"

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

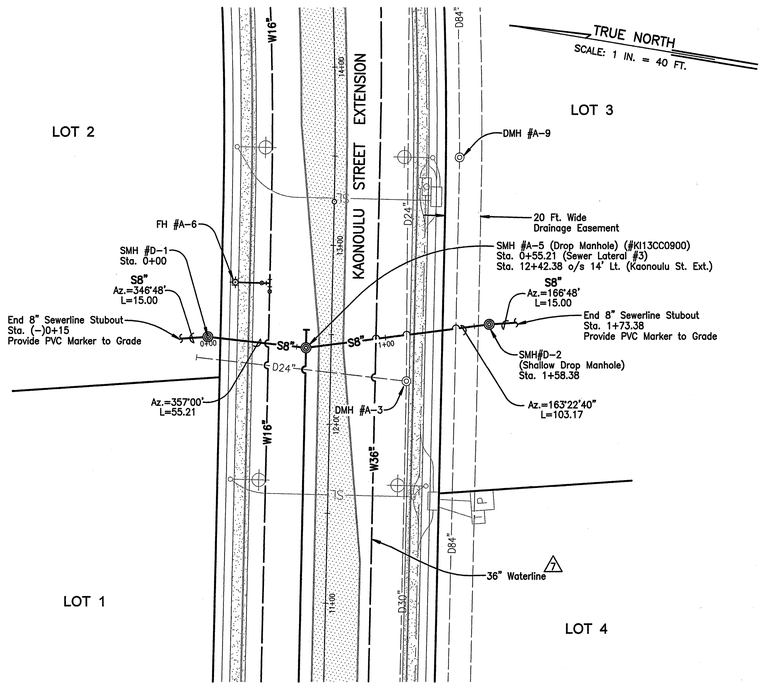
KIHEI, MAUI, HAWAII

PLAN & PROFILE – KAONOULU ST. EXT.

TITLE SEWER LATERALS #1 AND #2

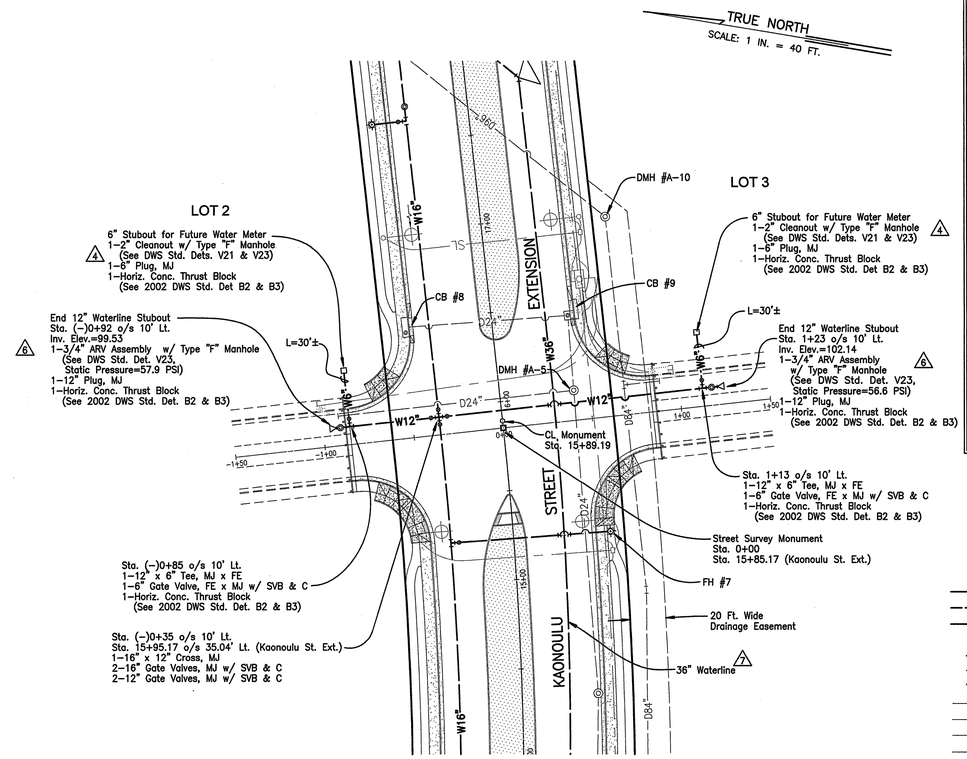
DTU DESIGNED BY	DTU CHECKED BY	04010.10 JOB NUMBER	6.03A SHEET
WIS DRAWN BY	DTU APPROVED BY		OF SHEETS
SCALE 1 in. = 40 ft.		10-10-05 DATE	

V:\Projdata\04PROJ\04010.10\dwg2004\contplans\PL-SLAT-00.dwg



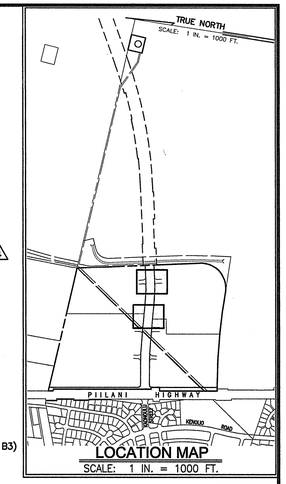
PLAN

Scale: 1 in. = 40 ft.



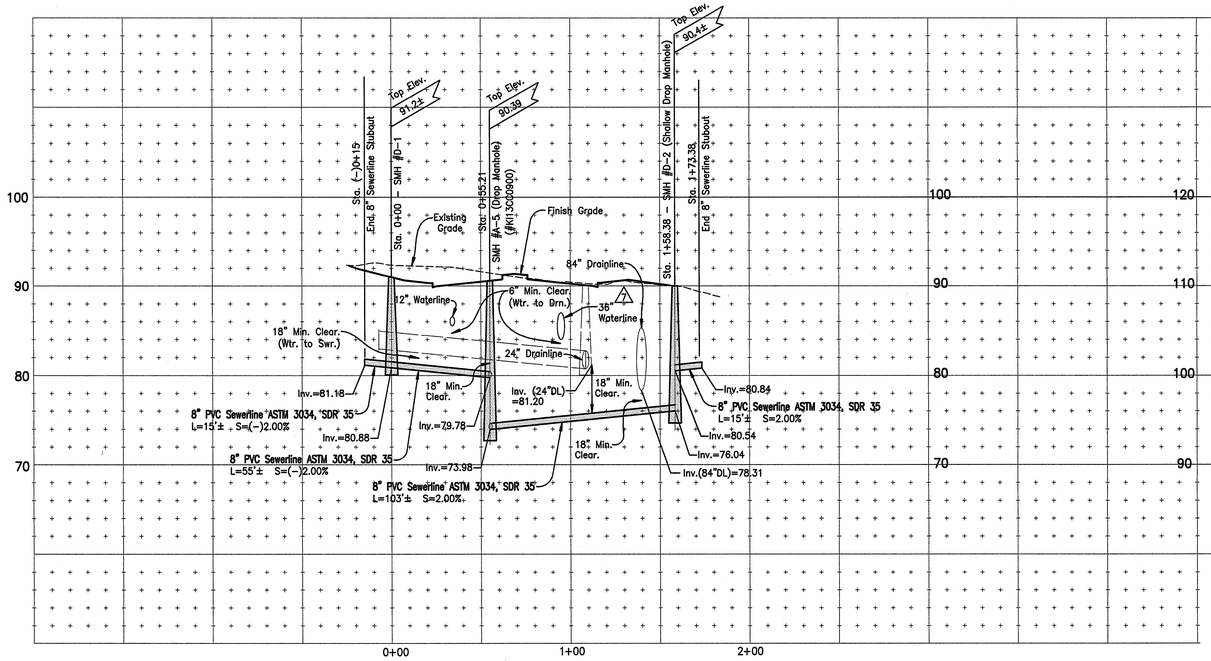
PLAN

Scale: 1 in. = 40 ft.



LEGEND:

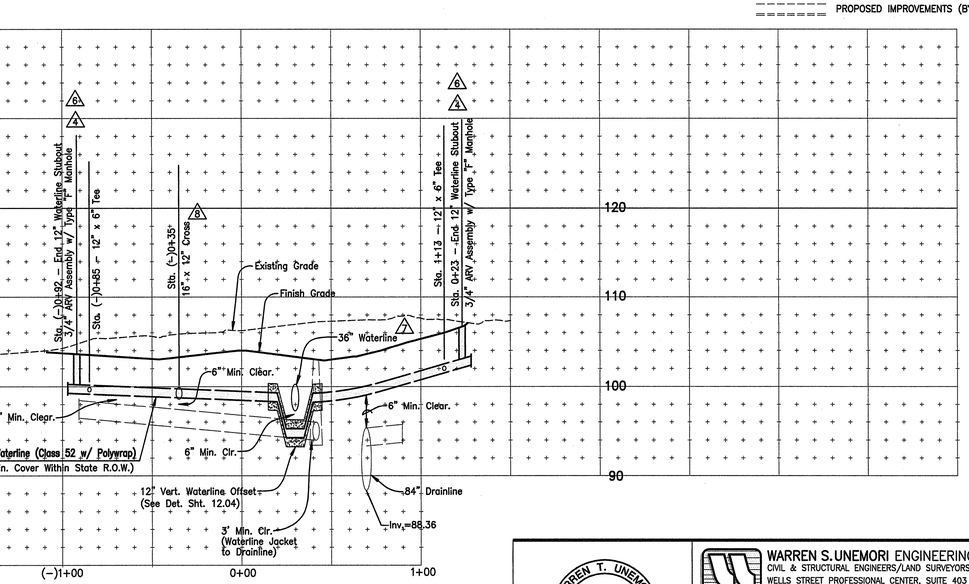
- SEWER MANHOLE
- DRAIN MANHOLE
- AIR RELIEF VALVE MANHOLE
- CATCH BASIN
- FIRE HYDRANT
- W8" — WATERLINE W/ SIZE
- D24" — DRAINLINE W/ SIZE
- S8" — SEWERLINE W/ SIZE
- CLEAN-OUT-TO-GRADE
- SINGLE SERVICE WATER LATERAL
- DOUBLE SERVICE WATER LATERAL
- SINGLE SERVICE SEWER LATERAL
- EW8" — EXISTING WATERLINE W/SIZE
- ED24" — EXISTING DRAINLINE W/SIZE
- ES8" — 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

SEWER LATERAL #3

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



PROFILE – KAONOULU STREET EXTENSION

WATER LATERAL #1

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

LETTER	DESCRIPTION	DATE
10	REVISED PER DWS COMMENTS	01/06/12
9	OUTFLOW WATERLINE UPSIZED TO 16"	10/17/11
7	36" WATERLINE RELOCATED TO KAONOULU STREET	03/11/11
6	ADDED ARV ASSEMBLIES	10/01/10
4	REVISED PER DWS COMMENTS	12/12/08
2	REVISED PER WWRD COMMENTS	10/01/08

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

SIGNATURE — 1/6/2012 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"

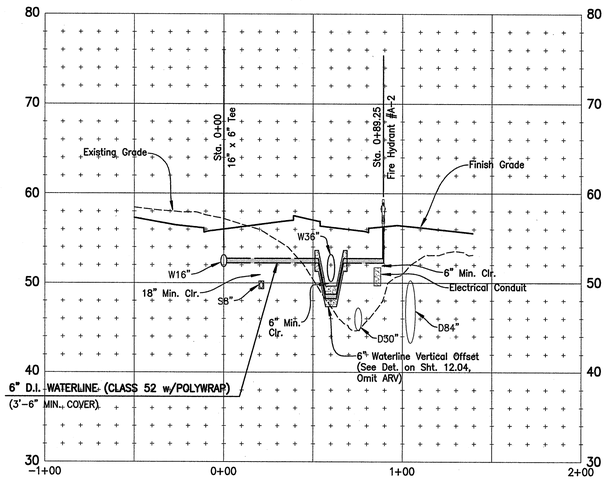
WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

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

TITLE PLAN & PROFILE – KAONOULU ST. EXT.
SEWER LATERAL #3 AND WATER LATERAL #1

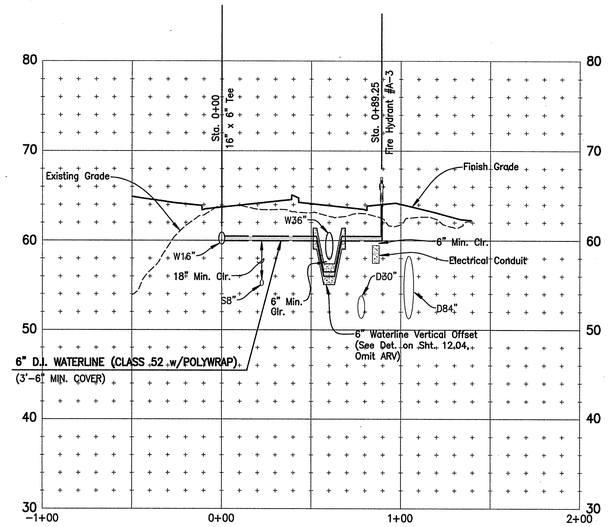
DTU — DESIGNED BY	DTU — CHECKED BY	04010.10 — JOB NUMBER	6.03B — SHEET
WIS — DRAWN BY	DTU — APPROVED BY	10-10-05 — DATE	OF SHEETS
SCALE 1 in. = 40 ft.			

V:\Projdata\04PROJ\04010.10\dwg2004\compians\PL-SLAT-00.dwg



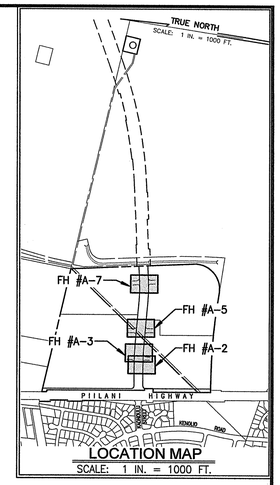
PROFILE – WATERLINE CONNECTION FOR FIRE HYDRANT #A-2 @ STA. 3+93 (KAONOULU STREET EXTENSION)

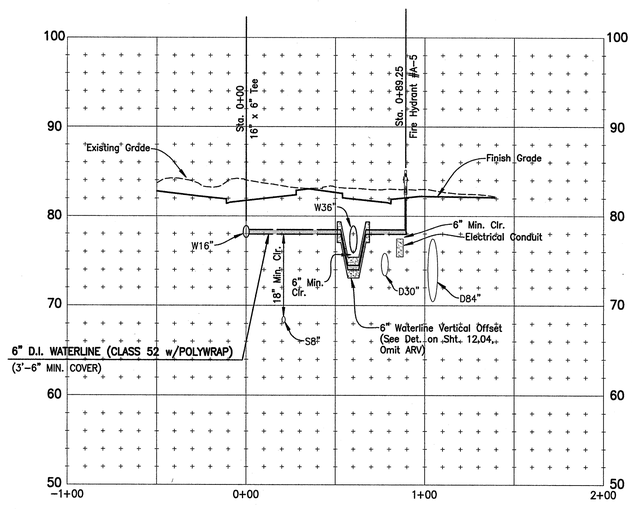
Scale: Horiz. 1" = 40'
Vert. 1" = 8'



PROFILE – WATERLINE CONNECTION FOR FIRE HYDRANT #A-3 @ STA. 6+15 (KAONOULU STREET EXTENSION)

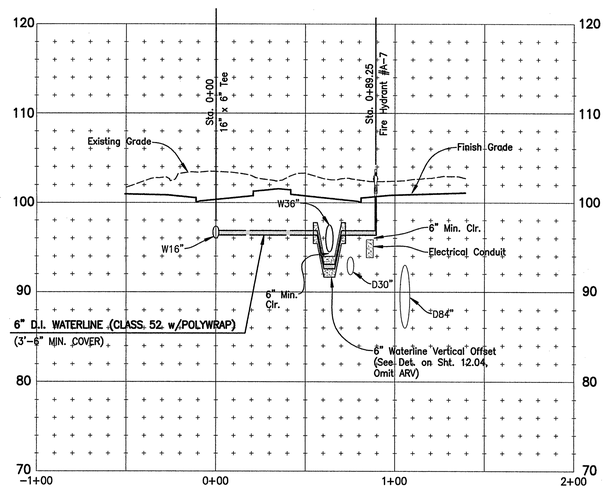
12 Scale: Horiz. 1" = 40'
Vert. 1" = 8'





PROFILE – WATERLINE CONNECTION FOR FIRE HYDRANT #A-5 @ STA. 10+45 (KAONOULU STREET EXTENSION)

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



PROFILE – WATERLINE CONNECTION FOR FIRE HYDRANT #A-7 @ STA. 15+00 (KAONOULU STREET EXTENSION)

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

LETTER	DESCRIPTION	DATE
12	REVISED PER DWS COMMENTS	07/02/12
10	REVISED PER DWS COMMENTS	01/06/12

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

SIGNATURE DATE 3/12/2012

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"

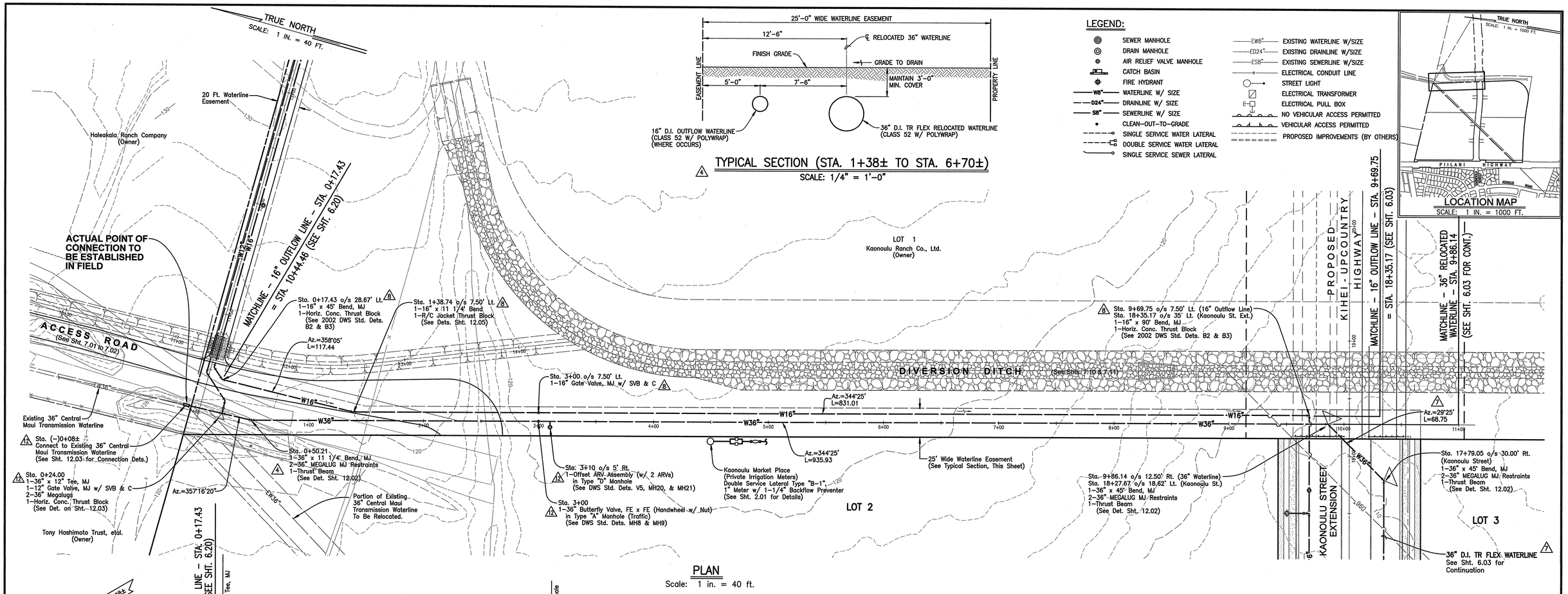
WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

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

TITLE PROFILES – FIRE HYDRANT LATERALS

DTU DESIGNED BY	DTU CHECKED BY	04010.10 JOB NUMBER	6.03C SHEET
WIS DRAWN BY	DTU APPROVED BY	10-10-05 DATE	OF SHEETS
SCALE 1 in. = 40 ft.			

Y:\Projects\04PROJ\04010.10\dwg200A\contplans\Prof-FH-conn-02.dwg



12	REVISED PER DWS COMMENTS	07/02/12	10	REVISED PER DWS COMMENTS	01/06/12	6	REVISED 36" WATERLINE PROFILE	10/01/10
			8	OUTFLOW WATERLINE UPSIZED TO 16"	10/06/11	4	REVISED PER DWS COMMENTS	12/12/08
			7	36" WATERLINE RELOCATED TO KAONOULU STREET	03/11/11	LETTER	DESCRIPTION	DATE

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

SIGNATURE / DATE 6/22/2012

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"

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

TITLE PLAN & PROFILE – RELOCATED 36" WATERLINE STA. 0+00 TO 11+00

DTU DESIGNED BY	DTU CHECKED BY	04010.10 JOB NUMBER	6.10 SHEET
WIS DRAWN BY	DTU APPROVED BY		OF SHEETS
SCALE 1 in. = 40 ft.		10–10–05 DATE	

V:\Projects\OAPROJ\04010.10\dwg2004\compians\Pt-36lt-00.dwg