

STANDARD PLANS SUMMARY

|                     |       |            |             |           |              |
|---------------------|-------|------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | PROJ. NO.  | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| HAWAII              | HAW.  | 560A-03-96 | 2009        | 2         | 27           |

| 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 DETAIL OF REINFORCED CONCRETE DROP DRIVEWAY | 05/31/07 |
| D-07 ● | CENTERLINE AND REFERENCE SURVEY MONUMENTS           | 05/31/07 |
| D-08   | STREET SURVEY MONUMENT                              | 05/31/07 |
| D-15   | CONCRETE SIDEWALK                                   | 05/31/07 |
| D-16   | P.C.C. BUS PAD                                      | 05/31/07 |
| D-17   | P.C.C. BUS PAD                                      | 05/31/07 |
| D-18   | P.C.C. PAVEMENT LAYOUT                              | 05/31/07 |
| D-19   | P.C.C. PAVEMENT W/ PERMEABLE BASE JOINT DETAILS     | 05/31/07 |
| D-20   | P.C.C. PAVEMENT W/ PERMEABLE BASE JOINT DETAILS     | 05/31/07 |
| D-21   | P.C.C. LONGITUDINAL JOINT DETAILS                   | 05/31/07 |
| D-22   | P.C.C. CONNECTION TO CURBS AND GUTTERS              | 05/31/07 |
| D-23   | JOINTS  | 05/31/07 |
|        |   |          |

|      |                    |          |
|------|--------------------|----------|
| 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 PLANTING     | 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 STRUCTURES | 05/31/07 |
| H-06              | TYPICAL REINFORCING DETAILS FOR DRAINAGE STRUCTURES | 05/31/07 |
| H-07              | CATCH BASIN AND MANHOLE CASTINGS                    | 05/31/07 |
| H-08              | TYPE 1A-9 AND 1A-9P GRATED DROP INLET               | 05/31/07 |
| H-09              | TYPE 2A-9 AND 2A-9P GRATED DROP INLET               | 05/31/07 |
| H-10              | TYPE A-9 OR A-9P STEEL FRAMES                       | 05/31/07 |
| H-11              | TYPE A-9 AND A-9P STEEL GRATES                      | 05/31/07 |
| H-12              | TYPE 61614P AND 1211214P GRATED DROP INLET          | 05/31/07 |
| H-13              | TYPE 61616P AND 1211216P GRATED DROP INLET          | 05/31/07 |
| H-14              | TYPE 61214P GRATED DROP INLET                       | 05/31/07 |
| H-15              | TYPE 1211214, 1211214P, 1211216, 1211216P STEEL     | 05/31/07 |
|                   | FRAME AND GRATES                                    |          |
| H-16              | TYPE 61614, 61614P, 61616, 61616P STEEL FRAME       | 05/31/07 |
|                   | AND GRATES  |          |
| 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 STRUCTURES                    | 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-1A ●  | 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                    | 07/11/08 |
| 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 & 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 & 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 ● )

ORIGINAL PLAN

DATE

SURVEY PLOTTED BY

DRAWN BY

TRACED BY

NOTED BY

QUANTITIES BY

CHECKED BY

NO.



LICENSE EXP. DATE 04-30-10  
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN HAW. TITLE 16, CHAPTER 115, RULES OF THE BOARD OF PROFESSIONAL ENGINEERS, ARCHITECTS AND SURVEYORS, STATE OF HAWAII.

Craig S. Arakaki

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

STANDARD PLANS SUMMARY

KUHIO HIGHWAY  
Retaining Walls At Lumahai And Wainiha  
Project No. 560A-03-96

Scale: None Date: August 2009

SHEET No. 1 OF 1 SHEETS