

HART

HONOLULU AUTHORITY for RAPID TRANSPORTATION

Leeward Community College Construction Impacts

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LEEWARD COMMUNITY COLLEGE MODIFICATIONS

AREAS AFFECTED:

- CDL PARKING LOT
- OVERFLOW PARKING LOT
- MOTORCYCLE TRAINING AREA
- STATION ACCESS STRUCTURE

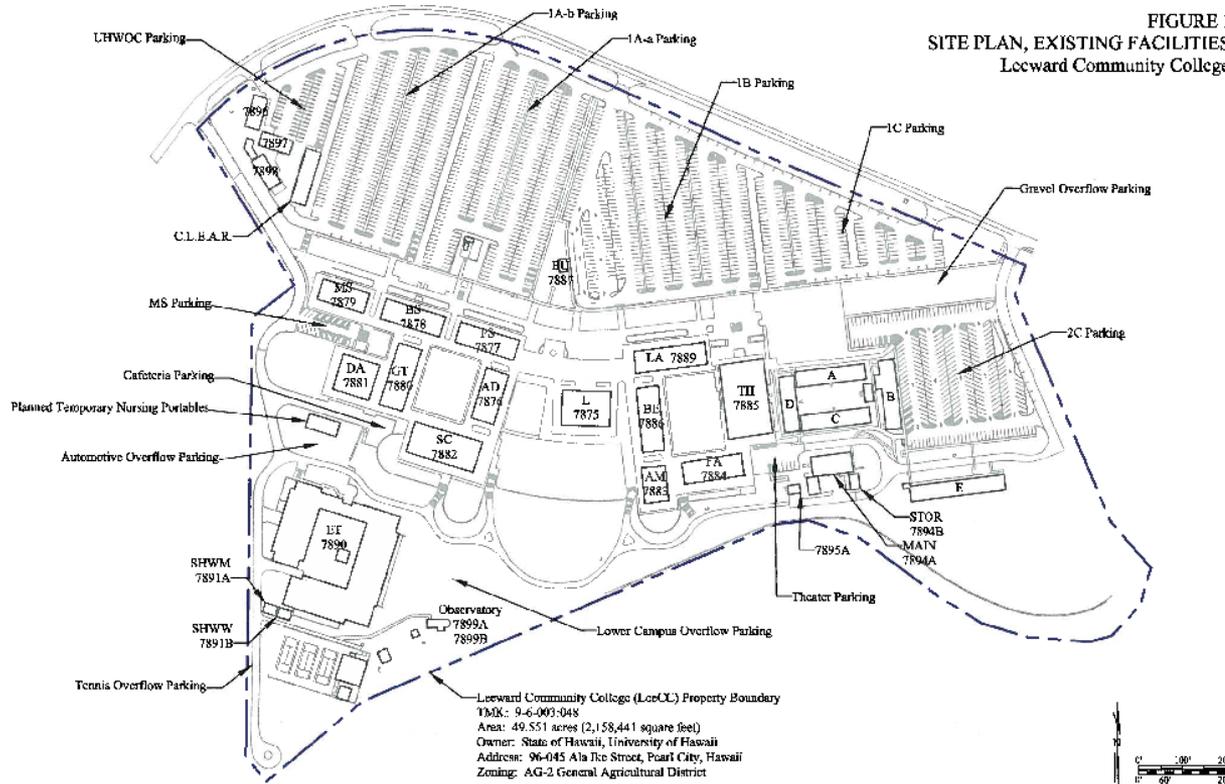
IMPACTS

- IMPACTS DUE TO RELOCATION OF THE OFFICE OF CONTINUING EDUCATION & WORKFORCE DEVELOPMENT (OCEWD) CLASSROOMS, TRAINING AREAS, AND PARKING AT THE LCC CAMPUS

- COST OF ADDITIONAL WORK \$2,802,878

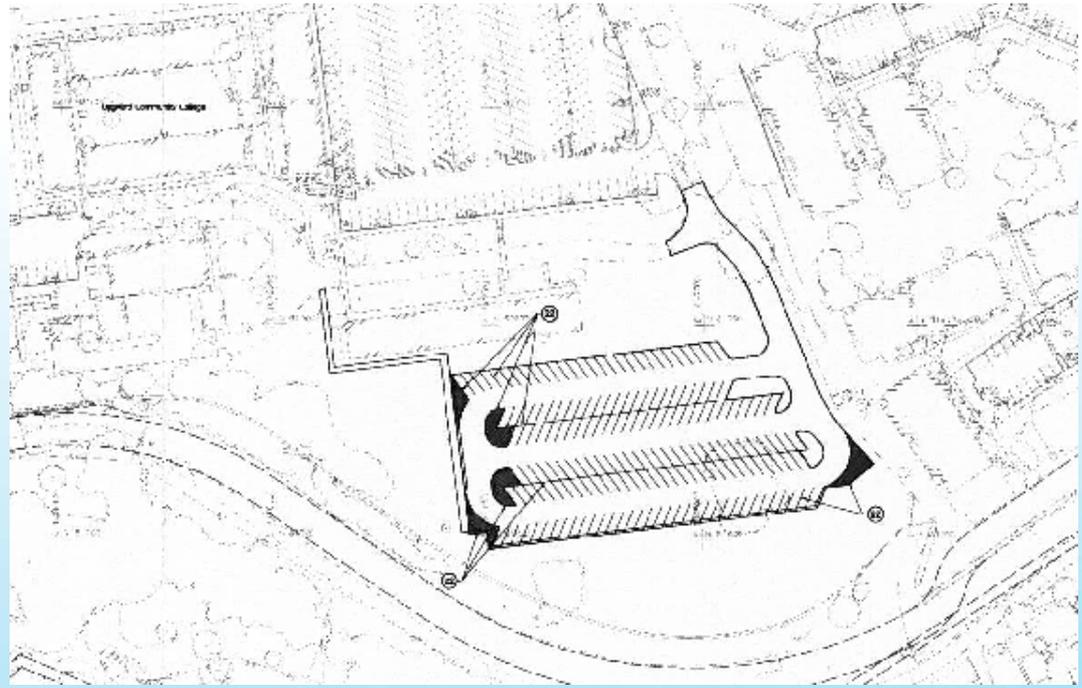
LCC EXISTING FACILITIES

FIGURE 1
SITE PLAN, EXISTING FACILITIES
Leeward Community College



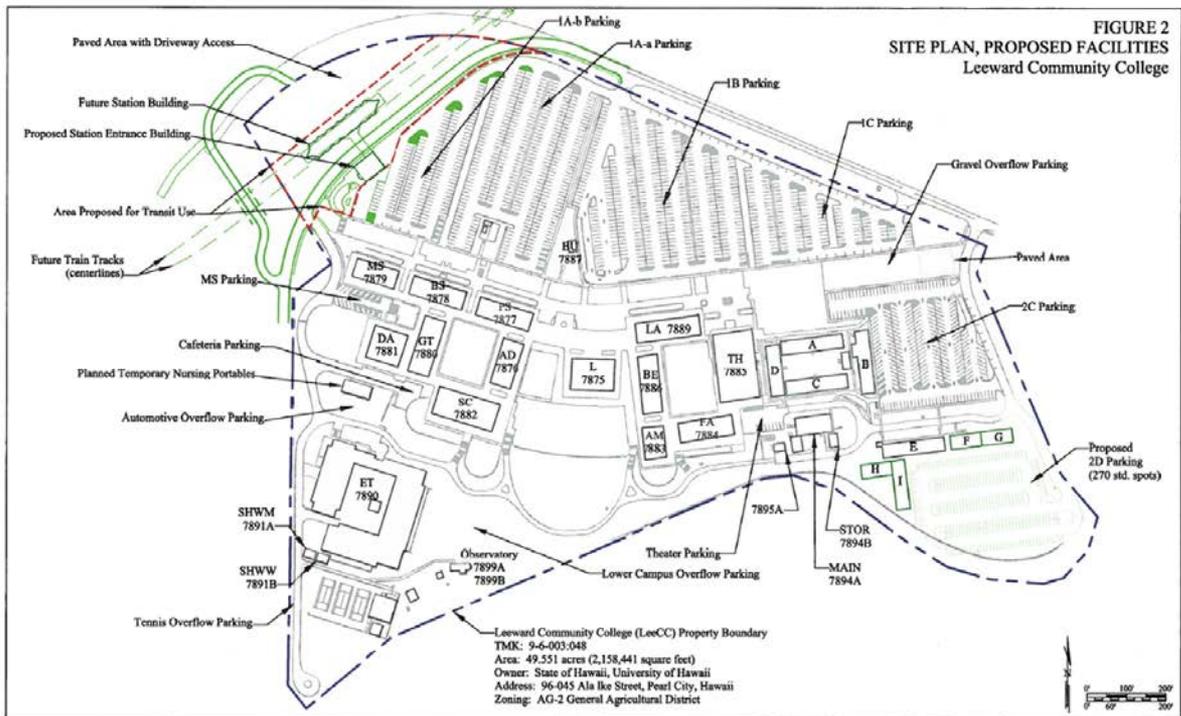
LCC – PROPOSED FACILITIES

175 SPACES 2009



LCC – PROPOSED FACILITIES 2012

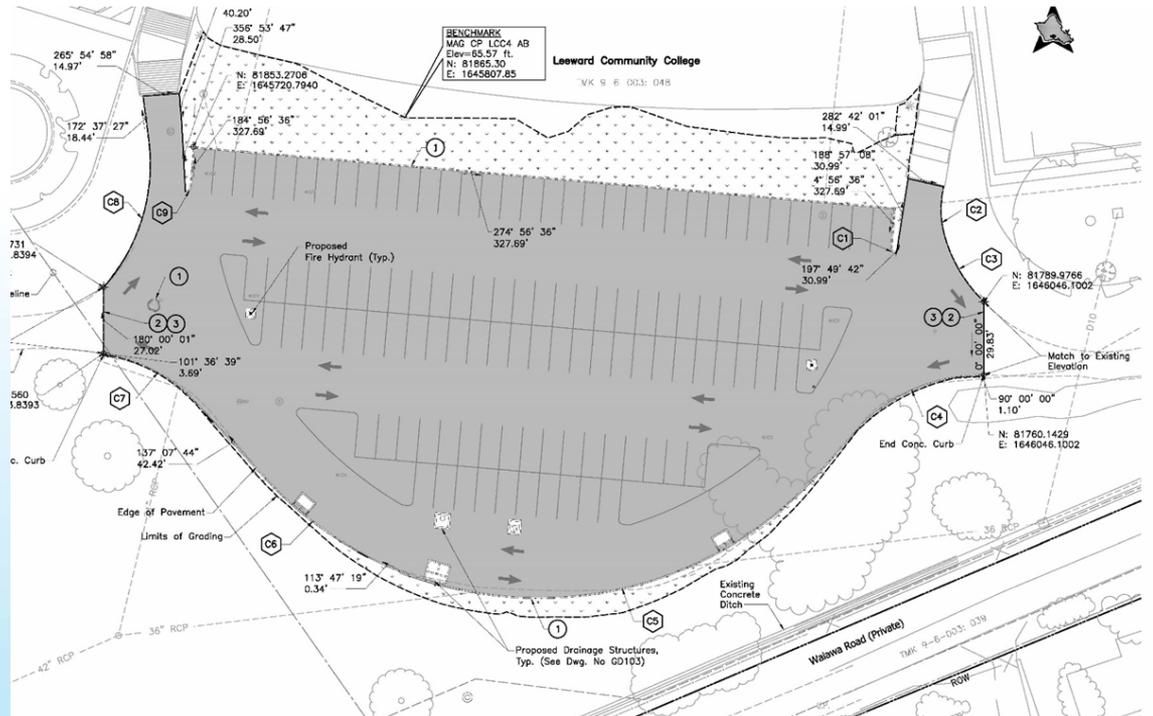
PARKING LOT EXPANDED TO 270 STALLS



OVERVIEW OF CHANGES

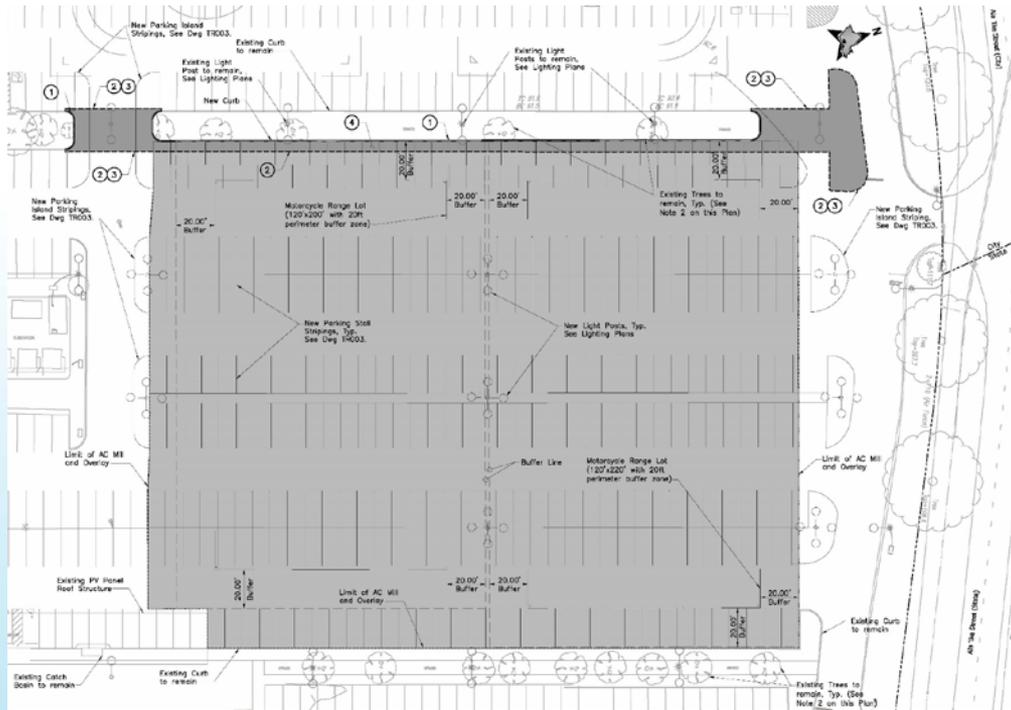
- Proposed Expansion of new parking lot to meet total student – faculty parking needs from 175 spaces to 270 spaces was found not to be feasible due to existing topographical features
- To meet the required additional parking stalls, a new overflow parking lot is required to be constructed
- Expanded proposed parking lot to enable Commercial Driving License (CDL) training due to current site being modified for motorcycle training
- New motorcycle training area requires milling and repaving to meet the Motorcycle Safety Foundation standards

OVERFLOW PARKING LOT

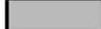


DESIGNED TO ACCOMMODATE ADDITIONAL PARKING STALLS FOR LCC

MOTORCYCLE TRAINING AREA



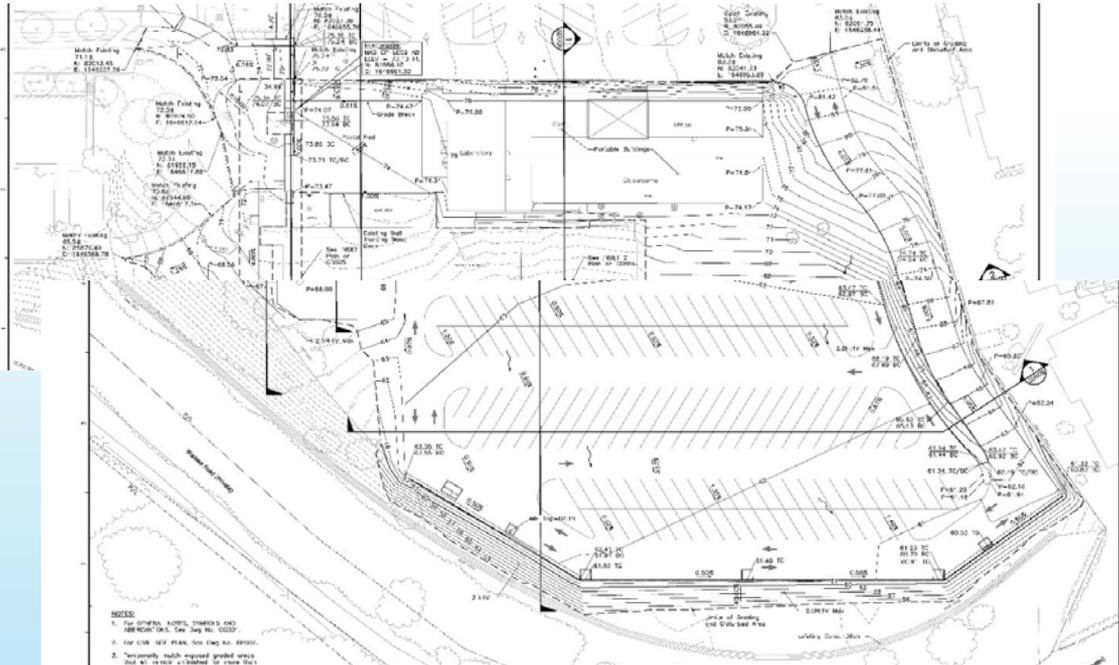
LEGEND:

-  AC Pavement 2" Overlay
-  Full Depth pavement area 3-1/2" AC over 5" Aggregate Base Course
-  Sawcut Line
-  Limits of AC Mill and Overlay
-  Property Line (P/L)/ Right of Way (ROW)

added scope of new pavement and modified lighting for motorcycle training facility

IFC (9/1/2015) DWG RP004

EXPANDED PARKING LOT MEETS CDL TRAINING REQUIREMENTS



RFP IMPORTED FILL

1,046 CY

PKG LOT ELEVATION

58 FT TO 65 FT

IFC IMPORTED FILL

6,863 CY

PKG LOT ELEVATION

61 FT TO 63 FT

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LEEWARD COMMUNITY COLLEGE STATION ACCESS CONSTRUCTION IMPACTS

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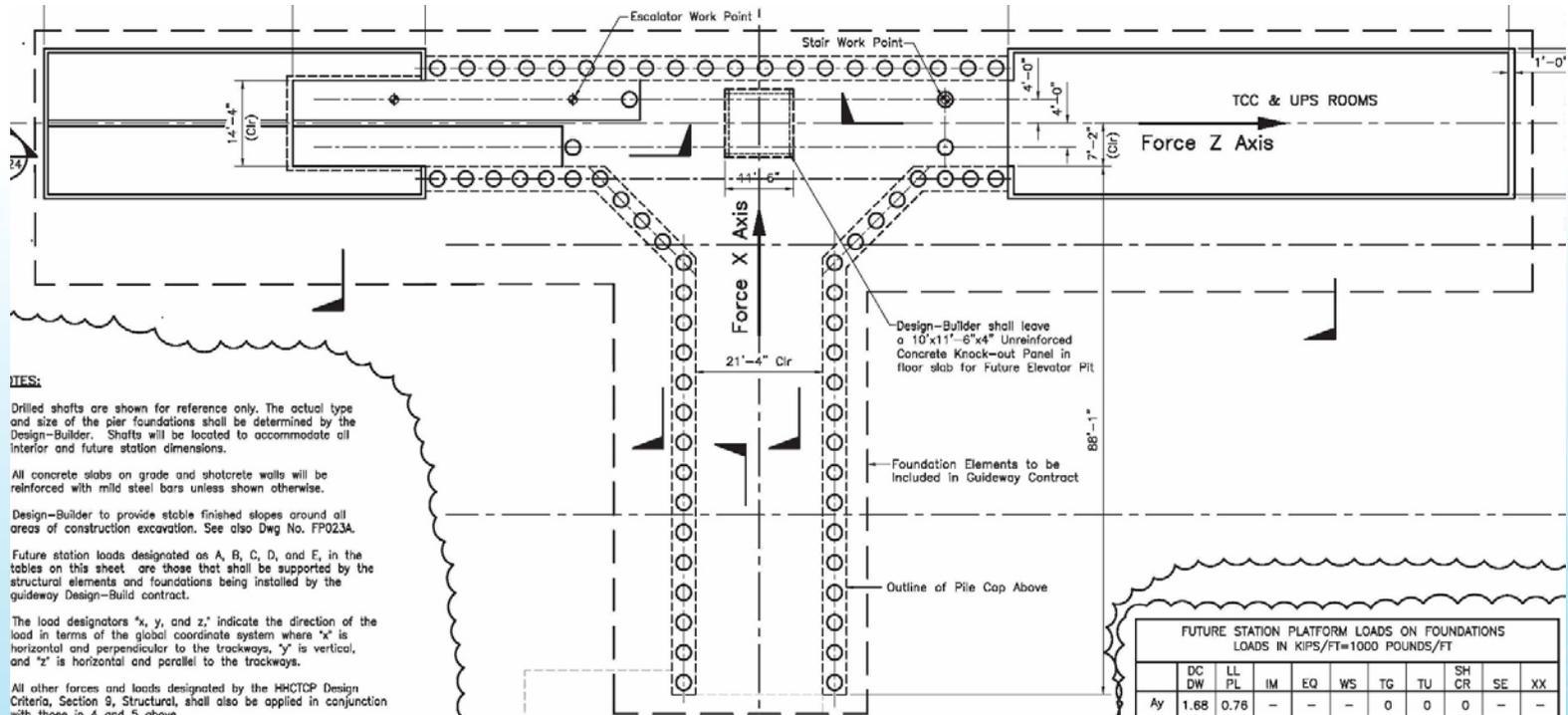
STATION ACCESS STRUCTURE MODIFICATION BACKGROUND

- Initial modification to station provided better access for installation & maintenance of core systems and electrical equipment required for the station, simplified construction of realigned Ala Ike St., enhanced pedestrian access to station
- The final modifications minimized interface between guideway contractor and station contractor
- Addition of embossed cultural aesthetics to retaining wall

IMPACTS

- IMPACTS DUE TO MODIFICATIONS TO LEEWARD COMMUNITY COLLEGE STATION ACCESS STRUCTURE
- COST OF ADDITIONAL WORK \$1,447,122

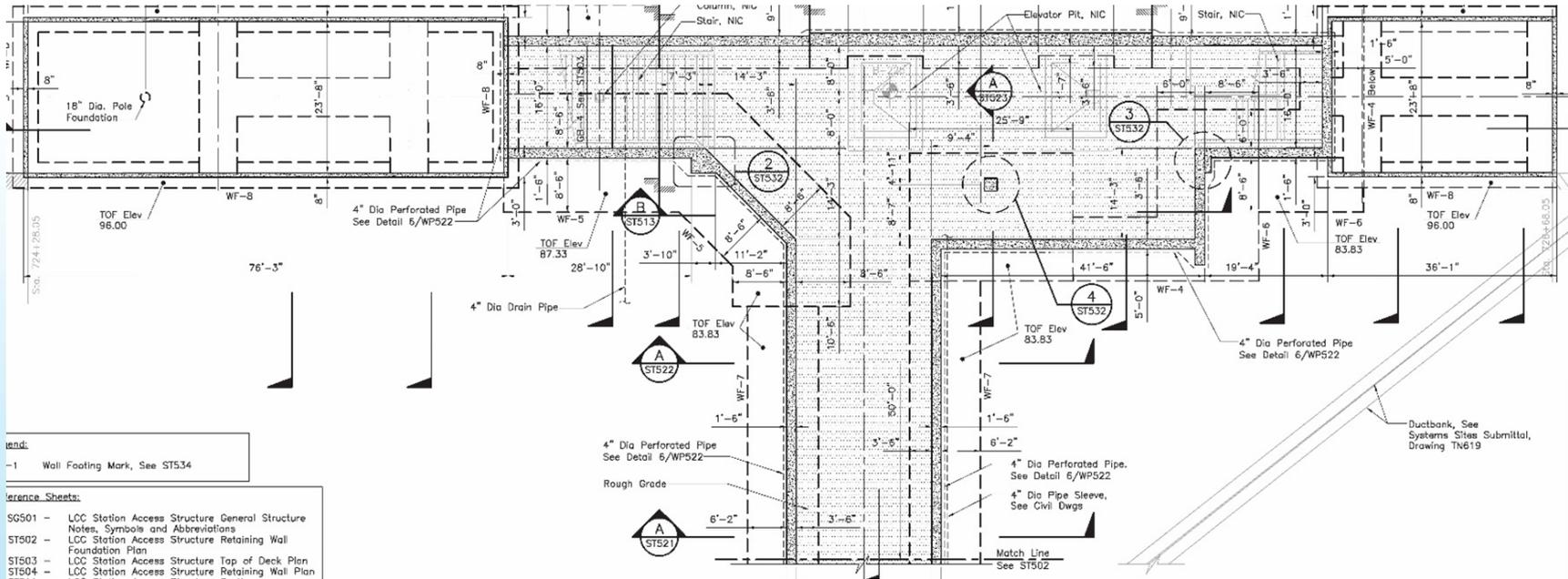
LCC ACCESS STRUCTURE ORIGINAL CONFIGURATION



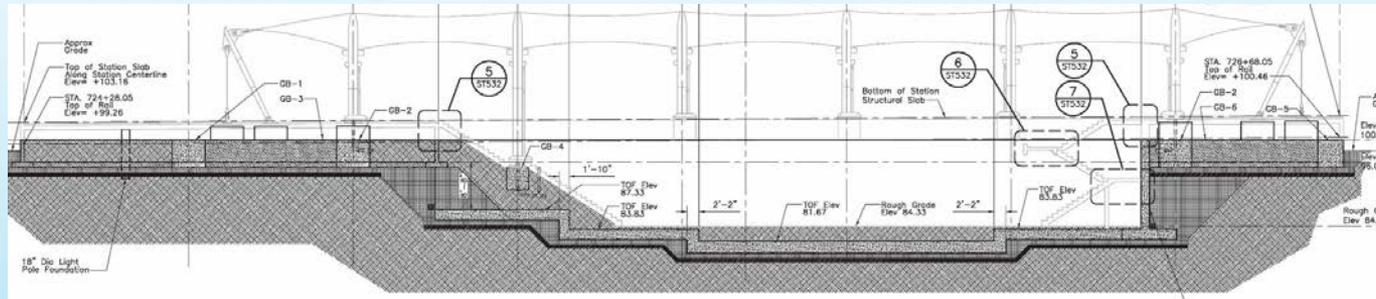
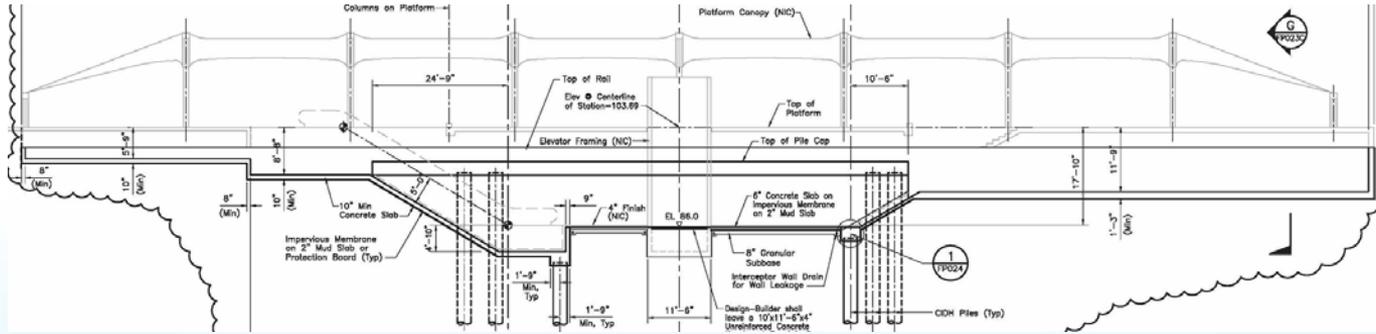
STATION ACCESS STRUCTURE

- THE STATION ACCESS STRUCTURE IS REQUIRED TO BE BUILT BY THE WOFH DB CONTRACTOR TO ALLOW THE CONSTRUCTION OF THE RAIL COMPONENTS WHICH ARE AT GRADE THROUGH THE LCC STATION AREA
- IN 2010, HART ADOPTED A MODULAR CONCEPT TO PROVIDE UNIFORMITY ACROSS ALL STATIONS, IMPACTING THE LCC STATION LAYOUT
- PROVIDING SPACE FOR A FUTURE SECOND ELEVATOR MODIFIED THE FOOTPRINT OF THE STATION

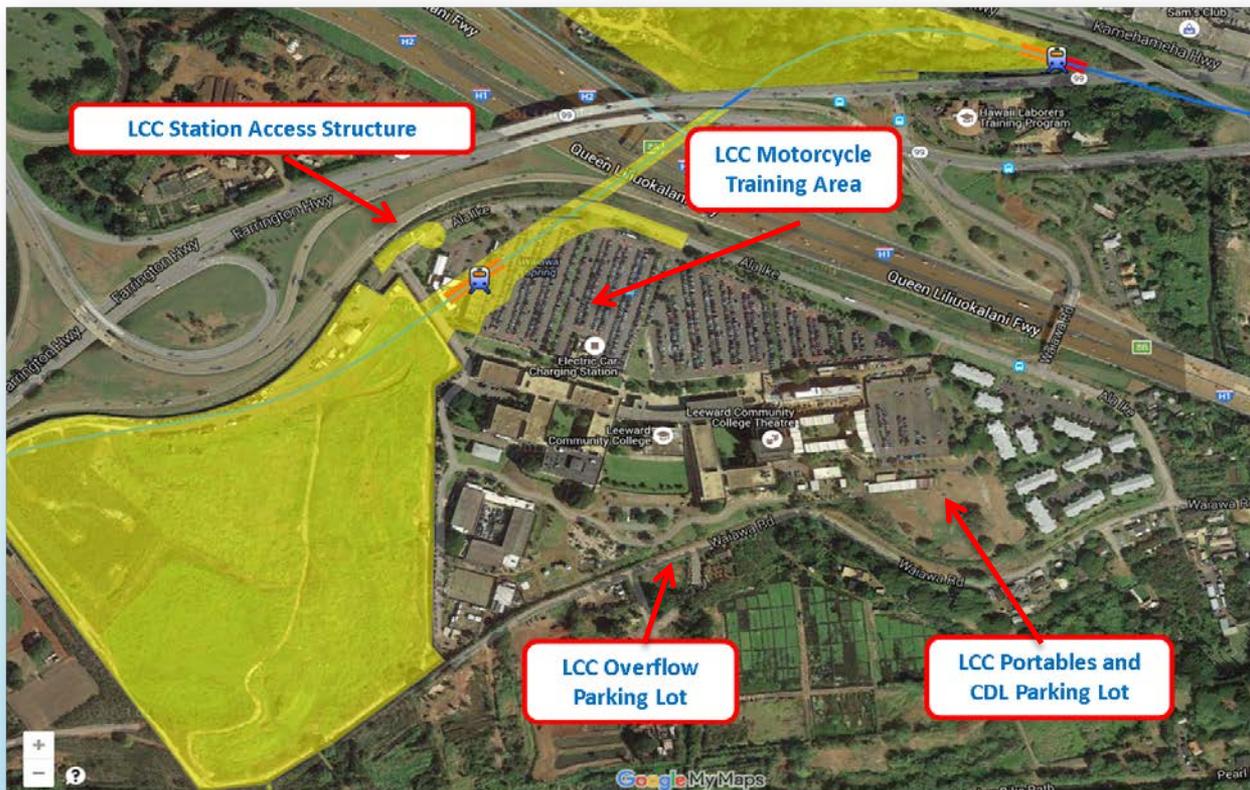
LCC ACCESS STRUCTURE FINAL CONFIGURATION



ACCESS STRUCTURE SECTION DETAIL



FINAL CONFIGURATION



Mahalo!



LCC ACCESS STRUCTURE – FINAL DESIGN CHANGES

- **RFCR 00017 (3/2/2011):**
 1. SHIFT THE LCC STATION PLATFORM LOCATION APPROXIMATELY 11 FEET WEST TO ACCOMMODATE ELEVATOR CLEARANCES TO PLATFORM CANOPY COLUMNS.
 2. RECONFIGURE DRILLED SHAFT WALL AND PLATFORM FOUNDATION LAYOUT.
 3. CONSTRUCT RETAINING WALLS ALONG THE MAKAI SIDE OF ALA IKE STREET.
 4. REMOVE RETAINING WALLS ALONG MAUKA AND MAKAI SIDES OF TRACK WAY AND MODIFY MAKAI PLATFORM GIRDER.
 5. REMOVE CONCRETE TOP SLAB UNDER FUTURE GREEN ROOF GARDEN SYSTEM.
 6. REMOVE BOTTOM CONCRETE SLAB, MUD SLAB, AND GRANULAR BASE FROM PEDESTRIAN WALKWAY TUNNEL AND UNDER STATION PLATFORM.

LCC ACCESS STRUCTURE – FINAL DESIGN CHANGES (CONT'D)

7. RELOCATE THE TRAIN CONTROL COMMUNICATION (TCC) AND UPS ROOMS FROM UNDER THE STATION PLATFORM TO THE AREA ADJACENT TO THE STATION TUNNEL ENTRANCE.
8. ADD CONDUITS AND DUCTBANKS CONNECTING TO THE RELOCATED TCC ROOM.
9. REVISE DRAINAGE FACILITIES CONNECTING TO PEDESTRIAN WALKWAY TUNNEL.
10. REVISE GRADING AT ENTRANCE TO PEDESTRIAN WALKWAY TUNNEL AND IN THE VICINITY OF NEW AND DELETED RETAINING WALLS.
11. REVISE TEMPORARY FENCING AND BARRIER PROTECTION LAYOUT.
12. RELOCATE HECO TRANSFORMER FROM NORTH TO SOUTH SIDE OF STATION DUE TO RELOCATION OF TCC AND UPS ROOMS.

LCC ACCESS STRUCTURE – DESIGN INTERFACE CHANGES

RFCR 00079 (5/22/2014):

1. REVISE AND RELOCATE THE FOUNDATIONS AND RETAINING WALLS OF LCC STATION ACCESS STRUCTURE
2. DESIGN LCC STATION ACCESS STRUCTURE AND TRACKWORK TO ACCOMMODATE ADDITIONAL SPAN LENGTH OVER TUNNEL ENTRANCE
3. PROVIDE NEW FOUNDATIONS FOR THE CANOPY AND LIGHT POLES
4. DELETE INTERIOR (NON-RETAINING) CENTER WALL AND ESCALATOR PIT FOUNDATION AND MODIFY TO ACCOMMODATE STAIR LANDING.
5. COORDINATE DESIGN AND CONSTRUCTION REQUIREMENTS FOR TUNNEL SKYLIGHT, ELECTRICAL DUCT BANK, AND ALL UTILITIES THROUGH THE INTERFACE PROCESS.

LCC ACCESS STRUCTURE – DESIGN INTERFACE CHANGES (CONT'D)

RFCR 00079 (5/22/2014):

6. DESIGN ALA 'IKE ST. RETAINING WALL TO ACCOMMODATE THE DESIGN OF THE TCCR ROOM. COORDINATE STRUCTURAL LOADS AND INTERACTION THROUGH INTERFACE.
7. PROVIDE AESTHETIC TREATMENT (SIMILAR TO AESTHETIC TREATMENT ON STATION COLUMNS) FOR THE ALA 'IKE ST. RETAINING WALL (I.E. WALL 4) LOCATED EWA OF THE PEDESTRIAN TUNNEL ENTRANCE. COORDINATE SIZE AND LOCATION OF AESTHETIC TREATMENT WITH STATION DESIGNERS THROUGH INTERFACE.
8. USE LOADS OBTAINED THROUGH INTERFACE FOR THE DESIGN OF THE LCC STATION ACCESS STRUCTURE.

LCC ACCESS STRUCTURE – DESIGN INTERFACE CHANGES (CONT'D)

- **RFCR 00079 (9/24/2014):**

1. AESTHETIC WALL TREATMENT
2. AESTHETICS SHALL BE DESIGNED BY THE DESIGN-BUILDER AND SHALL BE CONSISTENT WITH THE TREATMENTS FOR THE GUIDEWAY COLUMNS.
3. THE AESTHETIC TREATMENT SHALL COMPRISE AN AREA OF APPROXIMATELY 500 SF AND MAY BE CAST INTO THE WALL OR CAST AS A SEPARATE CONCRETE PANEL AND INSTALLED POST-CONSTRUCTION OF THE WALL.